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Food Estate for Food Security in Indonesia: An Analysis of Policy Processes, ROCCIPI, and RIA

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Abstract

Food security is a fundamental human right and a constitutional obligation of the Indonesian government, yet it still has to deal with long-term structural problems. The Food Estate policy has been pushed as a way for the country to become self-sufficient in food by developing large-scale, integrated agricultural systems. But putting it into action has raised a lot of legal, social, and environmental issues. The objective of this study is to analyse the Food Estate policy through the lens of the public policy process to ascertain the factors contributing to policy failure and deficiencies in regulation design. The study utilises a qualitative methodology, incorporating historical and legal-political perspectives, and is based on statutory approach, and policy documents. The analysis uses Public Policy Stages Theory in conjunction with ROCCIPI and Regulatory Impact Analysis (RIA) frameworks. The study reveals that the Food Estate policy was mostly made from the top down, with little public input, quick environmental assessments, and not enough attention paid to the local socio-ecological conditions. This has led to conflicts over land use and damage to the environment. This findings enhances legal scholarship by emphasising the significance of participatory governance, regulatory impact analysis, and sustainability principles in the development of fair and efficient national food security policy.

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I. Introduction

On May 5, 2025, the head of the National Food Agency (NFA) reported a huge success for Indonesia's strategic basic food balance for the first half of the year. According to the Central Statistics Agency's (BPS) Area Sample Framework, rice production from January to June 2025 is likely to be 18.76 million tons.

In contrast, it is expected that 15.43 million tons of rice will be consumed during the same time period, leaving a surplus of 3.33 million tons. There was only a 1.46 million ton surplus of rice in the first half of 2024, when total output was 16.88 million tons and total consumption was 15.42 million tons. This shows a huge 128.08% rise in surplus, which is an extra 1.87 million tons compared to the surplus from 2024. (National Food Agency, 2025).

This is positive news for Indonesia, which wants to be able to grow its own rice. The most recent research shows that only Guyana has been able to grow all seven food groups (fruits, vegetables, milk, fish, meat, nuts, grains, and starchy staples) on its own. Out of 186 countries, 154 meet the criteria for producing 2 to 5 of the seven food groups of the Livewell diet through domestic production (Stehl et al., 2025). In 1984, Indonesia's agriculture sector made some big strides, including becoming self-sufficient in rice. So, on November 14, 1985, the Food and Agriculture Organisation (FAO) asked President Soeharto to talk about this achievement at an international meeting in Rome, Italy (Kurniawan Ivan, 2022). Unfortunately, it wasn't possible to keep it going for long. These accomplishments are inextricably linked to the strategic policies enacted since Indonesia's Independence Day.

Food security is not a new concern; it is necessary for improving community well-being after freedom from colonialism and the end of poverty. The founders of Indonesia saw the country as a welfare state. This theory comes from the utilitarian philosophy of Jeremy Bentham (1748–1832) and John Stuart Mill (1806–1873). It says that benefits or welfare should be available to as many people as possible, to do the most good for the most people (Julia Driver, 2014). To make sure that all individuals get these advantages, the government has to look out for the welfare of each and every citizen. The Preamble of the 1945 Constitution says that one of the goals of the Republic of Indonesia is to improve the general welfare. Article 28 H of the Second Amendment to the 1945 Constitution guarantees every person the right to live in both physical and spiritual prosperity. This is further confirmed in Article 9 (1), (2) of Law Number 39 of 1999 on Human Rights. Meeting the requirements of the whole society is what the general welfare is all about. Maslow's hierarchy of needs hypothesis says that basic needs, such as having enough food, must be addressed to be alive. Physiological needs must be met for the human body to work properly. So, these physical demands are the most important, and other wants are less important (Saul McLeod, 2007). Its absence will endanger human existence because it is an absolute necessity. This makes the right to appropriate nourishment a basic human right that must be protected.

The right to food is recognised as a human right in Article 11, paragraph (1) of the International Covenant on Economic, Social, and Cultural Rights (ICESCR). Indonesia confirmed and acknowledged its citizens' right to welfare via Law Number 11 of 2005. The obvious consequence is the need to improve the welfare of its people, including providing adequate nourishment. Given the critical importance of food security, this issue is also part of the Sustainable Development Goals (SDGs 2) established by the

United Nations (UN). It aims to be achieved globally, including in Indonesia, through the BAPPENAS program. Food security is critical not just for ensuring individuals' fundamental rights, but also for developing high-quality human resources that may be used to drive national growth. The 2009 World Food Security Summit resulted in a Declaration stating that food security is a national responsibility and that any initiatives to solve food security concerns must be conceived, owned, and led domestically, with input from all stakeholders. National initiatives and budgets will reflect the commitment to prioritising food security (FAO, 2009). Recognising this challenge, Indonesia must ensure the availability, affordability, and provision of sufficient, safe, high-quality, and balanced nutritional food intake for individuals throughout the territory at all times by using local resources, institutions, and culture. To address the increasing food demands in conjunction with rapid population increase, the government must adopt various appropriate and sustainable food management regulations and policies to ensure food provision for the community.

The Food Security Law establishes the legal framework for national food management. (BPHN, 2012). Article 3 of this law stipulates that food management is executed to fulfil fundamental human requirements in a fair, equitable, and sustainable manner, based on principles of food sovereignty, food independence, and food security. This corresponds with Article 1, number 14, of Law Number 18 of 2012 on Food, which delineates food management as the activities of planning, executing, and overseeing the provision, accessibility, and satisfaction of food and nutritional consumption, along with food security, necessitating coordinated and integrated community involvement. The government seeks to attain food security by guaranteeing the constant supply of adequate food, maintaining consumption levels, and harmonising food production with price variations (Imam Santoso, 2012).

Food security is a state that a nation must achieve to guarantee prosperity, characterised by the availability of sufficient, safe, and nutritious food for all individuals, at all times, to fulfil their requirements for a productive and healthy existence (FAO, 2002). Food security means that everyone can always have enough safe, wholesome food that meets their dietary needs and tastes. This is necessary for them to live a healthy and active life (Gustavo Gordillo, 2013). According to Law Number 18 of 2012 on food, food security is meeting the demands of the country and its people. This is shown by the fact that there is enough food available in terms of both quantity and quality—safe, varied, nutritious, evenly distributed, affordable, and in line with the community's religions, values, and culture—to support a healthy, active, and productive existence over the long term. Food security means that everyone, all the time, has physical, social, and economic access to enough safe, nutritional food that fits their dietary needs and food preferences for a healthy and active life (CFS, 2014).

Since the Old Order period up to the present, the Indonesian government has implemented various policies aimed at attaining food security; however, the results of these numerous food policies have not met expectations and are often deemed a

failure. Surveys indicate that hunger and malnutrition remain significant challenges in Indonesia. According to the 2024 Global Hunger Index (GHI) Report, Indonesia has a score of 16.9 on the GHI for 2024. With a moderate level of hunger, Indonesia is ranked 77th out of 127 countries (GHI, 2024). In the ASEAN region, consisting of 9 member countries, Indonesia's hunger index ranks second, just one level above Timor Leste, which is at the bottom of the ASEAN region. It is estimated that one in twelve Indonesian children under the age of five is underweight, and one in five individuals experiences stunting. Notable differences in prevalence estimates were observed between provinces (Ministry of Health of the Republic of Indonesia and Unicef, 2024).

The Food Estate, a government-sponsored national priority program focused on building large-scale, modern, and integrated food production regions, including plantations and cattle, is seen as a solution to food security. As worldwide demand for food has increased with population development, there is a visible discrepancy between the world's food supply and availability (Global Food Crisis). Furthermore, the rate of agricultural land conversion, notably in Java and Bali, is alarmingly high, failing to fulfil the country's expanding food demands. Furthermore, there is a considerable outflow of foreign exchange to buy various food goods. In contrast, the potential for optimising land for food reserves is extremely wide outside of Java and Bali, necessitating significant investment resources in a situation of restricted budget. This circumstance encourages the government to form partnerships with investors to create food plantations. However, it remains committed to considering and protecting the interests of the local community (Ministry of Agriculture, 2010). Even though the governments have made various efforts, the results have not been as expected and have had negative impacts (Greenpeace Indonesia, 2022; ICEL - Seri Analisis Food Estate, 2020)

Amidst the excitement over the news of the rice surpluses in 2024 and 2025, a closer study reveals that the surplus data in the first semester of 2025 is based on sampling and is not yet valid data, but rather an estimate. However, the government, through Minister of Agriculture Amran Sulaiman, stated that Indonesia will export 2,000 tons of rice to Malaysia each month. Yusuf Wibisono, Director of the Next Policy research institute, emphasised food security risks in 2024, stating that nine vital commodities, including rice, must still be imported (Tempo, 2024c). Between the pros and cons of claims of success and failure of the food estate (Ministry of Agriculture, 2023; Tempo, 2024b) history shows unsustainable self- sufficiency, so analyzing food security programs from a public policy management perspective is an effort to evaluate why the program is regarded as a failure in the past and to maintain the conditions achieved today.

This study adopts a historical technique, evaluated using qualitative methodologies, and draws on literature from numerous sources on food barn policies to attain food security in Indonesia. The author investigates why the food barn program fails to produce the intended results, namely, food security and is instead perceived as a failure that aggravates losses for the community. Since the food estate is a government policy, it will be scrutinized from a public policy perspective to address

why this essential annecessary policy for the community has not fulfilled community expectations.

Data selection was predicated on the following criteria: 1. pertinent policies determined from a historical perspective, 2. objective facts acquired, and 3. reputable sources. Despite the limited implementation of food estate initiatives in certain regions, the authors have not imposed geographic constraints, intending to encompass all pertinent policies across Indonesia. The author will examine the development of the food estate policy using Public Policy Stages Theory, ROCCIPI, and RIA as analytical frameworks.

II. Historical Review: Indonesian Food Security Program Over Time

Food security comprises four primary dimensions (ANNEX 11: Glossary, 2023). These must be collectively satisfied: Physical availability, Utilisation, Accessibility, and Stability. To attain food resilience, a range of proactive policies must be enacted to ensure food security, enhance nutritional well-being, and provide citizens with a level of food security surpassing what can be naturally achieved through market forces and economic development. From the Old Order to the present, the pursuance of national food resilience has persisted as a strategic priority, albeit characterised by alternating periods of success and failure. The following overview provides a summary of key agricultural policies from the early independence era through the administrations of President Soekarno, Soeharto, Habibie, Abdurrahman Wahid, Megawati, Susilo Bambang Yudhoyono (SBY), Joko Widodo, and Prabowo Subianto.

(Table 1: Indonesia's Food Security and Food Estate Policies)

	Period	Food Security/Food Estate Policy	Approach and Objectives	Achievements
Soekarno (1945–1966)	Old Order	Kasimo	Expansion of agricultural land outside Java, transmigration, and increased production of rice to anticipate population growth	Strengthened early agricultural institution; established the foundation for food policy and agricultural education (e.g., 1952 "People's Food is a Matter of Life or Death speech at University of Indonesia)
Soeharto (1966–1998)	New Order	Green R evolution, REPELITA, Establishment, Peatland Development Project (PLG)	Centralized, top-down agricultural modernization with heavy input subsidies, aimed for rice self-sufficiency	Achieved rice self-sufficiency in 1984 and FAO recognition in 1985; strong institutional frameworks such as BULOG and cooperatives
B.J. Habibie (1998–1999)	Reform Transition	Review termination of PLG Project	Reorganized food programs and restored budget accountability following PLG cessation	Brought rationalization and environmental awareness to food policy planning
Abdurrahman Wahid (1999–2000)	Reform Era	Import	Encouraged market mechanisms and private sector role in food trade	Opened discourse on
Megawati Soekarno Putri (2001–2004)	Reform Era	Presidential	Established Food Security Council to coordinate food availability,distribution, and quality	Created institutional platform for multi- sectoral governance
Susilo Bambang Yudhoyono (2004–2014)	Reform Era	Agricultural Revitalization Program,	Market-oriented and investment- based modernization; focus on large-scale agribusiness and bioenergy	Improved agricultural infrastructure and self-sufficiency plans for rice, corn, sugar, soybeans, and beef
Joko Widodo (2014–2024)	Democrati c Era	Food Estate Program (Central Kalimantan, North Sumatra, and Papua)	National strategic project integrating agriculture, plantation, and livestock sectors	Enhanced institutional coordination; partial success in pilot regions
Prabowo Subianto (2014–Present)	Ongoing	Expansion of Food Estate	Continuation of Jokowi's food self- sufficiency and defense-based food security approach	Strengthened defense-agriculture cooperation and regional investment MoUs

Although approaches and institutions have progressed, the persistent issue remains that policies are frequently formulated and executed in a top-down manner, often lacking ongoing evaluation, stakeholder involvement, and ecological sustainability.

Table 1 illustrates that Indonesia's food security and food estate policies have developed in accordance with political transitions and national priorities from the Old Order to the current era. The recognition of the necessity for food security intensified during Indonesia's food crisis in 1952, marked by a discrepancy between the nation's rice production and its requirements (Imam Santoso, 2012). During the inauguration of the Faculty of Agriculture at the University of Indonesia on April 27, 1952, the inaugural President of the Republic of Indonesia presented a speech titled "People's Food is a Matter of Life or Death." This address emphasized the necessity of augmenting food supply to prepare for population expansion and the escalating demand for sustenance. In the Old Order, the Indonesian government's food policy prioritized rice self-sufficiency through the *Kasimo* welfare program (1952-1956) and the *Sentra Padi* program (1956-1965) (Lassa, 2005). Since the late 1960s, Indonesia's food policy has primarily been shaped by advancements in food security and nutrition, propelled by economic growth that aids impoverished populations (Timmer, 2017).

During President Soeharto's era, the policies emphasised Food Self-Sufficiency, Rice Self-Sufficiency, and the execution of the Green Revolution (Permatasari & Wijaya, 2018). The effort was implemented via the government's Five-Year Development Plan (*REPELITA*). The president's policies focused on the agricultural sector, resulting in a food revolution intended to mitigate the political crisis in Indonesia. During the decade from 1970 to 1980, substantial investments were allocated to agricultural infrastructure, encompassing sowing, monitoring, and pest control, alongside the establishment of agricultural support institutions. During this period, Koperasi emerged as a vital supporter, addressing the fundamental needs of farmers in agribusiness, while Bulog functioned as an agency that aided the marketing of agricultural products. The BPTP also facilitated improvements for agricultural progress. Moreover, assistance for farmers was enhanced by counselling and direct interaction between the president or ministers and collectives of farmers, fishers, and livestock breeders (*Kelompencapir*). The management of agricultural enterprises was initiated through programs such as *Panca Usaha Tani, Bimas*, Special Operations, and Special Intensification, which effectively augmented food output, especially rice. The government guaranteed access to superior seeds, fertilisers, and insecticides via effectively administered subsidies. Fertiliser manufacturing facilities were developed, notably *Petro Kimia Gresik in Gresik, Pupuk Sriwijaya* in Palembang, and ASEAN Aceh Fertiliser in Aceh.

The agricultural program during the New Order attained excellent results, culminating in Indonesia's food self-sufficiency in 1984, through a sustainable approach, responsiveness to community needs, and sufficient budgetary support.

The extended period of New Order leadership created an opportunity to implement policies for sustainable food security, including establishing the National Logistics Command (KOLOGNAS) in 1966, which was later renamed the Rice Self-Sufficiency Logistics Agency (BULOG) in 1967. This era saw the introduction of the rice self-sufficiency policy (1969-1979), the food self- sufficiency policy (1979-1989), and the rice self-sufficiency policy (1989-1998). By the end of his leadership in 1995, President Soeharto issued Presidential Decree No. 82/95, which initiated the Peatland Project (PLG) aimed at creating a million hectares of rice fields in Central Kalimantan from peatlands through the construction of dividing canals. However, this program was halted due to a change in national leadership following President Soeharto's resignation on May 21, 1998.

Subsequent to the 1998 reform, President Habibie evaluated and restructured the planning and administration of peatland regions in Central Kalimantan, pursuant to Presidential Decree Number 80 of 1999, which established overarching parameters for this initiative. He incorporated rationality and environmental factors into food policy. This initiative culminated in the cessation of the Peatland Development Project (PLG).

Afterward, President Abdurrahman Wahid made it easier to import goods and started the Food Security Credit Program. This sparked disputes about making agriculture more open. Siswono Yudhohusodo, the head of the Indonesian Farmers Association (HKTI), said that farmers had a lot of trouble during the 2000-2001 planting season since the costs of production infrastructure were too expensive and didn't match the value of their goods. Farmers also had a hard time getting money from agricultural business credit, which has now been replaced by food security credit because of the severe rules about how credit is given out. HKTI says that the policy of bringing in rice during the harvest season is wrong. The president said in response to these objections that banning imports is not possible and told farmers to grow high-quality food for people in their own country to compete with foreign goods.

Subsequently, President Megawati promulgated Presidential Decree Number 132 of 2001, which established the Food Security Council as a non-structural entity tasked with aiding the president in the formulation of policies about national food security. This encompasses availability, distribution, consumption, quality, nutrition, and food safety, along with the oversight of evaluation and control measures for the enhancement of national food security.

The food security policy of President Susilo Bambang Yudhoyono's administration was executed by rejuvenating agriculture to uphold the promise of attaining national rice self-sufficiency. Agricultural revival was achieved by establishing and renovating agricultural infrastructure, which included the construction of reservoirs and irrigation canals, the revitalisation of the fertiliser industry, and the provision of fertiliser assistance. Furthermore, self-sufficiency in five food commodities—rice, corn, sugar, soybeans, and beef—was also intended. Moreover, he implemented import policies (Permatasari & Wijaya, 2018).

On August 31, 2006, President Susilo Bambang Yudhoyono launched the Rehabilitation and Revitalization of Former Peatland Development. In 2010, the The

president instituted the Merauke Integrated Energy Estate (MIFEE) program via Presidential Instruction No. 5 of 2008, which concentrated on the Economic Program for 2008-2009, particularly to facilitate the MIFEE initiative. Presidential Instruction No. 1/2010, which addressed the Acceleration of National Development Priorities in 2010, further substantiated this initiative, aiming to develop 1.2 million hectares of rice fields in Merauke, Papua. The program's primary aim was to bolster national food and bioenergy stocks to improve and safeguard national food security. Nevertheless, the MIFEE initiative ultimately proved unsuccessful. Following the conversion of the forests, the community's sago forests were compromised, resulting in difficulties in procuring food sources such as sago, fish, deer, or pig. In 2011, the Bulungan Food Estate program was launched in North Kalimantan to establish 30,000 hectares of rice fields. This initiative aimed to cultivate transmigration land within the Salim Batu Independent Integrated City region. In 2013, the Ketapang Food Estate food security initiative was established in West Kalimantan, facilitating the development of 100,000 hectares of rice fields in Ketapang, West Kalimantan. Nevertheless, the outcomes were inadequate, with approximately 0.11% of the land effectively exploited. This was ascribed to the discordance of socio-cultural conditions and the absence of supporting infrastructure.

The food estate concept was relaunched during President Joko Widodo's administration. Presidential Regulation No. 109 of 2020, which pertains to the acceleration of national strategic initiatives, includes the National Food Provision Improvement Program (Food Estate) as a component of this expedited program. This policy delineates a development strategy to consolidate diverse primary food supplies under a unified region, specifically targeting the agricultural, plantation, and animal sectors. The primary aim of consolidating food reserves in a single location is to function as a national food reserve supplier and to anticipate future food shortages arising from the COVID-19 pandemic. This initiative has been initiated in various regions of Indonesia, including Central Kalimantan, North Sumatra, South Sumatra, East Nusa Tenggara, and Papua. A restricted meeting held by President Joko Widodo with pertinent stakeholders on June 26, 2020, culminated in the resolution to allocate the former Peatland Development (PLG) area of 770,601 hectares as part of the Food Estate project development zones in Central Kalimantan. Food reserves are created to bolster national food security from production to consumption. Defence Minister Prabowo was designated to manage the national food reserve initiative in Central Kalimantan, as food security is an essential component of national defence (Tempo, 2020).

In 2020, the initiative sought to develop 30,000 hectares of rice fields in Central Kalimantan, comprising 20,000 hectares from the prior one-million-hectare peatland project and 10,000 hectares of additional land in Pulang Pisang, a transmigration area. The irrigation system was enhanced to provide support. The government supplied all essential agricultural inputs, comprising seeds, fertilisers, equipment, and machinery,

to expedite agricultural development. TNI members were trained for a week and then employed as farmers. Then, in 2021, a 31,000-hectare cassava plantation was initiated in the Gunung Mas area to create carbohydrate reserves through investment cooperation with South Korea, offering cassava as a substitute for wheat. This initiative encompassed *Pematang Limau* Village, *Tampelas, Tewai Baru*, and *Sepang*, with cassava as the primary commodity overseen by the Ministry of Defence. In that year, the cultivation of potatoes, shallots, and garlic took place in *Humbang Hasundutan*, South Tapanuli, North Tapanuli, and Pakpak Bharat, North Sumatra. The initiative rejuvenated unutilized land, with farmers engaged to obtain land and agricultural resources, such as seeds and fertilisers. The cultivated plant varieties must utilise seeds supplied by the government, with planting configurations conforming to governmental standards, and the harvest is acquired by cooperatives that also determine the prices.

According to Attachment I of Presidential Regulation Number 108 of 2022 regarding the 2023 Government Work Plan, the 2022 inflation control strategy focuses on (a) strengthening the Government Food Reserve (CPP) for strategic food commodities; (b) optimizing food supply through food production centre areas or food estates; (c) enhancing the effectiveness and efficiency of the national logistics system to reduce price gaps; (d) encouraging and strengthening partnership schemes between farmers and fishermen with modern retail businesses to shorten the supply chain and increase market efficiency to support smooth distribution; (e) accelerating the provision of supporting infrastructure for agriculture and flood control; (f) improving the accuracy and credibility of food and agricultural data; and (g) optimizing the use of Information Technology (IT) in all aspects (supply, distribution, and communication of inflation policies). Based on the Presidential Regulation, the food estate is a strategic priority program. To promote agricultural growth that will support food security, a Physical Special Allocation Fund (DAK) is allocated to finance the food estate development project.

Following the conclusion of President Jokowi's term, the national leadership transitioned to President Prabowo Subianto, who affirmed his commitment to perpetuating the food estate initiative. Hashim Djojohadikusumo, the President's Special Envoy for Energy and the Environment, disclosed that President Prabowo Subianto's continuation of the food estate effort is integral to his overarching ambition of attaining food self-sufficiency, a vision he commenced two decades prior. During the Working Meeting of Commission IV of the Indonesian House of Representatives with the Ministry of Agriculture on November 5, 2024, concerning the Ministry's priority work program for 2025, the Ministry announced its intention to sustain and enhance the food estate program to augment national food production and attain self-sufficiency within the next 3-4 years.

President Prabowo has assigned the Ministry of Agriculture the responsibility of expediting the 3-million-hectare rice cultivation initiative in Merauke, Papua, Kalimantan, and Sumatra. The program has been initiated in Merauke and Central Kalimantan, with intentions for subsequent growth to South Kalimantan, West

Kalimantan, and South Sumatra. President Prabowo took another important step by speeding up cooperation with Singapore. On November 6, 2024, they signed a Memorandum of Understanding (MoU) about agricultural technologies and food security. The Indonesian House of Representatives, especially Commission IV, told the government to use the report from the Ministry of Agriculture to come up with a more measurable and long-lasting plan. This plan should include a full assessment of land suitability and improvements to agricultural infrastructure and its distribution to remote areas. Also, it's important to work more closely with local farmers by giving them technical training and incentives to help them grow more food.

III. Portrait of the Failure of Several Food Security Programs

Table 2. Rice Production and Harvest Area according to BPS

Year	Harvested Area (million hectares)	Paddy Production (million tons GKG)	Decline in Harvested Area (YoY)	Decline in Production (YoY)
2023	10.21	53.98	-	-
2024	10.05	53.14	↓ 1.64%	↓ 1.64%

Indonesia's food security should have been even stronger after starting several projects to make food more available to the population. The results, on the other hand, have not lived up to expectations. Data on Indonesian rice output and harvest area from 2023 to 2024 show that the rice harvest area in 2024 was about 10.05 million hectares. This is 167.57 thousand hectares or 1.64 per cent less than the rice harvest area in 2023, which was 10.21 million hectares. The amount of rice grown in 2024, which was 53.14 million tons of GKG, was 838.27 thousand tons less than in 2023, when it was 53.98 million tons of GKG. In 2024, rice production for people to eat will be 30.62 million tons, which is 480.04 thousand tons or 1.54 per cent less than the 31.10 million tons produced in 2023 (BPS, 2025). The imbalance between supply and demand has led to more imports to meet the needs of the people. In fact, the country still relies on imports to meet the demands of nine staple foods (*sembako*) (Tempo, 2024c). However, claims of the success of the food estate were denied by several parties (Tempo, 2024a; Quin Pasaribu, 2023).

Analysing the execution of diverse food safety initiatives by successive presidents demonstrates the policy's ineffectiveness. The implementation of the PLG lacked adequate backing from socio-ecological research on the peat environment, leading to a disjunction between the land and the socio-cultural circumstances of the local community. The project resulted in damage to peatlands, leading to socio-economic losses from forest fires. The creation of rice fields was annulled even though a canal network had already desiccated the peat swamp forest. Mangkatip Village in Dusun Hilir District, South Barito Regency, Central Kalimantan, is one of the areas affected by

the abandoned project. The remaining forests and land experience fires almost annually, particularly around the left and right sides of the Primary Main Canal. Dense forests are transforming into open areas and are susceptible to fire due to the desiccation of the canal network, which previously provided abundant water to inundate the peat swamp year-round. Forest fires impose a financial burden on disaster management, depleting state resources as it depends on the Reforestation Fund, allocated for forest restoration and compensation to impacted populations.

During President Susilo Bambang Yudhoyono's period of office, the following food estate program took place. Minister of Agriculture Anton Apriantono said on the sidelines of the launch of the Rehabilitation and Revitalisation of Former Peatland Development by President Yudhoyono in Dadahub District, Kapuas Regency, that only about 330,000 hectares of the 1.4 million hectares of former peatland development (PLG) in Central Kalimantan could be re-managed as agricultural land for the community. The rest of the territory would also be returned to a conservation zone. The food estate program also came to Merauke in 2006 as the Merauke Integrated Rice Estate (MIRE), in 2010 as the Merauke Integrated Food and Energy Estate (MIFEE), and in 2015 as the Export-Oriented Food Barn (LPBE). The MIRE program started in 2006 and focused on rice as a particular crop. It also brought in foreign investors to help with exports. But this program couldn't be put into action right away because it took a long time to get ready. The MIRE program was changed and renamed MIFEE in 2010, and it now includes energy-producing goods like sorghum and palm oil. A lot of individuals say that the food estate initiative in Merauke was a failure because it didn't produce enough food and caused problems (Maghdalena et al., 2023).

During Joko Widodo's presidency, the government initiated a food estate initiative as a national priority project, citing the food crisis induced by the pandemic. The food estate initiative, referred to as the National Food Barn (LPN), is integral to the 2020-2024 National Strategic Program and, subsequent to the Covid-19 epidemic, is incorporated under the National Economic Recovery Program (PEN). The regional government has designated an area of 1.283 million hectares for the initiative. This agricultural estate initiative encompasses the provinces of Central Kalimantan, South Sumatra, North Sumatra, and Papua. Scientific research and community engagement in Central Kalimantan are limited, where the PLG program persists. The community has not been adequately involved in the planning and execution stages, and the absence of clear information regarding the program has generated public apprehensions about its adverse effects. As a result, the policy of repurposing land and forest functions for agricultural and investment objectives, aimed at mitigating the potential food crisis while preserving national food reserves, has engendered tensions between residents and incoming transmigration workers, culminating in agrarian conflicts and criminalisation.

The government's PLG program, initiated in 1995 and continued in 2020, has driven changes in the customs of communities with a tradition of planting rice using local wisdom closely aligned with nature. The food estate program on peatlands has also sparked concerns about recurring floods and fires. Rehabilitation initiatives aimed

at mitigating the consequences of the PLG program have proven ineffective in restoring the damage incurred, resulting in persistent floods and fires, as well as the erosion of community management rights over land cultivated for generations due to the conversion of peatlands to oil palm plantations. Since April 2020, cassava intensification and planting have commenced, while the mapping is still incomplete and ambiguous. Furthermore, its efficacy remains ambiguous, as the land's susceptibility to flooding in the rainy season and recurrent burning in the dry season renders planting at the necessary depth and acidity of peatlands impractical. The community is perplexed by the agricultural practices that have been employed, which diverge from their customary methods. The establishment of the food estate interferes with the local community's morning planting season and disturbs water allocation to their rice crops. Despite trained farmers being compensated for land preparation, the funding allocated for operating tractors on arid terrain is inadequate when the ground is saturated or inundated. This issue impacts not only rice fields but also corn, cassava, and other agricultural product areas. In Gunung Mas, the cassava cultivation zone coincides with a Community Rubber Plantation site, whereas in other areas, planting has been impeded by community resistance (Wisnu, 2022). The food estate scheme in Humbasan Tapanuli did not meet objectives (CAST's Southeast Asia team, 2023). The harvest results did not align with estimates, as the target plan for 1 hectare of potato land intended to produce a harvest of 10 tons, yet only 3 hectares of potato land yielded 10 tons.

In Papua, food barns are also guided by the President through Presidential Instruction No. 9 of 2017, which was updated with Presidential Instruction Number 9 of 2020 regarding the Acceleration of Development and Welfare in the Provinces of Papua and West Papua. In contrast to the programs in Central and West Kalimantan, which have a legal framework established by the central government for regional application, together with technical directives and a comprehensive design for food barn development, the execution of LPN in Merauke is very sluggish. The delay is attributable to the absence of derivative rules stemming from Presidential Instruction No. 9 of 2020, as well as the lack of technical instructions and a model for the LPN implementation mechanism in Merauke. Issues in Papua may arise from land scarcity; the government aims to allocate 1.2 million hectares for agricultural use, although there is no updated investment blueprint for LPN. Further challenges comprise insufficient road infrastructure and ancillary amenities, as well as the likelihood of resistance to deforestation in regions occupied by indigenous populations with customary rights protected by the Special Autonomy Law.

On the other hand, WALHI also underscored the Regulation of the Minister of Environment and Forestry Number P.24/Menlhk/Setjen/Kum.1/10/2020 regarding the Provision of Forest Areas for the Development of Food Estates. It was noted that the Minister's regulation did not align with the Papua Special Autonomy Law. The regulation was enacted without consultation with the Governor of Papua, was not

initiated from the grassroots level, and did not reflect the Papuan customary law community. This situation can potentially increase the dominance of investment control in Papua. (Maghdalena et al., 2023). The Director of the WALHI Central Kalimantan Non-Governmental Organization, Bayu Herinata, who conducted a direct assessment of the Gunung Mas food estate area on January 23, 2024, stated that the Food Estate had failed. The planted cassava was not grown and replaced with corn, but the outcomes were still suboptimal. This is because the land is not suitable for cassava cultivation, despite the deforestation that has caused environmental damage and flooding in the surrounding areas of the food estate land. Based on several prior studies and news reports, the food estate program has been criticized as a failure. (Tempo, 2023).

IV. Public Policy-Making Process

Bromley analyses the matter of Indonesian food security policy across three tiers: the legislative tier, the organisational tier, and the operational tier (Annika Widiana, 2022). The planning and implementation of food estate policies are intertwined with the purpose of the government's existence. According to Anthony Giddens, some of the purposes of government include representing diverse interests and meeting citizens' needs, including aspects of collective security and welfare (Arinanto, 2003). In light of the government's objectives, it is particularly noteworthy to discuss the process of public policy formulation and whether it adheres to the necessary procedures to ensure program success. Thomas R. Dye identifies seven models of policy formation (Bambang Sunggono, 1994), specifically:

a. Policy as an institutional activity fundamentally perceives public policy as activities executed by governmental entities.
b. Policy as a collective Equilibrium diverges from the premise that the interactions of societal groups are the primary focus of political scrutiny.
c. The elite preference theory posits that the elite predominantly determines public policy and disseminates it downward to the general populace.
d. Rational policy prioritises efficient goal attainment through informed decision-making and the expertise of decision-makers.
e. Policy as a variation on the past (incrementalism theory) views public policy as a continuation of government activities, requiring only necessary changes.
f. Policy as rational choice in competitive situations (game theory) posits that implementing policy depends on at least two players.
g. Policy as system output analyzes political activities from a systems perspective, emphasizing that several processes must remain balanced to maintain them.

The Food Estate Policy, initiated by the Indonesian government during the administrations of Presidents Soeharto, Susilo Bambang Yudhoyono, and Joko Widodo, and perpetuated by President Prabowo Subiyanto, exemplifies an elite-driven preference that emanates from the upper echelons of power.

Public policy does not emerge spontaneously; to ensure the feasibility of planning, implementation, monitoring, and evaluation, it must undergo a lengthy process or stages. According to Thomas R. Dye, the policy process includes:

(1) Problem Identification

Jones characterises an issue as a human necessity, however recognised, for which a solution is pursued. Dunn characterises a policy problem as an unmet value, need, or opportunity that can be recognised and addressed by public action. Anderson asserts that, for policy formulation, an issue can be characterised as a circumstance or scenario that generates needs or discontent among the affected populace. The iceberg idea posits that comprehending the challenges encountered by public organisations starts with societal events that surface. These events indicate that the behavioural patterns reveal the systemic structure of the emerging difficulties, allowing for the identification of mental models that constitute the base of the issue. By identifying the fundamental cause of the issue, a strategic intervention framework (policy design) can be established and implemented to prevent the recurrence of the problematic behaviour (Widodo, 2007)

In launching the food program policy, President Joko Widodo responded to the Food and Agriculture Organization (FAO) warning regarding the threat of a food crisis due to the coronavirus (Yurindra, 2020). The policy seeks to guarantee access to safe, nutritious, and inexpensive food for all citizens by expanding agricultural acreage. Despite the government's efforts to expand agricultural land, a reduction in agricultural land is occurring. Notwithstanding Presidential Regulation (Perpres) Number 59 of 2019, which pertains to the Regulation of Paddy Field Conversion and seeks to facilitate the identification of protected paddy field maps to ensure the preservation of paddy fields for national food security, mitigate the rapid conversion of paddy fields, empower farmers against such conversions, and furnish data and information regarding paddy fields as a basis for establishing sustainable agricultural land, recent statistics indicate a decline in the area of rice fields in Indonesia. This tendency underscores the necessity of strengthening policies to regulate the transformation of rice fields. Throughout Jokowi's decade in office, nearly 1.4 million hectares of land were transformed from rice cultivation to non-rice uses (BBC News Indonesia, 2024). If viewed from the iceberg theory, the understanding of the problem will be described in the following table 3:

Table 3: Understanding the Problem Based on the Iceberg Theory

No	Factors	Problem
1	Events	Pandemic COVID, population growth, and agricultural land decrease.
2	Pattern of Behaviour	(1) Food stocks are low while demand is high (2) Public interest is disrupted (3) The state economy and finances are disrupted (4) Agricultural land function shifted (5) Government authority decreases if it cannot solve the problem
3	Sistemic Structure	Public trust in government is declining
4	Mental Model	The relevant parties did not anticipate the problem properly

(2) Agenda Setting

Upon comprehending the problem, the subsequent phase is agenda framing, which involves transforming public issues into policy matters with extensive ramifications, encompassing those not immediately affected (policy issues), characterised by societal divergences in perceptions and policies. Public problems can evolve into policy issues that become part of the governmental agenda, which John W. Kingdon defines as a compilation of concerns relevant to public officials at a specific period. The government agenda consists of two types, namely (in details read table 4):

a) The systemic agenda consists of all issues felt by members of the public within the government's jurisdiction.

b) The institutional agenda is a series of issues requiring serious and active consideration from legitimate decision makers/authorities.

Public problems will easily become public policy if they are considered important, significantly affect many people, receive attention from policymakers, are mentioned in political platforms (programs), and are likely to be solved. Issues will easily enter as a systemic agenda if they receive widespread attention, there is a perception that some actions need to be taken to solve the problem, and the community perceives the problem as a legitimate obligation and responsibility of several government units to solve it.

Table 4: Compilation of Public Official Issues at a Certain Time

No	Level	Problem
1	Privat Problem	People are disappointed when food is difficult to obtain and expensive.
2	Policy Issue	(1) All people are disappointed if food is challenging to obtain and expensive. (2) Need to strengthen policies to control the conversion of agricultural land.
3	Sistemic Agenda	Government behavior in making and implementing policies
4	Institutional Agenda	Government behavior in making and implementing policies

(3) Policy Formulation

The formulation of public policy commences with societal reality, reflected in emerging desires, prevailing issues, or calls for transformation. The subsequent phase from these realities entails identifying optimal remedies to resolve the emerging challenges or enhance the existing circumstances. The result of this solution selection is referred to as public policy. The principal anticipated outcome of the legislative process is the establishment of laws that govern and manage societal conduct. Consequently, the substance of legal products must be anchored in significant social and political viability; else, they may engender superfluous paradoxes detrimental to society. This circumstance corresponds with the essence of law, which must be enforced. Conceptual clarity is essential to guarantee that the enforcement of applications does not lead to societal detriment but instead promotes an orderly and regular society in which no individuals are injured. An effective methodology is crucial in the legislative development process to attain these objectives. Public policy is essential in elucidating the substance of legal products. The formulation of public policy, which includes policymaking, cannot be separated from the political realities essential to its analysis; neglecting this connection risks producing policy outcomes that lack practical applicability and hinder implementation, as public policy is intrinsically linked to politics.

The formation of public policy commences with the identification of an issue. Activities aimed at identifying issues result in meta-problems. Activities designed to delineate problems, recognise substantive issues, and articulate these challenges culminate in formal problems. Furthermore, the identified policy issues are resolved by the implementation of the requisite public policies. To achieve this, a policy analysis is conducted, which includes:

1) Examining problems to understand the nature of the issues faced by the organization.
2) Determining policy goals and objectives (the outcomes to be achieved or avoided).

3) Creating a model simplifying the causal relationships of the issues at hand.
4) Formulating alternative policies.
5) Establishing criteria for selecting alternative policies, consisting of several parameters, namely:
   i. Technical feasibility.
   ii. Economic and financial viability.
   iii. Political viability and
   iv. Administrative operability.

Table 5: Determining Alternative Policy Criteria

No	Criteria	Dimention	Analytical Question
1	Technical Feasibility	Effectiveness of goal achievement	Things to pay attention to so that goals are achieved effectively
2	Economic and Financial Viability	Efficiency (Cost and results)	Comparison of Risks (including recovery costs) and Benefits
3	Political viability	1. Acceptability 2. Appropriateness 3. Responsiveness 4. Equity	1. Is the policy acceptable, or does it bring together conflicting interests? 2. Is it Appropriate to criticize 3. Is it Responsive to criticism 4. Is there a sufficient legal umbrella?
4	Administrative operability	Can be applied to social, political, and administrative contexts	Can the policies be applied to social, political, and administrative contexts?

Policy evaluation examines the efficacy or ineffectiveness of public policy implementation. Consequently, appraisal ascribes worth to a phenomenon that encompasses specific value judgments. Public policy evaluation includes aims, targets, target demographics, utilised tools, responses from the policy environment, expected performance, resultant impacts, and related factors (Mustofadijaja, 2002; Widodo, 2007). Public policy evaluation examines the degree to which a policy meets its objectives and targets by juxtaposing the outcomes achieved with the established goals and targets.

In making public policy, ROCCIPI and RIA analysis methods can examine policy problems. ROCCIPI is an analysis tool developed by Robert Seidman and Ann Seidman. For the Seidmen couple, the regulations must be in place to transform existing problems, turn deficiencies into advantages, solve problems, and move from

das sein to *das sollen*.

Table 6: ROCCIPI Analysis

Metode	Cause	Alternative Policy
Rule	Regulations that can cause problems	Change/create rules
Opportunity	External factors that can cause problems	Policies that can reduce the causes
Capacity	Internal factors/actors that cause problems	Increase the perpetrator's abilities
Communication	Lack of socialization of each policy	Good policy socialization
Interest	Actor's interest factor	Restrictions on the involvement of interests
Process	Lack of participation of the surrounding community	There is participation
Ideology	Values/culture that can influence	Culture is used as a stimulus

(1) Rule

Regulations to be formed must take into account other regulations, both vertically and horizontally. They ought to be constant, synchronous, and harmonised. Policies necessitate a legal framework; when the government develops a policy, any adverse effects must be evaluated, regardless of its priority. The Public Policy of the Food Estate Program, which intersects with environmental conservation concerns and impacts climate and environmental deterioration, necessitates meticulous examination. The Regulatory Impact Analysis approach serves as a potent analytical instrument. This method aids in identifying potential impacts of a policy or regulation, comparing the effects of various regulatory and policy options against scenarios devoid of regulation, comprehensively understanding the implications of a policy or regulation on society, the environment, and the economy, and mitigating the probability of adverse outcomes or risks linked to regulation.

The food estate program is facing environmental challenges due to its dependence on an expedited Strategic Environmental Assessment. The evaluation fundamentally comprises a series of rigorous, thorough, and participatory assessments to guarantee that sustainable development concepts underpin and are incorporated into the development of an area and/or Policy, Plan, and/or Program. The assessment provides a foundation for analysing, formulating alternatives, and proposing spatial planning and development policies that enhance sustainability. Nevertheless, in practice, the fundamental nature of assessment has diminished. The Joint Circular from the Minister of Home Affairs and the Minister of Environment and Forestry, Numbers 660/5113/SJ and 04/MENLH/12/2010, concerning the Implementation of Strategic Environmental Assessment, Regional Spatial Planning, and Medium-Term

Development Plan for Provinces, introduced a rapid appraisal method and a semi-detailed assessment approach in addition to the conventional detailed assessment. The fast assessment involves assessing a specific issue using expert opinions, which are typically qualitative. Although the rapid assessment should have been used given the urgency, its application was not accompanied by a sufficient explanation of the degree of urgency involved.

Numerous regulatory policy deficiencies exist. The Regulation of the Minister of Environment and Forestry Number P.24/Menlhk/Setjen/Kum. 1/10/2020 about the Allocation of Forest Areas for Food Estate Development has been openly condemned for its lack of alignment with the Papua Special Autonomy Law. This legislation was implemented without the Governor of Papua's consultation and did not represent the Papuan customary law community. This imposition threatens to enhance the supremacy of investment control in Papua, directly undermining the customary rights assured by the special autonomy framework and failing to obtain public endorsement (WALHI, 2021).

The choice of the previous peatland development area for the food estate program was influenced by the reduced expense of rehabilitating existing land, estimated at roughly IDR 9 million per hectare, in contrast to the cost of clearing new land, approximately IDR 30 million per hectare, which also poses a risk of environmental degradation (Center for Budget Studies, Expert Body of the Indonesian Parliament, 2020). This decision led to the conversion of approximately 400,000 hectares of tropical rainforest into open land, causing alterations in water management patterns and quality, diminished water absorption, heightened flooding during the rainy season, increased incidence of fires in the dry season, and the extinction of rare plant species (Mawardi, 2007). Furthermore, 79,500 hectares of the total 165,000 hectares designated for utilisation consist of barren land previously forsaken by farmers under the PLG program. This soil harbours sulfidic elements that produce poisonous pyrite compounds, necessitating a solution to avert future detrimental impacts. The food estate initiative has faced criticism for neglecting adverse externalities, such as deforestation, loss of biodiversity, social strife, and the impact on the lives of adjacent populations (Obidzinski et al., 2013). When applying Regulatory Impact Analysis, the key question is whether the food estate had adequate consideration before implementation, and if it is feasible to proceed. If not feasible, are there alternative opportunities? RIA is a method used to assess the impact of regulations, to examine and measure the potential benefits and effects of new and existing regulations or public policies (in details read table 7 explaining Cost and Benefit Analysis.

Table 7: Cost and Benefit Analysis

Cost/Consequences	Benefits
Land Preparation Survey and Research Costs Needed	1. Adding Agricultural Land 2. Suitability of Plants to Soil Characteristics
Infrastructure Costs Needed	Investment opportunity
Quality of Life Reduced Due to Environmental Damage	Modern Agriculture
Huge Environmental Recovery Costs	Food Availability if the the program is Successful
Socialization and Human Resource Preparation Costs Needed for Modern Agriculture	Food Security

(2) Opportunity

External opportunities and environmental elements from the stakeholders must be addressed to guarantee the effective implementation, acceptance, and absence of resistance to the legislation. The risk for conflict with local communities must be effectively managed and considered by the government, as it can jeopardise the project. The surge of immigrants engaged in food estate activities may jeopardise local communities due to disparities in work ethics and educational attainment. This difference may subsequently incite tension between residents and immigrants. Moreover, to optimise opportunities, it is imperative to assist with scientific research. The absence of scientific research and top-down policies that exclude community engagement and local knowledge contributes to policy failure. The budget must include a clear allocation with sufficient responsibility. Policy-making must undergo thorough evaluation. Do not permit the lack of repercussions for policy failure to lead the administration to disregard the requisite target outcomes.

(3) Capacity

Regarding capacity, factors related to the characteristics of the actors (internal) can cause them not to comply with the established rules and regulations. Human resources readiness is crucial; the government must assess workers' skills to ensure they have mastered agricultural processing on peatlands and prepare competent extension workers to implement this program. To accelerate self-sufficiency, the Ministry of Agriculture is collaborating with the Ministry of Defense. (Directorate General of Agricultural Infrastructure and Facilities, Ministry of Agriculture, 2024; Indonesian Army, 2025). Proper preparation must support the involvement of TNI soldiers without ignoring their core business. The authorities' role in communicating regulations to the intended parties is also essential.

(4) Communication

Many parties have underscored the lack of community involvement in planning and implementing the food estate project. The project often encounters substantial resistance or outright rejection when the local community is not actively

engaged, primarily due to a lack of effective communication. For example, Tawai Baru Village Secretary Arung stated that the villagers did not participate in cassava planting. The property selection process excluded the hamlet, and the majority of the planting labourers were from external regions. The property was formerly forested; however, if farmers were to cultivate it, they would encounter challenges due to the sandy soil, which is unsuitable for plant growth. *Kompas* surveillance of the *Tewai Baru* food barn property indicates that cassava plants older than one year appear sparse and untidy. No personnel remain, and the heavy machinery formerly utilised for land clearing seems inactive. The Special Assistant for Food Security to the Minister of Defence acknowledged that the cassava food barn is not maintained due to a lack of budget for its upkeep. The problem lies in the absence of a Presidential Regulation on Food Estate for the Ministry of Defence, which would encompass budgetary provisions (Ahmad Arif, 2022). There is no fund allocated for maintaining the cassava, reflecting a lack of planning that leads to obstacles and even failures.

(5) Interest

Interests and elements associated with perceptions of advantages exist for both the regulators and the subjects of the regulation. Mitigating the impact of vested interests is crucial in formulating public policies to guarantee an objective evaluation of the program. The food estate seeks to enhance food production, maximise land utilisation, guarantee year-round food availability, stabilise domestic food prices, generate employment, improve efficiency and productivity within the agricultural sector, and bolster national food security by augmenting domestic production capacity. It aims to diminish reliance on imported food, develop essential infrastructure such as roads, irrigation, and storage facilities, serve as a catalyst for agricultural innovations, and elevate the competitiveness of agricultural products (Liputan 6, 2024). Therefore, the interests of all involved parties must be considered.

(6) Process

The procedural elements pertain to how stakeholders determine the approval or rejection of a regulation's implementation. An essential aspect in public policy development is the adherence to certain protocols, including public hearings and testing stages. In the absence of sufficient public hearings and assessments, the likelihood of thoroughly grasping the local community's needs, aspirations, and apprehensions is minimal. This oversight endangers the design and implementation of the food estate and heightens the chance of failure. Furthermore, inadequate community engagement may result in policies that fail to correspond with local social, cultural, and economic contexts, hence reducing the probability of attaining sustainable success in socio-ecological research of peat ecosystems. This discrepancy may generate a disjunction between the land and the socio-cultural realities of the local people. The community must be adequately informed, and their viewpoints should be acknowledged. Investigative data from mass media, NGOs, and the community indicate that expediting the procedure and conducting hasty assessments may result in failures, such as soil incompatibility with plants (Tempo, 2024b). The

selection and designation of land use and the determination of crops to be planted must be carefully done and supported by sufficient studies. The public policy process should not be merely a formality to dismiss criticism, but also an opportunity to implement necessary changes seriously.

(7) Ideology

Ideological issues concerning values, attitudes, preferences, and many myths and assumptions regarding the world, religion, beliefs, politics, society, and the economy are involved. The Indonesian agricultural society flourishes due to the local wisdom and customs passed down through generations; hence, state policymaking must take this into account. Alterations stemming from the execution of public policies should not produce detrimental impacts or, at a minimum, should not compromise existing beneficial elements.

V. Conclusion

Food security in Indonesia is a great and vital aim for the whole country, but it has been hurt in the past by a lack of long-term, coordinated planning amongst different governments. The ROCCIPI and RIA frameworks show that the Food Estate program has major problems, especially in the Rule and Process stages, where there are conflicts between rules and a very limited form of participatory governance. The RIA's quantitative cost-benefit analysis also shows that the high implicit environmental and social costs are much higher than the expected short-term economic benefits. This is similar to how past large-scale projects like the PLG and MIFEE were run in a way that was not sustainable. This study suggests that future policy must reject this unsustainable cycle and adopt an Alternative Policy Model that prioritises decentralised, community-based food security programs, which integrate local wisdom, ensuring rigorous and independent Strategic Environmental Assessments, and upholding the principle of Free, Prior, and Informed Consent (FPIC) to establish sustainable, equitable, and effective food reserves. We all want to work together to make sure that everyone has enough food. Each government's plan to achieve food security from era to era is not long-term in a roadmap. To avoid making the same mistakes again, we need to plan carefully and involve all stakeholders, as well as get support from the community. We should aim for both short-term and long-term benefits, which means we need to think carefully about programs and priority levels. It has been proven that quick evaluations that bypass the steps needed to make good public policies lead to failures and bigger losses, especially for the environment and its recovery. Risk management is an important part of establishing policies. It is only possible to attain sustainable food security if programs are created in stages that follow correct and long-lasting public policies, put protecting the environment first, and get people involved.

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