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The Role of Intelligence In Navigating Indonesia's B40 Biodiesel Policy

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Abstract: Indonesia's 40% biodiesel (B40) mandatory policy, which came into effect in early 2025, represents a strategic initiative to enhance energy security and reduce carbon emissions. However, behind its official objectives, the policy entails significant fiscal, environmental, and social risks that threaten its long-term sustainability. While most analyses have focused on its economic or environmental dimensions, the role of state intelligence in navigating these multidimensional risks remains an underexplored area. This article argues that the success and sustainability of the B40 policy depend not only on technical feasibility or political commitment, but also on the effective application of strategic intelligence functions to provide foresight, mitigate threats, and deliver objective assessments to policymakers, free from partisan and corporate influence. This study adopts a conceptual framework that integrates the intelligence cycle with energy security theory, this article analyses how early detection, early warning, and problem-solving functions can be applied to manage systemic risks such as subsidy traps, feedstock supply deficits, and social tensions. The analysis finds that intelligence plays a crucial role in transforming energy risk management from reactive to proactive. Accordingly, the formal integration of intelligence into the energy policy cycle is a prerequisite to ensure that strategic initiatives such as B40 contribute substantively to sustainable energy, rather than merely serving as economic buffers for entrenched industrial interests.

Keywords: Strategic Intelligence, Energy Policy, B40 Biodiesel, Energy Security, National Security, Indonesia, Palm Oil.

INTRODUCTION

The mandatory B40 policy, which came into effect in early 2025 under the administration of President Prabowo Subianto, marks a significant milestone in Indonesia's energy transition (Ministry of Energy and Mineral Resources of the Republic of Indonesia, 2025). The policy, which mandates the blending of 40% palm oil–based Fatty Acid Methyl Ester (FAME) with 60% petroleum diesel is viewed as a multifaceted strategic initiative (Paradigm Futures, 2025).

Officially, this policy aims to enhance energy self-sufficiency, reduce dependence on costly imported diesel, with potential savings of up to US$20 billion per year if scaled up to B50, stimulate downstream investment, and lower greenhouse gas emissions as part of Indonesia's national climate commitment (East Asia Forum, 2025).

Figure: Launch of the B40 Mandatory Program. Source: esdm.go.id.

However, behind this official narrative, B40 is not merely a technical implementation but rather a high-stakes national strategy laden with systemic risks. This article highlights a fundamental tension between the government's rhetoric on energy security and environmental sustainability and the complex realities on the ground, ranging from substantial fiscal burdens and deeply entrenched industrial interests to significant environmental and social externalities. The implementation of B40 requires a subsidy allocation of Rp35,5 trillion (approximately US$2,1 billion) for 2025 alone, a sharp increase from US$1,1 billion in 2023 (East Asia Forum, 2025). This financial strain, compounded by the technical and logistical challenges acknowledged by industry actor PT Pertamina, which suggests that the path toward energy self-sufficiency through biodiesel is far more complicated than it appears (Rinaldi, 2024)

Existing academic and policy analyses of Indonesia's biodiesel agenda have largely emphasized its economic and environmental dimensions, such as subsidy efficiency and market implications to deforestation concerns. However, the involvement of national intelligence in managing the policy's inherent vulnerabilities remains an understudied yet crucial aspect. The omission is significant, as the scale and strategic sensitivity of the B40 initiative situate it squarely within the purview of national security. Accordingly, this article advances the main thesis that the effective and sustainable implementation of the B40 policy depends not merely on technical feasibility or political commitment, but on the strategic deployment of intelligence functions that enable foresight, multidimensional threat mitigation, and impartial policy evaluation, free from partisan and corporate pressures.

The B40 policy, which publicly presented as a strategic step toward energy self-sufficiency and environmental sustainability (East Asia Forum, 2025), in practice reveals deep internal contradictions. Although the government highlights its potential to reduce import dependency and emissions, the policy relies heavily on substantial subsidies financed through export levies tied to the volatile crude palm oil (CPO) market and continues to draw sharp environmental criticism (East Asia Forum, 2025; Giam, 2025). The in-depth interviews that formed the basis of this research reveal that a key driver behind the policy lies in the government's effort in stabilizing the domestic CPO market, an outcome that largely benefits major producers. This contradiction implies that the success of the policy cannot be assessed solely by the achievement of blending targets, but by the state's capacity to manage the competing objectives embedded within it. Such complex, strategic, and often opaque forms of

risk management represent a classical function of state intelligence. Accordingly, this article explores how intelligence has operated or should operates as the central to navigating this high-risk policy, shifting the discussion from a conventional cost–benefit analysis toward strategic risk management.

METHOD

This article is based on qualitative research employing a descriptive design aimed at systematically and comprehensively examining the role of intelligence in the implementation of the B40 policy in Indonesia. A qualitative approach was chosen for its ability to explore the perceptions, experiences, and strategies of stakeholders involved in the complex dynamics of energy policymaking.

Data collection was conducted through two primary techniques: literature review and semi-structured interviews. The literature review involved the analysis of policy documents, government reports from the Ministry of Energy and Mineral Resources (MEMR) and the Palm Oil Plantation Fund Management Agency (BPDP), scholarly articles, and relevant media reports. Meanwhile, semi-structured interviews were carried out with purposively selected informants based on their expertise and involvement in biodiesel policy processes. The informants represented diverse backgrounds, including government officials from the Ministry of Energy and Mineral Resources and members of civil society organizations focusing on environmental and energy issues.

Data were analyzed using the interactive model developed by Miles and Huberman, which consists of three stages: data reduction, data display, and conclusion drawing/verification. In addition, the analysis was enriched by the application of an intelligence analysis framework focusing on early warning, forecasting, and problem-solving functions. A SWOT analysis was also employed to map the strengths, weaknesses, opportunities, and threats of the B40 policy. To ensure data validity, this study implemented source triangulation (comparing information from multiple informants), methodological triangulation (cross-checking interview data with document analysis), and theoretical triangulation (employing multiple conceptual frameworks to interpret findings).

RESULTS AND DISCUSSION

Intelligence in the Context of Energy and National Security: A Conceptual Framework

In the 21st century, the paradigm of national security has undergone a fundamental transformation, in which the economic stability and energy resilience have become integral components of overall state security. Within this framework, the role of intelligence is no longer limited to addressing military or political concerns but has evolved into a strategic instrument for anticipating, analyzing, and managing complex socio-economic and environmental challenges that shape national stability (Lowenthal, 2021; McDowell, 2009). Strategic energy policies such as B40, with their economic, social, and geopolitical implications, represent a domain in which the functions of modern intelligence are highly relevant.

To analyze the role of intelligence within the B40 policy, this article operationalizes several core intelligence functions:

Core Intelligence Functions in Energy Policy

a. The Intelligence Cycle: This framework provides a systematic process for addressing the policy challenges inherent in B40 implementation. The cycle begins with the planning and direction stage, in which policymakers define their priority intelligence requirements, for instance, “What are the actual risks of a CPO supply deficit in 2026?” This followed by the collection of information from various sources, including Human Intelligence (HUMINT), Open-Source Intelligence (OSINT), Signals Intelligence (SIGINT). The next stage, analysis and production, involves transforming raw information into actionable intelligence

products. Finally, the cycle concludes with dissemination, ensuring that intelligence outputs are delivered to the right decision-makers at the right time (Resendez, 2013).

b. Early Detection and Early Warning: This represents the proactive function of intelligence in identifying emerging threats before they escalate into crises. In the context of the B40 policy, this function includes detecting early signs of growing discontent among smallholder farmers, monitoring international NGO campaigns that could trigger trade barriers, and tracking climate anomalies that threaten palm oil yields (East Asia Forum, 2025). The early warnings produced through this process allow policymakers to take preventive measures in a timely manner.
c. Strategic Forecasting and Problem Solving: This function goes beyond merely reporting facts. Forecasting involves analyzing collected data to generate forward-looking assessments, for instance, projecting potential economic impacts if global CPO prices were to fall by 20%. Meanwhile, problem solving focuses on providing actionable policy options to mitigate anticipated risks. Together, these functions transform intelligence from a passive information provider into a strategic partner in decision-making (McDowell, 2009).

Linking Intelligence with the Energy Security Framework

This analysis is further enriched by connecting the aforementioned intelligence functions with established concepts of energy security, in order to demonstrate their practical relevance:

a. The 4A Concept (Availability, Accessibility, Affordability, Acceptability)

Intelligence plays a crucial role in assessing the four dimensions of energy security within the B40 policy context.

1) Availability: Intelligence must provide objective assessments of CPO supply availability by taking into account competing demands for food, energy, and exports, as well as potential threats to national production capacity (Reforminer Institute, 2025).

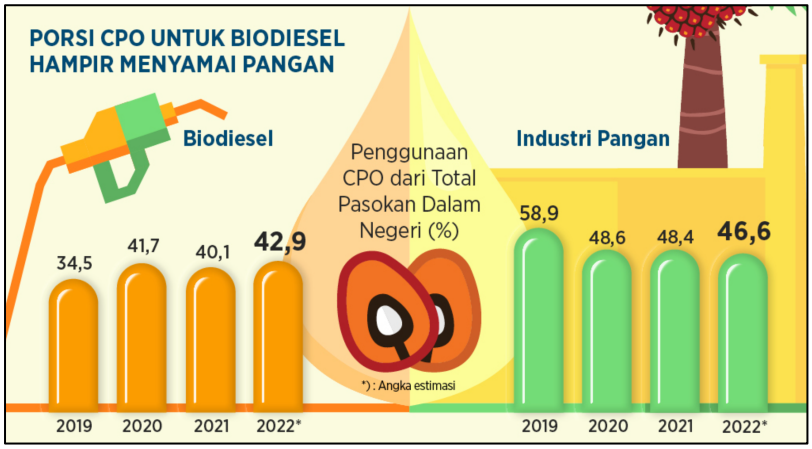

Figure: Propotion of CPO for Biodiesel abd Food Industry.
Source: Tempo.com

As shown in the figure, domestic CPO utilization for biodiesel has steadily increased each year, while its use for food has declined since 2019. This trend indicates a growing tension between the demand for palm oil as a food commodity and as an energy resource (Katadata, 2022).

2) Accessibility: Intelligence can map logistical and infrastructural challenges in distributing B40 across Indonesia, especially in regions with limited transport and storage capacity.

3) Affordability: The intelligence function is crucial in assessing the fiscal sustainability of the B40 subsidy scheme by projecting the potential burden on the state budget under various global CPO and crude oil price scenarios.
4) Acceptability: Intelligence plays a key role in mapping the level of policy acceptance both domestically among farmers, producers, and consumers and internationally, particularly concerning environmental and sustainability issues.

b. Energy Trilemma

This concept highlights the need to balance three often competing objectives: energy security, energy equity, and environmental sustainability (World Energy Council, 2021). Intelligence provides the integrated analysis necessary to manage these trade-offs. In the case of B40, intelligence can examine how efforts to achieve energy security through increased biodiesel use may come at the expense of environmental sustainability (e.g., deforestation risks) or social equity (if policy benefits are disproportionately captured by large corporations).

By employing this dual framework, this article systematically analyses how intelligence apparatuses can and should contribute to navigating the complexities of the B40 policy, transforming it from a merely technical program into a strategically managed national security initiative.

The B40 Policy Landscape: Competing Interests and Systemic Risks

The implementation of the B40 policy operates within a complex system, with multiple actors pursuing overlapping and often conflicting objectives. Identifying key points of vulnerability highlights areas in which intelligence plays the most strategic role in supporting effective policy management.

Mapping the Actors and Their Agendas

The B40 policy is not a monolithic initiative fully dictated by the government; rather, it is the outcome of ongoing negotiations, pressures, and conflicts of interest among various stakeholder groups. The table below maps the key actors involved, their respective roles, and the core interests that drive their position and actions.

Table: Key Stakeholders and Interests in the B40 Biodiesel Policy

ACTOR / ENTITY	PRIMARY ROLE	CORE INTEREST / OBJECTIVES	POTENTIAL INFLUENCE / LEVERAGE
Government			
MEMR	Regulator, Technical Planner	Energy security, achieving renewable energy mix targets, emission reduction.	Setting technical regulations, allocating production quotas, supervising implementation.
Palm Oil Fund Management Agency (BPDPKS)	Funder, Incentive Distributor	Stabilizing CPO prices, financing the biodiesel program, supporting smallholder palm oil rejuvenation.	Controls subsidy flows that form the economic backbone of the program.
Coordinating Ministry for Economic Affairs	Policy Coordinator	Macroeconomic stability, reducing trade balance deficits, ensuring cross-sectoral policy synergy.	Authority to align overlapping ministerial policies.
Ministry of Environment and Forestry (MoEF) & Ministry of Agriculture (MoA)	Upstream Regulators	Environmental sustainability (MoEF), agricultural productivity and feedstock supply (MoA).	Controls land-use permits, enforces ISPO standards, manages palm oil replanting programs.

State-Owned Enterprises (BUMN)			
PT Pertamina	Blender, Distributor	Logistical feasibility, infrastructure readiness, cost efficiency, product quality assurance.	Controls the national fuel distribution network; provides crucial technical input.
Industry Associations			
Aprobi, GAPKI	Producers, Lobbyists	Profitability, predictable domestic demand, favorable subsidy structure, market expansion.	Strong lobbying power; production capacity determines supply.
Farmer Associations			
APKASINDO	Feedstock Supplier	Fair Fresh Fruit Bunch prices, equitable benefit-sharing, support for independent farmers.	Represents millions of smallholders; potential for social mobilization if disadvantaged.
Civil Society / NGO			
Sawit Watch, Greenpeace, FWI	Monitoring, Advocacy	Environmental protection, anti-deforestation, social justice, policy transparency.	Ability to shape domestic and international public opinion through advocacy campaigns.
International Actor			
European Union, International NGO	Trade Partners, Regulators, Critics	Sustainability standards (RED II), trade protectionism, climate diplomacy.	Ability to impose tariff and non-tariff barriers affecting CPO exports and BPDPKS funding.

This table functions as an analytical tool to visualize the fault lines in which intelligence efforts should focus their collection and analysis. For instance, the inherent conflict of interest between Aprobi's profit-driven and Sawit Watch's environmental advocacy creates a tangible "threat matrix" to policy stability.

Multidimensional Systematical Risks

With the actor mapping as the analytical basis, the primary risks on the success of the B40 policy can be categorized and analyzed as follows:

a. Economic and Fiscal Risks: This represents the most venerable point of the B40 policy. The massive subsidy burden, projected to reach US$2,1 billion by 2025, and is heavily dependent on fluctuating CPO export levies (East Asia Forum, 2025; Rinaldi, 2024). The key risk lies in a potential CPO supply deficit, which, according to some projections, could emerge as early 2026 (East Asia Forum, 2025). Such deficit would intensify competition among domestic energy demand, food supply (cooking oil), and export revenues, potentially triggering availability and price crises within the domestic market.
b. Environmental and Reputational Risks: Although the government claims that B40 will rely on productivity improvements, independent studies and the reality of aging plantations indicate that land expansion is likely required to meet future B50/B60 targets (East Asia Forum, 2025). This directly fuels international criticism regarding deforestation and threatens Indonesia's "green" image on the global stage, potentially leading to trade barriers and reputational damage (Tanahair.net, 2025).

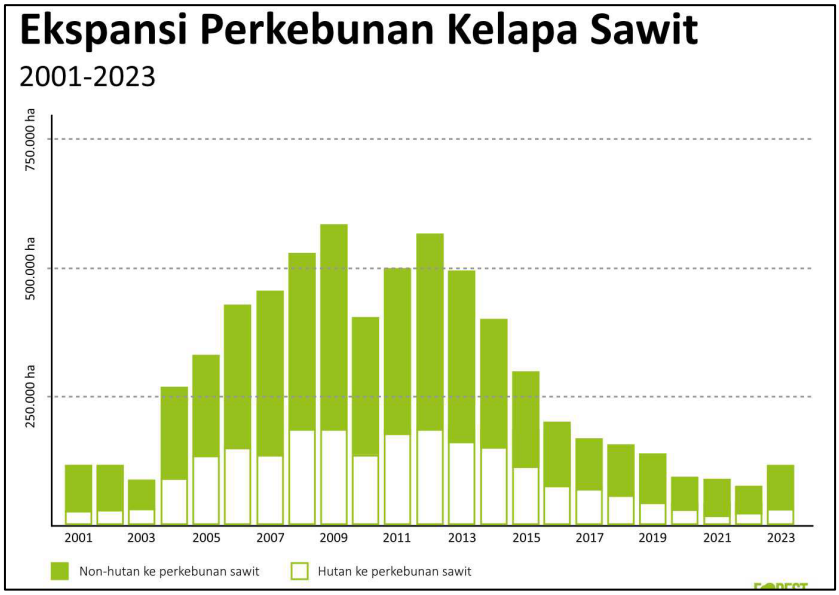

Figure: Expansion of Oil Palm Plantations, 2001-2023. Source: forestdigest.com.

The figure above illustrates the trend of oil palm plantation expansion from 2001 to 2023, distinguishing between the conversion of non-forest and forest areas into oil palm estates. The expansion peaked between 2007 to 2012, during which more than 500.000 hectares of land were converted annually, with a significant share originating from forest areas. Since 2012, the chart shows that forest-to-plantation conversion has continued through 2023, indicating that deforestation and sustainability challenges in the palm oil sector persist to this day.

c. Social and Political Risks: Baseline studies provide strong evidence that the policy disproportionally benefits a handful of large corporations, while smallholder farmers feel increasingly marginalized. APKASINDO has reported farmers' losses reaching up to Rp9 billion per month due to the persistent price disparity between fresh fruit bunches (FFB) and CPO. Such inequities create risks of social unrest and undermine the political legitimacy of the policy, framing it as an instrument serving the interests of the so-called "palm oil oligarchy"
d. Technical and Logistical Risks: the transition to B40 is far from seamless. It requires substantial upgrades to fuel terminal infrastructure, as noted by Pertamina, which has requested a transitional period (Rinaldi, 2024). Technical issues such as filter clogging and engine performance inconsistencies across different climatic conditions remain major concerns among end-users, potentially generating resistance from the transportation and industrial sectors.

Overall, the B40 policy landscape is a complex and tension-filled arena. Its success depends not only on meeting technical targets, but also on the state's ability to manage competing interests and mitigate the systemic risks embedded within the policy ecosystem.

1. Analysis: The Application of Intelligence in Addressing B40 Challenges

This section constitutes the core analytical component of the article, directly applying the intelligence framework to the previously identified risk landscape. It demonstrates how intelligence functions can provide vital mechanisms for proactive risk management within the B40 policy context.

Early Detection and Strategic Warning of Emerging Threats

The early detection and warning function enables the government to identify and respond to potential threats before they escalate into full-blown crises. In the context of B40, the application of this function is particularly crucial.

a. The most pressing threat lies in the fiscal sustainability of the program. Intelligence must provide early warnings when the gap between CPO prices and diesel prices, commonly referred to as the "POGO spread" widens to a point where the funds managed by BPDPKS can no longer cover the incentive costs (Giam, 2025). This is not merely an economic forecast, but a matter of national security, signaling potential fiscal instability that could force the government to abruptly suspend the program or sharply increase export levies—both of which carry significant economic repercussions.
b. The Production Gap: Intelligence should provide objective, evidence-based assessments of the nation's CPO production capacity. This entails comparing the government's official projections, often premised on "productivity improvement" with field data that reveal the realities of aging plantations and low yields among independent smallholders (East Asia Forum, 2025). Such analysis provides an early warning of potential supply deficits and the resulting pressure to expand into forested areas, enabling policymakers to design mitigation strategies well in advance.
c. Intelligence should systematically monitor sentiment among smallholder farmers and local communities affected by plantation expansion, including grievances raised by APKASINDO over ongoing financial losses. Continuous monitoring offers early warning of possible protests, road blockades, or other forms of resistance that could disrupt the CPO supply chain and undermine social stability in key production regions.
d. International Regulatory Threats: Intelligence must actively monitor policy developments in key markets such as the European Union to detect early signs of new anti-deforestation regulations or trade barriers that could directly affect revenue from CPO export levies — the main financial source for the B40 program.

Strategic Assessment and Forward Review

Intelligence should not only identify current threats but also project future developments to support strategic planning. It must develop a range of scenarios for policymakers to consider.

a. Scenario A (High CPO Prices): What would happen if global CPO prices surged? This scenario could reduce export levy revenues (as export volumes may decline) while simultaneously increasing the subsidy required, creating a dual fiscal crisis for the B40 program.
b. Scenario B (Climate Disruption): What would be the impact of a severe El Niño event on CPO yields in Sumatra and Kalimantan? (East Asia Forum, 2025). How would a 10% production decline affect domestic supply for food, fuel, and exports?

Such scenario analysis reveals an important strategic reality. The B40 policy, designed to reduce dependence on foreign energy, has inadvertently created a new dependency on a single agricultural commodity, one that is highly vulnerable to climate change and global market volatility. The policy's goal is to achieve energy security, and its mechanism is the mandatory use of domestically produced CPO (Paradigm Futures, 2025). This measure has significantly increased domestic CPO demand, directly linking national energy stability to the health of the palm oil sector (East Asia Forum, 2025). This sector, in turn, is highly susceptible to external shocks such as climate change affecting yields (East Asia Forum, 2025) and global price fluctuations impacting subsidy funding (Giam, 2025). herefore, the policy does not eliminate energy risks; instead, it transforms them from geopolitical risks (dependence on imported oil) into agro-economic and climate risks (dependence on CPO). The crucial role of intelligence is to analyze and assess this new risk profile, providing

policymakers with a clear net risk assessment rather than allowing them to operate under the assumption that the risk has been eliminated.

Informing Policy and Risk Mitigation (Problem-Solving)

Based on its analysis, intelligence can provide concrete, evidence-based policy recommendations to address identified issues.

a. Supporting a Flexible Blending Mandate: Instead of maintaining a rigid B40 mandate, intelligence analysis can support a shift toward a "flexible blending mandate," as suggested by several analysts (East Asia Forum, 2025). This mechanism would allow blending levels to be dynamically adjusted based on CPO prices, feedstock availability, and fiscal capacity. It would serve as a strategic shock absorber, enabling the program to remain sustainable amid market volatility without compromising economic stability.
b. Targeting Productivity Improvements: Intelligence assessments can identify regions with the lowest smallholder productivity, allowing the government to more effectively target palm replanting programs. This would also help verify whether the "productivity improvement" narrative is a realistic objective or merely rhetoric to justify land expansion (East Asia Forum, 2025).
c. Mapping Disinformation Network: Intelligence can map international NGO networks campaigning against palm oil by analyzing their narratives, funding sources, and target audiences. Such insights would enable the government to design more targeted and effective diplomatic and public relations counterstrategies.

By applying these functions, intelligence can evolve from a passive observer into an active player in the policy process, offering the strategic foresight required to secure the long-term sustainability of this critical national energy initiative.

2. Discussion: The Efficacy and Limitations of Intelligence in Energy Governance

Although the framework above highlights the significant potential of intelligence in supporting the B40 policy, ts practical impact remains limited by political, bureaucratic, and structural constraints. This section critically explores these limitations and discusses what they mean for the evolving relationship between intelligence and energy policymaking.

The Risk of Intelligence Politicization

A major challenge to effective intelligence work is the risk of politicization. Civil society analyses suggest that the B40 policy is often perceived as an economic instrument serving powerful corporate elites, or "palm oil oligarchy". This raises a critical question: Is intelligence being used to provide objective analysis in the national interest, or is it being directed to legitimize policies that are politically and economically predetermined? There is an inherent tension between intelligence as an objective seeker of truth and its position as a servant of state power. When political leadership is determined to ensure the success of B40 at all costs to sustain the palm oil industry, findings from intelligence analysis that expose major fiscal or environmental risks may be disregarded even suppressed.

The Gap Between Intelligence and Policy

Even the most accurate intelligence assessments will have limited impact if policymakers are unwilling or unable to act on them. This reflects the classic "last mile" problem: how to ensure that intelligence warnings about fiscal unsustainability or environmental degradation translate into actual policy adjustments. The process is complicated by the need to navigate powerful political and corporate interests. Key industry players such as Aprobi and GAPKI benefit from the existing arrangement and are likely to

resist reforms that threaten their profits, including flexible blending mandates. Intelligence can map the risks, but it cannot steer the course if those in power choose to look the other way.

Conflicting Policy Signals from the Government

A lack of coherent and integrated strategy at the highest levels of government represents another major limitation. An analysis of recent regulations reveals conflicting policy signals: one issued by the Ministry of Energy and Mineral Resources (MEMR Regulation No. 4 of 2025) appears to restrict biofuel imports, while another from the Ministry of Trade (MoT Regulation No. 16 of 2025) simplifies the import process instead (USDA Foreign Agricultural Service, 2025). These contradictions are not mere bureaucratic inconsistencies; they reflect a deeper strategic conflict within Indonesia's energy governance. However, the MEMR's policy embodies a push toward absolute self-sufficiency, with all the attendant risks; on the other, the Ministry of Trade's stance suggests a more pragmatic approach that recognizes the role of international trade in balancing domestic supply.

This lack of policy coherence generates significant uncertainty for investors, producers, and international partners. The role of intelligence, in this context, is to analyze the implications of such incoherence. Intelligence can alert policymakers that such contradictions undermine investor confidence, create opportunities for market manipulation by speculators, and ultimately weaken, rather than strengthen national energy security. However, intelligence cannot resolve these fundamental policy conflicts; it can only highlight their dangerous consequences.

Therefore, the efficacy of intelligence in energy governance depends not only on the quality of its analysis but also on the political and bureaucratic culture in which it operates. Intelligence can only achieve its potential if policymakers genuinely seek objective assessments, take them seriously, and have the political will to act on evidence, even when these decisions conflict with entrenched interests.

CONCLUSION

Analysis of the role of intelligence in the implementation of Indonesia's B40 policy leads to a clear and urgent conclusion. Complex and high-risk strategic initiatives like B40 cannot be managed effectively through purely technical or economic lenses. Their success requires the integration of intelligence functions as a core component of governance, providing the forward-looking strategic insight necessary to navigate the perilous landscape of competing interests and systemic risks.

Summary of Key Findings

The article finds that, although the B40 policy offers tangible benefits in reducing fuel imports and stabilizing the domestic CPO market, its implementation is fraught with fiscal, environmental, and social risks that threaten its sustainability. The heavy subsidy burden, potential raw material supply deficits, dissatisfaction among smallholder farmers, and international environmental criticism are not peripheral issues but strategic threats to the core of the policy itself.

The application of intelligence functions, particularly in early warning of subsidy unsustainability and objective forecasting of CPO production gaps is critical for proactive risk management. The analysis shows that B40 has fundamentally altered Indonesia's energy risk profile, shifting it from geopolitical dependence on imported oil to agro-economic dependence on a single, vulnerable commodity. Understanding and managing this transformation of risk is a primary responsibility of strategic intelligence. However, the effectiveness of intelligence is

constrained by the risks of politicization and the gap between analysis and policy action, compounded by incoherent signals from the government.

Policy Recommendations

Based on these findings, several policy recommendations can be formulated to strengthen the role of intelligence in Indonesia's energy governance:

1. Formalize the Role of Intelligence in the Energy Policy Cycle: The government should establish formal requirements for the preparation of a "National Intelligence Estimate" on energy security on a regular basis. This document should comprehensively assess the feasibility and risks of strategic programs such as B40 and B50, providing an objective analytical basis for cabinet-level decision-making.
2. Mandate Intelligence Input for Subsidy Allocation: The steering committee of BPDPKS, which manages trillions of rupiah in funds, should receive regular intelligence briefings on global CPO market trends, domestic production forecasts, and potential supply shocks. This will enable more dynamic, adaptive, and fiscally sustainable subsidy allocation, and support the transition toward a flexible blending mandate.
3. Leverage Intelligence to Counter Disinformation: Intelligence agencies should be tasked with systematically tracking, analyzing, and mapping international disinformation campaigns targeting Indonesia's palm oil industry. The resulting analysis can provide evidence-based material for the Ministry of Foreign Affairs and other relevant ministries to inform diplomatic engagement and more effective public communication strategies.

Future Research Directions

This article opens several avenues for future research. First, comparative studies on the use of intelligence in the energy policies of other resource-dependent countries could provide valuable insights. Second, more in-depth research into Indonesia's bureaucratic and political culture is needed to better understand the obstacles in the intelligence-policy interface. Finally, as Indonesia progresses toward B50 and B60, ongoing research will be crucial to assess whether the role of intelligence has evolved to meet increasingly complex challenges. Ultimately, realizing sustainable energy in Indonesia will require not only technological innovation but also innovation in how the state leverages knowledge and forward-looking assessments to secure its future.

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