

Research Article

**ENSURING FOOD SECURITY AMIDST CLIMATE
CHANGE: COMPARATIVE ANALYSIS OF THE
EUROPEAN UNION AND SOUTHEAST ASIA****Grace Natalia Bornok Siahaan**

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Corresponding Author, Email: grace.siahaan@gmail.com,**Abstract**

This study compares food security policies in the European Union (EU) and Southeast Asia, focusing on lessons for both regions amid climate change impacts. Using a qualitative approach through literature review, it examines the legal frameworks of the two regions. The EU addresses food security through initiatives like the Common Agricultural Policy (CAP) and the European Green Deal, emphasizing climate change mitigation. In contrast, Southeast Asia, particularly ASEAN, focuses on rural infrastructure, sustainable agriculture, and regional collaboration. The study highlights opportunities for mutual learning, with the EU enhancing inclusivity and Southeast Asia improving policy accountability and enforcement.

Keywords: Food Security, Climate Change, Legal Comparison, European Union, Southeast Asia

INTRODUCTION

The impact of climate change on global food security is profound, underscoring robust legal and policy frameworks to mitigate its effects. Research highlights the susceptibility of Southeast Asia's agricultural systems to climate threats (Wassmann et al., 2009). Conversely, the European Union has taken decisive action, adopting detailed strategies to combat climate change (Baute, 2024).

Analyzing how various regions address climate change through food policies and laws is vital to developing impactful food security strategies. While past studies have explored regional efforts on climate change and food security in isolation, direct comparisons between the European Union and Southeast Asia remain scarce.

This study seeks to fill a critical gap by investigating the food law and policy frameworks of the European Union and Southeast Asia in tackling climate change's impacts on food security. By comparing these two regions, the research aspires to pinpoint successful practices and highlight areas for advancement in climate-resilient agriculture and food security.

The core research question driving this study is: How do the European Union and Southeast Asia address the effects of climate change on food security through their food law and policy frameworks, and what are the significant differences in their strategies for climate-resilient agriculture? Through comparative analysis, the research will offer valuable insights into the effectiveness of diverse policy approaches for mitigating climate impacts on food systems.

It is hypothesized that the European Union's food law and policy frameworks are more advanced and pre-emptive in mitigating climate change's effects on food security than those of Southeast Asia. This hypothesis stems from the EU's expertise in environmental and climate policy (Paleari, 2022).

The author hopes to contribute to the ongoing discourse on climate-resilient agriculture and food security policies by undertaking this comparative analysis. The study's findings are expected to have significant implications for policymakers, researchers, and stakeholders developing adaptive strategies for agricultural resilience to ensure food security in the face of climate change.

METHOD

This study adopts a qualitative methodology, using library research, to compare food law and policy frameworks in specific regions (Capriolo et al., 2023; Wahidin & Purnhagen, 2018). This method was chosen to deeply understand their implementation and effectiveness in ensuring food security amidst climate change.

This research's sources include international legal literature, such as government reports, peer-reviewed articles, legal regulations, and case studies on food law and policy in the European Union and Southeast Asia. Secondary data from these sources facilitate a detailed comparison of the regions' legal frameworks. A systematic literature review was conducted to ensure selections aligned with research objectives and data reliability.

The compiled data was examined through a descriptive comparative analysis comparing regional food law and policy frameworks. This approach illuminates distinctions in legislative designs, implementation practices, and enforcement success, allowing researchers to uncover patterns, trends, and broader implications.

RESULTS AND DISCUSSION

The European Union's strategy for embedding climate change concerns within its food security framework

How the European Union (EU) integrates climate change into its food security policies. In response to the climate crisis, the EU has introduced various initiatives, including the Common Agricultural Policy, the European Green Deal, and the Farm to Fork strategy to safeguard food security (Stavropoulos et al., 2023). These frameworks aim to mitigate climate change's adverse effects while fostering well-being for humans, animals, and the environment. In line with sustainability goals, the EU also advocates crops such as flax, which have a low environmental impact and versatile uses in industry, health, and agri-food sectors.

Interestingly, while the EU concentrates on ensuring food sufficiency, it leaves gaps in tackling food safety and nutritional quality amidst climate change challenges. A 2050 foresight study on EU food safety and nutrition highlights tensions like raising food production with fewer resources and minimizing food waste without compromising safety (Mylona et al., 2017). These findings suggest that future policies must be more responsive to food safety, nutrition, and health concerns.

The EU has embraced a holistic approach to food systems to address these challenges, concentrating on identifying and systematically resolving potential tensions and trade-offs. Sustainable food quality policies are being implemented, bolstered by efforts to enhance supply chain efficiency (Mattas et al., 2021). By integrating environmental and socioeconomic factors, the EU aims to establish a more resilient and sustainable food system in the face of climate change. The EU's Common Agricultural Policy (CAP), European Green Deal (EGD), and Farm to Fork (F2F) strategy are interconnected initiatives designed to address issues of food security and climate change. These policies aim to transition the EU's agricultural sector toward sustainability, climate neutrality, and food security (Montanarella & Panagos, 2020; Stavropoulos et al., 2023). The CAP, the EU's principal framework for agricultural planning, is being reformed to support the EGD's objectives. Despite these changes, concerns about policy compatibility remain. Critics argue that the CAP falls short of planning measures and potentially harms biodiversity and ecosystem services due to landscape uniformity. Cuadros-Casanova et al. (2023) emphasize difficulties in funding climate mitigation and sustainable agricultural shifts.

While the F2F strategy sets ambitious goals for transforming the food system, it has drawn criticism for focusing on technical advancements rather than addressing the social and structural dimensions of food system transformation. Reaching the 2030 target of 25% organic farmland could face obstacles unless policies encompass production, processing, retail, and consumer demand (Moschitz et al., 2021). Additionally, the strategy has been criticized for overlooking critical connections within and across food systems, particularly in transforming agriculture for environmental and nutritional benefits (Mowlds, 2020).

These policies reflect the EU's commitment to tackling food security and climate change, but their success is still debatable. Cuadros-Casanova et al. (2023) propose improvements such as introducing control mechanisms into CAP Strategic Plans, defining quantitative benchmarks, applying evidence-based strategies, and tracking environmental performance with relevant indicators. Moreover, fostering sustainable and healthy diets requires a holistic approach that involves all stakeholders and

Southeast Asia's efforts to integrate climate change into its food security policies

Given its high vulnerability to climate impacts and critical role in global food production, Southeast Asia is progressively incorporating climate change into its food security strategies.

To combat the food security issues intensified by climate change, the Association of Southeast Asian Nations (ASEAN) is adopting a comprehensive strategy. This involves investing in rural infrastructure, driving innovation in agriculture, and advocating for sustainable, inclusive farming practices (Sundram & Brennan, 2024; Sundram, 2023). The region is focused on an integrated approach that mitigates climate change impacts while ensuring its population access to sufficient, nutritious, and affordable food (Sundram & Brennan, 2024).

Surprisingly, despite the pressing nature of the climate crisis, ASEAN member states' efforts remain inadequate. Their national commitments to the Paris Agreement are relatively modest, and the transition to renewable energy and electric vehicles has been slow (Overland et al., 2020). This disparity underscores the necessity for more robust climate action within the region's food security policies. The region's strategy for incorporating climate change into food security policies involves regional collaboration, sustainable agriculture investments, and adaptation measures. Nonetheless, more ambitious climate mitigation efforts and stronger policy cohesion across sectors are essential to address the region's intertwined challenges of climate change and food security (Islam & Kieu, 2020; Overland et al., 2020).

Southeast Asia, particularly within ASEAN, faces immense challenges in safeguarding food security against climate change. The region, identified as one of the most at-risk coastal areas globally, suffers from extreme weather events that hinder food production and heavily impact vulnerable groups like small farmers, fishers, and low-income urban populations (Lassa et al., 2015). Recognizing this, ASEAN nations are working toward a broad strategy, focusing on investments in rural infrastructure, advancements in agricultural research, and promoting sustainable and inclusive farming methods (Sundram, 2023).

One of Southeast Asia's most significant hurdles is implementing comprehensive policies, primarily due to inadequate regional cooperation and prioritising national development agendas over collective efforts (Islam & Kieu, 2020). Stronger regional partnerships and policy integration are crucial to combat climate change and ensure food security.

Although Southeast Asian countries, especially ASEAN members, acknowledge the need to integrate climate change into food security policies, they encounter significant barriers in implementation and regional cooperation. To effectively manage these challenges, the region must prioritize partnerships and share expertise and resources (Sundram & Brennan, 2024; Sundram, 2023).

CONCLUSION

The EU has reinforced its commitment to addressing climate change in food security policies through frameworks such as the Common Agricultural Policy (CAP), the European Green Deal (EGD), and the Farm to Fork (F2F) strategy. These initiatives

encourage sustainable agriculture, lower greenhouse gas emissions, and enhance food security in a changing climate. Yet, significant challenges persist in addressing food safety and nutrition gaps and transforming agricultural practices. To strengthen policy outcomes, the EU should align the CAP with its broader sustainability objectives, adopting holistic food systems approaches and involve stakeholders from production to consumption more effectively.

Meanwhile, Southeast Asian efforts, primarily through ASEAN, focus on mitigating climate change's impacts on food security by investing in rural infrastructure, promoting sustainable agriculture, and fostering regional collaboration. Nevertheless, the region struggles with policy implementation due to limited collaboration across nations and a focus on national interests. Furthermore, its climate mitigation strategies remain modest, underlining the urgency for bolder actions to confront interconnected climate change and food security challenges.

This comparative analysis identifies opportunities for mutual learning between the EU and Southeast Asia. Southeast Asia's grassroots-focused and cost-effective adaptation strategies could aid the EU in enhancing inclusivity. Conversely, the EU's sophisticated legal frameworks and rigorous monitoring systems offer a model for Southeast Asia to improve accountability and policy enforcement.

Ensuring food security amidst climate change demands coordinated efforts across regions. By sharing lessons from their respective experiences, the EU and Southeast Asia can develop resilient and sustainable food systems to counter the adverse impacts of climate change and ensure food security for the future.

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