# An Analysis of Indonesia's National Food Estate Programme From a Food Sovereignty-Based Perspective

### Jonathan Siborutorop<sup>1\*</sup>

<sup>1</sup>School of Social Sciences, University of New South Wales, Sydney, Australia

\*E-mail: j.siborutorop@student.unsw.edu.au

Abstract: This study examines the food estate "strategic national programme" implemented by the Indonesian national government in two regions: Humbang Hasundutan Regency in North Sumatra and Gunung Mas Regency in Central Kalimantan. Using a qualitative research method by examining previous research work on the concept of food sovereignty and food security, and by studying mass media coverage regarding the national food estate programme, this study aims to scrutinise Indonesia's national food estate programme through a critical lens based on the ideas of food sovereignty as expounded in the 2007 Declaration of Nyéléni and examines whether the national food estate programme was designed and executed in line with the principles of food sovereignty as outlined in the Declaration. This study finds that the Indonesian government did not take into consideration the principles and practices of food sovereignty as outlined in the Declaration of Nyéléni, instead primarily relying on a conventional use of the food security approach in the execution of the national food estate programme in Humbang Hasundutan and Gunung Mas regencies, with significant consequences such as environmental degradation, economic impacts, and sociocultural and political disruptions felt by local producers and indigenous communities in regions affected by the national food estate programme.

Keywords: Food sovereignty, food security, food estate.

# **INTRODUCTION**

Until recently, scientific and political discourse about global food security primarily focused on quantitative measures of food production and distribution, largely ignoring other aspects like ecological sustainability and the rights of indigenous communities to their traditional agricultural practices. As an alternative to (or even, in some situations and perspectives, diametrically opposed to) food security, the idea of food sovereignty instead places a strong emphasis on the ecological sustainability and sociocultural factors involved in food production and distribution. This study will analyse the current Indonesian government's "Food Estate" strategic national programme through the lens of food sovereignty, explain the circumstances of its current challenges and failures, and demonstrate how the ecologically and socially unsustainable initiative, which was born out of a conventional numbers-oriented implementation of the food security concept, has failed to adequately address the issue of food security in Indonesia while simultaneously causing multiple problems to both local ecology and indigenous communities— two aspects indispensable to the implementation of the concept of food sovereignty.

This study will first discuss the theoretical underpinnings of food security and food sovereignty before providing a general summary of Indonesia's 'Food Estate' government programme and the reasons behind its current challenges. The study will then go into the reasons why these challenges arose from



the disregard of the principles of food sovereignty in favour of a conventional numbers-oriented implementation of the idea of food security. This study may be beneficial for policymakers, non-governmental organisations, and local and national governments around the world as an exhortation to consider the various approaches used in determining political and governmental policies, particularly those regarding food production and the involvement of local producers and indigenous communities in the deliberation processes, and establish a food sovereignty-based approach as the ideal approach in designing and implementing national and local government food policies.

Food security is defined by the United Nations Committee on World Food Security (1996) as meaning that "All people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their food preferences and dietary needs for an active and healthy life". As an established scientific concept, food security originated in the aftermath of the global food crisis of 1984 and is focused on stabilising the global food supply through monitoring of weather patterns and grain reserves. As a result, food security as a theoretical concept focuses only on the physical availability of food to people. It does not touch on all aspects of food production and lumps all sociocultural and political components of food production, distribution, and consumption, including the rights of indigenous communities to their agricultural traditions and dietary practices, into just two words within the United Nations definition ("food preferences"). An uncritical usage of this perspective and a disregard towards the multitude of other aspects involved in local food production and a lack of cultural sensitivity to the local and indigenous communities could therefore potentially (although inadvertently) permit the abuses in food production and distribution by profit-minded corporations at the expense of local producers, indigenous farmer communities, and the general population. Food security may also be understood as adequate nutrition for all regardless of the source of the nutrition (whether locally grown or imported), and as a result, an uncritical adoption of this perspective it may be misused to promote large-scale industrialised, corporate-controlled farming based on trade liberalisation and free trade— this order of affairs is termed as "the corporate food regime" (McMichael 2009).

The term "food sovereignty" was first expounded by La Via Campesina, an international organisation of small and middle-scale food producers with a focus on advocating sustainable agriculture through an ecologically friendly, localised food system, and later launched at the 1996 United Nations World Food Summit. Food sovereignty as envisioned by La Via Campesina broadly focuses on the rights of people and food producers, rather than corporations and market institutions which according to the La Via Campesina play a substantial role in the existing global food system. The seven principles of food sovereignty as envisioned by La Via Campesina include: Food as a basic human right, the need for agrarian reform, protection of natural resources, reorganization of food trade to support local food



production, reducing multinational concentration of power, fostering peace, and increasing democratic control of the food system.

Nobel Prize in Economics laureate Amartya Sen in his influential work Poverty and Famines: An Essay on Entitlement and Deprivation (1981) argued that famines are not caused by a lack of food, but by the lack of "entitlements and capabilities"-in other words, the lack of socioeconomic and political means to acquire sufficient food. Sen's approach was revolutionary at the time as it challenged the prevailing perception of food issues as an exclusively material, statistical problem of food availability, and shed light into the political and economic aspects that shape people's access to food beyond agricultural productivity and technology (Watts & Bohle 1993; Blaikie et al., 1994). In some ways, Sen's analysis on the reason of hunger and food security foreshadowed the food sovereignty movement pioneered by La Via Campesina and related organisations a decade later.

Later in 2007, the Declaration of Nyéléni, a joint statement of more than 500 representatives of peasant farmers, indigenous communities, pastoralists, environmental movements, and other related organisations from more than 80 countries that became the global framework of the concept of food sovereignty, laid out principles integral to the concept of food sovereignty which delve deeper into the problems of access to food and its root causes, above and beyond the one-dimensional concept of food security. While reaffirming the right of all of humanity to access food, the declaration also emphasises the importance of localised "peasant and family-driven agriculture" above the "demands of markets and corporations" and the right of people to sustainably produced " good quality, adequate, affordable, healthy, and culturally appropriate food". The declaration further affirms the autonomy of local producers and their rights to use and manage their "lands, territories, waters, seeds, livestock and biodiversity" in opposition to the "corporate trade and food regime". Far from just being an agricultural manifesto, the Declaration of Nyéléni is a multifaceted document: it recognises the immense value of farmer communities working in ecologically friendly manner, while rallying against imperialism, neoliberalism, neo-colonialism, patriarchy, marginalisation of women and indigenous communities, and the privatisation of food. Therefore, the Declaration of Nyéléni provides a more thorough analysis, recognising the complexity and the far-reaching consequences of food production in the areas of politics, economics, and culture. The concept of food sovereignty as outlined in the Declaration of Nyéléni gives an alternative, more comprehensive analysis to the corporate-driven system of global food production and distribution which falls increasingly under scrutiny for its unsustainable and unjust nature.

Although originally pioneered by grassroots organisations, indigenous farming communities, and environmental activists, the concept of food sovereignty has received broad political support, particularly in Latin America. Bolivia and Ecuador have applied the concept of food sovereignty in their policies aimed at securing food needs for the general local population in their countries (Peña,



2008; Ayres & Bosia 2011). This shows that the concept of food sovereignty as outlined in the Declaration of Nyéléni is attainable and more beneficial for the general public and population of countries which implement those principles.

The ideal implementation of the concept of food sovereignty as envisioned by the Declaration of Nyéléni cannot be separated from the recognition of indigenous communities, especially farmers, pastoralists, and other local producers, to their traditions and values which help food production in their own specific local settings. The Indonesian Constitution of 1945 also recognises the rights of indigenous communities (in Indonesian: masyarakat adat) in Chapter 18B Article 2, which states that "The state recognises and respects legal units of indigenous communities and their traditional rights as far as they are extant and in line with the principle of the Unitary State of the Republic of Indonesia, as governed in laws".

# **RESEARCH METHOD**

This study uses the qualitative descriptive approach as the primary methodological approach, with a description narrative of the subject matter derived from scholarly works pertaining to food security and food sovereignty and mass media publications from Indonesian and international sources, which serve as a representation of scholarly and public opinion regarding the Indonesian national food estate programme. Qualitative description research seeks to provide a rich description of contemporary issues depicted in easily understood language (Sullivan-Bolyai et al., 2005). Qualitative description researchers also seek to discover and understand a phenomenon and perspectives of the people involved (Caelli et al., 2003). A qualitative description approach offers the opportunity to discover the who, what, where, and why of events or experiences (Neergaard et al., 2009), and can often be of special relevance to practitioners and policy makers (Sandelowski, 2000).

# **RESULT AND DISCUSSION**

The national food estate programme is an Indonesian "strategic national programme" unveiled by the Indonesian president Joko Widodo in his speech in the Indonesian People's Consultative Assembly's annual meeting on 14 August 2020. In his address, President Widodo announced the construction of new farms in some Indonesian provinces, most notably in North Sumatra and Central Kalimantan, by reactivating dormant farmlands and clearing "bushlands"- although it should be noted that the Indonesian government uses this term to define both actual bushlands and ecologically important forests. These new food estates are expected to cover an area of 5.7 million hectares- larger than the land area of Croatia, to curb national reliance on food imports. In North Sumatra, the government plans to develop 1,000 hectares of farmland under the programme, while in Central Kalimantan, the government plans to create 2.3 million hectares of farmland. The newly created farms will be



monocultural, growing mostly one crop all year long. The Indonesian government's official position claims that the national food estate programme is intended to strengthen Indonesia's food sovereignty and resilience-the concept of food sovereignty is legally defined in Indonesian law by Act Number 18/2012 which defines 'food sovereignty' (in Indonesian: kedaulatan pangan) as "The right of the country and nation to independently determine food policies that guarantees the right to food for the people and gives the right for society to determine food systems that align with local resource potentials". Although the law gives acknowledgement to the right of local communities and indigenous communities to their own food systems as defined by the Declaration of Nyéléni, it does not fully accommodate all principles of food sovereignty as defined in the Declaration, including the right of local producers and indigenous farming communities to their lands, waters, seeds, livestock, and biodiversity. In contrast to the Declaration of Nyéléni, there is also no emphasis on environmental sustainability and an opposition to a corporate-driven industrial food regime. The government's definition of food sovereignty mainly refers to the concept of "national food self-sufficiency," with only a passing mention of the environmental and sociocultural considerations as outlined in the Declaration of Nyéléni- seemingly conflating food sovereignty with food security. Therefore, rather than focusing on sociocultural issues such as the rights of traditional local and indigenous farming communities and their active participation in agricultural policymaking and implementation, the official Indonesian government perspective as expressed through the national food estate programme and laws primarily emphasises numerical indicators such as the acreage of new farmlands and the quantity of crops produced.

# The Challenges of the Food Estate Strategic National Programme in Humbang Hasundutan **Regency, North Sumatra**

The 1,000-hectare North Sumatra food estate programme is centred in the Humbang Hasundutan Regency, which has historically been home to the agrarian Batak ethnic group. The central government granted substantial amounts of land and farming equipment to local farmers to participate in the food estate programme, on the condition that participating farmers cultivate government-mandated crops, which were decided on a national rather than on a localised basis, on a government-mandated farming schedule, regardless of local agricultural customs. Farmers were forbidden from using their traditional farming practices and had to strictly adhere to government-approved farming techniques. Farmers are also required to sell their harvests to a government-chosen broker at prices below market prices.

These restrictions imposed on local farmers had less than ideal effects. In one instance, local farmers in Humbang Hasundutan were mandated by the government to plant non-native plants before the farmland was fit for use, disregarding the traditional procedures of field processing before planting crops. As a result, harvest quality dramatically declined; the first harvest under the Humbang Hasundutan food estate programme only produced a tenth to a third of typical harvest yields.



After the setbacks of the first harvest under the food estate scheme, the Indonesian government invited a select few agribusiness corporations to invest in the Humbang Hasundutan food estate by buying off the local farmers' products, thereby creating an agricultural cartel and placing even more restrictions on local farmers, limiting their agency in the conduct and management of their own work. Those corporations set crop prices, regulate farming methods, and established production quotas that must be fulfilled by the farmers while operating without a clear contract limit, practically turning the independent, land-owning local indigenous farmers into serfs in all but name, all in the span of two years.

Due to the lack of government support and attention towards local traditional farming methods and local geniuses (in Indonesian: kearifan lokal) in the food estate programme and the increasing demands of private corporations, local farmers were driven to abandon their traditional methods of crop rotation and multi-crop farming in favour of only cultivating government-mandated non-native crops, thereby putting many culturally significant native crops at risk of extinction, particularly benzoin (damar) and andaliman (Zanthoxylum acanthopodium) which are traditionally gathered and harvested in the traditional forests of Humbang Hasundutan. Avena Matondang, a Batak anthropologist from the State University of Medan, expressed concern that the monocultural nature of the food estate programme in Humbang Hasundutan might endanger the region's long-standing tradition of cultivating and aliman and harvesting benzoin, two plants that are important to Batak culture and traditional cuisine. An end of andaliman and benzoin cultivation in Humbang Hasundutan would in turn endanger the traditional Batak way of life and traditional cultural values.

# The Challenges of the Food Estate Strategic National Programme in Gunung Mas Regency, **Central Kalimantan**

Central Kalimantan, the focus point of the current food estate programme by land area (with a planned new farmland area of 2.7 million hectares), had previously experienced another (failed) food estate programme in 1995 under President Suharto, with a planned new farmland area of 1 million hectares to be converted from peatland. Virtually none was successfully farmed by the end of Suharto's tenure in 1998. The first phase of the current Central Kalimantan food estate involves the reactivation of 31,000 hectares of former peatlands cleared in the failed 1995 food estate programme- 20,000 hectares in Kapuas Raya Regency and 10,000 hectares in Pulang Pisau Regency. Under the management of Defence Minister Prabowo Subianto, Indonesian military personnel were deployed to reactivate the peatland farms— under the reasoning that food availability in Indonesia is a "security issue"— which again showed the Indonesian government's adoption of the conventional food security perspective without considering the multifaceted perspectives involved in the concept of food sovereignty. Military personnel deployed in the programme were only given one week of training, while traditional farmers in the area with localised, decades-old traditional experience were not consulted on their agricultural



traditions or practices. As a result, in the Pulang Pisau food estate, almost 90% of farmers did not achieve satisfactory rice harvests—in the 2021 harvest, farmers were only able to harvest 1.5 tonnes of rice per hectare from an expected 3.5-4 tonnes. This finding was brought into discussion in the Indonesian House of Representatives by Member of Parliament Andi Akmal Pasluddin in November 2021.

In the nearby regency of Gunung Mas, the food estate programme plans to convert 30,000 hectares of land traditionally inhabited and farmed by the indigenous Dayak people-including over 15,000 hectares of forest-into cassava farms, displacing indigenous farmers in the process. The government insisted on planting cassava in a monocultural manner against the advice of local farmers with intimate traditional knowledge of their ancestral farmlands who know that their local land is not suitable for farming cassava. As of November 2022, 600 hectares of forest cover in Gunung Mas Regency have been converted into cassava farms with the permission of the Indonesian Ministry of Environment and Forestry, causing 61,000 tonnes of carbon emissions and increasing the risk of floods in Gunung Mas and nearby regions including the provincial capital Palangkaraya- with the most recent major flood occurring in January and February 2023, displacing 3,595 people in the Gunung Mas Regency alone. The current food estate project itself also only produced negligible yields- a BBC Indonesia investigative documentary first aired in 15th of March 2023 discovered that the 600 hectares of the food estate in Gunung Mas Regency experienced crop failures, with farming machinery seen abandoned in the food estate area. The Ministry of Defence admitted that there are difficulties in cassava cultivation in the Gunung Mas food estate but blamed them to a lack of government funding instead of a general lack of involvement of local farmers and indigenous communities in the management of the Gunung Mas food estate programme. The adverse effects of the food estate programme in Gunung Mas Regency have become so significant, both agriculturally and ecologically, that the non-governmental organisation Indonesian Forum for Living Environment (Walhi) has declared the programme a "failure".

The productivity challenges faced by the Gunung Mas food estate, the potential displacement of local indigenous farming communities, and the environmental degradation caused by the programme have generated considerable backlash, including numerous climate and indigenous protests. On the 16th of November 2022, the regional representative council of Gunung Mas Regency as the elected representative of the inhabitants of Gunung Mas Regency demanded an end to the Gunung Mas food estate programme and the reconversion of the new farmlands back into forest cover. This motion was proposed by Democratic Party caucus of the Gunung Mas Regional Representative Council on 16 November 2022. The Vice-Regent of Gunung Mas, Efrensia L. P. Umbing, approved the motion, calling the Gunung Mas food estate programme "disruptive to the forest's function as a buffer", and has formally requested an explanation from the central government regarding the future of the programme.



As of the writing of this study, both the executive government and legislature of Gunung Mas Regency are officially against the Gunung Mas food estate programme.

#### An Examination of the Indonesian Food Estate Strategic National Programme

The Indonesian national food estate programme was not primarily designed to benefit local smallholder and indigenous farmers. There is little consideration given to the needs, traditions, and local geniuses (in Indonesian: kearifan lokal) of local farmers and food producers, environmental conservation, and the rights of indigenous farmer communities to their lands, water, seeds, livestock and biodiversity from the perspective of their traditional culture as outlined in the Declaration of Nyéléni- instead, the Indonesian government prefers to implement a numbers-oriented industrial viewpoint designed to benefit the private companies and investors involved in the programme. It seems that the principles of food sovereignty as summarised in the Declaration of Nyéléni were not taken into consideration by the Indonesian government in the planning and implementation of the food estate programme in North Sumatra and Central Kalimantan.

As a result of this particular method of implementation, both the North Sumatra and Central Kalimantan food estate programmes have failed to increase crop production numbers and food availability in Indonesia, instead lowering overall local crop yields and thereby placing Indonesia one step further away from food security. The national food estate programme has failed to deliver its original goal of simple, statistical self-sufficiency in national food production— on the contrary, the national food estate programme can be deemed as unsatisfactory even when examined through conventional food security definitions. Even more alarming, however, is the programme's even greater failure in establishing and affirming the rights of indigenous peoples and local farmer communities to their agricultural traditions and cultural practices in the food estate locations and the substantial environmental degradation brought by the programme itself. The national food estate programme in its current form does not recognise nor take into account the rights of local farmers and indigenous communities to their lands, waters, seeds, livestock, or biodiversity as envisioned by the Declaration of Nyéléni. The Indonesian government's fixation on simple statistical indicators of food production and its apparent willingness to set aside the wellbeing of local farming communities and the natural environment to reach production targets had backfired, wreaking havoc on local agriculture, natural ecosystems, and indigenous culture while at the same time lowering food production numbers. The apparent lack of consultation and deliberation involving local farming communities and environmental experts, both parties indispensable in an ideal implementation of the food sovereignty concept, had in turn caused this multifaceted disaster. As Greenpeace puts it so eloquently, the programme designed to solve food insecurity has instead "fed food insecurity".



# **CONCLUSIONS**

The challenges and setbacks experienced by the government's food estate programme in Indonesia demonstrated that food production and distribution systems are complex, multifaceted affairs with economic, environmental, political, and sociocultural aspects- aspects that cannot be fully comprehended and explained using a conventional implementation of the food security concept. Time and time again, the implementation of the conventional food security concept as was applied in the Indonesian food estate strategic national programme has exacerbated the climate crisis and displaced indigenous and local farming communities, and the adverse effects of the food estate strategic national programme in Indonesia joins the long list of the consequences of the current hegemony of the corporate-driven industrial food regime. The principles of food sovereignty as outlined in the Declaration of Nyéléni, on the other hand, give a more comprehensive and nuanced analysis on the food system that places the rights of farmers and indigenous communities and environmental sustainability in agriculture on the same level, if not above, simple statistical numbers of food production and distribution. The pattern of marginalisation of local indigenous cultures and environmental degradation so apparent in the current implementation of the Indonesian national food estate programme can only be averted by an implementation of the principles of food sovereignty with a thorough analysis sensitive to the specific sociocultural and economic conditions of regions and localities where they are implemented, as exemplified through the principles expounded in the Declaration of Nyéléni. Only then can food— not as a mere industrial product but as a human right— would become both bountifully available and fairly sourced.

# REFERENCES

- Australian Human Rights Institute. (2022). The Food Sovereignty Movement Aiming to Put Food Security in Our Own Hands. Australian Human Rights Institute. Retrieved March 17, 2023, from https://www.humanrights.unsw.edu.au/news/food-sovereignty-movement-aiming-put-foodsecurity-our-ownhands#:~:text=Food%20sovereignty%20addresses%20the%20root,the%20ability%20to%20feed %20themselves.
- Ayres, J., & Bosia, M. J. (2011). Beyond Global Summitry: Food Sovereignty as Localized Resistance to Globalization. Globalizations, 8(1), 47-63. https://doi.org/10.1080/14747731.2011.544203
- BBC News Indonesia. (2023, March 17). 'Food Estate di Kabupaten Gunung Mas, Kalteng, Bukan Tanggung Jawab Kementan'. BBC News Indonesia. Retrieved March 22, 2023, from https://www.bbc.com/indonesia/indonesia-64975831.
- Blaikie, P., Cannon, T., Davis, I., & Wisner, B. (1994). T Risk: Natural Hazards, People's Vulnerability and Disasters. Routledge.
- Caelli, K., Ray, L., & Mill, J. (2003). 'Clear as Mud': Toward Greater Clarity in Generic Qualitative Research. International Journal *Oualitative* Methods. 2(2),1 - 13.of https://doi.org/10.1177/160940690300200201



doi: 10.20473/jpi.v9i2.44430

- Change for Children. (2022). Food security vs Food Sovereignty What's the Difference? Change for Retrieved March 16. 2023, from https://changeforchildren.org/wp-Children. content/uploads/2016/06/Food-Security-vs-Food-Sovereignty.pdf.
- CNN Indonesia. (2022, September 1). Food Estate Tak Terurus, Walhi Sentil Provek Gagal yang Terulang. CNN Indonesia Nasional. Retrieved March 17. 2023. from https://www.cnnindonesia.com/nasional/20220831114915-20-841300/food-estate-tak-teruruswalhi-sentil-proyek-gagal-yang-terulang.
- Declaration of Nyéléni. (2007, February 27). Nyeleni. Retrieved March 17, 2023, from https://nyeleni.org/IMG/pdf/DeclNyeleni-en.pdf.
- Global Food Security. (2022). Food Security A History. Global Food Security. Retrieved March 17, 2023, from https://www.foodsecurity.ac.uk/challenge/food-security-history/.
- Greenpeace International. (2022, November 10). Indonesian Government Only Feeding Food Insecurity by Clearing Forests in Food Estate Plan. Greenpeace International. Retrieved March 17, 2023, from https://www.greenpeace.org/international/press-release/56573/indonesiangovernment-only-feeding-food-insecurity-by-clearing-forests-in-food-estate-plan/.
- Ihsanuddin. (2020, September 23). Proyek "Food Estate", Jokowi Tugaskan Prabowo Urus Lumbung Pangan Singkong. KOMPAS.com. Retrieved March 17, 2023, from https://nasional.kompas.com/read/2020/09/23/13503111/provek-food-estate-jokowi-tugaskanprabowo-urus-lumbung-pangan-singkong.
- Margarete, S. (2000). Whatever happened to qualitative description? Research in Nursing and Health.
- McMichael, P. (2009). A Food Regime Genealogy. The Journal of Peasant Studies, 36(1), 139–169. https://doi.org/10.1080/03066150902820354
- Neergaard, M. A., Olesen, F., Andersen, R. S., & Sondergaard, J. (2009). Qualitative Description The Poor Cousin of Health Research? BMC Medical Research Methodology, 9(1). https://doi.org/10.1186/1471-2288-9-52
- OECD. (2022, November 23). Food Security and Nutrition. OECD. Retrieved March 17, 2023, from https://www.oecd.org/agriculture/topics/foodsecurity/#:~:text=A%20person%20is%20considered%20%E2%80%9Cfood,Committee%20on% 20World%20Food%20Security)
- Pasaribu, Q. (2023, March 15). Food estate: Perkebunan Singkong Mangkrak, Ribuan Hektare Sawah Tak Kunjung Panen di Kalimantan Tengah. BBC News Indonesia. Retrieved March 22, 2023, from https://www.bbc.com/indonesia/articles/c2ez8gm679qo.
- Pasaribu, Q., Batara, I., & Budhi, O. (2023, March 15). Program Lumbung Pangan Nasional: 'Hutan Habis', Provek Nasional Mangkrak. BBC News Indonesia. Retrieved March 22, 2023, from https://www.bbc.com/indonesia/64963665.
- Perkuat Food Soveregnity dan Food Resilience, Pemerintah Kembangkan Food Estate di Sejumlah Wilayah. (2022, October 5). Kemenko Ekonomi. Retrieved March 17, 2023, from https://www.ekon.go.id/publikasi/detail/4605/perkuat-food-soveregnity-dan-food-resiliencepemerintah-kembangkan-food-estate-di-sejumlah-wilayah.
- Peña, K. (2008, January 12). Opening the Door to Food Sovereignty in Ecuador. Food First. Retrieved March 22, 2023, from https://archive.foodfirst.org/publication/opening-the-door-to-foodsovereignty-in-ecuador/.
- Realisasi Capaian Food Estate Masih Jauh dari Harapan. (2021, November 23). E-Media DPR. Retrieved March 17, 2023, from https://emedia.dpr.go.id/article/realisasi-capaian-food-estatemasih-jauh-dari-harapan.



doi: 10.20473/jpi.v9i2.44430

- Reuters Staff. (2020, September 23). *Indonesia Starts Developing Controversial Food Estate Project*. Reuters. Retrieved March 17, 2023, from https://www.reuters.com/article/us-indonesia-food-estate-idINKCN26E0W5.
- Sampson, D., Cely-Santos, M., Gemmill-Herren, B., Babin, N., Bernhart, A., Bezner Kerr, R., Blesh, J., Bowness, E., Feldman, M., Gonçalves, A. L., James, D., Kerssen, T., Klassen, S., Wezel, A., & Wittman, H. (2021). Food Sovereignty and Rights-based Approaches Strengthen Food Security and Nutrition Across the Globe: A Systematic Review. *Frontiers in Sustainable Food Systems*, 5. https://doi.org/10.3389/fsufs.2021.686492
- Sandelowski, M. (2000). Whatever Happened to Qualitative Description? *Research in Nursing & Health*, 23(4), 334–340. https://doi.org/10.1002/1098-240x(200008)23:4<334::aid-nur9>3.0.co;2-g
- Sen, A. (2013). Poverty and famines: An essay on entitlement and deprivation. Oxford Univ. Press.
- Stefany, Y. (2021, February 1). *Menyoal Food Estate di Sumatera Utara*. Mongabay.co.id. Retrieved March 17, 2023, from https://www.mongabay.co.id/2021/01/19/menyoal-food-estate-di-sumatera-utara.
- Sullivan-Bolyai, S., Bova, C., & Harper, D. (2005). Developing and refining interventions in persons with health disparities: The use of qualitative description. *Nursing Outlook*, 53(3), 127–133. https://doi.org/10.1016/j.outlook.2005.03.005
- Triwibowo, D. R. (2022, November 14). *Banjir di Gunung Mas, Kalteng, Dipicu Hilangnya Hutan*. kompas.id. Retrieved March 17, 2023, from https://www.kompas.id/baca/nusantara/2022/11/14/banjir-di-gunung-mas-dipicu-hilangnyahutan.
- United Nations. (2019). State of Food Security and Nutrition in the World, 2019. United Nations.
- Watts, M. J., & Bohle, H. G. (1993). The space of vulnerability: The causal structure of hunger and famine. *Progress in Human Geography*, 17(1), 43–67. https://doi.org/10.1177/030913259301700103
- Wittman, H. (2011). Food Sovereignty: Reconnecting Food, Nature and Community. Pambazuka Press.
- Yulyana, R. (2022, November 16). DPRD Gunung Mas Minta Pemkab Surati Pemerintah Pusat Terkait Tindak Lanjut Program Food Estate. BorneoNews. Retrieved March 17, 2023, from https://www.borneonews.co.id/berita/283225-dprd-gunung-mas-minta-pemkab-suratipemerintah-pusat-terkait-tindak-lanjut-program-food-estate.

