



Independent breeder farm actors in ensuring the sustainability of food security in Blitar, East Java, Indonesia

Yamin M. Saud ^{1*}, Saleh M. Ali ², Makmun Makmun ³

¹ *Development Studies, Graduate School, Hasanuddin University, Makassar, Indonesia*

² *Department of Agriculture Socio-Economics, Faculty of Agriculture and Development Studies, Graduate School, Hasanuddin University, Makassar, Indonesia*

³ *Director's Secretary of Directorate of Livestock and Animal Health, Ministry of Agriculture of the Republic of Indonesia, Jakarta, Indonesia*

Abstract

Currently, changes in people's lifestyles are evident, one of which can be observed through the increasing intake of nutrient-rich foods, particularly those containing protein. Broiler chickens serve as one of the largest contributors to livestock products that fulfill animal protein needs. The majority of people consume food products derived from broiler chickens, leading to higher demand. This demand drives the poultry farming business, especially broiler production, to grow rapidly. This study investigates the role of independent farmer actors in breeder farms to ensure sustainable food security. The research method employed is qualitative, in which the roles of actors are analyzed in-depth through interviews to reveal a clear picture of the contestation that occurs. The results indicate that three actors play a role: integrators, independent breeders, and community breeders. This article focuses on independent breeders. Independent breeders are those who possess the resources, manpower, and land. This research was conducted in Blitar, East Java, Indonesia.

Keywords: Food security; Independent farmer; Breeder farm; Actor contestation; Sustainable development

Published by ISDS LLC, Japan | Copyright © 2023 by the Author(s) | This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.



Cite this article as: Saud, Y.M., Ali, S.M. and Makmun, M. (2023), "Independent breeder farm actors in ensuring the sustainability of food security in Blitar, East Java, Indonesia", *International Journal of Development and Sustainability*, Vol. 12 No. 3, pp. 68-79.

* Corresponding author. E-mail address: yamin_s3p@unhas.ac.id

1. Introduction

The high intake of nutrients, particularly those containing protein, is an indication of changing lifestyle patterns in the modern day. To meet the demand for animal protein, broiler chickens are one of the most important livestock products. The need is growing because the majority of people consume food produced by broilers, mostly meat and eggs. This need prompts the poultry farming industry, particularly the broiler industry, to grow rapidly (Purnama, 2021; Yamin, 2019).

The broiler farm population in Indonesia has increased sharply from 2013 to 2020. According to Livestock & Animal Health Statistics 2021 (Makmun et al., 2021), there were 2.9 billion broilers in 2020. The production of broiler meat in 2013 was 1,497,874 tons, and in 2020, it amounted to 3,219,117 tons or an increase of 114.91%. This increase was followed by the growth of Indonesian people's consumption of chicken meat, which also increased. In the last seven years, from 2013 to 2020, the participation rate of broiler chicken meat consumption increased from 44.03% in 2013 to 57.58% in 2020, with an increase of 57.58% (Soejana, 2013), as supported by the Food Security Agency of the Directorate General of Livestock and Animal Health 2021, which stated that Indonesian chicken meat experienced a significant increase during the ten years.

This enormous increase in production and demand for chicken meat has attracted various parties to invest in this industry, both domestically and abroad, through foreign investment. The presence of this industry in various business scales and patterns, including integrated models from upstream to downstream in the acquisition of seeds, feed, cultivation, processing, and marketing, as well as those present only in the upstream industry (seedlings, feed, cultivation) and downstream industries (processing and marketing), causes contestation between the actors involved, resulting in competition to maintain their existence and business interests (Yamin, 2021).

In Indonesia, the business pattern of the poultry industry (from government to small breeders) moves from upstream to downstream and faces conflict with independent breeders and small farmers. Although many regulations and policies have been made by the government, there is still dissatisfaction among the breeder community, especially from small and medium-scale breeders (Yamin, 2022).

This discontent has been channeled through waves of demonstrations held several times a year. The climax occurred on Wednesday, September 15, 2021, when smallholder breeders expressed their dissatisfaction through a wave of demonstrations at the presidential palace, which prompted Jokowi (President of the Republic of Indonesia) to engage in direct dialogue with business actors and smallholders to find the best solution for solving the problem of broiler farming in Indonesia (Kompas.com, 2021; liputan6.com, 2021; Republika.co.id, 2021).

To reorganize the poultry business in Indonesia and improve business practices, ensuring the welfare of all parties involved in the poultry industry, it is essential to research and reformulate business models that can reflect the development of healthy business rivalry. This pattern must also be able to assure small, medium, and large-scale business actors of the poultry industry's future viability. This study aims to investigate the competition between integrators, independent breeders, and smallholders. It focuses on independent breeders and their role in the sustainability of food security in the study area.

2. Theoretical framework

According to Mottet and Tempio (2017), the global poultry sector, particularly broiler chicken meat, is anticipated to keep growing, especially in developing countries, due to population growth, increased income, and urbanization. This growth is enabled by fluctuations in people's incomes, the diversification of food from livestock to poultry, and the availability of animal protein from broiler meat, offering consumers a choice when selecting animal food sources for consumption. Furthermore, the content of animal protein and essential micronutrients in purebred chicken meat is highly required by the body, relatively inexpensive, and easily accessible (Hessel et al., 2019).

Conan et al. (2012), as also stated by Turkson and Okike (2016), emphasize that the large-scale broiler industry offers economic benefits such as providing employment opportunities, sources of regional income, and facilitating food fulfillment and community nutrition. However, the development of the broiler farming sector attracts various actors, including breeders, investors, cultivators, marketers, suppliers, processors, and others (Udoye et al., 2019). Consequently, there is intense competition in providing input (seeds and feed) and output (processing and marketing) (Yamin et al., 2018). Additionally, there is contestation in policy and regulation structuring related to breeders' farms in Indonesia, a situation mirrored in various countries worldwide (Birhanu et al., 2021).

Ferlito and Respatiadi (2018) suggest that significant differences exist between small breeders with a capacity of 2000-5000 heads, medium breeders with a capacity of 6000-10,000 heads, and giant breeders with a capacity of over 10,000 heads within the broiler farming industry. Multiple initiatives are required to resolve conflicts of interest by revising and applying policies through the harmonization of existing legislation, which aims to support the development of a successful broiler farm industry. To promote corporate modernization and the poultry sector, the government must also contribute by strengthening the logistics infrastructure.

Schrager (2019), who researched the existence of local chicken (jidori) in Miyazaki prefecture, Japan, discovered that people still have a higher level of social trust in local chickens compared to imported chickens and are willing to pay a premium for them. A similar situation exists in Indonesia, where broiler commodity prices remain highly favored. Furthermore, according to Yurco (2022) and Clay and Yurco (2020), environmental sustainability, rural development, and animal welfare issues also impact these commodities, making environmental, economic, and health aspects of intensive poultry farming in the UK a challenge (Caffyn, 2021). Consequently, some proposed approaches have been recommended in the context of developing intensive poultry farming.

The poultry farming sector in Indonesia, particularly broiler chickens, often causes conflicts as a result of government policies that open investment valves in this business sector from upstream to downstream, enabling investors to invest their capital from cultivation to marketing (Government Regulation No. 32 of 2017). Such policies create a contestation arena for actors to pursue their interests (Bury, 2008). Actors carry out their interests through a series of actions to achieve specific intentions, occurring between two or more actors, and producing desired outcomes (Rath & Swain, 2021). The result is typically a negotiation process in which different actors agree to exercise power, rather than one actor fulfilling their will entirely (Svarstad et al., 2018).

Competition between actors can arise due to differences in interests when seeking maximum profits. A contest is seen as an attempt to illustrate the existence of competition and struggle in relationships or

interactions, resulting in a "winner" who will ultimately prevail (Susen and Turner, 2011). Contests are ubiquitous, with multiple parties pursuing their individual interests, either through negotiation or competition. Contests represent a form of struggle and capital competition among various stakeholders (Fausayana, 2018).

In this business sphere, there is competition among actors to gain more power. As they find themselves on the battlefield, these actors employ various strategies - active deployment of an objectively oriented line of action that adheres to regularities and forms a coherent and socially understandable pattern. However, the strategic choices available to actors are constrained by their objective conditions in the arena, which is shaped by the distribution of capital and their perception of the arena (Budianto and Sos, 2019). In particular, the act of contestation not only aims to address the problem of producing a commodity but may also present a highly rational challenge to production itself that warrants attention (Kleibert et al., 2020). Contestation allows people to formulate and establish arrangements, ensuring equal representation of government behavior (Wong, 2021).

Indeed, competition among businesses creates a robust agenda for regulating practitioners. Contests provide an opportunity to develop a more potent redistribution agenda (Levitsky and Way, 2010), and integrating contestation and inclusion (Skaaning et al., 2015) is essential in driving consensus settlements (Alexander and Bowler, 2021). Contestation is likely to persist if tensions remain unresolved.

Actors can also engage in contestation within the internal realm by leveraging technological culture (habitus and capital) and institutional capacity (Fausayana, 2018). In the arena of contestation, actors often manifest as power struggles between two or more parties (Mayrudin et al., 2020).

The most influential actors in the process of broiler contestation are those who can invest from upstream to downstream. Integrators are powerful actors because they possess networks that span marketing to cultivation, enabling them to control pricing and use it to weaken other players. Strong actors can control prices and devise strategies to enhance the business governance of broiler farms, implementing the process at various levels (Juniyanti et al., 2021). The integrator company is a dominant actor in controlling the broiler business (Casson, 2000).

In this contest, the party controlling the capital will hold an advantage over others and can intimidate the weaker party by emphasizing the existence of competing actors within an "arena," with the ultimate goal of emerging as the winner (Yamin S et al., 2020). The weaker party will either succumb to the prevailing game or perish in the business competition. Government policy, in this case, is strategic in regulating and producing rules to balance the interests of these actors (Sulaiman et al., 2022).

3. Method

This study investigates the role of independent farmer actors in ensuring the sustainability of food security in Blitar, East Java, Indonesia. A qualitative research method was employed, using a case study approach to analyze the various actors involved in-depth and gain insight into their respective roles. This approach allowed for a clearer understanding of the actors' contestation and competition within the broiler farming sector.

The first step in the analysis involved identifying the key players in the broiler farming business. The research was conducted in Blitar, East Java, serving as the primary locus for the study. Data collection and fieldwork took place between May and August 2022.

By examining the unique contributions and interactions of these actors, the study aimed to provide a comprehensive perspective on the dynamics of competition in the broiler farming industry. This in-depth exploration of the actors' roles and contestation helps illuminate the challenges and opportunities faced by independent farmers in sustaining food security within the region.

4. Results and discussion

4.1. Development of broiler farming businesses

To achieve the goal of providing adequate food availability, increasing income levels and community welfare also demand high-quality, safe, and halal food production components. Moreover, consumer preferences play a significant role in food provision. The high level of participation in poultry-based animal foods aligns with changes in Indonesia's meat production structure from 1990 to 2020. In 1990, Indonesia's meat production reached 1.02 million tons, with the largest share being beef and buffalo at 303.51 thousand tons, or 29.53% of total national meat production. By 2020, national meat production reached 4.67 million tons, with purebred chicken meat dominating at 1.13 million tons or 73.71% of total national meat production (Livestock and Animal Health Statistics, 2021).

4.2. Broiler farming businesses development policy

Policies supporting broiler farming business development aim to protect breeders from conflicts arising from production to marketing. One crucial policy being intensified in developing broiler farming businesses is the promotion of partnerships. Law No. 18 of 2009 concerning Livestock and Animal Health, as amended by Law No. 41 of 2014, states that broiler farming must be based on the principles of benefit and sustainability, security and health, democracy and justice, openness and integration, independence, partnership, and professionalism. The term "partnership" in livestock businesses, particularly broiler farming, refers to cooperation between husbandry businesses based on mutual need, strengthening, benefit, respect, responsibility, and dependence.

4.3. Broiler farming business pattern

Broiler chickens are a superior breed, with purebred chicken cultivation included in livestock businesses that produce chicken meat for consumption (Indonesian Standard Classification of Business Fields, 2020). Several patterns of broiler farming worldwide have implemented modern technology, applying integrated patterns to maintain low production costs. To ensure high productivity and efficiency, poultry businesses in the United States and Canada have developed enterprise-based in-line or off-line production systems, where professionals from various companies manage all aspects of the production system (Kidd and Anderson, 2019). In European Union countries, innovations apply not only to the rearing system but also to the development of new technologies in the cage system (Pelletier et al., 2018). In China, chicken farms were once predominantly small-scale households with 100 to 1000 broilers per farm, but over the last few decades, broiler production in China has grown, and many modern intensive farms now raise millions of broilers (Windhorst, 2017; Yang, 2021).

Indonesia's broiler development has gone through various stages and business patterns. The government initially established chicken raising as a minor business in Presidential Decree No. 50 of 1981. Due to this regulation's failure to promote the growth of Indonesia's chicken industry, it was replaced by Presidential Decree No. 22 of 1990, which allowed large-scale companies to enter the chicken industry provided that 65% of production was for export and the company partnered with small-scale farmers. After the 1997 financial crisis and the declining performance of all chicken farms, the 1990 Presidential Decree was repealed and replaced with a 2000 Presidential Decree, indicating that the government would not interfere with the structure of the livestock industry but would act as a regulator. The broiler agribusiness system in Indonesia is divided into three subsystems: the on-farm subsystem, the downstream subsystem, and the downstream subsystem for marketing and processing chicken products (Harianto et al., 2019; Hasbi et al., 2018).

Aside from the vertical integration system, broiler breeders in Indonesia operate under independent business patterns and partnership business patterns. Under the independent pattern, farmers provide their own funding and have complete control over the timing of their marketing campaigns. The partnership pattern is divided into two categories: written and oral. In the written pattern, the breeder and the nucleus must establish a legally binding written agreement as the foundation of their cooperation. The oral partnership pattern is based on mutual trust, with agreements between the two parties made verbally (Herawati et al., 2016).

4.3.1. Integrator business actors

Integrator business actors are responsible for GGPS (Great Grand Parent Stock), GPS (Grand Parent Stock), and/or PS (Parent Stock) nurseries, and conduct FS (Final Stock) cultivation as stipulated in the Minister of Agriculture Number: 32 of 2017. They are henceforth referred to as integrators.

Vertical integration is a managerial decision command that covers the entire production process (breeding, feed industry, aquaculture) to the downstream industry (cutting, processing, and marketing) (Arief Daryanto, 2020). This can occur partially or entirely. Indonesia has successfully developed backward integration through the development of hatcheries/breed development and animal feed industries. However, it has made limited progress in increasing the added value of this industry through the development of its downstream industry (forward integration).

Forward integration is an effort to enhance food security and added value through processing, storage, packaging, and branding activities. Currently, 80% of chicken products are still sold in wet markets and traded as live birds (traditional markets). The remaining 20% is sold in modern markets as sliced chicken (slaughtered birds), frozen chicken, or processed chicken products such as burgers, nuggets, kiev, bologna, smoked chicken, satay, sausages, and meatballs (supermarkets, hypermarkets, and fast-food restaurants).

The risk of input and output prices is quite significant in the chicken sector. The vertical integration concept, which employs collaboration or partnerships (contract farming) with poultry producers, is one way to address this issue. Unfortunately, this model's implementation has turned it into a tool for the integrator to control the broiler farming industry. Currently, 95% of broiler farming businesses are controlled by large companies (integrated business actors), with only 5% market control by independent farmers or smallholders (Idris, 2020).

4.3.2. Independent entrepreneurs

Independent entrepreneurs are breeders who manage broiler farming businesses that have PS and/or do not yet have PS but can carry out FS cultivation independently, as per Minister of Agriculture Regulation No. 32 of 2017.

These independent breeders are not bound by rules, funds, or contracts with integrator companies. They have extensive experience and relationships with various companies engaged in broiler farming and maintain close connections with novice breeders and breeders who struggle to obtain capital.

The independent business actor establishes a broiler farming business system with the capital fully borne by the breeder. Breeders provide cages, equipment, labor, and livestock production facilities (DOC, feed, and OVK/medicine, vitamins, and vaccines) and market their own livestock, both live cattle and carcasses. Profits can be maximized since the price of "sapronak" (livestock production facilities) can be cheaper. Breeders are free to choose the type of sapronak they want, such as DOC strain, feed brand, and OVK, ensuring quality. This business pattern allows for higher selling prices of chickens due to lower marketing costs, enabling the independent farm business to endure (Tamalluddin, 2014).

4.3.3. Smallholder farmers

Smallholder farmers are individual livestock breeders carried out by individuals and families (Article 9 Number 2 of Law Number 6 of 1967 concerning Basic Provisions of Livestock and Animal Health), which involve livestock cultivation or livestock keeping using various supporting facilities for animal life. Smallholder livestock businesses include activities related to the maintenance of purebred chicken farm animals, which can be beneficial in meeting the daily needs of the owners. Furthermore, according to the Minister of Agriculture No. 32 of 2017, smallholder farmers are business actors cultivating chickens that do not have GGPS (Great Grand Parent Stock), GPS (Grand Parent Stock), and PS (Parent Stock) (Susanti, A.E, 2021; Taruvinga et al., 2013).

Most smallholders in the country still operate on a subsistence level with characteristics of a small, uneconomical scale of business and are carried out traditionally with simple technology (R. Tawaf, 2021). Based on these conditions, a strong and well-established livestock industry system is needed as consumer needs continue to increase in line with the growth in welfare. However, can the country's livestock industry meet consumer demand for livestock products? Price variations in livestock products have been particularly concerning over the past few decades. For example, fluctuations in the prices of eggs and chicken meat are very sharp, thus disturbing the economic development of the country (Lukes, 1986).

4.4. Analysis of broiler farm business actors

There are three actors who play a role in the broiler farm business in Blitar, East Java, Indonesia, namely: integrators, independent breeders, and smallholders. This article will focus on independent breeders.

Independent breeders are farmers not bound by contractual funds with companies in purebred chicken rearing. Many doubt that independent breeders can survive with price fluctuations for both raw materials (DOC, feed, medicines) and others. Independent breeders can succeed with a wealth of experience and relationships with various companies engaged in animal husbandry to maintain their existence. Their efforts

are acknowledged, although many independent breeders have indeed collapsed due to a lack of experience and not being "tenacious" and "creative" in raising broilers, resulting in losses and many going out of business. On the other hand, some independent breeders still survive in broiler maintenance by cooperating with novice breeders and breeders who have difficulty with capital to participate in partnerships fostered by independent breeders.

As a result of an interview with Sigit Prasetyo, one of the successful independent breeders maintaining a broiler farming business, which was pioneered by his parents several decades ago, he stated:

"Independent breeders who survive in raising broilers by cooperating with novice breeders and breeders who have difficulty with capital to participate in partnerships fostered by independent breeders. Independent breeders have good capital and experience in raising broilers, but in order to continue producing and have sufficient broilers to meet market demand, collaboration is carried out to meet these needs." (Interview with Sigit Prasetyo, Saturday, September 10, 2022, 09:15 – 11:35 am).

Independent breeders maintain their existence by building a partnership system in their business patterns, relying on four strengths: 1. The strength of capital collected from partners, 2. Livestock skills mastered from generation to generation, 3. Marketing capabilities, and 4. Business networks. This strength is built in a structured manner by the independent breeder so that their business can still be sustainable, as stated in an interview with Hidayaturahman:

"The advantage of the partnership system, created by independent farmers, is that it allows for maximizing profits due to the reduced cost of animal production facilities. Breeders have the freedom to select the type of animal production facilities they prefer, such as DOC strains, feed brands, and OVK, ensuring quality. Additionally, lower marketing costs contribute to higher selling prices for chickens." (Interview with Hidayaturahman, Sunday, September 11, 2022, 8:40 - 10:12 am).

Independent breeders utilize this method to remain competitive and withstand challenges from integrators.

5. Conclusion

Independent breeders represent one of the three key actors in the broiler farming business, playing a crucial role in ensuring the sustainability of food security in Blitar, East Java, Indonesia. Their success lies in their ability to leverage their experience and relationships with various companies in the livestock sector, as well as by forging partnerships with novice breeders and those struggling with capital constraints. These collaborations enable a supportive environment for all parties involved and contribute to the overall stability of the industry.

In order to maintain their existence and thrive in a competitive landscape, independent breeders have developed a partnership system characterized by a structured and sustainable business model. This model is built upon four core strengths: 1) animal husbandry skills passed down through generations, which provide a strong foundation for knowledge and expertise; 2) capital raised from partners, ensuring adequate financial

resources for business growth; 3) marketing capabilities, enabling the effective promotion and distribution of their products; and 4) a robust business network, which facilitates collaboration and information-sharing among industry stakeholders.

Recognizing the importance of independent breeders in the broiler farming ecosystem, government policies should be designed to guarantee the balance and sustainability of broiler farm development. These policies must address the competition between different levels of broiler farmers, with a particular focus on providing increased support to smaller breeders who may face challenges in accessing resources and market opportunities. By doing so, the government can help create a more level playing field, empowering smaller breeders to contribute effectively to the industry.

Such an approach, which prioritizes the needs of independent breeders, can lead to a more sustainable broiler farming sector, benefitting not only the farmers but also the wider community in Blitar, East Java, Indonesia. By ensuring that the industry remains diverse and inclusive, it will be better equipped to respond to challenges and adapt to changing market conditions, ultimately contributing to the long-term sustainability of food security in the region.

References

- Alexander, V.D. and Bowler, A.E. (2021), "Contestation in aesthetic fields: Legitimation and legitimacy struggles in outsider art", *Poetics*, Vol. 84.
- Arief Daryanto (2020), "Competitiveness and Modernization of the poultry industry", Pataka, Public discussion forum series 6, 10 September 2020, IPB, Bogor.
- Birhanu, M.Y., Alemayehu, T., Bruno, J.E., Kebede, F.G., Sonaiya, E.B., Goromela, E.H., Bamidele, O. and Dessie, T. (2021), "Technical efficiency of traditional village chicken production in Africa: Entry points for sustainable transformation and improved livelihood", *Sustainability*, Vol. 13 No. 15, p. 8539.
- Budianto, H. and Sos, S. (2019), *Political Contest in the Media Space from the Perspective of Critical Discourse Analysis*. Prenada Media, Jakarta.
- Bury, J. (2008), "Transnational corporations and livelihood transformations in the Peruvian Andes: An actor-oriented political ecology", *Human Organization*, Vol. 67 No. 3, pp. 307-321.
- Caffyn, A. (2021), "Broiler battles: Contested intensive poultry unit developments in a policy void", *Land Use Policy*, Vol. 105.
- Casson, A. (2000), "The hesitant boom: Indonesia's oil palm sub-sector in an era of economic crisis and political change", available at: https://www.cifor.org/publications/pdf_files/OccPapers/OP-029.pdf (accessed 28 March 2023).
- Clay, N. and Yurco, K. (2020), "Political ecology of milk: Contested futures of a lively food", *Geography Compass*, Vol. 14 No. 8, e12497.
- Conan, A., Goutard, F. L., Sorn, S. and Vong, S. (2012), "Biosecurity measures for backyard poultry in developing countries: A systematic review", *BMC Veterinary Research*, Vol. 8 No. 1, pp. 1-10.

- Fausayana, I. (2018), *The Dynamics of Seaweed Cultivators: From Contestants to Seaweed Bank Design Models*. Deepublish.
- Ferlito, C. and Respatiadi, H. (2018), "Policy reform on poultry industry in Indonesia", Discussion Paper No. 5, Center for Indonesian Policy Studies (CIPS), Jakarta.
- Hariato, H., Kusnadi, N. and Paramita, D. (2019), "The impact of vertical integration intensity on broiler farms technical efficiency: The case of contract farming in West Sumatera", *Tropical Animal Science Journal*, Vol. 42 No. 2, pp. 167-174.
- Hasbi, M., Darma, R., Yamin, M., Nurdin, M. and Rizal, M. (2018), "The rainwater management model on an appropriate hilly area to fulfil the needs of cocoa farm during dry season", in: *IOP Conference Series: Earth and Environmental Science*, Volume 157, 1st International Conference on Food Security and Sustainable Agriculture in The Tropics (IC-FSSAT) 24–25 October 2017, Sulawesi Selatan, Indonesia.
- Herawati, M., Haryono, D. and Lestari, D.A.H. (2016), "The Competitiveness of Broiler Cultivation in Various Business Patterns", *JIIA*, Vol. 4 No. 3, pp. 277-284.
- Hessel, C.T., de Oliveira Elias, S., Pessoa, J.P., Zanin, L.M., Stedefeldt, E. and Tondo, E.C. (2019), "Food safety behavior and handling practices during purchase, preparation, storage and consumption of chicken meat and eggs", *Food Research International*, Vol. 125, 108631.
- Idris, M. (2020), "BUMN Plans to Enter the Chicken Farming Business", available at: <https://finance.detik.com/berita-ekonomi-bisnis/d-3211815/> (accessed 28 March 2023).
- Juniyanti, L., Purnomo, H., Kartodihardjo, H., Prasetyo, L.B. and Pambudi, E. (2021), "Powerful actors and their networks in land use contestation for oil palm and industrial tree plantations in Riau", *Forest Policy and Economics*, Vol. 129, 102512.
- Kidd, M. and Anderson, K. (2019), "Laying hens in the US market: An appraisal of trends from the beginning of the 20th century to present", *Journal of Applied Poultry Research*, Vol. 28 No. 4, pp. 771-784.
- Kleibert, J.M., Hess, M. and Müller, F.C. (2020), "Sites of contestation in global fur networks", *Geoforum*, Vol. 108, pp. 39-48.
- Kompas.com. (2021, September 16), "Starting from a poster, Suroto was invited to the palace, Jokowi also thanked him", <https://nasional.kompas.com/read/2021/09/16/10512681/> (accessed 28 March 2023).
- Levitsky, S. and Way, L.A. (2010), *Competitive authoritarianism: Hybrid regimes after the Cold War*. Cambridge University Press.
- Liputan6.com (2021, September 15), "The Story of Blitar Farmers Met Jokowi at the Palace After Spreading Posters", available at: <https://www.liputan6.com/news/read/4659138> (accessed 28 March 2023).
- Livestock and Animal Health Statistics. (2021), "Main Data of Livestock and Animal Health Sub-Sector", Directorate General of Livestock and Animal Health Ministry of Agriculture of the Republic of Indonesia, Jakarta.
- Lukes, S. (1986), *Power*, Vol. 2. NYU Press.
- Makmun, Aslila, R.D. and Ledi, E. (2021), "Livestock and Animal Health Statistics 2021", in: *Statistics book 2021*, p. 240 Halaman, Director's Secretary of Directorate of Livestock and Animal Health, Ministry of Agriculture of the Republic of Indonesia, Jakarta, Indonesia.

- Mayrudin, Y.M., Husna, N.A. and Yuliati, F.R. (2020), "Contest of Formal and Informal Leadership Powers in Public Policy and Daily Politics", *Journal of Political Issues*, Vol. 2 No. 1, pp. 1-9.
- Mottet, A. and Tempio, G. (2017), "Global poultry production: Current state and future outlook and challenges", *World's Poultry Science Journal*, Vol. 73 No. 2, pp. 245-256.
- Pelletier, N., Doyon, M., Muirhead, B., Widowski, T., Nurse-Gupta, J. and Hunniford, M. (2018), "Sustainability in the Canadian Egg Industry - Learning from the past, navigating the present, planning for the Future", *Sustainability*, Vol. 10 No. 10.
- Purnama, A.S.S. and Dedi Suryanto (2021), "Differences of Layer Farming Business Patterns Toward Feasibility of Business in Kidal Village, Tumpang district, Malang regency", *Jurnal Dinamika Rekasatwa*, Vol. 4 No. 3, p. 357.
- Rath, S. and Swain, P.K. (2021), "The Interface between Political Ecology and Actor–Network Theory: Exploring the Reality of Waste", *Review of Development and Change*, Vol. 27 No. 2, pp. 264-278.
- Republika.co.id (2021, September 15), "Chicken Farmer Spreading Protest Poster Invited to Palace", available at: <https://republika.co.id/berita/nasional/umum/qzi1t8402> (accessed 28 March 2023).
- R. Tawaf (2021, March 18), "People's farms: Cause or effect?", available at: <https://www.kompasiana.com/rtawaf/552e13fb6ea834fb338b459f> (accessed 28 March 2023).
- Schrager, B. (2019), "Placing trust: The political ecology of chicken meat in Japan", available at: <https://scholarspace.manoa.hawaii.edu/server/api/core/bitstreams/124f2ea7-6e85-4a03-bcbc-2ecb1a93987a/content> (accessed 28 March 2023).
- Skaaning, S.E., Gerring, J. and Bartusevičius, H. (2015), "A lexical index of electoral democracy", *Comparative Political Studies*, Vol. 48 No. 12, pp. 1491-1525.
- Soejana (2013), "Participation rate as a basis for measuring food security status of meat", *Wartazoa*, Vol. 23 No. 4, pp. 166-175.
- Sulaiman, A., Ali, M.S.S. and Saud, Y.M. (2022), "Power and Interest of Actors in Using Tempe Lake in South Sulawesi, Indonesia", *Hong Kong Journal of Social Sciences*, Vol. 59.
- Susanti, A.E. (2021), The Four Pillars of People's Livestock. Agricultural Research and Development Agency. <https://www.beritasatu.com/opini/7907/> (accessed 28 March 2023).
- Susen, S. and Turner, B.S. (2011), *The legacy of Pierre Bourdieu: Critical essays*. Anthem Press.
- Svarstad, H., Benjaminsen, T.A. and Overå, R. (2018), "Power theories in political ecology", *Journal of Political Ecology*, Vol. 25 No. 1, pp. 350-363.
- Tamalluddin, F. (2014), *Broiler Chicken Complete Guide*. Penebar Swadaya Grup.
- Taruvinga, A., Muchenje, V. and Mushunje, A. (2013), "Climate change impacts and adaptations on small-scale livestock production", *International Journal of Development and Sustainability*, Vol. 2 No. 2, pp. 664-685.
- Turkson, P.K. and Okike, I. (2016), "Assessment of practices, capacities and incentives of poultry chain actors in implementation of highly pathogenic avian influenza mitigation measures in Ghana", *Veterinary Medicine and Science*, Vol. 2 No. 1, pp. 23-35.

- Udoye, C.E., Dimelu, M.U., Anugwa, I.Q., Ozioko, R.I. and Azubuiké, F.C. (2019), "Actors' satisfaction with poultry value chain approach of the commercial agricultural development project in Enugu State, Nigeria", *Journal of Agricultural Extension*, Vol. 23 No. 4, pp. 157-174.
- Windhorst, H.W. (2017), "Dynamics and patterns of the EU egg industry", *Lohmann Information*, Vol. 51 No. 2, p. 7.
- Wong, M.Y. (2021), "Democracy, hybrid regimes, and inequality: The divergent effects of contestation and inclusiveness", *World Development*, Vol. 146.
- Yamin, M., Ali, M.S.S., MI, R., Fahmid, I.M. and Asri, S. (2018), "Agroindustry Development Policy: A Strategy towards Poverty Alleviation", *Journal of Sustainable Development*, Vol. 11 No. 3, pp. 258-269.
- Yamin, S. (2019), *Agriculture Based Regional Development*. NEM Publishing, Pekalongan, East Java, Indonesia.
- Yamin, S. (2021), *Regional Development in Agriculture-Based Regions (I)*. NEM Publishing, Pekalongan, East Java, Indonesia.
- Yamin, S. (2022), *The Relationship of Executive-Legislative Power in APBD Discussion*. NEM Publishing, Pekalongan, East Java, Indonesia.
- Yamin S, Ali, M.S.S. and Demmallino, E.B. (2020), *Social Theories and Local Cultural Wisdom in Planning Perspective*. Azizah Publishing, Yogyakarta, Central Java, Indonesia.
- Yang, N. (2021), "Egg production in China: Current status and outlook", *Frontiers of Agricultural Science and Engineering*, Vol. 8 No. 1, pp. 25-34.
- Yurco, K. (2022), "Renegotiating care from the local to global", in: *Gender, Food and COVID-19*, pp. 53-60. Routledge.