Local Government Efforts in Encouraging the Existence of Subsistence Agriculture as an Alternative to the Supply of Food Needs in Lingga Regency

Mendra Wijaya¹, Handrisal²

¹Government Science Study Program, Faculty of Social and Political Sciences, Universitas Islam Riau, Indonesia

²Government Science Study Program, Faculty of Social and Political Sciences, Universitas Maritim Raja Ali Haji, Indonesia

mendrawijaya@soc.uir.ac.id

Abstract

As one of the regions in the Riau Archipelago Province, Lingga Regency has its potential in the agricultural sector, supporting local food needs to distribute the surrounding area. So far, food needs in Lingga are supplied from Jambi Province or other regions, so that the dependence on food from other regions is very high. So, if the weather changes every year, the supply of food needs will decrease, and prices will be higher. The solution, the production of subsistence farmers, can be used as an alternative to meet food needs. Therefore, local governments encourage subsistence agricultural productivity so that production results are utilized by providing subsidies for agricultural production facilities, supporting farming capital, strengthening farmer institutions, and providing rural transportation. Meanwhile, technology cannot increase productivity, considering that subsistence farmers still use traditional culture, so local farmers cannot use that modern agricultural technology. This study aims to determine how local governments encourage the productivity of subsistence farmers as suppliers of regional food needs. Then this research is qualitative with a study approach that examines the government's efforts to encourage subsistence agricultural production.

Keywords

subsistence farmer; food supply needs; local government



I. Introduction

The main objective in implementing regional autonomy is the welfare of the community. Law No. 23 of 2014 concerning Regional Government is divided into several affairs, namely the implementation of government affairs entirely under the central government's authority, which is called absolute government affairs, and there are concurrent government affairs. The implementation of concurrent government affairs is divided into mandatory and optional government affairs, divided between the central, provincial, and district/city governments. Optional Government Affairs in Article 12 paragraph (3) of Law Number 23 of 2014 concerning Regional Government consist of: forestry, agriculture, marine and fishery, tourism, energy and mineral resources, industry and trade as well as transmigration. The essence of the administration of optional government affairs is that it is closely related to the superior potential and uniqueness of the region to improve the community's economy and the welfare of the regional community by the superior potential and uniqueness of the region. This template provides all the necessary information to the author regarding the formatting specifications needed for preparing electronic versions of

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The three leading sectors of the Lingga Regency that can boost the regional economy are fisheries (marine), tourism, and agriculture. In the agricultural sector, besides having prepared an Agropolitan concept as a strategic area for the Riau Islands Province, several other areas with agricultural land also have the potential for agricultural development. Thus, it can be done through cooperation with the private sector in plantation development, such as rubber, horticulture, food crop development, and animal husbandry by the community through sustainable empowerment.

The land area of Lingga Regency has the potential for agricultural and plantation land in 2008, covering an area of 78,232 hectares. The potential of agricultural land consists of 2,250 hectares of rice fields, 46,112 hectares of plantation land potential, and 29,870 hectares of agricultural land potential. In comparison, the potential land that has been utilized is 21,610 hectares consisting of 15,477 hectares of plantations and 6,133 hectares of agriculture. Meanwhile, the land that has not been fully utilized is 56,622 hectares. The primary employment in Lingga Regency is dominated by the agricultural sector, which can be seen in the table below:

Table 1. Number and Percentage of Working Age Population by Main Job Type and Gender in Lingga Regency

No.	Main Activity	Male		Female		Total	
		Total	%	Total	%	Total	%
	(1)	(2)	(3)	<i>(4)</i>	(5)	(6)	(7)
1.	Professionals, technicians	1.366	5,23	2.063	22,40	3.429	9,71
2.	Leadership and management personnel	556	2,13	80	0,87	636	1,80
3.	Public administration, office employer	961	3,68	509	5,53	1.470	4,16
4.	Business activities	1.492	5,72	1.671	18,15	3.163	8,96
5.	Services	2.005	7,68	1.007	10,93	3.012	8,53

Agricultural production more than tripled between 1960 and 2015, partly owing to productivity-enhancing Green Revolution technologies and a significant expansion in the use of land, water, and other natural resources for agricultural purposes (FAO, 2015).

In general, the downward trend in agricultural development activities in Lingga Regency is caused by low priorities and budget allocations for agricultural development, limited availability of agricultural information, agricultural development tends to be project-oriented, and weak empowerment. People's economy and community participation in terms of distribution of agricultural products. Agricultural development is expected to maintain community economic sustainability and food stability (Trukhachev et al., 2015).

Modernist interpretations of farming in East Asia sometimes frame the smallholder as an impediment to growth (Rigg et al., 2016). Subsistence production is sometimes described as a poverty trap that hinders economic growth, while conversion to market production

benefits farming households and the national economy (Paudel, 2016). More so, subsistence farming could serve as an option to erratic and unreliable household income, especially when the main income-earner is unable to provide money for food purchases, as well as releasing cash for other household uses (Olayemi & Nirmala, 2016).

Farmers in villages in Lingga Regency tend to grow food crops (subsistence crops) rather than trade crops (commercial crops. In developing countries, the challenges of food production continue, despite interventions at the household level, such as providing inputs to overcome resource constraints of farmers, empowerment and training, and conservation to improve land use and management by farmers (Chivasa, 2019). Meanwhile, the value of non-edible commercial plants depends on the market price and the prices of essential consumer goods. While the cost of growing and harvesting commercial crops is often higher, a good harvest of commercial crops does not in itself guarantee a family meal.

The government, as a regulator, has a role in providing a primary reference to the community as an instrument to regulate all empowerment implementation activities (Windasai et al., 2021). An essential part of measuring the success of a government policy is infrastructure resources (completeness), natural resources, and human resources (Hayat & Si, 2018). Angelia (2020) stated that the Government of the Republic of Indonesia was formed to protect the whole of the Indonesian people and all of Indonesia's blood, to promote public welfare, to educate the life of the nation and to carry out world order based on eternal peace and social justice for all Indonesian people. If government policy is right on target, then the main possibility is that the main problem lies in the community itself (Dewi, 2018).

One of the administrations of government affairs in agriculture. Agricultural issues are also related to consumption and production and the total carrying capacity of the agricultural sector. The government plays an active role in issuing various food-related policies, ranging from policies on the formation of various food institutions and regulations related to food security. However, harmonization, synchronization, and linkages between regulations to build a qualified order have not been seen (Aziza, 2019). For developing countries, the agricultural sector is still the primary sector that contributes to economic development. Apart from being a trading commodity, agricultural products also contribute to the fulfillment of basic human needs. Therefore, the market share of agricultural products is still very much needed (Arham et al., 2020).

Rural economic development is an effort to improve the standard of living of rural communities. That can be reflected by increasing the income of local people who have the exact needs to increase living together so that the community becomes better in its economic situation (Tedjaningsih et al., 2018). The term farmer can be divided into two characters, namely, peasants and farmers. Peasant is a subsistence farmer character who tends to be more traditional. In contrast, the farmer is a character with a business spirit and produces agricultural products by applying modern technology. Subsistence agriculture can be defined as self-sufficiency agriculture, in which farmers focus on cultivating sufficient quantities of food for themselves and their families.

The core of the agricultural modernization project is centered on the thesis that agricultural practices are still traditional patterns, meaning that traditional farmers are avoiding the benefits of science and technology (van der Ploeg, 2018). The subsistence market challenges conventional theory and practice. In fact, at times, it seems as if they defy conventional notions of rationality. (Lei, 2019) argues that small and micro-enterprises in agriculture can overcome their financing challenges by strengthening their management and improving their internal competitiveness. The government can increase support, optimize and increase access of small and micro-agricultural enterprises to finance from the market.

Agricultural growth in rural areas has an essential role in poverty alleviation efforts, while economic growth is generally not reliable as a driver of poverty reduction. The growth

of the agricultural sector in rural areas, along with the growth of the service sector in urban areas, will shift some of the workforces from the agricultural sector (Arham et al., 2020). The characteristics of smallholders are distinctive and relatively diverse. Limitations in land, capital, technology and involvement in institutions require serious and specific handling, unlike other farmers in general (Tarigan et al., 2017). According to (Tarigan et al., 2017), the biophysical characteristics of smallholders are characterized by limited control and ownership of low to moderate land and infrastructure.

II. Research Methods

The method used in this study uses a qualitative approach with descriptive analysis methods. Qualitative research is data collection in a natural setting to interpret the phenomena where the researcher is the crucial instrument (Anggito & Setiawan, 2018). (Sugiyono, 2010) said that qualitative research is based on postpositivism, used to examine the condition of natural objects. The research was conducted in the center of agricultural production in Lingga Regency. Data collection is done by collecting secondary data from Regional Apparatus in the form of strategic plans, Lingga in Figures 2019 and 2020, to enrich research in the form of books, journals, research results, and other information that supports this research.

III. Discussion

3.1 Agricultural Development Opportunities for Regional Food Security

Priority agricultural policies have not changed much under the current administration. The focus is on food sovereignty, self-sufficiency in staple foods of rice and corn, and increasing the production of other strategic crops (ADB, 2019). Strategic issues in the Local government medium-term development plan (RPJMD) document 2016-2021 contain priorities for agricultural development and food security as the implementation of sustainable agricultural development, and it is necessary to develop a concept of zoning agricultural commodities for food crops and plantations towards agricultural and plantation products with superior commodities by the physical conditions of the local environment. Support the development program of the plantation agriculture sector is followed by the empowerment of the agricultural-plantation community and appropriate agricultural institutions such as coaching field officers, microfinance institutions. On the other hand, efforts to diversify commodities and product diversification for the domestic and export markets. Therefore, it is necessary to increase the capacity and performance of plantation agriculture officials. (Lei, 2019) argues that small and micro-enterprises in agriculture can address their financing challenges by strengthening their management and enhancing their internal competitiveness. Government can increase support, optimize and improve access of small and micro agriculture enterprises to finance from the financial markets.

Continue to ensure food security by providing affordable basic needs through planned procurement, distribution, and warehousing of necessities. Basic infrastructure continues to be improved by developing quality education and health facilities to serve the community's needs throughout the region. The Lingga Regency Government prioritizes opening agricultural land in the Lingga Regency area to make Lingga a rice granary in the Riau Islands by 2020. The success of agricultural fields in Sungai Besar Village begins when the Lingga Regency local government is optimistic about opening agricultural land in all potential Lingga Regency points. In 2016, it was recorded that the beginning of the movement to clear agricultural land in Lingga Regency, which was first opened in Sungai Besar Village, followed by Bukit Langkap and Resang Village. Although at first, the Lingga

District Government's plan to become a rice barn was deemed not to meet the requirements, one of which was that the construction of irrigation networks did not accompany the development of paddy fields. Therefore, Lingga Regency needs assistance to build an irrigation network. However, the central government could not help Lingga because it was declared ineligible. Lingga Regency has a potential of up to 10,000 hectares of rice fields. However, no area can be used as a location that allows 3,000 hectares of rice fields in one stretch in Lingga. Each location can only be used for a maximum of 1,000 hectares while rice production increases.

In addition to poor irrigation and drainage systems, plants cannot grow optimally. When there is heavy rain, the plants will be flooded, even flooded for a long time, affecting the plant growth process. Irrigation in Indonesia is almost 100% dedicated to rice alone; other crops do not get it, which means its growth depends on rainfall. With the climate anomaly, irrigation and drainage systems are increasingly important to get the attention of farmers and the government.

Conditions of climate change significantly affect the distribution of food in the archipelago. This has an impact increases the price of various products, including agricultural products. The increase in the price of agricultural products has burdened the community and farmers in getting access to food. Conceptually, it is stated that food security is the result of the work of an interacting system, namely the availability, distribution, and consumption subsystems. If the three subsystems are not achieved, it is impossible to build food security, leading to food insecurity.

The agricultural sector is one of the crucial sectors in the development of the national economy. Besides being able to absorb labor, the agricultural sector also plays an essential role in forming GDP, foreign exchange earnings, food supply, poverty alleviation, improvement of people's income.

Potential and investment in the agricultural sector of Indonesia as an agrarian and maritime country, the agricultural sector is one of the main parts of Indonesia's economic development. In 2020, the Central Statistics Agency, among others, stated that in 2018 and 2019, this sector contributed 7.76 percent of Indonesia's Gross Domestic Product, absorbing 48.23 percent of the workforce. The agricultural sector plays a role as a provider of food and industrial raw materials and plays a role in preserving the environment.

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Each region or region in Indonesia is relatively often found with farming communities living with a subsistence economic pattern. They are not bound by technical arrangements and commercialization of the agrarian economy; the main thing is to survive to meet the family's food needs and several other needs. Even if agricultural production can be sold, it will only be sold at a low price as long as it can meet the minimum needs. The subsistence paradigm does not place profit as the main thing, but fulfilling one's own needs is the main thing. That is the logic of survival in a period of Indonesian agricultural helplessness. Stop the expansion of agricultural products from outside by fulfilling the needs of oneself. Likewise, the farming community in Lingga Regency, most of which are subsistence farming communities, especially ex-transmigration communities in Lingga Regency since 1980 and the indigenous people of Lingga Regency. It is just that these subsistence farmers are not tied to land rents, or work with owners and capitalist investments because they own their land, so farmers have a space of existence without thinking about routine land rent costs or land rent attachments.

The plants grown are horticultural types of seasonal vegetables and fruits such as mustard greens, long beans, cayenne pepper, kale, spinach, and cucumbers. For the production of fruits that fall into annual fruit crops, namely duku/langsat, durian, mango, mangosteen, jackfruit, pineapple, papaya, banana, and rambutan. These products generally enter the commercial market to meet the minimum needs of farmers.

Table 2. Production of Seasonal Vegetables and Fruits 2019

No.	Commodity	Production (Quintal)
1.	Petsai / Mustard	272
2.	Long beans	120
3.	Cayenne pepper	244
4.	Kale	1,501
5.	Spinach	839
	Total	3,026

Source: Lingga Regency Horticultural Crops Statistics 2019, Lingga Regency Central Bureau of Statistics

Table 3. Annual Fruit Crops Production, 2019

No.	Commodity	Male Production (Quintal)
1.	Duku/ Langsat	651
2.	Durian	2.417
3.	Mango	100
4.	Mangosteen	720
5.	Jackfruit/ Cempedak	3,567
6.	Pineapple	114
7.	Pawpaw	69
8.	Banana	574
9.	Rambutan	3,582
10.	snakefruit	59
11.	Petai	46
12.	Jengkol	151
	Total	

Source: Lingga Regency Horticultural Crops Statistics 2019, Lingga Regency Central Bureau of Statistics

In addition to vegetable and fruit crops, currently, Lingga Regency can produce rice with the construction of rice fields by the local government. The local government functions as a service provider for the public interest and functions for socio-economic development. Rice production can influence political and economic conditions (Azis et al., 2020). The relationship between government policy and agricultural supply requires analysis at many levels. The approach taken by governments to agricultural production is shaped by the ideas of economic development, economic interests, prescriptions, and requirements of international bodies. (Lencucha & Thow, 2019).

On February 15, 2018, it was the moment of the main harvest from the acceleration of the significant harvest movement and the simultaneous planting of rice and corn in Lingga Regency. The movement to accelerate the harvest and simultaneous planting of rice and corn on 1,800 hectares involved thousands of people from farmer groups, civil service, nongovernmental organizations, and students. The activity is simultaneous planting in seven rice fields spread across Singkep and Lingga Islands. The regional government hopes that the simultaneous harvesting and planting movement that he initiated will provide new energy for the revival of the agricultural sector. Especially on Bunda Tanah Melayu to the Lumbung Pangan Berorientasi Ekspor (LPBE) in the border area.

Table 2. Respondents' Answers for Service Quality Variables

Indicator	Unit	Year	Target	Achievements	%
Percentage of	%	2018	42	9	21,43
Increase in		2019	50	25,26	50,52
Rice					
Production					
			33,75	19.32	57,24%

Source: LJKIP Lingga Regency in 2019

The subsistence farming pattern in Lingga Regency is relatively stable because farmers are not tied to the routine of commercial markets. Economic decisions are their own. If they want to get more results, they will increase their production, but if it is only sufficient for their daily needs, they will only produce statically. Because subsistence is a whole process of life, it cannot be directly assessed and analyzed by scientific methods of cost-benefit analysis and market supply and demand. Subsistence farming activities and commercial agriculture depend on each other to provide the possibility of market consumption and, simultaneously, part of the people's lifestyle, with market consumption patterns. Subsistence farming has always been a vulnerable enterprise (Oyo & Kalema, 2016). Many farmers are still in subsistence and semi-subsistence farming. Those farmers are expected to move from subsistence to intensive and commercial agriculture (Mariyono, 2019) (Mariyono, 2019). However, such a guarantee will no longer exist if the harvest is sold or if part of it is valued at the prevailing prices to pay rent or interest and taxes. Yields can be higher, but falling prices will lower the actual value. To the extent that the market determines the value of farmers' crops, to that extent, it is also vulnerable to uncertainty from the price mechanism.

3.2 Policy in Strengthening Subsistence Agriculture

Strengthening the local economy can be an essential point that has a relatively more significant effect in absorbing local workers while providing more added value than developing international companies or foreign investment. Agricultural policies issued by the government do not fully address the expected needs. Suppose the main goal is the welfare of farmers. It is well known that smallholder households typically consume a sizeable part of

what they produce at home (Sibhatu & Qaim, 2017). In that case, the most important thing is to identify the causes of poverty, social and economic inequality, and the ongoing imbalance of agricultural development so that the welfare of farmers is still only rhetoric. In the field of food access, it is clear that the provision of adequate food access for all community members is not carried out solely by the market. What seems clear is that such market-oriented measures have created a situation where government support for agricultural production will require more profound ideological shifts in the relationship between government and market (Lencucha & Thow, 2019).

There are rural and urban areas that lack access to affordable food, among other foods. Limited access to food is associated with poor diet and the prevalence of food-related diseases and exacerbates health disparities for low-income populations.

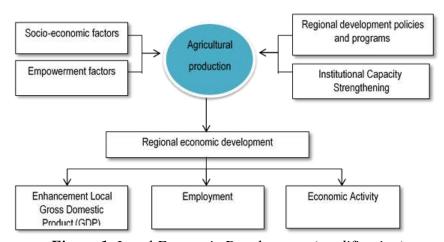


Figure 1. Local Economic Development (modification)

Local governments are focused on rice production alone, develop corn production, and so on according to the community's basic needs. Then people who are not farmers take the opportunity by producing organic fertilizers and medicines to deal with pests. So that farmers (both horticulture and secondary crops) have no trouble finding these materials because they are readily available in the surrounding environment. That is very easy for farmers because they do not need more time and energy when agricultural activities need it. They can easily buy materials sold in the market or directly to fertilizer producers, then immediately use them on their farms. You need to plant the seeds, you just need to spread the fertilizer, and you just need to spray the drugs or pest control. Developing a farming business requires a network of partnerships between the government, the private sector, and local communities. The agricultural sector in Lingga Regency in developing community farming is also inseparable from the government's attention where the government helps assist with tools (appropriate technology) used in the production process, then funding assistance so that business development can run smoothly and extension activities.

The most binding constraint for subsistence farmer producers is the lack of marketing information and the inability to meet quality standards that impede agricultural production. Subsistence farmers who are also producers need to know where the market is, where their competition is, what preferences and standards must be met, how to meet these standards technically and how to minimize price and marketing risks. If these barriers are overcome, financial institutions or cooperatives, for example, will not be selective in lending to the small-scale agricultural sector. Because the private sector has adequately served large-scale commercial farmers, the government and other stakeholders should focus agricultural development efforts on subsistence farmers, especially those organized through farmer group institutions.

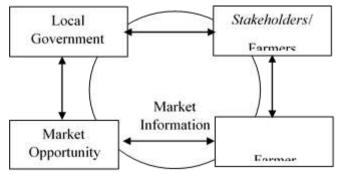


Figure 2. Market Information Flow

Concentration on subsistence farmers leads to faster growth. The food production system by the community has the opportunity for significant economic development for the community. Investments in local and regional food production economies can support local businesses, create jobs, and revitalize local economies. That is also what can make local governments formulate regional development planning strategies that favor the community's welfare. To help generate policy ideas that support economic development in the agricultural sector, local governments can also create task forces to study the economic system of local agricultural production, gather input from farmers and other stakeholders, and embrace investment players in local economic development to develop agricultural businesses in addition infrastructure related to local agricultural production. However, to maximize opportunities for local economic development, local governments make regulations to expand production networks and guarantee local agricultural independence. The local government of Lingga Regency has supported training and empowerment of farmers and assistance for farming development as an economic development strategy to assist local agricultural business development.

In general, rural markets in developing countries often do not function perfectly (Feder, 2004). Liquidity and credit constraints are key factors that cause poor agricultural households to use lower than optimal types and quantities of inputs. Poor households, especially women, often find it difficult to borrow money due to a lack of assets to use as collateral for impossible credit terms, asymmetric information, or government policies. The first step in developing a meaningful perspective on the agricultural development process is to abandon the view that agriculture in pre-modern or traditional societies was essentially static and undeveloped. Viewed from the historical context, the problem of agricultural development is not transforming the static agricultural sector into a modern dynamic sector but accelerating the rate of growth of output and agricultural productivity in line with the growth of other sectors of economic modernization. The agricultural sector, especially subsistence agriculture, is seen as a sector with low productivity that does not have the dynamism to act as a motor of economic development. The pattern of subsistence farmers often seems familiar to economic observers; they seem to have patterns that are not by the principles of economic theory or even irrational.

The agricultural development strategy in Lingga Regency will gradually move dynamically towards agribusiness development that the local government can drive through the provision of subsidies for agricultural production facilities, support for farming capital, strengthening farmer institutions, and providing village transportation, believed to be able to bring Lingga's agriculture to competitiveness in the Riau Island Province.

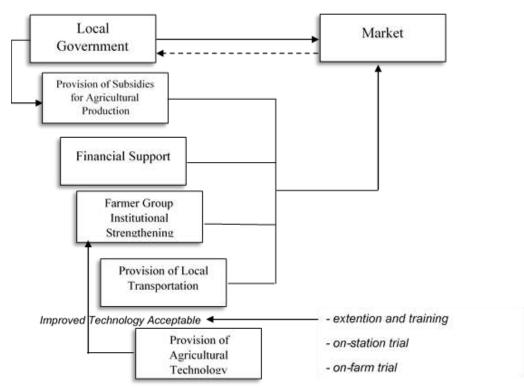


Figure 3. Local Agricultural Sector Development Strategy

From the picture above, the role of local governments for agricultural development, especially traditional/subsistence farmers, in meeting the market and food needs in Lingga Regency does not only depend on supplies from other regions but can meet local market needs to be able to meet food needs in the Riau Islands Province. Local governments can provide support through the four things above: providing subsidies for agricultural production facilities, supporting farming capital, strengthening farmer institutions, and providing village transportation. Meanwhile, the application of technology cannot be made directly but gradually or through the diffusion of agricultural extension innovations to farmer groups. The provision of assistance for production facilities is one of the impetuses for subsistence farmers to initiate changes to commercial markets in support of community food needs.

Meanwhile, the availability of farming capital provided by the local government is essential for farmers who are still subsistence to encourage production. This ever-changing technology is expected to provide increased productivity and product quality by market demand. The government's efforts in implementing agricultural development policy strategies have unique contexts and priorities, and specifications according to the characteristics and targets of each region. Then the strategy is based on the conditions, the level of availability of resources and capital, and the technology. The use of various relatively modern agricultural tools is intended to increase agricultural productivity, which has been constrained by the ability of farmers to cultivate the land (Waskitojati et al., 2019).

The pattern of farming communities in subsistence agricultural production in Lingga Regency is relatively impossible to do with a technological approach. If there is uniformity of crops and agricultural patterns, it can cause farmers to lose creativity and be less than optimal in producing agricultural products. The agricultural technology approach is carried out in stages by the local government through agricultural extension workers to farmers through farmer group institutions because agricultural mechanization cannot be forced directly in the farming community of Lingga Regency.

Although subsistence farming may appear to be a barrier to economic growth, it is the only way for rural communities to survive in challenging and risky conditions. Livelihoods can be seen as an effective strategy to address the high transaction costs and risks and uncertainties that threaten the survival of low-income families. Subsistence agriculture can even play an essential role in stabilizing the needs of the food market. Given that the geographical condition of Lingga Regency is a maritime area and the dependence on food supplies from areas outside the Lingga Regency and the Riau Islands Province, the food needs can be covered by the availability of agricultural products from local farmers, primarily subsistence farmers.

To optimize agricultural development efforts, the strategy that can be taken for the development and empowerment of local agriculture, especially subsistence farming communities, by the Lingga Regency government provides subsidies for agricultural production facilities, supports farming capital, and strengthens farmer institutions, and providing village transportation. Meanwhile, changing traditional farming patterns through technology cannot be done directly, considering the productivity of agricultural products produced so far has been carried out using traditional patterns, and subsistence farmers reject agricultural mechanization. Policy efforts aimed at changing subsistence agriculture need to understand the determinants. At least the production of subsistence agriculture can be used as an alternative to the supply of food. When there is an annual climate change, the supply was initially imported from outside the region, and now these needs can be supplied from subsistence farmers from their regions.

IV. Conclusion

Although subsistence farming may appear to be a barrier to economic growth, it is the only way for rural communities to survive in challenging and risky conditions. Livelihoods can be seen as an effective strategy to address the high transaction costs and risks and uncertainties that threaten the survival of low-income families. Subsistence agriculture can even play an essential role in stabilizing the needs of the food market. Considering the geographical condition of Lingga Regency, which is a maritime area, and dependence on food supplies from areas outside Lingga Regency and Riau Islands Province, food needs can be covered by the availability of agricultural products from local farmers, primarily subsistence farmers. To optimize agricultural development efforts, the strategy that can be taken for the development and empowerment of local agriculture, especially subsistence farming communities, by the Lingga Regency government is by providing subsidies for agricultural production facilities, supporting farming capital, and strengthening farmer institutions, as well as providing village facilities.

Meanwhile, changing traditional agricultural patterns through technology cannot be done directly, considering the productivity of agricultural products produced so far has been carried out using traditional patterns, and subsistence farmers reject agricultural mechanization. Policy efforts aimed at changing subsistence agriculture need to understand the determinants. At least subsistence agricultural production can be used as an alternative to the food supply. When there is an annual climate change, the supply was initially imported from outside the region, and now they can be supplied from subsistence farmers from their area.

References

- Angelia, N. (2020). Analysis of Community Institution Empowerment as a Village Government Partner in the Participative Development Process. Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Vol 3 (2): 1352-1359.
- Anggito, A., & Setiawan, J. (2018). Metodologi penelitian kualitatif. CV Jejak (Jejak Publisher).
- Arham, M. A., Fadhli, A., & Dai, S. I. (2020). Does Agricultural Performance Contribute to Rural Poverty Reduction in Indonesia? Jejak, 13(1), 69–83. https://doi.org/10.15294/jejak.v13i1.20178
- Azis, M., Hidayat, A., & Ismail, A. (2020). Penilaian Kerugian Ekonomi Usaha Tani Padi Sawah dan Status Keberlanjutan Pengelolaan Saluran Irigasi Sekunder Vanderwijck di Yogyakarta. Analisis Kebijakan Pertanian, 18(1), 1–24.
- Aziza, T. N. (2019). Upaya Penguatan Kelembagaan Pangan. Jurnal Ekonomi Pertanian Dan Agribisnis, 3(1), 204–217. https://jepa.ub.ac.id/index.php/jepa/article/view/159
- Barbier, E. B., & Hochard, J. P. (2016). Does land degradation increase poverty in developing countries? PloS One, 11(5), e0152973.
- Chivasa, N. (2019). Sustainability of food production support services offered by Sustainable Agriculture Trust to subsistence farmers in Bikita District, Zimbabwe. Jamba: Journal of Disaster Risk Studies, 11(1), 1–9. https://doi.org/10.4102/JAMBA.V11I1.526
- Dewi, E. (2018). Returning Government Policy for Poverty Reduction in Aceh. Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Vol I (4): 40-49.
- FAO. (2015). The economic lives of smallholder farmers. In FAO Food And Agriculture Organization of the United Nations. http://www.macrothink.org/journal/index.php/rae/article/view/6320%0Ahttp://www.up ov.int/edocs/mdocs/upov/en/upov_sym_ge_11/upov_sym_ge_11_10.pdf%0Ahttp://ajae.oxfordjournals.org/cgi/doi/10.2307/1241587%0Awww.iosrjournals.org%0Ahttp://link.springer.com/10.
- Hayat, H., & Si, M. (2018). Kebijakan Publik Evaluasi, Reformasi Dan Formulasi. Malang: Intrans Publishing.
- Lei, W. (2019). Game Analysis and Countermeasure of Internet Finance and Financing of Agricultural-related Small and Micro Enterprises. 4th Annual International Conference on Social Science and Contemporary Humanity Development (SSCHD 2018), 476–480.
- Lencucha, R., & Thow, A. M. (2019). How neoliberalism is shaping the supply of unhealthy commodities and what this means for NCD prevention. International Journal of Health Policy and Management, 8(9), 514.
- Mandang, M., Sondakh, M. F. L., & Laoh, O. E. H. (2020). Karakteristik Petani Berlahan Sempit Di Desa Tolok Kecamatan Tompaso. Agri-Sosioekonomi, 16(1), 105. https://doi.org/10.35791/agrsosek.16.1.2020.27131
- Mariyono, J. (2019). Stepping up from subsistence to commercial intensive farming to enhance welfare of farmer households in Indonesia. Asia and the Pacific Policy Studies, 6(2), 246–265. https://doi.org/10.1002/app5.276
- Oyo, B., & Kalema, B. M. (2016). A System Dynamics Model for Subsistence Farmers' Food Security Resilience in Sub-Saharan Africa. International Journal of System Dynamics Applications, 5(1), 17–30. https://doi.org/10.4018/ijsda.2016010102
- Paudel, M. N. (2016). Prospects and limitations of agriculture industrialization in Nepal. Agronomy Journal of Nepal, 4, 38–63.

- Rigg, J., Salamanca, A., & Thompson, E. C. (2016). The puzzle of East and Southeast Asia's persistent smallholder. Journal of Rural Studies, 43, 118–133.
- Setiawan, I. (2018). Handbook Pemerintahan Daerah. Wahana Resolusi.
- Setiyowati, I. L., & Noor, I. (2018). Farmer Exchange Rate and Agricultural Land Conversion Analysis to Agricultural Sector Poverty in Indonesia. 10(1), 35–43.
- Shikur, Z. H. (2020). Agricultural policies, agricultural production and rural households' welfare in Ethiopia. Journal of Economic Structures, 9(1), 1–21.
- Sibhatu, K. T., & Qaim, M. (2017). Rural food security, subsistence agriculture, and seasonality. PloS One, 12(10), e0186406.
- Sugiyono, S. (2010). Metode penelitian kuantitatif dan kualitatif dan R&D. Alfabeta Bandung.
- Tarigan, H., Suhaeti, R. N., Sunarja, R. R., Darwis, V., & Hastuti, S. (2017). Analisis tipologi dan penguatan kelembagaan petani kecil dalam rangka transformasi menuju petani komersial. Bogor (ID): Pusat Sosial Ekonomi Dan Kebijakan Pertanian. Sekretariat Jenderal. Kementerian Pertanian.
- Tedjaningsih, T., Suyudi, S., & Nuryaman, H. (2018). Peran kelembagaan dalam pengembangan agribisnis mendong. Mimbar Agribisnis: Jurnal Pemikiran Masyarakat Ilmiah Berwawasan Agribisnis, 4(2), 210–226.
- Trukhachev, V., Ivolga, A., & Lescheva, M. (2015). Enhancement of land tenure relations as a factor of sustainable agricultural development: Case of Stavropol Krai, Russia. Sustainability, 7(1), 164–179.
- van der Ploeg, J. D. (2018). From de-to repeasantization: The modernization of agriculture revisited. Journal of Rural Studies, 61, 236–243.
- Wahed, M., Iriani Sri Setiawati, R., & Asmara, K. (2020). Fenomena Sosiologis Petani Pedesaan yang Terpinggirkan di Indonesia. OECONOMICUS Journal of Economics, 5(1), 24–37. https://doi.org/10.15642/oje.2020.5.1.24-37
- Waskitojati, D., Kameo, D., & Wiloso, P. G. (2019). Tantangan Kebijakan Pembangunan Pertanian Dalam Masyarakat Subsisten: Analisis Kebijakan Revolusi Pertanian Kabupaten Sumba Barat Daya (SBD), NTT. Agric, 31(2), 158–175.
- Windasai, W., Said, M. M., & Hayat, H. (2021). Peran Pemerintah Daerah Dalam Pemberdayaan Masyarakat Nelayan. Jurnal Inovasi Penelitian, 2(3), 793–804.