

Cultural Mechanisms of Local Community towards the Food-Based Development in Indonesia (Case of Food Estate Program in Pulang Pisau Regency, Central Kalimantan)

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Pulang Pisau Regency, Central Kalimantan Province has long been used as an implementation area for economic-based and national food programs. Since 1995, Soeharto's government has achieved rice self-sufficiency with the One Million Hectare Land Project (PLG). Then in 2010 during the administration of Yudhoyono's government became the target of the Reducing Emissions from Deforestation and Forest Degradation Plus (REDD+) program. The failure of two major projects in this area did not eliminate the appeal of this area, so in 2020/2021, Widodo's government became the target for food estate development. These three mega projects are very clearly filled with the tug-of-war of national and international interests in this area. The purpose of this study was to determine the cultural mechanisms of local communities in Pulang Pisau Regency, Central Kalimantan, responding to the food-based development program by the government. The method of this research was The type of research is PRA (participatory rural appraisal). This research was conducted in the villages implementing the 2021 and 2022 food estate programs Belanti Siam and Pantik Village. The data collection techniques were carried out in this research in three ways as follows (1) Literature studies, comprehensive reading of relevant documents and archives at the district level and village level in Pulang Pisau Regency, have been carried out from the proposal until the final report is prepared. (2) Participatory observation or direct fieldwork in 2 villages: Belati Siam and Pantik, Pulang Pisau Regency, was carried out on February 27 and March 14, 2024. (3) Focus group discussions (FGD) with 40 farmers and village officials with 3 researchers and a deep interview of key informants handled with 8 enumerators on March 22-23, 2024. The result of this research was in the implementation of the food estate program, there are challenges in communication and coordination and farmer involvement in the planning, implementation, and evaluation of government food programs. Conclusion and suggestion to realize sustainable food security, requires commitment from the Central and Regional Governments, concrete support from local communities in Pulang Pisau, such as Petan, synergy of local cultural mechanisms in determining regional policies and incentives related to food programs, and adaptation based on local wisdom.

Keywords: Cultural mechanism, local farmers, contesting subjects, contestation, food estate program.

INTRODUCTION

Pulang Pisau Regency, Central Kalimantan Province has long been used as an implementation area for economic-based and national food programs. Since 1995, Soeharto's government has achieved rice self-sufficiency with the One Million Hectare Land Project (PLG). Then in 2010 during the administration of Yudhoyono's government became the target of the Reducing Emissions from Deforestation and Forest Degradation Plus (REDD+) program. The failure of

two major projects in this area did not eliminate the appeal of this area, so in 2020/2021, Widodo's government became the target for food estate development (Premono *et al.*, 2024). These three mega projects are very clearly filled with the tug-of-war of national and international interests in this area. According to Lyotard (1984), modernization is a characteristic of the superiority of the grand narrative which simultaneously creates a gap between the prosperous and the poor, the global and the local, and so on. The grand narrative is based on the idea of a "language game" of legitimate groups

Nurleni, E., D. Dubut and E. Sumandie. 2024. Cultural Mechanisms of Local Community towards the Food-Based Development in Indonesia (Case of Food Estate Program in Pulang Pisau Regency, Central Kalimantan). *Journal of Global Innovations in Agricultural Sciences*. 12(x): xxxxx.

[Received 14 Jun 2024; Accepted 17 Aug 2024; Published (online) 20 Aug 2024]



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(Lyotard, 1984). And the national food political discourse works with the same logic, becoming a grand narrative created by the state to pursue development and modernity. The grand narrative in this case makes local narratives and voices not experienced and appreciated as truth because they do not come from hegemonic power and dominant groups. The cultural mechanism as a response to local knowledge and sustainability in the natural environment is not recognized as knowledge by the dominant group. Because the local knowledge is always identified as traditional as opposed to modern. The critical study is critical to the political-economic approach which is assumed never seriously and completely finds local narratives (Forsyth, 2004). At the same time, it is less serious to see the cultural mechanisms of local communities facing the state political power that controls development in the forestry and agricultural sectors (Forsyth et al., 1998). Thus, our research intends to present the cultural mechanism working in farming communities (transmigration and cultivators) as a direct response to the development discourse “created” by hegemonic power. The purpose of this study is to determine the contesting reality of the subjects in the food-based development of the food estate program.

MATERIALS AND METHODS

The type of research is PRA (participatory rural appraisal). PRA is an extension and application of anthropological thinking, approaches, and methods, especially concerning the concept of flexible learning in the field, the importance of participant observation, the importance of the approach (rapport), the differences in ethical perspectives (the researcher's perspective) and emic (the community member's perspective), and the validity of local knowledge (Paripurno et al., 2014). The position of the researcher is as a facilitator, namely a person who makes it easier for the community to conduct the action research. This research was conducted in the villages implementing the 2021 and 2022 food estate programs: Belanti Siam and Pantik Village. Belanti Siam Village is a village that implements 3-season rice planting activities to anticipate the food crisis due to the impact of COVID-19. Meanwhile, Pantik Village is a support village in the program. The distance to the villages from Palangkaraya City is 152 km by land transportation (Normila and Maulia, 2022). Travel time is approximately 4-5 hours by car. The research was conducted from January to June 2024. The data collection techniques were carried out in this research in three ways as follows (1) Literature studies, comprehensive reading of relevant documents and archives at the district level and village level in Pulang Pisau Regency, have been carried out from the proposal until the final report is prepared. (2) Participatory observation or direct fieldwork in 2 villages: Belati Siam and Pantik, Pulang Pisau Regency, was carried out on February 27 and March 14, 2024. (3) Focus group discussions (FGD) with 40 farmers and village officials with

3 researchers and a deep interview of key informants handled with 8 enumerators on March 22-23, 2024.

RESULTS AND DISCUSSION

Profile of Belanti Siam and Pantik Village: Belanti Siam and Pantik are two villages located in Pandih Batu District, Pulang Pisau, Central Kalimantan, with an area of 2.4 km² and 2.0 km² respectively (BPS KALTENG, 2024). The existence of the two villages is related to the transmigration program during the Orde Baru around 1982. Several informants said that they were among the first group of transmigrants to enter this area. At the end of 1982, they, along with several families (most of whom were related), arrived in these two areas ~at that time still within the Kapuas district. At that time, these informants were still teenagers (between 12-15 years old). At that time, they entered a jungle area with natural and soil conditions that were very different from the conditions on their home island of Java. It took about 10 years to "conquer" the peat land to be successfully planted with rice. Belanti Siam Village is a village that is the center of the implementation of the 2021 and 2022 food estate program. The journey to both villages from the city of Palangka Raya takes less than 2 hours by car or around 152 km. The geographical location of the two villages with rice fields is not far from the Kahayan estuary in the Java Sea. Belanti Siam Village is the place where the 3-season rice planting activities for the food estate program are carried out. Meanwhile, Pantik Village is a buffer village for the food estate program starting in 2021-2022. The former PLG area will be shown on the map below, which is marked with a green line on the map next to this. Belanti Siam and Pantik themselves are not the main projects of the PLG project like in the Pangkoh area. The population of Belanti Siam Village is 2,654 people (844 families) consisting of 1,309 women and 1,345 men. The population of Pantik Village is 536 people (185 families) consisting of 236 women and 300 men. The number of landowners in Belanti Siam Village is 1,595 people and Pantik 484 people, while farm laborers in Belanti Siam Village are 97 people and Pantik 15 people. The types of jobs of the villagers in Belanti Siam are more varied. The main type is in the agricultural sector, even if there is private sector work that is related to the agricultural sector such as fertilizer traders, and others. The number of residents who have not or have not graduated from elementary school is the highest, this is related to the type of work available in this place is not directly related to the skills in the available work.

Public facilities available in Belanti Siam Village are more numerous than in Pantik Village. The more public facilities are available, the higher the accessibility of the community to public service guarantees. Belanti Siam Village is a fairly busy village area compared to Pantik Village, with almost the same area but a larger population. As A result of observations,



the highway divides settlements and rice fields, facilitating access to rice fields and markets. The original six-hour travel time to the Trans Kalimantan road is now only one hour. Economic improvements are seen from the ownership of motor vehicles and concrete houses.

The area of the field land in Belanti Siam Village is 1,915 ha, of this land, only 88 ha are managed by the Margo Mulyo farmer group. The Margo Farmer Group which is the locus of this research is 22 groups consisting of 44 Heads of Families, and in the food estate scheme, the land cultivated is 2 ha for each family or 88 ha (data according the Head of the Margo Mulyo Farmer Group: Mulyono). The area of the field land in Pantik is 800 ha, of this land, 16 ha are managed by the farmer group. The Pantik Village Farmer Group which is the locus of the research is 8 groups consisting of 16 Heads of Families, with 2 ha of land cultivated for each family (data according from the Head of the Village: Dwi Cahyono).



Figure 1. Map of ex PLG marked on green line.

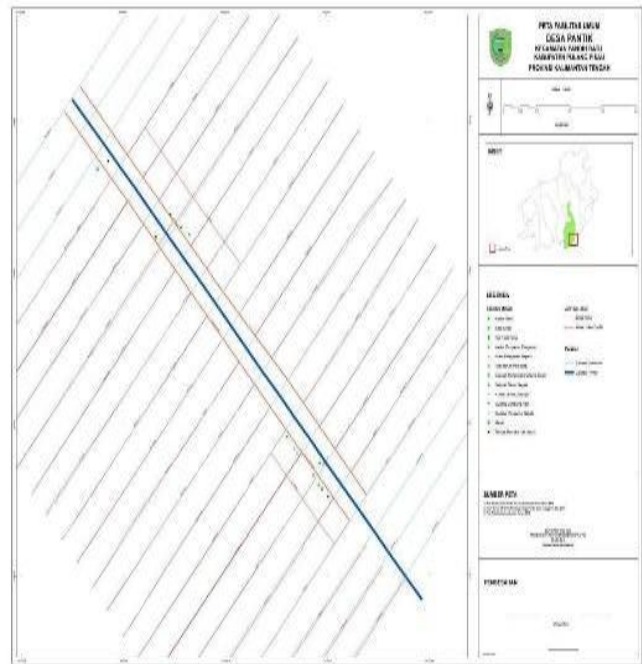


Figure 3. Pantik Village Rice Field Area.



Figure 2. The rice field area of Belanti Siam Village which is the area of the Food Estate program.

Profile of Local Subject Understanding of the Program: The food-based program that is most remembered by farmers is the 2020 food estate program at the former transmigration farm because this is the program that farmers feel the benefits. Previously, the program was incidental, for example in 2006 and 2008 assistance with seeds, fertilizers, and planting costs, 2009 assistance with swamp and lime rice seeds, 2012 assistance with superior rice seeds using the tugal system, 2014 construction of rice field boundary ditches, 2019 assistance with seeds and provision of agricultural tools from the district agriculture office. The program is not evenly distributed to all farmers. The One Million Hectare Land Program did not have an impact on the villages of Belanti Siam and Pantik because they were not the central areas of the project, only becoming areas for the project's water boundary channels. Farmers in Belanti Siam and Pantik welcomed the



2020 food estate program because it provides many benefits such as the creation of new rice fields, assistance with fertilizers, rice seeds, medicines, lime, agricultural machinery such as large tractors (Zonder), cutting tools (called sensor) and so on, and improvements to irrigation infrastructure such as widening and dredging primary, secondary, tertiary canals, and so on. Free intensive assistance from the government reduces personal capital costs so that profits can be maximized for farmers. The main benefit is the construction of a highway connecting villages in the food estate area and rice fields with the Trans Kalimantan highway. Farmers said: "The road is the most felt." So that access to selling agricultural products (grain) to Palangka Raya, Pulang Pisau, Kuala Kapuas, Palangka Raya, and Banjarmasin becomes easier and cheaper. In the past, agricultural products were sold to middlemen, now they can be sold directly to the market. They are more prosperous and more enthusiastic to continue farming. Despite receiving benefits, farmers complain about the lack of communication and involvement in the planning, implementation, and evaluation of the program. This has triggered prejudice and suspicion among farmers. Farmers are less aware of the success of the food estate program in increasing national food security. Farmers say "Bulog has never come to buy rice from us, only private traders". Farmers' understanding of the program is subjective, not national food security. Farmers have minimal understanding of the National Food Production Center area (KSPP) as a commercial plantation that refers to the export market. "We refuse to plant, this is not suitable for our land, rather than wasting time we focus on planting rice." Farmers refuse to be blamed because they are rice farmers, adding new plants means adding labor and capital, to learn new knowledge requires time and intensive guidance. Farmers said that the central and regional governments should meet and have direct dialogue with farmers before implementing programs, especially related to assistance, such as fertilizer, medicines, agricultural machinery, and others that are appropriate and on target. The food estate program is considered to have not met its target because "the assistance provided by the government is not suitable for farmers (Chakrabarty, 1998). For example, fertilizer is not ideal, tractors are not suitable for soil conditions, we need hand tractors." In addition, farmers feel that their aspirations have never been heard by the Central Government: "communication is only between officials, even though we are not the ones farming". This condition has become a driver of pros and cons among farmers and a feeling of being at a loss for village officials. Farmers complain about the uneven distribution system of subsidized fertilizer assistance, which is not available according to needs, is rare and expensive. The supply of agricultural goods is "played" by entrepreneurs or traders from outside the region: "Fertilizer is rare and expensive during the planting season, while the price of grain drops during the harvest season". This condition illustrates that the concept of prosperous development is

utopian. The government is not even able to ensure that agricultural goods are sufficiently available and affordable in its own national strategy project areas. Farmers feel like program objects that are "exploited" by the food estate program, because "Actually our land yields have increased, because even without this program our land still produces, we voluntarily want to be claimed as a food estate program. The government came and we were asked to plant rice, asked to come and receive assistance or subsidies for fertilizer, medicine, seeds, and so on, asked to provide rice field locations for "trials" of agricultural machinery, irrigation, and processing of swamp and peat land". Farmers become an alienated group on their land, planting on their land, but their success is claimed by the state. Farmers still adhere to their cultural knowledge, such as the twice-a-year planting pattern, in adapting to the government program. They reject the government's three-times-a-year planting pattern intervention. Farmers feel it is impossible because the attack of rat pests after the August harvest is difficult to control and risks crop failure. The government must be in line with local wisdom. The gap in knowledge and experience between intellectuals and field practitioners forms a passive response from farmers to the program. Farmers said: "If 1 hectare is planted with 30 kilograms of seeds, the harvest should be 5 tons, when planted three times, only 1 ton is a loss of capital and energy. For us, this is a failure." Success for farmers is not just about having rice that can be harvested, but how much can be harvested. Success for farmers is not pursuing corporate interests, but the satisfaction of farming. "When we were very serious about responding to changes in planting patterns that failed three times, the government was busy building the concept of a successful food estate. When we were busy fighting the rat invasion and disappointed with the harvest, the government was busy declaring a surplus of Belanti Siam rice, this hurt our feelings. Farmers prioritize family food sovereignty by storing sufficient rice reserves until the harvest in August 2024. Farmers do not produce rice to contribute to exports or the domestic market itself. The concept of "saving rice" as food sovereignty is a path to independence and symbolic resistance by farmers against discriminatory neoliberalism. The farmers proposed that the food estate program still needs to be continued with the following conditions: (1) subsidized agricultural equipment assistance to continue to increase their rice production is managed transparently, involves farmers directly, and the government accommodates farmers' needs. (2). The local government consistently implements Pulang Pisau Regent Regulation number 15 of 2021 concerning Joint Coordination in the Development of National Food Security Food Estate in Pulang Pisau Regency. So is the concept of integrated food development (agriculture, plantations, even livestock) and cross-sectors. The involvement of farmers in the planning, implementation and evaluation of the program is very important. (3). The government makes farmers the subject of



the program, not the object; when rice supplies are abundant, the government is required to balance the price subsidy for unhusked rice. When the price of local rice is released to the market at a high price, imported rice is more in demand because it is cheaper.

Cultural Mechanisms of Local Communities: Farmers in Belanti Siam and Pantik have local knowledge that has been tested for years in managing tidal rice fields. This knowledge is their guideline in adapting to government programs. However, local knowledge is marginalized and forgotten by the apparatus. The narrative of the national food security program has led to the struggle narrative of local farmers for almost 40 years to conquer peat swamp land becoming unhistorical. The Struggle narrative of the transmigrants against food shortages after the government stopped aid in 1985 is missing. The government forgot to learn carefully with the 1982-1983 transmigration program, PLG 1995 and REDD+ 2017. The government did not listen to the traumatic voices of local farmers: "we were released to be destroyed then." The government "disappeared" from the location, farmers were forced to survive and suddenly came back again for new projects. The farmers' subsistence reality is the reality of the cultural mechanism of local knowledge that makes them socio-cultural subjects. Subsistence in a knowledge perspective is the reality of surviving, continuing to do, fighting, retreating, maintaining independence, while also having the meaning of surviving with basic needs or defending oneself with one's own strength. Farmers said: "When we arrived at the transmigration site in 1982-1983, we lived in the middle of the forest, and transportation was via river. The government provided a quarter hectare of yard land and a house and two hectares of cultivated land (Sumartini *et al.*, 2024). The cultivated land was not ready for planting, so we had to cut it down. But we have survived until now." The reality of surviving with nature has produced a cultural mechanism that can be seen from the innovation of the "tidal peat rice field farming pattern". The cultural mechanism of farmers produces innovative and adaptive works to technological advances and natural changes as follows (1) Tidal irrigation patterns follow the ebb and flow of the Kahayan River. When the tide is high, farmers will open the water gates so that water enters, and close the water gates again so that the water remains retained in the embankments. (2) Peatland processing patterns without burning by rotting straw, processing brackish and acidic water with sedimentation, glebeg, and garu techniques is plowing the land with a hand tractor to break down natural fertilizers, soil, and artificial fertilizers. Knowledge of soil layers is important for measuring the depth of fertile soil that can be dug (3) Rice planting cycle twice a year, namely October-March and March-August. September-November is a resting phase because rat pests are attacking and disappear in December-January. Farmers gradually adapt to government programs while still adhering to their local wisdom. Farming experience

from 1982-1983 produced a culture of tidal peat swamp farming. They "fight" to manage the land, and recognize soil construction, peat thickness variations, soil acidity, water ebb and flow and seasonal changes. This understanding contributes to the overall knowledge or local wisdom towards nature and other creatures. Such knowledge is not recognized as knowledge by the dominant group (bureaucrats, technocrats, and academics), and is considered low, unscientific, and contrary to the goals of sustainable development.

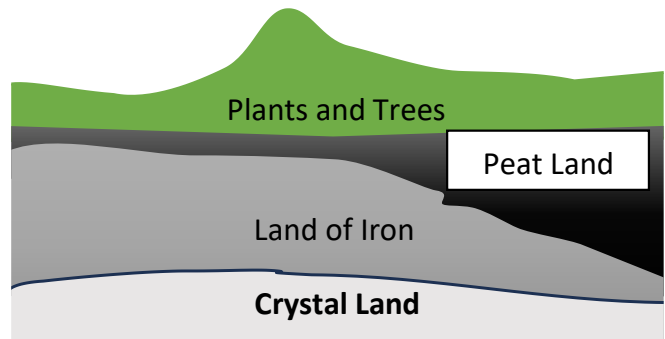


Figure 4. Soil Layer According to Belanti Siam Farmers.

They reject the proposal to plant three times, but still try to increase productivity with two times of plantings. In this case, farmers refuse to be blamed because it is not their fault. Farmers refuse to go against the principles of nature, because "after the harvest the mice come, and disappear after they have eaten the rice crumbs; this is when we share with other creatures and rest the land and ourselves."

Table 1. Profile of local subject understanding of the program.

Belanti Siam Village	Pantik Village
Population 2,654 people (844 families) consisting of 1,309 women and 1,345 men.	536 people (185 families) consisting of 236 women and 300 men.
The number of landowners 1,595 people	484 people
Farm laborers 97 people	15 people
The area of the field land 1,915 ha, 88 ha are managed by the Margo Mulyo farmer group. The Margo Farmer Group which is the locus of this research is 22 groups consisting of 44 Heads of Families, and in the food estate scheme, the land cultivated is 2 ha for each family or 88 ha	800 ha, of this land, 16 ha are managed by the farmer group. The Pantik Village Farmer Group which is the locus of the research is 8 groups consisting of 16 Heads of Families, with 2 ha of land cultivated for each family

Experience and knowledge over decades form local knowledge, which is then recognized and followed by farmers



from generation to generation. This local knowledge or wisdom is then binding and often prioritized over formal knowledge or provisions issued by the government or formal science. This knowledge and experience contribute to the maintenance of cultural heritage, the transmission of traditions across generations, and the sustainability of resources and the ecological environment. This experience then gave birth to critical awareness among farmers in dealing with food-based programs carried out by the government. Farmers who have struggled from the beginning said: "The food estate program only piggybacks on agricultural land that has been established; the food estate program is actually just an intensification program, such as additional fertilizer, medicine and agricultural machinery." Farmers want an open and honest dialogue with the government to align the program with their local wisdom. This is important to build trust and mutually beneficial collaboration. The marginalization of farmers' knowledge can threaten their sovereignty over living space and distort farmers' life skills. The government failed to convince Belanti Siam and Pantik farmers that they were the "heroes" of food insecurity. Because the knowledge arena is controlled by elitists, meanwhile, farmers' knowledge is marginalized and not utilized: "we are the ones farming, not the government, why aren't we heard?" According to Forsyth (2004), the production of elitist knowledge is obtained through scientific mechanisms containing political interests, cultural mechanisms are the production of local knowledge obtained through experiences containing cultural interests. Elite and local knowledge become binary opposites. Subordination with local knowledge has an impact on the less than optimal implementation of development programs in a region. The government intervened with power (military) to force farmers to work using large tractors. Farmers said "there were military officials who forced us to use large tractors, we just followed them and lowered the tractor into the rice fields, and the tractor sank into the mud. We asked the officials' men to lift the tractor that had sunk." The knowledge of experts who focus on scientific mechanisms causes an area to have to be intervened with technology transfer. However, there is often a gap between scientific knowledge and local natural conditions, which causes technology transfer to be ineffective. So farmers carry out a cultural resistance mechanism because it is impossible to refuse openly or what is called symbolic resistance. Symbolic resistance is carried out in a cultural mechanism, namely experience; experience is important and sometimes expensive knowledge (dhi. farmers provide experience by sacrificing a large tractor). Discussing farmers' voices equally in the "pursuit" of development-based schemes is one effort to empower farmers. The problem of food security is intervened by all parties, especially farmers as the main subject. Thus, the food-based development program funded by people's taxes through the APBN (the 2022 budget reaches 76.9 trillion) can be utilized optimally. Thus, the government's commitment,

especially the Ministry of Agriculture, has received support from the local farming community. In addition, the response of local farmers to the sudden food-based development program varies greatly, so a cultural strategy is needed to reduce the risk of program failure (Millah *et al.*, 2020).

Stakeholder Contestation: Local farmers in Belanti Siam and Pantik are the main actors in the government's food program. They have local knowledge and wisdom that serve as guidelines for adapting to the program. However, farmers refuse to become capitalist production machines that work without a break to pursue production. Intervention of agricultural equipment is one form of the use of state power over society. The government legitimately "forces" farmers to switch in the name of national interests to increase rice production: "We need a hand tractor, according to the thickness of the mud and the condition of the road to the rice fields." Meanwhile, the assistance of large four-wheeled tractors from the government is too heavy and sinks in certain areas, because the depth of the mud is not the same, in the end, this assistance is wasted. Contestation between farmers regarding program priorities, and social jealousy because the food estate program is only for certain farmers. Farmers who participate in the program are more prosperous than those who do not. This is because farmers get additional rice field land, fertilizer subsidies, and medicines, the formation of farmer groups as a means of sharing and channeling aspirations (Millah *et al.*, 2020). Triggering social jealousy among farmers. The central and regional governments are the initiators of food programs, such as food estates, with the aim of increasing national food security. They need to align the program with the local wisdom of farmers. Contestation between the central government and farmers regarding interventions in agricultural patterns. Farmers feel that the government does not understand the changes in seasons and their impact on agricultural land in the 3-cropping program. Farmers consider this to be purely a failure of the central government to understand the local agricultural cycle. Contestation between farmers and regional governments regarding participation and authority of regional governments. Farmers feel that they are not the real subjects of this program, because there is no corridor for farmers to convey their knowledge about tidal swamp farming, changing seasons, etc. Also channelling complaints regarding irregularities in the management of the distribution of fertilizers and medicines. The regional government said that the authority related to the food estate lies with the central government. This condition can encourage a destructive response as a "dead end" when the normative power channels that can be reached cannot provide them with space for participation. Contestation between farmers and village officials regarding the distribution of agricultural equipment assistance. Farmers feel that the management of assistance is never transparent, unfair, and uneven. Village officials hoard agricultural machinery aid, and the distribution of fertilizer



aid is less than farmers' needs. This causes the potential for conflict between farmers and village officials to increase. The presence of third parties, such as large investors, can take advantage of potential conflicts between farmers and the government. This needs to be watched out for to maintain the sustainability of the food program (Wuriyani, 2019; Wiyatmi, 2019). Contestation between farmers and traders related to the distribution of agricultural support equipment. Subsidized (cheap) fertilizers are not available at designated kiosks, forced to buy from outside at much higher prices. Distributors of grain and rice are important partners for farmers to support farmer welfare. However, there is no Bulog or government that accommodates or buys grain or rice from farmers. This causes conflict between farmers and traders. Contestation between farmers and palm oil companies related to land use. The location of the rice fields has been surrounded by large oil palm plantations. Farmers are starting to feel the impact on their agricultural output. Oil palm requires intensive fertilization and pest control, and its waste causes pollution to rice field irrigation. Oil palm plants are greedy for water, resulting in reduced water discharge for rice field irrigation. The social engineering to increase farmer participation in the food program as follows: (1) Cooperatives that will accommodate and buy their rice or paddy at prices that benefit farmers (2) Fertilizer subsidies, medicines, superior seeds, hand tractors, opening new land, irrigation, lime, irrigation, and others evenly and fairly. (3) Livestock development programs, farmers propose that before the program is implemented, they should meet and discuss first with farmers. (4) Direct meetings between farmer groups and policymakers from the center, province, and district. (5) Paved road access on rice field routes (6) Farmer meeting huts for farmer group discussions. (7) Increasing the number and capacity of agricultural extension workers.

Conclusion: In the implementation of the food estate program, there are challenges in communication and coordination and farmer involvement in the planning, implementation, and evaluation of government food programs. Lack of communication triggers prejudice and suspicion among farmers towards government programs. Conflicts between farmers and the government, if not managed properly, can lead to polarization, division, and even violence. Therefore, coordination and open dialogue between farmers and the government are key to managing differences and building trust. Realizing sustainable food security, requires commitment from the Central and Regional Governments, concrete support from local communities in Pulang Pisau, such as Petan, synergy of local cultural mechanisms in determining regional policies and incentives related to food programs and adaptation based on local wisdom.

Authors contributions statement: Evi Nurleni, Darius Dubut, Elisae Sumandie: prepared the draft, designed, completed the experiments, reviewed and finalized the draft.

Conflict of interest: The authors declare no conflict of interest.

Acknowledgment: We are thankful to Dr. Mohammad Yusuf Alamudi for checked and providing input and suggestions on this manuscript.

Funding: Agreement Number 41/IV/KS/05/2023 dated 8 May 2023 concerning Implementation of the Research and Innovation Program for Advanced Indonesia Wave 3" for implementation in 2024.

Ethical statement: This article does not contain any studies regarding humans or Animals.

Availability of data and material: We declare that the submitted manuscript is our work, which has not been published before and is not currently being considered for publication elsewhere.

Code availability: Not applicable.

Consent to participate: All authors participated in this research study.

Consent for publication: All authors submitted consent to publish this research. article in JGIAS.

SDG's Addressed: Zero Hunger, Responsible Consumption and Production, Life on Land, Partnerships for the Goals.

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