

Research Article

Stakeholders Analysis in the Development of Local Paddy Varieties in Padang City

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Abstract.

The development of local paddy varieties involves many stakeholders. Each stakeholder has a different role ranging from the socialization and farming to the marketing of local rice varieties. This research aims to identify stakeholders and analyze their role in developing local paddy varieties using a descriptive qualitative method. The respondents in this research are stakeholders involved in the development of local paddy varieties in Padang City. The results show that the stakeholders involved are the Padang City Agriculture Office, Agricultural Extension Center, farmers, farmer groups, landowners, seed breeders, production facilities providers, agricultural labor, rice milling units, collecting traders, colleges, sub-district administration, urban village administration, financial institutions, the Regional People's Representative Council, retailers, and consumers. Classifications of stakeholders show that the Padang City Agriculture Office, the Agricultural Extension Center, farmers, and farmer groups have high influence and interest. These stakeholders are classified as key players. Meanwhile, sub-district administration, urban village administration, financial institutions, and Regional People's Representative Council have low influence and interest. They are classified as the crowd. All of the stakeholders mentioned that roles play their position as policymakers, coordinators, facilitators, implementers, and accelerators.

Keywords: paddy, stakeholders, interest, power, role

1. Introduction

Rice is the staple food in Indonesia. It is shown from the harvesting land and production of paddy. And then, the majority of Indonesian people consume rice produced from paddy. The paddy harvest land in Indonesia in 2022 is 10,606,513 Ha, and paddy production of 55,670,219 tons [1].

On the other hand, paddy is a commodity with high economic value to maintain food security. Food security is seen in availability, affordability, quality, and safety [2].

To realize food security, the government has made various efforts to increase the productivity of paddy. The use of superior varieties is one of the efforts to increase productivity [3].

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National high-quality varieties have been introduced for farmers in paddy production centers, including paddy farmers in West Sumatra Province. However, farmers in West Sumatra Province prefer to plant local varieties because of their tastes [4]. Therefore, efforts to develop local paddy varieties continue to be carried out by the local government of West Sumatra Province.

Some local varieties of paddy planted by farmers in West Sumatra Province include Mundam, Kuniang Kulik, Simeru, Rahmat, Suntiang Ameh, Srikandi, Padi Putih, Cintaku, Silih Berganti, Bakwan, Suntiang, Makwan, and Anak Daro. In addition, several other local varieties are also planted by farmers, namely cisokan, bujang marantau, kuriak kusuik, and ceredek. Each region has different local varieties, the majority of which are planted by farmers. For Padang City, most of local varieties planted by farmers are the Cisokan, Anak Daro, and Bujang Marantau.

The local government of Padang City continues to strive to develop local varieties of paddy to maintain the availability of the staple food. This is done because of the tendency of the people of Padang City to consume rice derived from local varieties of paddy.

The understanding and promoting local agricultural varieties emerge as imperative facets of sustainable development. These local varieties have contributed to the richness of agro-biodiversity, food security and risk of cultivation.

The development of local variety agricultural commodities has related with the broader context of agricultural sustainability. These commodities relation agricultural local wisdom, that is intricately intertwined with local communities [5,6]. Their cultivation fosters a sense of identity and community resilience [7].

The development of local varieties of paddy involves various stakeholders. The stakeholders involved from upstream to downstream in the development of local varieties of paddy. Each stakeholder has a different role. The interests and influence of stakeholders will also differ. However, stakeholders have conditions and challenges that cause limited contributions to developing local paddy varieties. Because of this, cooperation and coordination between stakeholders are needed so that the development of local varieties of rice can be achieved. Therefore, it is necessary to conduct studies related to stakeholder aspects in the development of local varieties of paddy.

This research aims to identify and analyze stakeholders who play a role in the development of local varieties of paddy in Padang City.

2. Methods

This research was conducted in Padang City. The initial sampling of the study was carried out by purposive sampling method. Sampling began with farmers planting local varieties of paddy in three locations, namely Pauh District, Kuranji District, and Koto Tangah District. The number of farmers interviewed was 180 people. Based on information from farmers, sampling was further developed based on their relevance in the development of local varieties of paddy. And then sampling of this study by snowball sampling. The interviews included farmer groups, landowner, seed breeders, production facilities providers, agricultural labor, rice milling units, collecting traders, college, sub-district administrative, urban village administrative, financial institutions, Regional People's Representative Council, rice retailers, the Padang City Agriculture Office, and the Agricultural Extension Center.

The research method used the qualitative descriptive method. Qualitative research explores and understands problems that arise from individuals or groups [8]. Data were collected through direct observation and interviews.

The data used are primary and secondary. Primary data were obtained from field observation reviews and interviews. Secondary data are obtained from literature studies and reports related to stakeholders.

The data analysis used an interactive model. The components in the interactive model are data collection, data reduction, data display, and conclusion drawing and verification [9]. Data collection is carried out by the triangulation method. Triangulation is a data collection technique by combining data and information from various sources. Data reduction is selecting, focusing, and selecting basic data and information. Data display can use short descriptions, charts, and category relationships. Research displays data in the form of images and narratives. Initial conclusions were obtained after data reduction and display. Furthermore, verification is carried out to obtain a final conclusion

This research uses a stakeholder analysis approach. Stakeholders include organizations, people, groups, or institutions interested in a policy, program, or project who have an interest in a policy. Stakeholders are parties who can influence or be influenced (receive impact) by decisions taken. Stakeholder involvement influences decisions in an activity. The group of stakeholders are primary and secondary stakeholders. Primary stakeholders have a direct interest and are very influential in an activity. These stakeholders are also referred to as key stakeholders. The secondary stakeholders do not have a direct or intermediary interest in an activity Stakeholder analysis is carried

out by identifying, grouping, mapping, and analyzing the role of stakeholders. The stakeholders observed are only those within the administrative area of Padang City.

3. Results and Discussion

3.1. Identification, grouping and classification of stakeholder

Stakeholders involved in the development of local varieties of paddy in Padang City are individuals, groups, and government institutions. These stakeholders are primary stakeholders and secondary stakeholders.

Primary stakeholders are parties who are directly interested in the development of local varieties of paddy in Padang City. These primary stakeholders include the Padang City Agriculture Office, the Agricultural Extension Center, Farmers, and Farmer Groups.

Secondary stakeholders are parties who do not have a direct interest but are influenced by local paddy variety development activities in Padang City. These secondary stakeholders include landowners, seed breeders, production facilities providers, agricultural labor, consumers, rice retailers, collecting traders, rice milling units, Andalas University, sub-district administrative, urban village administrative, financial institutions, and the Regional People's Representative Council.

These two stakeholder groups are classified based on their interest and influence in developing local paddy varieties. The stakeholder classification includes key players, context setters, subjects, and crowds. Key players are stakeholders with a high level of interest and influence. Context setters are stakeholders with low interest but high influence. Subjects are stakeholders with a high level of interest but low influence. Crowd is a stakeholder with a low level of interest and influence [10,11].

Key players in the development of local varieties of paddy are the Padang City Agricultural Office, Kuranji Agricultural Extension Center, Marapalam Agricultural Extension Center, Koto Tangah Agricultural Extension Center, Farmers and Farmer Groups. The Agriculture Office and the Agricultural Extension Center have a high level of interest and influence because the development of local paddy varieties is one of the activities carried out by the institution. This activity is carried out by providing local varieties of paddy seeds, subsidized fertilizers, agricultural equipment, and information on cultivation. This institution assist farmers in the cultivation of paddy. This assistance aims to increase the productivity of rice plants. This is in line with the European Community also providing assistance to farmers to increase the productivity of agricultural products [12]. Farmers have a high level of interest and influence because they cultivate local

paddy varieties. It cannot be denied that farmers play a major role in the development of agricultural commodities [13].

Context setters in the development of local varieties of paddy are landowners, seed breeders, production facilities providers, and agricultural labor. This stakeholder is very influential in the cultivation of local paddy varieties. Its influence in providing land for cultivation activities, providing superior seeds, providing production facilities such as fertilizers, pesticides, and equipment, and becoming a workforce in local varieties of paddy cultivation activities. However, this stakeholder's business activities are related to more than just local varieties of paddy.

Subjects in the development of local varieties of paddy are consumers, retailers, collecting traders, rice milling units, and Andalas University. Consumers are highly interested because local paddy variety development activities are closely related to the fulfillment of staple food (rice) that suits their tastes or the need for raw materials for business activities. Consumers of local rice varieties are households, restaurants, and processing industries. Retailers, collecting traders, and rice milling units have a high interest because of the high demand from consumers for local varieties of rice and related to the profits achieved. Retailers consist of staple food stores, convenience stores, and grocery stores. Andalas University has a high interest because it has research programs related to regional-specific commodities. However, it cannot directly influence decision-making in the development of local varieties of paddy in Padang City.

The crowd in the development of local varieties of paddy is the sub-district administrative, urban village administrative, financial institutions, and Regional People's Representative Council. These four stakeholders have a low level of interest and influence because their activities are not directly related to the development of local paddy varieties.

The classification of stakeholders based on the level of interest and influence can be seen in Figure 1.

3.2. The role of stakeholders in the development of local paddy varieties in Padang city

The role of government as a stakeholder in agricultural development can act as a policy maker. Policies made by the government can be in the form of regulations and provide facilities for the development of the agricultural sector [12].

Level of Interest High	Subjects - Customers - Retailers - Collecting traders - Rice milling units - Universitas Andalas	Key Players - Agricultural Office - Agricultural Extension Center - Farmers - Farmer group
	Crowd - Sub-district administrative - Urban village administrative - Financial institutions - Regional People's Representative Council	Context Setter - Landowners - Seed breeders - Production facilities providers - Agricultural labor
Low	Level of Influence High	

Figure 1: Stakeholder classification based on influence and interest in the development of local paddy varieties in Padang City.

The role of stakeholders can be classified as policy creator, coordinator, facilitator, implementer and accelerator. The role of stakeholders in the development of local varieties of paddy varies. Therefore, partnerships between actors are needed in agricultural development [14].

The Regional Government of Padang City, through the Agriculture Office, Agricultural Extension Center, Sub-District Administrative, Urban Village Administrative, and Financial Institutions, are stakeholders in the development of local varieties of paddy in Padang City. The role of stakeholders as policy-makers is the Agriculture Office. The Agricultural Office makes a policy for the development of local paddy varieties. This policy is followed up by a program to seed assistance to local paddy varieties, such as Anak Daro, Cisokan, Bujang Marantau, and Ceredek. In addition, subsidized fertilizer distribution programs and equipment for agricultural activities, such as plows and harvesting machines, are also carried out to support the cultivation activities of local paddy varieties. Although the subsidized fertilizer distribution program is a central government program, the policy of implementing this program is responsible to each region’s agricultural offices. The role of government in making policies is also found in the development of agricultural commodities in Africa [13].

The Agriculture Office, Agricultural Extension Center, and Farmer Groups carry out the coordinator role. The Agriculture Office coordinates with the Agricultural Extension Center in implementing the development of local paddy varieties. Coordination was conducted in the implementation of seed assistance, fertilizer distribution, and equipment assistance. The agricultural extension center also coordinates with farmer groups and seed breeders. Coordination with farmer groups is carried out regarding seed

assistance, fertilizer distribution, and equipment assistance distribution. Coordination with seed breeders related to producing superior seeds for local paddy varieties.

Meanwhile, farmer groups coordinate with farmers who receive seed and fertilizer assistance. Based on observations in the field, it was found that there were farmers who switched from planting local varieties of rice to national varieties of rice. In this regard, the Agricultural Extension Center must improve coordination with farmer groups for the continuity of local paddy cultivation. Coordination carried out by farmer groups must support this improvement in coordination. On the other hand, observation shows that some seed breeders no longer produce superior seeds for local rice varieties. This condition requires the Agricultural Extension Center's coordination with breeders to produce superior seeds for local paddy varieties. The role of extension workers in providing resources to increase agricultural production is very large [15]. This is related to the spread of knowledge or new methods in agricultural cultivation. Therefore, the development of agricultural commodities cannot be separated from coordination between government institutions and farmers [16].

Facilitators are stakeholders who facilitate and meet the needs to support the achievement of the development of local varieties of paddy in Padang City. The facilitator is carried out of the Agriculture Office, Agricultural Extension Center, Farmer Groups, land owners, seed breeders, production facility providers, rice milling units, collecting traders, Andalas University, sub-district administrative, urban village administrative, and financial institutions. Each of these stakeholders provides facilities that can influence the development of local paddy varieties either directly or indirectly.

The Agriculture Office and Agricultural Extension Center provide facilities for seeds, fertilizers, and equipment for agricultural cultivation activities. In addition, it provides information and knowledge related to the cultivation of local varieties of rice. However, there still needs to be more monitoring carried out related to the sustainability of the use of the assistance provided, the suitability of equipment assistance provided with farmers' land conditions, and the suitability of seed assistance to the tastes of rice consumers. Farmer groups provide equipment in the form of plows and harvesting machines for cultivation activities and provide information related to the distribution of seeds and fertilizers. Landowners provide land for cultivation activities with a lease or profit-sharing system. Seed breeders sell superior seeds that farmers can use when seed assistance is not available. Production facility providers sell seeds, fertilizers, pesticides, and equipment for cultivation activities. The rice milling unit has a rice mill that farmers can use to grind local paddy varieties. Collecting traders provide information on the

price of harvested dry grain and loan funds to farmers. Andalas University provides various research activities related to local commodities, including local paddy varieties. The sub-district administrative and urban village administrative provide a venue for meeting activities. Financial institutions provide credit packages that can be accessed by parties who need funds for local paddy variety development activities. However, currently, the credit package has yet to be utilized by other stakeholders.

Implementers are stakeholders who carry out local rice variety development activities. Stakeholders who act as implementers are farmer groups, farmers, the Agriculture Office, and the Agricultural Extension Center. Farmer groups and farmers are the main implementers because they play a major role in the implementation of sustainable development of local rice varieties. They are cultivating local paddy varieties. The Agriculture Office and the Agricultural Extension Center are implementers because they are institutions that distribute seed assistance, fertilizers, plows, and harvesting machines for paddy cultivation activities.

Accelerators are stakeholders whose role is to accelerate or contribute so that the development of local paddy varieties can be achieved. Stakeholders who act as accelerators are the Regional People's Representative Council and Andalas University. Regional People's Representative Council can be an accelerator in approving local government funding allocations for local rice variety development activities. However, there is no special funding related to the development of local paddy varieties. Andalas University can be an accelerator with ideas, ideas, and information from the results of research that has been done. However, there still needs to be more research implementation and dissemination of research results on the development of local paddy varieties.

4. Conclusion and Recommendation

4.1. Conclusion

The primary stakeholders in the development of local varieties of rice are the Padang City Agriculture Office, the Agricultural Extension Center, Farmers and Farmer Groups. Secondary stakeholders include landowners, seed breeders, production facilities providers, agricultural labor, consumers, rice retailers, collecting traders and rice milling units, sub-district administrative, urban village administrative, financial institutions, and the Regional People's Representative Council. Key players in the development of local paddy varieties are the Padang City Agricultural Office, Kuranji Agricultural Extension

Center, Marapalam Agricultural Extension Center, Koto Tengah Agricultural Extension Center, Farmers and Farmer Groups. Context setters in the development of local paddy varieties are landowners, seed breeders, production facilities providers, and agricultural labor. Subjects in the development of local paddy varieties are consumers, retailers, collecting traders, rice milling units, and Andalas University. The crowd in the development of local varieties of rice is the sub-district government, village government, financial institutions, and the Regional People's Representative Council. The role of stakeholders in the development of local paddy varieties is as policy makers, coordinators, facilitators, implementers, and accelerators. Each stakeholder has a different role. This is related to the activities carried out and their relationship to the development of local paddy varieties.

4.2. Recommendation

Based on the result of the research, several stakeholders can optimize their role in the development of local varieties of rice. The Agricultural Extension Center is expected to conduct regular monitoring related to the sustainability of the use of local varieties of paddy seed assistance that has been given. In addition, it is necessary to review the suitability of equipment assistance with farmers' land conditions and the suitability of paddy seed assistance with rice consumers. The agriculture office, through the Agricultural Extension Center should provide motivation and rewards to seed breeders to be more active in producing local varieties of paddy seeds. Andalas University can socialize the results of research that has been carried out related to the development of local paddy varieties. Periodic coordination between stakeholders must also be carried out to optimize the development of local paddy varieties.

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