

From ideas to actions: the influence of policies and stakeholder perceptions in the development of sago technopark in Palopo City, Indonesia

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From ideas to actions: the influence of policies and stakeholder perceptions in the development of sago technopark in Palopo City, Indonesia

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Abstract. The development of sago technopark in Palopo City is a manifestation of the Memorandum of Understanding (MoU) between four local governments to advance sago in the Luwu region. In the MoU, Palopo is designed to be a thematic park that combines entertainment and education, Luwu is the center of SMEs areas in processing sago, North Luwu is a producer of seedling for sago cultivation, and East Luwu became a center for developing the technology of sago-based rehabilitation for post-mining land. For this reason, the government of Palopo City has formulated the Regional Action Plan (RAP) of Sago Technopark in Palopo (STP). This paper aims at analyzing the influence of this policy in the realization of the STP as well as to analyze stakeholder perceptions towards the development of the STP. The used methodology is the analysis of policy content to understand the substance of the program/activity, and the stakeholder analysis is used for capturing their perceptions about the urgency of STP. It was concluded that the policy affected the availability of infrastructure and detailed operational plans of STP however it was insufficient to realize the ideal type of a functional STP. Although stakeholders' perceptions generally consider the importance of sago technopark, their contribution is still low. Furthermore, the management unit has not yet been formed to encourage the participation of various stakeholders in the realization of the STP idea.

1. Introduction

Sago (*Metroxylon spp*) is a typical food ingredient in the Tana Luwu community both in the form of *kapurung* (a type of dish mixture of sago, vegetables and fish) and in the form of various types of delicacies [1,2]. The existence of sago trees as a source of food continues to decline towards the threat of becoming extinct [3]. The area of sago plants at Tana Luwu in 2010 was 4,102 ha [4] and reduced to 3,836 ha in 2018 [5]. Realizing the existence of such threats against the sago plants, four regional heads in the Tana Luwu region agreed to conserve sago plants. They signed a MoU as a joint commitment to realize the sago technopark in Tana Luwu. The sago technopark is expected to function as a center for research and transfer of technology for a sustainable sago management.

As a follow-up to the MoU, a study was carried out with the results of designing Palopo City as a center for the development of entertainment and education related to sago; Luwu Regency as the center of SMEs areas in processing sago, North Luwu Regency as a producer of seedlings for sago



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cultivation, and East Luwu Regency as a center for developing the technology of sago-based rehabilitation for post-mining land [6]. The joint idea to maintain the existence of sago from extinction was further operationalized by each region.

Palopo City Government follows up the MoU through a policy in the form of the Regional Action Plan (RAP) of Sago Technopark Palopo (STP) for 2017-2021 period. The contents of the RAP are contained in the Middle-Term Regional Development Plan which is the Palopo City development policy for five years (2018-2023). This policy is expected to be a reference for local governments and other stakeholders in carrying out actions to realize the ideal type of a technopark, and in some cases, the implementation of the policy took place in complexity manner [7,8]. The ideal type of a technopark is characterized by the functioning of research and development operation whose results are applied in the business for producing competitive outputs [9–11].

Government policy is not a single factor in the realization of an idea into reality [12]. A reality that is driven through policy always involves various stakeholders [13]. In this context, the reality to be realized is an organization engaged in research and development with a focus on technology related to sago. Therefore, stakeholder understanding in this paper is consistent with this definition [13] that is any group or individual who can affect or is affected by the achievement of the organization's objectives". Various indicators and methods have been used in analyzing stakeholders, for example, interest and influence [14], urgency, legitimacy and influence [15], involvement influence mapping [16], interest influence matrices and social networks analysis [17], and insights from practitioners to go beyond the 'usual suspects' [18]. In the realization of the idea of developing STP, the stakeholder analysis has not yet focused on the influence, interests and contributions, but rather on their perception of the development of the STP itself.

This paper aims at analyzing the extent to which government policy influences the idea of developing STP. Also, this paper analyzes stakeholder perceptions of the development of the STP. Based on that, we want to see to what extent the policy linkages with stakeholders in realizing ideas into actions to realize STP.

2. Research Method

This research was conducted at Palopo City in 2019. Analysis of the contents of the RAP-STP was conducted to see the contents of the policy. The focus of content analysis is the formulation of programs and activities and their performance targets. Field observations and interviews with policy implementers were carried out to see the realization of the policy. Data were analyzed by comparing targets and performance realization so that the influence of policies on the realization of the STP is illustrated.

Stakeholder identification is based on the list of institutions contained in the RAP-STP document. They are the Regional Development Planning Agency, Regional Research and Development Agency, Office of Public Works and Spatial Planning, Land Agency, Regional Secretariat Government Section, Legal Section of the Regional Secretariat, Palopo City Water Company, PT. Telkom Indonesia Palopo Branch, PT. PLN Palopo Branch, Communication and Information Office, Education Office, Industrial Office, Commerce Office, Office of Cooperatives and SMEs, Public Health Office, Environmental Office, Office of Tourism and Creative Economy, Culture Office, Management Unit of STP, Drug and Food Control Agency, University in Palopo City, Provincial and National level related institutions, and donor agencies. It also identified parties that have a relevant interest with the development of STP namely sago flour processing company, sago-based culinary entrepreneurs, and sago-based delicacy seller. Some of the identified stakeholders were interviewed to find out their perception of the development of STP.

3. Results and Discussion

3.1 The direction of the STP development policy

STP is an area that is designed as a center of activity that combines entertainment, education and research. It is collaboratively managed by four elements namely the government, academics, business

people and the community in an attempt to anticipate the decline in production and the extinction of sago plants. The presence of the STP area in Palopo City is expected to be able to encourage the development of education, research, and development of the sago commodity, given that one of the elements involved in the management of the STP area is academic individuals. Also, the existence of the STP is expected to have a positive impact on the development of sago-based products managed by SMEs. The direction of the STP development policy is contained in the RAP-STP. The RAP-STP contains a 5-year development process from 2017 - 2021, aimed at guiding the implementation as follows.

Area Planning Program: consists of measuring and mapping location plans, land purchase/procurement, an arrangement of broad boundaries and boundaries of regional functions and preparation of the Detail Engineering Design (DED) document. The target of activity is the availability of one-unit land area of 10 ha as a location for the development of the STP area in 2017 with a budget of IDR 1,190,000,000 sourced from the Palopo City Regional Budget.

Regional Facilities and Infrastructure Improvement Program: includes the construction of office building facilities and infrastructure, laboratory, library and other supporting buildings, construction of road and drainage networks, clean water networks, telecommunications networks, electricity networks and wastewater treatment plants. The location of the construction of such facilities and infrastructure is in the area of the prospective location for the development of the STP, planned in 2018 with a budget of IDR 19,500,000,000 consists of Palopo City Regional Budget IDR 3,900,000,000, South Sulawesi Province budget IDR 5,850,000,000 and the National Budget IDR 9,750,000,000.

Institutional Strengthening Program: includes the preparation of a draft organizational structure of the area manager, discussion and determination of the organizational structure of the area management agency, preparation of the area management business plan and socialization to the community about the existence of the STP. The implementation is planned for 2018 to 2021 with a budget of IDR.135,000,000, - sourced from the Palopo City Regional Budget.

Institutional and Collaborative Development Program: includes developing cooperation with domestic and foreign research and development institutions and training institutions to strengthen human resources of the STP management unit. The target is 10 groups of farmers producing sago, 50 units of SMEs entrepreneurs, 10 units of medium and large-scale sago-based industries, 5 units of research institutions and 5 units of training institutions. The implementation is planned for 2018 to 2021 with a budget of IDR.125,000,000,- sourced from the Palopo City Regional Budget.

Sago Plant Rehabilitation Program: including sago plant nurseries and sago plant planting in the planting plots that have been provided. The number of plots prepared is 7 plots which will be an indication of the difference in age classes of sago plants from 0 to 7 years. The plot planted with sago plants with different age classes will be useful for observation and research activities in the STP area. Implementation is planned for 2018 to 2021 with a budget of IDR.59,500,000 sourced from the Palopo City Regional Budget. Programs, activities, budgets and their realization are presented in Table 1.

Table 1. Matrix of programs and activities for developing the STP 2017-2021 (IDR.000,000)

Description	Regional Action Plan		Description	Implementation	
	The budget			The budget	
	(IDR)	(%)		(IDR)	(%)
1. <i>Area planning program</i> (2017)					
a. Measurement & mapping of location plans	15	0.1	Area boundary marking	7.5	0.0
b. Land acquisition for	1,000	5	Land acquisition 4.6	748	3.6

Regional Action Plan			Implementation		
Description	The budget		Description	The budget	
	(IDR)	(%)		(IDR)	(%)
10 ha			ha		
c. Structuring the outer boundaries & functions of the Zone	25	0.1	Structuring the outer boundaries of the area	33.7	0.2
d. Arrangement of Regional Engineering Design (DED)	150	0.7	DED	40	0.2
			UKL-UPL	72	0.3
			Regional site plan	49	0.2
Total 1	1,190	5.7		950.2	4.5
2. <i>Regional Facilities and Infrastructure Improvement Program (2018)</i>	19,940	92.8	Not done yet	-	-
3. <i>Institutional Strengthening Program (2018)</i>	135	0.6	Not done yet	-	-
4. <i>Institutional and Collaborative Development Program (2018-2021)</i>	125	0.6	Not done yet	-	-
5. <i>Sago Plant Rehabilitation Program (2017-2018)</i>	59.5	0.3	Not done yet	-	-
Total 1+2+3+4+5	21,000	100		950.2	4.5

Source: Palopo City Research and Development Agency

Of the five programs mentioned above the Palopo City government can only implement the regional planning program with a total budget used of IDR.949,745,120,- or 4.5% of the planned IDR.21,000,000,000. The activities carried out include the preparation of detailed Engineering Design (DED) offices for 2017 using a budget of IDR. 40,000,000. In 2018, the activity that has been carried out was the making of UKL-UPL with a budget of IDR. 72,030,000, procurement of land area of 4.6 ha out of 10 ha along with its certificates using a budget of IDR.747,515,120. In 2018 the Palopo City government received "line processing dry sago" assistance from the Ministry of Agriculture (IDR.350,000,000). In 2019, the preparation of a regional site plan with a budget of IDR.49,000,000,- and the demarcation of the technopark sago land boundary with a budget of IDR.7,500,000,-. In 2020 it is planned to make the outer boundaries of the STP area in the form of canals which will later be used as a tourism arena around the technopark canals while enjoying the existing technopark facilities and sago plant conservation areas.

The low-performance achievement of STP development is due to the Palopo City Government's focus on gradual land acquisition. Procurement of land covering an area of 10 ha cannot be carried out at once because of limitations on the provision of public facilities (land) over 5 ha implemented by the provincial government. Another obstacle is the limited budget of the Palopo City Government. The construction of the STP requires budget support from the Provincial Government of IDR.5,850,000,000 and a budget from the Central Government of IDR.9,750,000,000. Palopo City government has not been able to access the funds. In addition, the management unit has not yet been developed to mobilize collective action of various stakeholders in the realization of STP.

3.2. Stakeholder perception in the development of the STP

Perception is the process of someone in choosing, organizing and interpreting information received to be meaningful [19]. Many factors cause stakeholders to contribute to the development of STP. One of them is their perception of the STP itself. Each stakeholder has their own perceptions and that perception can influence them to behave and act. Based on the results of interviews with stakeholder on STP, it can be seen below that government stakeholders are as follows.

Regional Development Planning Agency: "STP is an alternative for developing sago plants or cultivating sago plants. Palopo City has prepared approximately 4 ha of land in 2018 and for 2019 through the Regional Research and Development Agency. The city government prepares a budget for land maturation for sago cultivation. Currently, Palopo has also received assistance from the Ministry of Agriculture sago machines placed in the Palopo City Industrial Office. This machine has been operated and produced pure sago flour which can be processed into various foods"

Regional Research and Development Agency: "STP is the Palopo City Government's commitment to preserve and develop sago plants. Palopo City Government's commitment, contained in Middle-Term Regional Development Plan. Our vision is "The realization of Palopo as a developed, innovative and sustainable city in 2023". The STP was initiated for Tana Luwu, Indonesia and the World. Hoping that there will be a positive impact from the existence of the STP, the vision to be realized is "a source of sustainable sago processing technology innovation". STP will be the center of research and development of sago commodities so that support from regional research institutions will contribute significantly to the development of the STP."

Office of Agriculture, Animal Husbandry and Plantation: "Sago is not a crop of cultivation but can support food security. We will support the counselling program on sago cultivation and inform the public about the function of sago plants".

Food Security Service: "STP is one way to make sago as one of the local food potentials. The ministry of agriculture's program to become local food as a substitute for staple food can be realized. We conduct socialization about the acceleration of diversification of food based on local food, especially sago".

Office of Cooperatives and SMEs: "Sago is a leading commodity in Palopo City. One alternative to staples food (rice). The processing technology is still simple. We will contribute to the empowerment of micro-businesses in terms of improving productivity and product quality".

Industrial Office: "STP needs attention from all elements for the smooth and successful program".

Department of Tourism and Creative Economy: "There has not been any development of the tourism sector's attractiveness for the management of sago technopark. We will contribute to the provision of facilities in the tourist area for the preservation of sago plants".

Academicians: "Sago needs to be preserved. It needs a center for local food security studies and research collaboration. We will conduct research on sago, improved cultivation, yield processing technology, marketing and discovering innovations about sago".

Regional Legislature: “A program that starts from seed to production is impossible without government support. We will support the budgeting program in realizing the development of technopark efficiently and effectively”

Sago processor around the technopark location: “We know sago activities will be built here and we are happy. We hope to improve the way we treat sago. Unfortunately, there has been no follow up, only meetings”

From the various statements above it can be concluded that in general stakeholders perceive positively the idea of developing STP. They understand well the function, purpose and urgency. Most of the stakeholders are committed to contributing. One of the factors that make stakeholders not optimally involved is that there is no management unit of STP that has been formed. The formation of the management unit is a part of the RAP-STP which has not been realized.

4. Conclusion

The policy has influenced the availability of infrastructure and detailed operational plans of the STP but it is not enough to realize the ideal type of functional STP. Good stakeholder perception about the existence of STP and the urgency of developing STP is not enough to make stakeholders contribute significantly to the development of STP. This is caused by one important point of the plan not yet being realized, namely the formation of the STP management unit. This institution should function to raise the collective action of various stakeholders in the realization of the idea of the STP.

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