Implementation of Sustainable Food Agricultural Land Protection Policy in Sukabumi City, West Java, Indonesia

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Abstract

The population increase and regional development are causes of decreasing agricultural land. For supporting agricultural land protection, Sukabumi City issued a Regional Regulation Number 1 of 2016 concerning Sustainable Food Agricultural Land Protection Policy in Sukabumi City (LP2B) which determines 321 ha land as eternal agricultural land. This study examines a level LP2B policy implementation in Sukabumi City. Factors that will be considered: the level of land readiness as LP2B, the level of an implementation incentive program, the level of response and availability of farmers, and the level of infrastructure and information systems readiness. The analytical method used is a descriptive method through collecting data by interviewed farmers, government and reviewing documents related to LP2B policies. The results of the study show that for land readiness, in early 2021 Sukabumi city is ready for about 10.024% from total planned land. For the implementation of LP2B incentive program, the majority of farmers has not experienced the incentive program. For the farmer’s response and availability, the majority of farmers does not know about LP2B policy, 80% of owner farmers are ready to provide their land into LP2B with some conditions. The availability of irrigation infrastructure in Sukabumi City is very good, where more than 75% of respondents rice fields has an irrigation system. Related to LP2B information system, Sukabumi City has issued a Mayor Regulation Number 8 of 2018 concerning LP2B Information System in Sukabumi City, but this system has not been optimal in providing basic information that is required to exist in a LP2B information system.

Keywords: Agricultural, land protection, regulation, implementation.

1. Introduction

Zero hunger is one of the goals from sustainable development (SDGs) set by the United Nations in 2015 (Sneddon et al., 2006; Wulandari and Rahman, 2017). The need for food will increase along with the increase of population (Gracino et al., 2021; Silalahi, 2020). Fulfilling national food needs and controlling agricultural land conversion becoming one of the national strategic issues which realized through several efforts such as the issued a Law Number 41 of 2009 concerning Sustainable Food Agricultural Land Protection Policy (LP2B). LP2B means a field of agricultural land that is determined to be protected land and developed consistently to produce staple food for national food self-reliance, security, and sovereignty (Martianto, 2010; Wilis et al., 2020). Based on clause 5 of the law, LP2B can be in the form of irrigated land, tidal and non-tidal swamp reclamation land and/or non-irrigated land.

Following up on the law, Sukabumi City issued a Regional Regulation Number 1 of 2016 concerning LP2B in Sukabumi City which determined 321 ha their land becoming eternal agricultural land. This area is in line with the area of agricultural land set on the Regional Spatial Plan of Sukabumi City in 2011-2031. However, on the other hand, land conversion in Sukabumi City still becoming a threat to the implementation of this policy. In the period 2010 to 2015, there was a decrease of paddy fields area by 122.24 ha (Wijayanti et al., 2016; Rusdiana et al., 2020). This decrease is inverse with increasing of built-up area, in period 2002 to 2012 built-up area in Sukabumi City increased reaching 162.21 ha (Kuswardhani et al., 2014). This phenomenon indicates that the increase of built-up area was one of the factors for decreasing of agricultural land area in Sukabumi City.
From 2016 to 2021, the implementation of PLP2B policy will continue to be intensified by the local government through the Department of Agriculture and Food Security of Sukabumi City (DKP3 Sukabumi City). An analysis is needed to identify the implementation progress of this policy; therefore, the purpose of this study is to analyze the conditions and progress developments implementation of PLP2B policies in Sukabumi City.

2. Methodology

This study is located in 14 villages from 5 sub-districts in Sukabumi City, West Java Province, Indonesia. Namely Baros, Cibeureum, Gunungpuyuh, Lembursitu and Warudoyong sub-districts. The area of study location includes 470 ha of paddy fields which is a recommendation area for LP2B from a result of a collaborative study between the Department of Agriculture and Food Security of Sukabumi City and IPB University in 2015. The study area can be seen in Figure 1.

Data were collected by interview and documents review. Determination of respondents chosen by purposive sampling method, the respondents are the farmers or owners of recommended paddy fields from the result of a joint study between IPB University and Department of Agricultural and Food Security in Sukabumi City in 2015. Interviews were also conducted with the local government, namely Department of Agricultural and Food Security (DKP3) Sukabumi City as the person in charge of the PLP2B Program (Sukmawani, 2014). Documents review was carried out on supporting documents related to the implementation of LP2B in Sukabumi City.

3. Results

3.1 Land Readiness Level that has been Defined as LP2B

Land use in Sukabumi City was divided into wetland (paddy field) and dry land (non-paddy field) (Rahardjo et al., 2021). Based on regional sectoral and statistical data Sukabumi City in 2018, the area of rice fields in Sukabumi City is 1,365 Ha or 28.44% of the total area. From the total of LP2B planned area, the land that has been defined as LP2B coming from community land is only 41.046 m² listed in Sukabumi City Mayor Decision Number 132 of 2020 concerning Determination of privately owned rice fields area and belonging to Sukabumi city government as sustainable food agricultural land. The distribution of LP2B land from a community that has been defined in Mayor Decision Number 132 of 2020 as LP2B can be seen in Table 1.

| Location         | Village        | Sub-district | Area (m²) |
|------------------|----------------|--------------|-----------|
| Blok Selagombong | Cibeureum Hilir| Cibeureum    | 11.316    |
| Blok Selaawi     | Cibeureum Hilir| Cibeureum    | 18.103    |
| Blok Sudajaya    | Cibeureum Hilir| Cibeureum    | 1.580     |
| Blok Amarayaya   | Lembursitu     | Lembursitu   | 5.025     |
| Blok KAC         | Cikundul       | Lembursitu   | 5.022     |
| **Total**        |                |              | **41.046**|
Based on Table 1, the area of LP2B from the community is only about 1.279% of the total rice fields planned area. It remains to be consent of the local government to fulfill the target in 2031. Map of defined LP2B distribution area can be seen in Figure 2.

![Figure 2. Map Defined LP2B Distribution Area from Community Land](image2)

Besides the land that has been defined in the mayor’s decision number 132 of 2020, based on result interview with Head of Department of Agriculture and Food Security in Sukabumi City, it is known that there was a city government land area of 28.072 ha which is defined as LP2B listed in Sukabumi City Mayor Decision Number 209 of 2016 concerning Determination of rice fields owned by the Sukabumi city government as sustainable food agricultural land. The distribution of LP2B land from local government land can be seen in Table 2 and Figure 3.

![Figure 3. Map of Defined LP2B Distribution Area from Sukabumi City Government Land.](image3)
Table 2. Distribution of LP2B that has been defined from local government

| Location          | Area (m²) | Location          | Area (m²) |
|-------------------|-----------|-------------------|-----------|
| Sukakarya         | 10178     | Cibeureum Hilir   | 25675     |
| Dayeuhluhur       | 4177      | Limusnunggal      | 2281      |
| Benteng           | 25670     | Sindangpalay      | 51320     |
| Karangtengah      | 8545      | Baros             | 1280      |
| Cikundul          | 5860      | Jayaraksa         | 57912     |
| Lembursitu        | 6712      | Sudajaya hilir    | 6623      |
| Cipanengah        | 6935      | Jayamekar         | 14851     |
| Sindangsari       | 23173     | Belakang Kodim    | 29520     |

Total 280,712

3.2 LP2B Incentive Program Implementation Level

Due to the implementation of clause 43 from Law Number 41 of 2009 concerning PLP2B, the government issued a governmental regulation regarding PLP2B incentives as stated in Government Regulation Number 12 of 2012 concerning incentives of PLP2B. The incentives can be given by the central government, the provincial government, and/or district/city governments. Based on clause number 7 of the governmental regulation, the types of incentives that will be provided by district/city government to the farmers are in the form: land and building tax relief; agricultural infrastructure development; financing to research and development of superior seeds and varieties; convenience to information and technology access; provision to agricultural production facilities; funding assistance for the issuance of land rights certificates; and/or an award for high achieving farmers.

Based on interviews results to the farmers of recommended land locations for LP2B, in general, the incentives for LP2B have not been felt by the farmers, 98.5% of farmers stated that there was no land and building tax relief program. Regarding development of agricultural infrastructure, 51.5% farmers stated that there was no improvement in irrigation, as for irrigation repairs carried out by the local government, 39% of respondents stated that improvements were carried out within the past 0 to 3 years. For a farm road infrastructure, it was identified that 79% of respondents stated that there was an improvement on farm roads. For other incentives such as, agricultural infrastructure development, financing to research and development of superior seeds and varieties, convenience to information and technology access, provision to agricultural production facilities, funding assistance for the issuance of land rights certificates, and/or an award for high achieving farmers, majority of farmers answered that they did not know and/or had not felt the incentives. This is also supported by a statement from the Department of Agriculture and Food Security of Sukabumi City, which stated that the incentive has not been implemented because a majority of LP2B lands that have been defined are still land owned by the city government, and the community lands will be given by step by step according to availability of their funding.

3.3 Response and Availability Farmers Level to LP2B Policy

The farmers’ response is one of the factors that determines the successfully of LP2B policy (Nuraeni et al., 2018). Based on the results interview, it was found that 73% of respondents stated that they did not know about LP2B program. This is showing that LP2B socialization to the farmers has not been optimal. Regarding farmers availability to participate in the LP2B program, there were three types of farmers who become respondents in this study, cultivators, landowner and cultivators with landowner. Based on result interviews who are landowners, 80% of respondents stated that they are willing to participate in LP2B, but more than 50% of respondents who are willing to participate have special requirements when their land is defined as becoming LP2B. These conditions such as the other owners of surrounding their land also don't sell their land, not all their land defined into LP2B, and they hope local government also does not facilitate housing development permits on their surrounding paddy fields area. As for the 20% of respondents who are not willing to participate causing by increasing of living needs and smaller land rent value from agricultural activities than housing and/or other economics activities. As for cultivator’s responses, 100% of cultivators strongly agree with the PLP2B policy and they were willing to participate, but this willingness is very depended on the landowner participations.

3.4 Infrastructure and Information Systems Readiness Level

The level of infrastructure readiness is seen from the availability of agricultural infrastructure in the form of irrigation networks and farm roads, while the level of the information system readiness is seen from the existence of
an information system by following Government Regulation Number 25 of 2012 concerning LP2B Information Systems. Based on statistical data from Sukabumi City, in 2018 there was 1,321 ha from 1,365 ha or 96.78% of rice fields that were flowed by irrigation, both simple irrigation and village/non-PU irrigation. From the interview of local government, at the location of LP2B recommended paddy fields, there were 36.77 km out of 253.75 km from irrigation network length total. Based on interviews results, more than 75% of respondents stated that on their paddy fields are available for irrigation. This will be becoming a big capital for Sukabumi City for implementing LP2B because irrigated rice fields can become one of LP2B land.

LP2B information system becomes main LP2B information mandated by Law Number 41 of 2009. This information system at least contains land data regarding sustainable food agriculture areas; sustainable food agriculture land; reserve land for sustainable food agriculture and abandoned land and also the subject of their rights. This land data at least contains information about natural physics, artificial physique; human and economic resources condition; ownership and/or control status; area and location of land; and certain types of staple food commodities.

Following up on Governmental Regulation Number 25 of 2012 regarding LP2B Information System, Sukabumi City government has issued a Mayor Regulation Number 8 of 2018 concerning LP2B Information System in Sukabumi City. Sukabumi City Government through the Department of Agriculture and Food Security has published an official website for Sukabumi City LP2B Information System which was launched in 2015, the link website is http://simlp2bsmi.distan.sukabumikota.go.id/, but the existence of this official website is not effective yet and does not contain basic information related to LP2B.

4. Conclusion

Sustainable Food Agricultural Land Protection (PLP2B) is one of Indonesia’s government efforts to maintain the supply of agricultural land and food availability in Indonesia. One of these efforts is evidenced by the issuance of Law No. 41 of 2009 concerning Sustainable Food Agricultural Land Protection. This law mandates all regions, especially rural regions establish a perpetual agricultural land. Following up on Law Number 41 of 2009 and Regional Regulation of West Java Province Number 27 of 2010 concerning the Sustainable Food Agricultural Land Protection, Sukabumi City issued Regional Regulation Number 1 of 2016 concerning the Sustainable Food Agricultural Land Protection (PLP2B) in Sukabumi City which stipulates 321 ha of their land as LP2B land. This area is in accordance with the planned area of agricultural areas in the Regional Spatial Plan of Sukabumi City in 2011-2031. For land readiness that has been defined as LP2B, Sukabumi City has prepared around 10.024% of the total planned area. This area consists of 41,046 m2 of communities’ land and 280,712 m2 of local’s government land. Meanwhile, in terms of providing LP2B incentives program, the majority of farmers stated that the LP2B incentives have not been felt by the farmers. This is in line with the statement from the Department of Agriculture and Food Security (DKP3) of Sukabumi City which stated that LP2B incentives could not be given due to funding constraints, especially during pandemic conditions, Governmental funds are diverted to deal with pandemic conditions. 73% of respondents stated that they did not know about LP2B program, which means that the socialization of PLP2B policies has not been evenly distributed to all farmers. However, even so, 80% of respondents stated that they are willing to participate in this policy, respondents who are landowners have special requests if their land is used as LP2B land, these special requirements such as the other owners of surrounding their land also don't sell their land, not all their land defined into LP2B, and they hope local government also does not facilitate housing development permits on their surrounding paddy fields area. For infrastructure readiness, the irrigation network in Sukabumi City is classified as very good, when more than 75% of respondents stated that on their paddy fields are available for an irrigation system. But for information system readiness, the existence of LP2B official website is not effective yet and does not contain basic information related to LP2B.

References

Gracino, M. A., Priyanti, E., & Azijah, D. N. (2021). Collaborative Governance: Re-Enactment Share Understanding in the Process of Agricultural Food Management in Karawang Regency. International Journal of Business, Economics, and Social Development, 2(1), 18-23.

Kuswardhani, N., Soni, P., & Shivakoti, G. P. (2014). Cluster analysis for classification of farm households based on socio-economic characteristics for technology adoption in agriculture: A case study of West Java province, Indonesia. J. Food Agric. Environ, 12, 238-247.

Martianto, D. (2010). Food and nutrition security situation in Indonesia and its implication for the development of food, agriculture and nutrition education and research at Bogor Agricultural University. Journal of Developments in Sustainable Agriculture, 5(1), 64-81.
Nuraeni, S., Noor, T. I., & Sudradjat, D. (2018). Respon Petani terhadap Kebijakan Lahan Pertanian Pangan Berkelanjutan di Kelurahan Kersanagara, Kecamatan Cibeureum, Kota Tasikmalaya, Provinsi Jawa Barat. *Jurnal Ilmiah Mahasiswa Agroinfo Galuh, 4*(3), 848-855.

Rahardjo, I. A., Subekti, M., Parjiman, P., & Rosyanti, D. (2021). Analysis of electric load forecasting using combined method (Study case 2019–2029 in PT. PLN (Persero) UP3 Sukabumi). *In IOP Conference Series: Materials Science and Engineering 1098, (4), p. 042026. IOP Publishing.*

Rusdiana, S., Ishak, A. L., & Ferasyi, T. R. (2020). Development Strategy of Beef Cattle Business to Increase Farmers' Economic Value in Sukabumi Regency. *The International Journal of Tropical Veterinary and Biomedical Research, 5*(2), 13-28.

Silalahi, M. (2020). Morinda Citrifolia: Bioactivity and Utilization as Traditional Medicine and Food for the Community. *International Journal of Business, Economics, and Social Development, 1*(2), 81-89.

Sneddon, C., Howarth, R. B., & Norgaard, R. B. (2006). Sustainable development in a post-Brundtland world. *Ecological economics, 57*(2), 253-268.

Sukmawani, R., Sulistiowati, L., & Perdana, T. (2014). Determining agricultural superior commodity in the district of Sukabumi through a combination method of LQ, description scoring, and competitive analysis. *Research Journal of Agriculture and Environmental Management, 3*(11), 599-604.

Wijayanti, A., Munibah, K., & Putri, E. I. K. (2016). Strategi Implementasi Untuk Mengendalikan Konversi Lahan Sawah Di Kota Sukabumi. *Tataloka, 18*(4), 240-248.

Wilis, R., Barlian, E., Hermon, D., Dewata, I., & Umar, I. (2020). Evaluation of Carrying Capacity Lands for Food Agriculture Based on Land Degradation in Pagar Alam City-Indonesia. *International Journal of Management and Humanities, 2394-0913.*

Wulandari, D. A., & Rahman, A. Z. (2017). Implementasi Kebijakan Perlindungan Lahan Pertanian Pangan Berkelanjutan (LP2B) Di Kabupaten Tegal (Studi Implementasi Peraturan Daerah Kabupaten Tegal Nomor 10 Tahun 2012 Tentang Rencana Tata Ruang Wilayah Kabupaten Tegal Tahun 2012-2032). *Journal of Public Policy and Management Review, 6*(2), 696-708.