LOCAL REGULATION DESIGN OF IRRIGATION BASED ON PENGAYOMAN LAW

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ABSTRACT: This study aims to formulate the design of local regulations on irrigation based on the pengayoman law to support food sovereignty policies. Using the method of doctrinal legal research with a conceptual and statute approach, the design of local regulations on irrigation based on pengayoman law consists of minimal regulatory material: general provisions; principles, objectives and scope; irrigation management planning; irrigation management institutions; irrigation system management; coaching, supervision and empowerment; financing of irrigation management; investigation; criminal provisions; transitional provisions (optional); and closing provisions. The minimum regulatory material for the design of local regulations on irrigation based on the pengayoman was needs to be prioritized by the local government and local legislative bodies in the formation program of local regulations so that can be immediately realized into the applicable local regulations and have a positive impact on food sovereignty policies.

Keywords: Local regulation, pengayoman law, irrigation, food sovereignty.

1. INTRODUCTION

The role of the agricultural sector is very strategic in the national economy. The aim of agricultural development is to preserve food security, increase farmers' incomes, increase employment opportunities in rural areas and improve family nutrition, as well as in line with the spirit of democracy, decentralization, and openness in the fabric of communities life. The existence of decentralization with the enactment of Law Number 32 of 2004 concerning Local Government which has now been changed to Law Number 23 of 2014 concerning Local Government, has a very large impact on local government. This is due to the enactment of these laws, local governments have full authority in carrying out development in their respective regions, including agricultural development. It is also

inseparable that the purpose of forming an autonomous region is basically to empower the region, including improving people's welfare.¹

The implementation of local autonomy based on this law has laid a strong legal basis on the regions to carry out broad, real and responsible local autonomy.² Law Number 23 of 2014 concerning Local Government also mandates that local governance be carried out based on the principles of decentralization, deconcentration, and assistance tasks. In the implementation of decentralization, freedom is given to the regions to carry out local autonomy with the principle of a service approach to the community in various fields including irrigation management.

Regarding local authority in the field of irrigation contained in Article 12 paragraph (1) of Law Number 23 of 2014, which states that the Mandatory Government Affairs relating to Basic Services include, inter alia, a) education; b.) health; c). public works and spatial planning; d.) public housing and residential areas; e.) peace, public order and community protection; and f.) social. One of the mandatory government affairs related to these basic services is affairs in the field of public works and spatial planning. Where further in the appendix to the law has been further specified that in the sub-affairs concerning water resources, the local regency government has the authority and responsibility one of which is "Development and management of primary and secondary irrigation systems in irrigation areas whose area is less than 1000 ha in 1 (one) Regency area."

Irrigation as one of the supporting components of the success of agricultural development has a very important role. This is because agricultural activities cannot be separated from water. Normatively, irrigation is an effort to supply, regulate, and dispose of irrigation water to support agriculture of which its type includes surface irrigation, swamp irrigation, underground water irrigation, pump irrigation, and pond irrigation.³

Irrigation management as part of utilizing the potential of artificial resources is still a sector of water resource development which is very important in supporting agricultural production and food security. Therefore, the use of irrigation needs to be managed

¹ Rozali Abdullah, *Pelaksanaan Otonomi Luas dengan Pemilihan Kepala Daerah secara Langsung*, (Jakarta: PT Raja Grafindo Persada, 2005), Pg. 12.

² Hoessein, B., *Prospek Resolusi Kebijakan dan Implementasi Otonomi Daerah dari Sudut Pandang Hukum Tata Negara*, delivered on NationalSeminar and Workshop *Strategi Resolusi Kebijakan dan Implementasi Otonomi Daerah Dalam Kerangka Good Governance*, (Jakarta: Lembaga Administrasi Negara, 2001).

³Article 1 Number 3 Government Regulations No 20 of 2006 concerning Irrigation.

properly. Irrigation is managed to arrange for the development and management of irrigation systems to be carried out efficiently and effectively, directed and sustainably, and prioritizing the interests of farmers. Local governments have a significant role in irrigation management. The role must be covered by local regulations whose substance will protect the process towards food sovereignty through a powerful and effective irrigation system.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

The development of the agricultural sector as an effort to fulfill food in the era of high demand for food and food products is an indicator of the beginning of the era of environmentally friendly economy and industry based on various input creations and innovations, processes and products of agriculture, fisheries, animal husbandry and forestry, both from the aspect of environmental management, fairness of the value cycle (value cyclic) and fairness of supply cycle management.⁴

The agricultural sector is one of the important sectors as an input provider for other sectors, so this sector is said to have an influence on the structure of the Indonesian economy. The agricultural sector itself is not limited to farming or crop cultivation (food crops, plantations, and horticulture), but includes the fisheries, animal husbandry and forestry sectors, with upstream cultivation activities to distribution activities to consumers downstream, as well as changing inputs be output in the form of clothing, food, shelter and a comfortable environment for living things. Agriculture is not just planting and gardening. The above shows how wide the agricultural sector is. ⁵ The agricultural sector is very closely related to the administration of irrigation.

According to Abdullah Angoedi in his book, "The History of Irrigation in Indonesia", it was stated that in the Dutch government's report, irrigation was defined as follows: "technically channeling water through carrying channels to the agricultural land and after the water is taken the most benefit is channeling it to sewers continue to the river." Irrigation is any human effort related to the planning and making of facilities to

⁴ E. H. Khaeron. Model Pengembangan Diversifikasi Pangan Dalam Mendukung Ketahanan Pangan Nasional (Suatu Kasus Di Provinsi Jawa Barat). Disertation, Fakultas Pertanian, Universitas Padjadjaran Bandung, Bandung, 2016.

Bandung, Bandung, 2016.

⁵Drafting Team, Naskah Akademik Dan Rancangan Undang-Undang tentang Sistem Budidaya Pertanian Berkelanjutan, Komisi IV DPRRI, 2017.

⁶Abdullah Angoedi, Sejarah Irigasi di Indonesia, Jakarta: ICID, 1985, Pg. 21

channel and distribute water to plots of agricultural land regularly, and to dispose of excess water that is no longer needed.⁷

Irrigation is generally defined as the use of water in the soil for the purposes of providing fluids needed for plant growth. However, a more general definition and includes irrigation is the use of water in the soil for each of the following eight uses:

- a. Adding water to the soil to provide fluids needed for plant growth.
- b. To provide a guaranteed harvest during the short dry season.
- c. To cool the soil and atmosphere, giving rise to a good environment for the growth of plants.
- d. To reduce the danger of freezing.
- e. To wash or reduce salt in the soil.
- f. To reduce the danger of soil erosion.
- g. To soften plowing and lumps of soil.
- h. To slow the formation of buds by cooling down due to evaporation.⁸

Technically, irrigation is intended to reduce the amount of transportation costs for agricultural products, then in the era of the 1970s until In the 1990s, the government actively worked on building irrigation networks to develop all agricultural land in Indonesia. Irrigation land development is carried out through the provincial irrigation development project (PIDP). Thus irrigation is seen as a primary factor in development in agriculture, in addition to land and farmers. The development of the agricultural sector absolutely requires a good and integrated irrigation system.

The relationship between irrigation systems and agriculture ultimately relates to farmers as water users. Irrigation activities always foster cooperation between farmers in the construction and maintenance of irrigation buildings and canals. The distribution of water between paddy fields and between paddy fields in the same stretch of land requires well-organized cooperation between farmers in the irrigation network concerned.¹¹

⁷ Effendi Pasandaran, *Irigasi di Indonesia: Strategi Dan Pengembangan*, Jakarta: Lembaga Penelitian, Pendidikan dan Penerangan, Ekonomi dan Sosial, 1991, Pg. 34

⁸ Hansen, V. E., dkk, 1992. *Dasar-dasar dan Praktek Irigasi*. Jakarta: Erlangga, Pg. 20

⁹ Kedi Suradisastra, dan Effendi Pasandaran, *Menyoroti Dinamika Pembangunan Pertanian Kawasan Timur Indonesia: Prosiding Lokakarya*, Jakarta: Departemen Pertanian, Badan Penelitian dan Pengembangan Pertanian, Pg. 107.

¹⁰Kartasapoetra, A. G., dan Mul Mulyani Sutedjo, *Tekhnologi Pengairan*, Jakarta: Bumi Aksara, 1994.

¹¹ Siskel, S.E. dan Hutapea, S.R., *Irigasi di Indonesia Peran Masyarakat dan Penelitian*. Jakarta: LP3ES. 1995, Pg. 21.

One of the factors of efforts to increase food production, especially rice, is the availability of irrigation water in the fields according to need. If the supply of irrigation water is done properly and correctly, it can support an increase in rice production so that national food needs can be met. The development of irrigation to support increased food production and increased income of farmers has also become a government program. For this reason, irrigation networks, both carrier channels and disposal channels and irrigation structures, must be able to operate properly.¹²

The need for irrigation for agricultural land is very important to support the need for water for the growth of rice plants, especially at this time many agricultural lands are being converted into non-agricultural land. Irrigation is important to increase agricultural production, both in terms of quality and quantity of rice to be produced. The design of Local Regulations for Implementing Irrigation under the aegis of law to support food sovereignty policies as a result of this research is expected to be a reference for local governments in the preparation of Local Regulations for Irrigation Implementation in their regions.

3. RESEARCH METHODS

This research is conducted by corridor of doctrinal research which only use secondary data. The legal research model is a comprehensive and analytical study of primary legal materials and secondary legal materials. The problem approach uses statute approach and conceptual approach. The data were analyzed qualitatively by describing the data generated from the research into the form of explanation systematically so as to obtain a clear picture of the problem under study, the results of data analysis deductive concluded.

4. DISCUSSIONS AND ANALYSIS OF RESULTS

Article 33 paragraph (3) of the 1945 Constitution mandates that the utilization of water resources must be aimed to the greatest extent possible for the prosperity of the people. The understanding contained in the article is that the state is responsible for the availability and distribution of the potential of water resources for all Indonesian people,

¹² Mawardi, E., *Desain Hidraulik Bangunan Irigasi*, Bandung: Alfabeta, 2007

and thus the utilization of the potential of water resources must be planned in such a way that meets the principles of usefulness, justice, independence, and sustainability.

The local government has the obligation to maintain a good and healthy environment for all communities, through the implementation of sustainable development by harmonizing economic, social and environmental development in a good and harmonious manner. By examining the condition of watershed water resources in particular and the environment in general at this time, if not anticipated with appropriate policies and actions will be faced with three threats, namely the food crisis, water crisis, and energy crisis. These three crises are a contribution to the national long-term crisis that needs to be watched out so as not to have a negative impact on the lives of the people and the nation, namely the threat of national unity, an increase in the spirit of separatism, and a decline in public health.

Other problems that encourage the strengthening of the role of local governments in the management of natural resources are due to the deterioration in the condition of forests due to rapidly increasing deforestation and deteriorating land cover in the upstream watershed causing a decrease in water availability which threatens the decline in reservoir and river water discharge in the dry season. Water resources that are most related to watershed management are rivers, because rivers are one source of raw water as well as waste disposal sites, both industrial and domestic. Potential water resources related to watersheds are forests as water catchment areas. The forest is an upstream area of the river, so that the preservation of the forest must be maintained in order to maintain the sustainability of water resources. If the forest is damaged, the water catchment area will decrease because there is nothing that can hold water when it rains. Even if the forest in the upstream area is damaged, the watershed will be affected, both in quality and quantity. Erosion that carries materials and minerals from the upstream area will also cause river siltation, so the river's capacity will decrease. This certainly will affect various aspects that depend on the water needs of the river, such as irrigation of rice fields (irrigation), ponds, cages, and raw water. Thus, the need for local law in the form of Local Regulations on Irrigation based on protecting law becomes important to support irrigation systems that will sustain agricultural development and food sovereignty in the regions.

The concept of *pengayoman* law according to Arief Sidharta is related to Pancasila as a legal ideal for realizing humanity, ¹³ which is to protect people passively by preventing arbitrary actions, and actively by creating humane social conditions that allow social processes to take place fairly so that each person is fair in every manner humans have broad and equal opportunities to develop their full potential for humanity. The guarding is carried out by efforts to realize:¹⁴

- a. order that gives rise to predictability;
- b. peaceful peace;
- c. justice (distributive, cumutative, vindikative, protective);
- d. welfare and social justice; and
- e. fostering noble morals based on the Almighty God.

Through this *pengayoman* context, it is necessary to identify the legislation as a legal framework in designing local regulations on irrigation based on *pengayoman* law. The results of the identification of laws and regulations that are the source of the authority of the Regency/City are presented in table one below.

Table 1. Identification of Legislation as a Legal Framework in Designing Local Regulations on Irrigation

No.	Types of Legislation
1.	Law No 26 of 2007 concerningSpatial Planning
2.	Law No 23 of 2014 concerningLocal Government
3.	Government Regulation No 22 of 1982 concerningWater Management
4.	Regulation of the Minister of Public Works and Housing of the Republic of
	Indonesia No 08/Prt/M/2015 concerningdetermination of irrigation network
	border lines
5.	Regulation of the Minister of Public Works and Housing of the Republic of
	IndonesiaNo 12/PRT/M/2015 concerning Exploitation and Maintenance of
	Irrigation Networks
6.	Regulation of the Minister of Public Works and Housing of the Republic of
	Indonesia No. 14 /Prt/M/2015 concerningCriteria and Determination of Irrigation
	Area Status

¹³ Wordpengayoman pertama kali diperkenalkan dalam bidang hukum oleh Sahardjo. Menurut Daniel S. Lev, in 1960 Sahardjo was replaced the blindfolded lady with scales by a stylized Banyan tree as Indonesia's symbol of justice, that inscribed with the Javanese word Pengajoman-protection and succor. It also represented a quickening of the process of transformation of the heritage of Dutch colonial law into Indonesian law. Daniel S. Lev, The Lady and the Banyan Tree: Civil-Law Change in Indonesia, The American Journal of Comparative Law, Vol. 14. No. 2 (spring, 1965). P. 282.

¹⁴ Bernard Arief Sidharta, *Ilmu Hukum Indonesia*, *Upaya Pengembangan Ilmu Hukum Sistematik Yang Responsif Terhadap Perubahan Masyarakat*, Genta Publishing, Yogyakarta, 2013. hlm. 105.

7.	Regulation of the Minister of Public Works and Housing of the Republic of
	Indonesia No. 17/Prt/M/2015 concerning Commission Irrigation
8.	Regulation of the Minister of Public Works and Housing of the Republic of
	IndonesiaNo. 23/Prt/M/2015 concerningIrrigation Asset Management
9.	Regulation of the Minister of Public Works and Housing of the Republic of
	IndonesiaNo. 30/Prt/M/2015 concerningIrrigation System Development and
	Management

Based on the identification in table one, the design of local regulations on irrigation based on *pengayoman* law consists of minimal regulatory material: general provisions; principles, objectives and scope; irrigation management planning; irrigation management institutions; irrigation system management; coaching, supervision and empowerment; financing of irrigation management; investigation; criminal provisions; transitional provisions (optional); and closing provisions. The minimum regulatory material for the design of local regulations on irrigationbased on the *pengayoman*law needs to be prioritized by the local government and local legislative bodies in the formation program oflocal regulations so that can be immediately realized into the applicable local regulations and have a positive impact on food sovereignty policies.

5. CONCLUSIONS

Based on the previous section, it can be concluded that the design of local regulations on irrigation based on *pengayoman* law consists of minimal regulatory material: general provisions; principles, objectives and scope; irrigation management planning; irrigation management institutions; irrigation system management; coaching, supervision and empowerment; financing of irrigation management; investigation; criminal provisions; transitional provisions (optional); and closing provisions. The minimum regulatory material for the design of local regulations on irrigationbased on the *pengayoman*law needs to be prioritized by the local government and local legislative bodies in the formation program oflocal regulations so that can be immediately realized into the applicable local regulations and have a positive impact on food sovereignty policies.

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7. REFERENCES

Books and Journal

Abdullah Angoedi, Sejarah Irigasi di Indonesia, Jakarta: ICID, 1985.

- Bernard Arief Sidharta, *Ilmu Hukum Indonesia*, *Upaya Pengembangan Ilmu Hukum Sistematik Yang Responsif Terhadap Perubahan Masyarakat*, Genta Publishing, Yogyakarta, 2013.
- Daniel S. Lev, The Lady and the Banyan Tree: Civil-Law Change in Indonesia, The American Journal of Comparative Law, Vol. 14. No. 2 (spring, 1965).
- E. H. Khaeron. Model Pengembangan Diversifikasi Pangan Dalam Mendukung Ketahanan Pangan Nasional (Suatu Kasus Di Provinsi Jawa Barat). Disertasi, Fakultas Pertanian, Universitas Padjadjaran Bandung, Bandung, 2016.
- Effendi Pasandaran, *Irigasi di Indonesia: Strategi Dan Pengembangan*, Jakarta: Lembaga Penelitian, Pendidikan dan Penerangan, Ekonomi dan Sosial, 1991.
- Hansen, V. E., dkk, Dasar-dasar dan Praktek Irigasi. Jakarta: Erlangga, 1992.
- Hoessein, B., Prospek Resolusi Kebijakan dan Implementasi Otonomi Daerah dari Sudut Pandang Hukum Tata Negara, disampaikan pada Seminar dan Lokakarya Nasional Strategi Resolusi Kebijakan dan Implementasi Otonomi Daerah Dalam Kerangka Good Governance, Jakarta: Lembaga Administrasi Negara, 2001.
- Kartasapoetra, A. G., dan Mul Mulyani Sutedjo, *Tekhnologi Pengairan*, Jakarta: Bumi Aksara, 1994.
- Kedi Suradisastra, dan Effendi Pasandaran, *Menyoroti Dinamika Pembangunan Pertanian Kawasan Timur Indonesia: Prosiding Lokakarya*, Jakarta: Departemen Pertanian, Badan Penelitian dan Pengembangan Pertanian.
- Mawardi, E., Desain Hidraulik Bangunan Irigasi, Bandung: Alfabeta, 2007
- Rozali Abdullah, *Pelaksanaan Otonomi Luas dengan Pemilihan Kepala Daerah secara Langsung*, Jakarta: PT Raja Grafindo Persada, 2005.
- Siskel, S.E. dan Hutapea, S.R., *Irigasi di Indonesia Peran Masyarakat dan Penelitian*. Jakarta: LP3ES. 1995.
- Team of Drafting, Naskah Akademik Dan Rancangan Undang-Undang tentang Sistem Budidaya Pertanian Berkelanjutan, Komisi IV DPRRI, 2017.

Rules

Law No 26 of 2007 concerning Spatial Planning

Law No 23 of 2014 concerningLocal Government

Government Regulation No 22 of 1982 concerningWater Management

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Regulation of the Minister of Public Works and Housing of the Republic of IndonesiaNo

- 12/PRT/M/2015 concerning Exploitation and Maintenance of Irrigation Networks
 Regulation of the Minister of Public Works and Housing of the Republic of Indonesia No.
 14 /Prt/M/2015 concerning Criteria and Determination of Irrigation Area Status
- Regulation of the Minister of Public Works and Housing of the Republic of Indonesia No. 17/Prt/M/2015 concerning Commission Irrigation
- Regulation of the Minister of Public Works and Housing of the Republic of Indonesia No. 23/Prt/M/2015 concerning Irrigation Asset Management
- Regulation of the Minister of Public Works and Housing of the Republic of Indonesia No. 30/Prt/M/2015 concerning Irrigation System Development and Management