



## OVERVIEW OF AQUACULTURE POLICY IN BANDUNG DISTRICT, WEST JAVA

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### ABSTRACT

Bandung District is one district in the province of West Java, which has the potential in the field of aquaculture, particularly in the field of freshwater fish farming the development of the fisheries sector in Bandung directed in District Cimenyan, Cileunggang, Margaasih, Cileunyi, Kutawaringin, Margahayu, Dayeuh Kolot, Bojongsoang, Rancaekek, Cicalengka, Soreang, Ketapang, Pamangpeuk, Baleendah, Ciparay, Majalaya, Cikancung, Nagreg, Cangkuang, Banjaran, Arjasari, solokan Oranges, Paseh, Ciwidey, Cimaung, Pacet, Ibun, Rancabali, Pasirjambu, Pangalengan, and Kertasari. The regions mentioned above is the location of the development of the commodity hatchery, nursery, or jetted tub. The purpose of this study is to determine government policy analysis in the development of aquaculture in Bandung regency method used in this research is descriptive method on the basis of case studies.

**Keywords:** Kabupaten Bandung, Policy, Aquaculture

### 1. PRELIMINARY

Bandung District is one district that is located in the province of West Java that has a lot of potential. Bandung District has an area of sufficient size in the amount of 176,239.67 ha. Bandung regency region crossed by a large river that is Citarum River. Location Regency Bandung crossed by Citarum River and has a large area make Bandung regency has the potential in the field of aquaculture, particularly in the field of freshwater fish farming.

Fish consumption is now beginning to be cultivated in order to increase productivity. In continuous production to obtain maximum production yields do a fish breeding program to be cultivated (Sumantadinata 1983 in Gusrina 2008). Fish farming is an activity to maintain, raise, and / or breed fish and harvest their products in a controlled environment, including activities that use the vessel for loading, transporting, storing, freezing, handling, processing, and / or preserve (Law No. 45 The year 2009).

The development of the fisheries sector in Bandung directed in District Cimenyan, Cileunggang, Margaasih, Cileunyi, Kutawaringin, Margahayu, Dayeuh Kolot, Bojongsoang, Rancaekek, Cicalengka, Soreang, Ketapang, Pamangpeuk, Baleendah, Ciparay, Majalaya, Cikancung, Nagreg, Cangkuang, Banjaran, Arjasari, solokan Oranges, Paseh, Ciwidey, Cimaung, Pacet, Ibun, Rancabali, Pasirjambu, Pangalengan, and Kertasari. The regions mentioned above is the location of the development of the commodity hatchery, nursery, or jetted tub.

According to the Marine and Fisheries Agency of West Java Province, in 2018 the number of Domestic Fisheries / Aquaculture Company in Bandung regency which amounted to 8.964 RTP and the number of farmers in Bandung Regency amounted to 2.364 people. While the amount of the cultivation area used in Bandung in 2018 which amounted to 571.140 m<sup>2</sup>.

Article 1 paragraph 2 of Law No. 32 of 2004 on Regional Government explained that the definition of local government is the implementation of government affairs by the local government and parliament according to the principle of autonomy and duty of assistance to the principle of broad autonomy within the system and the principles of the Republic of Indonesia as referred to in the Constitution of the Republic of Indonesia Year 1945.

The government's policy in the development of aquaculture are bebereapa programs that have been and are being implemented. According Damanhuri (2000) says that the policy is top down and centralized will lead to the destruction of the traditional values of a positive and a uniform policy approach between regions from one another would turn off the local initiative and creativity of the economic actors. Government policy in the field of aquaculture can have a positive impact if implemented properly.

Aquaculture in Indonesia need development in order to flourish, one of them by their local governments. Local government

policies interesting to study because it will affect the course of the development of aquaculture business. Therefore, the researchers felt the need to conduct research through the Local Government Policy Analysis in the Development of Aquaculture with a Case Study in Bandung, West Java. The purpose of research which would dilaksanakan is to determine government policy analysis in the development of aquaculture in Bandung.

## **2. RESEARCH METHODS**

### **2.1 Time and place**

This research was conducted in Bandung Regency. This study was conducted in February 2019 - March 2020. Data collection and other relevant information in these research activities conducted observations and interviews with employees of the Department of Food and Fisheries Bandung District and fishery farmers.

### **2.2 Research Methods**

The method used in this research was the case study method. According to Mills et al (2010), a case study is one of the first to use this type of research in the field of qualitative methodology.

Basically, with this type of case study research aims to find out about something in depth. So in this study, researchers will use the case study method to uncover regarding government policy in the development of aquaculture in Bandung.

### **2.3 Sources and Types of Data**

The data used in this research is secondary data. Secondary data are data sources that are not directly provide data to data collectors, for example through others or through documents (Sugiyono 2015). Secondary data were obtained from the Department of Food and fisheries Bandung District and Regional Development Planning Board (Bappeda) Regency Bandung.

Data used in this research is quantitative and qualitative data. Qualitative data is datadisajikandalam verbal form of the word is not in numeric form (Muhadjir 1996). Quantitative data is the data type that can be measured or calculated directly, in the form of information or explanation which is indicated by numbers or shaped figure (Sugiyono 2010).

### **2.4 Data Analysis**

The analysis used in this research is descriptive qualitative data analysis. Analysis of descriptive qualitative data used to analyze which describe the general picture of local government policy Bandung regency in the development of aquaculture and analyze the policy recommendations for local government in taking policy decisions of local governments in the development of aquaculture from the viewpoint of stakeholders authority of local government policy and community perspective fishery farmers.

## **3. RESULTS AND DISCUSSION**

### **3.1 Overview of Bandung District**

Geographically located at the Bandung District 107° 22' - 108° 50' east longitude and 6° 41' - 7° 19' South Latitude. As for administrative, Bandung regency is part of West Java Province. In 2012 the Bandung District administrative area covering 31 districts, 270 villages, and 10 villages with a total area of 176,238.67 ha.

Bandung District including the plateau region with slope between 0-8%, 8-15% to above 45%. Most of Bandung Regency are among the hills and mountains. Based on the topography, most of Bandung Regency is mountainous or hilly areas with an altitude that varies between 500 m to 1812 m above sea level. Indirectly, topographic conditions that affect Bandung Regency Bandung Regency climate that tends to cool with temperatures ranging from 18°C to 24°C.

In general, that is the plain topography, slope / ridge and valley / DAS. The topography tends to be varied for each region. Existing land use in the Bandung regency consists of protected areas, cultivated areas of agriculture, non-agricultural, and other areas. Use of land in protected areas covering thicket, lake / reservoir, forest, swamp, bush and rivers. While the farm area includes mixed gardens, plantations, rice paddies, fields, and Tegal. Most of the land in Bandung Regency is dominated by the cultivation of the percentage of coverage area 138.116.80 ha or by 78.37% of the total area of Bandung regency. As for the rest, amounting to 21.63% is a protected area. On cultivated land component, the largest cultivated land use that is wetland, with a percentage of 23.25% coverage, followed by plantation with a percentage of 12.81%. Reviewing the vast percentage of this land use appears that the availability of land cultivation in Bandung regency potential in supporting agricultural functions. Apart from that, the availability of protected areas and open spaces in Bandung regency potential as a water catchment area.

### **3.2 Vision Kabupaten Bandung**

Bandung District Government needs to formulate a vision to guide the policy direction of the next five years (2016-2021). This vision is made to determine the focus and direction of motion of Bandung regency government in working resolve existing issues and minimize potential problems in the future. Bandung District Government's vision is "Strengthening the Bandung Regency Maju Mandiri and Competitive, through the Good Governance and Synergy Rural Development, Based on Religious, Cultural and Environmental". In the development vision of Bandung regency above, the points contained detailed vision can be interpreted as follows.

#### **1. Forward**

Bandung regency superior condition supported by human resources with high intellectual, good morale, creative, and innovative so as to form a productive society and supported by sustainable environmental conditions that can support a variety of activities that

are in line terselanggaranya to achieve regional progress.

## 2. Character Sabilulungan

Sabilulungan Patient, wise, noble science (higher knowledge), noble character (good morals), and ngancik faith dirina dina (having the power of faith in ourselves).

## 3. Independent

Conditions of Bandung district society that is able to meet its own needs for more advanced and able to create the life that is parallel and equal to other areas that have been developed, relying on the potential and capabilities.

## 4. Competitive

Conditions Bandung regency supported by competitive economy through creative economic development and infrastructure construction, supporting the dilunjang by the condition of the people who have the ability to put yourself ahead dala context of the sector, capable of opening up to the innovative actions for the benefit of competition, both at the regional level, national, and international.

### 3.3 Kabupaten Bandung Mission

In order to achieve the vision that has been set by taking into account the existing conditions and problems, the challenges ahead, and taking into account the opportunities that have, as part of the efficiency and effectiveness nine construction missions before, Bandung regency government set up five development mission as follows:

1. Improving the quality of human resources
2. Creating economic development competitiveness
3. Improving basic infrastructure integrated with spatial
4. Improving the environment
5. Realizing good governance and clean

### 3.4 District Medium Term Development Plan. duo

Direction of policy is a guideline for directing the formulation of strategies that have to be aligned in achieving the goals and objectives at every stage over the past five years. The formulation of the policy direction of rationalizing options strategy that has focus and in accordance with the implementation arrangements. Emphasis focus or theme every year during the period RPJMD have continuity in order to achieve the vision, mission, goals, and targets. In 2016, the development theme Bandung Regency is "Strengthening the quality of human resources as an actor of regional development and improvement of infrastructure, facilities, and basic utilities". At a tender in 2017, the development theme is "Accelerating the development of supporting infrastructure to enhance the competitiveness of the economy". In the year 2018, the development theme of "Development of the tourism industry and the agricultural-based creative economy activities and community empowerment". In 2019, the development theme is "Improving the independence and competitiveness of the economy through 1000 Sabilulungan Kampung integrated and performance-based". While in 2020, the development theme Bandung Regency is "Strengthening the Bandung District of advanced, independent, and competitive within the regional and national territory". Strategy and policy directions contained in Table 1. Bandung regency development theme is "Strengthening the Bandung District of advanced, independent, and competitive within the regional and national territory". Strategy and policy directions contained in Table 1. Bandung regency development theme is "Strengthening the Bandung District of advanced, independent, and competitive within the regional and national territory". Strategy and policy directions contained in Table 1.

**Table 1.** Strategy and Development Policy Direction

Purpose	Target	Strategy	Policy direction
Improving economic competitiveness Bandung District	Improving the competitiveness of the agricultural sector	Increased seed production and agricultural commodities	Improving the quality of agricultural products competitiveness
Improving the quality of basic infrastructure sustainable	Increasing the capacity and irrigation networks	Improving the quality and capacity of the irrigation network	Improved participatory irrigation management system

(Source: Regional Development Planning Agency Kab. Bandung 2018)

Rural development program is a program of regional heads of Bandung which contain strategic priority programs. The following regional development programs Bandung District is in the Term Regional Development Plan 2016-2021 Mennegah Bandung District related to the development of agriculture / fishery budiadaya in accordance with Regulation No. 13 of 2006 are presented in Table 2.

**table 2**, Bandung District Development Program and Work Indicators

No.	Mission	Regional Development Program	PD (based on Regulation No. 13 of 2006)	performance indicators
1	Creating economic development competitiveness	Stabilization of food self-sufficiency program	Program development of fisheries extension system	Percentage growth in agriculture, forestry, and fisheries in the GDP
2	Creating economic development competitiveness	Stabilization of food self-sufficiency program	Program management optimization and marketing of fisheries production	Percentage growth in agriculture, forestry, and fisheries in the GDP The exchange rate farmers
3	Creating economic development competitiveness	Stabilization of food self-sufficiency program	Aquaculture development program	Percentage growth in agriculture, forestry, and fisheries in the GDP

(Source: Regional Development Planning Agency Kab. Bandung 2018)

In the Medium Term Development Recana (RPJMD) Bandung regency, in addition there is a regional development program jabatan Bandung, there are also local laws in the development of local fisheries. Local Regulation in RPJMD contained in the table below.

**Table 3.** Local Regulation RPJMD 2016-2021

Field of Government Affairs and Programs and Activities	Program Performance Indicators (Outcome) and Activities (Output)
Program development of aquaculture	The percentage increase in fish production

(Source: Regional Development Planning Agency Kab. Bandung 2018)

### 3.5 Strategic Plan of the Department of Food and Perikanan Bandung District

Cultivation area development pursued through the control over the land that is not in accordance with the designation set out in spatial planning, and encourage the development of cultivated area in accordance with the Spatial. In the field of fishery, there Inland Fisheries Regional Development aimed at Bojongsoang, and Majalaya, as well as some existing reservoirs as well as several locations in public waters.

Conditions of cultivation land holdings in the region are:

- a) Land tenure in the cultivated area should be in accordance with the nature of entitlement, the purpose of granting rights and spatial planning;
- b) Control of land controlled by the people who use and utilization of the land is not in accordance with the spatial plan be adjusted through the implementation of land stewardship.

Conditions of land use in the cultivation area are:

1. Uses of land that is not in accordance with the spatial plan could not be improved utilization;
2. Uses of land referred to in paragraph a to be adjusted with the spatial plan;
3. Utilization of land in cultivated area has not been set in the detailed spatial plan be implemented taking into account the criteria and standards for the use of space;
4. Adjustment of land use referred to in point b is carried out through the implementation of land stewardship;
5. Activities in order to utilize the space above or below ground and not related to the control of land referred to in paragraph (1) of this Article may be implemented if it does not interfere with the use and utilization of the land in question;
6. activities in order to utilize the space above and below the ground or carried by the legislation in force.

Stabilization of aquaculture land without land use change from land already in Sub Ibun, Majalaya, Ciparay, Pacet and Bojongsoang, and lakes / reservoirs in the District PANGALENGAN, Rancabali and Ibun.



**Image 1.** Location Development and Production Processing Zone Development Fisheries Production

Location development and regional development of production and processing of fishery products, namely:

- District Pacet commodities: fish hatcheries and jetted tub;
- Subdistrict Paseh commodities: fish hatchery operations;
- Subdistrict Soreang commodities: fish hatcheries, fish nursery, and a jetted tub;
- Subdistrict Ciparay commodities: fish hatchery.
- Subdistrict Katapang commodities: fish nursery.
- Subdistrict Majalaya commodities: fish hatcheries and jetted tub.
- Subdistrict Pasirjambu with commodity: jetted tub.
- Subdistrict Banjaran with commodities: fish hatchery, nursery fish and jetted tub.
- District Pameungpeuk with commodities: fish hatchery.
- Subdistrict Ciwidey commodities: jetted tub.
- Subdistrict Ibun commodities: fish hatcheries and jetted tub.
- Subdistrict Bojongsoang with commodity: Separating fish.
- District of Margahayu commodities: Separating Fish.
- Subdistrict Dayeuhkolot with commodity: Separating fish.

Efforts aquaculture on existing rivers do through the manufacture of cages and nets floating and making ponds (ponds) both made specifically utilized also for recreational fishing activities, as well as a pool-k that serves to support the retention of the drainage system.

Food and Fisheries Department has several strategies and policies can be developed relating to the Development Plan (Mene-nangah Term Development Plan). Among others:

**Table 4.** Strategy and Policy Direction Department of Food and retention Perikananolam that serves to support the drainage system.

<b>strategy I</b>	Developing agriculture and fisheries region in an effort to improve food security
<b>I Policy</b>	Increased productivity of agriculture and fisheries department
<b>strategy II</b>	Accessibility facilitate marketing of agricultural products, livestock and fisheries
<b>policies II</b>	Increased processing businesses as well as centers sentra- marketing of agricultural products, livestock and fisheries
<b>strategy III</b>	Improve the welfare of farmers
<b>policies III</b>	Increasing the income of farmers and fish farmers

(Source: Department of Food and Fisheries Bandung District 2016)

### 3.6 Work Plan Department of Food and Fisheries District. duo

In the appendices in the Work Plan Department of Food and Fisheries in 2019, there were initial plans RKPD in 2019. In the process of preparing Renja 2019, the Department of Food and Fisheries attention to the program priorities that have been set out in the corridor RKPD as indicative development plan for the year is planned and the coming year in order to realize synergy planning documents. An initial draft RKPD 2019 are guidelines for the drafting of RENJA PD. The initial plan RKPD 2019 will be set forth in the table below.

**table 5, Preliminary draft RKPD 2019**

<b>Field of Government Affairs and Programs and Activities</b>	<b>Program Performance Indicators (Outcome) and Activities (Output)</b>
Program development of aquaculture	Percentage increase in fish production
Development of superior fish seed	Production of parent / superior fish seed (thousand)
Facilitation of farmer groups of fish farmers	The numbers of hatchery fish / hatcheries people (UPR) facilitated
Health and environmental control of fisheries	Number of fish disease control

(Source: Department of Food and Fisheries Bandung District 2019)

In addition there is a preliminary draft RKPD 2019, in the annex to the Working renca Food and Fisheries Department Bandung regency in 2019 are the formulation of programs and activities SKPD 2019. Formulation of programs and activities Formulation SKPD SKPD programs and activities in 2019 contained in the table below.

**table 6, Formulation of Programs and Activities Plan SKPD 2019**

<b>Field of Government Affairs and Programs and Activities</b>	<b>Program Performance Indicators (Outcome) and Activities (Output)</b>
Program development of aquaculture	Percentage increase in fish production
Development of superior fish seed	Production of parent / superior fish seed (thousand) in UPT
	The number of fish farmers groups / hatcheries people (UPR) (accumulation)
	Procurement parent catfish, feed and hatchery equipment
	Bimtek tilapia hatchery
	Bimtek catfish hatchery
	Bimtek hatchery goldfish
Assistance to fish farmers, farmer groups	Procurement parent catfish, feed and hatchery equipment
	Procurement parent tilapia, feed and hatchery equipment
	Procurement parent goldfish, feed and hatchery equipment
	Procurement package koi fish farming
	procurement package ornamental fish culture - live bealer
	The number of fish farmers groups (accumulation)
	Development of aquaculture
Coaching and development of fisheries	Enlargement of tilapia (KAT)
	Technical guidance eel
	Enlargement carp (KAT)
	Enlargement of tilapia (KAT)

	Enlargement catfish (KAT)
	Procuring fish seed, feed and tarpaulins
	Procurement of seeds and fish feed (minapadi)
	Cultivation technical guidance carp / tilapia / catfish / fish
Control of environmental health and fishery	Number of fish disease monitoring and restocking public waters

(Source: Department of Food and Fisheries Bandung District 2019)

## Conclusion

Based on the results Analysis of Local Government in the Development of Aquaculture (Case Study Bandung regency, West Java) that has been done, it can be concluded that the policy of the local government in the development of aquaculture in Bandung regency, there are several programs, including the development of fish seed excel , assistance to the group of fish farming (such as procurement parent fish, feed and hatchery equipment; bamtek fish hatcheries; and procurement packages fish farming koi and ornamental fish), coaching and development of fisheries (technical guidance aquaculture), and control of health and environmental fisheries. Bandung regency government policy in the development of aquaculture has been pretty good,

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