

# The Pollution of the Citarum River Watershed (DAS): Analysis of Control Policy Implementation in Indonesia

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## The Pollution of the Citarum River Watershed (DAS): Analysis of Control Policy Implementation in Indonesia

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### Abstract

The purpose of this study was to determine the implementation of pollution control policies in the Citarum Watershed in Bandung Regency, Indonesia. The not optimal control function causes environmental pollution in the Citarum River Basin to become the synthesis that is currently emerging. This research uses descriptive research with a qualitative approach. Data collection techniques used include observation techniques, interviews, and literature study. Data were analyzed using techniques (1) data reduction (2) data presentation and (3) drawing conclusions/verification. The results of the study reveal that the implementation of pollution control policies in the Citarum river basin in Bandung Regency Indonesia is not yet optimal, due to the incompleteness of several dimensions of policy implementation, namely: organizational dimensions, both structure, authority, main tasks and functions; dimensions of personnel resources, especially the competence of staff/implementers, information systems, and supporting facilities so that they are unable to achieve the targets set. What is new from this research is the findings of humanist, integrative and collaborative policies between local, provincial and national governments and other stakeholders.

**Keywords:** Implementation of Control Policy, Authority, Pollution.

### INTRODUCTION

The issue of environmental degradation is a classic issue that has until now become a challenge to global life, both in most developing countries and even in countries that are classified as advanced [1]. The cause is none other than industrial activity and physical development as well as the dynamics and increasing of various human activities in line with the desire to increase the standard of economic life in various sectors [2]. The increasing pace of economic life has had an increasingly alarming impact on the quality of the environment at large. The spread of various forms of pollution, be it air, soil, water or even noise, has become a crucial and complex issue from time to time [3]. Indonesia as a country dubbed "the lungs of the world" ironically is now in the world spotlight because, in fact, it continues to be hit by severe environmental degradation due to various causes. The increasing frequency of forest fires, flood and flood uptake, landslides, massive water pollution illustrates how complex the causal effects of environmental problems in our country are [4]. The government does not remain silent, since the days of the New Order government various policies and programs have been rolled out, with a large budget. [5] A number of models and approaches have been and continue to be tried. Particularly related to water pollution control, one of the programs that are still running is controlling watersheds (DAS). [6] In several areas, these efforts have shown satisfying results, but not a few are considered to be still far from the fire, including in the Citarum river basin, West Java, particularly in an area of approximately 270 km<sup>2</sup> in the Bandung region. [7] His condition was considered to have continued to worsen so that the Citarum River was named the most polluted river in the world. The implementation of pollution control policies and damage to the Citarum watershed (DAS) under the leading sector of the Environmental Agency of Bandung Regency is considered not optimal. This is physically indicated by the increasing levels of water pollution in the Citarum watershed area [8]. The results of measuring the levels of Biochemical Oxygen Demand (BOD) content from 7 sample locations/points (C1-C7) scattered along the Citarum watershed for 6 (six) years (2013-2018) were interpolated using the Thiessen Polygon method, based on the area (zoning) depicted in the table below:

**Table 1 BOD content at sample point locations in the Citarum watershed (mg /l)**

LOCATION SAMPLE	DISTRICTS	Regency	YEAR						AVERAGE
			2013	2014	2015	2016	2017	2018	
C1	Kertasari	Bandung	3.20	2.66	14.18	2.05	1.80	2.61	4.42
C2	Ibun	Bandung	5.98	5.40	25.12	4.03	4.48	7.39	8.76
C3	Majalaya	Bandung	29.51	23.89	37.85	17.35	18.91	20.88	23.23
C4	Bojongsoang	Bandung	26.86	26.11	61.15	30.17	50.38	33.50	38.03
C5	Baleendah	Bandung	35.27	39.47	25.90	41.73	90.03	55.84	48.04

C6	Dayeuhkolot	Bandung	38.66	37.57	54.52	33.57	56.68	31.73	42.12
C7	Ciparay	Bandung	9.11	7.87	24.32	10.38	10.83	8.10	11.77

Source: Citarum Harum Juara, Bandung Regency Environmental Service, 2019.

The table above shows the average value of BOD levels at 7 sample points in Bandung Regency in 2013-2018. The highest BOD value was C5 (48.04 mg/l) located in Baleendah, Bandung Regency, and the lowest was C1 (4.42 mg /l) located in Kertasari, Bandung Regency. Based on the level of water pollution, the sample points are grouped into 4 zonings, namely: Moderately Polluted Zone (<0.1 mg/l), Critically Polluted (0.1 - 1 mg / l), Highly Polluted (1–2 mg /l), and heavily polluted (> 2 mg/l). (1) Somewhat Polluted Zone is the most dominant compared to other zones. This zone is located on the west-north and south side of the Citarum watershed with a total area of around 248,404.76 ha or 54.46% of the total area of the watershed, namely on the south side covering an area of 68,344.66 ha, covering the Ciwidey and Upper Citarum sub-watersheds (Bandung Regency), and the remaining 17.49% is categorized as heavily polluted. (2) Polluted Critical Zone, covering an area of 54,686.95 ha or 11.99% of the total area of the Citarum watershed. This critical zone is located in two areas, namely in the middle of the watershed area of 39,748.29 ha, namely in the Cimeta sub-watershed and in the Northeast of the Citarum watershed. (3) Highly Polluted Zones are in three locations, namely in the south and east of the watershed with an area of 73,282.05 ha or 16.07% of the total area of the Citarum watershed. The first area which is located in the east is 60,962.29 ha, and the second is in the south with an area of 12,319.76 ha, covering the Citarik sub-watershed and a small part of the Cikapundung and Upper Citarum sub-watersheds. Administratively, this second area is included in the City of Bandung, Bandung Regency and Sumedang Regency. The heavily polluted zone is only in one area, which extends from the centre to the easternmost side of the watershed covering an area of 79,779.88 ha or 17.49% of the total area of the Citarum watershed, including Ciwidey, Cisangkuy and Citarum watersheds. Upstream in the North, and Citarik in the South. Administratively, this zone is included in the Cimahi City, Bandung City, Bandung Regency and Sumedang Regency areas. Environmental pollution level data in the Citarum watershed based on zoning in the last 3 (three) years, is shown in the diagram below:

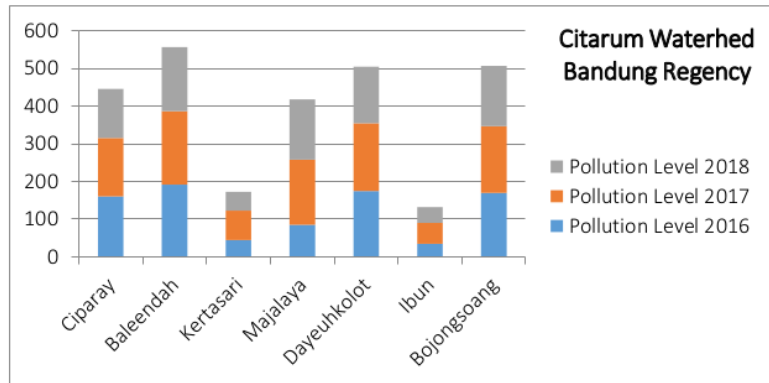


Figure 1 Pollution Level Diagram for the Last 3 Years

Source: Research Results (processed by researchers), 2020.

The diagram above shows the level of environmental pollution in the Citarum watershed in the last 3 (three) years in 7 sample areas, which are grouped into 4 (four) zones based on the score interval, namely: slightly polluted zone (0-50); Polluted critical zone (51-100); Highly polluted zone (101-150) and heavily polluted zone (151-200). Through this classification, we can also see that the Ibum sub-watershed is in the zone with the lowest pollution level, with an average score of 44, while the Baleendah sub-watershed is one of the highest pollution levels with an average score of 185.66. Based on observations in the field, [9] it is suspected that the level of pollution is exacerbated by the discharge of waste originating from a number of factories around the Citarum watershed. In addition, not a few residents are still accustomed to throwing garbage and other waste into a number of rivers (in the upstream area) that empties into Citarum. According to a statement from an official of the Bandung Regency Environmental Service, Citarum River pollution has not been completely resolved. Pollution and damage to the Citarum River have resulted in the function of the river is dead and can no longer be used by the surrounding community, it is even considered as a source of various germs, thus monitoring is deemed not effective [10]. Citarum has been contaminated by factory waste and hazardous materials such as mercury, heavy metals, E-coli bacteria, and pseudomonas aeuroginosa as well as animal waste, thus giving off an unpleasant smell.

In more detail, the following is a statement by [11] Pangdam III Siliwangi Doni Monardo, (Pangdam III/Siliwangi, the term of office 2017-2018), conveying the research results of Colonel Ckm dr. Is Priyadi (deceased). He revealed that the

condition of the river water is in fact, very bad: The volume of human waste that enters the Citarum River is 35.5 tons per day. 56 tons of manure per day. Then garbage, no less than 20,462 tons of waste per day of which 71 per cent is not transported. Medical waste, found bags of HIV/AIDS blood, pieces of organs in the human body, used medical devices, and others. This condition was exacerbated by 1,900 industries dumping their waste into Citarum. Of these, 90 per cent have not met the IPAL (Wastewater Treatment Plant) standard. Then the results, Laboratory tests on water in Citarum and its tributaries found iron (Fe), Manganese (Mn), organic matter, and turbidity content. Heavy metals affect, among others, brain and nerve disorders, heart cancer, blood vessel cancer, and reproductive disorders. This also causes the number of children with autism and an increase in cancer sufferers. Research has also reached clinical trials on fish and water in Citarum. The result is that the mercury content was found from the test results on catfish in Cilampeni and Cimarangi. Mercury was also found in the goldfish test results at Cisanti. The results of further investigation, it turned out that in one zone there was illegal gold mining using mercury recklessly and illegally which could cause brain and mental disorders, tremors, inflammation and swelling of the gums, stomach and kidney disorders, disrupting fetal brain development in pregnant women, can causes swelling, numbness, tingling of the hands and feet, and can cause skin peeling.

Meanwhile, high levels of bacteria, a type of e-coli and others are caused by the large amount of human waste that enters the Citarum river and livestock manure. Other ingredients in Citarum are the pseudomonas aeruginosa bacteria which can cause meningitis/inflammation of the lining of the brain, inflammation of the lining of the eyes, inflammation of the urinary tract, and rotten wounds. These are all difficult to treat due to antibiotic resistance. The bacteria come from hospital waste. Consuming Citarum water, perhaps dramatically, is suicidal. Then after the data has been collected, a single unit of command from upstream to downstream with all components is designed with the aim of improving the welfare of the community. As a result, the 269 km long river was divided into 22 sectors, "said Doni. Each sector is coordinated by an intermediary officer (colonel) TNI. The number of personnel is 7,100 people, consisting of TNI/ Polri (200 people per sector), joint personnel (100 people per sector), nurseries (200 people) and reserves of 300 people. This number is added by 500 people from the elements of higher education institutions in West Java. The program, which was then greeted positively by President Joko Widodo and became the legal umbrella for its implementation, is the real work of Doni Monardo, starting with the hard work of the late Is Priyadi. (<http://www.harnas.co/2020/12/05/the-hero-citarum-it-passed-away>).

In fact, efforts have been made to control pollution from the Citarum River for a long time, including involving the TNI ranks from Kodam III Siliwangi, although they have not been divided into 22 sectors as of now. The participation of the TNI has made a positive contribution, starting from cleaning the riverbanks, lifting sedimentation, making parks on riverbanks, closing factories around the watershed, building Wastewater Treatment Plants (IPAL), mobilizing communal areas in river basins, to closing dumpsites centralized waste in TPA (Final Disposal Site). President Jokowi himself on March 14 2018, issued Presidential Regulation No. 15/2018 concerning the Acceleration of Pollution Control and Damage to the Citarum River Basin. Furthermore, the central and local governments launched the Citarum Harum program which is targeted for completion in seven years. This program is launched in an integrated and sustainable manner. Since the launch of the Citarum Harum program in February 2018 by the central government, the condition of the Citarum River has begun to show a different face.

Realizing that the pollution of the longest river in West Java province will have a negative impact on the lives of the surrounding community, it is a big challenge for the government to be more serious about finding a solution, considering that Citarum is considered the most influential in West Java Province, even nationally. [12] Through the "Citarum Harum" program, 13 Action Plans have been prepared, in the form of handling critical land, handling industrial waste, handling livestock waste, handling domestic wastewater, waste management, controlling spatial use, managing water resources, arranging floating net cages, law enforcement, education, public relations, monitoring of river water quality and tourism.

Starting from the description above, researchers want to know more deeply about the implementation of pollution control policies and damage to the Citarum watershed in Bandung Regency, which is the working area of the Bandung Regency Environmental Service. The focus in this study is activities in 8 sectors from 22 sectors in Bandung Regency with different activities, but with the same objectives as the initial activity plan that has been running since last February 2018. To analyze the phenomena that occur, researchers use the theory of Edward C. III (1980) quoted by Winarno (2012:152) [13], regarding 4 variables that affect the performance of policy implementation, namely: (1) communication; (2) resources; (3) the attitude of the implementers (dispositions); and (4) bureaucratic structure. [14] According to (Anggara, 2014) the word "implementation" comes from English to implement or to provide the means for searching out or preparing suggestions to do something and to give practical effect to, meaning to produce an impact on something. In this case, [15] Edward III (1980) views that policy implementation is complex and requires cooperation from many parties. When the bureaucratic structure is not conducive to responding to a policy, it will cause ineffectiveness and hinder policy implementation. Edward III's research results summarized by (Winarno, 2012:152)

8 reveal that there are 4 dimensions that influence the implementation of public policy, namely: **(1) Communication.** Communication is a powerful mechanism for implementing public policy. The better the communication between the parties involved in an implementation process, the more effective the results will be. Various forms of rejection, such as expressed by Edward III, regarding the "zone of indifference" when policy implementers, through their discretion, subtly inhibit policy implementation by ignoring, delaying or taking various other inhibiting actions [16]. (Agustino, 2016: 157) argues that "communication is one of the important variables that influence the implementation of public policies, and greatly determines the success of achieving the objectives of public policy implementation".

5 Policy implementation will be achieved effectively if decision-makers understand what they will do. Information on the scope of decision-makers can only be obtained through good communication. There are three indicators that can be used in measuring the success of communication variables [17]. According to Edward III in (Agustino, 2016: 157-158), these three variables are a) Transmission. Good communication channels will result in good implementation too. [18] Often there is a problem in the distribution of communication, namely the misunderstanding (eg communication) caused by the many levels of bureaucracy that must be passed in the communication process, so that what is expected is distributed halfway. b) Clarity. Communication received by policy implementers (street-level-bureaucrats) must be clear and not confusing or unambiguous/ambiguous so that errors can be minimized c) Consistency. The orders given in the implementation of communication must be consistent and clear to be established or implemented. [19] If the instructions given change frequently, it can cause confusion for the implementer in the field. The relationship between the dimensions of policy implementation above can be seen in the figure below:

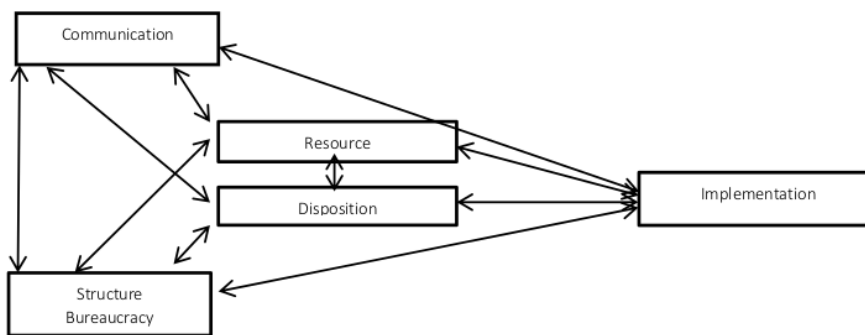


Figure 2 Theoretical Basis of Research

Source: Research Results (Edward III, 1980).

**(2) Resources.** The condition for running an organization is control over resources. [20] Schermerchorn, Jr. (1994: 14) grouping resources into: "Information, Materials, Equipment, Facilities, Money, People". Meanwhile, Hodge (1996: 14) classifies resources into: "Human resources, Material resources, Financial resources and Information resources". With regard to human resources, Hodge stated: "Human resources can be classified in a variety of ways; labours, engineers, accountants, faculty, nurses, etc". Material resources are categorized into: "Material resources-equipment, building, facilities, material, office, supplies, etc. [21] Meanwhile, financial resources are classified into: "Financial resources - cash on hand, debt financing, owner's investment, sale revenue, etc". Information resources are divided into "Data resources-historical, projective, cost, revenue, manpower data etc". The success of the policy implementation process is highly dependent on the ability to utilize available resources, and humans are the most important resource in it. **(3). Attitude implementers (dispositions).** [22] Syatma "tendencies or dispositions are one of the factors with important consequences for effective policy implementation". If the implementers have a positive tendency or attitude or are supportive of policy implementation, then it is likely that the policy will be implemented according to the initial decision. Likewise, if the implementers have a negative attitude or refuse to implement policies because of conflicts of interest, the implementation of the policies will face serious obstacles. The success rate of implementation can be measured if the size and objectives of the policy are realistic and in accordance with the prevailing socio-culture at the implementing level. Acceptance or rejection of the implementing (agent) has a great potential to affect the success or failure of the performance of public policy implementation. **(4) The structure of the bureaucracy,** is one of the most frequent institutions, even as a whole as the implementer of activities. The existence of the bureaucracy is not only in the government structure but also in private organizations, educational institutions and so on. Even in certain cases, the bureaucracy was created only to carry out a certain policy. Ripley and Franklin in (Winarno, 2012: 149-60) identified six characteristics of the bureaucracy as a result of their observations of the bureaucracy in the United States, namely: a) Bureaucracy was created as an instrument in dealing with public needs (public affair). b) The bureaucracy is a dominant institution in the implementation of public policies which has different interests in each hierarchy. c) The bureaucracy

has a number of different purposes so that its function is in a complex and extensive environment. d) Bureaucracy has a high survival instinct, so it is rare to find a dead bureaucracy. e) The bureaucracy is not a neutral force and is not under full control from outside parties.

## METHODOLOGY

The focus in this research is the implementation of the Citarum Pollution and Damage Control Policy in the Bandung Regency area which is under the authority of the Bandung Regency Environmental Service. Sampling was carried out in Sector 5 and Sector 8 of the Citarum watershed, Bandung Regency, which is included in the scope of the Citarum Harum program. [23] This study uses a qualitative approach with descriptive analysis method. [24] Qualitative research is used to reveal a comprehensive, in-depth and straightforward manner regarding the implementation of Pollution Control and Damage to the Citarum Watershed (DAS) policy in Bandung Regency. [25] The method of descriptive analysis in this study traces the opinion of Miles and Huberman in Sugiyono (2012: 246), namely a series of activities in analyzing qualitative data which is carried out interactively and continues to completion so that the data is saturated. This is done in order to describe conditions in the field and find facts by interpreting and accurately depicting the nature of several groups or individual phenomena that come from the results of research findings. [26] The data needed to support the research process is in the form of primary data and secondary data, with data collection techniques through observation, interviews, and documentation study. [27] Activities in data analysis include data collection, data reduction, data display (data presenter), and conclusion drawing/verification. [28] The activity of collecting, describing, and interpreting data and situations experienced, certain relationships, views, attitudes shown or about trends that appear in the ongoing process of research related to the Implementation of Pollution and Watershed Damage Control Policies) Citarum in Bandung Regency, so that researchers can determine conclusions and answers to these problems. [29] Through a qualitative approach, research on the implementation of Pollution Control and Damage to the Citarum Watershed (DAS) policy in Bandung Regency is expected to be able to provide accurate information, thus helping the process of interpreting the information and data obtained.

## RESULTS AND DISCUSSION

Discussion on the Implementation of Pollution Control and Damage to the Citarum Watershed (DAS) Policy in Bandung Regency, refers to the implementation of policies according to Edward C. III which includes four dimensions, namely: (1) communication, (2) resources, (3) disposition, and (4) Bureaucratic Structure. The first dimension that supports the success of policy implementation is (1) Communication, Between Organizations and Implementing Activities. The first dimension is communication between organizations and implementing activities. In policy implementation, communication is the heart. Good communication will result in good coordination and can prevent communication errors (miss-communication so that policy implementation can be carried out properly [30]. The results show that so far the communication process in the scope of the working group and task force, also with other elements involved related to this Citarum Harum Program, it is well-established. The delivery of structured information is a strong factor in creating good communication [31]. Coordination carried out by the Environmental Agency as the leading sector with related parties, among others, is carried out through periodic coordination meetings, evaluation and preparation of supporting programs/activities in the Citarum watershed area. Through the coordination meeting, a number of regulations related to the Harum Citarum Program were socialized along with the operational guidelines/technical guidelines. [32] Apart from that, it also discusses alternative solutions that will be taken if there are obstacles, related to the implementation of the Citarum Harum program (especially in Sector 5 & Sector 8). Thus, it can be said that the communication dimension in the context of the Citarum Harum program has so far been implemented normatively well. However, in its implementation, sometimes communication between government agencies, both internal, external, horizontal and vertical, and diagonal, still faces obstacles as expressed. [33] Minister of Transportation Budi Karya Sumadi said that "The main challenge faced by government agencies at this time is the lack of communication between institutions which results in obstruction of the government's strategic programs. In addition, the dynamics and problems faced by government ministries/agencies are currently very diverse, wrong. one of which is that there is frequent overlapping of power and weak relations between state institutions [34] To overcome this based on the Decree of the Governor of West Java Number 614.05/Kep.156-DLH/2019 of 2019, referring to [35] Presidential Regulation of the Republic of Indonesia Number 15 of 2018 concerning the Acceleration of Pollution Control and Damage to the Citarum River Watershed, was compiled division of tasks, involvement and regional status starting from the provincial, district to sub-district levels so that communication between agencies is established in accordance with the authorities and regions as in the following table.

**Table 2 The Strategy of Citarum Program Implementation**

No	Description	Status Territory
1	Involves the Indonesian National Army (TNI), the Regional Police of the Republic of Indonesia (POLRI), and the High Court	Province
2	Involving Ministries and Institutions	districts
3	Establish a Sector Command	district
4	Establish a Task Force Secretariat	district
5	Formed a Working Group (POKJA) PPK Citarum Watershed	district
6	Forming the Citarum Watershed PPK Expert Team	district
7	Appoints the Chief Executive of the Task Force	districts

Source: Research Results (processed by researchers), 2020

The interesting thing about this communication dimension, with regard to the efforts made by the main stakeholders of the Citarum Harum program, in this case, the elements of the Working Group and the Citarum Watershed Damage and Pollution Control Task Force and the Bandung Regency Environmental Service in building collaboration with elements of the surrounding community, in order to build awareness and mutual responsibility in the success of the Citarum Harum Program. [36] The results of the study revealed that this activity was carried out through a humanist and collaborative approach with the surrounding community, with the aim of stimulating public awareness and concern and instilling a love for the environment as a gift of nature that must be guarded, maintained and preserved together. In practice, this activity is allocated to 7 (seven) sectors in the Citarum watershed area and is carried out collaboratively with elements of the local community, as well as other participants, in the form of devotional work and carrying out activities that support the success and optimization of the implementation of the Citarum Program. Fragrant. To get a clearer picture, how these activities are designed and implemented, can be seen in the table below:

**Table 3 Sector Activities in Bandung Regency**

No	Sector	Activities
1	Sector 1 (Situ Cisanti)	a. Outreach to residents b. Planting tree seeds c. Bhakti works d. Normalization of upstream rivers e. Periodic investigations f. Development of supporting infrastructure for tourism in Situ Cisanti
2	Sector 2 (Pacet-Maruyung)	a. Making biopore holes b. Outreach to residents c. Planting tree seeds d. Devotional work e. Sewer casting f. WWTP construction
3	Sector 3 (Maruyung-Cikarau)	a. Devotional work b. River bank normalization c. Outreach to residents d. Planting tree seeds e. Sewer casting
4	Sector 4 (Neglasari-Rancabuana)	a. Devotional work b. River bank normalization c. Outreach to residents d. Planting tree seeds e. Sewer casting
5	Sector 5 (Rancabuana-Bojongsoang)	a. Devotional work b. River bank normalization c. Outreach to residents d. Planting tree seeds e. Unannounced inspections
6	Sector 6 (Sapan-Cijagra)	a. Devotional work b. River bank normalization c. Outreach to residents d. Planting tree seeds

		e. Sewer casting
7	Sector 7 (Cijagra-Jembatan Cilampeni)	a. Devotional work b. River bank normalization c. Outreach to residents d. Planting tree seeds
8	Sector 8 (Jembatan Cilampeni-Curug Jompong)	a. Devotional work b. River bank normalization c. Outreach to residents d. Planting tree seeds e. Demolition of illegal buildings

Source: Research Results (processed by researchers), 2020.

**(2) resources.** [37] The second dimension is the aspect of resources. In general, the carrying capacity of the available resources, whether material, financial, facilities, information is quite adequate, this is indicated by the progress achieved to date. However, in this aspect of financial resources and human resources/personnel, it is faced with several obstacles. In the financial aspect, the problems faced are related to the mechanism, coordination and budget synchronization, considering that they come from different sources, namely the APBN, West Java Provincial APBD and Bandung Regency APBD. A special strategy is needed to ensure the smooth realization of the budget so that the program is always in line with the scheduled activity agenda. With regard to the aspect of human resources, the Head of the General Subdivision of the Environmental Agency of Bandung Regency, said: "The human resources we have are not as many as in other agencies, but in handling it is quite good and maximal, as evidenced by the progress of achievement every month with a lot. Activities that are running in collaboration with the Siliwangi Military Commander and local residents, for the budget and others, we use it as effectively as possible from what is given by the centre, although not completely because it is cut by sectors and others. This statement indicates that the Bandung Regency Environmental Service as the leading sector is still faced with limited personnel and budget support, especially regarding crucial tasks. **(3) The attitude of the Implementing Agency (disposition).** The third dimension is the disposition of the implementing elements. The attitude of accepting or rejecting the elements of policy implementers will have a strong influence on the success of policy implementation. The implementation of a policy will be successful if the community responds or is cooperative and ready to accept. While at the same time supporting the policy. Conversely, if there is a response or resistance (resistance), then the implementation of the policy will experience obstacles. Based on the research results, in general, the response or public attitudes towards the pollution control policy and damage to the Citarum watershed is quite positive. A positive attitude is shown by the people who realize that the Citarum Harum program is a solution to classic and crucial problems relating to people's lives and common interests. In addition, people have begun to understand that rivers actually have a function as the lifeblood of the economy [38]. However, on the other hand, the researcher also noted the response or attitude of rejection of the Citarum Harum program, namely from a group of business actors who felt that they were disadvantaged by the closure (factory and brick industry) belonging to them located in the Citarum River Basin area. In relation to this disposition aspect, the researcher considers that even though the positive response at the executive level is more dominant than those that are resistant, in the long term it can become a serious obstacle, given the current strong external influences, both in the national and international macro spheres (human rights issue, geopolitics, consumer behaviour, other global issues). **(4) bureaucratic structure.** A policy will be implemented well if it has a clear policy measurement and objectives that can facilitate the implementer in implementing a policy. According to Edward III, the bureaucratic structure is one of the most frequent institutions and even as a whole is the implementer of activities. The existence of the bureaucracy is not only in government structures but also in private organizations, educational institutions and so on. Even in certain cases, the bureaucracy is created only to carry out a certain policy, therefore if it is too ideal it will be difficult to realize it to a point that can be said to be successful. The organizational structure, company/agency provides an overview of the duties and responsibilities of each position holder, both horizontally and vertically, so that the possibility of mistakes in each job can be reduced or even eliminated. With regard to the Citarum Harum Program, the PPK DAS Citarum Working Group (Pokja) has been formed through the Governor's Decree Number 614/Kep1304-DLH/2018 which is implemented in more detail through Governor regulation number 5 of 2019 concerning Management of Pollution Control and Damage to Watersheds Citarum. This Working Group consists of bureaucratic elements coming from across sectors, who are in charge of planning and monitoring and evaluating the implementation, as well as revising/improving all the Action Plans that have been prepared. The Chairperson of the PPK DAS Citarum Daily is in charge of leading and coordinating the implementation of the tasks of the Task Force Secretariat, Sector Command, Pokja and PPK DAS Citarum Expert Team with the following organizational structure:



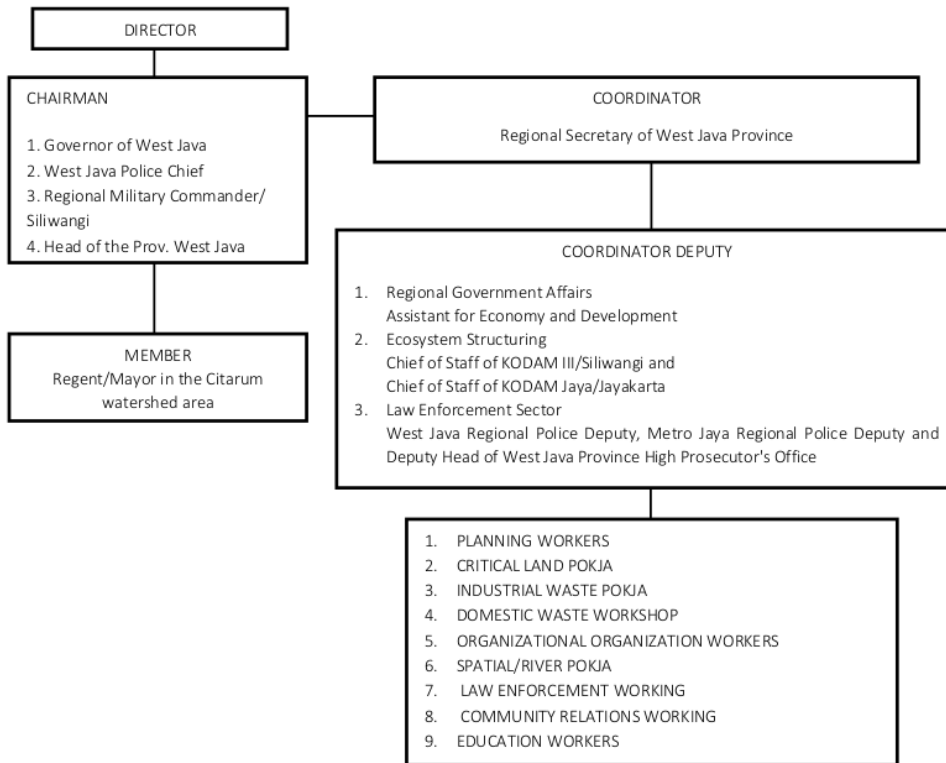


Figure 3 SATGAS (Task Force) Citarum Harum

Source: SATGAS PPK Citarum Watershed, 2020

In an effort to support the smooth implementation of the working group's duties, through the Decree of the Governor of West Java Province No. 614/Kep1303-DLH /2018 In 2018, a Pollution and Damage Control Task Force (PPK) was formed in the Citarum Watershed. The main task of the PPK Task Force is to facilitate all activities carried out by the Pokja, especially in administrative and reporting services. The chart of the KDP Task Force organizational structure, shown in the image below:

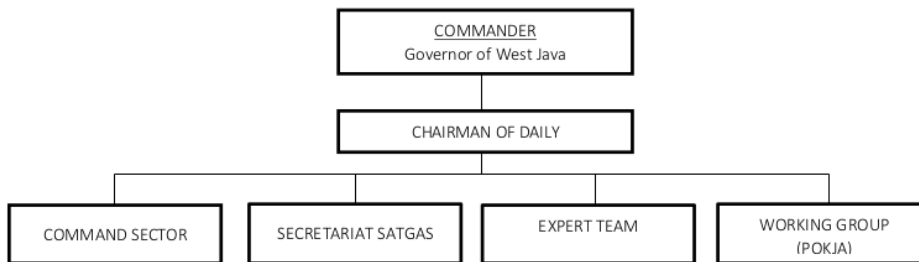


Figure 4 Guidance Procedure for the Pollution Control and Damage Control Team in the Citarum Watershed

Source: Governor Regulation Number 5 of 2019 concerning Management of Pollution Control and Damage to the Citarum Watershed

The purpose of establishing Pokja and Task Force above is, in addition to clarifying the authority and division of main tasks and functions of each element involved, it is also to facilitate evaluation and performance measurement. Regarding the structure of the bureaucracy, the researcher argues that the existence of the Pokja and the PPK Task Force for the Citarum watershed is seen from its size, composition, elements involved, main tasks and functions in general quite adequate [40]. The involvement of elements of the Regional Leadership Communication Forum is very rational,

considering that the Citarum Harum Program requires integrated cross-sector coordination to ensure environmental conductivity [41]. The formation of the working group and the task force emphasized the division of "cultivated areas" between operational tasks and administrative tasks. Likewise, the involvement of a team of experts, of course, will be very big energy in strengthening the strengthening [42]. However, researchers saw a number of problems that were no light in the dimensions of this bureaucratic structure, including: (1) The elements of the bureaucracy involved came from across sectors, namely the central and regional ASN, TNI, Police, and other elements. This makes coordination difficult, given the difference in organizational culture and the potential for sectoral egos; (2) Placement of elements of the leadership of the Pokja and Task Force who are ex officio in nature, limiting the officials concerned in dividing the time between official duties and their duties in the team; (3) Organizations in the form of Pokja or Task Force, generally are not supported by clear reward & punishment; so that it has consequences on the level of responsibility of organizational personnel; (4) The low esprit de corps at the executive level, due to differences in institutions of origin and psychological gaps.

## CONCLUSION

Based on the results of research and discussion that has been carried out by researchers, it can be concluded that the implementation of the Citarum Pollution and Damage Control Policy in the Citarum Watershed in Bandung Regency is not yet optimal. This is indicated by (1) The bureaucratic structure which is ex officio and cross-sectoral makes coordination difficult; strong sectoral ego and low esprit de corps due to differences in organizational culture and unclear provisions of reward & punishment; (2) The resource dimension is mainly faced with obstacles in the administrative process of budget disbursement, insufficient apparatus resources, and limited supporting facilities; (3) The disposition dimension is characterized by the emergence of negative attitudes (resistance) from a group of people who feel disadvantaged by the closure of their business activities (industry); (4) The communication dimension has not been effective, especially with community elements due to a shallow understanding of policies/programs regarding control pollution and watershed damage. What is interesting in the communication dimension is the efforts made by the leading sector in generating a sense of belonging and social responsibility for the community and participants through the development of humanist, integrative, collaborative and sustainable based programs, which are an integral part of the Citarum Harum Program. As long as this model is carried out consistently and under control, it will provide a valuable contribution to the successful implementation of pollution control policies and damage to the Citarum watershed.

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