

INSTITUTIONAL NETWORK STRUCTURE IN CITARUM WATERSHED MANAGEMENT

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ABSTRACT. To overcome the pollution of the Citarum River, a comprehensive environmental management effort is needed and integrates various programs or activities from various parties. This study will describe the structure of the institutional network among the institutions involved in the management of the Citarum watershed. The aspects studied are the elements of the institution that enable the institution to develop properly and the aspects contained in the institutional network, namely the actors involved, distribution of resources, opportunities for exchange, exchange relations, and network structure. The research was conducted in the Citarum watershed area in Sector 7, Bandung Regency, namely in Baleendah District. Data were collected from institutions identified as institutions involved in the management of the Citarum watershed. The results showed that apart from the Sector 7 Commander, the institutions involved in the management of the Citarum watershed consisted of local/regional non-governmental organizations (NGOs), government agencies, local governments, academics, and the community. Each stakeholder plays a role in accordance with his position and limits of authority and through involvement by the Sector Commander (Dansector) 7 who plays the role of coordinator and is quite dominant in coordinating Citarum watershed management activities. In order for the achievements of this program to be sustainable, this dominance must be balanced with strengthening community capacity to avoid dependence on central government programs.

Keywords: Citarum; river pollution; watershed management; institutional structure

STRUKTUR JARINGAN KELEMBAGAAN DALAM PENGELOLAAN LINGKUNGAN DAERAH ALIRAN SUNGAI CITARUM

ABSTRAK. Untuk mengatasi pencemaran Sungai Citarum dibutuhkan upaya pengelolaan lingkungan yang komprehensif dan mengintegrasikan berbagai program atau kegiatan dari berbagai pihak. Penelitian ini akan menggambarkan struktur jaringan kelembagaan diantara lembaga-lembaga yang terlibat dalam pengelolaan DAS Citarum. Aspek yang diteliti adalah unsur-unsur dari kelembagaan yang memungkinkan kelembagaan tersebut dapat berkembang dengan baik serta aspek-aspek yang terdapat pada jaringan kelembagaan, yaitu aktor-aktor yang terlibat, pendistribusian sumber-sumber, kesempatan melakukan pertukaran, hubungan pertukaran, serta struktur jaringan. Penelitian dilakukan di daerah DAS Citarum di Sektor 7, Kabupaten Bandung, yaitu di Kecamatan Baleendah. Data dikumpulkan dari lembaga-lembaga yang teridentifikasi sebagai lembaga yang terlibat dalam pengelolaan DAS Citarum. Hasil penelitian menunjukkan bahwa selain Komandan Sektor 7, lembaga-lembaga yang terlibat dalam pengelolaan DAS Citarum terdiri dari lembaga swadaya masyarakat (LSM) lokal/regional, lembaga pemerintah, pemerintah lokal, akademisi, serta masyarakat. Setiap stakeholders berperan sesuai dengan kedudukan dan batas kewenangannya serta melalui pelibatan oleh Komandan Sektor (Dansector) 7 yang peran sebagai koordinator dan cukup dominan dalam mengkoordinasikan kegiatan pengelolaan DAS Citarum. Agar capaian program ini dapat berkelanjutan, dominasi ini harus diimbangi dengan penguatan kapasitas masyarakat untuk menghindari ketergantungan pada program pemerintah pusat.

Kata kunci: Citarum; pencemaran sungai; pengelolaan DAS; struktur kelembagaan

INTRODUCTION

The Citarum River as one of the strategic river areas is the largest and longest river in West Java (Permen PUPR, no. 04/PRT/M/2015). The existence of the Citarum River crosses an urban area that is full of community activities, with a watershed area of about 11,323 km² covering the City of Bandung, Cimahi City, West Bandung Regency, Subang Regency, Purwakarta Regency, Karawang Regency, Cianjur Regency, Cianjur Regency, Indramayu Regency, Sumedang Regency, Bandung Regency,

Bekasi City and Bekasi Regency (Directorate General of Natural Resources, Ministry of Public Works, 2012). However, the actual condition of the Citarum River has various problems. According to the Regional Environmental Control Agency of Bandung Regency (2016), it shows that 70% of the waste along the Citarum River comes from domestic waste and the remaining 30% comes from factory waste originating from approximately 500 factories located in the watershed area.

Pollution in the Citarum River occurs starting from the upstream part where people around the

Citarum River who have cattle farms dispose of cow dung directly into the Citarum River without processing it first. Measurement and analysis of the quality status of the Citarum River using the STORET method by BPLHD West Java shows a status of D or heavily polluted (Balai Datin PSDA Jabar, 2010). The problem of environmental pollution arises as a result of people's behavior in treating their environment. (Darmawan & Fadjarajani, 2016; Absori, 2007). The community views the environment as facilities and available resources to be utilized as much as possible; as if the environment had its own mechanism to restore its condition. The wrong treatment in utilizing the environment has resulted in the decreasing environmental carrying capacity of humans (Palipi & Sawitri, 2017).

According to Marbun (1994), basically the source of environmental pollution is human waste. The process of environmental pollution occurs because of the actions of humans themselves who are not careful in choosing ways and tools to meet their needs. Humans often do not consider the impact on the environment of the choices they make to meet their various needs. People's treatment of the wrong environment will disrupt the balance of the environment in supporting human life in the long term.

As stated by Petak (1981, in Dorney, 2012) that environmental management is an effort to manage matters relating to human life to achieve an acceptable balance between the quality of the human environment and the quality of the natural environment. Environmental management is a continuous process. This management process does not only run one time, but continuously. Through the implementation of good environmental management, dynamism and harmonization can be realized between humans and their environment.

Syukri (2013) states that environmental discussions rarely touch aspects of the social environment with all its knick-knacks and only discuss aspects of the natural environment. Whereas the human element with all its behavior individually and collectively determines the quality of the environment. Pollution of the environment and the Citarum River shows that the element of human behavior in the discussion of the environment cannot be ruled out, because changes in environmental conditions and the Citarum River itself are the result of human actions in treating the environment.

There have been many efforts made by various parties to overcome the pollution of the Citarum River. These efforts are carried out by communities living around watersheds independently or with the

support of other parties, by local governments at the village level to the national level through various regulations and programs or activities, as well as by other parties such as government agencies and non-government institutions. (Mercy Corps, 2015). As the latest effort, the government launched the Citarum Harum program as Indonesia's national program to overcome the very worrying condition of the Citarum River through Presidential Regulation Number 15 of 2018 concerning Acceleration of Pollution Control and Damage to the Citarum River Basin which was signed on March 14 2018. This program is expected to complete Citarum River problem in seven years.

After running for three years, these efforts are starting to show results. The Citarum River, which used to be named the most polluted river in the world, is now starting to be handled with less waste and garbage being dumped into the Citarum River. The contribution of waste that enters the Citarum River is reduced by 42 percent compared to before the Citarum Harum program started. The improved condition of the Citarum River cannot be separated from the efforts of various parties involved in the Citarum Harum program and the growing public awareness of the need to keep the Citarum River clean. This success also shows that the complexity and breadth of problems in the Citarum River environment require comprehensive and integrated efforts to maintain and manage the Citarum River environment by involving various parties.

Communities around the Citarum River have a strategic role in maintaining the Citarum River, especially in influencing industries that have an interest in the Citarum River. Several studies have found that company decisions to adopt environmental management practices are influenced by the desire to improve or maintain relations with their communities. (Delmas & Toffel, 2004). It is worth noting how the roles of the community along the Citarum River flow in maintaining the environment around the Citarum River as part of a network of parties that influence efforts to maintain the Citarum River environment. Communities along the Citarum River from upstream to downstream can contribute to efforts to maintain and control river pollution. Companies can basically get involved in river conservation programs when the government and the company both have interests, and have activities that are mutually beneficial to each other. (Resnawaty et.al, 2019)

Collaboration among community members in one community or with other communities on the outskirts of the Citarum River affects the synergy of efforts to maintain the Citarum River environment. In addition, the involvement of other parties who

are directly or indirectly interested in the quality of the Citarum River can affect efforts to maintain the Citarum River. The involvement of various stakeholders, both community members individually and collectively, government institutions and non-government institutions in managing the Citarum River environment will run effectively if the process is built in an institutional network.

When efforts were made to improve and restore the environmental conditions of the Citarum River, the interventions were not only carried out on the physical condition of the environment but also on humans with all their dynamics. Various aspects that affect human behavior individually and collectively deserve attention. In addition, efforts that are synergistic in environmental management are things that affect people's behavior indirectly. Collaboration that is built institutionally can further strengthen and maintain the sustainability of Citarum River management efforts.

Institutional is an order and pattern of relationships between members of the community or organizations that are mutually binding which can determine the form of relationships between humans or between organizations that are accommodated in an organization or network and are determined by limiting and binding factors in the form of norms, codes of ethics, formal or informal rules. for controlling social behavior as well as incentives to work together and achieve common goals (Djogo, 2003, in Veriasa, 2018). Institutions can develop well if there is institutional infrastructure (containers), institutional arrangements (structures) and institutional mechanisms (rules). Where the rules are mutually agreed upon and clear duties and functions within the organization. Potential and credible human resources as well as broad insight and have an important role in the running of the organization's wheels. (Agusyanto, 2013)

The institutional network involved in the management of the Citarum River environment is formed in various bonding relationships according to the closeness of the bonds built. (Diani & Dough, 2019). More contextually in the relationship between stakeholders in the management of the Citarum river environment, a social network is a set of people or groups of people with some form of contact and interaction between them (Scott, 2000; Newman et.al, (2009).

When efforts to improve and restore the environmental conditions of the Citarum River take place, interventions are not only carried out on the physical aspects of the environment but also on the community with all its dynamics. Various aspects

that influence human behavior individually and collectively are part of these efforts; considering that environmental changes will affect the community. Given the many stakeholders involved and the dynamics that accompany it, it is necessary to map the institutional network structure in an effort to restore the condition of the Citarum River so that institutionally built collaboration can further strengthen and maintain the sustainability of Citarum River management efforts..

METHOD

The method used in this study is a descriptive method with a qualitative approach. The descriptive research method describes an overview of the institutional structure in the management of the Citarum watershed at the research location, namely in Sector Tujuh, Bandung Regency in the Citarum Harum program, precisely in Baleendah District. This area is one part of the Citarum watershed which often experiences flooding due to the overflowing of the Citarum River. The Citarum watershed in the Baleendah sub-district is a Citarum watershed area has serious problems with continuous flood events. Various efforts to overcome or prevent the problem of flooding and other problems that accompany it have been carried out for a long time in this area and were quite intensive until the time the research was carried out.

The object of this research is the institutional network in Sector Seven, Bandung Regency. While the subject of this research which is also the scope of the research is the institutions in Sector Seven of the Citarum Harum Program in Bandung Regency involved in the management of the Citarum Watershed as well as other institutions identified through the relevant institutions. These institutions come from government or non-government elements.

Informants in this study were determined using a purposive sampling technique, namely informants who knew and directly faced problems and were institutionally involved in efforts to overcome Citarum River problems. Informants are parties who work or are active in the management of the Citarum watershed with institutions identified as stakeholders. To determine the institution that will be the data source, the researcher uses the snowball technique, which is to find the next informant from the previously interviewed informants, so that the institutional network can be directly described. In this research, the informants interviewed were 17 representatives of institutions and communities, namely: Government Agencies, private Institution,

community leaders, local institutions, and sector commander 7.

Data were collected using in-depth interview techniques and non-participatory observation (Newman, 2010). Interviews were conducted on informants who had been determined using interview guidelines regarding the structure of the institution, the capacity of the institution, the role of the institution, its relationship with other institutions, and its contribution to the network. This will provide information about the existence of an institution in the context of Citarum watershed management. The observations were carried out by observing the physical condition of the Citarum river environment at the research location and the dynamics of the interaction between various stakeholders in managing the Citarum watershed environment.

Based on the data collected, an analysis was carried out to describe the existing institutional structure in the network formed in the management of the Citarum watershed. For the descriptions to be comprehensive, the analysis is based on the aspects contained in the institutional network, namely the actors involved, distribution of resources, opportunities for exchange, exchange relations, and network structure. The description of each aspect of the institutional network will be able to describe the institutional structure of the stakeholders in managing the Citarum watershed environment.

As for increasing the validity and reliability of the research, a process is carried out that uses 3 (three) criteria in improving the quality of research (trustworthiness) both in the data collection process and in analyzing data (Schwandt, Lincoln, & Guba; 2007), namely dependability, credibility, and transferability and confirmability.

RESULTS AND DISCUSSION

The management of the Citarum watershed has become more institutionalized since the introduction of the Citarum Harum Program. In the Citarum watershed management in Sector 7, Bandung Regency, it was identified the existence of several institutions at the community and government levels that were involved. These institutions have different histories related to their involvement in the management of the Citarum watershed. Although the Citarum Harum Program was only launched in 2018, the poor condition of the Citarum River has attracted the attention and concern of the community for several years before.

The identified institutions involved in the management of the Citarum watershed after the

Citarum Harum Program was launched are as follows:

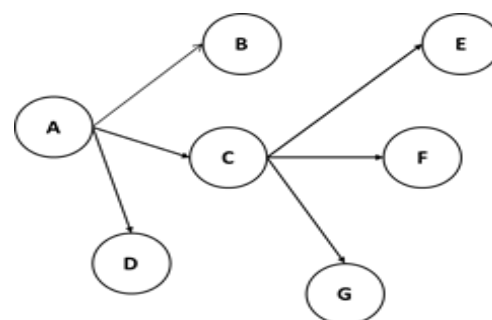
Table 1. Institutions Involved in Citarum Watershed Management after the Citarum Harum Program was rolled out

No	Institution	Position
1.	Task Force of Citarum Harum	Program Manager
2.	PUPR Service (Public Works and Public Housing)	Government Agencies
3.	Regional Development Planning Agency (Bappeda)	Government Agencies
4.	Social Service	Government Agencies
5.	Environmental Service (DLH)	Government Agencies
6.	Coordination Team for Water Resources Management (TKPSDA)	Institutions at the provincial level
7.	Citarum River Basin Center (BBWS)	Institutions at the Provincial level
8.	PT. IKAWA Multi Dinamika	Private Institution
9.	Walungan Citarum (Wanci)	Local Institution
10.	Warga Peduli Lingkungan (WPL)	Local Institution
11.	Barudak Baraya Cisangkuy Citarum (B2C2)	Local Institution
12.	Village/District Government	Local Government

Source: Research results, 2021

The management of the Citarum watershed through the Citarum Harum Program in Sector 7, Bandung Regency involves several institutions, both established by local communities and other institutions originating outside Sector 7. These institutions are the Citarum Harum Task Force (Sector Commander/Dansector 7), PUPR (Public Works and Public Housing), PT. IKAWA Multi Dinamika, Community Concerned for the Environment, Wanci (Walungan Citarum), B2C2 (Barudak Baraya Cisangkuy Citarum), TKPSDA (Coordination Team for Citarum Water Resources Management), and BBWS Citarum.

Information:



A : Citarum Harum Task Force
 B : PT IKAWA
 C : PUPR
 D : Local Community
 E : Environmental services
 F : BBWS
 G : TKPSDA

Figure 1. Task Force Node Institutional Network

KODAM III/Siliwangi is the implementing team for the Citarum Harum program according to the Presidential Decree No. 15 of 2018 concerning the acceleration of pollution control and damage to the Citarum watershed. In overcoming problems in the Citarum River, the TNI was deployed in 23 sectors, one of the sectors in this study was sector 7, Rancamanyar Village, Baleendah District. The role of this institution in managing the Citarum river has a positive impact on the surrounding community. Some of the activities that have been carried out by the Citarum Harum sector 7 task force are sedimentation dredging, removal of all surface waste on the Citarum riverbanks, planting of vetiver lants, flood prevention ranging from evacuation, logistics distribution, treatment, post-flood mud dredging, and community-based tagana training. community, promoting local wisdom through mincing mania, program socialization through adubako and anjang-sana, making TPS Swadaya, Communal Toilet and Communal PAL.

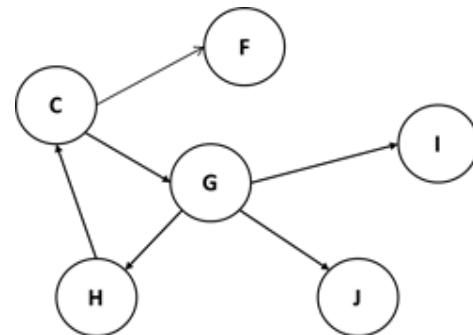
Institutionally, Dansector 7 has good organizational management. It can be seen from the organizational structure and monitoring evaluations that are carried out regularly every week, month and quarter to the achievements that have been made. In addition, the involvement of the TNI in the Citarum problem is a pride of the values embedded as members of the task force, their task is an acknowledgment of their existence in the group of institutions. So that each task is carried out in one command, orderly and quickly. The membership of the sector 7 task force consists of 80 members of the TNI who are divided into 4 people as staff and 7-8 people from the Platoon Commander (Danton) who oversees residents going to villages. The approach strategy was also carried out through the Siliwangi Kodam method, namely penance, sharpening, fostering compassion, exchanging and fighting bako.

As an institution established under the mandate of a presidential regulation, this institution has a fairly central position in organizing activities on the management of the Citarum Riverbank. Almost all of the identified institutions are part of the Citarum Harum Program Task Force network, directly or indirectly. Directly, PT. IKAWA, PUPR, and local communities are in the coordination of the Citarum Task Force.

Public Works and Public Housing (PUPR) is one of the government agencies involved in managing the Citarum Harum River. This institution has been involved in the management of the Citarum riverbank either directly or indirectly since 2001 based on the Regulation of the Minister of Public

Works and Public Housing Number 04/PRT/M/2005 concerning the criteria and determination of the River Basin.

Now, the institutional network built by PUPR with Dansector 7 is due to the need for program administration and the creation of Waste Processing Places (TPS) in the sector 7 coverage area. Because the role and relationship of PUPR are longer than other institutions, its existence can be a liaison in the role of the Citarum River management institutional network between institutions that are directly and indirectly involved in the Citarum Harum program.



Information :

C : PUPR	H : B2C2
F : BBWS	I : WNCI
G : TKPSDA	J : WPL

Figure 2. PUPR Node Institutional Network

PT. IKAWA is an industrial group that has an active role in the Citarum Harum program, especially in industrial waste management. PT. IKAWA was established in 2008 as a CV (Company Limited) and in 2014 as a PT (Limited Company). This company produces industrial waste treatment equipment, clean water treatment, air and polluted soil treatment. The company's vision and mission are to become the leading wastewater treatment company in Indonesia with environmentally friendly technology and the best service. The company's sales market has penetrated not only nationally, but also internationally in Vietnam and China. The company is growing in two places, namely in Bandung and Surabaya, as well as Bekasi as its office center.

The company's involvement in the management of the Citarum river has been carried out before the Citarum Harum program. It started when the company conducted research related to textile waste recycling at PT Panasia Jaya Abdi and succeeded. Then the company also carried out socialization to various textile factories that did not have a good enough waste treatment site. This company relationship continues with PT. Idaman Era Mandiri has concern with environmental care through waste treatment into rivers. And now this company is

repairing the Communal WWTP at PT. MCAB (Mitra Citarum Air Biru). These three companies managed to survive the closure of the waste channel by the Citarum Harum Task Force.

WPL (Warga Peduli Lingkungan/Citizens Care for the Environment) is one of the communities engaged in community empowerment efforts on the banks of the Citarum River. This community was founded in 2003 by Mr. Sunardhi Yogantara, a resident of the Citarum River settlement. Starting from the initiative to raise awareness in the community of Bojong Buah, his village, Pak Yoga began to inform the surrounding community about waste issues and offer solutions in overcoming waste problems in their environment.

WPL also pays attention to efforts to develop local potential including physical capital, financial capital, technological capital, environmental capital, human capital, social capital and spiritual capital. He assembles various potentials in this community so that they can function optimally and play a role in making changes sustainably. Some of the activities carried out by WPL are waste management, sanitation issues and conservation issues. The approach taken through education is called a public awareness campaign with visits to homes with various socialization formats to the community to build awareness to protect the environment.

This community is a volunteer for residents who have a concern for the environment. Organizational management tends to be more flexible and less rigid. Sources of funding are done through donors and self-help. In 2005 this community has a formal legal as a local organization that participates directly in the management of the Citarum river. One of the institutions that have collaborated with WPL is USAID (United States Agency for International Development) in building a community sanitation system and the Development Bank in handling critical lands. This activity is carried out based on a collaboration program with donors, while the activities that become the core of this community are mentoring and empowering the Citarum riverbank community.

Walungan Citarum or abbreviated as WANCI is a local community founded by the people of Rancamanyar Village who care about the Citarum River since 2000. Initially this institution was founded based on the initiative of residents who care about the condition of the Citarum River and are moving to create a forum that can gather people to care about the river. Citarum. Unfortunately, after 18 years of establishment, WANCI had to go into hiatus, because some of its members scattered to several

institutions spread across several parts of Indonesia to work, even though their work was still related to the environment. In addition, the vacuum of WANCI was also caused by the formation of a Task Force that mobilized the TNI to carry out the Citarum Harum program through Dansector 7.

It can be said that WANCI is a local community that is a pioneer in the management of the Citarum riverbank area in the Rancamanyar Village area, Kec. Baleendah. As a pioneer, WANCI invites the community around Rancamanyar Village to participate in protecting the riverbank area by providing education related to the environment and waste management. For 18 years, WANCI has played a role as a party providing education to the community about the riverbank environment, waste management, making communal septic tanks, and intermediaries between outside parties and the community related to the Citarum riverbank area in Rancamanyar Village. But for the past year or since 2018, WANCI has no longer carried out this role, for the past year WANCI has only been a mouthpiece between external parties and residents around Rancamanyar Village if there are interests related to the interests of residents and the Citarum River in the area.

Barudak Baraya Cisangkuy Citarum (B2C2) is an institution located in Cigosol Village, Andir Village. This community was founded by the seven originators of Situ Andir consisting of Abah Edi, Pak Yayan, Pak Haji Ali, Pak Yusuf, Pak Idong, Pak Pepen, and Pak Arifin who worked together to minimize flooding in their area of residence. This flood occurred since there was a river straightening in their area which had an impact on the overflow of the river flow in the Andir area. This alignment is based on the results of a study from a Japanese researcher, Jamika. After that, many communities claimed to be fighting for the basic rights of the flooded people. Finally it occurred to have a local community which is now called B2C2.

B2C2 is a community that grows and develops in the local community and has great hopes to make Andir's environment cleaner. To realize this hope, community members are given capacity in disaster mitigation and evacuation to rescue residents affected by the Sugai Citarum flood. Membership of this community is volunteer and self-help for people who have the same concern for the environment. In this community funding management uses a self-help system between its members and donors. This organization is chaired by AE and has countless volunteers. As stated by AE (June 2019) "Abah chairman of B2C2, if the number of members is large

and it doesn't even count, it's because we don't apply special rules for anyone who wants to be a member, they have the same heart, okay?"

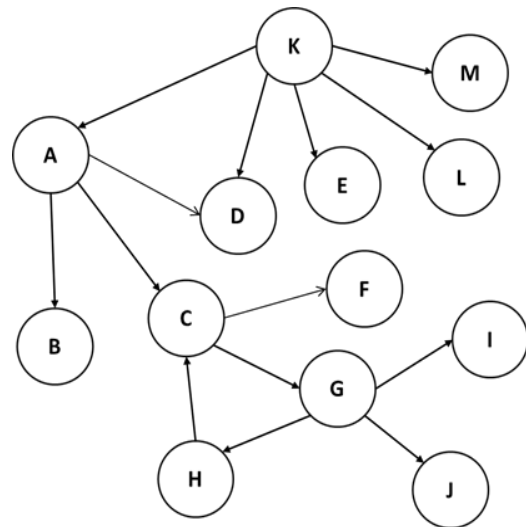
The Citarum Water Resources Management Coordination Team, abbreviated as TKPSDA Citarum, was formed in 2013 by the Ministry of PUPR to maximize the management of the Citarum river by combining government and non-government elements or local communities. TKPSDA consists of 24 government institutions and 24 non-government institutions. In the management of the Citarum River, the TKPSDA can plan and shape the Citarum River management pattern, allocate funds, hydrological information systems, community empowerment, and make recommendations to the Minister of PUPR.

TKPSDA's role is to unite government and non-government elements - namely local communities - through commission meetings, working group meetings, plenary sessions, and secretariat meetings. The Working Group and the Chair of the Commission produce recommendations to be submitted to the Minister of PUPR. In addition, TKPSDA also has a role in designing the management pattern of the Citarum River area, disaster management and evacuation in the Citarum River area. In carrying out this role, the output of TKPSDA is to make recommendations on the management of the Citarum River to the Minister of PUPR as a proposal and evaluation of Citarum River management so that management can run optimally and be well-coordinated with institutions and parties directly related to the Citarum River.

The Citarum River Basin Center, abbreviated BBWS Citarum, is a government agency established in 2006 and is under the auspices of the Ministry of PUPR. BBWS has the authority to carry out planning, implementation of construction, operation and maintenance in the context of conservation, utilization of natural resources, disaster management and evacuation, and control of water damage in rivers, lakes, reservoirs, dams, and other water reservoirs in the Citarum river area. It can be concluded that BBWS Citarum has full authority in the management of the Citarum River Basin.

In carrying out its role, BBWS Citarum is responsible for providing supporting facilities for community activities on the banks of the river such as the Cikapundung terrace, collaborating with TKPSDA in empowering local communities around the Citarum river, conserving the upstream area of the Cikapundung River into coffee plantations that help the community's economy, and the Program for the Acceleration and Expansion of Water Resources Infrastructure Development (P4-

ISDA) for the Citarum River area. To carry out its role optimally, BBWS Citarum networked with Parahyangan University, ITB, PUPR Service, DLH, City Government, Regency Government, and TKPSDA in areas where the Citarum River flows. The coordination carried out with these parties is to manage the Citarum river and its sub-streams, one form of the achievement of the results of the coordination is the Cikapundung Terrace which is a revitalization of the Cikapundung riverbank and is used as a recreational facility for the residents of Bandung City.



Information:

A : Citarum Harum Task Force	G : TKPSDA
B : PT IKAWA	H : B2C2
C : PUPR	I : WANCI
D : Local Community	J : WPL
E : Environmental services	K : Provincial gov.
F : BBWS	L : Social services
	M : Academics

Figure 3. Citarum River Management Institutional Network

The social network that is interwoven in the Citarum River institutional network when referring to the principles of Wellman's social network shows that the actors are centered on the Citarum Harum Task Force. Actors who are directly involved in the Citarum Harum Program, consisting of local communities, PT IKAWA and PUPR, show a symmetrical actor bond both in level and intensity, meaning that people's behavior is interpreted in terms of activities according to the positions they occupy. in a set of certain positions. So that the network formed by these actors is not rigid and provides flexibility in acting because each actor already has his duties and functions according to the position and position he holds.

Structured social ties have an impact on the emergence of sub-groups that have interrelated or separate networks. This can be seen in the institutions

that were formed before the Harum Citarum program and institutions that were not directly involved in the Fragrant Citarum Program, but these institutions actually contributed to the realization of the Harum Citarum Program. These institutions carry out various activities to overcome environmental problems along the Citarum River in accordance with their areas of concern, both related to conditions in the upstream, watershed, or downstream areas, although collaboration has not yet been established in its implementation. Identification and mapping of the institutions involved in the management show the existence of an institutional network.

Furthermore, the existence of network groups causes the creation of cross-relationships between network groups and between individuals which ultimately leads to the Citarum Harum Task Force as the main coordinator in the management of the Citarum River. The network built under the coordination of the Citarum Harum Task Force is not linearly directly connected to the Citarum Harum Task Force but through the involvement of activities related to the scope of its work. In addition, cross-relationships between institutions from different network groups almost do not occur because the scope of work does not intersect directly. The existence of asymmetrical ties between elements in the network system results in limited resources not being evenly distributed, this has an impact on the not maximal contribution given by each institution in the management of the Citarum River. Efforts to strengthen institutions towards social interaction through collaborative cooperation among all stakeholders are important to make the implementation of community-based programs more effective according to community expectations. (Kurniasih et.al, 2017)

In carrying out its function as the main actor in the management of the Citarum River, the Citarum River Task Force has an informative function that allows every actor in the network to know information about problems, opportunities, or anything that can be useful for the interests of the actor members of the network. In addition, the Citarum River Task Force has a second function, namely a coordinating function. The coordinating function can at least be used to reduce competition between institutions that play a role in the management of the Citarum River to realize the main goal, namely Citarum Harum.

CONCLUSION

Citarum watershed management has been carried out by various parties, both individually and institutionally in accordance with their concerns,

authorities, and abilities. In practice, between these various parties a network of cooperation is built. The institutional network structure in the management of the Citarum watershed shows that there is a hierarchy among the institutions involved in the management of the Citarum watershed under the coordination of the Sector 7 Commander who feels he has been given the mandate to solve the problem of Citarum River pollution. The network in the management of the Citarum watershed is formed through the relationship of interests for the implementation of activities in the management of the Citarum watershed, so that several sub-groups are formed as different networks. Although not directly connected with Dansector 7 as the commander of the Citarum Harum task force, activities in the network still pay attention to the orientation of programs and activities of the Citarum Harum Task Force.

Stakeholders involved in the management of the Citarum watershed need to be given the authority and flexibility in carrying out their roles so that activities can run effectively. The dominance of Sector 7 is quite effective for accelerating the achievement of the Harum Citarum Program but it must be balanced with efforts to empower and strengthen community capacity so that better management of the Citarum watershed can be sustainable and not dependent on central government programs.

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