

FUNCTIONAL INSTITUTIONAL NETWORKS AS COMMUNITY ASSETS (SOCIAL CAPITAL) FOR SUSTAINABLE MANAGEMENT OF CITARUM WATERSHED

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DOI: <https://doi.org/10.37178/ca-c.23.1.236>

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Abstract

Various parties have handled various problems in the Citarum River and its environment independently or collectively. However, given the complexity and breadth of the problem areas, these efforts require comprehensive environmental management efforts and integrate various programs or activities from various parties. The involvement of various stakeholders, both individual and collective citizens, government agencies and non-government organizations in environmental management of the Citarum River can be effective if the process is built in a network. This study aims to describe the institutional network and its dynamics in the environmental management of the Citarum Watershed (DAS) that show functional relationships. The study was conducted using a qualitative descriptive method for the community in the Sector 7 area of the Harum Citarum Program. Data were collected through in-depth interviews, observations, and focused discussion (FGD) from identified institutions as being in a network in the management of the Citarum watershed. The data collected includes internal and external factors of institutions and networks and influences the shape and condition of institutional networks. The functional relationship between institutions in the network is built based on the interests and suitability of the program orientation. However, formally the Citarum Harum Task Force is the most authorized party to manage the Citarum River.

Keywords: networks, institutions, community assets, watershed management, citarum

Introduction

As a very long river, with an area of about 11,323 km² of watershed area and crossing 12 (twelve) cities / regencies in [1] the Citarum River experiences various problems. According to the Bandung Regency Regional Environmental Management Agency (BPLHD), in 2016, 70% of the waste along the Citarum River flowed from domestic waste and the remaining 30% came from factory waste originating from

approximately 500 factories in the flow area. river Measurement and analysis of the quality status of the Citarum River using the STORET method by West Java BPLHD shows the status of D or heavily polluted. [2] Environmental pollution problems arise as a result of people's behavior in treating their environment. That is why in 2018 the central government launched the Citarum Harum Program with a target that within 7 (seven) years the Citarum River will be clean again.

Efforts to handle waste problems in the Citarum River are an effort to realize one of the goals of the SDGs, namely Goal 6: Ensure availability and sustainable management of water and sanitation for all. The strategic issue of Citarum Harum in the aspect of handling domestic wastewater, cannot be separated from the context of national sanitation development with the target of achieving 100% access to adequate sanitation, which must be completed in 2019; and access to Safe Sanitation by 2030 according to the SDGs agreement.

Preliminary research shows that currently the network that exists in the Citarum River institutional network is centered on the Citarum Harum Task Force. The parties directly involved in the Citarum Harum Program consist of local institutions, private institutions, and related government agencies and show that there are actor ties that are symmetrical both in degree and in intensity. The network formed by the institutions is not rigid and provides flexibility in action because each institution has its own duties and functions according to its position in the network. The strategic network that is formed from the results of the relationship makes the network as one of the important assets for the community.

The existence of network groups led to the creation of cross links between network groups and between institutions which ultimately led to the Citarum Harum Task Force as the main coordinator in the management of the Citarum River. Asymmetrical ties between elements in the network system result in an uneven distribution of limited resources, and have an impact on the contribution that each institution makes in the management of the Citarum River.

According to [1, 3] states that an institution is "an order and pattern of relationships between members of society or an organization that are mutually binding which can determine the form of relationships between humans or between organizations contained in an organization or network and determined by limiting factors and binders in the form of norms, codes of ethics, formal or informal rules for controlling social behavior and incentives to cooperate and achieve common goals. 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 the duties and functions are clear in the organization. Human resources who have the potential and credibility as well as broad insight and have an important role in the running of the organization. An institutional study in the context of development found that institutional networks exist in the implementation of development at the community development level at the local level [4, 5]

To obtain an overview of the intended social network, a network can simply be defined as a set of actors who have relationships with other actors in a certain type of relationship. A network is a set of items called vertices or sometimes nodes, with the relationship between them called edges or ties ([6] More contextually, in the relationship between stakeholders in the environmental management of the Citarum River, a social network is a set of people or groups of people with some form of contact and interaction between them [7]. Based on these results, the study will focus on identifying the factors that influence the shape and condition of the network to develop an institutional network model for environmental management of the Citarum River.

Literature Review

Citarum watershed management requires large resources to be sustainable. The community is a strategic stakeholder in efforts to manage the environment in a sustainable manner. Apart from being a party with an interest in the sustainability of river environmental resources, the community also has resources (assets) that grow in and as a result of development. According to [2] there are six key community assets that need to be understood, namely: (1) Recognise the skills and abilities of individuals within the community and find people who are passionate about the community and who are good at making connections; (2) Identify voluntary community organizations and networks and what they offer (or could offer) to the community; (3) Look at what institutions; (4) Look at our physical environment (both natural and built) in a new way; (5) Consider the local economy in a broad way so that we include the informal economy; (6) Appreciate the stories, culture and heritage of the community. Institutions are a key element in community development.

The institutional network involved in environmental management of the Citarum River is formed in various bonding relationships according to the closeness of the bonds that are built. The institutional network involved in the management of the Citarum River environment is formed in various bonds according to the closeness of the bonds built. The relationships that are built provide the basis for the community to make joint efforts. According to [1, 8] social networks are part of community assets from elements of social capital. A social network built from togetherness, mobility, ideas, mutual trust and mutual benefit for the common good [9, 10].

According to [11] networks are viewed using several measures, namely: (a) informal ties characterized by the presence of trust and reciprocal relationships that are more familiar and personal in nature, such as ties to family, friendships, neighbors; (b) ties of a more general nature such as ties to the local community, the general public, the community within the national unity. This bond is characterized by the existence of trust and mutual relations which are general in nature; and (c) institutional ties characterized by trust in local community institutions.

To see the strength of the network that is built among stakeholders, it can be seen from the strength possessed by the parties involved in the network. As stated by [3, 12] network power refers to the strength of actors and organizations included in the network that builds a global network center of society among groups of individuals. When compared, in general, the strength of an institution will be greater than the strength of an individual. Fedderke et al. states that a social association (social organization) contains norms in the form of informal rules and values that facilitate coordination among members in a social system. According to him, this allows for cooperative actions to facilitate work in order to achieve collective benefits that are shared. The strength of the association will be stronger if there is also control over resources.

There may be variations in the level of availability of social resources among individuals, groups, or within certain communities, which are dominated by the contribution of existing networks. Thus, the role of the network or social network that grows in the local community is very likely to make a significant contribution in supporting the economic activities of the community. Aspects of culture and different structures of society between regions will lead to differences in the availability of social resources (SDA Data and Information Center, Water Resources Management Office of [13] The issue of environmental pollution of the Citarum River which has become a national issue has made this issue a large resource facility.

The network that becomes the knot for the strength of the Citarum River environmental management can provide the expected function in creating a preserved Citarum River environment. [8, 14] explain that there are three functions of social networks, namely (1) the function of socialization, creating an initial disposition to participate; (2) the function of structural connection, occurs before potential participants join social movement organizations, where the network provides the opportunity for participants to change their political awareness into an action; (3) the

function of forming decisions, an important relationship between individual decisions and social relations, namely the decision to join in collective action is influenced by the actions of other participants.

Methods

In this study using a qualitative research approach. Qualitative research focuses on the general principles that underlie the manifestation of symptom units that exist in social life. In qualitative research, it is not the variables analyzed but those analyzed in relation to the general principles of other symptom units using the culture of the people studied and the results of the analysis are analyzed again using a set of applicable theories [6, 9, 15] The descriptive research method describes an overview of the institutional network in the management of the Citarum watershed in the research location, namely in Sector Seven, Bandung Regency in the Citarum Harum program, precisely in Baleendah District. This area is one part of the Citarum watershed which has serious problems due to continuous flooding due to the overflow of the Citarum River.

The object of this research is the institutional network in Sector Seven, Bandung Regency. Meanwhile, the research subjects which are also the scope of the research are institutions involved in the management of the Citarum watershed as well as other institutions identified through related institutions. These institutions come from government or non-government elements.

Informants are determined using purposive sampling technique, namely informants who represent identified institutions that are involved in the management of the Citarum watershed. To determine the institution that will be the source of the data, the researcher used the snowball technique, which is to find the next informant from the previously interviewed informant, so that the institutional network can be directly described.

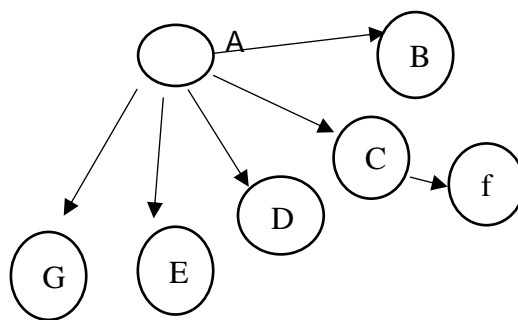
The data were collected using in-depth interview techniques and non-participatory observation. Interviews were conducted with informants who had been determined using interview guidelines regarding the partnership network, the form of cooperation, the contribution of institutions in the network, the accessibility of the institution to the community, interaction between institutions, and the form and strength of the relationship. The observations were made by observing the physical conditions of the Citarum river environment at the research location as well as the dynamics of interaction among various stakeholders in the environmental management of the Citarum watershed.

Based on the data collected, an analysis was carried out to describe the functional institutional relationships formed in the Citarum watershed management network. In order for this picture to be comprehensive, the analysis is based on the aspects contained in the institutional network, namely the internal and external factors of the network and the institution itself that affect functional relationships. The description of each aspect of the institutional network will be able to describe the institutional functional relationship of the institutions in the environmental management of the Citarum watershed.

As for increasing the validity and reliability of the research, a process was carried out that used 3 (three) criteria to improve the quality of research (trustworthiness) both in the data collection process and in analyzing data [7]namely dependability, credibility, and transferability and confirmability

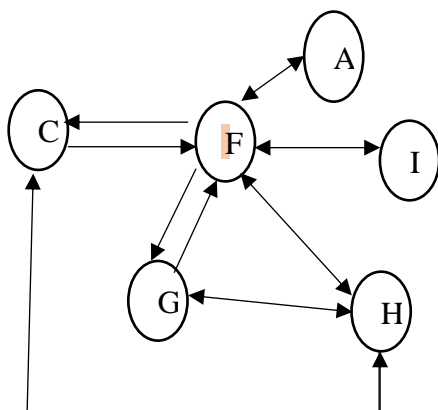
Result and Discussion

An institutional network is a set of people or groups to work together in the form of interaction between them[11]. The network approach makes it possible to capture the interactions of each individual unit within the larger area of activity in which the unit is located. From the start, social network analysis has its roots in organizational settings. According to[13] to analyze a complete network of interactions can be carried out over time and relate them to organizational problems that are substantially interesting.[11]. In the institutional network in managing the banks of the Citarum River, interactions are formed that are quite diverse and complex. The network relationship as tie and nodes is shown based on their importance and role in the management of the Citarum Riverbank. 1) The Citarum Harum Institute has a strong institutional network within them based on the Presidential Regulation No. 15 of 2018 concerning the acceleration of pollution control and damage to the Citarum watershed. Meanwhile, 2) BBWS has institutional network relationships based on more diverse roles or programs. It has its own network that was built with the Citarum Harum Program based on program regulations, it also has an institutional network with other stakeholders such as the local Environmental Care Citizen Institution, B2C2 and the TKPSDA coordinating agency built based on the interests of the BBWS institution.



- Notes:
 A: Citarum Harum Task Force
 B: PT IKAWA
 C: PUPR
 D: Local community
 E: BPBD Kab. Bandung
 F: BBWS
 G: TKPSDA

According to Granovetter, a group with strong local ties will have weak global ties, but a group with weak local ties will have strong global ties. The purpose of this premise is that if a group focuses too much on its internals and does not open itself to outsiders, there will be no interaction between groups that can provide opportunities for the entry of new ideas or information. Meanwhile, groups that establish relationships with other groups and are willing to open up will have strong global ties with other parties and open up opportunities for new ideas or information that can be used as social capital to develop (Cita Citarum for Better Citarum, 2018) . This is like the interaction shown by BBWS under PUPR.



- Notes:
 A: Citarum Harum Task Force
 C: PUPR
 F: BBWS
 G: TKPSDA
 H: B2C2
 I: WPL

The problem of managing the Citarum River is very complex to build an integrated network in the management of the Citarum Riverbank. Based on the results in the field, this institutional network is heavily influenced by political interests, less participatory planning, and sectoral egos in managing resources as a result of unsustainable management efforts. As stated by one local institution,

The Citarum Harum network of institutions shows that strong local ties (internal) and weak global ties (external) are also shown by the lack of program information that is known to the community, both at the government and local levels. For the community an institutional network that is built on the basis of interests and needs, and there is no information exchange in institutional networks that can be developed as social capital.

Conclusion

Institutional networks in the management of the Citarum watershed include local organizations, government organizations and organizations managing the Citarum Harum program. The network that has been built has the main conclusion to the manager of the Citarum Harum program who has the authority in the realization of the Citarum Harum program. In addition, network nodes occur at organizational nodes that have a primary concern for the overall management of the Citarum River. The two main nodes can be used as a driving force or coordination center for the utilization of institutional assets in sustainable Citarum River management. The institutional network in the management of the Citarum Riverbank needs to be strengthened not only based on political interests but also leads to the development of social capital for the riverbank community. So that this institutional network can be maintained and maintained properly and sustainably.

Acknowledgement

This paper is one of the outputs of research on community assets in Citarum riverbank management financed through the Padjadjaran University Internal Grant 2021.

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