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## Dynamics of Contestation of Formal and Informal Institutions in The Public Space in Governance of the Brantas River Watershed Area

### Abstract

This research focuses on the dynamics of formal and informal institutions in their contestation in the Brantas Watershed (DAS). As a public space, the Brantas Watershed is of concern to the government and an informal organization, Ecoton. The presence of Ecoton in the management of the Brantas Watershed was triggered because the government program was only ceremonial and considered unsustainable. This research uses a qualitative approach with a soft system methodology (SSM). In the data collection process, this study used the focus group discussion (FGD) method as primary data and a literature study as secondary data. Furthermore, this research uses the structure-culture-process (SKP) theory and models of formal and informal institutional relations. The results of this study indicate that relationships have been successfully formed through the contestation of formal and informal institutions in the public space. The Brantas River Basin Center (BBWS) and the Environmental Service (DLH), as representatives of the state that have a formal power base, are not sufficiently capable of managing the Brantas DAS optimally. This is due to the complexity and breadth of the Brantas watershed area in East Java, thus triggering the presence of the informal Ecoton institution. The presence of Ecoton in the governance of the Brantas Watershed is a force that supports and complements the government, but at the same time, Ecoton can be a government competitor and even a substitute in the public sphere. The contestation of these formal and informal institutions is part of social integration and collaborative governance.

### Keywords:

public sphere; social institutions; collaborative governance; system thinking

### Introduction

The implementation of public administration always boils down to three stakeholders: the government, the private

sector, and civil society (E. Klijn & Koppenjan, 2000; Rambaree & Rambaree, 2021; Sørensen & Torfing, 2009). Civil society today finds it difficult to identify

which party is most involved in public affairs: the government or the private sector (Bourgon, 2007; Koppel, 2010; Ringeling, 2015). In various public sectors, the government is always conciliatory and actually submits to the power of the private sector. The organizational field of the future is likely to exhibit even greater complexity than it does now, and it will be populated by a greater variety of hybrid organizations located in the middle of the public-private continuum (Wise, 2010). From this statement, it can be analyzed that currently public affairs do not only belong to the government (Helmke et al., 2004; E. H. Klijn & Koppenjan, 2016; Sorensen & Torfing, 2009), but the private sector is also increasingly present and will actually give birth to more and more various relationship models, blur the government and private sector domains, or actually produce an institutional hybridization of public synthesis and private (Wise, 2010).

One of the public spaces that has become an arena for contestation between formal and informal actors is the Brantas River Basin (DAS). The contestation between private and public institutions is increasingly felt when these institutions play for economic resources (Pesch, 2008; Wang, 2018). In this case, how do the government and the private sector build an economic system that is closely related to a liberal democratic system? (Merritt et al., 2018; Varna & Tiesdell, 2010). In a liberal democratic system, the government is free to open up opportunities for the private sector to be part of development, such as in the environment. The Brantas watershed has been exposed to various types of trash by various parties carrying out ecosystem restoration. In this restoration effort, there are various parties involved, such as the government, private sector, and social institutions. These stakeholders influence each other's efforts to restore the Brantas River ecosystem. River restoration efforts need to be carried out, considering that the Brantas River has quite high levels of microplastic

waste pollution. Environmental damage problems often occur in river watersheds.

Damage to the Brantas watershed can generally occur due to natural factors such as rainfall, slope, and soil type, while human factors such as policy errors (errors in policy and errors in policy implementation) and socio-economic factors such as land use composition, population, regional economy, and land management. Institutional contestation in the public sphere always boils down to the interests of institutional existence (Cassegård, 2014; Pesch, 2008). The institutional contestation is caused by the desire of the actors involved to gain public validation (Jurgen Habermas, 2008). The presence of informal institutions in public spaces often obscures the movements of formal institutions, such as the government. The strength of informal institutions is currently of particular concern to the public because informal institutions are often present amidst the chaos of government programs and policies.

This condition is influenced by economic and political forces. This power causes the government to have to adjust the system to be able to be present in the public space and be identified by civil society (Roza, 2013; Wang, 2018). At the same time, the government must also compete with the power of the private sector. Currently, the government and the private sector are like sides of one piece of money; the government really needs the presence of the private sector, while the private sector's presence in the public sphere is getting stronger. The government and the private sector are like breath coming out of the same two nostrils; the government really needs the presence of the private sector, while the private sector's presence in the public sphere is getting stronger. (Merritt et al., 2018; Newman, 2007). Cullen (2008) defines that these two institutions can still be separated and slightly rejects Kopell's statement. In his study, Cullen defines these institutions as separated by interests: the government contains

political interests, while the private sector contains economic interests (Merritt et al., 2018). The government produces policies that are able to control the goods and services exchanged in the market, while private companies are designed to produce these goods and services (Bozeman & Moulton, 2011; Koppel, 2010; Merritt et al., 2018; Ringeling, 2015). Pesh (2008) confirms this opinion that economic and political forces surround the concept of publicness. In the economic approach, public administration publicity leads to public goods, where this context is close to the private sector dimension (Pesch, 2008). Meanwhile, in the political approach, public administration publicity boils down to the public interest, in this case close to government (Jurgen Habermas, 2008).

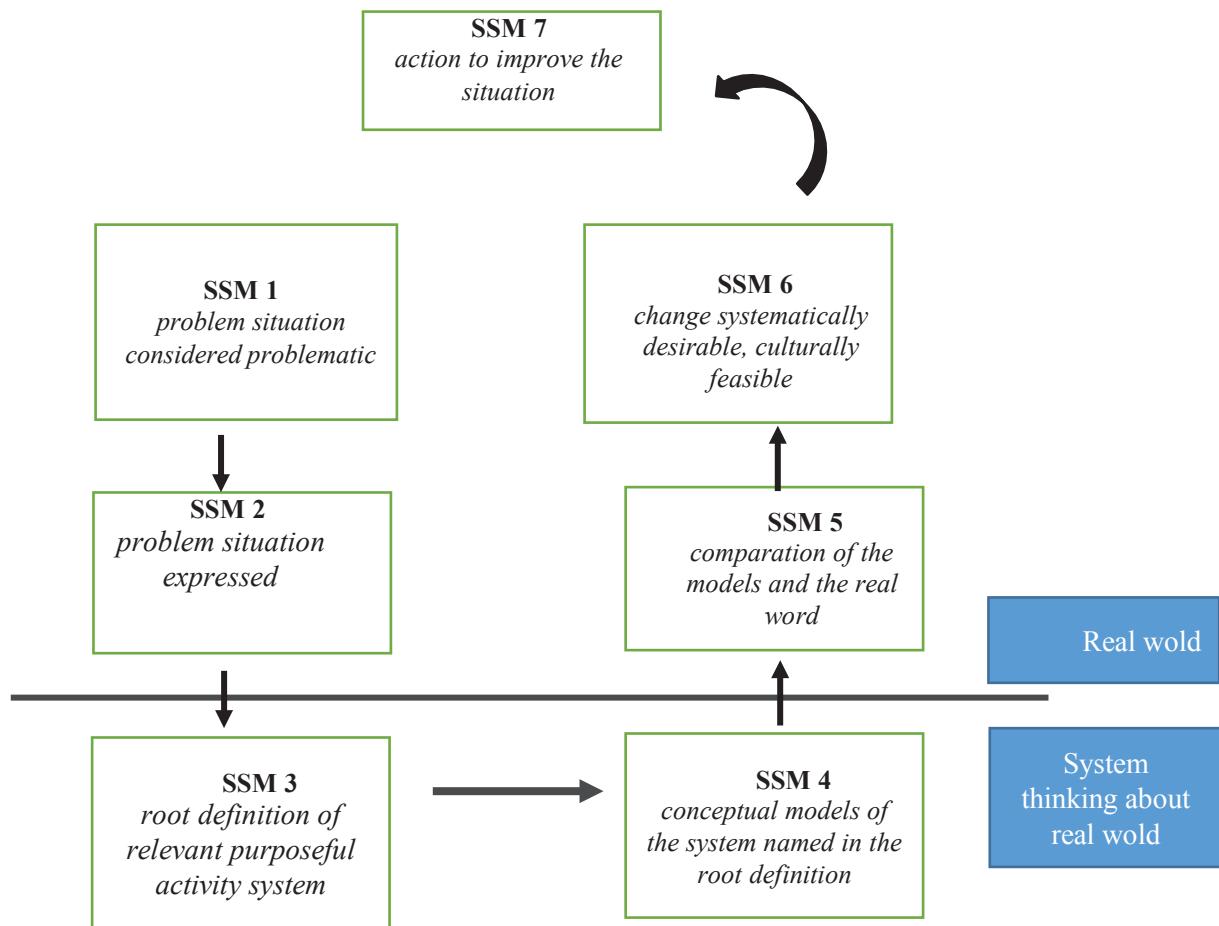
This research focuses on the contestation of formal and informal institutions in the governance of the Brantas watershed. This research functions as an analysis of the efforts made by institutions, both formal and informal, that are competing for public validation. There are several institutions involved, namely the Brantas River Region Center (BBWS) and the Environmental Service (DLH), as representatives of the government. On the other hand, there is the informal institution Ecoton as a competing party in the public domain regarding the management of the Brantas River. The institutional contestation shows that the issue of Brantas watershed management has become a serious issue and is of public concern. This research describes the efforts made by the government to restore the Brantas River's flow. Apart from the efforts made by the government, this research also analyzes the presence of informal institutions as institutions that always control various government programs.

This research provides support for previous public space governance studies. Not much SSM research has reviewed the contestation between the private sector and the public sector in the environmental sector. The use of SSM in this research shows that the presence of formal

and informal institutions creates a continuous movement in public space. This research also analyzes how formal and informal institutions compete for public validation. By using SSM, this research is able to see conflict contestation, actor network relations, and the political power of formal and informal institutions. The presence of the informal Ecoton institution will add to the relationship model and supporting capacity of Brantas River management. The characteristic of SSM is network analysis using rich pictures and CATWOE analysis (Peter Checkland and John Po, 2010). This research builds an actor network thinking framework using this method and is accompanied by an analysis of structure, culture, and processes. At the same time, the existence of these informal institutions is also a form of community control over the government, which is responsible for managing the Brantas River.

## Methods

This research uses a qualitative approach (Creswell, 2016; Silalahi, 2012) with an analysis of the concept of public space (Jurgen Habermas, 2008) and with SKP theory (structure, culture and process) (Wiewiora, 2014; Wirutomo, 2013). This approach was chosen because this research focuses on actor contestation in public space. Researchers consider that the Brantas River as a public space is an arena for contestation of social institutions, both formal and informal, and this contestation has an impact on the use of the Brantas River by the community. In this study, data was collected through interactive discussions using the focus group discussion (FGD) method. The FGD in this research was carried out in three stages. In the first stage, it was carried out with community groups that are members of the Ecoton community. In the second stage, FGD was conducted with DLH and BBWS. Meanwhile, the final FGD was carried out simultaneously between Ecoton, the Brantas River Region Center, academics, and the community. Secondary data in



**Figure 1. Soft System Methodology**

Source: Checkland, 1990

the research includes planning documents for the spatial utilization of the Brantas River, corporate spatial planning documents in the Surabata City area, regional spatial planning (RTRW) documents for the Brantas River, and East Java Province DLH policies relating to the use of the Brantas River.

In data analysis, this research uses soft system methodology (SSM) (Checkland, 1990). In practice, SSM is described in seven stages, which are easy to understand because these stages unfold in a logical sequence. SSM was chosen because this research focuses on actor contestation, and SSM accommodates actor dynamics in practice (Langervik, 2001). The position of SSM in social science research is examined through two paradigm streams, namely the hard paradigm and the soft paradigm (Checkland, 1990; Mehregan et al., 2012). SSM as a method in the soft paradigm has the basic idea that the real-world situation

that we are exploring is all individual activity systems, in which we can choose one or several relevant human activity systems.

From the stages, it can be described that the standard SSM cycle has 7 stages of activity, which are divided into 2 domains, namely the real-world domain and the domain of systems thinking about the real world (Checkland, 1990). However, in this study, researchers limited the use of SSM to stages 1–4. This is because this research only focuses on actor contestation and how actor relationship models are developed (structure, culture, and process) in public spaces (Wiewiorka, 2014; Wirutomo, 2013). The limitations of this research were chosen due to time constraints, considering that the location of the Brantas River stretches very widely in East Java Province. In this way, the author provides substance and methodology limitations in data collection and analysis.

## Results and Discussion

In analyzing the dynamics of Brantas watershed governance, this research uses the basic concept of structure, culture, and process (SKP). Conceptually, the interrelationship between structure, culture, and social processes cannot be separated and is intertwined from one element to another (mutually supporting, influencing, integrating, and forming a complex system) (Wiewiora, 2014; Wirutomo, 2013). In analyzing SKP in the contestation of formal and informal institutions in the Brantas River, researchers carried out actor network mapping. This network of actors forms the structure. Next, the analysis focuses on the culture of the people around the Brantas River. The final analysis is directed at looking at social processes, which include contestation between Ecoton and the government and the involvement of communities around the Brantas River.

First, structural analysis always looks at how the power of both formal and informal institutions constructs individuals or society (Ashaf & Indonesia, 2020; Giddens, 1984). These construction efforts can take the form of regulations and policies prepared by formal institutions or collective movements carried out by informal institutions. In this way, structural power is able to make institutions have accommodating and coercive powers because they have a power base (Giddens, 1984). Second, cultural analysis includes all forms of values, behavior, belief systems, customs, and thought patterns that are ingrained in the actor's personality. This cultural element is deeply embedded in the personality of the individual or group and, at the same time, also has the power to influence the actions and behavior of the individual or group. The coercive power produced by culture can be micro, something that is internalized in the individual's personality, or it can also be macro, such as an asocial conscience (Durkheim, 1984), so that it is more in line with the perspective of structural consensualism.

Third, process analysis encompasses all forms of dynamics of community interaction as a result of reflective or interpretive abilities that are manifested in aspirations, communication, movement, negotiation, accommodation, and various other actions that are capable of making changes to structural and cultural elements (Wiewiora, 2014; Wirutomo, 2013). The nature of these processual elements flows freely symbolically and influences each other. In process analysis, the research adds to the theory put forward by Steven Levitsky, which looks at the interaction model of formal and informal institutions (Helmke et al., 2004; Helmke, Gretchen, and Levitsky, 2004). This is based on the fact that there is a structural power that is built from the power of the government and non-governmental organizations (NGOs), which influence each other in the public sphere.

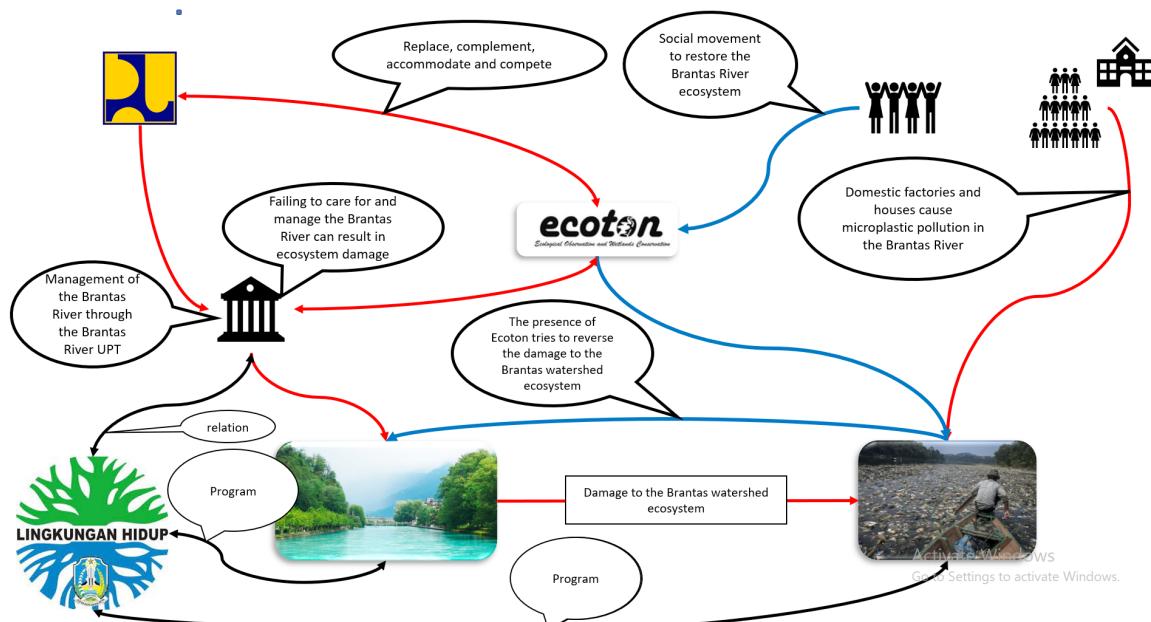
The next SKP concept is to see how the relationship pattern between stakeholders is formed, works, and survives. The relationship pattern includes networks between government, the private sector, and society. Social relations do not always mark forms of change, but social relations always mark the presence of symptoms of power in change. Basically, a relationship is an interaction or social relationship between an individual and an individual, an individual and a group, or a group and a group that is created on the basis of a common goal (Jan Kooiman & Martijn van Vliet, 2000; Sørensen et al., 2016). Relationships that are formed and last for a long period of time tend to construct a social relationship, which can then be polarized. Social interaction is a relationship between one individual and another individual, where one individual can influence another individual so that there is a reciprocal relationship (Haryono, 2012; Taufik, 2017). This indicates that a relationship or social interaction will have implications for the reciprocal relationships that are formed. Social interaction is a relationship between people or groups of people.

## Model of Actor Power Relations in Governance of The Brantas River Watershed Area

In SSM phase 1, the research team conducted observations, interviews, FGDs, and documentation with Ecoton, the government, and the community as environmental observers of the Brantas River. The contestation of formal and informal institutions in this research shows their existence. Checkland (1990) recommends that researchers pay attention to personality, experience, knowledge, and interests. Research will impact "what is noticed and what is considered significant." This research describes the contestation of formal and informal institutions in the public space in the management of the Brantas watershed ecosystem. The results of this research show that management does not only depend on government action, both in East Java (DLH) and Brantas (BBWS). However, there is the existence of civil society organizations (CSOs) in the form of Ecoton. Ecoton is an environmental care organization that has existed since 2000 in the city of Surabaya with the aim of protecting and preserving the environment, with a focus on wetland environments such as rivers. Ecoton's

main activities focus on efforts to restore and preserve the Brantas River. Ecoton carries out efforts to protect and preserve the Brantas River through three aspects: research, education, and advocacy.

Next, in the second stage, express the problematic problems in a rich picture (Peter Checkland and John Po, 2010). In SSM stage 2, the team found that the political will of informal institutions (Ecoton) was very strong to take over the government's role in managing the Brantas River. Initially, the team found that the government felt uncomfortable with the presence of Ecoton. The expression of problems in rich images is a powerful step to gain understanding of phenomena and events occurring in a particular reference system where "something is not working well and something needs to be done to improve the problem situation." (Mehregan et al., 2012; Rodriguez-Ulloa & Paucar-Caceres, 2005). From the contestation of formal and informal institutions, the following is a rich picture presentation as a form of data analysis in the first and second stages of SSM:



**Figure 2. Rich Picture Model of Institutional Relations in Brantas Watershed Governance**

Source: processed by researchers

The results of the analysis on the governance of the Brantas watershed show that there is structural power, namely the government represented by BBWS, DLH, and Ecoton. These three institutions have a strong interest in managing and utilizing the Brantas River's resources. The government regulates and builds a policy system through Decree of the Minister of Public Works and Public Housing Number 237/KPTS/M/2020. Officially, this regulation stipulates that BBWS is a Technical Implementation Unit (UPT) under the Ministry of Public Works and Public Housing. Apart from that, the management of the Brantas River area is regulated by the regional government in each region it passes through. Regency and city regional governments have the right and authority to regulate spatial planning throughout the Brantas watershed. The presence of this formal structure is a form of government presence in managing and utilizing public resources (Koppel, 2010; Ringeling, 2015).

Apart from the government, Ecoton's presence as an informal institution seizes government power in the public sphere. Ecoton is here to support and accommodate several government programs. The presence of these formal and informal institutions determines how the efforts and strategies of each institution play out their roles and functions in the public sphere. This analysis will look at how formal and informal structural forces compete with each other for strength and power in the public space (Koppel, 2010; Varna & Tiesdell, 2010; Wang, 2018). The first structural analysis will outline how government policies and programs manage and utilize the Brantas watershed. The government as a formal institution is represented by BBWS and DLH. On the side of informal institutions, the existence of the Ecoton social institution is shown. Both formal and informal structural forces move holistically and influence each other in public space (Koppel, 2010; Varna & Tiesdell, 2010).

### **Government Policy in Managing the Brantas River Watershed Ecosystem (DAS) Through Supervision of Companies**

The government formulates regulations as a reference for water quality management through Government Regulation Number 22 of 2021 concerning the Implementation of Environmental Protection and Management. This effort is to improve the licensing process and environmental impact analysis (AMDAL). The technical implementation of this policy is regulated in the Minister of Environment and Forestry Regulation (Permen KLHK) Number 5 of 2021 concerning Procedures for Issuing Technical Approvals and Operational Feasibility Letters in the Field of Pollution Control. The entire AMDAL licensing process is carried out through the online single submission system. This flow is a requirement that must be fulfilled before finally obtaining a business permit, which is accommodated with the SPPL (Environmental Management Statement Letter). This licensing puts more emphasis on company waste management because it is related to the sanctions that will be given if environmental violations occur. Apart from that, the government also has a water quality monitoring policy through Minister of Environment and Forestry Regulation Number 80 of 2019 concerning Continuous Monitoring of Waste Water Quality and Within Networks for Businesses and/or Activities (SPARING). This effort remembers that at the mouth of the Brantas River there is an industrial area in the Gresik Bangkalan Mojokerto Surabaya Sidoarjo Lamongan area (Gerbang Kertasusila). Kertosusila Gate is the Industrial Growth Center Area (WPPI) in East Java Province, as stated in the East Java Provincial Industrial Development Plan (RPIP) for 2019–2039. The economic development of this region has been accelerated by the government since the issuance of Presidential Regulation Number 80 of 2019 and has become a source driving the economy of East Java Province.

Unfortunately, Kertasusila Gate is also a major contributor to industrial waste pollution in the Brantas watershed.

Management of the Brantas River is not only carried out by the East Java Provincial DLH government, district/city DLH, and BBWS. The presence of Ecoton represents civil society carrying out the duties and roles of citizens in a participatory manner to contribute to protecting and caring for the Brantas River environment. Civil society can be interpreted as an autonomous association and voluntary organization characterized by participatory involvement, self-governance on a non-profit basis, and guaranteeing individual freedom (Bozeman & Moulton, 2011; Varna & Tiesdell, 2010). Civil society is an interest group that seeks the common good (Newman, 2007; Ringeling, 2015), its achievement will not selectively benefit the organization's members or activists (Bourgon, 2007; Bozeman & Moulton, 2011) and materials but prioritizes the public interest (Anderson, 2012; Németh & Schmidt, 2011; Wang, 2018). The three main characters of civil society are reflected by Ecoton, including participatory engagement, constitutional authority, and moral responsibility (Meynhardt, 2009). As a non-governmental organization (NGO) working in the field of environmental mitigation, Ecoton has carried out various activities in an effort to manage the water quality of the Brantas River. There are three focuses of Ecoton's activities: research, education, and advocacy. Apart from that, Ecoton, through river crossing activities, also carries out clean-up and brand audit activities along the Brantas watershed.

The definition of constitutional authority can be described through the efforts made by Ecoton to be involved in drafting regional regulations regarding the environment, especially the sustainability of the Brantas River ecosystem. Apart from that, Ecoton has filed a lawsuit against the government and companies that

contribute to pollution in the Brantas River. Ecoton's involvement in discussion forums held by the government is a concrete step in its presence in the public space. Of the various activities that have been carried out by Ecoton, it cannot be separated from the basic motivation that every individual has a responsibility to protect and preserve the environment; this is what is called moral responsibility (Budiman et al., 2019; Suganda et al., 2009). As an NGO that was formed based on the value of awareness, Ecoton has several characteristics, such as freedom of choice, freedom from profit-making, freedom from administrative regulations, Laypeople and professionals join forces, Action at a local and grassroots level and a chance to make a difference (Jurgen Habermas, 2008; Roza, 2013; Werang, 2017).

### **Dynamics of Community Culture as an Obstacle to Brantas Watershed Restoration Efforts**

Civil society can be interpreted from two dimensions, namely structure and culture (Jurgen Habermas, 2008; Prasetyo, 2012). From a cultural perspective, civil society can be interpreted as a public space where plurality and social norms are maintained, practiced, and promoted. (Giddens, 1984; Zainal Abidin Achmad, 2020). The efforts made by Ecoton can be interpreted as a protest over dissatisfaction with the government's performance in carrying out supervision, regulation, and management of the Brantas River. Through communication forums formed at the 'grass roots', Ecoton provides input and criticism of government programs and policies. However, the government has ignored Ecoton's input and criticism of waste management. BBWS Brantas and DLH East Java Province claim to have involved the Brantas community in implementing various programs. These programs include Brantas Tuntas, the River Giat Program, river schools, community competitions, and trash clean-up activities. Meanwhile, Ecoton, as an informal

institution, encourages the Brantas community to participate in various activities, such as conducting brand audits in the Brantas watershed.

However, most of the community's involvement is still in the implementation or execution of activities. Community empowerment efforts can be seen in educational activities on microplastic waste management, which Ecoton is actually carrying out more actively. Ecoton's presence in this effort was carried out among 'grassroots' communities, school students, and several household groups in several areas along the banks of the Brantas River. However, this is not enough to achieve the mission of managing domestic waste independently. On the other hand, the toughest challenge is that there are companies and small and medium community enterprises (MSMEs) that dispose of their waste in small rivers, which then flow into the Brantas River. Community independence and being able to process their own waste are two of the gaps found in this research. To be able to manage their waste independently, communities along the Brantas watershed need resource support from the government in the form of increased competence and material support. The role of society should have shifted to not only obeying government policies but also being involved, or "engaged," in the public policy process. Meanwhile, the role of government should not only be to represent the general interests of society but also to support citizens by facilitating collaborative relationships with the community and community groups, encouraging the sharing of responsibilities, disseminating information on public issues, and seeking opportunities to involve citizens in government activities.

### **Relation Model of Formal And Informal Institutions In The Brantas River Watershed (DAS) Restoration Efforts**

At this stage, the researcher carried out data analysis according to stages 3 and 4 of the SSM

(Peter Checkland and John Po, 2010) and with the analysis of formal and informal institutional relations theory (Helmke, Gretchen and Levitsky, 2004). Next, data analysis is carried out on the social process stage, where formal and informal institutions influence each other and form a social system (Wiewiora, 2014; Wirutomo, 2013). Social relations do not always mark forms of change, but social relations always mark the presence of symptoms of power in change (Safitri et al., 2017; Taufik, 2017). Basically, a relationship is an interaction or social relationship between an individual and an individual, an individual and a group, or a group and a group that is created on the basis of a common goal (Ansell & Gash, 2008; Edgardo, 2021; Helmke et al., 2004; E. Klijn & Koppenjan, 2000; Sorensen & Torfing, 2009). Relationships that are formed and last for a long period of time tend to construct a social relationship which can then be polarized (Edgardo, 2021; Jan Kooiman & Martijn van Vliet, 2000; Rambaree & Rambaree, 2021).

The explanation of the four relationship patterns that are then formed between formal and informal institutions is basically based on two dimensions. First, the dimension that looks at the effectiveness of formal institutions. Second, the dimension that looks at the extent to which goal compatibility between actors is achieved, whether the relationship that is built becomes closer or even avoids it. Almost similar to what Helmke and Levitsky explained, Soekanto apparently also discussed patterns of social interaction that occur as a result of social relationships. Relations can be interpreted as a relationship that exists between several institutions (Helmke, Gretchen and Levitsky, 2004; Koppenjan, 2016), especially in this case, namely the relationship between formal institutions and informal institutions (Helmke, Gretchen and Levitsky, 2004). Ecoton, which has been established since 1996, aims to restore the Brantas river basin. Departing from the theoretical basis above, the contestation of

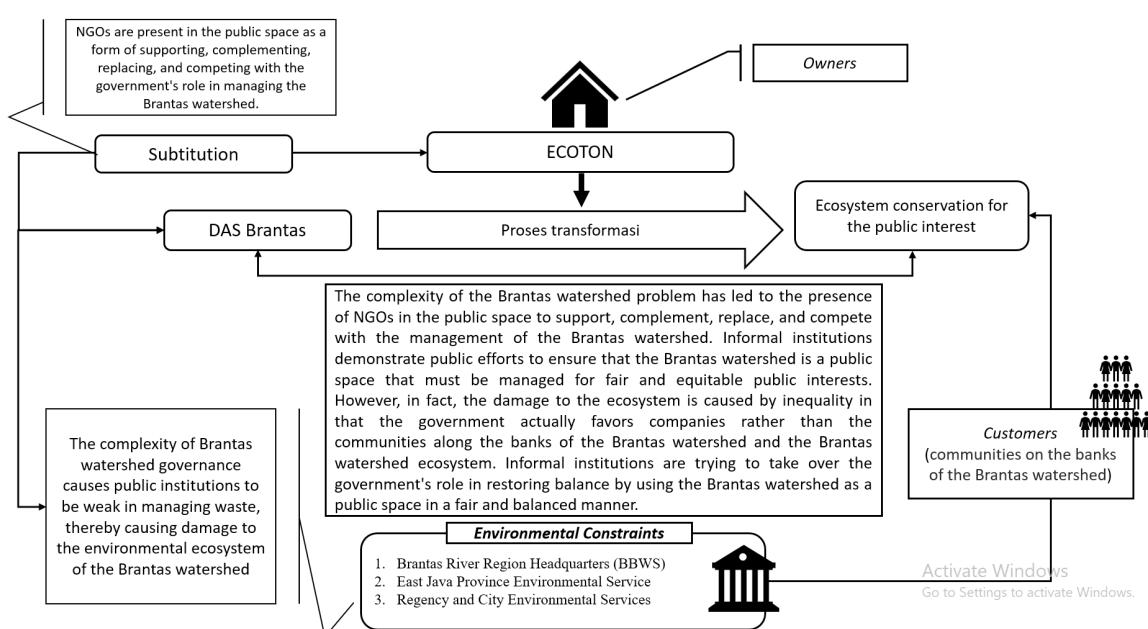
formal and informal institutions is caused by the following problems:

- a. The complexity of the Brantas watershed problem means that the government cannot manage it optimally.
- b. The government's efforts to carry out restoration were very weak, resulting in gaps that were then exploited by Ecoton.
- c. The program carried out by the government is only ceremonial and not sustainable, thus triggering a social movement carried out by Ecoton so that the program can be sustainable.

From the conditions above, the following is a CATWOE analysis model: how relations between actors are built, what power relations are, and how actors influence each other. CATWOE analysis includes customer, actor, transformation, world view, owner, and environmental constraints (Peter Checkland and John Po, 2010). The following is the CATWOE model, which is built on formal and informal institutional relationships in Brantas watershed governance:

From the CATWOE analysis above, the following is a detailed description of how the

contestation of formal and informal institutions work in accordance with the concept of formal and informal institutional relations. This means that the relations or relations and interactions that are created are not only in small scopes, such as person-to-person but also in large scopes, such as community groups, because the scope of relationships as an interaction will form so many patterns. There are two types of social processes that emerge as implications of social interaction: associative processes and disassociative processes. It is explained more clearly that the associative process is divided into accommodation, assimilation, and acculturation. Meanwhile, dissociative processes tend to be divided into competition and conflict, with conflict and controversy models. Relations can be interpreted as a relationship that exists between several institutions, especially in this case between formal and informal institutions. Furthermore, to see the interaction patterns, according to Helmke and Levidsky, regarding the relationship between formal institutions and informal institutions, you can see them in the table below:



**Figure 3. CATWOE Model Image**

Source: processed by researchers

Relationship Patterns	Effective Formal Institutions	Ineffective Formal Institutions
Competible Goals Convergent	Complementary	Substitutive
Conflicting Goals Divergent	Accommodating	Competing

**Figure 4. Helmke and Levitsky's interaction patterns of formal and informal institutions**

Source: Helmke, Gretchen and Levitsky, 2004

According to the table above, it can be seen that the four relationship patterns that are formed will then produce patterns that can then be said to be effective or ineffective relationships. A more complete explanation is as follows:

a. Complementary

It can be explained that the complementary form of interaction pattern is a form of relationship that occurs when formal institutions and the state are close together while the roles of formal and informal institutions are running effectively. In this pattern of interaction, the role of informal institutions is as a complement, where informal institutions will fill the void left by formal institutions with the aim of overcoming problems originating from the void of formal institutions. In other words, informal institutions play a role in complementing the deficiencies or gaps in formal institutions. In this type, formal and informal institutions have the same goals and can complement each other.

In the interaction pattern, a complementary form is a form of relationship that occurs when formal institutions and the state are close together while the roles of formal and informal institutions run effectively. In this pattern of interaction, the role of informal institutions is as a complement, where informal institutions will fill the void left by formal institutions with the aim of overcoming problems originating from the void of formal institutions. In other words, informal institutions play a role in complementing the deficiencies or

gaps in formal institutions. In this type, formal and informal institutions have the same goals and can complement each other.

1. River cleaning program: Every year, Ecoton carries out river tracing activities in East Java, the results of which will be presented to the government of East Java Province and related districts and cities;
2. An environmental campaign targeting the community to emphasize the importance of protecting the environment by forming communities at the village level to control environmental pollution in each village;
3. Carry out partnerships in accordance with Articles 160 to 161 of Government Regulation Number 22 of 2021 concerning the Implementation of Environmental Protection and Management.

b. Substitutive

Substitutive interaction patterns occur when the relationship pattern between informal and formal institutions approaches while formal institutions do not operate effectively, causing the presence of relationships in the form of substitutes. For "replacing" interaction patterns, informal institutions will act as substitutes for formal institutions when formal institutions are deemed to have failed and implement existing regulations. Or, in other words, in a position like this, ineffectiveness occurs due to weakening compliance with existing formal rules and the inability of formal institutions to create and present common interests (community), and this non-compliance and inability also go hand in hand with strengthening adherence to values and traditions that develop in the community. For the "replacement" interaction pattern, informal institutions will act as substitutes for formal institutions when formal institutions are deemed to have failed and implement existing regulations. In other words, in a position like this, ineffectiveness occurs in formal institutions:

1. Education and research for the younger generation and schools to be part of sustainable environmental solutions and efforts to prevent ecosystem damage;
2. A river ecosystem management program that is fair and participatory;
3. Give birth to communities that become protectors and preservers of rivers and water sources in a sustainable and continuous manner.
4. Management of domestic waste through waste banks in several locations.

c. Accommodating

In the accommodating form of interaction, this interaction pattern occurs when formal institutions operate effectively, whereas in the relationship pattern between informal institutions and the state, it is distant. In accommodating patterns of interaction, informal institutions, in this case, play a role in modifying formal rules and not breaking them. In other words, informal institutions ultimately create regulations that originate from customary norms and values to regulate and control the behavior of their citizens by indirectly changing the substantive values of existing formal regulations (still not violating them), and what happens in the end is that community rules enforce formal rules (modify).

Encourage policy changes to promote equitable management of river ecosystems between generations. The main activities focus on efforts to restore and preserve the Brantas River.

1. Building an information system with the important role of mass media such as newspapers, radio, television, magazines, and online media will make the public aware of the condition of water resource management;
2. Ecoton encourages people to form communities that play an active role in monitoring and planning and become an important part of them;

3. Carrying out policy advocacy and even legal complaints against the government (Governor of East Java, Ministry of PUPR, and KLHK) to urge the government to immediately act to overcome environmental pollution in the Brantas River.

d. Competing

In the competing interaction pattern, this occurs when the state's capacity as a formal institution does not work effectively, so that the pattern of relations between informal institutions and formal institutions ultimately drifts away and causes rivalry or competition. In this kind of interaction pattern, what the informal institution does is not in accordance with existing and applicable formal regulations. It is even said that to follow one actor, you have to break other rules. In other words, in interactions like this, informal institutions will be competitive when they ignore existing regulations due to the ineffectiveness of formal institutions in carrying out their functions, resulting in resistance and violations of these formal regulations.

Competing interaction patterns occur when the state's capacity as a formal institution does not operate effectively. So that the relationship pattern between informal institutions and formal institutions ultimately drifts away and causes rivalry or competition. In this type of interaction pattern, what informal institutions do is not in accordance with existing and applicable formal regulations; actions carried out by informal institutions are not facilitated by formal institutions; or formal and informal institutions carry out the same actions with each other but there is no collaboration. Ecoton is moving into the public space to be present as an institution that facilitates Brantas River restoration efforts. This is the same as what the government does, but the presence of Ecoton proves that there is considerable competition in the public space. Ecoton tries to accommodate

public interests that should be carried out by the government towards the community. The following are efforts that have been made by Ecoton but also carried out by the government:

1. Produce an inventory of environmental problems and research results that are presented to the government;
2. Advocacy for the issuance of Regional Regulations on the Use of Single-Use Plastics (PSP);
3. Advocacy for the formulation of Gresik Regency Regent Regulations as a derivative of existing regional regulations through various public forums.

## Conclusion

This research emphasizes that as a result of the weakness of public institutions in managing public space, it triggers the presence of informal institutions, which become competitors and take over the domain of these public institutions. This informal institution is becoming increasingly close and inseparable from society because it is considered that the efforts made by the government are no longer optimal. The government, through related institutions, must make efforts to improve programs to prevent this if it does not want its domain to be taken over by informal institutions. By using a theoretical framework of structure, culture and process, combined with an analysis of the political relations of formal and informal institutions, this research is able to create a public space perspective. There is not much research that examines the contestation between the public sector and the private sector, especially in environmental studies. This contestation can be a driving force for the study of public space issues. The actor network model created using SSM strengthens the good governance paradigm, especially in the environmental sector.

The complexity of managing the Brantas watershed in East Java means that government programs are not optimal and create gaps on

various sides. Weaknesses that continue to be used as excuses by the government are budget shortages, lack of employee capacity, lack of coordination between divisions, and limited information received. This then becomes evidence that the presence of informal institutions is actually triggered by the weaknesses of public institutions themselves. However, strangely, instead of being used as an incentive to improve through work programs, the results of this research show that several actors from public institutions actually reject the presence of these informal institutions. This is because it will expose the shortcomings of public institutions and reduce public trust.

This gap was then exploited by Ecoton. As an NGO, Ecoton actively criticizes, evaluates, and even sues the government. Gradually, Ecoton's presence in public spaces led to several government programs being taken over. Ecoton's presence in public spaces is almost equivalent to that of the government, starting from management, supervision, empowerment, research, and cleaning up trash. Ecoton also collaborates with civil society, especially DLH East Java Province. The dynamics of formal and informal institutional contestation show that the Brantas watershed is a public space that holds the interests and needs of the wider community. The government's failures and weaknesses will quickly be covered by NGOs, and this becomes part of publicity studies. Publicness studies place issues that are public problems, how the public is present and forms organizations, how the government is present to dominate through its power, and how civil society is present to negotiate and resist existing gaps. This research shows that Ecoton's presence in public spaces is part of social integration. Civil society has been able to provide an offer to overcome existing shortcomings, although in the end, its power is still inferior to that of the government. However, this is part of the development of social movements in the public sphere and a

form of democracy. The contestation of formal and informal institutions that was successfully formed in this research is a signal that in public space governance, the government does not stand alone, and there are organizations driven by civil society to complement and accommodate, or even compete and even replace its role.

The limitation of this research is that it is not capable of analysis using social conflict theory. This is because the issue raised is very sensitive, so the informant does not want to reveal more in-depth information because he wants to reduce the conflict so that it doesn't drag on. However, through persuasive methods, researchers were able to minimize this. This research will be an opener to public issues related to social conflict, which are presented by formal and informal institutions.

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