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Implementation of *Citarum Harum Program* Policy using One Command Approach

(Study of collaborative governance mapping using social network analysis)

Ronal Chandra
The Ministry of Home Affairs and Faculty of Administrative Science
Universitas Brawijaya
Malang, Indonesia

Rachma Fitriati*
Faculty of Administrative Science
Universitas Indonesia
Depok, Indonesia
*rachma.fitriati@ui.ac.id

Sumartono Sumartono, Khairul Muluk, Endah Setyowati
Faculty of Administrative Science
Universitas Brawijaya
Malang, Indonesia

***Abstract*—The fact that Citarum River is polluted is undoubtable. This condition is affecting human's health who live around Citarum watershed and also causing humanitarian disasters. We believe that the effective policy implementation should be taken to tackle this problem. Sadly, even though there is Presidential Regulation which regulates Citarum rejuvenation, those instructions yet state the roles of some parties who involve in rejuvenation process. Collaborative governance can be the way to link many parties to explore their roles and look at the same perspective of how to manage Citarum River. Lately, the President of Indonesia Joko Widodo launched One Command Program as an approach to managing Citarum River watershed from upstream to downstream. It is believed that this approach is a new perspective of instruction comprising many parties including Indonesian National Army and Republic of Indonesia Police. The study analyzes complicated situation using social network analysis as a systems approach. Social network analysis will describe all the important actors and their roles based on Presidential Regulation Number 15 Year 2018. The result from that analysis is that we know the gap between One Command approach and Presidential Regulation; and what should be done to rejuvenate the river.**

Keywords—Citarum river; presidential regulation; one command approach; collaborative governance; social network analysis

I. INTRODUCTION

"*Plastic bottles, nappies, sodden shoes, household waste, wrappers, dead fish, bloated goat corpses and live maggots – welcome to the Citarum River in Java, Indonesia"* (https://www.theguardian.com/).

Since a long time ago Citarum River played a very strategic role in the lives of West Java and DKI Jakarta province residents (Kompas, 1/5/2018). Based on the *Balai Pengelolaan DAS dan Hutan Lindung* (BPDASHL – Watershed Area and Protected Forest Management) Citarum Ciliwung, the whole area Citarum watershed Area reached 721,945.66 hectares. Watershed Area becomes important, because it becomes a source of 80 percent of the population's drinking water needs. Citarum River is also a water provider for 420 thousand hectares of paddy fields, which have made irrigated land in Cianjur and Karawang district where been a barn food in West Java food since ancient times. Ironically, Citarum River is currently critical and full of problems. Starting from upstream to downstream condition is alarming. The accumulation of plastic waste, pollution of household waste, and industrial waste has become an acute problem since decades ago. The findings, sedimentation reach 4-7 million m3 per year in Weirs Saguling, Cirata and Jatiluhur.

The severity of the condition of the Citarum River seems to have drawn international attention. The World Bank states Citarum River is the dirtiest river in the world, a decade ago (National Geographic, 2018 from tribunjogja.com). The World Dirtiest River by the International Herald Tribune, on December 5, 2008 and The Dirtiest River was pinned by The Sun (12/2009) for the Citarum River. A documentary about the dirtiness of the Citarum River even aired on British Television, Channel 4 with a special show titled Unreported World, The World's Dirtiest River describes the condition of the river which is now a garbage field decorated with various garbage filled with maggots.

Finally, an environmental activist Gary A. Bencheghib documented his journey along the polluted Citarum River using his own creation canoe, which was then uploaded on a Facebook account entitled "*Make a Change World*". This short duration documentary went viral in the virtual world [1]. Until then, Gary's viral video, apparently disturbed President Joko Widodo. The President promised to revitalize the Citarum

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River in West Java starting mid-January 2018. In April 2018, the President realized his promise through the Republic of Indonesia Presidential Regulation Number 15/2018 concerning the Acceleration of Pollution Control and Damage to the Citarum River watershed. By looking at the conditions above, this study takes the theme of how the implementation of Presidential Regulation 15 year 2018 using Social Network Analysis.

The study of the implementation of own policies, was first initiated by Bunker [2]. The concept of implementation is increasingly being discussed along with the many experts who contribute ideas about policy implementation as one of the stages of the policy process. According to Ripley and Franklin [3] and Birklan [4], policy implementation is considered as the main form and the most decisive stage in the policy process [5]. Similar views were reinforced by Edwards statement that without an effective implementation the decision of the policy maker will not be successfully implemented [6]. Policy implementation is an activity that is seen after the legitimate direction of a policy is issued which includes efforts to manage inputs to produce output or outcomes for the community.

Referring to the Citarum River case, the model of policy implementation that became the reference is the Christopher Hood Model explaining five conditions so that policy implementation can take place perfectly [7], namely: (1) implementation is the product of a solid organization such as the military with a clear command line (2) norms are enforced and goals are clearly defined, (3) people are sure to carry out what is requested, (4) there must be perfect communication within and between organizations, (5) no time pressure. Yesilkagit added, the Hoods of thought-provoking essay shows the concept of administrative limits to greater use of analytical concepts and explores the ideas of administrative limits from three basic ways of thinking: cybernetics, economics and cultural theory [8].

In addition to discussing policy implementation, collaborative governance policy is a governance between institutions, both state institutions and non-state institutions. The emergence of the concept of collaborative governance is also possible because of the dissatisfaction from the public regarding the performance of government organizations [9]. According to Ansel and Gash, the main purpose of the collaborative governance approach is to bring together a number of stakeholders together with public agents and carry out more in-depth cooperation where there is a division of tasks and functions of each part with the same ideology (shared vision among stakeholders, the community and the perpetrators of these public agents) [10]. Whereas Emerson *et al*. [11] and Emerson and Nabatchi [12] provide input on integrative frameworks from collaborative governance.

II. METHODS

Social Networks Analysis (SNA) has a focus on relationships and forms of relationships that occur between actors on a network, not on the attributes of each actor. Some social studies identify cohesive groups of actors using a network approach that looks at network frequencies [13-15]. A social network is a social structure consisting of individuals (or organizations) called nodes or actors [16]. Actor is a term called social entities, while links, ties, or connections are social relationships. Each actor is tied to or connected to one or more other actors. Actors can affect the success of a network structure [17]. This study looks at the role of all actors involved in Presidential Regulation 15 year 2018 concerning the Acceleration of Pollution Control and Citarum River watershed Damage. The pattern of network results from SNA analysts is a pattern of interaction between actors and other actors in an activity. To analyze a social network, XL Node is used by using several dimensions of actors, links, ties, or connections in the analysis table of actor centrality in the network.

III. RESULTS

Actually, various efforts have been made by the Government for a long time. Starting from the 1989 *Kali Bersih* or *Prokasih* Program; followed by the *Citarum Bersih Program*, *Geulis dan Lestari* or *Citarum Bergetar*, in 2008 the old name changed to *Citarum Terpadu* or ICWRMIP, and the current program called *Citarum Bestari* (*Bersih, Sehat, Indah dan Lestari*) in 2013. But all the efforts mentioned before has not been successfully showing the good results. Even though, trillions of funds have been disbursed. Until the end of 2017, Citarum remains the dirtiest river in the world [18,19].

Furthermore, in early 2018, President Joko Widodo issued an instruction to revamp the integrated Citarum River. The President emphasized that the alleviation of the Citarum problem needs to be structured, from the concept stage to the implementation on a sustainable field. Following the President's mandate, therefore, President Regulation Number year 2018 was made. The content basically concerns about the Acceleration of Pollution and Damage Control of the Citarum River watershed on March 15, 2018. This is the fastest President Regulation in history of this nation to deal with the environment. The main theme is "*One Command Program from Upstream to Downstream in managing River watershed with all parties aiming at community welfare*". The launching of this program marks the handling of the Citarum River in an integrated manner involving all parties, starting from the central government, regional government, TNI (Indonesian National Army, the Armed Forces of the Republic of Indonesia), POLRI (Republic of Indonesia Police), the community, to community organizations that will be implemented approximately 7 years.

To accelerate pollution and damage control Citarum watershed become more integrated, The Pollution and Damage Control Team stablished, which in this President Regulation is called Citarum watershed Team. Citarum watershed team is in charge of accelerating the implementation and sustainability of control policies Citarum watershed through preventing operations, preventing pollution and damage, and recovery Citarum watershed more synergistic and sustainable by integrating programs and activities at each ministry / institution and local government including personnel optimization and operating equipment.

Citarum watershed Team consists of Steering, Task Force, Governor of West Java, Deputy Commander of the Ecosystem Arrangement Division, Commander in Chief of Military Region III, Commander of the Jayakarta Military Region, Deputy Commander of the Law Prevention and Enforcement Division, Head of West Java Regional Police, Head of West Java High Prosecutor's Office, and Head of the Jakarta Metropolitan Regional Police (Figure 1).

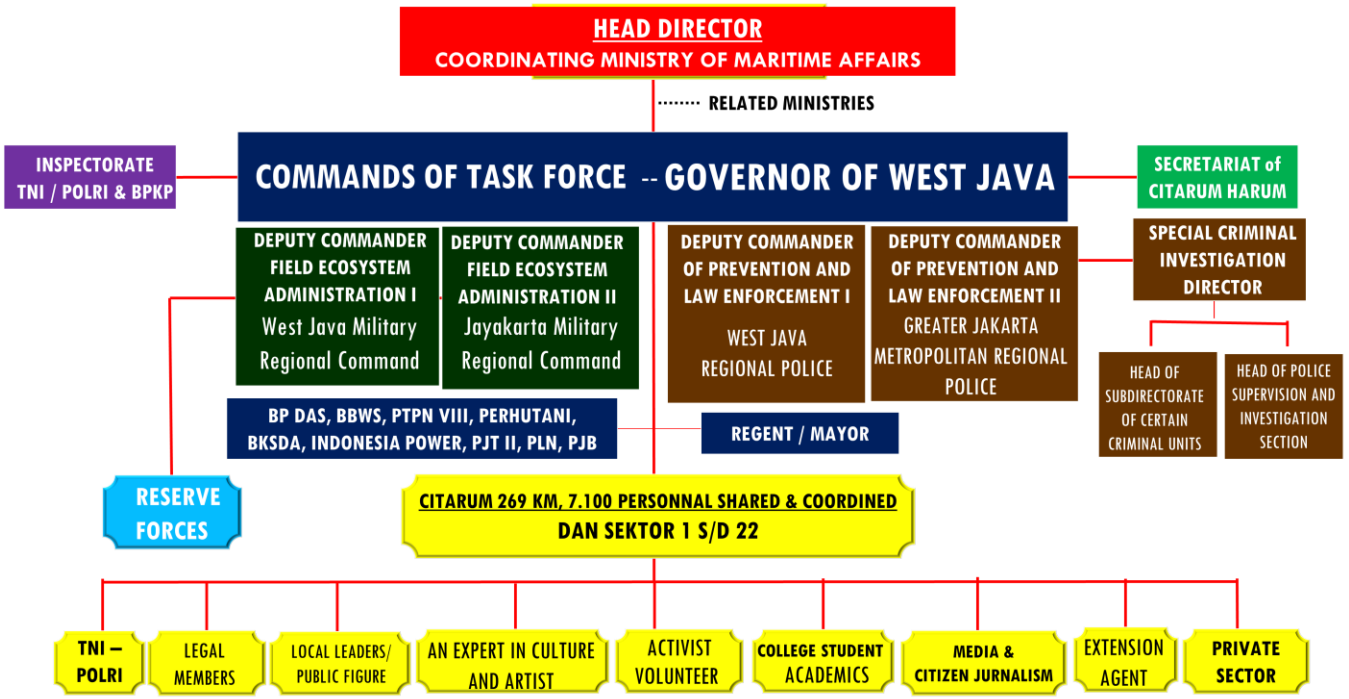

Fig. 1. President instruction through presidemtial decree number 15 year 2015.

IV. Discussion

The results of the Social Network Analysis data processing of Presidential Regulation Number 15 Year 2018 regarding Acceleration of Pollution Control and Damage of Citarum River watershed with NodeXL show the need for revision of Presidential Regulation Number 15 Year 2018 (Figure 2). *First*, the Ministry of Defense must be included in the Presidential Regulation so that it can also include the APBN budget for the Deputy Commander of the Ecosystem Arrangement (Commander of Siliwangi Military Region and Commander of the Jayakarta Military Region). So far, the Ministry of Defense has not been one of the leading sectors, resulting in 22 sector commanders not having funds. *Second*, the Regents and Mayors (who passed the Citarum River along the 297 km), should be included in this Regulation so that they can also include in the Regency/City Budget allocations that are passed through the watershed. *Third*, the evaluation indicators have not been included so that the performance of each sector is measured.

In the implementation of its policies, the strategy carried out by the Commander of the Siliwangi Military Command at that time was to carry out a "war" on the destruction of Citarum River. The Citarum flow is divided into 22 sectors, with each Sector Commander (*Komandan Sektor*) as coordinator led by colonel-ranking officers.

Communication is built with various parties; including institutions / ministries, academics, students, communities, scholars, cultural experts, media and activists. Each Sector Commander is instructed to map the problem, take action and report on the progress made. Not for long, the soldiers immediately take to the field, checking the company and factory waste disposal plants. Even a naughty company is warned, even if it is casted in cement blockade for the disposal of its waste, for those who are still stubborn.

In the upstream area, Sector Commander maps land ownership and existing problems. Several actions are taken from the transfer of several improper business locations to the development of nurseries and planting of hardwood plants in upstream locations.

The Commander of the Siliwangi Military Region said that the most important strategy for rescuing Citarum River was the culture at the community level:

> "*Cleaning the river is important, but more important is cleaning the hearts of people who still do not care about the environment. The cleanliness of rivers and the environment is not only the responsibility of the government.*"

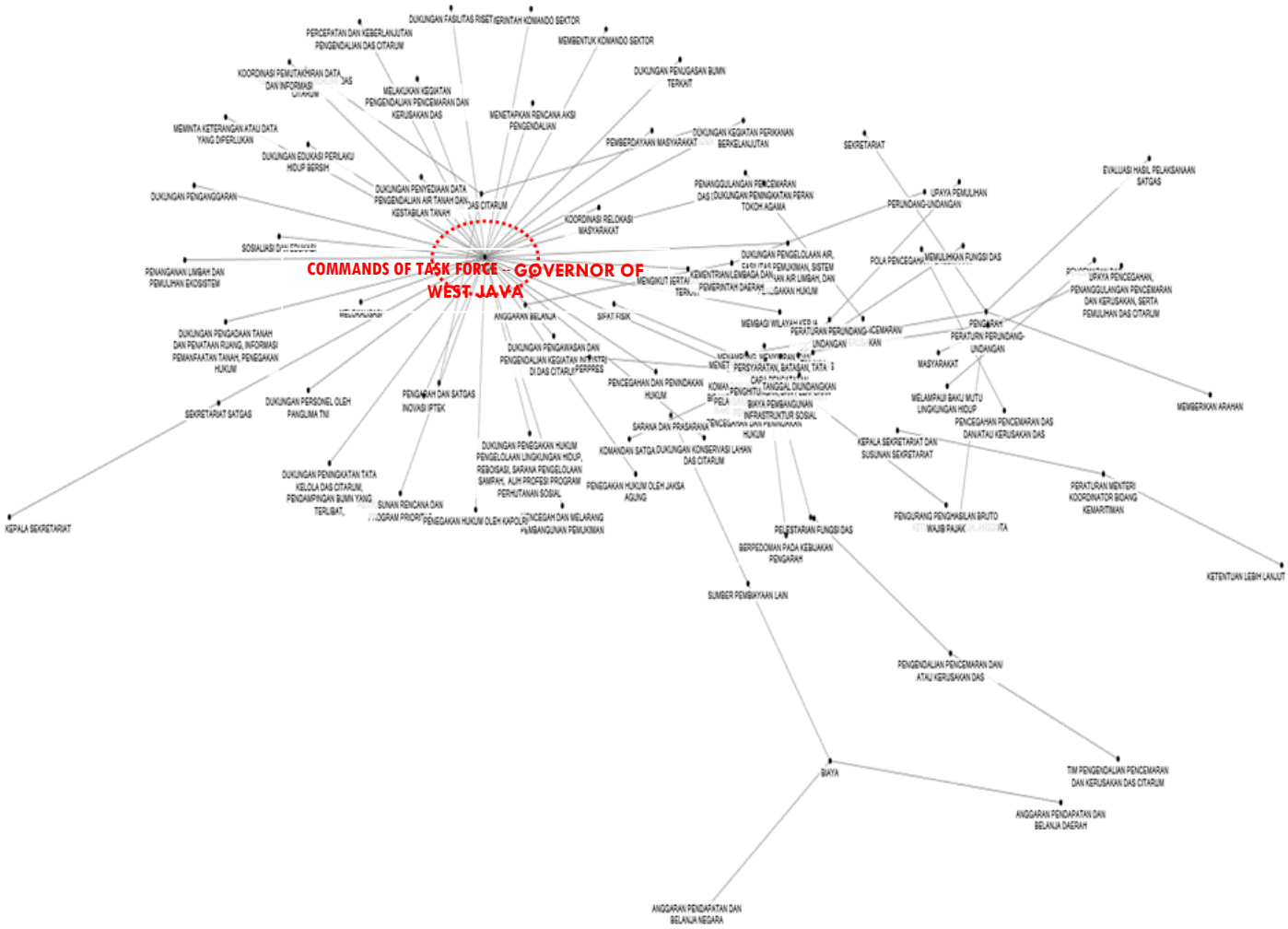

Fig. 2. The results of the social network analysis data processing of presidential regulation number 15 year 2018.

The Presidential Regulation Number 15 year 2018 policy on the Acceleration of Pollution Control and Damage to the Citarum River watershed is in accordance with the policy impelementation of Hood's Model [7]. *First*, this Presidential Regulation Number 15 year 2018 has become a product of a solid organization such as the military with a clear command line. *Second*, the norms are enforced and objectives are clearly defined, namely by the presence of positions (1) Deputy Commander of the Ecosystem Arrangement and (2) Deputy Commander of the Field of Prevention and Law Enforcement. *Third*, the people were confirmed to be able to carry out what was requested, namely: Commander of Siliwangi Military Region and Commander of the Jayakarta Military Region, and West Java Regional Police Chief and West Java High Prosecutor's Office and Jakarta Metropolitan Police Chief. *Fourth*, there must be perfect communication within and between organizations as seen from the big theme, namely "*One Command Program from Upstream to Downstream in managing River watershed with all parties aiming at community welfare*". *Fifth*, there is no such a deadline pressure, because the President has given direction to be completed within 7 (seven) years.

V. Conclusion

Pollution and waste in Citarum River are already at a level that is harmful to Indonesia's human health in long-term. This will cause financial losses, humanitarian disasters, and even threaten the nation's resilience. The Presidential Regulation Number 15 year 2018 policy on the Acceleration of Pollution Control and Damage to the Citarum River watershed is in accordance with the policy impelementation model of Hood's [7]. In addition, the Yesilkagit's approach to strengthen the Hood's argument was also proven in this study [8]. *First*, cybernetics, where Citarum River resolves using systems approaches. *Second*, economics, where various environmental economic factors become one of the most important considerations. *Third*, cultural theory, where the cultural approach becomes the spirit of this whole program. Evidenced by the selection of the name *Citarum Harum Program*. The word Citarum comes from two words, *Ci* and *Tarum*. *Ci* or in *Sundanese Cai*, means water. While *Tarum*, is a type of plant that produces purple or indigo. So that *Citarum Harum Program*, is expected to re-create the fragrant river that used to be the foundation of the community along the river.

In the future, there must be a number of improvements in policy implementation. *First*, a more effective management of the Citarum watershed, such as the Special Agency of the Citarum Authority, which has greater authority in terms of: (a) Coordinating various relevant parties, such as district / municipal government around the watershed, West Java provincial government, Ministry of Public Works, and others; (b) Utilization of watersheds, both socially and economically; (c) Law enforcement for environmental offenders; (d) Regular and ongoing watershed maintenance efforts. *Second*, the need for joint commitment, various related parties (District / City Governments, West Java and Central Provinces), especially those related to: (a) the provision of very large budget allocations up to trillions of rupiah; (b) the realization is in accordance with careful planning; (c) a strict and transparent supervision system. Third, it becomes a learning model for the involvement of high-ranking Indonesian National Army and Republic of Indonesia Police officers and their soldiers who are united with the community to live in the watershed Area, so that it can be replicated in other polluted watersheds in Indonesia.

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