Military and Water Governance Practices: A Theoretical Analysis of the Involvement of Indonesian National Armed Forces in the Citarum Harum Project in West Java, Indonesia

Mustabsyirotul Ummah Mustofa*
Universitas Padjadjaran, Indonesia

Shafa Ghaisani Salsabila Brahmantika
Universitas Padjadjaran, Indonesia

Bima Riandy Tarigan
Universitas Padjadjaran, Indonesia

Abstract
The Citarum Harum project as stated in Presidential Regulation No. 15/2018 was created as a response to a report that Citarum is “the dirtiest river in the world”. It is said that the complexity of the management of the Citarum river involves the Indonesian National Armed Forces (TNI) as the program implementer. This military involvement is claimed as a non-war military operation to increase the Citarum Harum program's effectiveness. However, in the discourse of Water Governance, the military is hardly mentioned as an engaged stakeholder, especially in the framework of "governance" which emphasizes the democratic process controlled by civilians. This article seeks to explain what kind of regime can justify the claim of military involvement in water management as a vital public affair. A qualitative approach was used to achieve a comprehensive theoretical analysis in explaining this research problem. The findings indicate that military involvement in water governance is related to security issues, especially water security, and mainly in conflict areas. Meanwhile, in non-conflict areas, water governance places great importance on public and government participation in a

* Corresponding author:
Mustabsyirotul Ummah Mustofa
Department of Political Science, Universitas Padjadjaran, Indonesia
Email: mustabsyirotul.ummah@unpad.ac.id
very democratic process. Accordingly, the involvement of the TNI in the Citarum Harum program can be said as a practice that has deviated from the shared concept of water governance.

Key Words
Military Involvement, Water Governance, Citarum river, Citarum Harum Project

Introduction
Flowing 297 kilometres, Citarum is a strategic river that supports life in the Provinces of West Java and Jakarta (Brotosusilo et al. 2019; Setiani et al. 2019). This river supplies water that supports the activities of economic sectors such as agriculture, animal husbandry, industry, and power generation. However, these sectors contribute to environmental problems and make this longest river in West Java “the most polluted and dirtiest river in the world” as reported by several researchers and international media.

The control of the Citarum River problems is exercised by a Task Force led by the Governor of West Java through a project known as Citarum Harum. The Indonesian National Armed Forces (Tentara Nasional Indonesia [TNI]) is involved in the implementation of this project, which is marked by the placement of the Commander of the III/Siliwangi Regional Military Command as the First Deputy Commander for Ecosystem Arrangement of the Task Force. Thousands of TNI personnel were deployed to maintain and supervise programs in the Citarum River area which were further divided into 22 sectors (Pratama et al. 2020: 225). The military involvement in this project is considered as an effort to increase the project effectiveness and a military operation other than war (Setiani et al. 2019:5; Ginting and Mulyana 2020:882; “Tanpa TNI, Perubahan Masif di Citarum Tidak Akan Terjadi”).

Based on Presidential Regulation Number 15 of 2018, the Task Force is part of the Citarum Watershed Team that carries out tasks based on policies and directives from a steering committee. The Indonesian government gave mandate over the area and authority for the settlement of the Citarum watershed to the task force under the command of the Coordinating Minister for Maritime Affairs, which is now known as the Coordinating Minister for Maritime Affairs and Investment as the Chief Steering Officer. This implies that the entire work system of the Citarum Watershed Team is further regulated based on the Coordinating Minister
for Maritime Affairs and Investment Regulation Number 8 of 2018.

Before the central government took over, the management of the Citarum River was carried out by local governments. In 2002, the West Java Governor Dani Setiawan launched the Citarum Bergetar Program followed by the Citarum Bestari Program during the reign of Governor Ahmad Heryawan (Setiadi et al. 2019). However, the programs to solve the problems in the Citarum River by the regional civil government were not implemented properly because of weak community involvement and law enforcement (Brotosusilo et al. 2019:2).

However, according to Pratama et al (2020), the Citarum Harum Program now has a significant social impact such as the transition of local plant commodities. This indicates the acceptance of TNI involvement which plays a direct role in persuading local communities about the importance of reforestation, especially for growing coffee plants (Safitri et al. 2019:15). The local communities are said to have accepted the idea of relocation and have begun to accept the change in food commodities (Pratama et al 2020:230).

However, there are interesting findings that there are businesses that run in the Citarum Harum Project such as the involvement of the Budiasi Foundation, which is owned by General Doni Monardo who has access to manage nurseries, and the institutions that have close relations with TNI such as Artha Graha Peduli which has access and control over the land. In addition, TNI made massive changes related to the planting of plant commodities like coffee, which contributes to environmental damage. It prepared an area for a coffee processing factory which will most likely be given to Kapal Api company. It forced local communities to grow coffee, although they did not know who it was for. Furthermore, TNI threatened residents and blocked them to access the land used by residents to earn a living if they did not follow its instructions (Safitri et al. 2020).

In the literature on water governance, so far no study deals with the presence of military actors in water management. Normally, water governance is a collaboration, cooperation and participation of government, community and private sectors in creating good water resource management (Kusumah and Mustofa 2020). Governance is the effectiveness of implementing socially acceptable and politically inclusive resource allocations, involving behavioural mediation through values, norms and laws relating to regulations and institutions, as well as government policies, policy networks, global markets, private sector and civil society that changes and influences the political system (Roger and Hall in Kusumah and Mustofa 2020).
Water governance is a set of systems that control decision-making concerning water resource development and management. Hence, water governance is much more about how decisions are made (i.e. how, by whom, and under what conditions decisions are made) than the decisions themselves (Batchelor 2009). According to UNDP-SIWI Water Governance Facility (2016), water governance is “the range of political, social, economic and administrative systems that are in place to develop and manage water resources, and the delivery of water services, at different levels of society”.

In essence, water governance is a way of cross-stakeholder collaboration in water governance that involves many interests effectively through a joint policymaking mechanism from government, private and civil society elements that are participatory and democratic. More sharply, Mollinga who uses a political sociology approach says that water governance is nothing but the domain of political struggle (Araral and Wang 2013). It means that the practice of water governance, the practice of power, and the contestation of power are important in the distribution of water which is manifested in policies and the division of roles in the context of managing water resources and their ecosystems.

Thus, there are political, environmental, and economic elements in the Citarum Harum Project which is managed by TNI under the Commander of the III/Siliwangi Regional Military Command and the Deputy Commander of the Task Force for Ecosystem Arrangement I. This has certainly raised the important questions as follows: What kind of regime that provides opportunities for the military to be involved in watershed governance?; Is there a theoretical point of view that justifies the involvement of the military apart from state actors in water governance?; and how do communities participate when the military is involved in water governance? This article aims to answer these by using a qualitative approach with library studies and in-depth interviews with relevant stakeholders. It explores the existing literature related to the conceptual justification of military involvement in water governance and the empirical reality of military involvement in watershed governance.

**Political Authority vs Knowledge in Water Governance Practices**
The Citarum Harum Project involved experts and academics in controlling environmental damage to the Citarum watershed. In doing their roles, they were responsible to the Task Force Commander. The Ministry of Research, Technology, and Higher Education facilitated their research and provided
innovation including the program of students community service (*Kuliah Kerja Nyata* [KKN]) conducted by university students. Since 2018, KKN, which is specifically aimed to support pollution control in the Citarum River, has involved around 700 universities in West Java and DKI Jakarta through the 2019 Citarum Harum Thematic KKN Program. The Citarum Harum Thematic KKN Program was also planned to be realized throughout the year and alternately along the Citarum watershed. Students, as part of academics, are given the task of assisting the community in terms of domestic waste management and community behaviour so that they pay more attention to environmental sustainability.

Apart from the Thematic KKN Program, research was carried out by experts. Padjadjaran University (Unpad) conducted 318 pieces of research on the issues of Citarum. Unpad also specifically established the Citarum Center of Research, which until 2020 has produced 10 scientific publications. The Bandung Institute of Technology (ITB) Research and Community Service Institute published seven innovations and Citarum Harum Thematic Community Service programs in 2019-2020. These include water treatment systems, technology transfer of coffee development technology, digital-based development, waste treatment assistance programs, and water quality monitoring programs. Likewise, several other universities conducted research and programs that focus on the Citarum problems.

In the Google Scholar search engine, 16 multidimensional research results related to the management of the Citarum River in 2018-2021 were found. Meanwhile, using the keyword “Citarum River management” (*Pengelolaan Sungai Citarum*), six research results were found. All the results of research, innovation, and programs from these experts indicate the involvement of experts and academics in handling environmental issues in the Citarum River. This collaborative strategy is known as the Penta-helix strategy, which means that the Citarum Harum Program ideally involves many parties: government, academics (experts, students), media, communities, and business groups (Setianti *et al*. 2019:6). This certainly needs to be done considering the complex problems of environmental damage and pollution in the Citarum River.

The presence of the Expert Team, which is still under the Task Force Commander and the Daily Chair appointed by the Task Force Commander, is also important to pay attention to in optimizing its role. Based on Governor’s Decree Number 614.05/Kep.144-DLH/2019, the Citarum Watershed Expert Team is assigned to assist the implementation of the Task
Force’s duties in terms of providing considerations for decision making. The role of experts through scientific studies and knowledge sharing is also important and closely related to the responsibility of monitoring and evaluation as well as determining references in river revitalization efforts. As has been done by LIPI that developed composting toilet technology, wastewater treatment, methods for monitoring levels of chemical substances, pesticide residues, or heavy metal pollutants contained in water, and the development of bioplastics as an alternative for handling plastic waste.

The participation of these various roles has a positive impact, but it does not rule out the emergence of problems regarding the harmonious and integrative efforts and relationships among the above parties (Setianti et al. 2019). In addition, the significance of the role of the academics faced challenges. Innovations are still sporadic or fragmentary because of the limited scope of research while Citarum problems spread from upstream to downstream so that implementing innovation comprehensively requires greater efforts. Community service-based programs carried out by college students are also temporary, generally limited to a certain period. Meanwhile, to be able to influence people’s behaviour to pay attention and be willing to play an active role in environmental issues requires not only understanding but also habituation. Thus, a systematic, consistent and sustainable pattern is needed to be able to understand and control the complexity of problems in the Citarum watershed. A sustainable process that can accommodate the interests of all parties is necessary due to the wide coverage area and the involvement of many parties (Brotosusilo et al. 2019: 5).

This involvement of many parties in the Citarum Harum Program paved the way to the dominant role of TNI. The study by Brotosusilo et al. (2019) states that the involvement of many elements of society is a challenge for inter-sectoral coordination in controlling environmental problems. One solution is to involve the military, provided it does not exceed its duties or authority (legally). The rationalization is in the form of communication patterns and organizational management of TNI in carrying out tasks that are considered to be more systematic. In addition, the involvement of the military is justified to discipline the community to be more responsible in terms of environmental management. Based on this research, the civil-military approach was found to be the main alternative that was considered an appropriate option in the implementation of the Citarum watershed management policy compared to the alternative collaborative strategy and status quo (Brotosusilo et al. 2019:5).
The TNI involvement in Citarum water governance raised questions regarding the relevance of the military as an instrument of state defence in the management of natural resources and the environment. It is well known that military intervention in the Citarum Harum program includes non-war military operations. In Indonesia, military operations apart from war include controlling separatist movements and armed insurgencies, acts of terrorism, guarding border areas, securing strategic national vital objects, carrying out security and public order tasks, assisting local government tasks, coping with natural disasters, and assisting in the search and rescue process. This allows TNI to operate and mobilize its troops even in non-defence activities.

**Degree of Participation and Democracy in Water Governance**

There are four basic dimensions in water governance, namely social, economic, political and environmental dimensions. The social dimension is about equitable distribution of water resources and services; the economic dimension deals with the efficiency of water allocation and use and its role in economic growth; the political dimension is related to equal rights and responsibilities for stakeholders in the decision-making process regarding water governance; and the environmental dimension is about sustainable use of water (UNDP-SIWI Water Governance Facility 2016). These four dimensions are important in carrying out water governance and the basis for overcoming water problems.

In the case of the Citarum River, these four dimensions are included in the Citarum Harum mission which is targeted to be completed within seven years starting from 2018 (Teguh 2019). Overcoming the water pollution in the Citarum River through the Citarum Harum project is expected to make the Citarum River a water resource that can be utilized by various parties and help the Indonesian economy, especially for the local community. The project also involves various stakeholders from the government, the private sector and the community. It also provides education to people living in the areas around the river to protect the Citarum River and not to throw garbage into the river and aggravate river pollution. This is part of realizing sustainable water use by involving local communities to preserve the Citarum River.

However, appointing the Commander of the Regional Command for Military Arrangement III/Siliwangi as Deputy Commander in the Citarum Harum project as stated in Presidential Regulation Number 15 the Year 2018 raised concerns about the exclusion of the community and
other stakeholders and their participation in handling the Citarum River problems. Legally, as regulated by the Presidential Regulation and the Coordinating Minister for Maritime Affairs Number 8 the Year 2018, the military is given the following roles:

1. Commander of the III/Siliwangi Regional Military Command as Deputy Commander for Ecosystem Arrangement I and Commander of the Jayakarta Military Regional Command as Deputy Commander of Ecosystem Arrangement II (Article 8 paragraph (1) of the Presidential Regulation);

2. The Task Force (including the TNI personnel) is authorized to determine an action plan based on the policy of the steering committee, localize and stop sources of contamination or damage, request information, data or documents, inspect factory areas, businesses, warehouses, storage places or factory waste disposal channel at any time required, prevent and prohibit people from establishing settlements in protected areas, establish a sector command led by a TNI officer as the Sector Commander, divide work area based on the Sector Command, and involve other stakeholders including the community in the implementation of the tasks of the Sector Command (Article 9 paragraph (1) and (2) of the Presidential Regulation). Meanwhile, the activities claimed to have been carried out in the field are handling critical land, livestock waste, domestic wastewater, solid waste, and industrial waste, removal of sedimentation, prevention, and legal action (Satgas PPK DAS Citarum 2019:30); and

3. Sector Commands, which are led by military officers, are ordered to carry out pollution and damage control operations at locations determined by the Task Force (Article 9 of the Presidential Regulation). Sector Commands are led by TNI officers with the rank of colonel and placed in 22 sectors of the Citarum watershed working area (Article 16 paragraphs (1) and (2) of the Coordinating Ministerial Decree). In the description of the working areas in the Action Plan (Renaksi) document for Control of Pollution and Damage to the Citarum Watershed, there are 23 TNI officers are appointed as Sector Commanders, There are two Sector Commanders in Sector 1 in which one focuses on revitalizing upstream areas (Satgas PPK DAS Citarum 2019:30).
Based on the Presidential Regulation, the Task Force must promote and educate people on the impact and damage to the Citarum watershed and community empowerment (Article 13). In addition, the Coordinating Ministerial Decree states that the Task Force Commander encourages the active participation of the community and business actors (Article 21). Based on the Citarum Task Force Action Plan document, the military is involved in the improvement of effectiveness and the conditioning of the community, village officials, and business actors (Satgas PPK DAS Citarum 2019:26). Following the stipulated regulations, the Action Plan further mentions the duties and authorities of the Sectoral Commander in the forms of promotion of public awareness and community development; billing and river damage, inspections, documents-checking of factories, disposal places and others (Satgas PPK DAS Citarum 2019:30). Activities done in the field include handling waste, domestic wastewater, solid waste, sedimentation, and industrial waste.

However, not all tasks and functions are carried out optimally by the military. Interestingly, every activity in the Citarum watershed must be reported to the local Sector Commander (Dansektor) based on Article 9 Paragraph 2c of the Presidential Regulation. The regulation makes the military have more power than other stakeholders. Based on our in-depth interviews with stakeholders that work in Citarum, they confirmed that the military is a key player in the Citarum Harum program so that it rules out and minimizes the role of other stakeholders such as the civil societies that have participated in previous programs. This public participation has a significant position in the concept of governance on a par with that of the public (government) and private sectors. The community’s role is reduced and slowly shifted by the dominance of the military role in the governance of the Citarum River. There is also a lack of knowledge and capacity of civil society around the Citarum watershed. In fact, within the framework of effective water governance, active citizens are urgently needed to balance the power held by the government and the private sector.

**Power Relation between Water Governance Stakeholders**

The actors involved in water governance have their respective roles and interests, but not all of them have the privilege to play an active role in water governance. The power relations of each actor are also different. Water governance involves the complexity of actors who intersect in interest and involvement, either directly or indirectly. This can be a strength as well as an obstacle in the practice of water governance. In the case of

---

1 Interview with a member of the Water Resources Management Coordination Team (TKPSDA) of BBWS Citarum.
the Citarum Harum project, the military is the most dominant actor and has extensive power compared to other actors. Theoretically, water governance is democratic with an appropriate level of non-government participation, yet in practice, other actors apart from the military do not have freedom in their involvement. All actions related to the Citarum River, especially in the upstream areas, must be approved by the military (Safitri et al. 2020).

Graph 1
The Rank of Actors/Stakeholders in Citarum Water Governance

The military plays a central role as stated in the Presidential Regulation as seen in Graph 1. It has run its duties for half of the targeted time. The problem that is currently arising is business activities. Besides coffee, there is a chlorine and chemical business for wastewater purification to comply with the quality standards. There are indications regarding economic relations between industries around the Citarum watershed and the military in waste management, both in the supply of raw materials for wastewater purification and protection. There are also other economic activities carried out by the military in the Citarum watershed. A case study in Rancamanyar District, Bandung Regency, shows a community culinary centre on the banks of a river whose business premises are built and managed directly by the military. Before the Citarum Harum program, people in the Rancamanyar area planted vetiver plants and other plants to build erosion-retaining embankments. This military involvement not only eliminated other stakeholders of Citarum river, but also the local community and even local thugs.²

The military plays a strategic role in controlling the Citarum program. This began by changing the history of Citarum in a way that seemed as if

² Interview with Water Patrol officers, West Java Provincial Environment Service.
it had just been noticed and attempted to improve when it was highlighted by a foreign movement that built kayak boats from plastic bottle waste and a meeting with President Jokowi. A video uploaded by the Make A Change World" Youtube channel published on August 30, 2017, shows the coverage of Sam Bencheghib and Gary Bencheghib when they sailed the Citarum River in boats made of plastic bottles and draws the attention of around 41 thousand Youtube viewers. As a response, a Presidential Regulation was issued in which the military actors were involved in making Citarum policies. Thus, after the issuance of the regulation, Citarum seemed to be constructed as a war zone.³ There is a power relation in which the military is a dominant role. Every activity and task must be coordinated first with the army in the relevant sector. Indeed, the Action Plan states that all activities carried out by central and regional government stakeholders must be known by the Sector Commander as a guardian of the implementation of activities in each sector (Satgas PPK DAS Citarum 2019:30).

This phenomenon shows an unequal power relationship in the management of the Citarum watershed based on the Citarum Harum Program. The TNI plays a controlling power whereas the concept of water governance states that all stakeholders have equal power because partnership efforts require a decrease of sectoral ego so that the collaborative work can run optimally. The presence of the military in the governance of the Citarum watershed increasingly shows that civil-military relations are unequal and hegemonic in every field of life, including if the military is involved in water governance schemes.

Where is the Military in the Water Governance Concept?

Military involvement in water governance is an extraordinary phenomenon, especially if it does not meet the required conditions. This is identified when there are indications of conflict. In addition, the border issue also follows the military’s involvement in water governance. For cases in authoritarian or semi-authoritarian countries, the military is involved as a supervisor to discipline. It is like what happened in the Mekong River, where there were border issues as it flows through authoritarian and semi-authoritarian countries.

The military involvement in the Citarum Harum project does not meet the criteria for the military to be directly involved in the water governance of the Citarum River. It definitely can tarnish Indonesia’s image as a democratic country. Moreover, there are indications of land

---

³ Interview with TKPSDA BBWS Citarum member.
tenure and coercive control over local communities. Although this military involvement is considered influential in the past three years, it is not enough to tolerate their complicity, especially with such negative shadows.

The pattern of military complicity in water governance in Citarum is unusual and does not accompany conflict factors behind the need for defence mechanisms to stabilize empirical events in other countries. A case study can be obtained from the Dutch military intervention in Uruzgan Province, Afghanistan, which is considered effective. In a stabilization mechanism, integrated resource management becomes an important military operation (Huizinga and Enserink 2020). The military framework for resource management interventions, especially water), uses the preconditions of potential conflict rooted in water resources. Water management can be a potential crisis as well as a conflict management tool.

In his previous study, Huizinga (2015) described the possibility of using water as a conflict resolution effort. He cites several other studies that explain water management mechanisms as instruments that can address security issues. These are (1) water as an enabler (water as a basic need, increasing attention to problems and resulting in meeting water needs through development projects); (2) water for conflict resolution (there is diplomacy and discussion to reduce the impact of instability); and (3) water for cooperation (by facilitating discussion and collaboration with water users related to water issues and finding solutions) (Huizinga 2015:vii). It is important to pay attention to these issues, especially in places where water conflicts are most likely to happen due to access to water. Such water crisis or scarcity occurred in the Middle East and North Africa (FAO 2018).

Meanwhile, the water governance in the Citarum case is considered to have different characteristics. A study sees Citarum as a water security issue, which refers to the UN-Water regarding different perspectives based on the community’s ability to maintain access to water of decent quality (Widianingsih et al. 2020:204). It raises the importance of good water resource management, including in the context of riverbanks. However, the study directs decision-making to address water security issues by the government through collaboration between ministries and agencies to carry out cross-stakeholder forums with local governments and communities. It is needed to advocate water security issues through cross-disciplinary approaches such as socio-economic and socio-cultural perspectives.

In addition, the conflict in the Citarum River case was also discussed from a human security perspective. As Mazon and Zeitoun (2013) mention, environmental degradation is a security issue regarding the emergence of
potential threats and dangers to the community due to environmental factors (Bainus et al. 2021:6). In research on the perceptions of local communities on Sukamaju Village and several other villages in Bandung Regency near the Citarum watershed like Majalaya, perceptions related to environmental degradation in the Citarum watershed have at least resulted in the lack of clean water and health problems in the form of skin diseases, air pollution, flood, and community economy problems (Bainus et al. 2021:9-10). Thus, in the case of environmental degradation in Citarum, the security issue that arises is related to the affected community and their feeling of fear and threat. In addition, this human security perspective also looks at how local people’s perception of being threatened or insecure because the state is not fully present in providing a sense of security. Instead, environmental issues handled by the state apparatus become an economic and political commodity.\(^4\)

Based on two recent studies related to water security and human security in Citarum, the government needs to be present, not only in policymaking and implementation but also in considering the perceptions of the community. However, as the authority from the central government involves the Task Force of TNI, the discussion on water governance at Citarum also involves an overview of civil-military relations in Indonesia. The Post-New Order regimes have been trying to “cure” the symptoms of authoritarianism, including restoring civil-military relations, especially the abolition of the dual function of former Indonesian Armed Forces (ABRI). Hernandez (1996 in Djuyandi et al. 2018:132) explains that in the context of civil-military relations as a phenomenon of political linkage, political authorities determine the duties and functions of military institutions by providing explanations about the mission for the military, allocating an adequate defence budget, and maintaining integration of military institution.

This theoretical framework is also used to explain civil-military relations case at the local level between the Military District Commander in Sukabumi and the Sukabumi Regency local government. The mandate from the central government to the army includes an adequate command structure down to local level. In doing so, the army assists local governments in state defence programs (Djuyandi et al. 2018:140). In a way, such collaboration between the TNI and the local government could perform a more integrative institution. It happens to the Citarum Harum program, with comparable characteristics, it is carried out on a mandate from the central government, given to military and local government institutions, which then incorporated to the Task Force. But again, the Citarum case remains dissimilar since there is no indication of a state defence program.

---

\(^4\) The opinion of an activist of the Non-Governmental Organization (in Bainus et al. 2021:12-13).
The involvement or domination of TNI in the Citarum Harum program implementation is not identical with other programs that involve relations between civilians and the military because there are no preconditions for conflict or disturbances to the sovereignty of the country’s territory in the Citarum watershed areas. Therefore, the need for military mobilization and operations as the rationalization of the project is barely possible to happen. However, the problems in Citarum management is related to its impact on the security of water resources access that is strategic and reliable for the people. From the discussion based on several studies, the Citarum issues are indeed indebted to security issues that later occurred, including those related to water security and human security. Thus, water as a security issue may be a small part of the driving factors of Citarum Harum project. One factor is the mandate from the civilian authorities to the military. It encompasses the arrangement of authority in such a systematic way that manifested in the military under the pretext of non-war operations and program optimization with a more integrated command system. There are also economic or political interests as the factor of the military’s involvement in the Citarum River program.

Conclusion
This article has shown that military involvement in the water system has no conceptual basis that explains its existence and operation in the Citarum Harum project. A pivotal point in water governance is public participation so that multi-stakeholder or multi-actor elements are a necessity that needs to be attached with clear roles and functions in collaborative management. The military’s domination in the Citarum Harum program has so far reduced or deconstructed the order of community participation that has been built through the implementation of previous programs. Law enforcement by the army as one of the stakeholders is considered out of place and becomes a specific problem. If the Citarum Harum program is completed within seven years as planned in the Presidential Regulation and the military no longer has much of a role to play, environmental governance around Citarum will not experience an improvement because capacity building to the community is not exercised.

The ecosystem of the Citarum watershed is in a critical condition that it needs innovative and unusual handling to reduce the adverse effects of its damage. However, this does not mean that military involvement can be justified by granting them such free space in the water governance. Normatively, and as contained in Article 17 of the Presidential Regulation, the sustainability of Citarum River control can involve the Ministries/Agencies, Regional Governments, and stakeholders in carrying out their respective duties and functions. Its sustainability is also carried out through
program determination and allocating budgets to Ministries/Agencies and Local Governments following regulations.

The hope for public participation, openness, and democratization of water will get lessened if the military’s role after seven years of the Citarum Harum Program would run permanently. Even if it would be discontinued in 2025, the community participation system that has never been built and managed today will complicate the Citarum watershed saving from increasingly massive ecosystem damage. It requires a sharper and in-depth empirical study using the concept of watershed governance that specifically discusses river basin management for future research. It is needed to find a more comprehensive explanation of what scientific contributions the academic world can provide for the Citarum watershed improvement.

Funding
The author(s) received no financial support for the research, authorship, or publication of this article.

Acknowledgments
We acknowledge the support received from the Team of Cisangkuy Collaborative Governance Model for the sharing of information. Thanks for interviewees from TKPSDA, Satgas Citarum Harum and Patroli Air DLH Provinsi Jawa Barat.

References
Akhmouch, Aziza and Delphine Clavreul. 2016. “Towards Inclusive Water Governance: OECD Evidence and Key Principles of Stakeholder Engagement in the Water Sector”. Pp. 29-49 in Freshwater Governance for the 21st Century: Global Issues in Water Policy, Vol. 6, edited by E. Karar, Springer, https://doi.org/10.1007/978-3-319-43350-9_3

Araral, Eduardo and Yahua Wang. 2013. “Water Governance 2.0: A Review and Second Generation Research Agenda.” Water Resources Management 27(11): 3945-57.

Bainus, Arry, Wawan Budi Darmawan, Dina Yulianti, and Luthfi Hamzah Husin. 2021. “Between Fear and Survival: Human Security Issues in Citarum River Basin, Indonesia”. Journal of Human Security 17(1): 4-14.
Batchelor, Charles. 2009. “Water Governance Literature Assessment.”
_{Water Alternatives_ XXIV(4): 1059-78.

Brotosusilo, A., Budidarmono, D. Utari and R.D. Handayani. 2019.
“Environmental Management in Citarum Watershed Inter-
institutional Cooperation Approach”. _IOP Conference Series: Earth and Environmental Science_ 1-7.

Djuyandi, Yusa, Arry Bainus, and Widya Setiabudi Sumadinata. 2018.
“Synergy Between Regional Command Unit of Indonesian National
Army (TNI AD) and Local Government in Encouraging the Spirit
of State Defense”. _Central European Journal of International and
Security Studies_ 12(4):127-143.

“Emil: Tanpa TNI, Perubahan Masif di Citarum Tidak Akan Terjadi”.
_Kompas.com_, September 23, 2019. Retrieved July 1, 2021
from (https://regional.kompas.com/read/2019/09/23/15002821/
emil-tanpa-tni-perubahan-masif-di-citarum-tidak-akan-
terjadi?page=all)

FAO. 2018. _Water Management in Fragile System_. Cairo: Food and
Agriculture Organization and the World Bank.

Ginting, Selamat and Ahmad Mulyana. 2020. “Military and Civil
Communication in _Citarum Harum_ Program in West Java,
Indonesia”. _The Journal of Social Sciences Research_ 6(10): 881-
889.

Huizinga, Robbert. 2015. _Water Management as a Peace Mechanism_.
Delft: Delft University of Technology.

Huizinga, R. P. and B. Enserink. 2020. “Water in Military Stabilisation
Operations: Comprehensive Water Intervention Framework for
Conflict Management and Peacekeeping”. _Water Policy_ 85-101.
doi:10.2166/wp.2020.207

“Hanya Sedikit Air di Dunia yang Layak Dikonsumsi”. _Kumparan.com_,
August 20, 2018. Retrieved July 1, 2021 from (https://kumparan.
com/lampu-edison/hanya-sedikit-air-di-dunia-yang-layak-
dikonsumsi-1534745378013860572/full)

Kusumah, Rizky Isman and Mustabsyirotul Ummah Mustofa. 2020.
“Kajian Water Governance Untuk Pengelolaan Air Di Indonesia.”
_Jurnal JISIPOL Ilmu Pemerintahan Universitas Bale Banndung_
4(1):29-51.
Pahl-Wostl, Claudia. 2017. “An Evolutionary Perspective on Water Governance: From Understanding to Transformation”. *Water Resources Management* 31 (10): 2917-2932.

Pahl-Wostl, Claudia, Paul Jeffrey, Nicola Isendahl, and Marcela Brugnach. 2011. “MATURING THE NEW WATER MANAGEMENT PARADIGM: PROGRESSING FROM ASPIRATION TO PRACTICE”. *Water Resources Management* 25 (3):837-856.

*Peraturan Menteri Koordinator Bidang Kemaritiman Republik Indonesia Nomor 18 Tahun 2018.* Retrieved June 23, 2021 from (https://jdih.maritim.go.id/cfind/source/files/permenko/2018/salinan-permenko-nomor-8-tahun-2018-tentang-das-citarum.pdf)

*Peraturan Presiden Nomor 15 Tahun 2018.* Retrieved June 23, 2018, from (https://setkab.go.id/wp-content/uploads/2018/03/Perpres-Nomor-15-Tahun-2018-tentang-Percepatan-Pengendalian-Pencemaran-dan-Kerusakan-DAS-Citarum.pdf)

Pratama, Diza, Viola Aud and Evanie Estheralda Elizabeth. 2020. “Indonesian National Army Involvement in the Law Enforcement”. *Unifikasi: Jurnal Ilmu Hukum* 7(2): 223-233.

Safitri, Hilma, Zulfi Saeful, Izzudin Prawiranegara and Dianto Bachriadi. 2020. “Land Contestation and Military Intervention in Indonesia’s Citarum River Ecological Project.” Paper prepared for *The XXVII Biennial IASC Conference*, Lima, Peru, 1-5 July 2019.

Sagita, Dessy. 2018. “Indonesia Scrubbing the ‘World’s Dirtiest River’”. *The Jakarta Post*, March 2. Retrieved July 1, 2021, from (https://www.thejakartapost.com/life/2018/03/02/indonesia-scrubbing-the-worlds-dirtiest-river.html)

Satgas PPK DAS Citarum. 2019. *Rencana Aksi Pengendalian Pencemaran dan Kerusakan DAS Citarum 2019-2025*. Retrieved July 1, 2021 from (https://citaramharum.jabarprov.go.id/eusina/uploads/docs/renaksi_ppk_das.pdf)

Setianti, Yanti, Nuryah Asri Sjahfira, Diah Fatma, Heru Ryanto Budiana, and Achmad Abdul Basith. 2019. “The Information Distribution of Citarum Harum Program to the Community and People of Bandung Regency of West Java Indonesia”. *Library Philosophy and Practice* (e-journal): 3616.

Teguh, Ifran. 2019. “Sejarah Pengelolaan Sungai Citarum & Semrawutnya Program Pemerintah”. *Tirto.id*, February 20. Retrieved July 1, 2018 from (https://tirto.id/sejarah-pengelolaan-sungai-citarum-semrawutnya-program-pemerintah-dhnt)
UNDP-SIWI Water Governance Facility. 2016. *Issue Sheet: Water Governance.* Stockholm: Stockholm International Water Institute (SIWI). Retrieved July 1, 2019, from (https://www.watergovernance.org/governance/four-dimensions-governance/)

Widianingsih, Ida, Riswanda, and Caroline Paskarina. 2020. “Governing Water, Engaging Community: Indonesian Water Security Roadmap”. *Journal of Governance* 5(2):202-215. doi:10.31506/jog.v5i2.9301