



Youth Participation in Management of Deli Watershed (DAS Deli) in Medan

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Abstract. *The current condition of the Deli Watershed (Daerah Aliran Sungai/DAS Deli) is in an appalling condition. This is indicated by several indicators experienced by the Deli Watershed, such as the decreasing amount of forests, polluted river water, slums along the river banks, silting of rivers, garbage dumped into rivers, so that all such conditions result in frequent floods in the City Field. This has become the author's interest to conduct a study entitled "Youth Participation in Management of Deli Watersheds (Daerah Aliran Sungai/DAS Deli) in Medan". This research use descriptive qualitative approach. The results showed that youth participation was still lacking in the planning/process of preparing and evaluating watershed management. While in terms of implementation, utilization and monitoring of youth, it is enough to participate. As for the obstacles faced by youth in their participation such as lack of human resources, lack of tools and technology, low government response, and lack of public awareness. This study also formulated strategies for increasing youth participation through the SWOT (Streingths, Weaknesses, Opportunities, Threats) analysis approach and calculation of internal factor evaluation (IFE) and evaluation of external factors (EEF) with. Based on the calculation results, the SO strategy gets the highest score with a total score of 3.56.*

Keywords: *Participation, Watershed, Youth*

Abstrak. *Kondisi DAS Deli saat ini (Daerah Aliran Sungai/DAS Deli) dalam kondisi memprihatinkan. Hal ini ditunjukkan dengan beberapa indikator yang dialami DAS Deli, seperti menurunnya jumlah hutan, air sungai yang tercemar, daerah kumuh di sepanjang bantaran sungai, pendangkalan sungai, sampah dibuang ke sungai, sehingga semua kondisi tersebut mengakibatkan banjir yang sering terjadi di Lapangan Kota. Hal ini menjadi minat penulis untuk melakukan penelitian bertajuk "Partisipasi Pemuda dalam Pengelolaan DAS Deli (Daerah Aliran Sungai/DAS Deli) di Medan". Penelitian ini menggunakan pendekatan kualitatif descriptive. Hasil penelitian menunjukkan bahwa partisipasi pemuda masih kurang dalam perencanaan / proses mempersiapkan dan mengevaluasi pengelolaan DAS. Sementara dalam hal pelaksanaan, pemanfaatan dan pemantauan pemuda, cukup untuk berpartisipasi. Adapun kendala yang dihadapi pemuda dalam partisipasinya seperti kurangnya sumber daya manusia, kurangnya alat dan teknologi, respon pemerintah yang rendah, dan kurangnya kesadaran masyarakat. Studi ini juga merumuskan strategi untuk meningkatkan partisipasi pemuda melalui pendekatan analisis SWOT (Streingths, Weaknesses, Opportunities, Threats) dan perhitungan evaluasi faktor internal (IFE) dan evaluasi faktor eksternal (EEF). Berdasarkan hasil perhitungan, strategi SO mendapatkan skor tertinggi dengan skor total 3,56.*

Kata Kunci: *DAS, Partisipasi, Pemuda*

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1. Introduction

The river is one of God's graces that has a variety of benefits. The benefits are countless, both socially and ecosystemally, such as water consumption, agriculture, industry, water transportation, and also recreational facilities. The existence of river is also synonymous with the history of great human civilizations such as the Euphrates and Tigris rivers in Persia (Iraq), the Ganges in India, and the Nile in Mesopotamia (Egypt). In North Sumatra there are nine river areas (Wilayah Sungai/WS), namely: WS Wampu Besitang, WS Belawan-Ular-Padang, WS Bahbolon, WS Toba-Asahan, WS Nias, WS Sibundong-Batangtoru, WS Barumun-Kualuh, WS Batang Angkola-Batang Gadis, and WS Batang Natal-Batang Batahan [1].

Deli River is a part of WS Belawan-Ular-Padang called Deli Watershed/Daerah Aliran Sungai (DAS) Deli. Deli River attracted attention to be studied, because of the location in the capital of North Sumatra Province, became an important part in the heyday of the Sultanate of Deli and the condition was getting worse day by day. In the era of The Sultanate of Deli, Deli River was the lifeblood of trade to other regions. In the 19th century trade activities focused on Labuhan Deli as the main port for export and import activities in the Sultanate of Deli. Pepper commodities are brought from the hinterland to Labuhan Deli using small sampans [2]. Not only for trade purposes, Deli River is also included shipping flow that includes the Deli River in Medan Labuhan district and surroundings in the northern region of Medan City [2].

The existence of Deli River is also used to overcome the problem of flooding. Before the city of Medan was established, the previous urban center was in Labuhan Deli. One of the reasons, for the transfer of the city center from Labuhan Deli to the Merdeka Square area is now due to flooding. Labuhan Deli cannot be developed as a Modern city because it is always and threatened by flooding. So the location is chosen close to (Sei Deli and Sei Babura) as the anti- flood city (Modern European-style City). The beauty, cleanliness, and a million benefits of deli river now live a mere memory. "Broken" is the right word to describe the condition of the Deli River today. Currently, the area of forest upstream of deli river only lives 3.655 hectares, or live 7,59% of the 48.162 hectares of Deli Watershed area. In fact, with an area of 48.162 hectares, a length of 71,91 km, and a width of 5,58 km, Deli Watershed should have natural forests for water catchment areas of at least 30% of the watershed area. This condition is one of the causes of flooding in the city of Medan and the overflow of the Deli River [3].

Deli River water has also been polluted. In Ref. [2] mentions the pollution that occurs reinforced by the identification of pathogenic bacteria in the estuary of the Deli River, such as: *Escherichia coli*, *Klebsiella axytoca*, *Klebsiella ornithinolytica*, *Cedecea lapegei*, *Aeromonas hydrophylia*, *Aeromonas sobria*, *Aeromonas caviae*, *Ewingella americana* and *Vibrio fluvialis*. These nine bacteria can cause fever syndrome, pneumonia, decreased endurance in humans, as well as infect and cause death of fish. In addition to forest conditions and water pollution. Another problem also very important problem in the Deli River is the problem of waste (organic and inorganic). Because people who live on the banks of rivers or watersheds don't rarely throw their household waste

into the Deli River. In one day from 21 subdistricts in Medan produced 1.235 tons of garbage in a day. And some of it was thrown into the river. The estimated waste that arrives and processed in landfill a day is 929 tons [4]. The behavior of the community makes the Deli River dirty and switches its function to landfill. The bad impact is that the river is shallowed and the city of Medan is inevitable from flooding. The point is Deli River is unable to hold water when the rainy season arrives. In Ref. [3] explains how Deli Watershed condition affects flooding in Medan, "The incidence of flooding in Medan city averages 10-12 times in year and strongly influenced by the condition of Deli Watershed. The shrinking of the wet cross section of Deli and Babura tributaries due to shallowing/dispossession, many slum environments that occur around the banks".

Low public awareness of the importance of maintaining river cleanliness and environmental sustainability is one of the causes of poor condition of Deli Watershed. People living in the Deli Watershed have become accustomed to dumping waste in the river. In addition, the settlement of residents is also getting closer to the body of the river. There have been existing houses, business buildings, and office buildings on the left and right sides of the river. In fact, it should be according In Ref. [5] there should be a minimum of 50 meters river border zone on the left and right side of the river. The critical condition that befalls the Deli Watershed at this time certainly requires intensive handling. This has actually been responded by policy makers in North Sumatra Province with the issuance of Regional Regulation No. 1 of 2014 about The Management of Integrated Watersheds of North Sumatra Province. Although the Regulation does not directly touch specifically against the Deli Watershed, but this regulation is considered substantial enough to handle the problem and manage the Deli Watershed.

Reflecting on the situation of Deli Watershed today which is still in a situation of concern raises a negative perception for the author that the management of the Deli Watershed has not been carried out to the maximum. That mean, North Sumatra Provincial Regulation No. 1 of 2014 on Integrated Watershed Management and Medan City Regulation No. 2 of 2015 about Spatial Detail Plan and Medan City Zoning Regulation of 2015-2035 have not been implemented properly and seriously. In addition to the two regulations, there are also regulations related to waste namely Regional Regulation No. 6 of 2015 on Waste Management also has not gone well. A little review of the content contained in the regulation that watershed management is not fully bestowed on government agencies only. Moreover, the regulation is integrated in the sense that many parties (stakeholders) must be involved in its implementation. And of those intended parties, community engagement and participation are the most important parties in this policy [6]. According to Kuswartojo In Ref. [7] "community participation can be interpreted as the participation, involvement, and togetherness of community members in a particular activity either directly or indirectly." While Maskun in [7] stated that the participation of the community is largely

determined by the needs of the community, customs and communal traits that bind each member of the community to each other.

In Ref. [8] society is the unity of human life that interacts according to a certain system of customs that are continuous, and which are bound by a sense of shared identity. Youth is one part of society. Compared to other elements of society, youth have more value and uniqueness of their own. Compared to the elderly, young people have more abilities, high morale, fast thinking power, and a stronger and more agile physique. In Ref. [9] mentions that youth has a very strategic function and role so that it needs to be developed its potential and role through awareness, empowerment, and development as part of national development.

The many social and environmental problems that must be solved today make youth remain the hope of the nation and society to be actively involved in the process of solving them. No exception about the management of the Deli Watershed which is currently getting worse. Deli Watershed management policy management is not enough just bestowed on the relevant agencies only. The potential of youth has been proven to be role in watershed management. In Ref. [10] the youth of Karang Taruna Bakti Sidoluhur Village, Sleman, Yogyakarta has made a number of efforts in the management of Bedog Watershed such as empowerment, optimization of river banks and planting trees on the banks of the Bedog River that are of economic value and conservation. In Medan, youth potential is also indispensable in the management of Deli Watershed. Therefore, research needs to be done to see how youth participation in the management of Deli Watersheds in Medan, what obstacles youth face and what strategies are needed to increase youth participation.

2. Methodology

The type of this research is qualitative research. In Ref. [11] qualitative research is a cyclical process, not a linear process. The approach used is a qualitative descriptive approach. According to Whitney that descriptive method is fact-finding with proper interpretation. Descriptive research studies problems in society and the prevailing ordinances in society and certain situations, including relationships, activities, attitudes, views, and ongoing processes and the influences of a phenomenon. Data from this study is sourced from primary and secondary data with data collection techniques through in-depth interviews, documentation, and unstructured observations. To analyze the data used qualitative data analysis and SWOT (Streingths,

3. Result and Discussion

Youth Partisipation in Planning Stage

Participation in planning is the involvement of a person at the stage of planning and strategy in the preparation of committees and budgets on an activity/project. The community participates by providing proposals, suggestions, and criticisms through meetings held.

In addition to the explanation of participation in the planning phase of the theory aspect, participation in planning related to the management of Deli Watershed can also be reviewed from the content of Regulation of North Sumatera Province No. 1 of 2014 about The Management of Integrated Watersheds. In the regulation, there are several points of explanation about the planning of participatory watershed management. That means, in every watershed management planning activities the stakeholders must include various elements such as academics, NGO groups, communities, and of course youth groups.

The form of participation of watershed management planning activities contained in the regulation, contains: (a) inventory of watershed characteristics; (b) identify the problem; (c) identification of various stakeholders; (d) formulation of objectives and objectives; (e) formulation of policies and programs, (f) formulation of institutional forms and structures; (g) formulation of monitoring and evaluation systems; (h) formulation of insetif and dissensive systems; and i. A great formulation and source of funding.

Related to the participation of youth in the planning of the management of the Deli Watershed in Medan, it was not as ideal as what was mentioned in the theory and Regulation of North Sumatera Province No. 1 of 2014. Youth groups are not fully included in the planning of Deli Watershed management in Medan. Although there have been some meetings that have involved youth in the discussion of regulations on boundaries or river border zones but this is considered not enough to mention that youth have participated in watershed management planning.

Based on interviews that the author conducted with a number of informants that the participation of youth in the planning of Deli Watershed management in Medan is only limited to attending meetings related to watershed management meetings held by the River Region Agency (Badan Wilayah Sungai/BWS) II. In that meeting, the youth were not given much room for participate and in discussions such as planning activities listed in North Sumatra Regional Regulation No. 1 of 2014 about Integrated Watershed Management.

The lack of involvement of youth in the participation of Deli Watershed management in Medan is not only expressed by one or two youth groups. It is also delivered by youth from other groups such as KNPI (Komite Nasional Pemuda Indonesia) and also from non-organizational youth figures. The complete incompetence of youth in the management of Deli Watershed at the planning stage is certainly caused by certain obstacles. Youth groups are actually interested and enthusiastic to

Youth Participation in The Implementation Stage

In Medan, there have been several youth groups or organizations that have participated to manage and try to ease the burden on the government. They are aware that the deli watershed problem is not only the responsibility of the government but also the problem of the community in Medan. That is what initiated KNPI North Sumatra to perform the action of cleaning Deli River. In this activity they went down the deli river using rubber boats while picking up scattered garbage and floating in the Deli River.

The same action was also carried out by the Kopasude youth community. They routinely at least twice a month do the river walk while cleaning the garbage in the deli river. And in addition to routine action, Kopasude also has an annual agenda called "Deli River Party". This activity is filled in the form of socialization of regulations, education of river conservation, river flow and clean action, discussions etc.

Not only cleaning the garbage, Kopasude young people also try to manage the waste into usable items. One type of waste that is processed is plastic beverage bottle waste into a comfortable chair to use. Plastic waste that is difficult to decompose (hundreds of years more) becomes a special motivation for Kopasude young people to process it into valuables and can be economically valuable. In addition to plastic bottles, other plastic waste materials such as plastic buckets that are discarded due to leaking can also be used or processed into chairs. This waste management method is called ecobrik method. The results of their waste recycling have also been exhibited several times in the most famous events.

The historical value of Deli River and the expression Of Deli River has now become "Paret Deli" makes the soul of the young man move to clean up the garbage and process it into useful and economically valuable goods. Through this positive movement, they became part of the Waste Bank Program created by the government.

In addition to the garbage problem, another problem of deli river is the problem of water pollution. In accordance with the Law of the Republic of Indonesia Number 7 of 2007 concerning Water Resources that polluted water must be controlled into water that is suitable for use both for consumption and other purposes. This is what encourages Kopasude young people to find a way for deli river water to be used. Their efforts today are to enlist the help of Chemical Engineering experts from the Medan Institute of Technology (ITM) to create a cheap tool but can serve to process deli river water from containing bacteria into water that is worth consuming and using.

In addition to the problem of garbage and water pollution, one of the other serious problems is the problem of deli river forest that is decreasing. The function of Deli watershed forest is very important to store and hold water so that there is no flooding. So that the problem of flooding in Medan is not only solved downstream but also in Hulu. As said by Agung as Chairman of Kopasude, conservation of Deli River forest is very necessary. Therefore, Kopasude young people

participated in the planting and maintenance of trees in the City Forest with the Medan City Environment Office. This city forest not only serves as a water storage but also as well as a Green Open Space (Ruang Terbuka Hijau/RTH) Medan.

Their principle in greening is not to plant as many trees as possible but to take care of them for the best that they can do, for them it is free to plant many trees but will not grow because they are not cared for. Therefore, every tree they plant must also be taken care of as good as possible.

Kopasude youth participation in the management at the stage of implementation of the Deli Watershed does not only touch the physical Deli River alone. But it also touches on human problems or riverbank communities. As stated in The Regulation of North Sumatra Province No.1 of 2014, river management also includes people who live on the riverbank. Therefore, it is necessary to empower in the form of education and socialization about the importance of maintaining the sustainability of the river. It is also run by Kopasude youth by continuing to provide education and socialization to the community so that it no longer throws waste into the river. In addition to socialization, Agung Kopasude said through their assistance has now managed to make one of the settlements that have faced the river. The settlement located on Palang Merah Street Sub-district Aur (behind the once rundown Lake Toba Hotel) is now beautiful with beautiful plants, so they also call it a colorful village and homestay. This village became a model for other settlements so that Deli River does not look rundown anymore.

One of the Deli River people, named Yudi, also claimed that he was one of Kopasude's construction. Through the education provided by Kopasude said Yudi is now aware and involved to drive the preservation of the Deli River. And today, not only are there young people who are aware of the river, but the community has also begun to realize by forming a community of Sungai Deli Care Community (Masyarakat Peduli Sungai Deli/Mapasude). This is certainly because of the coaching and inspired youth kopasude.

Not stopping there, the youth also try to make the deli river as a tourist location. As in developed countries such as Russia and Japan the river is one of the pretty beautiful places to visit. Similarly, cities in Indonesia such as Surabaya for example, in this city the river has also become a tourist location.

Deli River which is still in the stage of restoring its carrying capacity, it is difficult to imagine to be one of the alternative tourist attractions in Medan. However, the condition did not make Kopasude youth give up to make use of Deli River to become a tourist destination. The ecotourism concept is ecotourism based on education.

By wading the visitor's boat down the Deli River and see firsthand how the Deli River is. Through this is expected to raise awareness of the visitor to be equally concerned with the Deli River. In addition to going down the river, if willing can also stay a few days in the houses of the riverbank

residents who are fostered by Kopasude youth. The goal is for them to feel and understand how the people living on the riverbanks are.

Although Deli River is not as clean and beautiful as the rivers like in Surabaya or other cities, it turns out that Deli River can still be used to be ecotourism. Historical value and glory in the past became one of the selling points owned by Deli River. Efforts to use the Deli River into ecotourism is one of the positive efforts as stated in The Regulation of North Sumatra Province No. 1 of 2014 that watersheds should benefit the community.

Participation In Evaluation and Monitoring Phase

Youth have good potential to be involved in the process of evaluating and monitoring policies. The function of youth as a social control (agent of social control) should be maximized in assessing a policy process. The role of youth in controlling government policy has proven able to deliver fundamental changes in the country.

As stated in The Regulation of North Sumatra Province No. 1 of 2014 all stages of watershed management policy are participatory. Evaluation in the regulation is done at least once a year to see the extent of the development of the policy. Therefore, it is necessary to see the extent of youth participation in the evaluation and monitoring of deli watershed management policy in Medan.

Through interviews that the authors conducted with a number of elements of youth care about the river, they revealed that youth are never involved in any evaluation of watershed management whether it is policy evaluation or program evaluation. Of course this is not in accordance with The Regulation of North Sumatra Province No. 1 of 2014 on Integrated Watershed Management that the community (youth) must participate in watershed management including evaluation.

In contrast to the evaluation, in terms of monitoring it turns out that the youth are quite involved by government agencies, especially by the River Region Agency North Sumatra or BWS (Badan Wilayah Sungai) Sumatra II.

Kopasude Youth joined the Coordination Team of Water Resources Management (TKPSDA) formed by the River Region Agency (Badan Wilayah Sungai/BWS) Sumatra II. In the team, the youth are tasked to monitor the waterways in Medan Johor and monitor every problem that arises in the Deli River such as piles of garbage and damage or the breaking of the Deli River embankment and the results of monitoring this you man will later be documented and reported to bws.

Youth have indeed participated in monitoring the management of deli watersheds in Medan. However, the agency involving youth is only the River Region Agency (Badan Wilayah Sungai/BWS) Sumatra II, which is a unit of institutions under the auspices of the Ministry of Public Works and Public Housing. While from the provincial government of North Sumatra and the Medan City Government there is no involving youth.

Youth Participation Constraints

The participation of youth in the management of deli watershed certainly faces internal and external constraints. Here is an explanation of the obstacles faced by youth groups:

a. Human Resources

In carrying out each activity, the human element is the most important element so that the activity in question can run. Without humans it is impossible for an activity to run. In the management activities or movement of Deli River preservation, youth groups in Medan who participated in the movement such as Kopasude youth also experienced obstacles in the aspect of Human Resources. In Kopasude, there is a shortage of human resources and its quality to be actively involved in deli river management activities.

For now, the number of youths active in Kopasude in river conservation activities amounts to 20 people. This amount is certainly not enough because the Deli river requires strong energy to restore it. And this kopasude youth group is active every week doing river cleaning from garbage, so it needs adequate human resources to run it.

To overcome these obstacles, Kopasude youth made various efforts to face the obstacles they faced. The efforts are carried out such as by recruiting volunteers to preserve the Deli River. Open recruitment volunteers is open to all circles. But generally the admission is among students or students. In order for this volunteer recruitment information to be widespread they use social media such as instagram for its spread.

This effort can be said to be quite effective to recruit new river volunteers. And from this volunteer will then be the successor or chairman in Kopasude. This is one form of cadreization that exists in Kopasude. However, still all did not go smoothly and smoothly. Because of the volunteers recruited not all can last long in Kopasude. This is a manifestation of the running of natural selection about who can survive.

b. Tools and Technology

One of the biggest problems of deli river today is the problem of garbage that is increasingly piling up. Ironically the garbage in the Deli River has soared and transformed into a mountain of garbage. To clean it is certainly not enough with simple equipment only. Heavy equipment such as tractors are needed to transport the garbage. Such tools are certainly not owned by youth groups caring about the river. However, they have already tried to get the government to remove heavy equipment. Although until now the government has not issued the tools in

question. Based on the results of the search the author of the reason the government has not issued heavy equipment is due to the dense settlement on the banks of the Deli river so that the heavy equipment has no access to enter.

Other tools or technologies that young people need to care about the river are filter technology or water purifiers. Deli River water that has been polluted must be processed into clean water that is worth using and consumption. Such technology does not yet belong to young people concerned about the river. However, they are currently working to build cooperation with lecturers of The Medan Institute of Technology (ITM) to make water processing technology.

c. Government Response

Deli River problem is indeed a problem of all parties. Communities, youth, private sector, NGOs, and governments must synergize with each other in the management of deli watersheds. In addition to the active participation of youth groups, the government as a party that has the authority should give a positive response to the efforts and concerns of youth groups.

The response from the government (River Region Agency, North Sumatera Province Government, Medan City Government) to the actions of youths caring for the river for now can be said to be unresponsive. It is true that ceremonial activities such as the "Deli River Party" are held annually in attendance and facilitated by the government. However, the expected response of the youth group is not a response to activities that are ceremonial in nature. But the expected response is a positive response to each of their routine activities.

Reflecting on the model of river management in Surabaya, there is a container formed by the government called The Orange Army. The troops are a combination of the youth community cares about the river that is tasked to maintain the sustainability of the river. And this kind of troops are expected to be formed in North Sumatra or in Medan. Because it is considered orange troops are quite effective in maintaining the sustainability of the river. Of course because it is supported by other elements such as tools and funding.

Kopasude youth groups along with other youth communities have already voiced and asked the government for a container or communication forum in the form of special forces in the form of a government in Medan. It was conveyed when there was a meeting between the River Region Agency (Badan Wilayah Sungai/BWS) and the youth communities concerned about the river. However, that hope has not yet been realized by the government.

d. Public Awareness

The key to the successful management of deli watershed is high public awareness of the importance of maintaining the sustainability of the Deli River. However, it is still difficult for people who live on the banks of the Deli River. Until now, people are still used to dumping

waste both organic and inorganic into the Deli River. This poor community behavior is certainly very fatal and damaging to the sustainability of the Deli River. However, this behavior is not without cause. The absence of landfills provided by the local government causes the community to dump waste into the Deli river.

This was also responded by Kopasude youth group by coordinating with the government at the village level to provide trash cans and transported every day. This effort has been realized and runs on Jalan Kampung Badur Hamdan Sub-district Medan Maimun. However, not with other villages. In addition to coordinating with the village government, Kopasude youths are also not tired of conducting campaigns to the community so as not to throw garbage into the river. The education was conducted when the young men went down to the river to perform a clean action of the river. Kopasude youth also has a deli tributary in Hamdan Village. In the workshop, children were also instilled early on about the importance of maintaining and preserving the Deli River. In addition to planting anal-child care, the community is also educated so as not to throw waste into the river. Not until there, the youth also socialized and attached regulations that prohibit dumping waste into te river.

Youth Participation Improvement Strategy

Based on the results of SWOT analysis and its calculations, it is concluded that the priority strategy of increasing Youth Participation in Deli Watershed Management in Medan city is Strenght-Opportunity (SO) strategy. The SO strategy is as follows:

- a. With the Regional Regulation of North Sumatra Province that regulates the management of integrated watersheds participatoryly, with the awareness and concern of the youth group must utilize the Regulation in order to be involved in every watershed management, especially deli watershed both at the planning, implementation, and evaluation stage. If youth groups are only involved in the implementation, then youth can advocate policies to policy makers.
- b. With the capital knowledge owned by youth about watershed management, it must be maximized by building cooperation between youth and academics/researchers to develop technical management of Deli Watershed.
- c. The support and attention of a number of regional leaders to the region should be utilized by youth groups by conveying ideas and ideas that have to manage the Deli watershed.
- d. Support and positive response of the community should be maximized to support the open opportunities to create tourist attractions in the Deli Watershed Area.

5. Conclusion

The potential participation of youth in the management of Deli Watershed in Medan must be optimized and supported by relevant institutions such as the North Sumatra River Region Agency, the Government of North Sumatra Province and Medan City Government. These institutions should also involve youth in the stages of Deli Watershed management, especially in the planning and evaluation of Deli Watershed management. Because based on this research youth participation in the planning and evaluation stage is still minimal. To increase the capacity of youth in watershed management, relevant agencies also need to provide guidance and empowerment to watershed caring youth communities. With the empowerment, the participation of youth in the management of deli watershed can increase in quantity and quality. And Deli Watershed management can run more optimally.

References

- [1] Permen PU No. 04/PRT/M/2015
- [2] Husni, Nobrya. "Analisis Permasalahan Pengelolaan Sungai Deli", *Jurnal Inovasi* Vo1 14. 2017.
- [3] Hutapea, Sumihar, *Kajian Konservasi Daerah Aliran Sungai Deli Dalam Upaya Pengendalian Banjir di Kota Medan.*(Disertasi). Yogyakarta: Universitas Gajah Mada, Program Pascasarjana, 2012.
- [4] Rahmadani, Fitri, *Pengelolaan Pencemaran Sungai Deli*, *Jurnal Ilmiah Abdi Ilmu*, Vol 11, No 2. 2018.
- [5] Peraturan Daerah Kota Medan No. 2 Tahun 2015 Tentang Rencana Detail Tata Ruang dan Peraturan Zonasi Kota Medan Tahun 2015-2035
- [6] Peraturan Daerah Provinsi Sumatera Utara No. 1 Tahun 2014 Tentang Pengelolaan Daerah Aliran Sungai Terpadu.
- [7] Sirojuzilam, Erlina, Panusunan, *Analisis Partisipasi Masyarakat Terhadap Pembangunan Wilayah Pesisir Kabupaten Serdang Bedagai*, *Jurnal Wahana Hijau* Vol 09. 2014.
- [8] Kontraningrat, *Pengantar Ilmu Antropologi*. Jakarta: Aksara Baru, 1989.
- [9] UU. No. 40 tahun 2009 Tentang Kepemudaan
- [10] Julianto dan Prasetyo, *Pengelolaan Lahan Bantaran Sungai Bedog Berbasis Komunitas Karang Taruna Guna Mendukung Pembangunan Berkelanjutan*, *Jurnal Ecotropic*, Vol 13. 2019.
- [11] Spradley, James., *Participant Observation*. Holt, Renihart and Winston, 2010