

The Role of Profauna to Fight Illegal Logging in Indonesia

¹Iwan Henri Kusnadi, ²M Dian Hikmawan

Abstract--*This research aims to find out the way or role of non-governmental organizations or Profauna Indonesia's NGOs in eradicating or preventing illegal logging or logging in Indonesia. To examine this theme, this study uses two theories namely environmental politics and new social movements. Illegal logging in Indonesia itself is already at a pretty severe stage, according to data from the Ministry of Environment and Forestry (KLHK) in 2018 the state must lose Rp. 17.8 trillion, which until now the forests in Indonesia have reached the figure 82 to 85 million hectares alone, but the government continues to argue by saying Indonesia's forests currently still exist at 120 million hectares. To overcome this illegal logging, Profauna Indonesia has taken some ways including creating a Profauna Ranger Group that aims to protect forests in Indonesia.*

Keywords-- *Environmental Politics, Profauna Indonesia, Illegal Logging*

I INTRODUCTION

In this journal, we will discuss how Profauna Indonesia can deal with illegal logging or logging in Indonesia. Profauna Indonesia is a non-governmental organization or NGO engaged in the protection of forests and wildlife. Profauna Indonesia was founded in 1994 in the city of Malang, East Java, with the initial name the Early Conservation for Life, which later developed in Indonesia and abroad. The main issues discussed by Profauna Indonesia are four, namely wildlife hunting, wildlife trade, management of turtle conservation, and also forest management with local communities. In the journal that we will write will focus on illegal logging, logging is the activity of harvesting forest trees, transporting and sale of wood and illegal processed wood products and has permission from local authorities. The logging activity itself is regulated in Law of the Republic of Indonesia Number 18 of 2013 concerning the prevention and eradication of forest destruction.

According to the Indonesian Presidential Instruction No. 5/2001 concerning the eradication of illegal timber, the word illegal logging itself means illegal logging, while according to Indonesian NGOs Telapak illegal logging is a forestry activity that damages or does not yet get a permit. Forest Watch Indonesia (FWI) and Global Forest Watch (GFW) have their notions of illegal logging which are divided into two, which are carried out by legitimate operators but violate the permit conditions that he has and the second is done by wood thieves carried out by people who do not have the right or permission to cut trees.

While the World Food and Agriculture Agency (FAO) defines illegal logging as (Budyatmojo, 2013):

1. Felling trees without permission

¹ Faculty of Administration, University of Subang, Indonesia, Correspondence Email: iwanhenri01@gmail.com

² Faculty of Social and Political Science, Universitas Sultan Ageng Tirtayasa, Indonesia, Email: dian.hikmawan@untirta.ac.id

2. Take more wood than allowed
3. Duplicate logging permissions
4. Obtain Forest Company Rights (HPH) by bribery
5. Break the tree bark so that the tree dies and have a reason to cut down the tree.
6. Contact the locals to obtain timber from the forest cover
7. Cut down the type of wood that is protected
8. Cut down on protected forest area
9. Cutting off the forest outside the area without Forestry Rights
10. Cutting down steep slopes, river delta, and even water catchment areas

In Indonesia alone, illegal logging or logging is not a stranger. Lots of protected forests that should have been protected by the government were cut down because of business matters. The rampant illegal logging case is the basis for activists from Profauna Indonesia to fight to preserve the forest. Forests are the most important part of human life in the world, because if there is no forest then the amount of oxygen on the earth will decrease and also if forests are continuously destroyed will also disrupt the lives of animals in them. According to data our group obtained from the official website of Profauna Indonesia, the country lost Rp 220 trillion due to forest and land fires in 2015. This loss was caused by the cancellation of several flights, offices that were off, and also the impact of the cessation of economic activity. In addition to material losses, forest fires that occur also result in loss of habitat from a variety of biodiversity, forest loss is said to be 2.6 million hectares, forest fires also cause at least 504 thousand people, especially children, indicated by ARI (Profauna, 2017).

According to data from the National Disaster Management Agency (BNBP), forest fires in 2015 occurred due to various reasons including intentional burning and also the result of illegal logging. These forest fires have occurred in 31 provinces in Indonesia with the largest areas burning are South Sumatra, Central Kalimantan, Papua, South Kalimantan, Riau, Jambi, and West Kalimantan. BNPB spent at least Rp. 720 billion for efforts to extinguish this forest fire.

According to data from the Ministry of Environment and Forestry (KLHK) of the Republic of Indonesia, losses to the state due to illegal logging cases in 2018 reached Rp 17.8 trillion. The Ministry of Environment and Forestry in collaboration with the police has also succeeded in cracking down on perpetrators of illegal logging, as many as 533 cases were able to be resolved by the Ministry of Environment and Forestry in 2018. Data from the World Food and Agriculture Agency (FAO), Indonesia ranks second as a country whose forests continue to disappear below Brazil. From 2010 the forests in Indonesia were reduced by 648 thousand hectares each year, the loss of this forest mostly occurred due to illegal logging and also the expansion of land by the community. Which means that until 2019 Indonesia's forests have been reduced by approximately 5.8 million hectares, the loss of Indonesia's forests is of course followed by the destruction of the habitat of the animals that live there and will cause the animals to then find a new place to live for which of course they will search to humans and will cause conflicts between humans and animals.

According to data from the Ministry of Environment and Forestry which our group got from the official website of Profauna Indonesia, in the year 2030 the number of national forests will reach 112 million hectares. At present, Indonesia has at least 120.7 million hectares of national forests, the reduction in the number of

national forests is caused by various policies made by the government such as agrarian policies and transmigration policies (Profauna, 2017). Illegal logging that makes a fantastic amount of state losses certainly makes Profauna Indonesia not remain silent. Profauna Indonesia itself has done a lot of activities to preserve the forest by conducting an anti-illegal logging campaign, they also play a role in fighting for arrest and also very severe penalties for illegal loggers. An example of the struggle of Profauna Indonesia is in Sendiki Beach Protection Forest, Malang City where the forest damage caused by illegal logging has reached 60%.

The activists from Profauna Indonesia also demanded that the perpetrators of illegal logging in Indonesia be severely punished, they wanted these actors to have a deterrent effect so they would not repeat their actions, they said that the government in Indonesia seemed less concerned or even protected forest loggers. This is because they are usually big business people. Profauna Indonesia also often cooperates with communities around the forest that obtain the effects of deforested forests, one example of Profauna Indonesia's cooperation is by collaborating with the Maju Mapan Forest Farmer Group (KTH), Tambakejo Village, Sumbermanjing Wetan District, Malang Regency with prepare as many as 200 thousand Soursop tree seeds, Avocado and also Sengon Tree which has been prepared by KTH Maju Mapan to be distributed free of charge to farmers. Seedlings are aids from the Brantas Sampean Watershed and Protection Forest Management Agency (BPDASHL). These tree seedlings will then be planted in a forest area in South Malang which has started to be bare, this is done to keep the forest and the fauna that lives there preserving.

The Maju Mapan Forest Farmer Group (KTH) is a partner of Profauna Indonesia, KTH Maju Mapan has also submitted a Social Forestry Decree and hopes that it will soon be approved by the government so that forest rescue measures can be implemented immediately. With this cooperation program, Profauna hopes that the community can play an active role in the preservation of forests, they also hope that the government will be more active in environmental conservation.

II LITERATURE REVIEW

Environmental Politics and Actors

Environmental politics has developed in the realm of social science with a variety of terms such as Political Ecology, Green Politics, and Environmental Politics. These three terms are used in the same realm of social and political science with coverage such as forest destruction, mining exploitation, damage to the urban environment due to unbalanced development, air pollution, factory waste, river pollution, sanitation, and so on. According to Herman Hidayat, one approach in environmental politics is the approach of studying actors or actors. This approach identifies the movement of actors as actors in environmental management to determine the extent to which these actors contribute to environmental management (Hikmawan & Hidayat, 2016).

Hidayat said that the state is a direct actor in the creation of development accompanied by environmental sustainability (Hikmawan, Ika Indriyany, & Ma'asan Mayrudin, 2019), but the state can also play a direct and most influential role in environmental damage. This can occur because the state is a policymaker, executor or implementator, civil servants, managers, and even to the point of evaluation (Hidayat, 2011).

In other words, the government plays an important role in environmental preservation (Hikmawan et al., 2019), the government can create a good environment for animals, plants and humans with the development that they do but on the other side of the government also can cause environmental damage as an example is as will be discussed in this journal is logging or illegal logging, if the government continues to allow or even support illegal logging activities then it is not impossible that the forests in Indonesia will be deforested. This shows that the government is likened to a double-edged knife in a political environment, on the one hand it is they who can protect the environment on the other they also damage the environment. Hidayat said that included in indirect actors in environmental politics were actors outside the state such as international financial institutions (Hikmawan, 2017a), academics or researchers, and NGOs. According to Hidayat, financial institutions can be said to be indirect actors because they participate as financial providers and also provide technical assistance for environmental preservation.

While academics and NGOs also act as critical actors who make observations and also provide comments or comments on government policies by providing general awareness of environmental problems such as forest destruction, climate change, pollution or pollution, flood disasters, to species extinction. biological (flora and fauna) (Hidayat, 2011). This means that not only the government can play a role in environmental politics, various actors outside the government can also play a role in environmental politics but of course their role is different from the government (Hikmawan, 2020) if the government plays a role in making decisions and regulations about the environment, these non-governmental actors have a role for example financial institutions that can provide funds for the government to preserve the environment while academics (Hikmawan, 2017b), NGOs and also NGOs can play a role in environmental politics by giving character to the government's decision on environmental conservation which means that if in this journal the problem is illegal logging.

If it is based on the theory presented by Hidayat above, then Prof fauna Indonesia is included in the "indirect actor". This is because Prof fauna Indonesia is not included in government organizations, Prof fauna Indonesia is more categorized as a Non-Government Organization or NGO. Based on Hidayat, Prof fauna Indonesia can play a role or have a role as an observer of all decisions taken by the government and can also respond or criticize a decision on the environment taken by the government.

New Social Movement

According to Clauss Offe (1985), actors in the New Social Movement or GSB are characterized by their rejection of self-identification which if in political language means "left" or "right" or "liberal" and also "conservative". Offe also said that actors in the New Social Movement could not be distinguished through gender, class or ethnicity, even more Offe also argued that actors in the GSB came from 3 sectors where the first was from the new middle class (Hikmawan & Hidayat, 2016), old middle class (farmers, owners shops and art-producing) and also marginalized people who do not belong to the job market, for example housewives and students (Suharko, 2006). If we race against the theory of Clauss Offe, this Indonesian Prof fauna is included in the New Social Movement, this is because Prof fauna Indonesia when viewed in terms of actors they cannot be distinguished according to gender or ethnicity because all ethnic or gender groups can participate in Prof fauna Indonesia.

In other cases, new social movements are defined by the diversity of the community (Hikmawan, 2020). In this case, democracy is interpreted as something plural, this plural also causes society to be interpreted as something plural (Hikmawan, 2020). In the life of a plural society, the community becomes one of the important roles in which the community has formed an identity (Hikmawan, 2017a). Profauna in this case identified himself as a new community movement that was very concerned with environmental issues. These new social movements are very commonly found in societies with democratic countries (Hikmawan, 2020). This happens because democracy can open space for people to participate and be directly involved in interpreting democracy as well as participating in the issue of democratization in their country (Hikmawan, 2020).

III METHODOLOGY

The research method that will be used in this study is a qualitative descriptive research method. The term qualitative research itself according to Kirk & Miller (1988: 23) begins with qualitative observations which are opposed by quantitative observations. Then they both define that qualitative methodology is a tradition of social knowledge that focuses on observing humans in their own power and also dealing with people in their discussions and terminology (Nasution, 2003). According to Sukmadinata (2005) the basis of qualitative research is "constructivism which assumes that reality is plural, interactive and an exchange of social experiences interpreted by each individual". According to Strauss and Corbin (1998: 24), what is meant by qualitative research is "the type of research achieved or obtained through statistical procedures or other methods of quantitative".

IV RESULT AND DISCUSSION

The Beginning of Environmental Movement in Indonesia

Profauna Indonesia is a non-governmental organization or NGO engaged in the protection of forests and wildlife. Profauna Indonesia was founded in 1994 in the city of Malang, East Java, with the initial name the Early Conservation for Life, which later developed in Indonesia and abroad. Protect Forest & Fauna Indonesia or Profauna was founded by husband and wife environmental activists namely Rosek Nursahid and Made Astuti in 1994 in Malang. Both of them are biologists who have been fond of their hobbies or hobbies visiting the habitat of wild animals, at first the non-governmental organization or NGO was called Early Conservation for Life which only then in 2002 changed its name to Profauna Indonesia.

The origin of the idea of establishing Profauna was the beginning when in 1992, Rosek Mursahid came to Jakarta and visited the Pramuka Bird Market in Jakarta which at that time was the largest animal sales market in Asia. Rosek was very concerned about the situation at the Scout Bird Market at that time, where the sellers of Denhan Sangta were openly selling various rare animals such as dragons, orangutans, birds of paradise, cockatoos, gibbons, gibbons and even sun bears, which should not be traded or protected. by law. Seeing this condition Rosek did not remain silent, he also tried to report what he saw at that time to the authorities, but it turned out that the method was completely ineffective because the government at that time did not care about the protected animals and even tended to allow sales protected animals. This was the reason why in the 1990s

until the early 2000s it was very easy to buy protected animals and did not require permission or regulation. Organizations or movements that discuss the environment at that time were indeed very rare or maybe even non-existent, because the issues raised by many students and organizations at that time were economic and social.

Starting from that condition, Rosek Nursahid and Made Astuti were finally motivated to establish an organization that discussed environmental issues. Finally, on December 23, 1994, Profauna Indonesia was officially formed in Malang, East Java, with the initial name Animal Conservation for Life focused on protecting marginalized animals as a result of moving out of their habitat. According to Rosek's disclosure, at the beginning of the formation of Profauna Indonesia, it was very difficult because it only consisted of himself and his wife, not formed by famous people and formed only based on caring. "At first, I and my wife only. In the beginning, it was difficult because PROFAUNA was founded by people who are not well-known, only armed with concern," (Riski, 2016).

During the early years of the profession of Profauna Indonesia, Rosek and Made were only able to recruit only 3 members and even worse the third ride to the second year where Profauna Indonesia members only left 1 person which means that the total number of all Profauna Indonesia members was only 3 people namely Rosek, Made and one other member. According to Rosek, this happened because the issue of animals and the environment at that time was so unattractive that the people at that time were more concerned with economic issues. Profauna Indonesia itself is indeed an organization whose main funding source is the result of members' self-help rather than from sponsors or government.

Over time, Profauan Indonesia did not only take care of animals, but also developed further, they finally in 2014 began a campaign about forest conservation. Indonesia became increasingly interested in Profauna's concern about forest preservation due to the increasingly damaged forests in Indonesia which were induced by forest fires or illegal logging, where the majority of forest damage in Indonesia occurred due to the rampant illegal logging activities. If we examine this non-governmental organization or Indonesian Profauna NGO with the new Social Movement theory or GSB from Clauss Offe then in terms of the actors involved, this Indonesian Profauna is included in the New Social Movement because the volunteers or supporters of Profauna Indonesia cannot be classified into ethnicity or gender, they all blend into one for a struggle and also they are not part of the "left" "right" or "liberal" "conservative". Offe did say that the main characteristic of the New Social Movement is that it can be seen from the actors involved where they are not one of the "right" "left" and also "liberal" "conservative" (Suharko, 2006).

The role of Profauna Indonesia in tackling Illegal Logging

Illegal logging according to Inpres RI No. 5/2001 concerning the eradication of illegal wood, the word illegal logging itself means illegal logging. Meanwhile, according to Forest Watch Indonesia (FWI) and Global Forest Watch (GFW) illegal logging which is divided into two is done by legitimate operators but violates the provisions of the permits he has and the second is done by wood thieves committed by people who do not have the right or permission to cut trees (Budyatmojo, 2013).

Profauna Indonesia itself only focused on conducting campaigns on forest conservation in 2014, at first they only focused on animal preservation. The encroachment of Indonesia's Profauna in the conservation of forest is based on the decreasing number of forests in Indonesia, where the main cause is the result of rampant

illegal logging activities. Data from the World Food and Agriculture Agency (FAO), Indonesia ranks second as a country whose forests continue to disappear below Brazil, which means that by 2019 Indonesia's forests have been reduced by approximately 5.8 million hectares. At present the number of forests in Indonesia is 82 to 85 million hectares, although the government says that Indonesia's forests are still stable at 120 million hectares, this is because so far the government has always covered the case of illegal logging by large companies and of course only the community is the one who can judge the government or profauna who say the truth.

Profauna Indonesia itself has done a lot of activities to eradicate illegal logging. Among them is they make visits to schools and colleges to campaign for the rejection of illegal logging. They routinely carry out this campaign in various schools and campuses in Indonesia every 2 times a year. According to Rosek, the campaign that Profauna Indonesia did was deliberately carried out in schools and colleges, because according to Rosek awareness of illegal logging needs to be instilled in young children. The last time this activity was carried out at Tambakrejo 2 Public Elementary School and One Roof Junior Secondary School in Tambakrejo Village, Sumbermanjing Wetan District, Malang Regency on Saturday, June 22, 2019. also volunteer from China Jue Wang, of which 200 students were participating in the activity.

Aside from campaigns in schools and campuses, Profauna Indonesia also has partnerships with various parties ranging from environmental organizations, hotels, natural attractions, even beauty product brands. The number of partners from Profauna also makes it easier for them in the anti-illegal logging campaign, one example is in 2016 where they collaborated with POP! Hotel to hold a shirt design competition with the theme "Protect Forests of Indonesia" with a focus on the rejection of illegal logging. In addition to hotel companies, in 2014 Profauna Indonesia also collaborated with the world's cosmetics company, the Body Shop. Body Shop does fundraising to preserve Indonesia's forests, they sell Dragon Fruit Lip Butter products, where 100% of the sales of these products in various outlets of the Body Shop will be given to 3 social organizations, one of which is Profauna Indonesia. Besides POP! Hotel and also the Body Shop, Profauna Indonesia also collaborates with Petung Sewu Adventure which is an outbound tourist attraction. They are eager to create a project called Petungsewu Wildlife Education Center (P-WEC) which aims to educate the public about forest conservation and also provide assistance to people who live near protected forest areas.

In addition to campaigning, Profauna Indonesia also took concrete actions to tackle illegal logging, one of which was the formation of the Ranger Profauna group. The Ranger Profauna group is supporters of Profauna Indonesia whose job is to protect the forest and also educate the community about the dangers of forest destruction. The Profauna Ranger will conduct searches or investigations related to illegal logging, at this time the Ranger Profauna itself is focused on protecting the forest in 2 places, namely Wehea Protected Huta in East Kalimantan and also the Margasarwa Highland Sanctuary in East Java. This is done by Profauna according to the statutory regulations that say that every member of the community should participate in protecting and preserving the environment.

Profauna Indonesia also often investigates illegal logging and often finds very unexpected things related to illegal logging. Rosek said that in the field it was often found illegal but also illegal logging, which meant legal means they had permission to cut the forest but on the other hand it was also illegal because the felled forest was in a protected forest area which was clearly in violation of the law, as was the case in Sendiki Protection Forest

in Malang. Which according to the monitoring of Profauna Indonesia until January 9, 2020 the activity of illegal logging is still happening, as if the government will not care about the loss of this protected forest. When investigating in this Own Protection Forest, supporters of Indonesian Profauna managed to catch people who carried out illegal logging, but he denied that he was carrying out illegal logging because he indeed held a tree felling permit to be planted with bananas. In the letter it is written that this activity has been approved by Perhutani, if we look at this it is of course very sad because the Sendiki Protected Forest is a lung for Malang City even East Java but the government seems to be even supporting this illegal logging.

Profauna Indonesia also cooperates with community groups whose territory is affected by illegal logging, one of which is in collaboration with the Advanced Forest Farmers Group (KTH), Tambakejo Village, Sumbermanjing Wetan District, Malang Regency by preparing 200 thousand Soursop tree seeds, Avocado and Sengon Tree which have been prepared by KTH Maju Mapan to be distributed free of charge to farmers. Seedlings are aids from the Brantas Sampean Watershed and Protection Forest Management Agency (BPDASHL). These tree seedlings will then be planted in a forest area in South Malang which has started to be bare, this is done to keep the forest and the fauna that lives there preserving. Profauna Indonesia also took a joint action to protect the Sendiki Protected Forest that was carried out on 24 February 2020 ago. This action was carried out after the viral illegal logging case that occurred in Sendiki Protected Forest, Profauna Indonesia together with Tambakejo village community, Forest Farmers Group (KTH) Maju Mapan, Perhutani, BKSDA, Indonesian Social Forestry Community Movement, Petungsewu Adventure, Forest Action, TNI AD Navy, and also the police. The tree planting action was carried out based on concern, as many as 500 soursop tree seeds and jackfruit were also planted in protected areas that are already deforested.

V CONCLUSION

Profauna Indonesia is an NGO formed by Rosek Nursahid and Made Atuti on December 23, 1994 in Malang. Profauna Indonesia was formed based on Rosek Nursahid's concern regarding the rampant sales of endangered animals at the Pramuka Bird Market in Jakarta. The few environmental-themed organizations at that time also encouraged Rosek and his wife Made Astuti to establish Profauna Indonesia to protect animals and provide education to the public. As time goes by, Profauna Indonesia not only struggles to protect animals but also extends to forest conservation, culminating in 2014 Profauna Indonesia is steadily staging a campaign on forest conservation. This is marked by the change of the logo from a Lutung into a forest and also a primate. Besides, if previously their focus was on animals where the ratio was 70% of animals and 30% of forests to fifty-fifty or 50% of animals and 50% of the forest.

To combat illegal logging, Profauna Indonesia has many roles in which it conducts campaigns to schools and also campuses related to forest conservation, in collaboration with POP! Hotel to do a t-shirt design competition, in collaboration with the Body Shop by raising funds for forest preservation and also working with communities around the forest whose area is affected by logging such for example working with the Maju Mapan Forest Farmers Group (KTH).

REFERENCES

1. Budyatmojo, Winarno. 2013. “Penegakan Hukum Tindak Pidana Illegal Logging (Antara Harapan dan Kenyataan)” dalam Yustisia. Vol.2 No.2
2. Cerullo, Gialluca and David Edward. 2018. “Actively Restoring Resilience in Selectively Logged Tropical Forest” in Journal of Applied Ecology.
3. Hidayat, Herman. 2011. Politik Lingkungan : Pengelolaan Hutan Masa Orde Baru dan Reformasi. Jakarta : Yayasan Pustaka Obor Indonesia
4. Hikmawan, M. D. (2017a). Pluralisme Demokrasi Politik di Indonesia. *Journal of Governance*, 2(2), 223–247. <https://doi.org/http://dx.doi.org/10.31506/jog.v2i2.2678>
5. Hikmawan, M. D. (2017b). Politik Perbedaan: Minoritas dalam Implementasi Kebijakan. *Journal of Indonesian Public Administration and Governance Studies (JIPAGS)*, 1(1), 88–98.
6. Hikmawan, M. D. (2020). *Consensual Democracy: A Challenge for Differentiated Citizenship. International Journal of Innovation, Creativity and Change*. www.ijicc.net (Vol. 11). Retrieved from www.ijicc.net
7. Hikmawan, M. D., & Hidayat, R. (2016). Depoliticisation of Public Issue : Low Degree of Government ' S Democratic Legitimacy. *Journal of Governance*, 1(1), 23–37. <https://doi.org/http://dx.doi.org/10.31506/jog.v1i1.1311>
8. Hikmawan, M. D., Ika Indriyany, A., & Ma'asan Mayrudin, Y. (2019). *Environmental Movement Against Mining Exploration in Bojonegara Serang Banten*.
9. http://www.profauna.net/id/content/tahun-2030-kawasan-hutan-nasional-berkurang-jadi-112-juta-hektare#.XmBjO_kzbIU
10. <http://www.profauna.net/id/content/kerugian-ekonomi-akibat-kebakaran-hutan-dan-lahan-tahun-2015-sebesar-rp-220-triliun#.XmBjAvkzbIU>
11. Kamilia, Izzarul dan Nawitanto. 2015. “Kerusakan Hutan dan Munculnya Gerakan Konservasi di Lereng Gunung Lamongan, Klakah 1999-2013” dalam Publik Budaya. Vo.1 No.3
12. Lukito, Wahyu. 2018. “Implementasi Pelestarian Lingkungan Hidup Dalam Bidang Penegakan Hukum Pidana Terhadap Kasus Illegal Logging (Studi Kasus Polres Rembang)” dalam Jurnal Hukum Khaira Ummah. Vol.13 No.1
13. Manalu, Dimpos. 2007. “Gerakan Sosial dan Perubahan Kebijakan Publik : Kasus Perlawanan Masyarakat Batak VS PT Inti Indorayon Utama di Porsea, Sumatra Utara” dalam Populasi. Vol 18 No.1
14. Narindani, Fuzi. 2018. “Upaya Masyarakat Dalam Pencegahan dan Pemberantasan Pembalakan Liar Di Indonesia” dalam De Jure. Vol.18 No.2
15. Nasution, S. 2003. Metode Penelitian Naturalistik Kualitatif. Bandung : Tarsito
16. Rochwulaningsih, Yety. 2017. “Dinamika Gerakan Lingkungan dan Global Environmental Government” dalam Citra Lekha. Vol.2 No.2
17. Suharko. 2006. “Gerakan Sosial Baru di Indonesia : Repertoar Gerakan Petani” dalam Jurnal Ilmu Sosial dan Ilmu Politik. Vol. 10. No.1