

The Role of Indonesia in Managing Trans-Boundary Haze Pollution as Environmental Security Issue in Southeast Asia

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ABSTRACT

Trans-boundary haze pollution is among the main environmental issues in the region of Southeast Asia. This paper examines how far Indonesia has managed environmental security issues in Southeast Asia by looking at the roles and contributions of the country in managing the trans-boundary haze pollution. By using both primary and secondary data, the authors attempt to assess the roles undertaken by Indonesia in dealing with trans-boundary haze pollution. It found that Indonesia has been very passive and indifferent attitude in the trans-boundary haze pollution.

Keywords: *Environmental, Haze Pollution, Southeast Asia*

1. INTRODUCTION

Haze pollution is among the main trans-boundary environmental issues in the region of Southeast Asia. Indonesia as a Southeast Asian country is particularly affected by this problem. In the case of trans-boundary haze pollution, Indonesia is the state from which the toxic smoke originates. Due to this fact, Indonesia is expected to play a significant role in dealing with these environmental security issues. Indonesia's understanding of security has always been more than just military. Security in Indonesia comprises of all aspects of life, including ideology, politics, economy, society, without neglecting the element of military. Under Suharto's New Order, the concept of national security in Indonesia is promoted as *ketahanan nasional* or national resilience. It "incorporates a holistic approach to the nation's capacity to overcome internal and external threats"[1].

Transboundary haze pollution originating from Indonesia is one of the existing non-traditional security challenges in Southeast Asia in the field of environment. This pollution is caused by widespread destruction of natural forests or deforestation, involving a large area of peatland in Indonesia, for economic purposes. About 20.6 million hectares or 10.8% of Indonesia's total land area is tropical peatland [2].

Illegal land clearing techniques, such as the slash and burn, are commonly used for plantations of palm oil and other major cash crops, and also for timber, paper and pulp industries [3]. Although considered environmentally unfriendly, "slash and burn" is frequently used by both small-scale farmers and big companies because it is "cheap, easy, and effective" [3]. In some cases, people may not possess adequate knowledge on the danger of such activity and they do not have the technology to manage the agricultural land in a good way [4]. This

irresponsible act against peatland conservation has been the main cause for producing the toxic dark-colored haze that crossed the state border.

The brief background on Indonesia and transboundary haze pollution portrays how Indonesia has exploited its natural aspect without considering the issue of environmental pollution and sustainability. The country seems to degrade its natural resources in exchange of economic gain. This corroborates with the concept of using *Trigatra* to conduct *Pancagatra* as inferred by the concept of *ketahanan nasional*. Nevertheless, These natural aspects soon turned to be weaknesses for Indonesia due to unsustainable development.

As the concept of national resilience explains, weakness in one aspect may result in weakness in other fields. Consequently, Indonesia's environmental security issue also triggers political instability in the country. Worst, this security challenge even develops to be a threat to regional security of Southeast Asian region as there is an element of interdependency between national resilience and regional resilience. It is therefore necessary for the government of Indonesia to contain this environmental issue before it becomes a major political concern.

2. METHOD

The paper applies a qualitative approach of data collection, as it is the most suitable approach to explore any social phenomena by looking at other people's perspective. This paper uses both primary and secondary sources of data. Primary data refers to "original data source, that is, one in which the data are collected firsthand by the researcher for a specific research purpose or project" [5]. It consists of government documents, laws, and interview with officers that are responsible for managing the haze pollution such as the greenpeace Indonesia. Secondary data sources, on the other hand, are "preexisting data that have been collected for a different purpose or by someone other than the researcher. These data were gathered originally for another research or administrative purposes"[6]. Thus it consists of books and journal articles, and other news reports.

As for data analysis, this paper applies thematic analysis to assist in qualitative analysis of data. By utilizing this method of data analysis, the researcher will be able to gain insight and knowledge on the role of Indonesia in managing the trans-boundary haze pollution in Southeast Asia. Similarly the data gathered through the interviews conducted with the informants. Similarly, the data gathered from secondary sources will also be analyzed and interpreted in such a way that will enable the author to identify roles and contributions of Indonesia in dealing with environmental security issues.

3. RESULT and DISCUSSIONS

There are different measures in dealing with trans-boundary haze pollution. Among other are legal measures and enforcement mechanism, Peat-land Restoration Programs, and Collective Actions.

3.1 Legal Measures and Enforcement Mechanism

Legally, Indonesia has enacted a national policy on environmental protection and management under the Law No. 32/2009. The Law signifies an important step of Indonesia in its journey to achieve sustainable development by forming synergies between "environmental, social and economic aspects" in its national development agenda. The 2009 Law becomes

Indonesia's main policy on environmental protection that aims to improve and ensure "safety, welfare and living standards of the present and future generations" of Indonesian people [7]. The government is aware that safe and healthy environment is part of the basic human rights that government should provide for its own people, as Article 65 of the Law states: "Everybody shall be entitled to proper and healthy environment as part of human rights" [7].

With respect of human rights and conservation of ecosystem, Indonesian government sets out some provisions that clearly prohibit any act that causes environmental degradation. Article 69 of the Law prohibits any act that causes "environmental pollution and/or damage" and Article 108 specifically prohibits land burning [7]. In terms of law enforcement bodies, Article 94 gives authorities to investigators of National Police (POLRI) or certain government civil servant who works in the field of environmental protection and management to investigate environmental crime before finally transferring the case to public prosecutor [7].

The Law also lays down a set of sanctions for violators. Based on the Article 76-80, anyone found to have violated the principle would be given administrative sanctions such as written warning, freezing or revocation of permits, and/or application of government coerciveness in extremely serious cases. In 2015, Indonesian government was reported to have launched investigations more than 200 companies suspected for land burning. "Three plantation companies had their permits frozen and one forestry company had its license revoked" [8]. Law enforcement in the country, however, seems to be lack in consistency. For example, the Ministry of Environment and Forestry failed to prosecute a number of palm oil and pulpwood companies after conducting investigations on their alleged contribution to the 2015 forest fires [9].

Aside from administrative sanctions, the Law also introduces Penal Provision that sets minimum and maximum prison sentences and fine to anybody committing environmental crime, both intentionally or negligently. Gravity of the punishment would depend on whether the act has endangered human health or cause injury or even death to people (Chapter XV of the Law No. 32/2009) [7]. In 2015, a company was finally fined a US\$25.26 million after three years of long litigation [8]. The penalty can either be imposed on a business entity or a person ordering the crime or the manager of such activity (Article 116). This provision, however, has become a source of weak law enforcement in Indonesia. Mayer (2006) stated Indonesia has often used legal evidences against individual managers rather than targeting the corporate body. This implies that the companies responsible behind the environmental crime are still allowed to operate as usual regardless of the court decision against the individual perpetrator. As such, it may not be an effective deterrence of illegal burning.

The government of Indonesia considers forestry management as one of the main priorities that should be enhanced for environmental conservation, as stipulated in the country's medium-term development plan (RPJMN 2015-2019). Indonesia's RPJM 2015-2019 has articulated national development programmes on the basis of "green economy." This means, economic development should go hand in hand with conservation of environment. The government seeks to increase resilience against disaster and climate security challenges through environmental sustainability, improved institutional capacity and enforcement to mitigate and reduce disaster risks. The agenda recognizes forestry and peat lands as one of the five priority sectors in nation's effort to reduce greenhouse gas emissions to 26% by 2019 [10].

In the context of forest fires prevention and to achieve haze free condition in the region of Southeast Asia, peatland protection and management in Indonesia is vital. Preservation of peatland is essential because peatland functions to "preserve water, mitigate flooding, prevent seawater intrusion, support biodiversity, and for carbon absorption" [2]. Degraded or burnt peatland is responsible for approximately 40% of Indonesia's total carbon emissions and it

could also trigger the occurrence of flooding when combined with the impacts of global climate change [9].

3.2 Peatland Restoration Programmes

According to UNDP (2016), Indonesia has shown political willingness “for conserving and restoring” its tropical forests through peatland restoration programme. This was recently shown in the 2015 Paris Agreement during the 21st Conference of the Parties of the UNFCCC, where Indonesia declared a firm commitment to contribute to the global action in reducing emission through three major fields: energy, forest and land governance, and maritime affairs. On forestry, the government will apply measures such as putting in place moratorium and review of utilization permit or concession on peat, implementation of One Map Policy, and through sustainable land and forest management [11]. In the agreement, Indonesian government vowed to reduce greenhouse gas emissions by 29% or up to 41% with international support by 2030. 17.23% of the 29% target and 23.13% of the 41% target will be a contribution from forestry sector [12]. Indonesia’s strong commitment to reduce greenhouse gas emissions would contribute to the global effort to mitigate climate change.

As a form of compliance to the international agreement, Indonesian government issued Presidential regulation No. 57/2016 on peatland that includes a permanent moratorium on the exploitation of peatlands (such as burning and drainage for land clearing). This puts a stop for issuance of new licenses pertaining the use of peatland areas for industrial purposes [13]. With this measure, the government would be able exert greater control in preventing environmental damage and pollution. In corroboration with the regulation, Jacobson (2016) reported that the government of Indonesia has been diligently reviewing existing licenses and there are possibilities of annulling some of them. In contrast, Indradi (2017) argued that the suspension might not be enough to bring a significant contribution to the nation’s mission to cut greenhouse gas emissions to 29% as long as the existing licenses for peatland cultivation are still valid.

The new regulation on peatlands also introduces zero tolerance for fire. This means that every landholder shall not allow fires from taking place, even if the fire occurs naturally or by means other than their own conduct [14]. This is in line with the Article 70 of the 2009 Law that encourages public participation in environmental protection and management, such as in the form of social control. Moreover, the regulation also reiterates landholders’ responsibility to restore burned peatlands, otherwise the land will be considered as state-owned. Again, this type of responsibility is already specified in the Article 54 of 2009 Law, which states, “Everybody polluting and/or damaging the environment shall be obliged to restore the environmental function” [7].

In improving land and forest management, Indonesian government has established Indonesian Peatland Restoration Agency (Badan Restorasi Gambut, BRG) based on the Presidential Regulation No. 1 of 2016. This national agency is specially designed to manage peatlands, including preventing forest fires and also restoring burnt or drained peatland areas in 7 provinces located in Sumatra, Kalimantan and Papua [2]. In performing its tasks, BRG works closely with other relevant ministries and also with similar agencies established at provincial level until 2020 [2]. The responsibility is not only confined to government. Public participation from civil societies, companies, NGOs and community at large are also integral to the government’s success in restoring peatlands and the greater forest conservation efforts [15]. However, the government is still faced with inadequate financial resources to perform many of the initiatives [16].

The role of civil societies in peatland restoration is significant. Toumbourou and Putra (2016) mentioned that civil societies in Indonesia have worked closely with government. They give important reports and information on questionable land use permit and irresponsible conduct committed by companies, which many of these reports resulted in the companies' permit being cancelled. Moreover, civil societies are also assisting the police effort to develop standard operating procedures that will be used to handle forest fires [17].

Community participation is also helpful in giving first aid to Indonesian officials in combating fire. For example, in the wake of haze incident in 2015, Indonesian government has instructed "708 villages to be ready to combat initial fire on the ground" [16]. These concerted efforts from various layers of society is a form of application of the principle contained in the Article 70 of Law No. 32/2009, which mentions the following:

First, communities shall have the equal and broad right and opportunity to participate actively in environmental protection and management. Second, public participation may be in the form of social control, suggestion, opinion, recommendation, objection, complaint, and/or information and/or report [7].

As public participation is important in environmental protection, the government should increase public awareness

As mentioned earlier, the government of Indonesia also promised to create One Map Policy as a national land registry that aims to eliminate duplication or overlapping licenses issued on the same land. The One Map will be an integration of various thematic maps (forests, plantations, agricultural areas and customary lands) into a single official reference map [18]. The creation of One Map Policy will be a major boost for Indonesia to manage forest affairs, especially in allowing the government to easily determine who is responsible for land exploitation on certain land [19].

Land conflicts between private sectors, the government and local or indigenous communities are common in Indonesia. According to Agrarian Reform Consortium (KPA), land conflicts in 2013 caused 22 deaths and affected almost 140,000 households [20]. Many of the local communities who live in the forest areas have been forced to leave their land after the government arbitrarily gave it to private sectors for commercial plantations [21]. This kind of conflict is a form of threat to the security of the indigenous people, whose rights have been violated and left without proper compensation. With an integrated map, the government would be able to clearly distinguish which land is considered customary land and which is not, and hence will hopefully prevent violent land conflicts from happening. This would also enhance coordination between central and local governments in exercising their rights to authorize land concessions.

Nevertheless, the efficacy of the One Map Policy may be jeopardized with corruption practiced by Indonesian officials, both at national and regional level. In land concession procedures, many government officials in Indonesia have allegedly involved in corruption practices by giving away land rights to private companies in exchange of money for private use [21]. If these illicit practices were still intact, the overall effort to better monitoring land and forestry affairs would remain ineffective.

3.3 Collective Actions

In dealing with transboundary haze pollution, Indonesia has participated in regional effort to achieve haze free Southeast Asia by 2020. Indonesia finally ratified the ASEAN Agreement on Transboundary Haze Pollution (THP) in October 2014, making the country to be the last member to ratify the agreement [22]. The agreement contains areas of regional cooperation in

“Monitoring and assessment, Prevention, Preparedness, National and joint emergency response, Procedures for deployment of people, materials and equipment across borders, and Technical cooperation & scientific research” [22]. All of these have been further reiterated in a roadmap on regional cooperation to tackle transboundary haze problem in Southeast Asia that has been adopted by member states of ASEAN in order to achieve a “haze-free region by 2020” [16]. Prior to this agreement, Indonesia was adamant to deal with haze problem domestically without outside interference. Only in October 2015, Indonesian government has finally welcome international help to assist the country in extinguishing the forest fires [23].

Following the ratification of the haze agreement, Indonesia has received mixed reviews from its neighbours on its performance in dealing with forest fires. Malaysia’s Natural Resources and Environment Minister commented that Indonesia has given a positive response and commitment to address haze problem, with many of the fire hotspots have been significantly reduced in 2016 compared to the previous year [24]. This, according to Sembiring (2016), is partly attributed to the improved patrol and monitoring system and effective fire response practised in affected areas. However, some others would perceive that the hotspot reduction is likely to be the works of nature, such as what has been suggested by Singapore’s Environment and Water Resources Minister [25].

However, despite the existence of regional agreement that creates moral obligation for Indonesia to act in compliance with the agreed principles, it may not be enough to be an effective way to stop transboundary haze pollution altogether. As mentioned in Jerger (2014) some scholars think that existence of legal measures such as litigation, arbitration and sanctions is important to effectively deal with the transnational problem. Similarly, an informant from Greenpeace Indonesia also suggested that ASEAN should make its agreement legally binding instead of just implying moral obligation to member states.

ASEAN should make its agreement legally binding. Yes we still respect each other’s sovereignty and we will not intervene in each other’s domestic affairs. Just like how UN Convention works. Once you violate, there is a procedure provided for others to file a report against you [26].

Furthermore, Indonesia has often shown uncooperative attitude with neighboring countries, such as in the case of Indonesia bilateral relation with Singapore. To trace back, when the haze case was brought to the UN General Assembly by Singapore, Indonesia sought defence under the state sovereignty and upheld the notion of non-interference in domestic affairs [26]. In 2016, Singapore requested six Indonesian companies to provide information related to the forest fires that occurred on their lands as the country acts in conformation with their national law on Trans boundary Haze and Pollution Act 2014. Only few answered to the summons. Commenting on the failure of these companies to turn up for investigation, Indonesia’s Environment and Forestry Minister argued that Singapore has intervened in Indonesia’s domestic problem and that it hurt the state’s sovereignty [27]. Singapore also claimed that Indonesia has been reluctant in giving details about companies and maps showing land ownership to determine where the responsibility lies [28]. In the end, as long as there is no legal basis and enforcement procedure for regional agreements, a country would always be able defend itself under the principle of sovereignty and non-intervention.

According to Atkinson (2014), Indonesian government has always been passive in dealing with environmental problems and put relatively greater importance to economic development projects that often come at the expense of environment. “Indonesia has historically been much more about macroeconomic solutions and serving the bottom line of political and corporate elites than microeconomic dilemmas and protecting public health” [29]. This view is also shared with the informant from Greenpeace Indonesia, who mentioned:

Based on my observation, probably wrong, Indonesia has stressed much on macro economy in its national development agenda. So, GDP, capital accumulation, whoever can contribute faster...corporation can accumulate capital very quickly and contribute to GNP for a great portion. Infrastructures built to accommodate businesses would then be able to stimulate other economic activities, which then will generate national economy to a greater extent. Victims never be part of internal cost that should be estimated from the beginning of a development project [26]

Pollution has been accepted as a reasonable trade-off for economic benefits that it gets from the activity [3]. However, this can only be true as long as the pollution stays within the national boundary. The same justification may not be applicable to the context of trans boundary pollution such as what happened in Southeast Asia.

4. CONCLUSION

In trans-boundary haze pollution, Indonesia plays a role as a culprit by producing toxic smog with adverse trans-border effects resulting from forest fires in the country. The trans-boundary haze pollution sets as an example of Indonesia's inability of preserving the environment as a form of its own national resilience building. As a result of this mishap, regional stability is disturbed. Indonesian government has arguably failed to provide effective measures to manage this particular environmental issue. Indonesia is an offender in environmental security by being a major polluter in the region of Southeast Asia, producing annual haze affecting neighboring countries especially Malaysia and Singapore. Indonesia's bilateral relations with Singapore and Malaysia are negatively affected due to Indonesia's inability to curb the forest fire events in several of its provinces. Amid the growing backlash received by the country, Indonesian government came up with some measures to reduce the grave consequences of environmental degradation in the country as well as its impact to neighboring countries in the region. However, this move is seen as too late.

In environmental issue pertaining to pollution, Indonesia is a passive follower of regional and international agreements to reduce greenhouse gas emissions that mainly come from forest burning activities. Although much of the agreements have been translated into domestic policies, such as the peatland restoration programmes, weak implementation of the regulations is the factor that contributes to Indonesia's ineffectiveness in dealing with transboundary haze pollution. There should be consistent implementation of regulations and effective use of enforcement mechanisms that are already in place even if it takes away the short-term economic benefits for the country. It is noteworthy that better environmental management would support sustainable development that would bring even greater benefit in the long run. Indonesian government should no longer be reactive to pressures coming from the society and even outside criticisms. On the contrary, it should play a more active role in crisis management concerning the rampant forest fire events in the country. In this sense, prevention should come first in the government's priority. Having said that, the government should have greater control over preventive instruments such as licensing and risk assessment of activity performed on peat lands.

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