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12 RESOLVING INDONESIA'S RESPONSIBILITY FOR TRANSBOUNDARY HAZE POLLUTION IN LIGHT OF THE TOOTHLESS ATHP

*Dodik Setiawan Nur Heriyanto**

Abstract

The Agreement on Transboundary Haze Pollution (“ATHP”), which has been signed by ASEAN member states, aims to overcome the annual haze problem in the region. Since the treaty came into force on 25 November 2003, the signatory nations urged Indonesia, the dominant contributor to the haze pollution, to ratify the agreement. After taking more than a decade to consider, Indonesia finally ratified the agreement in 2014, evincing its serious effort to prevent future forest fires. This study analyzes important issues of state responsibility and effective legal recourse to cope with the unresolved haze problem. Due to the ineffectiveness of ATHP, this study presents two effective legal measures: utilizing another relevant international treaty that offers an effective dispute settlement mechanism and building international awareness to stop using products from endangered forests.

12.1 INTRODUCTION

Transboundary haze pollution has been recognized as a persistent problem in the South-east Asian region. Signed in 2002 and having come into force in 2003, the ATHP undertakes to prevent, monitor, and reduce the forest fires and the resulting haze, through both joint and several action of the member states and their collective actions.¹ The severe haze situation in 1997² was the main reason for ASEAN countries to formalize the Hanoi Action Plan into a binding agreement to strengthen the regional coordination for reducing the residual haze and preventing future forest fires.

The implementation of the ATHP has not yet effectively resolved the haze problem. Indonesia had been the only nation implicated in the haze crisis because of its failure to minimize the haze pollution. After more than a decade of struggling in parliamentary debate, Indonesia finally ratified the Agreement on 16 January 2014 and deposited the

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1 The ASEAN Agreement on Transboundary Haze Pollution, June 10, 2002. (hereinafter “ATHP”).

2 James Cotton, *Crossing Borders in the Asia Pacific: Essays on the Domestic-Foreign Policy Divide*, Nova Science Publishers, New York, 2002, pp. 15-18.

instrument of ratification with the ASEAN Secretariat on 20 January 2015³ to show its commitment to altogether tackle, with the regional support, the haze problems.⁴

State parties shall respect for their obligations under ATHP. However, ATHP does not contain effective enforcement measures for non-compliance. This lack of effective enforcement measures is the weak link in the ATHP. Many experts are skeptical of Indonesian's ratification because of the ineffective provisions of the Agreement.⁵ Moreover, less than a year after ratification, haze pollution reached its most hazardous level.⁶ The recurring haze problem raises some issues mainly about the state responsibility and whether Indonesia is solely responsible for the failure to minimize the haze pollution or whether other countries can possibly be held liable under international law. Specifically, can ASEAN member states be liable for the damage caused by their activities through joint ventures and partnerships with Indonesian palm oil and pulp?. Another issue concerns effective legal recourse under the current, ATHP non-compliance framework.

To provide comprehensive analyses, this study first describes the facts and multidimensional damage of the haze crisis in the region. It then outlines the issues of state responsibility, post-ratification of ATHP by Indonesia. In this part, this study identifies countries responsible for damages caused by transboundary haze pollution. Because the ATHP has no effective measures for non-compliance, the last part of the study describes alternative measures to overcome the unresolved regional haze pollution.

12.2 THE UNRESOLVED SOUTHEAST ASIAN HAZE ANNUAL CRISIS

Forest fires in Indonesia have occurred annually for almost half a century.⁷ Generally, hot spots usually are identified in the forests of Sumatra, Kalimantan (Borneo), West Java, and Central Java.⁸ These forest fires were originally caused by natural forces attributable to prolonged dry seasons. Over time, however, man-made factors have increasingly caused forest fires in Indonesia. For economic reasons, the residents around the forests have deliberately burned forests to clear the land for agriculture. Such slash-and-burn practices are the easiest, most effective, and least expensive methods for clearing the

3 *Status of Ratification*, <<http://haze.asean.org/status-of-ratification/>>.

4 Law No. 26 Year 2014 on Ratification of ASEAN Agreement on Transboundary Haze Pollution, Consideration Part.

5 Laode M. Syarif, 'Evaluating the (in)effectiveness of ASEAN Cooperation Against Transboundary Air Pollution', in S. Jayakumar, et al. (Eds.), *Transboundary Pollution: Envolving Issues of International Law and Policy*, Edward Elgar Publishing Limited, Cheltenham, 2015, pp. 316-320.

6 *Singapore Anger as Haze from Indonesia Hits Highest Level this Year*, <www.bbc.com/news/world-asia-34355825>.

7 *Kabut Asap Kebakaran Hutan, Setengah Abad Kita Abai*, <<http://sains.kompas.com/read/2015/09/14/16272971/Kabut.Asap.Kebakaran.Hutan.Setengah.Abad.Kita.Abai>>.

8 *Ibid.*

land.⁹ This habit is practiced by most traditional farmers in Sumatra and Kalimantan and has caused widespread forest fires.¹⁰

While occurring annually, the severity of the pollution varies from year to year. The horrific haze pollution in the late 1997 dry season led to a severe environmental disaster in the region. The massive haze pollution at that time reached beyond neighboring countries such as Malaysia, Singapore, Brunei Darussalam, Thailand, and the Philippines.¹¹ In Indonesia and parts of Malaysia, particulate air pollution reached Pollutant Standard Index (PSI) 500, considered an imminent and substantial endangerment to public health and possibly leading to premature deaths.¹² The Asian Development Bank estimated the total economic cost of the 1997/1998 drought and fires at between USD 8.5 and 9.4 billion.¹³

The 1997/1998 severe episode of haze pollution attracted regional attention and prompted the establishment of the Regional Haze Action Plan ("RHAP"), approved at the ASEAN Ministerial Meeting on Environment on 23 December 1997, which set forth operational measures to prevent and reduce the damage from the fire and haze crisis.¹⁴ The primary objectives of RHAP were: (1) to prevent land and forest fires through better management policies and enforcement; (2) to establish operational mechanisms to monitor land and forest fires; and (3) to strengthen regional land and forest fire-fighting capabilities and other mitigation measures.¹⁵ The 1998 Hanoi Plan of Action called for the full implementation of RHAP by 2001.¹⁶ Prior to RHAP, ASEAN had adopted the 1995 ASEAN Cooperation Plan on Transboundary Pollution, which urged ASEAN member states to take three important actions: (1) assess the origin, main causes, and nature of transboundary atmospheric pollution; (2) prevent and control the source of haze at both the national and regional levels by applying environmentally sound technologies; and (3) develop and implement national and regional emergency response plans.¹⁷ None of these

9 Alan Khee-Jin Tan, 'The ASEAN Agreement on Transboundary Haze Pollution: Prospects for Compliance and Effectiveness Suharto Indonesia', 13 *New York University Environmental Law Journal* (2005), pp. 653-654.

10 Geneviève Michon (Ed.), *Domesticating Forests: How Farmers Manage Forest Resources*, Center for International Forestry Research, Indonesia, 2005, pp. 26-27.

11 The area of burned forest in East Kalimantan was 26,000 ha in 1997 and 533,000 ha in 1998. T. Toma, et al., 'Forest Rehabilitation Requires Fires Prevention and Community Involvement', in Shigeo Kobayashi, et al. (Eds.), *Rehabilitation of Degraded Tropical Forest Ecosystems*, Center for International Forestry Research, Bogor, 2001, pp. 108-109. Ralf Emmers, *Cooperative Security and the Balance of Power in ASEAN and the ARF*, Routledge Curzon, London - New York, 2006, pp. 25-26.

12 A. Heil and J. G. Goldammer, 'Smoke-haze pollution: A Review of the 1997 Episode in Southeast Asia', 2 *Regional Environmental Change* (2001), p. 33.

13 Rona Dennis, *A Review of Fire Projects in Indonesia (1982-1998)*, Center for International Forestry Research, Bogor, 1999, p. 18.

14 *Regional Haze Action Plan*, 1997, <<http://cil.nus.edu.sg/rp/pdf/1997%20Regional%20Haze%20Action%20Plan-pdf.pdf>>.

15 Ibid.

16 *Hanoi Plan of Action*, 1998, par.6.1, <www.icnl.org/research/library/files/Transnational/1998hanoi.pdf>.

17 *ASEAN Cooperation Plan on Transboundary Pollution*, 1995, <<http://environment.asean.org/asean-cooperation-on-transboundary-haze-pollution/>>.

regional initiatives were binding, and have accordingly proven ineffective in solving the haze problem.

To provide a stronger legal basis to comprehensively tackle the transboundary haze pollution, ASEAN adopted the ATHP in June 2002. The aim of the agreement was to prevent and monitor transboundary haze pollution as a result of land and/or forest fires which should be mitigated through concerted national efforts and intensified regional and international cooperation.¹⁸ Under the ATHP, the ASEAN Coordinating Centre for Transboundary Haze Pollution was established to facilitate cooperation and coordination among the Signatory Parties in managing the impact of land and/or forest fires.¹⁹ The Centre provides assistance based on a request from the national authority when it has declared an emergency situation.²⁰

There are three common obligations set out in ATHP: (1) to cooperate in preventing and monitoring transboundary haze pollution; (2) to respond immediately any resorts to minimize the consequences of the transboundary haze pollution; and (3) to perform regulatory and financial measures to adjust ATHP obligations within domestic jurisdiction.²¹ Parties to the ATHP shall, either individually or jointly, undertake to appoint its competent authorities and focal points to support the performance of the Centre,²² to establish National Monitoring Centres to perform monitoring measures under ATHP,²³ to provide any information, including data obtained related to the haze pollution,²⁴ to prevent and control activities related to land and/or forest fires that may lead to transboundary haze pollution,²⁵ to set national strategies and control measures on the health and environmental effects of forest fires and/or haze pollution arising from such fires,²⁶ to take regulatory and financial measures to mobilize material and immaterial needs to respond and mitigate the haze pollution,²⁷ to undertake technical cooperation to increase the preparedness for and to mitigate the risks to human health and the environment,²⁸ and develop scientific and technical research programs.²⁹ Parties may also request assistance from another party in the event of fires or haze pollution.³⁰ Such requests shall be

18 ATHP, art. 2.

19 Ibid., art. 5 (1).

20 Ibid., art. 5 (2).

21 ATHP, art. 4.

22 Ibid., art. 6.

23 Ibid., art. 7. Article 7 (1) stated that: "each party shall take appropriate measures to monitor: all fire prone areas, all land and/or forest fires, the environmental conditions conducive to such land and/or forest fires, and haze pollution arising from such land and/or forest fires."

24 Ibid., art. 8.

25 Ibid., art. 9.

26 Ibid., art. 10.

27 Ibid., art. 11.

28 Ibid., art. 16.

29 Ibid., art. 17.

30 Ibid., art. 12 (1).

promptly decided and notified from the designated party to the requesting party whether it is in a position to render the assistance requested.³¹

Although it is a binding treaty, the ATHP has no effective measures to compel compliance of signatory parties. Additionally, there is no specific body charged with enforcement of the Agreement.³² Rather, disputes between or among the parties shall be resolved through established ASEAN methods of diplomacy, namely amicable consultation and/or negotiation.³³ The absence of coercive enforcement measures has hindered and continues to hinder the legal certainty of ATHP implementation. In 2015, although all member states of ASEAN had fully ratified the agreement, the haze pollution unfortunately reached an unprecedented hazardous level of PSI 3.300 in Central Kalimantan.³⁴ Compliance with the ATHP by the parties is doubtful because no serious regional action has been taken to enforce the haze problem.

The recurring haze crisis in the region has generated a multidimensional effect. On the economic side, the World Bank calculated that the 2015 haze crisis cost Indonesia an estimated USD 16.1 billion.³⁵ The thick smog hampered schools' ability to operate³⁶ and forced people to flee from their homes.³⁷ The hazardous haze levels can possibly cause short-term health effects such as respiratory infections, as well as long-term conditions and even death.³⁸ Related to mortality, a 2012 study found that the transboundary haze pollution has been responsible for 110,000 deaths each year.³⁹

12.3 INDONESIA'S COMMITMENT AND STATE RESPONSIBILITY

ATHP has adopted the principle of "prevention of environmental harm" and precautionary principles. Article 3 paragraph 1 of ATHP stipulates that:

"The parties have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own

31 Ibid., art. 12 (3).

32 Laode M. Syarif, 2015, pp. 316-317.

33 ATHP, art. 27.

34 *Indonesia's Haze Crisis Hits Record Levels*, <www.nortonrosefulbright.com/knowledge/publications/137184/indonesias-haze-crisis-hits-record-levels>. Borneo Palangkaraya Air Pollution Break 3000 Points. Available at: <<http://marufish.com/2015/10/24/borneo-palangkaraya-air-pollution-break-3000-points/>>.

35 The World Bank, *Indonesia Economic Quarterly: Reforming Amid Uncertainty*, 2015, p. 18, <<http://pubdocs.worldbank.org/pubdocs/publicdoc/2015/12/844171450085661051/IEQ-DEC-2015-ENG.pdf>>.

36 *Singapore Shuts Schools as Pollution from Indonesian Fires Intensifies*, <<http://edition.cnn.com/2015/09/25/asia/singapore-haze-indonesia-schools/>>.

37 *Thousands Flee Pekanbaru as Haze Hits Record High*, <www.straitstimes.com/asia/se-asia/thousands-flee-pekanbaru-as-haze-hits-record-high>.

38 Narayan Sastry, 'Forest Fires, Air Pollution and Mortality in Southeast Asia', 39 (1) *Demography* (2002), pp. 5-6.

39 F.H. Johnston, et al., 'Estimated Global Mortality Attributable to Smoke from Landscape Fires', 120 (5) *Environmental Health Perspective* (2012), pp. 698-701.

resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment and harm to human health of other States or of areas beyond the limits of national jurisdiction.”⁴⁰

Moreover, ATHP has also adopted the precautionary principle. With clear substance, the precautionary principle asserts that scientific uncertainty should not be used as a reason for postponing the measures to anticipate, prevent, or minimize transboundary haze pollution.⁴¹ The incorporation of the two principles in ATHP promotes the signatory parties to avert risks of serious or irreversible harm arising from activities within their territories.

The injured parties of the transboundary environmental damage could legitimize its claim for state responsibility with the basis of breach of treaty obligation and/or customary international law.⁴² Although under ATHP, these claims could only be resolved through diplomatic mechanism.⁴³ However, both no-harm and precautionary principles have become corpus in international law⁴⁴ and have approached the degree of customary international law as it is applied as well in international treaties⁴⁵ and a number of court decisions.⁴⁶

40 The principle derive from the classic Anglo-Saxon legal maxim of *sic utere tuo ut alienum non laedas*. ATHP, art. 3 (1).

41 ATHP, art. 3 (3). See also Rio Declaration, principle 15.

42 The Court in its Advisory Opinions on Reparation for Injuries and on the Interpretation of Peace Treaties stated that “refusal to fulfil a treaty obligation involves state responsibility”. See *Reparation for Injuries Suffered in the Service of the United Nations*, Advisory Opinion, ICJ Reports, 1949, p. 184. *Interpretation of Peace Treaties with Bulgaria, Hungary, and Romania, Second Phase*, Advisory Opinion, ICJ Reports, 1950, p. 221. The Arbitral Tribunal in the Rainbow Warrior case argued that “any violation by a State of any obligation, of whatever origin, gives rise to State responsibility.” *Rainbow Warrior Affair*, New Zealand and France, UNRIAA, vol.XX, No. E/F.39.V.3, 1990, p. 215.

43 ATHP, art. 27.

44 *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, ICJ Reports, 1996. The Court which stressed that: “the existence of the general obligation of states to ensure that activities within their jurisdiction and control respect the environment of other states or of areas beyond national control is now part of the corpus of international law relating to the environment”.

45 The United Nations Convention on the Law of the Sea, 1982 (“UNCLOS”), article 194 para. 2 has adopted no-harm principle. Agreement for the Implementation of the Provisions of the UN Convention on the Law of the Sea, 1995, article 5 (c) and 6 require states to apply the precautionary principle. There are also soft laws that have adopted such principles such as Declarations on the United Nations Conference on the Human Environment, 1972 (“Stockholm Declaration”), principle 21 contains the prevention of environmental harm. Rio Declaration on Environment and Development, 1992 (“Rio Declaration”), principle 2 contains no-harm obligation and principle 15 contains precautionary obligation.

46 Arbitral Award, *Trail Smelter Case*, 3 U.N. Rep. Int'l. Arb. Awards (1941), p. 1905. *Case Concerning Gabčíkovo Nagymaros Project*, ICJ Reports, 1997, p. 7. *Pulp Mills on the River of Uruguay* (Argentina v. Uruguay), Judgments, ICJ Reports, 2010.

Several studies have mentioned that peat land fires are a major contributor to the haze⁴⁷ and they were also a major source of carbon emissions.⁴⁸ The haze pollution has originated from peatlands in Indonesia, predominantly from Sumatra and Borneo islands.⁴⁹ A study in 2016 shown that this haze exposed 69 million people living in Malaysia, Singapore, and Indonesia to unhealthy air pollution and estimated between 6,150 and 17,270 premature deaths occurred due to breathing the polluted air.⁵⁰ Based on this, Indonesia is potentially liable for the damage caused by transboundary haze pollution.⁵¹

This study suggests, however, that it is premature, or at least inadequate, to hold Indonesia solely liable for the transboundary damages post-ratification of the ATHP in 2014.⁵² To avoid state responsibility for transboundary damages, Indonesia must at minimum, perform three basic duties, including:

- a. The duty of to adopt appropriate measures and to ensure its enforcement of ATHP provisions.

The ATHP mandates the parties to take legislative, administrative, and other measures to implement their obligations under the agreement.⁵³ This study found that before ratification of the agreement, most of Indonesian domestic laws had already addressed the ATHP measures, even in technical detail, on how to monitor, prevent, and respond to the forest fires and haze pollution arising from such fires. Application of the ATHP measures in Indonesian domestic law could be well described below:

1. Monitoring measures

Based on article 7 (1) ATHP, each party shall take appropriate measures to monitor: all fire prone areas, all land/or forest fires, the environmental conditions con-

47 "Anthropogenic biomass burning in insular Southeast Asia facilitates conversion and degradation of ecosystems and emits high amounts of carbon into the atmosphere..... In both years, fires were concentrated in peatlands (in 2009 41% of fires vs. 10% of land area), and the majority of large-scale burning took place in peatlands." Jukka Miettinen, et al., 'Influence of Peatland and Land Cover Distribution on Fire Regimes in Insular South East Asia', 11 (1) *Regional Environmental Change* (2010), p. 191. D. L. A. Gaveau, et al., 'Major Atmospheric Emissions from Peat Fires in Southeast Asia during Non-Drought Years: Evidence from the 2013 Sumatran Fires', 4 *Scientific Reports* (2014). C. L. Reddington, 'Contribution of Vegetation and Peat Fires to Particulate Air Pollution in South East Asia', 9 *Environmental Research Letters* (2014), p. 1.

48 Ibid. BAPPENAS-ADB, *Causes, Extent, Impact and Costs of 1997/1998 Fires and Drought*. Final Report. National Development Planning Agency (BAPPENAS) and Asian Development Bank, Jakarta, 1999.

49 A Heil and J.G. Goldammer, op. cit. p. 24.

50 P. Crippa, et al., 'Population Exposure to Hazardous Air Quality due to the 2015 Fires in Equatorial Asia', 6 *Scientific Reports* (2016).

51 "In other words, Indonesia is responsible for the harm and damage which activities within its jurisdiction or control have caused to its neighbors. These principles are well established. The bottom line is that Indonesia is morally and legally responsible for the haze." S. Jayakumar and Tommy Koh, *The Haze, International Law and Global Cooperation*, Opinion, Straits Times, 2015, <www.straitstimes.com/opinion/the-haze-international-law-and-global-cooperation>. See also Kelly Ng, *Indonesia 'morally and legally responsible for haze'*, 2015, <www.todayonline.com/singapore/political-cost-involved-tackling-haze-problem-tommy-koh>.

52 Most public comments incriminate Indonesia for responsibility based on their non-compliance with ATHP. *This Letter of Complaint sent to Indonesia*, <www.thesundaily.my/news/1574046>. *Hell in South East Asia: Indonesia Must Stop the Haze*. Available at: <<http://pgi.nyc/?p=2738>>.

53 ATHP, art. 4(3).

ductive to such land and/or forest fires, and haze pollution arising from such land and/or forest fires.⁵⁴ Each party of ATHP shall also designate one or more bodies to function as National Monitoring Centres to undertake monitoring measures under ATHP.⁵⁵ These monitoring measures have already regulated under Indonesian domestic law which is carried out based on up and down coordination from the central government to the regional level.⁵⁶ To strengthen the coordination to monitor the forest and land fires, in 2016, the Indonesian government established “Dalkarhutla” (that stands for *Pengendalian Kebakaran Hutan dan Lahan* or Forest and Land Fires Control), an organization which has an authority to monitor forest and/or land fires.⁵⁷ This organization has three level: at central government level, provincial level, and regional level. At central government level, it has two functions that formed into two separate body namely joint task force to handling forest and land fires and *Manggala Agni*. Joint task force to handling forest and land fires is an ad hoc body and has coordination function at ministerial level.⁵⁸ *Manggala Agni* has function to directly prevent and extinguish forest and land fires, post-fire treatment, and evacuation process in the hot spot area.⁵⁹ This operational body works under the supervision of the Directorate General of Climate Change at the Ministry of Environment and Forestry.⁶⁰ Indonesian government also promotes its society to participate in the planning, countermeasures, and/or handling forest and land fires under tight coordination from the government.⁶¹ With these coordination and operational system, the government is confident to monitor and handling forest and land fires with fast, direct, and integrated.

2. Prevention measures

Dalkarhutla's function includes prevention of forest and land fires. Their activities consist of: community empowerment, community awareness, risk reduction of forest and land fires, early warning, and direct preventive patrol even in the prone area.⁶² To reduce and prevent future illegal land and forest clearing by fire, some of the Indonesian domestic environmental laws impose strict administrative and/

54 Ibid., art. 17(1).

55 Ibid., art. 17(2).

56 Government Regulation No. 4/2001 on Damage Management and/or Environmental Pollution Related with Forest and/or Land Fires, arts. 34-36.

57 Forestry Minister Regulation No. P.32/MenLHK/Setjen/Kum.1/3/2016, art. 5. This Law is actually enacted based on art. 18 (2) of the Government Regulation No. 4/2001.

58 Ibid., art. 8.

59 Ibid., art. 1 (56).

60 Ibid., art. 9 (1).

61 Ibid., art. 94-96.

62 Ibid., art. 69 (1).

or criminal sanctions.⁶³ Law No. 18/2013 on the Prevention and Eradication of Forest Destruction as an example is the direct law to prevent any efforts or chances to destroy Indonesian forests including legal action for perpetrators of forest destruction.⁶⁴ Post-ratification of ATHP, Indonesian government has seriously filed legal action against individual and/or business entity for their non-compliance of the law related with the prevention of forest and land fires. In 2016, High Court of DKI Jakarta Province held that PT. Jatim Jaya Perkasa was proven clearing the 1,000 hectares of peat land by fire for palm oil agriculture and based on polluter pays principle these private palm oil company must pay compensation in amount of 119 billion IDR to Ministry of Environment and Forestry for material damages and allocate 371 billion IDR for post-fire recovery.⁶⁵ Within the same year, in the case of *Ministry of Environment and Forestry v. PT. National Sago Prima*, the District Court of South Jakarta held that the defendant (PT. National Sago Prima) had failed to anticipate 3,000 hectares of forest and land fires in 2014.⁶⁶ Then, the Court ordered the defendant to pay 319 billion IDR to the government for material damages and 753 billion IDR for post fire recovery.⁶⁷

3. Assessment measures

Noting to the fact that ASEAN Centre has not yet physically established until now. Thus, its function is carried out though provisional basis by ASEAN Secretariat and ASEAN Specialized Meteorological Centre (ASMC).⁶⁸ To show its commitment, Indonesia has shared details of hotspot information that gave rise to trans-boundary haze pollution on government-to-government basis.⁶⁹ Moreover, Indonesia prefers to use their own metrological information source to early detect land and forest fires spots and to asses of root causes of large scale land and forest fires to identify prevention measures.⁷⁰ This information system could be accessed online for *Dalkarhutla*'s internal team by using the complete data and for public use

63 See Law No. 39/2014 on Plantation, art. 56 (1) and 108; Law No. 32/2009 on Environmental Protection and Management, arts. 69 (1), 98, 99, 108, and 119; Law No. 41/1999 on Forestry, arts. 50 (3), 78 (3) and (4); Indonesian Criminal Code, ars. 187 and 189. Government Regulation No. 4/2001 on Damage Management and/or Environmental Pollution Related with Forest and/or Land Fires, arts. 48-52.

64 Law No. 18/2013 on the Prevention and Eradication of Forest Destruction.

65 *Ministry of Environment and Forestry v. PT. Jatim Jaya Perkasa*, High Court of DKI Jakarta's Province Decision No. 727/PDT/2016/PT.DKI, 2016.

66 *Ministry of Environment and Forestry v. PT. National Sago Prima*, District Court of South Jakarta Decision No. 591/Pdt.G-LH/2015/PN JKT.SEL, 2015.

67 Ibid.

68 ASMC was established in 1993 as a regional collaboration program among the National Meteorological Services (NMSs) of ASEAN Member States and has main functions to monitor and assess forest and land fires for the ASEAN region and to conduct seasonal and climate predictions for the ASEAN region. *About ASMC*, <<http://asmc.asean.org/asmc-about/>>.

69 *Ministers Agree to Share Hot Spot Info*, <www.straitstimes.com/asia/se-asia/ministers-agree-to-share-hot-spot-info>.

70 The government launched the online information system in 2015. Any detail information related with land and forest fires spot could be accessed through: <<http://sipongi.menlhk.go.id>>. Along with it, Indonesia also

with data report that is easy to understand.⁷¹ The Ministry of Environment and Forestry has cooperated with BMKG (Indonesian Metrological, Climatological, and Geophysical Agency), LAPAN (Indonesian National Institute of Aeronautics and Space), BNPB (Indonesian National Board for Disaster Management), and other national research institutes to provide accurate information.⁷² Most importantly, in collecting and organizing the information, they also open to consider information from qualified foreign sources including from ASMC.⁷³

Post-ratification, Indonesia must ensure its enforcement and adopt any other measures necessary to strengthen regional efforts to implement the ATHP. Even though some important obligations of the ATHP have already been met through enactment of domestic legislation, Indonesia must also adopt and comply with the other requirements such as facilitating regional scientific research⁷⁴ and voluntarily contributing to the ATHP Fund.⁷⁵

Moreover, Indonesia's compliance with the ATHP also requires reconciling conflicting laws between the central and local governing bodies. For example, while national legislation promotes the prevention and technical response to overcome the haze crisis, the Governor of Central Kalimantan through its regulation, contrary to the provisions of the ATHP, provides guidelines to permit forest burning.⁷⁶ This local law must be revoked to ensure Indonesia's compliance with ATHP measures.

Most importantly, Indonesia must also ensure the enforcement of the ATHP measures. The Indonesian government under the new regime has demonstrated a serious commitment to tackle the haze crisis in the region. The President has instructed all ministers to increase their coordination toward three main priorities: (1) prevention of land and/or forest fires; (2) extinguishing forest fires, (3) and post-fire management.⁷⁷ The Indonesian Attorney General for instance has an obligation to scrutinize investigations and impose criminal sanctions for any

launched central call center and social media contacts to receive any information regarding new hotspot area.

71 See *Sipongi: Aplikasi Pendeteksi Dini Kebakaran Hutan*, <<http://sipongi.menlhk.go.id/publikasi/read/43/sipongi-aplikasi-pendeteksi-dini-kebakaran-hutan>>.

72 Ibid.

73 Indonesian Ministry of Foreign Affairs. (2016) *Laporan Kinerja Kementerian Luar Negeri Tahun 2016*. Indonesian Ministry of Foreign Affairs, Jakarta.

74 ATHP, art. 17.

75 Ibid., art. 20.

76 Local Government Regulation of Central Kalimantan No. 15/2010 on Guideline to Clear the Land and the Field for Society in Central Kalimantan Region.

77 President Instruction No. 11/2015 on the Enhancement Forest Fires and Land Management.

individual or corporation responsible for the haze pollution under domestic law.⁷⁸

As the result, a number of individual and corporation are being investigated for their forest and land burning activities.⁷⁹ The government also evaluates permits given to corporations and unequivocally will revoked and blacklisted companies which are found guilty of land and forest fires.⁸⁰ In 2015, from 413 companies that were indicated burning land and forest, the Government after deep investigation by the Joint Task Force under *Dalkarhutla* submitted 27 companies for police investigation report, freezing permit given to three companies, and revoked one permit.⁸¹ It means that Indonesia has complied to enforce the domestic laws preventing activities of individual and/or private entities within its territory not to cause harm to other states.⁸²

b. Duty of notification

The duty to notify has emerged as a legal obligation of all states under international law and has become a procedural measure applicable to the no-harm principle.⁸³ Potential affected states must be notified as timely as possible of haze pollution that has the potential to cross international borders, in order to anticipate the significant risks. Recalling the facts in *Sandoz Spill*, Switzerland's failure to notify affected states of the deadly spill hindered the affected states in undertaking preventive measures.⁸⁴

78 Ibid. There are three basic laws providing criminal sentences: Law No. 41/1999 on Forestry (article 50 and 78 prohibit any individual and/or corporation from burning a forest, violation of which subjects the offender a maximum imprisonment of 5 years and fine of 1,5 billion IDR based on negligence, a maximum 15 years and fine of 5 billion IDR for intention, or 1/3 additional criminal charge for corporate management who commits the crime), Law No. 39/2014 on Plantations (article 32 stated that every person who opens and cultivates land in a certain areas for cultivation purposes shall follow the procedures designed to prevent damage to the environment. The Government Regulations articulating these procedures have not yet been by the Government), and Law No. 32/2009 on Environmental Protection and Management (imposing administrative and criminal sanctions for any person or business entity who commits the forest burning. The criminal sanctions are also applied to government officers for their failure to supervise activities of individuals or entities which have caused environmental damage, pollution, and/or loss of human life).

79 In 2015, there were 148 under investigation by Indonesian Police Department. *148 Kasus Pembakaran Hutan dan Lahan Ditangani Polisi*, <www.solopos.com/2015/09/17/kabut-asap-148-kasus-pembakaran-hutan-dan-lahan-ditangani-polisi-643739>.

80 Ministry of Environment and Forestry, *Perkembangan Penanganan Penegakan Hukum Kebakaran Lahan dan Hutan*, <www.menlhk.go.id/berita-16-perkembangan-penanganan-penegakan-hukum-kebakaran-lahan-dan-hutan.html>.

81 Ibid.

82 Ian Brownlie, *System of the Law of Nations: State Responsibility*, Calarendon Press, Oxford, 1983, pp. 132-166. E. Jiménez de Aréchaga, "International Responsibility", in M. Sørensen (Ed.), *Manual of Public International Law*, Macmillan, London, 1968, p. 530. See also Draft Articles on Responsibility of States for Internationally Wrongful Acts, U.N. Doc., A/56/10 (2001), arts.4-11.

83 Daniel G. Partan, "The "Duty to Inform" in International Environmental Law", 6 *Boston University International Law Journal* (1988), p. 83. See also *Corfu Channel Case* (United Kingdom v. Albania), Merits, ICJ Reports, 1949.

84 Switzerland delayed more than twenty-four hours before notifying the downstream countries of the spill. Aaron Schwabach, "The Sandoz Spill: The Failure of International Law to Protect the Rhine from Pollution", 16 *Ecology Law Quarterly* (1989), p. 452.

If the Dutch authorities had been given twenty-four hours' notice of the spill, they could have mitigated environmental damage to the river.⁸⁵

The duty to notify other states in cases of transboundary risk, discharges the due diligence obligation to prevent harm. Under the ATHP, each party must respond and notify other parties of any forest fires and/or haze pollution events occurring in its territory.⁸⁶ After ratification, Indonesia is obligated to establish a single integrated national emergency response system. Unfortunately, Indonesia's existing system is uncontrolled and performs poorly. It further distributes the authority to tackle the haze crisis at the ministerial level.⁸⁷ The establishment of a single coordination system would effectively coordinate all the government institutions, both local and central, with autonomous authority thereby enhancing the national strategy to prevent transboundary haze pollution. This coordination is important to provide accurate and prompt decision-making to minimize transboundary haze pollution and to timely notify affected states with the most advanced and sophisticated information on any potential crisis.

c. Duty to cooperate

The duty to cooperate manifests the willingness of the polluter state to be amenable to a discussion with the potentially-affected states, setting common strategies for preventing transboundary harm from haze pollution. This duty is important to show a good faith commitment to tackling the crisis together with the other parties to the ATHP. The ATHP, indeed, requires each party to cooperate with each other through the ASEAN Coordinating Centre.⁸⁸ The cooperative commitment of Indonesia is important to strengthen regional efforts to overcome the haze crisis. Intensifying cooperation at the regional level will potentially provide more benefits for Indonesia and reduce its burden to solve the crisis alone. Such cooperation also will help neighboring countries, such as Singapore, to obtain necessary evidence to hold Singaporean companies liable for their roles in forest burning activities in Indonesia based on Singapore's Transboundary Haze Pollution Act 2014.⁸⁹ ASEAN Ministers appreciated Indonesia that has shown its commitment to comply the duty to cooperate by enhancing coordination among local governments, the national and regional governments.⁹⁰

85 Ibid., p. 466.

86 ATHP, art. 11.

87 DPR: *Koordinasi Penanganan Kabut Asap Tidak Jelas*, <www.suara.com/news/2015/10/10/131140/dpd-koordinasi-penanganan-kabut-asap-tidak-jelas>. *Menanti Terobosan Penanganan Kabut Asap*, <www.bbc.com/indonesia/berita_indonesia/2015/09/150907_indonesia_kabut_asap>.

88 ASEAN Coordinating Centre for Transboundary Haze Pollution Control or "ASEAN Centre" is established for the purposes of facilitating cooperation and coordination among the Parties (of ATHP) in managing the impact of land/or forest fires in particular haze pollution arising from such fires. ATHP, art. 5 (1).

89 Singapore's Transboundary Haze Pollution Act 2014 (hereinafter "Singapore THP Act").

90 "The Ministers expressed appreciation for the substantive efforts by Indonesia in implementing its Plan of Action (PoA) in Dealing with Transboundary Haze Pollution, which included among other things the close

Indonesia, however should not solely bear the burden to comply the obligations under ATHP. Noting the fact that investors from Singapore and Malaysia control more than two thirds of the entire palm oil plantation area of Indonesia,⁹¹ the impact of Malaysian and Singaporean plantation investors on the deforestation and forest fires in Indonesia could be attributed as an act of the state due to their connections with the governments.⁹² Cargill and Temasek Holding for instance, are private investment arms of the Singapore government that invested in undisclosed palm oil plantations in West Kalimantan.⁹³ The Malaysian government-linked investments, through shareholding or direct investments hold about one-third of Indonesia's total oil palm land bank.⁹⁴ Thus, it is necessary for Malaysian and Singaporean government also to make sure that activities of their private entities not to cause transboundary harm.

Other ASEAN nations have not shied away from their international obligations. The Singapore THP Act reflects the Singaporean government's willingness to apply extra-territorial attempts to prosecute individuals and legal entities that cause severe air pollution in Singapore.⁹⁵ This act applies not only to private companies but also to Singapore-linked companies on a non-discriminatory basis. Such positive legal action has allowed Singapore to meet its international obligations. However, in contrast to Singapore's willingness to subject its domestic entities to the ATHP compact, Malaysian investors have been able to burn with impunity due to the passivity of their government.⁹⁶ They occupy the largest palm oil plantation interests in Indonesia.⁹⁷ The Malaysian government does not take appropriate

and continuous monitoring of hotspots, and enhanced coordination among local governments, the national and regional governments, the private sector and local communities to prevent and suppress land and forest fires. The Ministers also noted the actions taken by other Ministerial Steering Committee (MSC) countries to address transboundary haze pollution, including Singapore's update on the actions taken against errant companies under its Transboundary Haze Pollution Act. The MSC countries also reaffirmed their offer of assistance to Indonesia for emergency response when necessary and called for enhanced cooperation and coordination to ensure the timely and effective deployment of international resources for firefighting assistance." *MEDIA RELEASE: 18th Meeting of the Sub-Regional Ministerial Steering Committee (MSC) on Transboundary Haze Pollution*, <<http://haze.asean.org/2016/05/media-release-18th-meeting-of-the-sub-regional-ministerial-steering-committee-msc-on-transboundary-haze-pollution/>>.

91 Schechinger Jessica, *The 2013 Southeast Asia Haze – a Shared Responsibility?*, <www.sharesproject.nl/the-2013-southeast-asia-haze-a-shared-responsibility/>.

92 James Crawford, *The International Law Commissions Articles on State Responsibility*, Cambridge University Press, Cambridge, 2002, pp. 100-103.

93 Rainforest Action Network, *Cargill's Problem with Palm Oil*, p. 10, <http://d3n8a8pro7vhmx.cloudfront.net/rainforestactionnetwork/legacy_url/530/cargills_problems_with_palm_oil_low.pdf?1402698255>.

94 Helena Muhamad Varkkey, 'Malaysian Investors in the Indonesian Oil Palm Plantation Sector: Home State Facilitation and Transboundary Haze', 19 *Asian Pacific Business Review* (2013), pp. 390-391.

95 Singapore THP Act, art. 4.

96 Helena Muhamad Varkkey, *op. cit.*, p. 381.

97 *Ibid.*

legal actions for the wrongful behavior of their investors.⁹⁸ To combat this, the Malaysian government should request its investors, including the government linked investors, to comply with the Indonesian domestic law in preventing forest fires.

12.4 ALTERNATIVE MEASURES

It must be noted that ATHP has been ineffective because of how ASEAN's diplomacy applies to dispute resolution. Rather than adopting effective measures, ASEAN's provisions use disincentive measures for non-compliance of the agreement. Specifically, non-compliance with the obligations stipulated in the ATHP will dissociate Indonesia from the greater benefits of the agreement⁹⁹ such as regional systematic sharing of information and technology, access to the ATHP Fund, and enhancement of domestic forest fire management. Yet, the disincentive measures have had no coercive spirit to enforce the agreement.

Most scholars point out the dispute settlement mechanism in ASEAN is not effective – it is simply not being practiced regionally.¹⁰⁰ A binding legal recourse for non-compliance with ATHP measures is necessary to attain effective enforcement. The 'ASEAN Way' of dispute settlement mechanisms seem to be a typical ground to avoid state liability.¹⁰¹ Furthermore, to gain an international reputation in the enforcement of ATHP, ASEAN must coerce the degree of compliance with their agreements by adopting effective and stronger legal recourse.¹⁰²

In fact, it is unlikely that the affected states in the ASEAN region would submit international claims against Indonesia before the International Court of Justice or Arbitration Tribunal even though customary international law and other related multilateral environmental treaties¹⁰³ provide legal certainty in the invocation of state responsibility over failure to prevent transboundary damages.¹⁰⁴

98 *Ini 5 Perusahaan Malaysia yang Bakar Hutan di Indonesia*, <www.tribunnews.com/nasional/2015/10/20/ini-5-perusahaan-malaysia-yang-bakar-hutan-di-indonesia>.

99 David B. Jerger, 'Indonesia's Role in Realizing the Goals of ASEAN's Agreement on Transboundary Haze Pollution', 13 (35) *Sustainable Development Law and Policy* (2014), p. 43.

100 Robert Beckman, et al., *Promoting Compliance: The Role of Dispute Settlement and Monitoring Mechanisms in ASEAN Instruments*, Cambridge University Press, London, 2016, p. 160. Philippe de Lombaerde, et al., *Governing Regional Integration for Development*, Ashgate Publishing Company, Burlington, 2008, p. 121. Hidetaka Yoshimatsu, 'Collective Action Problems and Regional Integration in ASEAN', 28 *Contemporary Southeast Asia* (2006), p. 122.

101 Alan Khee-Jin Tan, op. cit., p. 649.

102 Effective and stronger settlement dispute mechanism will ensure the legal certainty of ASEAN Agreement's enforcement and increase confidence of foreign investors. Jeffrey A. Kaplan, 'ASEAN's Rubicon: A Dispute Settlement Mechanism for AFTA', 14 *UCLA Pacific Basin Law Journal* (1996), pp. 151-152.

103 See The United Nations Framework Convention on Climate Change, 1992 ("UNFCCC"). Kyoto Protocol to the United Nations Framework Convention on Climate Change, 1998. Paris Agreement, 2015.

104 See Phoebe N. Okowa, *State Responsibility for Transboundary Air Pollution in International Law*, Oxford University Press, Oxford, 2000, p. 214.

Relying on a member nation's acquiescence to an international tribunal is not adequate. As an alternative, Zachary Douglas argued that an investor may submit a claim for damages for the host state's failure to comply with international customary international law so long as the host state's consent to arbitration is expressed in broad terms and such failure has caused damage to its covered investments.¹⁰⁵ Such investors could base their claims on the 'full protection and security' standard¹⁰⁶ adopted in bilateral investment treaties with Indonesia. For instance, in *Peter A. Allard v. The Government of Barbados*,¹⁰⁷ a Canadian investor claimed against the host state Barbados for failure to enforce, through its domestic environmental laws, international environmental law obligations with respect to the protection of a natural wetlands ecosystem, as well as obligation to provide full protection and security based on Bilateral Investment Treaty (BIT) between Canada and Barbados.¹⁰⁸ Employment of such provisions can be used as a commercial law method for enforcing international obligations.

The issue may also be addressed through less formalized international cooperation. Ratification of ATHP by all ASEAN member states reflects a strong commitment to tackling the shared problem of transboundary haze pollution. Moreover, Indonesia, Singapore, and Malaysia altogether with the other ASEAN member states should maintain a regional network to solve the transboundary haze pollution. Using the notion of shared responsibility,¹⁰⁹ contributions of member states to intensify regional coordination to prevent and monitor transboundary haze pollution are important to reach the objective of ATHP. Instead of reinforcing sovereignty to close off any internal resources,¹¹⁰ shared responsibility requires collective actions at regional level to assess, prevent, mitigate, and manage forest fires and the resulting haze.

The ability to address the problem of haze pollution can also extend beyond the ASEAN states' governments. In tackling the impact of haze pollution on global climate change, international communities also play important role by increasing awareness about the selection of products produced from sustainable agricultural practices. Consumers and NGOs in Singapore for instance are conducting concrete actions by encouraging palm oil companies to get Certified Sustainable Palm Oil (CSPO).¹¹¹ International

105 Zachary Douglas, 'The enforcement of environmental norms in investment treaty arbitration', in Pierre-Marie Dupuy and Jorge E. Viñuales (Eds.), *Harnessing Foreign Investment to Promote Environmental Protection*, Cambridge University Press, Cambridge, 2013, pp. 424-425.

106 These provisions guarantee the legal security enabling the investor to pursue its rights effectively. See Christoph Schreuer, 'Full Protection and Security', 1 (2) *Journal of International Dispute Settlement* (2010), p. 1.

107 *Peter A. Allard (Canada) v. The Government of Barbados*, PCA Case No. 2012-06.

108 See the text of the arbitration notice at <<http://graemehall.com/legal/papers/BIT-Complaint.pdf>>.

109 Jacqueline Peel, 'Unpacking the elements of a state responsibility claim for transboundary pollution', in S. Jayakumar, et al. (Eds.), *Transboundary Pollution: Envolving Issues of International Law and Policy*, Edward Elgar Publishing Limited, Cheltenham, 2015, pp. 61-62. See Schechinger Jessica, *loc. cit.*

110 Helena Varkkey, *The Haze Problem in Southeast Asia: Palm Oil and Patronage*, Routledge, New York, 2016, pp. 170-171.

111 *Roundtable on Sustainable Palm Oil*, <wwf.panda.org/what_we_do/footprint/agriculture/palm_oil/solutions/roundtable_on_sustainable_palm_oil/>.

reluctance to accept Indonesia's feeble efforts to address this issue are illustrated through EU restrictions. Indonesian palm oil faces import restrictions in the European Union because the industry has been a major cause of deforestation in the world.¹¹² France in particular has taken tougher action in order to discourage global deforestation by imposing a progressive import tax on imports of crude palm oil and its derivatives.¹¹³ Malaysia and Indonesia as the largest producers of palm oil in the world,¹¹⁴ and have been affected by this international attempts.¹¹⁵ Thus, to regain global market, signatory parties of ATHP (specifically Indonesia, Malaysia, and Singapore) must strictly enforce their domestic laws to prevent forest fires and resulting transboundary haze. They are also obligated to ensure the palm oil and pulp industries to follow sustainable environmental practices.

12.5 CONCLUSION

Transboundary haze pollution is a persistent phenomenon in the Southeast Asia region. To tackle the regional haze crisis, ASEAN environmental ministers signed the ATHP in 2002, taking effect a year thereafter. Indonesia is the last ASEAN member state to ratify the agreement (in 2014). Despite this agreement, the reoccurring haze crisis has continued to result in multidimensional adverse effects on the people in Indonesia and neighboring countries. Indonesia as the originating country of transboundary haze pollution has been denounced, being held accountable for the damages. Ratification of ATHP by Indonesia, however has not *per se* been held responsible because ATHP contains ineffective legal measures. Even though customary international law and other relevant multilateral environmental agreements make it possible, the affected states like Malaysia and Singapore do not want to submit claims before the International Court of Justice or Arbitration Tribunal. Not surprisingly, Malaysian and Singaporean investors also contribute in land deforestation in Indonesia, and government claims before international ad-

112 Commission Regulation (EU) No. 490/2013 on Imposing a Provisional Anti-dumping Duty on Imports of Biodiesel Originating in Argentina and Indonesia, 27 May 2013.

113 *Palm Oil Industry Indonesia Update: Progressive Import Tax France*, <www.indonesia-investments.com/id/news/news-columns/palm-oil-industry-indonesia-update-progressive-import-tax-france/item6457>.

114 Elizabeth Cushion, et al., *Bioenergy Development: Issues and Impacts for Poverty and Natural Resource Management*, The World Bank, Washington, 2010, pp. 34-37. See also Europe Economics, *The Economic Impact of Palm Oil Imports in the EU*, 2014, p. 3, <www.europe-economics.com/publications/europe-economics_-_economic_impact_of_palm_oil_imports.pdf>.

115 "On 4 April 2017, the European Parliament issued a resolution to only import sustainable palm oil after 2020. The parliament called for a single international sustainable palm oil standard, which sparked objections from Indonesia and Malaysia, the world's two biggest CPO producers..." *Only 12% of Indonesia's Oil Palm Plantations ISPO Certified*, <www.thejakartapost.com/news/2017/04/12/only-12-of-indonesias-oil-palm-plantations-ispo-certified.html>. *RI Threatens to Report France to WTO over Palm Oil Tax*, <www.thejakartapost.com/news/2016/03/17/ri-threatens-report-france-wto-over-palm-oil-tax.html>.

judicating bodies could result in such investors' misconduct being deemed attributable to the states merely on their connection to the government support.

Ratification of the ATHP can be viewed as a signal of Indonesia's commitment to seriously address the annual haze problems. Although the ATHP provides non-coercive measures for non-compliance, its provisions offer greater advantages for Indonesia such as: regional systematic sharing of information and technology, access to the ATHP Fund, and enhancement of domestic forest fires management. Moreover, Indonesia good faith commitment to enforce ATHP measures and comply with the international obligations should be implemented through concrete basic duties: the duty to adopt appropriate measures and to ensure its enforcement; the duty to notify; and the duty to cooperate.

As an alternative legal recourse, using the broad term of 'full protection and security' under BIT, investors are able to submit claims for damages for the host state's failure to comply with international legal obligations. If Indonesia fails to comply by failing to address transboundary haze, which harms other states' investors, it may be held liable for compensatory damages.

This study also found other effective actions to tackle the transboundary haze pollution. Recognizing the haze pollution as the common problem, responsibility for this environmental problem is shared among the member states at the regional level. Their tight coordination is vital to mitigate and monitor haze through sharing contribution of advanced resources.

Finally, international communities also play an important role in preventing transboundary haze pollution, which has a major effect on global climate change. For instance, awareness in buying products that comply with 'haze-free' standards will encourage industries to follow sustainable environmental criteria. Other example, as the second largest palm oil export destination for both Indonesia and Malaysia, the European Union has pressured palm oil suppliers to comply environmentally sustainable forestry practices.

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