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# After Indonesia's Ratification: The ASEAN Agreement on Transboundary Haze Pollution and Its Effectiveness As a Regional Environmental Governance Tool

#### Daniel Heilmann

Abstract: On 20 January 2015 Indonesia deposited its instrument of ratification for the ASEAN Agreement on Transboundary Haze Pollution with the ASEAN Secretariat, becoming the last ASEAN member state to join the treaty. Haze pollution poses a serious health threat to the people of Indonesia, Singapore and Malaysia, and for decades haze pollution has been a highly contentious issue among ASEAN member states. This article argues that Indonesia's ratification will not be an immediate game changer. The mechanisms of the agreement are too weak to contribute much to a reduction of haze pollution in the region. The agreement is designed according to the ASEAN way: a non-binding approach that is based on the principles of state sovereignty and non-intervention. This makes it unlikely that the agreement itself will bring about change, even now that all ASEAN member states have ratified it.

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**Keywords**: Southeast Asia, ASEAN cooperation, environmental governance, haze pollution, regional agreement

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#### 1 Background

Parts of Southeast Asia have experienced severe haze pollution for several decades. The haze, caused by forest and peat fires originating in Indonesia, has implications for regional politics; over the years, ASEAN has intensified its attempts to collectively address this environmental issue. The ASEAN Agreement on Transboundary Haze Pollution (hereinafter: THPA) is both the centrepiece of ASEAN efforts to combat haze and at the core of the haze regime. It is the first regional agreement in the world that legally requires neighbouring states to tackle transboundary haze resulting from forest and peat fires. The THPA defines haze pollution as

smoke resulting from land and/or forest fire which causes deleterious effects of such a nature as to endanger human health, harm living resources and ecosystems and material property, and impair or interfere with amenities and other legitimate uses of the environment (Article 1, para. 6).

The agreement was signed by the ASEAN environment ministers in Kuala Lumpur on 10 June 2002 and entered into force on 25 November 2003, on the sixtieth day after the deposit of the sixth instrument of ratification. The coordination of action has been difficult and it has proven cumbersome to regulate transboundary haze pollution through regional governance. However, the remaining ASEAN member states successively ratified the treaty. Indonesian lawmakers ratified the THPA on 16 September 2014, and the instrument of ratification was deposited with the ASEAN Secretariat on 20 January 2015, thus making Indonesia the last ASEAN country to join the agreement.

Yet, the reoccurring haze pollution raises several questions, especially the question of why the governance framework has remained largely ineffective – and whether that is likely to change now that Indonesia has ratified the agreement. The dynamics that play a role in all multilateral environmental governance regimes are also important in this case. First of all, states tend to create an international or regional regime only under the condition that they cannot solve a problem on their own (see Litta 2010: 82). Source states usually are not interested in ratifying international agreements if they have to shoulder the costs of the implementation.<sup>2</sup>

<sup>1</sup> The original six parties to the agreement were Singapore, Malaysia, Thailand, Vietnam, Myanmar and Brunei.

<sup>2</sup> For a cost-benefit analysis of transboundary pollution, see Merrill 1997: 972. Generally, for collective action to occur, the benefit derived from the regime

States, as rational actors, engage in an environmental regime only if the expected benefits exceed the expected costs (also see Litta 2010: 82). Furthermore, source states are reluctant to agree to an arrangement that upsets the status quo, because they receive most or all of the economic benefits of the economic activity that creates the pollution (Jerger 2014: 37). At the same time, not only do the affected states usually not benefit from the economic activities occurring in the source state, but they are also forced to bear the cost of mitigating the transboundary pollution.<sup>3</sup> It is basically this collision of interests which makes it difficult to negotiate agreements between source states and affected states (Merrill 1997: 932). Clearly, such a dichotomy of interests has been the case in Southeast Asia. The situation is complicated by Malaysian plantation firms that operate in Indonesia and have their own economic interests. These firms have been involved in clearing land, which may have resulted in transboundary haze.4 The opposing economic interests of investors in the source state and the interests of the general public in negatively affected states are at the heart of the conflict and represent another reason why Indonesia took so long to ratify the THPA.

The motivation behind the Indonesian move to finally ratify the THPA seems to be twofold, evincing the country's desire to both strengthen its international profile and react to the increased international attention after the record-high levels of haze pollution in 2013. Ultimately, Indonesia took the opportunity to bring to an end what had been a contentious issue for a long time and had caused diplomatic disturbances at almost every regional meeting on forest fires and haze pollution. There was no important reason for the Indonesian parliament *not* to ratify the agreement, and non-ratification would only have continued to complicate Indonesia's diplomacy efforts within ASEAN (see Syarif 2014). Ergo, it was in Indonesia's best interest to become a party to the THPA to ultimately boost its bargaining position in order to better pursue its interests in the region. Another reason for Indonesia's ratification

<sup>(</sup>in terms of reducing externalities) must exceed the costs of creating and maintaining the regime.

<sup>3</sup> Tacconi argues that Indonesia has no real incentive to join the THPA for that reason. However, Indonesia also lost between 1.7 and 2.7 billion USD as a result of the negative impact of fires on timber production, plantation crops, etc.; see Tacconi, Jotzo, and Grafton 2006: 12.

<sup>4</sup> See Section 4 (d) below and Varkkey (2013), who points out that because of close patronage relationships and vested interests of the Malaysian government elites in these companies, the Malaysian government is inclined to protect and defend the actions of Malaysian plantation firms in Indonesia even while the Malaysian public continues to suffer from the haze pollution.

is that Indonesia has technically complied with most of the requirements of the THPA (although the legal and institutional mechanisms which were put in place arguably do not operate properly). Ultimately, the prospect of putting the controversy to rest seems to have outweighed potential disadvantages.

This paper<sup>5</sup> examines the adequacy of the legal regime governing haze pollution. It seeks to assess the effectiveness of the regional governance approach, and particularly the THPA, now that Indonesia has ratified the agreement. The paper argues that haze mitigation is, at least in part, unsuccessful due to the style of regional engagement in ASEAN. The study is divided into six main sections. The second section summarizes the problem of haze pollution in Southeast Asia. The third section looks at the developments that led to the establishment of the agreement, while the fourth section scrutinizes the features of the regime as set out in the agreement. Finally, the fifth section compares the mechanisms of the THPA with the realities on the ground, before the sixth section draws some conclusions.

#### 2 Reocurring Haze Pollution

The use of fire to clear land is entrenched in many Southeast Asian cultures, and the resulting haze<sup>6</sup> spreads across the region in the intermonsoonal dry season (Lohman, Bickford, and Navjot 2007: 376). The problem is mostly man-made. In many instances, the fires are deliberately started by local farmers or by plantation and timber interests to clear land. Burning is the cheapest and easiest method to clear undergrowth and logging waste following the removal of timber.<sup>7</sup> The forest and land fires in Indonesia are the main factor contributing to regional haze.<sup>8</sup> The

<sup>5</sup> All views expressed in this article are those of the author in his private capacity only.

<sup>6</sup> Tay (1998b: 207) points out that there is a tendency to speak about "haze" rather than about "air pollution"; however, the term "haze" may understate the risk to human health.

<sup>7</sup> See Barber and Schweithelm 2000: 31ff. Fires are also caused by small-scale farmers, but these are smaller in impact compared to the ones conducted by agribusiness companies.

<sup>8</sup> Some fires also occur in Malaysia, but these are a minor contributing factor compared to the fires and haze originating in Indonesia. The status of fires in the region can be tracked at <a href="http://fires.globalforestwatch.org">http://fires.globalforestwatch.org</a> (5 October 2015). Overall, the haze pollution affects the health of over one hundred million people in the region. Due to the location of the haze and prevailing wind

haze that originates in Indonesia is so massive that it has at times reached beyond peninsular Malaysia to Thailand, Cambodia and Laos on the Asian mainland, and Brunei and the Malaysian states on the island of Borneo (Jerger 2014: 37).

Air is considered hazy when ground-level visibility is between 1,000 and 2,000 meters. A major problematic effect is that haze tends to remain in one location when there is no wind, thus creating adverse health effects. However, the haze from one source can also travel great distances when strong wind patterns prevail. An international dimension develops when haze travels across borders and becomes transboundary pollution. Transboundary pollution has been defined as a physical externality or spillover that crosses state lines (Merrill 1997: 968; Jerger 2014: 35). More precisely, transboundary pollution occurs when a potentially harmful environmental agent is released in one jurisdiction (the source state) and physically migrates through a natural medium, such as air, to another jurisdiction (the affected state) (Merrill 1997: 968).

Major contributors to haze pollution are fires in peat soils.<sup>11</sup> Peat fires are difficult to suppress, as they occur under the ground and produce very thick haze along with releasing high amounts of carbon.

The haze crisis of 1997, in particular, led to unprecedented damage in the region, and Southeast Asia was on the brink of an environmental catastrophe. Fires from both logging and palm plantations raged on the Indonesian islands of Sumatra and Kalimantan; when wind patterns shifted, the haze from these fires travelled to Malaysia, Brunei, Singapore, Thailand and the Philippines. By the time the fires were brought under control, the region had suffered widespread forest destruction<sup>12</sup> and land had been lost that could have otherwise been used for agriculture (Jerger 2014: 40; see also Tay 1998b: 206). The damage was estimated at more than 9 billion USD in terms of economic, social and environmental losses (see ASEAN Fact Sheet; Tan 2005: 656). The economic damage main-

patterns, those most severely affected are people in Indonesia, Singapore and Malaysia.

<sup>9</sup> Haze describes the amount of particulate matter in the air and its effect on visibility, see Jerger 2014: 35.

Transboundary air pollution originating from Asia has been detected as far away as over Hawaii and even the mainland of the United States, see de Bie 2005: 124.

<sup>11</sup> Peat soil is comprised of partly decomposed plant material and can easily burn as soon as the water is drained out and the peat dries up, and because 60 per cent of the world's tropical peatlands are found in Southeast Asia, this proves particularly problematic in the ASEAN context.

<sup>12</sup> It has been estimated that almost ten million hectares of forest were lost.

ly arose from losses such as the destruction of crops and timber and the decline in tourism and foreign investment in the affected regions. Ecological damage included the loss of biodiversity and habitats, including the destruction of endangered species of flora and fauna, and the impairment in crop productivity due to pollution and reduced photosynthesis (Tan 2005: 657). But the effects were not limited to the natural environment, as millions of people in the region had been exposed to the haze for weeks. The unhealthy haze conditions increased mortality in Malaysia and lowered infant and fetal survival in Indonesia (Lohman, Bickford, and Navjot 2007: 376).

Since then, haze pollution has occurred in the region almost every year. The problem flares up every dry season in varying degrees. Especially severe haze pollution was recorded in 2006, 2009 and 2013.<sup>13</sup> In 2013, haze pollution reached hazardous levels again when the pollution index hit record highs and in some locations surpassed the pollution rate of 1997. In June and July of 2013, the haze crisis affected several countries, including Brunei, Indonesia, Malaysia, Singapore and Southern Thailand. As in the years before, the haze was caused by large-scale burning in parts of Sumatra and Borneo. The Pollution Standards Index in Singapore reached a record high of 401 on 21 June 2013, surpassing the previous record of 226 set during the 1997 haze crisis. 14 On 23 June 2013, the Air Pollution Index in Muar, Johor, spiked to 746, which was almost 2.5 times above the minimum range of the hazardous level, resulting in the declaration of a state of emergency (The Star Online 2013). In response to the 2013 haze crisis, ASEAN leaders agreed in October 2013 to adopt a monitoring system and to share satellite data to help better locate fire hotspots, as well as to ascertain if these hotspots are on land owned by plantation companies. However, the problem of hazardous haze pollution has not yet been properly brought under control.

After the 2006 haze crisis, Indonesia seemed to be moving towards ratifying the THPA, but later decided to instead set up a committee to further study the agreement in detail, effectively stopping its parliamentary ratification process. Indonesia's position then shifted quickly after the fires were put out, and by June 2007 it was clear that Indonesia would not ratify the agreement, see Varkkey 2009: 94.

<sup>14</sup> It was more than 100 higher than the previous record as well, see BBC News 2013.

#### 3 Regional Cooperation Leading to the Agreement

ASEAN began to acknowledge haze pollution as a regional concern as early as 1985, with the adoption of the Agreement on the Conservation of Nature and Natural Resources, which included a reference to air pollution and trans-frontier environmental effects. Over time, other agreements followed with references to transboundary pollution, such as the 1990 Kuala Lumpur Accord on Environment and Development and the 1992 Singapore Resolution on Environment and Development. The first Workshop on Transboundary Pollution and Haze in ASEAN Countries was held in Balikpapan, Indonesia, in 1992. It addressed haze as a problem specific to the region. The ASEAN ministerial meeting on the environment in 1994 marked the beginnings of a visible effort to address the problem of haze pollution. The effort was driven largely by Singapore, which pushed for multilateral cooperation to address the problem, because it realized that it could do nothing further domestically to reduce the impact of haze (Varkkey 2011: 91).

In 1995 ASEAN member states agreed to adopt the Cooperation Plan on Transboundary Pollution. 15 As a follow up to this plan, a Haze Technical Task Force (HTTF) with the objective of putting into operation the measures included in the cooperation plan was established. Despite an alert system being activated in 1995, substantial cooperation between ASEAN member states began only in 1997 when the ASEAN Ministerial Meeting on Haze was established. This finally gave transboundary haze pollution a special status of importance in the organization (Varkkey 2012: 85). In light of the disastrous haze experience in 1997, the meeting formulated the Regional Haze Action Plan<sup>16</sup> (RHAP) under the HTTF to provide further commitment and detail to the cooperation plan. The RHAP set out cooperative measures amongst ASEAN members to address the problem of haze. The primary objectives of the RHAP were to prevent land and forest fires through better management policies and enforcement; to establish operational mechanisms to monitor land and forest fires; and to strengthen regional capability to fight

<sup>15</sup> The plan set out policies and strategies to deal with atmospheric and other forms of transboundary pollution including a number of measures to prevent and respond to the fires and haze, such as the promotion of zero-burning practices; the deployment of ground forces to prevent and detect forest fires; and the establishment of national focal points to strengthen regional coordination.

<sup>16</sup> The Regional Haze Action Plan is available at <a href="http://cil.nus.edu.sg/rp/pdf/1997%20Regional%20Haze%20Action%20Plan-pdf.pdf">http://cil.nus.edu.sg/rp/pdf/1997%20Regional%20Haze%20Action%20Plan-pdf.pdf</a> (5 October 2015).

land and forest fires.<sup>17</sup> The RHAP asked ASEAN member states to develop national plans to encapsulate their policies and strategies to prevent and mitigate land and forest fires (RHAP, at para. 6). Additionally, the RHAP undertook strengthening regional monitoring mechanisms by establishing early warning and monitoring systems to provide an alert of the first outbreak of land and forest fires (RHAP, at para. 8). As a part of this effort, the ASEAN Specialized Meteorological Centre (ASMC) was strengthened. ASEAN set out to make the RHAP operational immediately and requested assistance from the Asian Development Bank (ADB). The ADB responded quickly by approving regional technical assistance. Additionally, in 1998, the ASEAN Summit issued the Hanoi Plan of Action that called for full implementation of the RHAP by 2001 and established a procedure by which firefighting resources could be pooled for regional firefighting operations.<sup>18</sup>

In April 1999, ASEAN adopted a zero-burning policy and urged its member states to implement the necessary laws and regulations to enforce it. On top of that, a number of dialogue sessions and workshops were convened to promote the zero-burning policy among plantation owners and timber concessionaires. 19 In sum, there was quite a lot of activity on the ASEAN level after the hazardous haze pollution episode of 1997. However, these initiatives and instruments - particularly the 1995 ASEAN Cooperation Plan on Transboundary Pollution and the 1997 Regional Haze Action Plan - were not binding for ASEAN member states. They were soft law, based on which the state-parties developed their own plans, guidelines and measures to prevent and monitor fires (Tan 2005: 661). Therefore, the Singaporean government, in particular, felt the need for a more "concrete" regional agreement, because it believed that regional governance (the RHAP) was not sufficiently effective. It regarded the non-existence of penalties and compensation in the existing framework as a crucial shortcoming that made the regional instruments mere statements of intent (Varkkey 2011: 92; with further

<sup>17</sup> Varkkey 2012: 85. The RHAP was divided into three parts: The first part required member states to draw up national plans based on the regional plan; the second part sought to strengthen the monitoring and anticipation of both forest fires and increased pollution levels through the ASMC in Singapore; and the third part focused upon enhancing firefighting capability.

Specifically, it established two Sub-Regional Firefighting Arrangements (SRFA) for Borneo and the Sumatra/Riau provinces in Indonesia under the RHAP to facilitate the movement of resources from one member country to others in order to mitigate the haze problem, see Varkkey 2012: 85.

<sup>19</sup> For a timeline of haze action in the ASEAN context, see also the ASEAN Haze Action Online Website, online: <a href="https://www.haze.asean.org">www.haze.asean.org</a>>.

references). Hence, in 2001, the THPA was proposed, whose goal was to provide legally binding support for the RHAP.<sup>20</sup> Unlike its predecessor agreements, the THPA was envisioned to be a full-fledged treaty regime with binding obligations. Whether it has lived up to these aspirations will be assessed below.

#### 4 The Framework of the Agreement

The THPA was hailed as a landmark at the time of signing in 2002, and great hope was invested in a new era of ASEAN cooperation on transboundary pollution. The following section takes a look at the main features of the THPA, which include the acknowledgement of international environmental standards, and the set-up of cooperation and monitoring schemes.

#### 4.1 International Environmental Law Standards

The THPA is a product of joint action by all ASEAN member states. It addresses crucial aspects of fire and haze pollution including prevention, monitoring and mitigation. Art. 3 of the THPA (on the principles by which the parties shall be guided) states that

the parties have [...] 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.

This provision is a clear commitment to the fundamental principle of "no harm". This cornerstone principle of international environmental law pronounces that states are under an obligation not to cause harm to the environment of other states, or to the areas beyond their national jurisdiction. The essence of the obligation is that states may not conduct or permit activities within their territories without regard to other states

At the same time, the ASEAN Peatland Management Initiative (APMI) was proposed at the 9th ASEAN Ministerial Meeting on Haze in 2002. This initiative was to complement the SRFA initiatives with a special focus on addressing issues of fire prevention and control in the region's peatlands. The goals of the APMI are to promote sustainable management of peatlands through collective efforts and enhanced cooperation among ASEAN member countries towards achieving local community support, and to promote regional benefits through reduced risk of fire and associated haze.

or for the protection of the global environment.<sup>21</sup> In relation to transboundary air pollution, the principle was famously spelled out in the Trail-Smelter Case of 1941. The tribunal held that

no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties of persons therein, when the case is of serious consequence. (Trail Smelter Case (US/Can.) 1941: 716)

The "no-harm" rule as articulated in this decision is a conceptual anchor to international environmental law. It also informs the THPA, with its ultimate goal of preventing or at least mitigating transboundary haze pollution.<sup>22</sup>

The THPA recognizes that the negative effects of transboundary haze pollution must be tackled through concerted efforts and international cooperation. This goal is pursued by the state-parties in the overall context of sustainable development and in accordance with the provisions of the agreement (Art. 2 THPA). The sovereign right of the parties to exploit their natural resources is reaffirmed in Article 3, paragraph 1 of the THPA. It is a manifestation of the core environmental law principle, as exemplified by the ubiquitous Principle 21 of the 1972 Stockholm Declaration of the United Nations Conference on the Human Environment, which declares in almost identical wording that

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or areas beyond the limits of national jurisdiction. (Stockholm Declaration 1972)

Accordingly, states are not free to act as they wish on their territory, but they bear the responsibility to ensure that activities concerning the management of their natural resources neither damage the environment nor harm the health of people in other states. This potentially leads to a dichotomy. Experience shows that sustainable development and sovereign exploitation of resources do not always go hand in hand. The agreement therefore mandates that the parties take precautionary measures by taking steps to anticipate, prevent and monitor transboundary haze pollu-

<sup>21</sup> For a detailed discussion of the no-harm principle, see Jervan 2014: 4ff.

<sup>22</sup> For a discussion of the no-harm principle in the context of international environmental agreements, see also Nurhidayah 2012: 5ff.

tion resulting from land and forest fires (Art. 3, para. 3 THPA). The internationally recognized precautionary principle, which aims to ensure a high level of environmental protection through preventative decision-taking in the case of risk, is reflected in this norm.<sup>23</sup>

In sum, the THPA refers to the fundamental principles of international environmental law (for a discussion of the core rules of international environmental law, see Mackielo 2009–2010), such as the no-harm rule, the precautionary principle and the sovereign right to exploit natural resources, and enshrines them in the regional governance framework.<sup>24</sup>

#### 4.2 Monitoring, Assistance and Prevention

The operationally most important provisions of the agreement are arguably Articles 7, 9 and 12 on monitoring, prevention and assistance in the case of fires. The agreement not only obliges state-parties to cooperate, but also urges the parties to take steps to prevent and monitor transboundary haze pollution. The agreement refers to these norms as binding (the parties "shall"), but the provisions are written in a way that gives discretion to the member states concerning their actions and the types of activities that they carry out to mitigate haze pollution. Nevertheless, these provisions impose obligations on the parties to develop the requisite legal or administrative machineries in order to combat transboundary haze pollution (Tan 2005: 663). The agreement does not include penalties or punishment for transgression, but its provisions are wide enough to provide for the enactment of strong national laws and the domestic prosecution of offenders to deter the use of fire (Tan 2005: 663). States are thereby encouraged to follow up on the domestic level by establishing and enforcing laws that reflect the spirit of the agreement.

If a state-party needs assistance in the event of fire or haze pollution, it may request such assistance directly from any other party or through the ASEAN Co-ordinating Centre for Transboundary Haze Pollution Control.<sup>25</sup> Assistance can be provided only upon the request and with the consent of the receiving party (Art. 12, para. 2 THPA). The state in which the fire occurs retains control over the actions to be taken and

<sup>23</sup> However, the provision on the precautionary principle is in non-mandatory language: The parties "should" take precautionary measures, as opposed to "shall".

<sup>24</sup> See also Nurhidayah (2012), who discusses the influence of international law on the ASEAN governance approach in detail.

<sup>25</sup> Hereinafter: ASEAN Centre; the centre has not yet been physically established, see below 4.3.

over the admission of assistance into its territory. The state that requests or receives assistance exercises the overall direction, control, coordination and supervision of the assistance within its territory (Art. 13, para. 1 THPA). It must provide, to the extent possible, local facilities and services for the proper and effective administration of the assistance (Art. 13, para. 2 THPA). The requesting party, in addition, exempts the assisting party from taxes, duties and any other charges that would normally be assessed (Art. 14, para. 2 THPA). Thus, the parties concerned retain sovereignty and - ideally - enjoy the benefit of combined resources in the fight against haze pollution. This is generally commendable, but under the terms of the agreement there is nothing that affected states can do to compel the acceptance of assistance should the state causing harm refuse to accept assistance in fighting fires. Thus, these provisions potentially undermine the effectiveness of the agreement. Tan rightly points out that the agreement would be more effective in responding to a situation of crisis if certain safeguards, such as a high-level council comprising representatives of all state-parties with the mandate to call for mandatory assistance, had been established (Tan 2005: 667; see also Tacconi, Jotzo, and Grafton 2006: 7).

Concerning monitoring, the agreement emphasizes that each party must monitor all fire-prone areas, all land and/or forest fires and any haze pollution arising from such fires (Art. 7, para. 1 THPA). Furthermore, parties shall take "immediate action" to control or put out a fire in the event that a fire occurs. Concerning the prevention of fires, Article 9 of the THPA states that each party must (a) develop and implement legislative and other regulatory measures to promote a zero-burning policy; (b) identify and monitor areas prone to fires; (c) strengthen local firefighting and fire-management capability; and (d) promote public education and awareness-building campaigns. However, there are no specific targets that the parties are obliged to meet in regard to these measures (see Tacconi, Jotzo, and Grafton 2006: 6).

#### 4.3 Coordination and Information-Sharing

The agreement relies on several structures to facilitate coordination and information-sharing amongst the parties: (1) the Co-ordinating Centre for Transboundary Haze Pollution Control, (2) the ASEAN Secretariat and (3) the ASEAN Transboundary Haze Pollution Control Fund (hereinafter: Control Fund).

Art. 5 of the THPA establishes the ASEAN Centre. The ASEAN Centre's function is an extension of the ASMC, which was established by ASEAN in 1993 to enhance collaboration between the member states.

The ASEAN Centre has not yet been formally established, and its functions are performed on an interim basis by the ASEAN Secretariat and the ASMC. The relevant responsibilities will be handed over once the ASEAN Centre is physically established. Two countries, Indonesia and Malaysia, have expressed interest in hosting the permanent premises of the ASEAN Centre, and the Indonesian government is making necessary preparations through the Foreign Ministry and the Ministry for Environment and Forest to host the ASEAN Centre (Aritonang 2015). The host country will have to bear the overhead costs of the ASEAN Centre, while other operational costs will be jointly financed through fundraising in member states.

According to the THPA, the main task of the ASEAN Centre will be to facilitate cooperation and coordination among parties in managing transboundary haze. To that end, it promotes transparency and coordination particularly by gathering data and standardizing and disseminating the data to the parties. Ultimately, having a centralized database allows for more efficient communication and decreases the parties' time and effort needed to search for data (up until 2014, see Jerger 2014: 41). In addition to the collection of data, the data submitted by state-parties is standardized. The ASEAN Centre, according to Article 5, paragraph 2 of the THPA, works on the basis that the designated national authority acts first to put out fires. Only when the national authority declares an emergency situation may it request that the ASEAN Centre provide assistance. The discretion to declare a state of emergency lies with the national authority. Thus, the ASEAN Centre cannot prescribe or take any action should state-parties decide to handle the situation unilaterally (Tan 2005: 667). However, once a state-party has decided to seek assistance from the ASEAN Centre, it can become quite an effective tool to orchestrate a response to fire or haze pollution. For example, under Article 12, paragraph 6 of the THPA, the parties shall

identify and notify the ASEAN Centre of experts, equipment and materials which could be made available for the provision of assistance to other parties [...] as well as the terms, especially financial, under which such assistance could be provided.

A considerable advantage lies in a concerted response to fires, and such a response can be orchestrated by the ASEAN Centre.

Furthermore, the agreement establishes a Control Fund under Article 20, paragraph 1. The Control Fund is administered by the ASEAN Secretariat under the guidance of state-parties, which make voluntary contributions to the Control Fund (Art. 20, paras. 2 and 3 THPA). The fund has not proven to be a success, as only USD 240,329 have been

donated by state-parties thus far (Jerger 2014: 42). Moreover, the agreement does not provide rules on how to allocate the financial resources of the fund, thus giving the Secretariat discretion to redirect spending. Tacconi argues in favour of an appropriately financed fund that addresses the deep determinants of the fires and provides incentives to farmers, who depend on fires for their basic livelihood, to change their behaviour (see Tacconi, Jotzo, and Grafton 2006: 20). It remains to be seen whether the Control Fund will ultimately be properly equipped by the stateparties.

Another interesting feature of the THPA, which promotes technical cooperation between the member states, is Article 16, which declares that parties shall promote the development of both markets for the utilization of biomass and appropriate methods for disposal of agricultural waste (Art. 16, para. g, THPA). This provision recognizes that peatlands as biomass are a large cause of the fires that create haze pollution. By developing markets for biomass, the agreement makes an effort to incentivize the harvesting and controlled burning of peat (see Jerger 2014: 42). Ideally, this market creates an incentive for stakeholders to manage peatlands effectively, so that the peat is not wasted and peat is turned into a product (rather than just a by-product). Other areas of technical cooperation under Article 16 of the THPA include training programmes for firefighters; the standardization of reporting formats; and the development of training, education and awareness-raising campaigns, in particular relating to zero-burning practices and the impact of haze pollution on human health. Overall, it is fair to say that the agreement promotes cooperation between the state-parties in all fields relevant to haze pollution. However, such cooperation remains by and large voluntary.

#### 4.4 Enforcement and Dispute Settlement

Article 27 of the THPA states that

any dispute between the parties as to the interpretation or application of, or compliance with, this Agreement or any Protocol thereto, shall be settled amicably by consultation or negotiation.

This clearly indicates that enforcement of the agreement remains a matter of diplomacy – with no route for direct legal redress. Thus, the domestic legal framework in member states remains crucial in cases of transboundary haze pollution (for an assessment of the legal framework

<sup>26</sup> Koh 2008: 6 indicates that some of the available funds were spent in Indonesia, notably before Indonesia became a state-party to the THPA.

governing forest fires and haze pollution in Indonesia, see Nurhidayah 2013: 215ff.). No mandatory or coercive steps can be taken under the agreement. This is consistent with established ASEAN practice, and, despite its mandatory language, the THPA is ultimately a soft law instrument.

The states that have been severely affected by transboundary haze pollution (particularly Malaysia and Singapore) have never asked Indonesia to bear state responsibility for the alleged breach of the international obligations to control its forest and land fires and to incur international liability for the damage done.<sup>27</sup> Given the intensity of the fires and the effect that they had on the neighbouring countries, it may seem surprising that the affected states have not raised the argument that Indonesia was in breach of its international obligations when failing to control the activities that led to the fires. Concerning the 1997 haze crisis, Tan argues that under international law Indonesia was both responsible for the actions on its soil of which it knew and obligated to control those actions.<sup>28</sup> The obligation arguably could arise from the Draft Articles on State Responsibility, which include rules on injurious consequences arising out of acts not prohibited by international law.<sup>29</sup> It seems at least possible that a case brought forward in an international forum (such as the International Court of Justice), and based on arguments of state responsibility, would have been successful.<sup>30</sup>

One reason for not raising the issue of state responsibility in an international forum could well be the economic interests of Malaysian and Singaporean investors in Indonesian oil palm plantations. In fact, Malaysia is the biggest investor in the Indonesian oil palm sector.<sup>31</sup> Additional-

<sup>27</sup> See Tan 1999: 841ff.; he argues that such state responsibility can be clearly made out, particularly for the extreme fires of 1997/1998.

<sup>28</sup> Tan (1999: 841); according to Tan, Indonesia also had a duty to cooperate and accept assistance from other countries concerning the firefighting efforts.

<sup>29</sup> The Draft Articles are not binding on states in their entirety, as they are a non-binding resolution of the General Assembly of the United Nations. However, some rules in the Articles on State Responsibility reflect customary international law. Customary International Law is binding upon all states.

<sup>30</sup> In practice, it is unlikely that Indonesia would submit to the jurisdiction of the ICJ. Nevertheless, Tan (1999: 855) concludes that Indonesia was responsible under international law for the fires and the transboundary harm that resulted from them in the 1997 haze pollution crisis. As a consequence, he argues that Indonesia would be under the obligation to make adequate reparations for the harm caused. Tan reiterates this result for the 2013 haze crisis; see Tan 2015: 6.

<sup>31</sup> It is estimated that there are 162 plantations with linkages to Malaysian companies, holding about one-third of Indonesia's total oil palm land bank. In addition, Malaysian-linked investments (through shareholding and direct investments)

ly, at least seven firms with substantial oil palm or pulp and paper operations are listed in Singapore (Tan 2015: 3). Varkkey argues that Malaysia has not only played a significant role in the Indonesian oil palm industry over the last several decades, but that the Malaysian oil palm industry is also populated by companies closely associated with the Malaysian ruling elite (Varkkey 2013: 391). Due to the vested interests among these companies and elites in the Malaysian government, the government arguably tries to protect the well-being of these palm oil operations in Indonesia.<sup>32</sup> As a result, the government may be influenced by economic interests in its decision-making process. The grey area of intertwined interests might be one reason the Malaysian government has not resorted to litigation. However, the situation concerning Singapore is different. The Singaporean government, in contrast to the Malaysian government, seems determined to follow through with legal action against offenders under its 2014 Transboundary Haze Pollution Act (THPAct 2014). The act attaches extraterritorial criminal and civil liability to agribusiness companies involved in using fires outside Singapore that cause or contribute to haze pollution in Singapore. However, it must be noted that jurisdiction under the act extends only to legal persons and entities and does not refer to state responsibility (for a detailed analysis, see also Tan 2015: 18).

Furthermore, a litigious attitude towards the forest fires was for a long time arguably seen as too antithetical to ASEAN values.<sup>33</sup> The inert response of the affected states to haze pollution demonstrates the general adherence to the principles of non-intervention and sovereignty that

ments) are estimated to control approx. 500,000 hectares of land that have yet to be converted into plantation land. In total, Malaysian investments cover more than two-thirds of Indonesia's total plantation area; see Varkkey 2013: 84ff.

- 32 For example, the Malaysian government lent its support to the advancement of the Malaysian oil palm plantation firms in Indonesia and set up lobby groups for this purpose. Lobby groups include, among others, the Malaysian Palm Oil Association (industry membership), the Malaysian Palm Oil Board (focusing on research) and the Malaysian Palm Oil Council (focusing on marketing and promotion of palm oil).
- 33 Tay 1998b: 215. Tay (1998a: 45) also states that if the governments of ASEAN states are reluctant to take enforcement actions against the Indonesian government, another approach would be to privatize the disputes, taking them from the intergovernmental level to a matter of private international law. To such ends, private litigants in one country could be given access to the courts of a second country in order to pursue private suits against defendants in that country.

have traditionally been adopted by the ASEAN community.<sup>34</sup> This understanding of doing things the "ASEAN way" shines through in the key provisions of the THPA, which omit juridical dispute settlement mechanisms. The agreement strongly emphasizes cooperation, coordination and consultation between the member states (Art. 27 THPA). It not only does not provide for a clear dispute settlement mechanism, but it also lacks any mention of legal consequences for non-compliance or breaching the agreement. Jerger identifies these non-confrontational features as a managerial approach, which may have some strengths that an agreement focusing on enforcement mechanisms would not have.<sup>35</sup> For example, the managerial approach enhances cooperation between the parties by drawing their attention to the achievement of common goals (Jerger 2014: 41). But, when conciliation is not possible, and interference with the national policies of a member state is not an option, resolving disputes becomes a significant challenge (Koh and Robinson 2002b: 17).

#### 5 Effectiveness of the Agreement

The main features of the agreement are illustrated above. But what are the consequences for environmental governance? International governance regimes vary tremendously in their effectiveness.<sup>36</sup> While certain regimes have a strong effect on the issues that they govern, others remain weak. The effectiveness of any given governance regime (and the multilateral treaty supporting it) depends in large part on whether the treaty regime secures compliance of the target actors within the state-

<sup>34</sup> Tan (2005: 659) refers to the "ASEAN way" of doing things, i.e. a reluctance to deal with other countries in harsh terms and the belief that in view of ASEAN's history, culture and context, such methods were unlikely to work or could even prove counter-productive.

<sup>35</sup> Jerger 2014: 40–41 argues that the THPA relies on several structures, which are consistent with a managerial model favouring consensus between the state-parties, to facilitate coordination and information-reporting and information-sharing among those parties. The managerial model enhances cooperation between the parties by focusing their attention on common goals to be achieved. This is in contrast to the "traditional" approach, which focuses on setting targets and punishing parties when they do not comply. Jerger argues that the managerial model provides states with an effective framework for mitigating international environmental problems such as transboundary air pollution.

<sup>36</sup> See Mushkat 2014: 263 (with further references). For an assessment of the effectiveness and shortcomings of the Northeast Asian environmental governance system with a view particularly to transboundary pollution, see Lee 2013: 782ff.

parties (Tan 2005: 650). Principally, a treaty regime can be effective only when the rules which it prescribes are adequately implemented and enforced, eliciting a high degree of compliance by the parties and resulting in the resolution or amelioration of the problem at hand (Tan 2005: 650).

This also holds true for the THPA. Two factors have impaired the effectiveness of the agreement: First, until its recent ratification, Indonesia, the main contributor to haze pollution in the region, had not committed itself to the THPA. Second, the THPA prescribes no specific sanctions against a country that fails to comply with its obligations. The first factor contributing to reduced effectiveness of the THPA has since been removed, but the second factor is a structural feature of the agreement. In the following section, the prospects are discussed in the context of the impact of Indonesian ratification.

## 5.1 Root Causes and Indonesia's Efforts to Mitigate Haze Pollution before Ratification

A major hindrance to the effectiveness of the agreement lies in the avoidance of addressing the root causes of haze pollution. The THPA obligates parties to study the root causes of the haze,<sup>37</sup> but it does not spell out these root causes for the fires and haze pollution, which often lie in unsound natural-resource management, land-tenure conflicts and illegal logging. For example, small-scale farmers do not have the technology to properly manage the land, and therefore often resort to burning before planting crops. Another unresolved problem is that of land-tenure conflicts. Local communities who have been displaced from their long-held lands sometimes resort to arson when seeking revenge against companies that have taken over their land (Tan 2015: 15). These are some of the underlying issues, and whether Indonesia has the capacity to fully comply with the treaty and rapidly curb activities that lead to land and forest fires is in doubt.

Clearly, Indonesia faces problems in that respect. It has laws against illegal burning, but these laws are a weak deterrent due to poor enforcement and the misalignment of incentives. The self-interests of both small Indonesian farmers and big plantation companies looking to increase their revenues are inconsistent with actions that would have to be taken

<sup>37</sup> The preamble states the "need to study the root causes and the implications of the transboundary haze pollution and the need to seek solutions for the problems identified".

to uphold the laws.<sup>38</sup> The environmental problem of land and peat fires is caused by, and impacts, private actors. As a result, imposing lofty and non-enforceable obligations on states does not ensure that the underlying problems are properly addressed and that private actors will modify their conduct (Brunnée 2008: 396). Alleviation of haze pollution is not only a matter of enacting laws; incentives to abide by the law and strict enforcement of the rules must also be in place.

The refusal to openly address the root causes is thus an additional aspect that contributes to the ineffectiveness of the agreement. Ultimately, the framework of the agreement should provide an answer to the problem of the dichotomy between the sovereign exploitation of natural resources and the no-harm principle.

In this context it must be highlighted that even before ratifying the THPA, Indonesia had taken action to mitigate transboundary haze, and it had complied with most provisions of the THPA (see Jerger 2014: 43). For instance, Indonesia had taken steps to prevent fires by passing a zero-burning policy and by creating a fire brigade. Both are actions required to be taken under the THPA. Indonesia has also been part of regional haze pollution mitigation efforts through its membership in the Sub-Regional Ministerial Steering Committee (MSC) on Transboundary Haze Pollution, and it has occasionally cooperated on a bilateral level with Singapore.<sup>39</sup> In sum, the language of Indonesian law was in accordance with most of the conditional language of the THPA even before ratification of the agreement (coming to the same conclusion, Jerger 2014: 43). As a result, current Indonesian laws are by and large sufficient to implement the obligations and responsibilities. No new laws are required. However, Indonesia arguably needs to boost its efforts to reduce fires and haze pollution as it has now committed itself to the agreement. The reality often seems to be that laws are circumscribed and manipulated by vested interests through corrupt means, incompetence of government officials or sheer confusion (Tan 2015: 11; with detailed examples). Lax and inefficient enforcement of laws leads to fires continuously being used to clear land, in breach of anti-burning legislation and despite the declaration of a "zero-tolerance" policy (Tan 2015: 14). Indonesia's ratification is a positive step forward, but further action to combat the root

<sup>38</sup> Ultimately, economic interest is a major driving force for regional cooperation, and the economic interest is commonly interrelated with political interest; see Nguitragool 2011: 97.

<sup>39</sup> Singapore and Indonesia, for example, cooperated in drafting a "master plan" for 35 fire-prone areas in the Muaro Jambi Regency; see Koh 2008: 6.

causes of haze pollution is needed, and without it the ratification remains political lip service.

### 5.2 The ASEAN Way As a Hindrance to Treaty Effectiveness

ASEAN member states prefer an approach to regional affairs that is based on the principles of non-intervention and national sovereignty (for a discussion of the influence of the ASEAN way on environmental governance, see also Koh and Robinson 2002a: 642ff.). Various ASEAN treaties, including the 1967 Bangkok Declaration, prescribe approaches to regional engagement known collectively as the "ASEAN way". These approaches are a set of formalized procedural norms, including, among other things, the search for consensus; the sanctity of sovereign rights; the principles of sensitivity and politeness; non-confrontational approaches to negotiations; behind-the-scenes discussions; and an emphasis on informal and non-legalistic procedures (see Varkkey 2012: 80; with further references). The 1976 Treaty of Amity and Cooperation in Southeast Asia in Article 2 emphasizes that member states are not to interfere in the internal affairs of one another and recognizes "the right of every state to lead its national existence free from external interference".

One of the cornerstones of effective governance is the way decisions are made (Koh 2008: 2). In this context it has been argued that the persistence of haze pollution, despite decades-long efforts at prevention, is due to the limitations of regional governance caused by the characteristics of the ASEAN way.<sup>40</sup> Subscribing to the ASEAN way shields national governments from having to commit to addressing joint tasks that governments find either too demanding or too politically difficult. In keeping with the procedural voluntarism of the ASEAN way, parties can avoid legally binding agreements.<sup>41</sup> The non-interference principle ena-

<sup>40</sup> See, for example, Litta 2010: 86, who argues that the ASEAN way results in a deficit of material obligations and lack of enforceability of treaty obligations; see also Koh 2008: 3.

<sup>41</sup> Varkkey 2012: 81ff. points out that the ASEAN model of regionalism differs completely from European regionalism under the European Union. This difference explains why environmental regionalism in Europe has been arguably more successful than it has in Southeast Asia. While the main drivers of the EU are its supranational institutions, the main drivers of the ASEAN organization are member states, and unlike the European Commission, the ASEAN Secretariat has been deliberately denied the resources and mandate necessary, continuing to be subordinate to national secretariats. The ASEAN model of re-

bles governments to exclude any issue deemed to be politically sensitive from being discussed at the regional level. Moreover, it ultimately discourages ASEAN member states from criticizing other member states.<sup>42</sup> As a result, the principle of non-interference provides member states with considerable autonomy to determine the extent to which they implement regional environmental agendas, even those that they agreed to initially.<sup>43</sup>

But even ASEAN member states do not always adhere to the ASEAN way. For example, diplomatic tensions ran high at the end of 2006 when Singapore raised the haze issue at the United Nations General Assembly, calling for a wider effort which would include international expertise to tackle the problem. Indonesia was quick to state that the haze was a domestic problem and described the move as tantamount to interference in the domestic affairs and sovereignty of Indonesia.<sup>44</sup> Indonesia clearly favoured the problem to be dealt with on the ASEAN level alone, without worldwide assistance. Singapore defended its actions, stating that it did not intend to offend Indonesia, but to mobilize international support that was needed, as Singapore did not believe that the problem could be solved without international support (Varkkey 2011: 95.) Singapore pointed out that Article 2 of the THPA specifically mentions that transboundary haze pollution should be prevented and monitored "through concerted national efforts and intensified regional and international cooperation" and that the haze was an intrusion into the domestic environment of Singapore. 45 Obviously, a threshold exists, beyond which, once crossed, states are not willing to adhere to the ASEAN way. This episode also demonstrates that the THPA's lack of coercive mechanisms is potentially crucial, because it frustrates affected

- gionalism, therefore, much better enables member states to control the scope, depth and speed of regionalism in ASEAN in order to best suit each state's national interests.
- 42 The non-interference principle owes much of its origin to the conflicts surrounding Indonesia, Malaysia and the Philippines in the 1960s, predating the establishment of ASEAN; see Varkkey 2009: 86.
- 43 Varkkey 2012: 82ff. points out that as a result, this has ultimately served to protect the interests of the regional oil palm plantation sector, while allowing haze to persist.
- 44 Koh 2008: 4; Varkkey 2011: 95. The dispute got quite heated, and arguably as "retaliation" for Singaporean actions at the United Nations, Indonesia banned the export of sand to Singapore in January 2007.
- 45 Koh 2008: 5; Varkkey 2011: 95. Tay also points out that haze is not purely an internal matter of the respective states at least not when there are severe external effects and transboundary damage; see Tay 1998b: 214.

state-parties (although it is important to note that at the time Indonesia was not a state-party to the agreement and was not bound by its provisions). The ASEAN way works better when members' interests converge rather than diverge; when the latter occurs, the ASEAN way usually leads countries to evade issues and avoid confrontation (Koh and Robinson 2002b: 15). Experience shows that this is exactly what happens as soon as an actual haze crisis is over.

#### 5.3 Likely Impact of Indonesian Ratification

The importance of Indonesia's ratification can be seen in its willingness to officially join the regional effort to address the issue. But the THPA is only a legal framework for cooperation and does not address important technical issues. Ultimately, additional initiative is needed to determine how countries will work together to exchange information and expertise. Indonesian enforcement action concerning zero-burning policies and the punishment of violators on the ground will matter most for mitigating haze pollution. Whether Indonesia is willing to take additional steps remains to be seen.

However, Indonesia's ratification has further implications. For example, Indonesia could now be more inclined to assist other ASEAN member states in taking action against corporations responsible for contributing to the haze pollution. Singapore passed its own Transboundary Haze Pollution Act in August 2014. This legislation seeks to make Singaporean companies accountable for the acts of their subsidiaries in Indonesia. In order to establish liability, a causal nexus must be demonstrated between a company's economic activities in Indonesia and the haze pollution in Singapore; but enforcement efforts against large palm oil producers that participate in the clearing of land are complicated by the inability to obtain necessary evidence on the ground (for a detailed discussion of the Singapore Transboundary Haze Pollution Act, see Tan 2015: 18ff.). Indonesia has so far been reluctant to share with other states its plantation concession maps (which include precise geographical coordinates of oil palm plantations). If Indonesia's ratification leads to

<sup>46</sup> The act also claims jurisdiction over non-Singaporean entities operating outside Singapore, i.e. entities with little or even no link to Singapore, such as Indonesian or Malaysian companies operating in Indonesia.

<sup>47</sup> The Indonesian government raised legal obstacles to sharing the maps. It was claimed that Indonesia's Freedom of Information Act prohibited the public disclosure of such information and that data that reveals the country's natural-resource wealth cannot be made public under Indonesian law; see Tan 2015: 4.

better cooperation and greater exchange of data, this could provide the Singaporean authorities with substantial information needed to implement the Singaporean Transboundary Haze Pollution Act. In this regard, the benefits of Indonesia having ratified the THPA could prove significant as additional coordination in addressing transboundary haze and punishing violations could take place by further facilitating the exchange of information. But, whether that will be enough to facilitate a lasting solution is questionable. In the past, interstate cooperation has proven difficult – as the recent episode concerning the sharing of concession maps shows. Increased transparency among governments and businesses, particularly with a view to the issuance of plantation permits and maps, would be a positive step to efficiently prevent and combat fires.

Generally, the implementation of the THPA is strategically shaped by the state-parties due to the style of regional governance, which prioritizes national sovereignty. The underlying ASEAN way puts the burden of implementation, compliance and enforcement on the parties (Koh 2008: 16). This has contributed to a suboptimal haze prevention and mitigation effort and has led to the agreement's ineffectiveness in providing long-term, workable solutions for haze pollution. <sup>48</sup> As has been pointed out, crucial issues are the lack of enforcement mechanisms and ignoring the root causes (similar also Mushkat 2014: 267). The strategy of addressing the haze through a cooperative (or managerial) approach in the THPA has not delivered environmentally positive results.

However, one important determinant has changed. Now that Indonesia is a party to the treaty, it is no longer a mere observer. Indonesia's status at regional meetings concerning forest fires and haze pollution had in the past been that of an observer, and consequently the Indonesian delegation had no voting rights and no opportunity to suggest amendments to the protocol or to documents which were discussed by the member states. This is no longer true, and with the status as a state-party to the THPA come opportunities and challenges. Whether and how Indonesia will use its new influence remains to be seen.

#### 6 Concluding Remarks

Since the THPA entered into force, some progress has been made in the effort to coordinate the struggle against haze pollution. A higher level of cooperation has been reached, including, for example, the conduct of

<sup>48</sup> Varkkey 2012: 89–90; Litta even states that it is doubtful that the THPA is more than just a "paper tiger" (Litta 2010: 86).

simulation exercises and, to some degree, the implementation of zeroburning and controlled-burning policies. In addition, the THPA has been useful in generating a sizeable amount of information on the haze. The data is reported, standardized and made available by the ASEAN Secretariat and the AMSC.

However, the 2013 haze crisis has demonstrated dramatically that there has been no amelioration. Haze pollution reached hazardous levels in Indonesia, Singapore and Malaysia. The 2013 crisis was arguably the worst haze crisis ever, with record high levels of pollution. Taking this discouraging development into account, one must conclude that the THPA has failed as a regional governance tool.<sup>49</sup> Whether the haze pollution would have been even worse without the THPA is speculation. The 2013 haze crisis shows that only little improvements have been consolidated and that the THPA has not achieved its environmental goal in terms of mitigating haze pollution.

Whether that will change – now that all ASEAN members have ratified the THPA – remains to be seen. It is encouraging that Indonesia finally ratified the agreement, and that it is taking steps in a community-minded, cooperative direction. It is particularly promising that Indonesia expressed its interest in hosting the ASEAN Centre for Transboundary Haze Pollution Control. But it is important to keep in mind that Indonesia had effectively complied with most provisions of the THPA even before ratifying it. Ultimately, Indonesian enforcement action on the ground will matter most to the resolution of the haze pollution problem. Thus, it is unlikely that the ratification will quickly lead to a mitigation of haze pollution. But at least all ASEAN member states have now officially agreed that haze pollution is not a domestic problem but, rather, a regional problem. That in itself is an important hurdle which has finally been cleared.

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<sup>49</sup> Regional environmental governance in Southeast Asia in other sectors seems to be more successful. The evolving climate change regime and the respective domestic laws are more promising; see Whitehead 2013: 194.

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