REVIEW ON ASEAN TRANSBOUNDARY HAZE POLLUTION AGREEMENT 2002: PROBLEMS AND SOLUTIONS

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Abstract
This paper provides transboundary haze pollution experienced by ASEAN countries especially Malaysia in the past decade and discuss the ASEAN Agreement on Transboundary Haze Pollution 2002 (AATHP), bringing to the light the weaknesses of the AATHP. Transboundary haze pollution is a complex issue, and has been a perennial problem though the AATHP has come into force in November 2003. The study argues that the agreement is unsuccessful due to the repeated haze pollution incident until now and lacks of enforceable obligatory provisions in the AAHTP. Since the governance framework seems remained largely ineffective, this paper proposes a few suggestions that should be taken to eradicate the haze pollution issues in ASEAN countries.

Keywords: ASEAN Agreement on Transboundary Haze Pollution 2002, haze pollution, governance framework

Introduction

One of ongoing problems experienced by ASEAN countries is transboundary haze pollution (Varkkey, 2016). It happens when the pollution in one country, by crossing borders through air, cause damage in another country’s environment (Varkkey, 2017). The haze in ASEAN normally associated with fire-related or large air pollution (Heil & Goldammer, 2001). The primary cause of the haze pollution is mass fires that are illegally set to clear

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forest and make way for enterprises like palm oil plantations. Due to the haze, air quality become so poor, hazardous and affected public health (Othman, Sahani, Mahmud, & Sheikh, 2014).

Since 1982, ASEAN countries has experienced transboundary haze pollution, caused by fires mostly happened in Indonesia (Varkkey, 2014). Indonesia is said to be the major cause of transboundary haze pollution in ASEAN countries (Ewing & Mcrae, 2012). The climate of Indonesia can be characterized by two seasons i.e. dry within April to September and wet October to March (Kishore, Setiana, & Pb, 2000). Dry-season months are the months where fires in Indonesia primarily occur. Fires gotten worse and severe during El Nino years (Asia, Field, Wang, & Roswintiarti, 2004). Since 1997, Kalimantan and Sumatra Indonesia were identified to be the centre of disaster of forest fires (Siscawati, 1998). ASEAN countries blanketing in smoke due to the massive forest fires originates from Kalimantan and Sumatra Indonesia (Jones, 2006).

Year 1997 - 1998 is considered to be the landmark of haze pollution in ASEAN countries. It was estimated 45,000 km² of forest fires and land burnt in Sumatra and Kalimantan between July - November 1997. The land burnt and forest fires in 1997-1998, that hit the ASEAN countries have been so severe. The United Nations Environment Programme (UNEP) labeled the massive fires in 1997 – 1998 as among the most damaging in recorded history (Heil & Goldammer, 2001). The total economic losses have been estimated was $9.3 billion in terms production of agriculture, forest lands destruction, public health, tourism, transportation and others (Kamal, 1999).

Realizing the need to mitigate the haze pollution resulting from land and forest fires and enhance regional cooperation on transboundary haze, ASEAN consists of ten states, namely Brunei Darussalam, the Kingdom of Cambodia, the Republic of Indonesia, the Lao People’s Democratic Republic, Malaysia, the Union of Myanmar, the Republic of the Philippines, the Republic of Singapore, has developed an ASEAN Agreement on Transboundary Haze Pollution (AATHP) which has been signed in 2002. However, despite the ASEAN Haze Agreement came into force, the transboundary haze pollution still recurs. A few episodes of haze experienced by ASEAN countries specifically Malaysia due to transboundary air pollution after 2002 onwards.

Haze Episodes in Malaysia due to Transboundary Air Pollution

In 1991, Malaysia experienced haze pollution caused by smokes from the forest fires in Sumatra. After three years, during September 1994, the haze recurred again for over a month. Compared to 1991, haze in 1994 was more severe due to major forest fires in Kalimantan and Sumatra (Nichol, 1997). Occurred during September to November 1997, the haze was identified due to not only by external sources and from internal sources but worsened by El Nino. A Haze Emergency had to be declared at several places in Sarawak as soon as the Air Pollutant Index (API) had reached above the 500 level (Othman & O, 1999).

Haze began in early June 2009 and progressively worsened toward July 2009. During the dry period from the months of May to September 2011, several short spell of haze episodes experienced by the country as a result of fires from Sumatra and Kalimantan, Indonesia (Quality, n.d.).

In 2012, during the dry period of June to August 2012, the country also experienced several short spell of haze episodes due to transboundary air pollution as a result of forest fire from Central and Northern Sumatra, Indonesia. These had contributed to the slight
deterioration of overall air quality in 2012. The local peat fire in Miri has resulted in high level of PM10 recorded at the Institut Latihan Perindustrian (ILP) Miri Station, Sarawak for a short period between the months of June to August 2012 (Thakur & Rao, 2014).

From 15 to 27 June 2013, Malaysia had experienced another short period of severe haze episode due to transboundary pollution. It was found that during the haze of 2013, the API (Air Pollution Index) and PSI (Pollutant Standard Index) in several states of Malaysia and in Singapore had reached high records compared to 1997 haze. For instance, in Malacca City, the haze lasted from the 13th of June (API reading of 62) to the 30th of June (API = 60). During this time there were two pollution peaks: on the 21st (which saw a “very unhealthy” API reading of 223) and on the 24th (which saw a hazardous reading of 385). Schools in areas affected had to be closed because of the pollution, and a state of emergency had to be declared. Indonesia apologized to Malaysia and Singapore for the haze pollution caused by them (Shahwahid, 2016).

During Southwest Monsoon, the country had experienced transboundary haze pollution from June to October. From 22 June to 24 July 2014, west coast of Peninsular Malaysia experienced unhealthy air quality status where the highest Air Pollutant Index (API) recorded was 260 (very unhealthy), in Seri Manjung, Perak on 22 July 2014. From 25 July to 17 September 2014, several areas in the state of Sarawak experienced unhealthy air quality status with the highest API recorded were 270 (very unhealthy), in Sibu, Sarawak on 28 July 2014. From 17 September to 12 October 2014, the highest API recorded was 129, in Nilai, Negeri Sembilan on 10 October 2014.

From August to September 2015 Malaysia had experienced deterioration of air quality due to massive land and forest fires in Sumatra and Kalimantan, Indonesia. On 15 September 2015, since 1997, 34 areas in the country had been recorded unhealthy air quality status for the first time in history of Malaysia. The API reading reached to 200, all schools were closed in the states of Putrajaya, Kuala Lumpur, Selangor, Negeri Sembilan and Melaka on 15 September 2015 while all schools in Kuching and Samarahan Divisions, Sarawak were closed on 18 September 2015. The highest API reading was 211 (very unhealthy), in Banting, Selangor on 14 September 2015 (Thakur & Rao, 2014).

**Asean Agreement on Transboundary Haze Pollution 2002 (AATHP)**

The ASEAN Agreement on Transboundary Haze Pollution is an environmental agreement signed in June 2002 between all ASEAN members with the aim to reduce haze pollution. The agreement finally entered into force in November 2003 (NEA, 2013). The agreement is bilateral agreement and considered to be the first regional arrangement in the world which binds a group of neighbouring states to address the issue of transboundary haze pollution resulting from land and forest fires. Moreover, United Nations Environmental Programme (UNEP) labelled it as a global role model for the tackling of transboundary issues (Lode & Toussaint, 2016).
As of 20 January 2015, all ten ASEAN member states have ratified the AATHP. The lists of the member states and date of ratification are as follows:

<table>
<thead>
<tr>
<th>MEMBER COUNTRY</th>
<th>DATE OF RATIFICATION/APPROVAL</th>
<th>DATE OF DEPOSIT OF INSTRUMENT OF RATIFICATION/APPROVAL WITH THE SECRETARY-GENERAL OF ASEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brunei Darussalam</td>
<td>27 February 2003</td>
<td>23 April 2003</td>
</tr>
<tr>
<td>Cambodia</td>
<td>24 April 2006</td>
<td>9 November 2006</td>
</tr>
<tr>
<td>Indonesia</td>
<td>14 October 2014</td>
<td>20 January 2015</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>19 December 2004</td>
<td>13 July 2005</td>
</tr>
<tr>
<td>Malaysia</td>
<td>3 December 2002</td>
<td>18 February 2003</td>
</tr>
<tr>
<td>Myanmar</td>
<td>5 March 2003</td>
<td>17 March 2003</td>
</tr>
<tr>
<td>Philippines</td>
<td>1 February 2010</td>
<td>4 March 2010</td>
</tr>
<tr>
<td>Singapore</td>
<td>13 January 2003</td>
<td>14 January 2003</td>
</tr>
<tr>
<td>Thailand</td>
<td>10 September 2003</td>
<td>26 September 2003</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>24 March 2003</td>
<td>29 May 2003</td>
</tr>
</tbody>
</table>

Source: http://haze.asean.org/status-of-ratification/

As we can see from the above table, Malaysia is the first country which ratified the Agreement, and of the ten ASEAN members, Indonesia is the last country among the ten ASEAN member signatories ratified the agreement although Indonesia is the country that is mainly responsible for causing the dangerous haze.

AATHP consist of 32 Articles which are divided into six part. The main and important part in this ATHP is Part II which provides for monitoring, assessment, prevention and response. The objective of the Agreement is 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 (“ASEAN Agreement on Transboundary Haze Pollution,” 2003). The Agreement essentially calls for parties to undertake, among others, (i) legislative and administrative measures to prevent and control activities related to land and forest fires that may result in transboundary haze pollution;³ and

³ Article 7 provides 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.
(ii) national as well as joint actions to intensify regional and international cooperation to prevent,\(^4\) assess\(^5\) and monitor transboundary haze pollution arising from land and forest.

Article 1(6) of this agreement defined ‘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’.

**Weaknesses Of The AATHP 2002**

i. **Indonesia Late Ratification of the AATHP**

Indonesia is said to be the primary cause of the transboundary haze in ASEAN region. After a decade since the AATHP came into force, Indonesia finally ratified the agreement on 14 October 2014 and approval with the Secretary General of ASEAN on 20 January 2015.

The reason behind Indonesia ratification is that, it will strengthen its international profile and react to the increased international attention. Indonesia grabbed the chance to bring to an end the haze issue which had caused diplomatic disturbances at almost every ASEAN meeting regarding forest fires and haze pollution. It is for the best interest of Indonesia to become a party to the AATHP where Indonesia can use its bargaining right pursue its interests in the region. 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 (Syarif, 2014).

Before ratification of the AATHP by Indonesia, many predict that the problem will only settle if Indonesia ratify the agreement. However in September 2015 (after Indonesia ratified the AATHP) ASEAN was covered with haze again. The haze was severe and considered could be among the worst ever. Indonesian President Joko Widodo told the BBC that Indonesian was also a victim of the fire. The haze issue would require years of mitigative effort before positive results emerged (Jenkins, 2015). Thus, whether the transboundary haze pollution is likely to change after Indonesia ratified the agreement is still in question.

However by ratifying the agreement, Indonesia government will allow the country to seek assistance from other ASEAN countries to help suppress the fires (Aritonang, Margareth S., 2014). Thus this might ease the haze dilemma via a combination of global technical collaboration and state legal acts against malefactor companies.

ii. **Non-intervention Norm**

The AATHP is weakened by mechanisms that support the doctrine of non-intervention norm or also known as ‘ASEAN way’. Assistance cannot be simply done by a country, it can be given by mutual consent only, and it is subject to the control and direction of the recipient state (Hamzah, 2015).

\(^4\) Article 9

\(^5\) Article 8
It is clearly provided in Article 12 of the AATHP where it states that a party to this Agreement may request for assistance from the other party if needed in the event of the land or forest fires or haze pollution which caused by the fires within its territory and the assistance can only be employed at the request of and with consent of the requesting party or when offered by the other party, the assistance must be consented by the receiving party.

While this is important for keeping the consensus oriented approach of ASEAN at the fore, it creates difficulties in finding pragmatic solutions to the haze problem. For instance, in the past, Indonesia had refused assistance from Malaysia and Singapore presumably for reputational or sovereignty reasons (Satriastanti, 2011).

iii. Little Scope for accountability or Enforceability

Despite the legally binding nature of the Agreement, there is little scope for accountability or enforceability. This is amplified by the fact that there are no mechanisms for sanctions or dispute settlement, and no monitoring mechanisms.

Article 27 of the AATHP states that in occurrence of dispute between the Parties, it shall be settled either by consultation or negotiation. In short, ASEAN has limited organisational capacity to truly combat the challenges posed.

In previous forest burnings, weak enforcement of environmental laws can be seen when many of the perpetrators, who mostly among employees of Indonesian palm oil companies, had been caught with strong evidence of criminal activity. However they still escape from getting heavier punishments (H. Gunawan, A. Triyono & N. Laoli, 2015).

Solutions and Suggestions

As study has found that one of major shortcomings in implementing AATHP 2002 is that there is no sanction clause for ASEAN members who failed to meet the stipulated obligations imposed, thus it seems this Agreement has not been very effective to date (Azmi Sharom, 2015). Due to this ineffectiveness of AATHP, government of Singapore has enacted its own Transboundary Haze Pollution Act 2014 in order to take action against entities responsible for causing or contributing to haze pollution in Singapore (Apichai Sunchindah, 2015). The Singapore government already has given out preventive measure notices to five Indonesian companies asking them to take immediate action in Indonesia to restrain or control the fire situation that causes haze pollution (Malaysiakini, 2015).

According to Natural Resources and Environment Minister Datuk Seri Dr Wan Junaidi Tuanku Jaafar (2015), the federal government is studying the possibility of a new law on transboundary haze passed by neighbouring Singapore to deal with the annual haze problem that has affected the region over the past two decades. However, until now, there is still no action taken by the Malaysian government in regards to enact the new law in overcoming the transboundary haze pollution issue. It can be a better solution if ASEAN countries can cooperate together in regulating and enforcing the laws pertaining to the haze pollution.

Among other suggestion can be taken in order to solve the issue of this ASEAN Transboundary Haze Pollution is that ASEAN should either alter its policies on the consensus or can follow on what have been suggested by Singapore. Aside from implementing Transboundary Haze Pollution Act 2014, Singapore also suggested Plan B in which
emphasizes organising information such as hot spot coordination, satellite data, and enterprise ownership (Nazeer, N. and Furuoka, F., 2017). All ASEAN countries need to give cooperation in sharing the information needed in order to eradicate this problem.

**Conclusion**

From what have been discussed above, it can be concluded that this ASEAN Agreement on Transboundary Haze Pollution which had been enforced in 2003 do provides for guidelines for the prevention and monitoring of transboundary haze pollution. Countries who signed the agreement had to ensure that any exploitation of their resources must not cause any harm or damage to human health or the environment of other States.

However such issues are not being dealt with effectively and violators of the agreement are not being penalised. So, this Agreement is just an instrument for the parties to ensure that they can give commitment to prevent or control on the haze pollution but nowhere stated in the Agreement that any party can be penalized for act done not according to the Agreement. Therefore, it seems that the Agreement is unsuccessful due to the repeated haze pollution incident which still occurred.

**References**


