

# **TRANSBOUNDARY HAZE POLLUTION IN THE ASEAN REGION: AN ASSESSMENT OF THE ADEQUACY OF REGIONAL AND NATIONAL LEGAL FRAMEWORK IN INDONESIA<sup>1</sup>**

## **POLUSI ASAP LINTAS BATAS DI KAWASAN ASEAN: SEBUAH PENILAIAN KELAYAKAN KERANGKA HUKUM NASIONAL DAN DAERAH DI INDONESIA**

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### **Abstrak**

Pencemaran asap lintas batas merupakan salah satu permasalahan lingkungan utama di ASEAN. Setiap tahun selama musim kemarau kebakaran hutan di Indonesia telah menyebabkan dampak yang serius, sehingga menyebabkan pencemaran udara ke negara tetangga, seperti Malaysia dan Singapura. Kebakaran hutan ini disebabkan oleh kegiatan pembukaan dan pembakaran lahan untuk pertanian dan perkebunan. Artikel ini menguraikan bahwa pencemaran asap lintas batas tidak dapat diatasi hanya di tingkat regional level ASEAN saja. Penyelesaiannya memerlukan kerja sama yang komprehensif mulai dari tingkat regional, internasional, dan nasional sampai tingkat lokal, yang mencakup perbaikan kerangka hukum dan penegakan hukum, baik di tingkat ASEAN maupun di tingkat nasional di Indonesia.

Kata kunci: pencemaran asap lintas batas, ASEAN, kerangka hukum regional, kerangka hukum nasional, Indonesia, kebakaran hutan

### **Abstract**

Haze pollution is one of the major environmental problems in the ASEAN region. Every year in dry season, forest fires occur in Indonesia creating havoc at domestic level and regionally affected neighbouring countries. This fire is caused by human activities in burning land/forest for plantation and/or agriculture. This paper argues that transboundary haze pollution cannot be solved solely on a regional level. It needs comprehensive efforts and co-operation from regional, international, national and local level. An improvement on both regional and national legal framework and law enforcement in addressing haze pollution problem is needed.

Keywords: transboundary haze pollution, ASEAN, regional legal framework, national legal framework, Indonesia, forest fires

### **Introduction**

Transboundary haze pollution from land and or forest fires is an ongoing and one of a major environmental problem in the ASEAN region (ASEAN Blue Print for Socio-Cultural Community, 2009-2015). The worst forest fires were recorded in 1997-1998 and since then fires

current worst forest fires were in June 2013. The impact of this haze has reached a dangerous level on human health. For example, in Singapore, Pollutant Standard Index (PSI) reading hit a record 400 during forest fires in June 2013.<sup>2</sup> The Indonesian President Susilo

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<sup>1</sup> This is a revised paper. The original one was presented at the 8<sup>th</sup> ASLI Conference Law in Sustainable Asia, 26-27 May 2011, Kyushu University, Fukuoka Japan.

<sup>2</sup> Katie Holliday, 'Singapore Air Pollution Hits All-Time High', *CNBC*, 20 June 2013 <<http://www.cnbc.com/id/100833323>>.

becoming an annual disaster every dry season particularly in Sumatra and Kalimantan. The Bambang Yudoyono asked for apology to Singapore and Malaysia for this haze havoc.<sup>3</sup> These fires caused by human activities in clearing land for plantation and agriculture especially in peatland areas (Bappenas, 1998). These activities have closed link with local development and livelihood strategies (Tacconi, Jotzo & Garfton, 2006). It can be seen from the data that 80% of the hotspots are located in agriculture lands or non-forest land.<sup>4</sup> It is indicated not only companies who hold forest concession who conducted land/forest burning practices but also local people. Fires are the cheapest and fastest way to clear land for agriculture. The ADB-Bappenas working paper stated that “accidental wildfire, mostly as a result of careless or misguided land conversion and agriculture burning” (Bappenas, 1998). The impacts of these fires are significant causing damage to biodiversity, health, economy and effect on global climate (Harrison, Page & Limin, 2009). For example, the total value of losses during 1997 fires to Indonesia according to the World Wide Fund for Nature (WWF) was estimated USD 4.1 billion and USD 2.4 billion according to the Ministry of Environment (Bappenas, 1998). In addition, it is pointed out that haze in 1997 forest fires has caused significant economic losses to Singapore (Quah, 2002: 429-433). These include health, tourism, local businesses, recreation and loss visibility (Quah, 2002: 429-433). In addition, in 2013, Singapore has claimed to suffer from economic losses estimated at \$1 billion a week.<sup>5</sup>

At the ASEAN regional level, several instruments have been taken to address the issue such as with the ASEAN Agreement on Transboundary Haze Pollution (AATHP) which emphasize on prevention and co-operation in its approach.

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<sup>3</sup>Rico Afrido, 'Ini alasan SBY minta maaf soal asap', 26 June 2013 <<http://nasional.sindonews.com/read/2013/06/26/12/754393/ini-alasan-sby-minta-maaf-soal-asap>>

<sup>4</sup>Harry Santoso, the pattern to decide the fires prone areas as a priority to control forest fires, power point presentation, 5 October 2010.

<sup>5</sup>Jonatan A. Lassa, 'Governing the risk of haze and ASEAN diplomacy', *Jakarta Post*, 28 June 2013 <<http://www.thejakartapost.com/news/2013/06/28/governing-risk-haze--and-asean-diplomacy.html>>.

Despite, the claim that the agreement is the first regional arrangement in the world that binds a group of contiguous States and considered as a global role model for tackling transboundary haze pollution from land and forests fires;<sup>6</sup> this instrument is not significantly effective since the haze pollution problem from forest fires still occurs every year. Indonesia as one of the major polluter currently has ratified the Agreement. It is argued that the effectiveness of treaty or agreement required the participation and compliance of “targeted State” (Tan, 2005: 647-650). However, there is a “pessimistic view that even though Indonesia enter this Agreement that would not solve the haze pollution problem” (Tan, 2005:647-650). This is due to concern of compliance and enforcement issue at Indonesian national and local level (Tan, 2005:647-650). It is pointed out that “lack of law enforcement mechanism and liability regime in the Agreement and incapacities (political, administrative, financial and technical) of targeted state undermined the effectiveness of the Agreement” (Tan, 2005:647-650). In fact, to be effective the Agreement requires capacity at national, provincial, municipal, and village levels to implement the Agreement (Boer, Ramsay & Rothwell, 1998: 321).

This paper examines the transboundary haze pollution problem in the ASEAN region in two levels. First, at regional level, this section examines the adequacy of ASEAN regional legal and policy framework in addressing haze pollution. Second is the adequacy of national legal framework in Indonesia.

### **Assessment on the Adequacy of ASEAN Regional Framework**

Several measures have been taken by the ASEAN to respond transboundary pollution problem. These include: the ASEAN Cooperation Plan on Transboundary Pollution 1995 which also set up a Haze Technical Task Force and Regional Haze Action Plan 1997; ASEAN Agreement on Transboundary Haze Pollution (AATHP) 2002; ASEAN Zero Burning Policy 2003; ASEAN

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<sup>6</sup>EU, 'Evaluation of European Commission's Cooperation with ASEAN Regional Level Evaluation Final Report' <[http://ec.europa.eu/europeaid/how/evaluation/evaluation\\_reports/reports/2009/1262\\_vol2\\_en.pdf](http://ec.europa.eu/europeaid/how/evaluation/evaluation_reports/reports/2009/1262_vol2_en.pdf)>.

Peatland Management Strategy (APMS) 2006 and; deployment of the Panel of ASEAN Experts on Fire and Haze Assessment and Coordination 2006. Based on these measures and initiatives, it is clear that transboundary haze pollution is a serious environmental problem posed in ASEAN Regions. It also shows that one measure is not enough to address the issue. It is indeed a very complex issue. It is related to sovereignty, the right to development, and the obligation not to cause environmental harm principle.

The next logical question on these many initiatives and measures is, how effective are they? It is argued that the system of cooperation of the ASEAN is not effective to cope with the fires. The measures seems fail to achieve their aim as until now the occurrence of forest fires still continue. All the measures taken by the ASEAN on addressing transboundary haze pollution emphasize on promoting cooperation amongst the ASEAN member countries. The ineffectiveness of the ASEAN measures lies in the legal framework. There is no liability and compensation regime develops in this measure. Cooperation and commitment of Member States to implement the ASEAN framework at domestic level is the way of ASEAN's approach in addressing issue of transboundary environment problems.

### 1. Policy Framework

The importance of co-operation in addressing transboundary environmental problems at regional level emerged far earlier than the adoption of ASEAN Agreement on Transboundary Haze pollution 2002 itself. It has emerged since 1992. The Singapore Declaration 1992 stated that "ASEAN Member Countries (AMCs) should continue to enhance environmental cooperation, particularly in issues of transboundary pollution, natural disasters, forest fires and anti-tropical timber campaign (Singapore Declaration, 1992). In this Ministerial meeting on Environment 1992 the ASEAN Ministers for Environment agreed to harmonize policy directions and set up operational and technical co-operation on environmental matter such as: transboundary air and water pollution, natural disaster, forest fires, oil spills and transboundary movements and disposal of toxic chemicals and hazardous waste, and undertake joint actions to address the anti-tropical

timber campaign; and to develop and implement specific programme relating to haze caused by forest fires, air and water quality management and protection of marine environment in ASEAN seas. Despite, a good will of ASEAN member countries in this Declaration to enhance regional co-operation to work towards harmonization of environmental quality standards in the region and to harmonize policy directions in addressing transboundary environmental problem, it is unclear on how to achieve harmonization of environmental quality standard amongst Member States. There is no further detail regulation on how to achieve this goal like in the European Union for example to adopt the Directives and implement the Directives in Member State's legislations in order to harmonize the policy and environmental quality standard in the EU region.

In 1994, the ASEAN Ministers formulated ASEAN cooperation plan on transboundary pollution which addresses three transboundary environment problems in ASEAN including: Transboundary atmospheric pollution, transboundary movement of hazardous waste and transboundary ship borne pollution.<sup>7</sup> In regard to address transboundary atmospheric pollution, this plan developed short term and long term strategy. The short term strategy is by preventing anthropogenically induced forest fires, especially in land clearing activities in timber and agriculture estates and transmigration through timely detection and preparedness of local communities; prohibit burning of biomass and promote alternative uses of biomass.<sup>8</sup> Long term strategy is by promoting zero burning policies.<sup>9</sup> However, this plan was also not effective since the large scale outbreak of forest fires occurred in 1997/1998. Again the effectiveness of this co-operation plan is heavily on the implementation of Member States of ASEAN.

In December 1997 during the period of intense forest fires, the ASEAN Ministers of Environment endorsed Regional Haze Action Plan

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<sup>7</sup> *Ibid.*

<sup>8</sup> ASEAN, *Regional Haze Action Plan* <[http://haze.asean.org/?page\\_id=213](http://haze.asean.org/?page_id=213)>.

<sup>9</sup> *Ibid.*

(RHAP).<sup>10</sup> RHAP has broad policies and strategies to deal with transboundary haze pollution with the objectives of this plan are as follow:<sup>11</sup>

- (a) To prevent land and forest fires through better management policies and enforcement;
- (b) To establish operational mechanisms to monitor land and forest fires; and
- (c) To strengthen regional land and forest fire fighting capability and other mitigating measures.

The RHAP divided the work and coordination between three countries: Malaysia to coordinate preventive measures; Singapore on monitoring measures; and Indonesia on strengthening firefighting capability.<sup>12</sup> However, it is argued that this joint action of ASEAN Member States is too little too late (Baverly, 2005: 8-36).

Another measure in addressing haze pollution was the adoption of zero burning policy in 1999 and reaffirmed in the ASEAN Agreement on Transboundary Haze Pollution 2002. ASEAN also released the guidelines for the implementation of the ASEAN policy on zero burning. This zero burning policy is intended only for plantation companies especially oil palm plantation and not applicable for small scale farmers.<sup>13</sup> It is argued that a zero burning policy is not effective since it only applicable to the oil palm plantation company. In addition, this guideline is not prescriptive as it is only recommendation, the actual implementation could be depend on the conditions, vegetation, resources and policies of individual companies.<sup>14</sup>

Another measure is a strategy and action plan for sustainable management of peatlands in ASEAN Member Countries under the framework of ASEAN Peatland Management Initiative (APMI) endorsed by the ASOEN-Haze Technical

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<sup>10</sup>ASEAN, *Regional Haze Action Plan* <[http://haze.asean.org/?page\\_id=213](http://haze.asean.org/?page_id=213)>.

<sup>11</sup>*Ibid.*

<sup>12</sup>Joint Press Statement The ASEAN Ministerial Meeting on Haze', 22-23 December 1997) <[haze.asean.org/?wpfb\\_dl=85](http://haze.asean.org/?wpfb_dl=85)>.

<sup>13</sup>ASEAN Secretariat, *Guidelines for the Implementation of the ASEAN Policy on Zero Burning* (ASEAN, 2003).

<sup>14</sup>*Ibid.*

Task Force (HTTF) in November 2005. This strategy is only as guidance to ASEAN Member Countries (AMCs), and the implementation is critically played by each AMCs through National Action Plans. The strategy focuses on four objectives, namely: to enhance awareness and knowledge on peatlands, address transboundary haze pollution and environment degradation, promote sustainable management of peatlands and enhance, and promote collective regional cooperation on peatland issues (APMS, 2007). However in the AMCs there are no specific laws or policies directly related to peatlands (APMS, 2007). It is recognized in that strategy that there is a lack of knowledge of peatlands functions and sustainable management options in the AMCs (APMS, 2007). There is lack of understanding of the ecological complexity of this system and failure to comprehend the importance of its natural functions (APMS, 2007). Finally, the most current measure is a haze monitoring system. This strategy is adopted as a response to the worst forest fires in June 2013.

## 2. ASEAN Agreement on Transboundary Haze Pollution

ASEAN established a regional legal framework and binding agreement through the ASEAN Agreement on Transboundary Haze Pollution (AATHP) which was adopted in 2002 and entered into force in November 2003. Indonesia just recently has ratified the Agreement. One of the main reasons Indonesia in delaying to ratify the Agreement for decade is the Agreement is considered encroachment to sovereignty. This Agreement does not develop a civil or state liability regime and compensation for the victims of transboundary haze pollution.<sup>15</sup> It is contended that there is a need for ASEAN to develop liability and redress to compensate the victims of transboundary pollution. It is argued that a liability and redress regime is essential for the

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<sup>15</sup>It is similar with 1979 Convention on Long Range Transboundary Air pollution is also does not contain rule on State liability as to damage. This is due to probably the nature of long range transboundary air pollution it is generally not possible to distinguish the contribution of individual emission sources or groups of sources.

compliance with the Agreement<sup>16</sup> and essential for the implementation of the polluter pays principle. However, it is highly unlikely that ASEAN will develop a liability regime considering the structure of ASEAN and its approach to environmental management. Beverly (2005: 8-38) criticized norm of non-interference (ASEAN Way) which cannot be maintained as an icon in face of ecological disaster that knows no boundaries. This ASEAN way of regional cooperation includes:

- (1) Non-interference in national government policies.
- (2) Consensus building and cooperative programs are preferred over legally binding treaties.
- (3) The implementation program is carried out at national level instead of creating regional bureaucracy (Kheng-Lian & Robinson, 2002: 640-642).

It is very noticeable that the AATHP Agreement is more focus on cooperation and prevention on addressing transboundary haze pollution. Article 2 stated the aim of this Agreement is to prevent and monitor transboundary haze pollution through concentrated national effort and intensified regional and international cooperation.<sup>17</sup> Indeed, cooperation on environmental protection is widely accepted as a basic obligation of international law which is embodied in Rio Declaration article 7 which states “States shall cooperate in a spirit of global partnership to conserve and protect the health and integrity of the Earth’s ecosystem” (Robinson, 2001: 459-469). There are general obligations set up in the Agreement. It is stated that the Parties shall cooperate to develop measures to prevent and monitor transboundary haze pollution.<sup>18</sup> It also imposes the obligation to take legislative, administrative and or other measures to implement the obligations under the Agreement. The effectiveness of the Agreement depends heavily on the implementation of the Agreement in

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<sup>16</sup> Convention on Biological Diversity, *Introduction: Liability and Redress* <<http://www.cbd.int/liability/introduction.shtml>>.

<sup>17</sup>ASEAN Agreement on Transboundary Haze Pollution, (signed and entered into force 10 June 2002 and 25 November 2003) article 2.

<sup>18</sup>ASEAN Agreement on Transboundary Haze Pollution, (signed and entered into force 10 June 2002 and 25 November 2003).

domestic laws. This include developing and implementing legislation to promote a zero burning policy, promoting education and awareness building campaign, strengthening local fire management, promoting and utilization of indigenous knowledge and other measures.<sup>19</sup> The failure of implementing these obligations in domestic laws means the failure of the Agreement.

There is positive measure to improve compliance in this Agreement that is the financial arrangements in article 20. This fund shall be known the ASEAN Transboundary Haze Pollution Control Fund. Similarly in climate change negotiations in order to comply and co-operate developing countries required developed countries to provide financial assistance. Financial assistance is the prerequisite for the cooperation of the agreement or treaties.<sup>20</sup> However, it is argued that the financing offered in AATHP Agreement is only “symbolic in nature as it is highly unlikely that the richer countries such as Singapore, Malaysia and Brunei will contribute on funds” (Tan, 2005:668). In addition, the Agreement does not provide incentives for Indonesia to act (Tacconi, Jotzo & Garfton, 2006). Therefore, the global community should consider supporting the ASEAN Agreement to the Haze Fund since forest fires is contributed to climate change (Tacconi, Jotzo & Garfton, 2006). Forest fires are a clear and present danger, not merely to territory within nation, but trans-nationally and globally (Robinson, 2001: 504). In addition, it is very unlikely that Indonesia as a source of pollution will enter the Agreement and sacrifice the development needed to meet the obligations stipulated in the agreement without appropriate financial offered.

In addition, it is argued that the Agreement hardly addresses the root of causes of the fires.<sup>21</sup> It is argued that the root causes of the fires in relating to systemic problems in Indonesia include: “unsound natural resources management, land tenure conflicts, crony capitalism in the forestry sector, ill-considered mega development projects, illegal logging and corruption at all

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<sup>19</sup>*Ibid.*, article 9.

<sup>20</sup> China and India stance with respect to Montreal protocol negotiation

<sup>21</sup> *Ibid*

levels of governance”.<sup>22</sup>This paper argues that the root of causes of the fires should be thoroughly investigated at local level. Therefore, the approach to address the issue of transboundary haze pollution should be shifted to local level. The recognition to address the problem at local level in the Agreement is not sufficient. Even though, its recognize the principle in article 3 of AATHP that the Parties, in addressing transboundary haze pollution should involve, as appropriate all stakeholders including local communities, non-governmental organizations, farmers and private enterprises.<sup>23</sup> However, there are no incentives and alternatives for local people to find the alternative solutions of slash and burning practices. Poverty is the root cause of the problems. Burning using fires is the cheapest and easiest way for clearing the land. It is hard to implement zero burning policy at local levels. There is a provision in the Agreement to develop or establish techniques on control burning particularly for shifting cultivators and small farmers, and to exchange and share experiences on controlled-burning practices.<sup>24</sup> Nevertheless, it seems this technical cooperation has not been developed or established yet. The importance of involvement at local level in fact already recognizes in article 9 AATHP such as through promoting public education and awareness-building campaign and strengthening community participation in fire management and also promoting the utilization of indigenous knowledge and practices in fire prevention and management.<sup>25</sup>

### **Assessment on the Adequacy of Indonesian Legal Framework**

The response of Indonesian government to forest fires is not comprehensive. It is sectoral, and reactive in approach and not addressing the root causes of forest fires. There is inadequacy both in prevention and repression measures to address forest fires. The discussion on this part is

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<sup>22</sup> *Ibid*

<sup>23</sup> ASEAN Agreement on Transboundary Haze Pollution, (signed and entered into force 10 June 2002 and 25 November 2003).

<sup>24</sup> ASEAN Agreement on Transboundary Haze Pollution, above n 54, Art 16 (e)

<sup>25</sup> ASEAN Agreement on Transboundary Haze Pollution, Art 9

divided into several parts as follows: peatland and forest fires, the root causes of fires, regulatory framework, institutional framework, centralization and decentralization of natural resources, and local participation.

### **1. Peatland and Forest Fires**

Peatlands is the major contributor of haze pollution. Fire in peatland is the most dangerous one because it is very difficult to control fire underground and it burns for a long time. Peatland is earth's most endangered and least known ecosystem.<sup>26</sup> Indeed, peatlands are being extensively converted and utilized in Indonesia. Indonesia has approximately 17-27 million ha or 53% of the world's tropical peatlands which are mostly located in Papua (8 million hectare), Sumatera (7.2 million hectare) and Kalimantan (5.8 million hectares) (Chokkalingam, Kurniawan & Ruchiati, 2005: 26). In the 1997-1998 forest fires, swamp forest fires accounted around for 2.1 million ha or 18% of the total area burned but contributed to 60% haze in the region.<sup>27</sup> It is also contributed to global carbon emission around 13-14%. It is suggested that once altered, peatland are very vulnerable to repeated burning.<sup>28</sup> Drained /logged peatlands become major annual fire flashpoints (Chokkalingam & Suyanto, 2004).

There is no specific legislation concerning peatlands or wetlands. However, Indonesia has ratified the Convention on Wetlands of International Importance especially as waterfowl habitat. In addition, there are several regulations concerning peatlands and wetland utilization including: The Law No 26/2008 on National Planning; The Presidential Decree No. 32/1990 on Management of Protected Area; The Ministry of Agriculture Regulation No. 14/Permentan/P.L. 110/2/2009 on the Guidelines of peatlands for oil palm plantation; and the Ministry of Environment Decree No. 5/2000 on The Guidelines of Environment Impact Assessment on development on wetlands.<sup>29</sup> However, the Ministry Agriculture

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<sup>26</sup> The Presidential Decree No. 32/1990 on Management of Protected Area article 9, 10

<sup>27</sup> *Ibid*

<sup>28</sup> *Ibid*

<sup>29</sup> There is a weakness of environment impact assessment in Indonesia. The licences usually granted

regulation on the guidelines of peatlands for oil palms plantation No. 14/2009 was criticized by the NGOs and environmentalists. They argue that the Government legalizes the peatland conversion with this regulation. Furthermore, they argue that peatland should not be converted at all as peatland conversion is increasing the Green House Gas Emissions and this will hamper the commitment of Indonesia to reduce GHG Emission by 26% in 2020.<sup>30</sup> The regulation No 14/2009 is to some extent contrary to the previous the Ministry of Agriculture letter in 2007 which orders local government to stop giving licences for peatland conversion until there is a comprehensive study on peatland in Indonesia. The Government with all those regulations above, stipulated that a peatlands less than 3 meters depth can be converted, peatland is protected if the deep more than 3 meters.<sup>31</sup> However, with the signed Letter of Intent (LOI) between the Indonesian Government and Norway the government agreed to a moratorium of primary forest and peatland conversion for 2 years, the government should revise or revoke the regulation which allowed the conversion of peatland. Despite this moratorium commitment, many environmentalist and activist are still pessimistic about the success of the moratorium to reduce deforestation and peatland conversion. It is claimed that a draft Presidential instruction on the moratorium of the conversion of primary forest and peatland still allowing almost 300 hundred companies to proceed and granted the licenses.<sup>32</sup> Greenomic Indonesia argues that this regulation will continue to make deforestation on 7,5 million ha primary forest in Indonesia.<sup>33</sup>

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before there is proper Environmental Impact Assessment.

<sup>30</sup> Adianto P. Simamora, 'Stop Converting Peatlands, Govt Study Recommends', *The Jakarta Post* (Jakarta), Mon, 18 January 2010 <<http://www.thejakartapost.com/news/2010/01/18/stop-converting-peatlands-govt-study-recommends.html>>.

<sup>31</sup> The Presidential Decree No. 32/1990 on Management of Protected Area article 9, 10.

<sup>32</sup> 7,5 Juta HA Hutan Alam Terancam Deforestasi', *Berita Sore*, 9 Februari, 2011 <<http://beritasore.com/2011/02/09/75-juta-ha-hutan-alam-terancam-deforestasi/>>.

<sup>33</sup> *Ibid.*

## 2. The Root Causes of Forest Fires

The problem to the forest fires is very complex. It is related to large scale development for plantation by companies and livelihood strategies of local people. To solve the forest fires it needs to identify the root causes of this problem. Bompard and Guizol pointed out that the causes of the fires are inadequate rights of local people to land and natural resources and inadequate land management policy (Bompard & Guizol, 1999). Siscawati (1998) argued that the underlying causes of forest fire such are "national forest land use, government intervention failure in encouraging (by subsidies) development of timber estate as well as domestic pulp and paper, and structural widespread corruption". This paper argues that poor management of natural resources; weak environmental governance and poverty are the underlying causes of recurrent forest fires in Indonesia.

Poor management of natural resources is related to problems in legal and policy framework especially overlapping sectoral laws in forestry, mining and agriculture sectors and horizontal law between central and local level; institutional framework including overlapping administrative structures, unclear authority between sectoral and central and local governments, and the lack of inter-sectoral co-ordination; and the lack of public participation including inadequate land rights and resources for local people (Bompard and Guizol, 1999). On the other hand, weak environmental governance concern with inadequacy of environmental laws and the lack of law enforcement which contributed to the failure of prevention of forest and land fires. Poverty has caused local people use cheap method/strategies for livelihood activities. Fire is the cheap and effective community wetland management tool in Indonesia.<sup>34</sup> "Fire is used by community to get access into peatland for harvesting fish, timber, to clear the land for rice cultivation, to generate fresh grass for cattle and to ease camping in wetland".<sup>35</sup> There is no viable alternative for this. Therefore, to address the issue of forest fires in Indonesia there should be a reform in legislative, institutional

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<sup>34</sup> *Ibid*

<sup>35</sup> *Ibid*

framework and the improvement of public participation.

### 3. Regulatory Framework

#### 3.1 Government Regulation No. 4/2001

In legislative framework to response large scale forest fires in 1997/1998, the Indonesian government has enacted Government Regulation No. 4/2001 on the Control on the Damage and Environment Pollution regarding Land and or Forest Fires which is regarded as a regulation on zero burning policy. Article 11 states that every person is prohibited conduct activities on burning forest and land.<sup>36</sup> Despite regarded as a zero burning policy, this regulation invites criticism from scholars due to its shortcoming. This regulation can be regarded as ineffective due to recurrence of fires still persists. The prohibition of all fires is misleading (Tacconi, Jotzo & Garfton, 2006). Not all fires are dangerous, only fires in peatlands caused significant impact on haze pollution (Tacconi, Jotzo & Garfton, 2006). Tan (2005) is similarly pointed out that the regulation is too general in the proscription of burning activities. Furthermore, he argues that without differentiated provisions to deal with varied situation which fire can be used, the regulation is wholly unrealistic and doomed to fail. This regulation is not effective and inadequate to reduce forest fires due to it is not addressing the significant causes of forest fires and lack of law enforcement.

#### 3.2 Environmental Protection Law

The environmental law No. 23/1997 is inadequate to response the forest fires. Alan Tan argues that this legislation proved to be ineffective due to it was exceedingly general in scope and contained no specific provision on controlling forest and land fires.<sup>37</sup> The new environmental law No. 32/2009 is also not making significant improvement regarding controlling forest and land fires. Article 69 (h) states that every person is

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<sup>36</sup> The prohibition of using forest fires for companies in land clearing for agriculture also suggested in article 26 the Law No 18/2004 on Agriculture.

<sup>37</sup> *Ibid*, 677.

prohibited to make land clearing using fires.<sup>38</sup> Again there is no detail and specific regulation on how to prevent and control forest fires especially in refer to fires in peatland areas. This provision is similar with article 11 government regulation No. 4/2001. This kind of prohibition is not effective in the implementation due to lack of law enforcement. For example since 2007 to 2009 the case of forest fires which is proceeded by the Ministry of Environment Investigation officer, the Ministry of Forestry Investigation officer and the police are 13 cases 1 involving local farmer and the rest involved companies. 4 cases went through court but all was released without charge being guilty. The difficulty in forest fires cases is often not enough evidence to prove the offence. In addition, if the suspect is local farmer usually the police will release without being charge. It is part of local people livelihood to use fires to open the land for cultivation. The notable cases regarding land/forest fires include: PT Adei Plantation Court Decision No 19/Pid-B/2001/PN.BKN 1 October 2001) and RawaTripa case.

#### 3.3 Presidential Instruction No. 16/2011 on Improvement in Controlling Land/Forest Fires

This is the latest regulation enacted by the government to improve efforts in controlling land/ forest fires, particularly as regards institutional set up and coordination. This regulation uses a disaster risk-reduction approach to address land/ forest fires. The leading institutions appointed by this regulation are the BNPB at the national level and Regional Disaster Management Agency (BPBD) at the local level. This approach seems correct, as the BPBD has more capacity and a more appropriate mandate in reducing risk and hazard of land/forest fires than the Ministry of Forestry. The 'Manggala Agni', the fire brigade under the Ministry of Forestry, is primarily mandated to protect and control land/forest fires in protected forest or conservation areas managed by the Ministry of Forestry, while other forest areas or community lands are a lesser priority. In addition, this regulation is considered a means of improving coordination between several government institutions in controlling land/forest fires, which was

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<sup>38</sup> The law No. 32/2009, Article 69 (h)

lacking in Government Regulation No. 4/2001 concerning Control of Environmental Degradation and/or Pollution related to Forest and/or Land Fires.

This regulation is a significant improvement from the previous regulation, particularly as it improves the institutional framework. It states the different government institutions involved in controlling land/forest fires and gives a clear and specific mandate for each government institution in controlling land/ forest fires. This regulation contains general and specific mandates. The first part is a general mandate, obligating 15 government institutions<sup>39</sup> at the central and local government levels:

- (1) To improve land/forest fire control through several activities:
  - a. Prevention of land/forest fires;
  - b. Firefighting;
  - c. Post-fire rehabilitation;
- (2) To cooperate and coordinate in controlling land/forest fires;
- (3) To improve community involvement and the involvement of other stakeholders in controlling land/forest fires;
- (4) To improve law enforcement and apply strict sanctions to individuals or corporations involved in burning land/forest fires.<sup>40</sup>

The second part contains a specific mandate to each government institution listed in the regulation. This regulation uses the 'framework of multilevel governance approach' in which addressing land/forest fires requires cooperation from various levels of government, vertically between central government institutions and horizontally between local and central government institutions. The vertical dimension of multi-level

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<sup>39</sup>The 15 government institutions listed in the regulation are the Coordinating Ministry of Community Welfare, the Ministry of Forestry, the Ministry of Environment, the Ministry of Research and Technology, the Ministry of Home Affairs, the Ministry of Foreign Affairs, the Ministry of Finance, the National Development Planning Agency, the Attorney General, the National Commander of Armed Forces, the Chief of Police for the Republic of Indonesia, the National Disaster Management Agency, Governors and Mayors/Regents.

<sup>40</sup> *Presidential Instruction No. 16/2011 on Improvement in Controlling Land/Forest Fires*, pt 1.

governance recognises that the national government cannot effectively address land/forest fires without working closely with local government, and expects local government to act in accordance with the legal framework at the higher level (Corfee-Morlot, Khamal-Chaoui, Donovan, Cochran, Robert, & Teasdale, 2009). The horizontal dimension of multi-level governance recognises that improving coordination between sectoral institutions will deliver greater effective outcomes in addressing land/forest fires.<sup>41</sup> The horizontal institutions in this regulation are *inter alia* the Ministry of Forestry, the Ministry of Agriculture, the Ministry of Environment, the Ministry of Research and Technology, the Ministry of Home Affairs and the BNPB.

### 3.4 The Problem in Regulatory Framework

The problem of the legal framework in Indonesia is overlapping laws. Management of natural resources is characterized by overlaps, sectoral approach and centralizes in nature. Patlis (2005: 450-451) suggested that "the law in Indonesia horizontally in word "sectoral" which resulted in series in gaps, overlaps, redundancies, conflicts, all of can be considered disconnect within a legal framework". For example, the forestry law prohibit open mining in protected forest.<sup>42</sup> On the other hand, the Law No. 19/2004 allowing all existing mining licenses operated in forest area including protected areas.<sup>43</sup> It means that this regulation still allowing the existing mining company to do open pit mining. Overlapping laws in managing natural resources are due to many interests in the management of natural resources which conflicting each other. In addition with decentralization, the laws much complicated. Patlis (2005: 450-451) suggested that "vertically the laws governing regional autonomy characterized by overly broad provisions, unclear mandate and few guidelines which encourages regional government to impose their own regulatory framework which is may or may not contradict with central laws legislation". The interest of local government often collides with

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<sup>41</sup> *Ibid.*

<sup>42</sup> The Law No 41/1999 on Forestry, article 38 (4)

<sup>43</sup> The Law No 19/2004, article 83 B

the powerful sector and central interest.<sup>44</sup> In addition, natural resources management laws and institution often collide.<sup>45</sup> Furthermore, there is conflict of land used over the utilization of forest between forestry, mining, agriculture sector, companies and local “adat” communities, central and local government. Indeed, integrated approach on management of natural resources is needed to eliminate this overlaps and conflict between sectors. The draft law on management of natural resources which is currently under consultation and discussion is clearly bringing the hope to the integration of management resources in Indonesia.

#### 4. Institutional Framework

Institutional framework is also having problem with lack of coordination. Lack of coordination due to sectoral approach is indicated by statue or an act which is drafted by sectoral ministries. Patlis(2005: 450-451) pointed out that “each agency is the champion of its own statue, whether in mining, forestry, agriculture or industry, so that rather laws serving the national interest, they are developed to serve administrative bureaucracy”. There are at least six Government Departments that directly affect the utilization of tropical forest: (1) The Forestry Department which controls concession and logging policy; (2) The Department of Agriculture which control policies affecting conversion of forest land to estate crops; (3) The Transmigration Department which identifies land sites cleared for resettlement; (4) The Department of Mining and Energy which issues oil and mineral on both forested and non-forested land; (5) The Department of Public Works which undertake the actual land clearing for road and infrastructure; (6) The State Ministry of Environment which issues the environment policies and attempts to implement environmental consideration into five other sectors but with infrequent and little success.<sup>46</sup>

An absent of coordination between these Ministries lead to conflicts on the utilization of natural resources and at the end causing environment degradation. In addition, lack of coordination amongst government institutions local and central was the reason Indonesian Government previously not ready to ratify the ASEAN Agreement on Transboundary Haze Pollution. With many institutions involved (central, local and sectoral) in the utilization of forest, it is unclear which authority responsible in case of forest fire. In addition, with the formulation of land and forest management policy which is dominated by central government and has little consultation with local government and local people made local government feel less responsible for these fires (Tacconi, Jotzo & Garfton, 2006). ADB report pointed out that there is a problem of effective allocation of roles and responsibility due to conflicting interest horizontally across regions and vertically between different layers of government administration from national parliament to village council.<sup>47</sup>

Government Regulation No. 4/2001 has mandated the Ministry of Forestry to co-ordinate fire control over trans-provincial effect and transboundary haze pollution.<sup>48</sup> Provincial government responsible for forest fire control over trans-municipal effect of haze pollution and Municipal level is responsible for forest fire control in their area. The role of locals in Riau, Jambi and Palembang according to this regulation is preventing, controlling and reporting the land/forest fires in their areas. Despite this mandate there is still uncertainty, unclear co-ordination and role amongst sectoral ministries involved in land/forestry sector in case of forest fires. In addition, to some extent there is contradiction and inconsistency between the general provision and provision in article 23 on authorities who control forest fires. The general provision article 1 (15) states that the appropriate ministry is the ministry who has duties to manage the environment which in this case appointed the Ministry of

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<sup>44</sup> ASEAN Development Bank, Indonesia: Natural Resources Management in a Decentralized Framework, July 2007, Final Report ADB TA 4687-INO

<sup>45</sup> *Ibid.*

<sup>46</sup> *Ibid*

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<sup>47</sup> ASEAN Development Bank, Indonesia: Natural Resources Management in a Decentralized Framework, July 2007, Final Report ADB TA 4687-INO

<sup>48</sup> Government Regulation No 4/ 2001, Article 23

Environment.<sup>49</sup> However, in the content of the regulation the Ministry of Forestry is responsible as co-ordinator for controlling forest fires. In fact, the scope of authority of the Ministry of Forestry in controlling forest fires is limited only to control forest fires over conservation forest based on Law No. 5/1990. On the other hand, production forest and protected forest is under the control of provincial and municipal government based on government regulation No. 38/2007. The fire in land and agriculture area is under responsible of relevant sectoral institutions, local government and local people.

### 5. Centralization and Decentralisation Over Natural Resources Management

There is a linkage between forest fires and mismanagement of natural resources such as deforestation and conversion of forest. It is argued that the control of the management of natural resources at central government level to some extent is creating problem in case of forest fires at local level. For example the case of ex-mega rice project established during Soeharto era which created environmental disaster and triggered forest fires ever year. Centralization is actually an inherited from Dutch rule. It is suggested that since the establishment of the Indonesian State in 1945 the legal framework for the management of natural resources was based on inherited Dutch rule which is to maintain centralization (Kusumanto & Sirait, 2000). For example, The Forestry Law, passed in 1967 now replaced by the Law No 41/1999 authorizes the Ministry of Forestry to determine legal regulations for the use and management of 143 million hectares of state forest area or approximately 70 percent of country land mass.<sup>50</sup> It is stated in article 4 the Law No 41/1999 that “all forest within the territory of the Republic Indonesia including all the richness contained therein are under the state’s control for people’s maximum welfare”. Forest controlled by state, gives the authority to the central Government to:

- (a) Regulate and organize all aspects related to forest, forest area and forest products;

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<sup>49</sup>Government Regulation No 4/ 2001, Article 1 (15)

<sup>50</sup>Forestry Law 1999 (Indonesia).

- (b) Assign the status of certain area as forest area or non-forest area; and
- (c) Regulate and determine legal relations between man and forest, and regulate legal actions concerning forestry.<sup>51</sup>

The government used state forests for market liberalization of forestry sectors to support modern firms, concession holders, migration projects and left local communities without legal support.<sup>52</sup> In this regard the central government had monopoly over granting HPH (Logging Concessions) and HTI (Industrial Plantation Licences) (Arnold, 2008).

However, with the enactment of autonomy law with the law No. 22/1999 and revise with the law No. 32/2004, management of natural resources has been decentralized to local government. The goal of decentralization is to bring decision making closer to the local level.<sup>53</sup> Despite, this decentralization, central governments still have big authority over management of natural resources. The aim of bringing decision making closer to the local level is to improve management of natural resources and environment protection. However, in fact natural resource and environmental degradation are still rampant. The paradigm of governments to prioritize short term economic profit rather than environmental protection in the policy making has caused degradation of natural resources and the environmental degradation.

### 6. Local People Participation

The failure of management of natural resources in Indonesia is because lack of local people’s participation in natural resources management. Greater local participation in natural resources management has been promoted by researchers, non-governmental and international organizations as a means of improving local management outcomes (Palmer & Engel, 2007; Ribot, 2003). It is argued that the greatest concern for communities are equity and democracy considerations,

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<sup>51</sup>The Law No. 41/1999 on Forestry article 4 (2)

<sup>52</sup>*Ibid*

<sup>53</sup> ASEAN Development Bank, Indonesia: Natural Resources Management in a Decentralized Framework, July 2007, Final Report ADB TA 4687-INO

specifically greater control over livelihoods and a greater share of natural resource benefit (Palmer & Engel, 2007; Edmunds & Wollenberg, 2003). There is empirical evidence that community-level management can lead to ecological and social benefits (Palmer & Engel, 2007). Local communities are playing important role in addressing forest and land fires. One of the activities is community based fire management. In Sumatra for example, the local government establishes *regudesa* (village groups) containing ten local people in particularly fire prone villages and trains them. There are 210 villages in fire prone areas in South Sumatra, mostly in the Musi Banyu Asin, Banyuasin and Ogan Komering Ilir regency's areas, and 2500 local community members have already been trained.<sup>54</sup> Robinson argued that strengthening civil society to become responsible for the stewardship of fire and forest is the fundamental premise for sustainable development (Robinson, 2001:459). However, it is hard to strengthen civil society, if they do not have access to natural resources. Local communities are many times excluded from both the decision making processes that affect land management as well as from the advantages gained from forest exploitation (Bompard & Guizol, 1999). This inadequate rights of local population to land and natural resources is the institutional causes of fires.<sup>55</sup> Lack of rights of local people to forest land is a major underlying cause of continuous trespass in forest, deforestation and fires.<sup>56</sup>

Basic Agrarian Law the Law No 5/1960 and the Law No.41/1999 explicitly recognize "adat forest." However, it is indicated that the existence of adat forest should be clarified by local government. Further, the recognition of adat forest is strengthening by Constitutional Court Decision No. 35/PUU-X/2012. Article 4 (3) Law No 41/1999 that forest control by State shall respect customary laws, as long as it exists and its existence is recognized and not contradicting

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<sup>54</sup> LaelyNurhidayah, Interview with Achmad Taufik, Head of UPTD *Pengendalian Kebakaran Hutan dan Lahan* South Sumatera Province (Palembang, 11 September 2012).

<sup>55</sup> *Ibid*

<sup>56</sup> *Ibid*

national interest.<sup>57</sup> However, the position of adat forest in this legislation is weak. It is hard to justify their customary status and secure this right because Government regulation No. 24/1997 sets out rules which are contrary to adat law that is lands should be certified and registered. Most of adat forest is unregistered. In addition, the State retains the power to accord, recognize, and revoke the status of customary community (Tan, 2005: 696). The rights of the community within the customary forest are recognized only to extent that they not conflict with "national interest which is this interest is solely defined by central government. It is stated in General Elucidation of the Basic Agrarian Laws No 5/1960 further notes:

It would not be justifiable for an adat community...to reject a plan of large-scale clearing of forests on an on-going basis, which is required for the implementation of projects for food production or relocation of people. Experience shows that regional development is impeded by problems related to *hakulayat*. The interest of the adatcommunity should be subordinated to the broader interests of the nation and of the State and the implementation of *hak ulayat* should also be consistent with the broader interests.

Therefore, community forestry program through land distribution and land titling is an approach which has been promoted by the World Bank as well as some other research organization should be implemented (Sirait, 2009). The World Bank recommend that there is a need to provide clear property rights such as ownership or transfer the forest area to the local communities and make landholders more secure in land without trees (Sirait, 2009).

## Conclusion

In addressing transboundary haze pollution, a comprehensive approach is needed and underlying causes of forest fires is addressed. Transboundary haze pollution cannot be solved solely on a regional level. It needs comprehensive effort and co-operation from international, regional, national, and local levels.

At the ASEAN regional level, there is an inadequacy of the regional legal framework.

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<sup>57</sup>Forestry Law 1999 (Indonesia).

ASEAN Agreement on Transboundary Haze Pollution (AATHP) is not significantly effective. Zero burning policy that has been adopted by Indonesia is not significantly effective. To be effective the Agreement requires capacity of national, provincial, municipal and village level of the targeted state to implement the Agreement. Liability and redress regime is essential for the implementation of the polluter pays principle, a compliment to co-operation and prevention regime and to improve the effectiveness of regional framework which is needed to be established in ASEAN. Furthermore, financial assistance is also needed as positive measures to improve compliance and as the prerequisite for improving the cooperation of the Agreement. It is suggested that global community should consider supporting ASEAN and Indonesia to tackle forest fires due to it is also contributed to climate change.

At Indonesian level, legal framework in Indonesia is not adequate to address forest fires due to it is not addressing the significant root causes for forest fires and lack of law enforcement. Indonesia has adopted ASEAN policy on zero burning to solve the annual forest fires in Indonesia. However, lack of enforcement makes this policy is not effective. A comprehensive approach not only a reform in the legislative but also institutional framework, improving public participation and laws enforcement are needed. In addition, lack of coordination and lack of capacity of local government are the challenges to address forest fires effectively. The improvement of local people's participation is needed through the improvement of local people's access to natural resources and improves their livelihood.

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