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Alan Khee-Jin TAN

alantan@nus.edu.sg

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THE 'HAZE' CRISIS IN SOUTHEAST ASIA: ASSESSING SINGAPORE'S TRANSBOUNDARY HAZE POLLUTION ACT 2014

Alan Khee-Jin TAN – alantan@nus.edu.sg
Professor, Faculty of Law, National University of Singapore

1. Context and Overview

On 25 September 2014, Singapore's new Transboundary Haze Pollution Act came into operation. The Act is a dramatic piece of legislation that creates extra-territorial liability for entities engaging in setting fires abroad that cause transboundary smoke or "haze" pollution in Singapore. The impetus for the Act's enactment can be traced to the serious haze pollution that hit Singapore in June 2013.

For several days in that month, transboundary haze pollution arising from forest and land fires in Indonesia reached an unprecedented high in Singapore. The air pollution measurement index in Singapore (the PSI - Pollutant Standard Index) hit a historical high of 401 on 21 June 2013, well over the 'hazardous' level of 300 and far exceeding the worst level of 226 suffered in 1997.¹ In fact, the PSI reading breached the 300 level in Singapore on four successive days in June 2013 before abating gradually toward the end of that month.

Prior to 2013, the most serious pollution occurrence in recent memory had been in 1997, the year Indonesia was engulfed by the Asian financial crisis and the ensuing political upheavals that led to the ouster of President Suharto. The fires and haze of 1997 had prompted the present author to make a case then for Indonesian State responsibility for failure to control the fires.² Since that time, the fires and transboundary haze have continued to be an almost annual occurrence affecting Malaysia, Singapore and Brunei, with serious episodes taking place in 1999, 2002, 2004, 2006 and 2010.

In short, the problem keeps recurring and shows no sign of long-term resolution. At the peak of the June 2013 event, satellite images of burning tracts of land in Indonesia

¹ See 'Singapore haze hits record high from Indonesia fires', *BBC News* (London, 21 June 2013) online: BBC News <<http://www.bbc.com/news/world-asia-22998592>> accessed 23 August 2014.

² Alan Khee-Jin Tan, 'Forest Fires of Indonesia: State Responsibility and International Liability' (1999) 48 *International and Comparative Law Quarterly* 826.

(particularly in the province of Riau on the island of Sumatra) indicated that the fires were occurring within large agri-business plantations.³ Yet, the plantation interests vehemently denied setting the fires, placing the blame instead on small-scale farmers and local communities living near or within their plantation concessions.

On its part, the Indonesian government promised to take action against the perpetrators, but as with previous fires and haze episodes, failed to tackle the problem in a meaningful way. Amidst the finger-pointing, the Malaysian and Singapore governments pressed for an emergency meeting of regional environment ministers to be convened. The meeting, which was originally scheduled for August 2013, was brought forward to July 2013 and held in the Malaysian capital, Kuala Lumpur.⁴

Ahead of that meeting, the Singapore authorities publicly raised the question of whether Indonesia could provide and share its plantation concession maps with the precise geographical coordinates of oil palm and pulp and paper plantations. The objective was to pinpoint the locations of the fires accurately and to identify the companies that had control over the relevant tracts of land. Crucially, when overlaid with satellite “hotspot” images, it was thought that the maps could provide the Indonesian authorities with the necessary evidence to facilitate enforcement action as well as to anticipate fires during future burning seasons.

The Singapore position has to be understood in the context of allegations – arising frequently from Indonesia to deflect criticisms of inaction – that the plantations were actually foreign-owned or -controlled, with several being based in Singapore and Malaysia or even listed on these two countries’ stock exchanges.⁵ Indeed, at least seven companies with oil palm and pulp and paper operations in Indonesia are based or listed in Singapore, including major players such as Wilmar International, Asia Pulp and Paper, Golden Agri-Resources and APRIL. Singapore thus took the position that it needed the maps to verify

³ According to the World Resources Institute (WRI), over half of Riau province’s fire alerts occurring between 12 to 23 June 2013 were within concession areas, *see* Neo Chai Chin, ‘Haze finger-pointing: Time for companies to show and tell’, *TODAY*, 28 June 2013, at <http://www.todayonline.com/commentary/haze-finger-pointing-time-companies-show-and-tell>.

⁴ The meeting was the Fifteenth Meeting of the Sub-Regional Ministerial Steering Committee (MSC) on Transboundary Haze Pollution.

⁵ Ben Bland, ‘Indonesian fires highlight weak governance and corruption’, *Financial Times*, 23 June 2013, at <http://www.ft.com/cms/s/0/a6d8c050-dbf5-11e2-a861-00144feab7de.html>.

who the concession holders were so that it could contemplate action against any offending Singapore-linked entity. Such action would have to entail the adoption of extra-territorial legislation, something which Singapore government ministers signaled they were prepared to study.

At the Kuala Lumpur meeting, the Indonesian government resisted and raised legal obstacles to the sharing of map information. Indeed, the Indonesian Environment Minister insisted that the country's freedom of information law prohibited the public disclosure of such information.⁶ It was further claimed that data that could reveal the country's natural resources wealth such as forests could not be made public under Indonesian law. Ironically, Indonesia's reluctance was shared by Malaysia. The Malaysian Natural Resources and Environment Minister highlighted the fact that land matters fell within the authority of the state governments in Malaysia, and went on to doubt if the Malaysian federal government could publish details of concession maps.

The Indonesian and Malaysian reluctance meant that the ensuing discussions could only produce a compromise, in that the maps could be shared in a limited manner only between governments, and on a "case-by-case basis". To date, it is unclear if the Indonesian official maps have been or will be shared with the Singapore and Malaysian governments. The Indonesian authorities are currently pursuing a major "One Map Initiative" that aims to produce a single all-encompassing national map that rationalizes information on forest licenses, agricultural concessions and other land use claims. If successful, the single-reference map is expected to resolve overlapping and contradictory claims and provide much-needed certainty on land use rights.

The problem, however, is the project's slow rate of implementation. The initiative is intended to start by reconciling competing land claims province by province. At present, it appears that the fire-prone provinces like Riau and Jambi have yet to come up with their uniform maps. Indonesian government officials have estimated that the national map project may take another two years to complete.⁷ In the meantime, Indonesia has signaled that it is unable to share any maps with the neighbouring countries. It thus appears that the

⁶ Zakir Hussain, 'Jakarta's information law forbids sharing of maps', *Straits Times*, 19 July 2013.

⁷ Monica Kotwani, 'No agreement on concession maps at haze meeting', *Channel News Asia*, 2 April 2014, <http://www.channelnewsasia.com/news/asiapacific/no-agreement-on/1056762.html>

sharing of maps will not take place until the national project is completed, and this will inevitably delay the “haze monitoring system” that Singapore has proposed as a form of regional co-operation to combat the haze.

Arising from the unprecedented haze of June 2013, the Singapore government began studying the adoption of extra-territorial legislation to target companies involved in using fires in Indonesia. On 19 February 2014, the Singapore Ministry for the Environment and Water Resources (MEWR) announced a proposed Transboundary Haze Pollution Bill and called for public feedback on the draft Bill. This draft Bill laid out an ambitious extra-territorial attempt to attach criminal and civil liability on agri-business companies involved in using fires outside Singapore, whether these be Singapore-linked companies or otherwise.

In the context of the above developments, this paper analyzes the adversarial approaches that could potentially be employed against relevant offending entities, both pursuant to international law principles on state responsibility as well as domestic legislation and judicial processes in Singapore. Indonesia’s state responsibility for the fires and haze will first be discussed.

2. Contemplating State Responsibility under International Law

The geo-political constraints of bringing an action against Indonesia under international law are immense. In the first place, it is highly unlikely that Indonesia will submit to the jurisdiction of the International Court of Justice or any other dispute resolution mechanism. It is also unlikely that states in the region will risk their close political and economic ties with the regional giant economy that is Indonesia to pursue an action before an international tribunal. The ensuing discussion on state responsibility and international liability must thus be considered with such realities and constraints in mind.

In the aftermath of the last serious fire and haze outbreak in 1997-98, the present author had analyzed and made a case for Indonesia’s state responsibility for failing to control the

fires and the transboundary haze that the fires caused.⁸ The principles applying to that episode apply as forcefully to the haze of 2013. Indeed, in the ensuing 15 years since that first analysis was made, the Indonesian government has made little meaningful progress in enforcing its laws against the perpetrators and stemming the almost annual occurrence of the fires and haze pollution.

a. State Responsibility for Transboundary Injury

Under international law, every internationally wrongful act of a State entails the international responsibility of that State. An internationally wrongful act exists when conduct consisting of an action or omission is attributable to the State under international law; and that conduct constitutes a breach of an international obligation of the State. The important questions here are whether there is an obligation under international law to prevent transboundary injury from forest and land fires; and whether the burning of land and forests can be attributable to the Indonesian state.

On the question of an international obligation, the cumulative body of state practice, arbitral awards and eminent jurists' writings point strongly to the existence of an obligation to *prevent* transboundary injury arising from the exercise of sovereign rights within a state's territory. This duty to prevent is one of due diligence. If the harm has been caused not by state organs or agents, but by private entities, the state's obligation is to exercise due diligence to prevent and punish conduct which, if the state were itself the actor, would violate its international obligations.

Hence, the Indonesian state would have an obligation of due diligence to prevent private actors within its territory, jurisdiction or control (whether these be large-scale plantations or small-time farmers) from causing transboundary environmental harm to other states or to areas beyond the limits of national jurisdiction. The state also has the obligation to punish the perpetrators of wrongful conduct if harm is occasioned.

For the purpose of such obligations, it is immaterial if the actual perpetrators are the plantations or the small-time farmers – both sets of actors come under the jurisdiction and

⁸ Alan Khee-Jin Tan, "Forest Fires of Indonesia: State Responsibility and International Liability", Vol. 48, *International and Comparative Law Quarterly* 826 (1999) (U.K.).

control of the Indonesian state. Hence, Indonesia's due diligence obligation to prevent harm extends to controlling the conduct of both parties. Moreover, as will be detailed below, Indonesia cannot pray in aid domestic laws and institutional inadequacies that endorse these actors' conduct or lead to the failure to control them.

The starting point in international law is the principle of *sic utere tuo alienum non laedas* (one must use his own so as not to damage that of another). The principle's expression in international environmental law reaffirms the sovereign right of states like Indonesia to conduct activities within their own territories, but no state has the right to conduct its activities in such manner as to cause injury to other states.

The obligation to prevent transboundary harm has become well accepted by states and established under international law. The obligation is now entrenched in numerous treaties pertaining to the protection of the environment, nuclear accidents, international watercourses, space objects, prevention of marine pollution and hazardous waste management. The weight of state practice, municipal and international judicial opinion and academic writings attest to the status of the obligation to prevent transboundary harm as an established principle of customary international law.

b. Attribution of conduct to the State

In the light of the customary status of the obligation to prevent transboundary harm, Indonesia would owe an obligation to neighbouring states to prevent transboundary injury arising from the burning of land and forests within its territory. While the clearing of land and forests for economic activities (and even the use of fire for these purposes) would be within its sovereign prerogative, Indonesia owes an obligation to prevent transboundary harm arising from these activities from being caused to other states.

The conduct attributable to the Indonesian state could either be (a) the conduct of the wrongdoer itself, or (b) the state's *own* positive failure to prevent private wrongful conduct or to apprehend and punish the wrongdoer. Hence, if the perpetrators are organs or agents of the state, or can objectively be determined to be operating pursuant to state functions or goals, there is a possibility of attributing their conduct to the state directly.

In the Indonesian forest and land fires situation, the perpetrators involved in the deliberate use of fires appear to be private commercial concerns or individuals with no formal links to the state. Certainly, the farmers who practice “slash-and-burn” agriculture can hardly be viewed as state organs or agents whose conduct can be attributed to the state. As for the large plantation companies, many of these are private limited liability entities with no formal connection to the state.

Of course, one could argue that the timber and plantation companies are merely exploiting the state’s natural resources pursuant to explicit licensing or concession arrangements entered into by the state. Indeed, to the extent that Indonesian law reposes control of all land and natural resources in the state, it might be argued that the devolution of authority to exploit natural resources represents a transfer of state functions to private entities pursuant to the latter’s status as state agents. Hence, these entities would effectively be conducting economic activities on behalf of the state while earning profits for themselves after deducting whatever concession or license fees that are payable to the state.

This argument could be bolstered if the state retains regulatory competence over the entities’ activities, as clearly the state does over forestry and agricultural matters.

Alternatively, attribution of conduct can be established by the fact that some companies in question are controlled, directly or indirectly, by state instrumentalities such as the military or even by individuals within or closely aligned to the Indonesian government.

That said, the grant of licenses to private entities to conduct economic activities is a widespread practice in many countries. To allow attribution to the state of these entities’ wrongful conduct would be surprising, in that it would stretch notions of “public functions” or “acting on behalf of the state” too far. This is particularly so for functions that are not commonly understood to be public in nature (such as law enforcement), but are commercial with a profit motive (such as natural resource exploitation).

A second possible means of attribution could be when the state is complicit in the wrongful conduct, in that it has approved or ratified the private party’s act to the point of becoming the effective author of the wrong. On the facts, however, it would again be somewhat tenuous to allege that the Indonesian state has adopted the acts of its private citizens. Absent evidence of an intentional desire for, or at the very least, tolerance for or

acquiescence in the consequences of wrongful conduct, it would be difficult to allege the state's approval or endorsement of wrongful private conduct. Here, it should be remembered that Indonesian citizens themselves are victims of the severe damage wrought by the smoke pollution.

Hence, the most likely basis for attribution is the state's direct violation of its *independent* obligation to prevent or punish – that is, a failure by the state to *control* and *prevent* the deleterious acts of its private citizens. The obligation here extends to the exercise of “due diligence” to prevent conduct which, if the state itself were to be the actor, would have breached its international obligations. On top of the obligation to prevent, there is the important obligation to apprehend and punish wrongdoers once the conduct has already occurred in order to deter future wrongful conduct.

Both sets of obligations rest naturally on the jurisdiction and control that the state must be assumed to exercise over the wrongdoer(s) and the locus of the conduct. In this regard, a state cannot pray in aid domestic obstacles such as the lack of laws enabling it to act, or a constitutional structure that devolves authority to local units, in order to absolve itself from the international law obligations to prevent and punish.

c. The breach of the obligations

This brings us squarely to the relevant standard of state conduct in failing to prevent and punish. As stated earlier, the standard here is not one of strict responsibility, but of “due diligence”: the state may thus avoid responsibility if it can show that the prohibited conduct of the private citizen(s) occurred despite its having taken all diligent steps to prevent that conduct. In other words, if no reasonable degree of diligence could have prevented the event from taking place, state responsibility is not engaged.

The enquiry is thus fact-based and objective in nature. Yet, the particular state's capacity (or lack thereof) is also relevant. While there is evidence that the standard is often regarded as objective, recognition has been given to the state's capabilities within the specific circumstances of the case. There is also a growing consensus on a measure of appreciation to be given to developing countries, in that these should not be held up to the same

standards as the developed countries.⁹ At the same time, there is recognition that a state cannot use its low level of economic development to discharge it from its obligations under international law. There is thus a minimum international standard below which the state cannot fall.

Meeting the due diligence standard, particularly in the context of developing countries, entails a few key imperatives. In particular, due diligence generally requires the exercise of the full extent of the legal authority at the state's disposal over its organs and private actors to prevent wrongful conduct. Here, there is common agreement that a state should install the necessary legislative and administrative mechanisms to govern the conduct of actors within its territory or coming under its jurisdiction or control. At the very least, laws should be enacted to ensure that state and private conduct do not cause harm to other states and their nationals, as well as to areas beyond national jurisdiction.

The state is also under a continuing obligation to keep itself apprised of the activities of its organs and private actors. This obligation is a continuing one in that the state must continue to exercise vigilance in case the nature of the activities and the risks they entail change with time. Further, if harm were to occur, there is an obligation to prosecute and punish the offender, i.e. to bring the full force of the law to bear on the perpetrators in order to enforce the law. This is the essence of the law enforcement obligation to exact compliance on the part of target actors. The extent of the "due diligence" standard will also vary depending on the magnitude of the harm: the greater that harm, the more exacting the standard. At the same time, the state is also obliged to undertake whatever international law obligations it may have in respect of the duty to cooperate and to share information with injured states.

In short, these would be the "due diligence" obligations of Indonesia. At this juncture, it is apposite to note that there exists a regional treaty – the 2002 ASEAN Agreement on Transboundary Haze Pollution – that Indonesia has only very recently become a contracting party to. The "due diligence" obligations stated above are entrenched in this Agreement, notably, the obligation to enact legislative and administrative mechanisms to deal effectively with fires and haze, to enforce the relevant laws and prosecute perpetrators and

⁹ See, e.g. Principle 11 of the Rio Declaration.

to cooperate and share information with other state parties. In any event, these obligations are established under customary law, and for their purposes, it should not matter whether Indonesia is a contracting state party to the 2002 ASEAN Agreement.

The important question here is whether Indonesia has fulfilled such obligations through its conduct and response to the fires and haze. On the matter of laws, it is clear that legislation exists in Indonesia to outlaw the practice of “open burning”. Indeed, in various legislation ranging from full-fledged primary-level *Undang-Undang* (“Laws”) to *Peraturan Pemerintah* (“Government Regulations” that provide elaboration on the Laws) and *Peraturan Daerah* (“Regional Regulations” enacted by local governments pursuant to regional autonomy), there are explicit admonitions against open burning and the use of fires, particularly in land areas that are rich in combustible peat material. There are also explicit punishment provisions against perpetrators, including imprisonment, license withdrawals and heavy monetary fines.

The main problem, however, lies in the lack of effective enforcement of these laws. As has been detailed by this author and numerous others,¹⁰ the realities of governance in Indonesia are that laws are typically circumscribed and manipulated by vested interests through corrupt means, collusion or incompetence of government officials, or sheer confusion as to the appropriate enforcing authority. The overlapping competences between various sectoral agencies, as well as between central and regional authorities, create a complex hierarchy of laws and practices that are often opaque and contradictory.

To take an example, there are various punishments prescribed for forest and land fires that have not been properly reconciled. Under the Forestry Law,¹¹ intentional setting off of fires can attract 15 years’ imprisonment and a fine of 5 billion Rupiah (about US\$450,000). As for fires started negligently, the punishment is 5 years’ imprisonment and a fine of 1.5 billion Rupiah (about US\$130,000). However, there is a separate Law for Protection and

¹⁰ See, e.g. Alan Khee-Jin Tan, “The ASEAN Agreement on Transboundary Haze Pollution: Prospects for Compliance and Effectiveness in Post-Suharto Indonesia”, Vol. 13 *New York University Environmental Law Journal* 647 (2005) (U.S.A.).

¹¹ Forestry Law No. 41 of 1999, Article 50, Para d and Article 78, paras. 2 and 3, available at http://www.bkpm.go.id/file_uploaded/Law_4199.htm (unofficial English translation). See commentary in <http://www.thejakartaglobe.com/news/new-law-goes-easy-on-forestry-violations/> on the passage of a new law in 2013 that amends Forestry Law No. 41 of 1999. However, the focus of the new law is on illegal logging, and it makes no changes to the 1999 Law for illegal burnings.

Management of the Environment (Law No. 32 of 2009) that prescribes a minimum punishment of 3 years' imprisonment and a fine of 3 billion Rupiah (US\$260,000) and a maximum punishment of 10 years' imprisonment and a fine of 10 billion Rupiah (US\$900,000) for intentional starting of fires.¹² It is unclear which Law is the overriding provision – the prosecutors have been charging different perpetrators under both Laws, mostly the Forestry Law.

More troubling is the prosecutors' attitude in pressing for lower charges or offences and that of the courts in ultimately handing down relatively light sentences. The common belief in Indonesia is that the vested interests are able to negotiate, often through corrupt or illegal means, a lowering of their liability or even complete acquittals. In many cases, the lack of governmental monitoring and investigative capacity leads to problems with insufficient evidence. As a result, these cases end in acquittals, reversal of convictions upon appeal, or light punishments, as detailed in the sampling of recorded cases below:¹³

¹² Law for Protection and Management of the Environment (Law No. 32 of 2009), Article 108, available at <http://faolex.fao.org/docs/pdf/ins97643.pdf> (unofficial English translation).

¹³ The sources can be found in the two articles by the present author, see notes 2 and 8.

Cases and Action Taken	Outcome/Comments
1998: 176 companies identified, 5 prosecuted.	1 found guilty (verdict unknown).
1998: test case brought by Ministry of Forestry against plantation company in Riau province.	Exonerated on all charges because expert testimony provided by government was not taken seriously by the court. Riau governor then froze company's operations but by July 1999, the company had ignored the decree and resumed operations.
1998: In Riau, provincial forestry officials announced action against 47 companies.	Only 2 companies eventually prosecuted. In one case, 3 employees (2 casual labourers and a field staff) received sentences of 3 to 10 days in jail. No action was taken against the company management.
1998: A coalition of NGOs, Walhi, brought a test case against 11 companies.	2 were found guilty, 9 acquitted. Of the 2 found guilty, no fine was imposed, and the court merely ordered them to pay court costs, to reforest their areas and to create firefighting capabilities. The court threw out detailed geographic information systems (GIS) evidence and chose to rely only on eyewitness testimony.
1998: A coalition of NGOs and local interest groups in North Sumatra province commenced action against several national timber industry associations for their roles in the fires.	A fine of 50 billion Rupiah (US\$4.5 million) was handed down, but this was later reversed on appeal.

<p>2000: An Indonesian-Malaysian joint venture company, PT Adei, was prosecuted for starting fires.</p>	<p>The company's Malaysian manager was sentenced to 2 years' imprisonment and a 250 million Rupiah fine (US\$22,500). On appeal, the sentence was reduced to 8 months' imprisonment and a 100 million Rupiah fine (US\$9,000). This was upheld by the Supreme Court in 2002. This appears to be the only major conviction secured.</p>
<p>2014: A court in Aceh province (in the north of Sumatra island) ruled in a civil case that an oil palm company, PT Kallista Alam, was in breach of the 2009 Law for the Protection and Management of the Environment for using fires illegally.</p>	<p>The company was ordered to pay 114.3 billion Rupiah (US\$9.5 million) in compensation and 251.7 billion Rupiah (US\$21 million) to restore the affected forests. In July 2014, another court found in a criminal case that the same company's director was guilty of illegally clearing peat forests and imposed an imprisonment term of 8 months and a fine of 150 million Rupiah (US\$12,500). The company is currently appealing both sets of rulings, and it is too early to celebrate the case as a victory for strict enforcement given the fact that superior courts have tended in the past to reduce penalties dramatically</p>

The cases above show that in spite of the efforts to prosecute various companies, the punishments have often been non-existent or lenient. Such a consistent pattern of lax or ineffective enforcement has led to fires continuing to be used in breach of anti-burning laws, and the recurrence of the problem year after year. The conclusion here is that the laws in Indonesia have simply not been adequately enforced against the majority of operators. In light of the massive scale of the fires and the severe injury caused by the smoke, the few

cases where action has been taken have been drops in the ocean (save for the PT Kallista Alam case in 2014) with the penalties being wholly inadequate and ineffective. In this regard, a strong case can be made for Indonesia's failure to live up to its due diligence obligation to prevent transboundary harm to other states.

We move on now to the 2013 fires to assess if anything has materially changed. Clearly, the problem has never gone away – intermittent haze episodes of varying severity hit the neighbouring states in 2002, 2004, 2006 and 2010, culminating in the fires of June 2013. The burnings are annual occurrences, used by plantation and farming interests to clear land in the cheapest and fastest manner possible. In the wake of the unprecedented 2013 fires and haze, the Indonesian President issued an apology to the neighbouring countries and promised effective action. A “zero tolerance” attitude toward illegal land burning was expressed repeatedly by the President, the most recent being during a conference in Jakarta on 5 May 2014.¹⁴

It appears that about a dozen companies and more than 100 individuals are currently facing trials for the 2013 fires,¹⁵ but there is as yet no indication that the prosecutors and the courts will take a more stringent view than they have in the past. Moving forward, the Singapore government should continue to track developments in the courts to see if any meaningful prosecution is conducted and punishments meted out. If not, Indonesia's inaction for the 2013 fires can be taken as further cumulative evidence of its consistent failure to discharge its international obligations to prevent and punish the perpetrators.

Moving forward, the prognosis is pessimistic. With Indonesia now under a new administration (of President Joko Widodo), there are doubts as to whether the new administration will show equal or more commitment to the problem.¹⁶ Meanwhile, the usual institutional difficulties continue to bedevil the issue - local authorities emboldened by greater regional autonomy persist in issuing concession licenses in defiance of central regulations, and the prosecutors and courts remain compromised by graft. The central issue of land use tenure is also unresolved. Many local communities displaced from their ancestral or long-held lands have resorted to arson when seeking revenge against

¹⁴ Zubaidah Nazeer, 'Zero tolerance for illegal land burning, vows Yudhoyono', *Straits Times*, 6 May 2014.

¹⁵ *Ibid.*

¹⁶ *Ibid.*

companies that have taken over their lands. By most authoritative accounts, this is one of the main sources of fire outbreaks.¹⁷

What remains to be discussed here is whether the chronic under-capacity in Indonesia to deal with the problem can avail the state in meeting its “due diligence” obligations. A familiar refrain in Indonesia, particularly among central government officials in the capital Jakarta, is that the government is doing its level best to deal with a complex socio-economical situation. However, it is beset by institutional problems such as local government intransigence, the sheer number and scale of burnings, land use conflicts and graft among vested interests.

No doubt, the problems are monumental and entrenched. It is also a recognized problem that decentralization of power to the provinces and districts has created massive challenges in ensuring consistency of policies and effective regulatory action. Yet, deficiencies in the internal legal order cannot avail a state in absolving itself from its international obligations. The lack of capacity may go toward reducing the level of diligence expected but it cannot totally exculpate the state.

Given that the fires have been a long-standing occurrence, the Indonesian government can be expected to do more since the last major outbreak of 1997/98 to improve on its enforcement of anti-burning laws. It cannot continue to blame local government autonomy and intransigence. At the same time, the level of “due diligence” must be proportional to the scale of the risks and the magnitude of the harm posed to other states. The massive scale of the fires, together with the devastating harm caused not only to other states but to Indonesian citizens themselves, requires Indonesia to take much more effective preventive and remedial action than it has so far undertaken.

For one thing, given that the identities of the offending parties (particularly the large companies) have never been in doubt, stronger effective action could have been taken against them. In most cases, evidentiary difficulties were not insurmountable, in that there was sufficient on-the-ground evidence of the perpetrators’ actions. What compromised effective enforcement was typically graft at the prosecutorial and court levels, as well as

¹⁷ Centre for International Forestry Research (CIFOR), *Q&A on Fires and Haze in Southeast Asia*, at <http://blog.cifor.org/17591/qa-on-fires-and-haze-in-southeast-asia#.U3Q1Dq32NMu>.

unclear division of competences between government departments. These are challenges that can be overcome with sufficient political will and that cannot absolve a state from discharging its international obligations.

In the meantime, the recent fires of 2013 have added a new dimension to the standard of “due diligence” expected of Indonesia. This takes the form of the ongoing debate over concession maps and Indonesia’s reluctance to share these in a regional effort to identify plantation transgressors. Here, it can be argued that Indonesia’s refusal to share concession maps (even though these are readily available) is a further clear breach of the “due diligence” standard to co-operate with neighbouring states toward identifying, prosecuting and punishing the perpetrators.

After all, if the lack of technical capacity is a problem for Indonesia, one would expect the sharing of maps that facilitates the use of satellite technology to go a long way toward securing evidence for prosecution. The official Indonesian reluctance to share maps for this purpose is thus perplexing, particularly when neighbouring injured states are offering finances and technical expertise to establish a haze monitoring system based on the maps.

In short, the breach of the international obligations on the “due diligence” standard to prevent and punish can arguably be made out on the following two grounds:

- (1) An established and consistent pattern of failure on the part of the Indonesian state to enforce its laws and prosecute and punish offenders adequately; and
- (2) A recent and ongoing failure to cooperate with neighbouring countries by refusing to share concession maps that can provide much-needed evidence for enforcement and prosecution.

This is thus a convenient point to launch into a discussion of adversarial approaches under domestic Singapore law, given that these also draw heavily on the concession maps and the evidential value they provide.

3. Singapore's Transboundary Haze Pollution Act and Its Implications

In Singapore, public frustration with the recurring haze problem, particularly the severe recent episode in June 2013, has led the government to consider extra-territorial legislation to target companies involved in using fires. The resort to domestic law is also driven by the realization that an action before international tribunals is unrealistic. On 19 February 2014, the Singapore Ministry for the Environment and Water Resources (MEWR) announced a proposed Transboundary Haze Pollution Bill and called for public feedback on the draft Bill. By early August 2014, the Bill had been debated in the Singapore Parliament and passed as an Act of Parliament. On 25 September 2014, the Act was declared to come into operation.

The Transboundary Haze Pollution Act lays out an ambitious extra-territorial attempt to attach criminal and civil liability on agri-business companies involved in using fires outside Singapore, whether these be Singapore-linked companies or otherwise. The legal implications of the Act for Singapore-linked companies or entities are tremendous. Under its provisions, a convicted entity that engages in conduct, or engages in conduct that condones any conduct by another entity or individual which causes or contributes to any haze pollution in Singapore (or the entity that participates in the management of a second entity that owns or occupies land and engages in the relevant conduct) can face a fine not exceeding S\$100,000 (about US\$80,000) for every day or part thereof that there is haze pollution in Singapore.¹⁸ If the entity has failed to comply with any preventive measures notice, there can be an additional fine not exceeding S\$50,000 (US\$40,000) for every day or part thereof that the entity fails to comply with the notice.¹⁹ Overall, the court must not impose an aggregate fine exceeding S\$2 million (US\$1.6 million).

In addition, a civil liability regime is prescribed. Affected parties may thus bring civil suits against entities causing or contributing to haze pollution in Singapore.²⁰ The civil damages recoverable are theoretically unlimited and will be determined by the court based on evidence of personal injury, physical damage to property or economic loss (including a loss of profits).

¹⁸ Transboundary Haze Pollution Act, Sections 5(1) to 5(4).

¹⁹ *Ibid*, Sections 5(2)(b) and 5(4)(b).

²⁰ *Ibid*, Section 6.

The following part of this analysis will analyze several aspects of the Act that can be expected to raise problems or issues in the context of adversarial action (whether civil or criminal) against relevant offenders before the Singapore courts.

a. Proof and the Effect of the Legal Presumptions

The Act's centerpiece is a regime of multiple legal presumptions. First, it provides that if there are maps which show that any land is owned or occupied by a company, it shall be presumed that that company owns or occupies that land.²¹ The maps can be procured from a variety of sources – the Act contemplates these to include any foreign government, any department or instrumentality of the government of a foreign state (presumably, this includes the provincial, regency or village authorities) or any person who can be legally compelled to furnish any maps.²² This would presumably include a company or entity operating a concession being compelled to furnish its own maps.

Second, if there is serious haze pollution in Singapore and satellite and other meteorological evidence shows that at or about that time, there is a land or forest fire on any land causing smoke that is moving in the direction of Singapore, it shall be presumed that there is haze pollution in Singapore involving smoke resulting from that land or forest fire.²³ This is so even if there may be fires in other or adjacent areas at or about the same time.²⁴ Third, it shall be presumed that the company that owns or occupies the land in question has engaged in conduct, or engaged in conduct that condones any conduct by another, which caused or contributed to that haze pollution in Singapore.²⁵

The entity or company concerned can deny each of these presumptions but in each case, it will bear the heavy burden of proving the contrary. Further, the Act extends liability to any entity that participates in the management or operational affairs of another (second) entity, exercises decision-making control over the latter's business decision pertaining to land that it (the second entity) owns or occupies outside Singapore, or exercises control over the

²¹ *Ibid*, Section 8(4).

²² *Ibid*.

²³ *Ibid*, Section 8(1).

²⁴ *Ibid*.

²⁵ *Ibid*, Section 8(2).

second entity at a level comparable to that exercised by a manager of that entity.²⁶ This is designed to target parent or holding companies that have subsidiaries or related entities that are the owners or occupiers of land and that engage in offending conduct on the ground.

As regards the series of presumptions set up by the Act, what is likely to be challenging is the first presumption. Even if maps can be obtained from any of the relevant sources, the assumption here would be that these maps are authoritative, updated and accurate. However, as has been assessed earlier, different ‘official’ maps or versions may exist, depending on their source. Since the different agencies frequently issue overlapping land use rights, their respective maps might be mutually contradictory in identifying the boundaries and the respective owners or occupiers. In short, there would be uncertainty if the prosecution relies on maps that are contested.

For this reason, the Indonesian central government has decided that it needs to reconcile all existing maps pursuant to its “One Map” initiative. As pointed out above, this initiative will take several years to complete, if at all. Of course, the prosecution could avoid these problems by compelling the companies to furnish the maps that they themselves rely upon. In this manner, any area stated as within a company’s map boundaries must be presumed to be owned or occupied by that company. Requirements to lodge or provide maps may also be imposed as part of stock exchange disclosures or company registration requirements.

The effect of all this is to put the company in the invidious position of either acknowledging or denying the accuracy of its own maps. This could compel the companies to obfuscate or qualify their own maps further by marking vast areas as being ‘contested’ or indeterminate. This situation could arise if the companies are operating alongside local communities who dispute the boundaries and thus encroach on the companies’ land.

In such situations, the companies could still be held responsible under the Act unless they prove that the offending conduct was by another person acting without their knowledge or consent, or contrary to their wishes or instructions.²⁷ This will be a hugely difficult burden to

²⁶ *Ibid*, Sections 3 and 8(3).

²⁷ *Ibid*, Section 7(2).

discharge given the massive size of some of the concessions. Also, the Act stipulates that this defence is unavailable if the other person is an employee or agent of the companies, or is engaged, directly or indirectly, by the companies to carry out any work on land that they own or occupy, or is any person who has a customary right as regards the land and who has an agreement or arrangement with the companies relating to farming or forestry operations in respect of that land.

On the prosecution's part, there is the difficult task of proving that one entity participates in the management of a second entity to use fires on the ground (e.g., by controlling the latter's decisions). For both the prosecutors and the companies alike, it will boil down to procuring reliable evidence to bolster their respective cases, and this will be true for the prosecution even if they are aided by the full weight of the presumptions.

As stated earlier, the Act provides that maps can be furnished by or obtained from various sources, including any person specified in the Schedule through any means specified in that Schedule. Here, the Act contemplates that "specified persons and means" can be very wide in scope, including various individuals and websites. This contemplates non-governmental sources such as environmental groups and foreign entities. In this regard, there arises a concern over the accuracy of materials obtained from such a possibly wide variety of persons and means. It appears that the only way for a company to guard against potentially hostile or unreliable sources is for it to maintain and update its own maps proactively *and* to furnish these voluntarily to the authorities in Singapore.

From the prosecution's angle, the first presumption is thus powerful but not necessarily water-tight. Prosecutors are likely to proceed cautiously, particularly with the first test-case(s) as there will be enormous public expectation for a successful conviction. As a result, the prosecution is likely to charge a company only if there is independent evidence to support the first presumption. These other evidence may include alternative maps (that the courts may rule to be more reliable), documentary proof of the company's prior dealings with the land in question, or employee or local resident accounts of the company's activities on that land.

Also, this makes it unlikely that the prosecution will file charges for fires on lands lying at the concession's periphery or located at or near contested boundaries. Instead, it is likely to go

for fires that occur in areas that are unequivocally within the company's concession. For such cases, the courts will more likely be persuaded that the first presumption is satisfied. In this regard, aerial photographs of burning concessions will prove to be solid evidence – these will have a greater degree of detail and reliability than satellite images. Coupled with individual testimonies, these can even distinguish between deliberate and inadvertent burnings within areas that are indisputably within the relevant company's concessions. The problem, however, lies in obtaining Indonesian government consent to conduct these aerial reconnaissance flights. If such consent can be obtained, the prosecution effort in Singapore will be significantly enhanced.

b. Rebutting the Presumptions

The defendant company will bear the legal burden of rebutting the above presumptions. While not impossible, this will be a difficult task. For the first presumption, the company will have to prove that contrary to the prosecution's maps, it does not own or occupy the land in question. If the maps have been obtained from independent sources, the company may conceivably reveal its own maps and argue that these are more authoritative and accurate. If, however, the prosecution has obtained the maps from the company itself, the company will have a difficult time rebutting the presumption.

It is conceivable, however, that the maps (even the ones the company itself relies on) can subsequently be claimed to be inaccurate. Hence, a particular tract of land with alleged fires on it may actually turn out *not* to be owned or occupied by the company. Here, it is possible that the company may all along have been mistaken that it did own or occupy that land (this also raises the general defence of mistake of fact, see below).

Alternatively, it is possible that the company has never regarded that tract of land to be under its ownership or occupation (despite its own maps indicating so). In this scenario, the company will have to question the accuracy of its own maps and to argue that it always knew or assumed that the maps did not accord with realities on the ground. In other words, it never occupied or had control of that land and never behaved to that effect. To bolster its case, the company may perhaps find maps or evidence from other sources that attest to its non-ownership or non-occupation, or actual ownership or occupation by other parties.

What is a more likely scenario is where the company has marked out certain areas within its concession as being disputed or contested. As stated above, it is unclear if this will be sufficient to rebut the first presumption. In other words, the courts may still accept the first presumption to find that the company owns or occupies the land. The more relevant issue here is likely to be the company's defence (see below) that the fires have been started by third parties on disputed lands that it had no actual control over, even if the maps did show that the areas came within its concession.

If the company fails to rebut the first presumption, the matter moves on to the second presumption. On its part, this will be extremely difficult to rebut, unless the company is able to show that the satellite and meteorological evidence tendered by the prosecution is unreliable with regard to either or both of the following respects: (i) that a fire is indeed occurring on land owned or occupied by it; or (ii) that any smoke resulting from that fire is moving in the direction of Singapore. On (i), it will have to tender evidence to show that there is *actually* no fire occurring on land owned or occupied by it (or, by operation of the first presumption, presumed to be owned or occupied by it). It will have to tender evidence such as aerial photography or eye-witness testimonies to disprove the satellite hotspots and to show, for instance, that there are false-positive problems with the hotspots.

On (ii), the company will bear the burden of showing that any smoke resulting from the fire on land owned or occupied by it is *not* moving in the direction of Singapore. At the same time, it may seek to prove that the smoke pollution found occurring in Singapore does not arise from fires on land it owns or occupies. This will be difficult given that the Act has made it irrelevant whether there may be, at or about the same time, any land or forest or other fire on any other land situated outside Singapore, whether or not adjacent to the company's land. Also, as is obvious, it is not as if the haze found in Singapore can be chemically analyzed and traced to a particular source (the way some industrial pollutants can).

To rebut the third presumption, the company will have to prove that it has not engaged in conduct, or engaged in conduct that condones any conduct by another entity, which caused or contributed to haze pollution. Here, the conduct covers both acts and omissions (e.g. a failure to control or stop). Under the Act, there is liability for an entity that participates in the management or operational affairs of another (second) entity, exercises decision-

making control over the latter's business decision pertaining to land that it (the second entity) owns or occupies outside Singapore, or exercises control over the second entity at a level comparable to that exercised by a manager of that entity.

Again, it would be difficult for the first company to rebut this presumption. Presumably, it can show that neither it nor its employees have engaged in such conduct. In addition, it would have to show that it has not condoned such conduct. Here, one must take into account the realities of plantation operations on the ground in Indonesia. In some places, it is common (and local law may so require) that companies must sub-contract certain tasks to local villagers or co-operatives. In such situations, the company would have to show that it explicitly issued instructions to its sub-contractors *not* to use fire. If it can do so, it may well succeed in showing that it has not condoned the use of fires.

However, the Singapore courts may construe the word "condone" to mean that the company knew or should have known that the sub-contractors would or might use fires to clear land, since this is a commonly-practiced method. To disprove the concept of "condone" here, the company would likely have to tender evidence that it had done one or more of the following: (i) explicitly warned the sub-contractors that if they used fire, they would be breaching their agreement and that their services would be terminated; (ii) practiced a consistent policy of so terminating the services of sub-contractors who used fires; (iii) provided and trained the sub-contractors to use alternative means such as mechanical devices (bulldozers) to clear land; (iv) warned them that they would be breaching Indonesia's "zero burning" laws and that they would be reported to the police or relevant authorities; and (v) so reporting transgressors to the authorities.

In other words, the company would have to show that it had taken steps to disassociate itself with the sub-contractors' use of fire, and that these parties had gone ahead to ignore its explicit instructions not to use fire. Even if all these could be proven, the courts could still take the position that the company must assume responsibility for the conduct of all its sub-contractors, either because these are to be treated as agents (see below on defences) or the equivalent of employees. At the same time, the courts are unlikely to entertain any claim that the areas in question are too large for mechanical bulldozers, and/or that using fire is the only realistic method for clearing land.

c. The Applicable Defences

Even where all the presumptions are satisfied, the company may still plead certain defences. Strict liability offences such as those prescribed under the Act may attract two types of defences – those provided explicitly under the Act itself, and general defences applicable to all criminal prosecutions under Singapore law.

i. Defences under the Act

The explicit defences under the Act are as follows (these apply to both the criminal and civil actions):²⁸

7.—(1) It shall be a defence to a prosecution for an offence under section 5(1) or (3), and to a civil claim for a breach of duty under section 6(1) or (2), if the accused or defendant (as the case may be) proves, on a balance of probabilities, that the haze pollution in Singapore was caused solely by —

(a) a grave natural disaster or phenomenon; or

(b) an act of war.

(2) It shall also be a defence to a prosecution for an offence under section 5(1) for engaging in conduct which causes or contributes to any haze pollution in Singapore, and to a civil claim for a breach of duty under section 6(1) not to engage in conduct which causes or contributes to any haze pollution in Singapore, if the accused or defendant (as the case may be) proves, on a balance of probabilities, that the conduct which caused or contributed to the haze pollution in Singapore was by another person acting without the accused's or defendant's knowledge or consent, or contrary to the accused's or defendant's wishes or instructions; but that other person cannot be —

²⁸ *Ibid.*, Section 7

- (a) any employee or agent of the accused or defendant (as the case may be);
- (b) any person engaged, directly or indirectly, by the accused or defendant (as the case may be) to carry out any work on the land owned or occupied by the accused or defendant, and any of that person's employees; or
- (c) any person who has a customary right under the law of a foreign State or territory outside Singapore as regards the land in that foreign State or territory and with whom the accused or defendant (as the case may be) has an agreement or arrangement, which agreement or arrangement relates to any farming operations or forestry operations to be carried out by any person in respect of that land.

(3) It shall also be a defence to a prosecution for an offence under section 5(1) for engaging in conduct which condones any conduct by another entity or individual which causes or contributes to any haze pollution in Singapore, and to a civil claim for a breach of duty under section 6(1) not to engage in conduct condoning any conduct by another entity or individual which causes or contributes to any haze pollution in Singapore, if the accused or defendant (as the case may be) proves, on a balance of probabilities, that —

- (a) the accused or defendant took all such measures as is (or was at the material time) reasonable to prevent such conduct by the other entity or individual; and
- (b) if the conduct by the other entity or individual already occurred, the accused or defendant took all such measures as is (or was at the material time) reasonable to stop that conduct from continuing or to substantially reduce the detriment or potential detriment to the environment in Singapore or its use or other environmental value, or the degradation or potential degradation to the environment in Singapore, due to the other entity's or individual's conduct.

(4) It shall also be a defence to a prosecution for an offence under section 5(3), or a civil claim for a breach of duty under section 6(2), if the accused or defendant (as the case may be) proves, on a balance of probabilities, that the conduct which caused or contributed to the haze pollution in Singapore was by another person acting without the knowledge or consent of the accused or defendant and the second entity referred to in section 5(3) or 6(2), or contrary to the wishes or instructions of the accused or defendant and that second entity; but that other person cannot be —

(a) any employee or agent of the accused or defendant (as the case may be) or of the second entity referred to in section 5(3) or 6(2);

(b) any person engaged, directly or indirectly, by the accused or defendant (as the case may be) or by the second entity referred to in section 5(3) or 6(2), to carry out any work on the land owned or occupied by the second entity, and any of that person's employees; or

(c) any person who has a customary right under the law of a foreign State or territory outside Singapore as regards the land in that foreign State or territory, and with whom the accused or defendant (as the case may be) or the second entity has an agreement or arrangement, which agreement or arrangement relates to any farming operations or forestry operations to be carried out by any person in respect of that land.

The “grave natural disaster or phenomenon” and “act of war” defences are relatively straightforward. As with all defences, the company has the burden to prove them on a balance of probabilities. However, the challenge is that it must show the haze pollution was caused *solely* by a grave natural disaster or phenomenon or an act of war. In other words, the burden is on the company to show that it had no contributory role whatsoever. For instance, in the case of a lightning strike (a natural phenomenon) on peat-rich land owned or occupied by the company, it must show that the lightning was the sole cause, and that no other human factors attributable to it were present.

Indeed, the fires and haze pollution could result from a combination of natural and third party man-made causes. If there is evidence of arson or fires being set by local communities encroaching into the company's land, it appears that the "natural disaster or phenomenon" defence will be disqualified (due to the word "solely"). The company must then move on to establish the "third party act" defence independently. It must show that the conduct which caused or contributed to the haze pollution in Singapore was by another person acting without its knowledge or consent, or contrary to its wishes or instructions.

Here, issues are likely to arise with sub-contractors and third party encroachers. Under Section 7(2), the company may be liable for engaging in conduct which causes or contributes to haze pollution. For the sub-contractors, the courts are likely to hold these to be employees or agents, or persons "engaged directly or indirectly" by the company.

The major difficulty arises with the acts of third party encroachers, e.g. local communities who either encroach into the company's land to set off fires or whose use of fires outside the land spreads into the company's areas. If the company can prove that the fires have been set off by these parties without its knowledge or consent, or contrary to its wishes or instructions, the defence is likely to be made out. However, the defence is not available if the encroachers are local communities with customary rights over the land and with whom the company had an agreement or arrangement relating to farming or forestry operations.

Hence, a company that has long tolerated the presence of encroachers or local communities in its land or in adjacent plots of land may arguably be said to have an agreement or arrangement with them. This is particularly so if the courts accept that it has been a common and well-established practice for these communities to use fires to clear land. In an ideal situation, the company would have been expected to evict such third parties so as clearly dissociate itself with them. In Indonesia, however, it is submitted that such eviction is unrealistic and impossible, given the entrenched uncertainties in land use tenure. In such circumstances, it would be a harsh court that holds the company to have had an agreement or arrangement with these encroachers.

The trickier problem relates to local communities that cultivate crops on land that the large companies have specifically set aside for them. Such arrangements are common either because the companies do this out of goodwill or because they form part of the terms of

obtaining the concession. In either case, the companies are expected to accommodate existing communities living in or near the concession areas. The more responsible companies typically attempt to support these communities' livelihood and to educate them on the perils of using fires. If, however, these communities persist in using fires, it would raise the question of whether the company had knowledge of their conduct, and whether an agreement or arrangement to use that land in the relevant manner had been entered into. In such a case, it may be that the company's reliance on the Section 7(2) defence cannot be made out.

Another relevant defence comes under Section 7(3), where the relevant charge against the company would relate to engaging in conduct that condones the act of a third party that causes or contributes to haze pollution. The company's defence here is to show that it took all such measures as was reasonable to prevent such conduct by the third party. If the conduct had already occurred, the company must show that it took all reasonable measures to stop that conduct from continuing or to substantially reduce the detriment or potential detriment to Singapore. Here, the company would probably stand a good chance of arguing that it has not condoned third party conduct if it can show that it had systematically educated the local communities on sustainable farming practices, and that they had persisted in using fires despite the company's best efforts to prevent this.

On the question of local communities, it must be pointed out that complications may arise from certain provisions of Indonesian law that appear to condone such communities' use of fire to clear land. For instance, the 2009 Law for Protection and Management of the Environment (Law No. 32 of 2009) provides in its Article 69, paragraph 1(h) that:

"Every person is prohibited from ... (h) ... conducting the clearing of land using burning."

Paragraph 2 of the same article clarifies that paragraph 1 (h) accords the highest attention to "local wisdom" in the individual regions. In turn, Law No. 32 of 2009's Explanation section (this is a common interpretation tool in Indonesian legislation) provides that:

"The local wisdom meant in this provision is the conducting of land burning with a maximum land area of 2 hectares per head of family for the cultivation of local varieties of plants and that is ringed by fire breaks to prevent the spread of fire to surrounding areas".

As such, Law No. 32 of 2009 actually provides explicitly for villagers to conduct land clearing by fire for the purpose of agricultural livelihood. The provision for "2 hectares per head of family" refers to the area that land settlers (typically, transmigrants from other parts of the archipelago) are given to support their livelihood. This clearly points to burning practices being a reality in local life.

Consequently, prosecuting a company under the Act could be complicated by the presence of local communities using fires to clear land and the likelihood that such fires could spread to neighbouring plantations. The fact that Indonesian law actually provides an allowance for local communities to use fires could be used by the plantation companies as a defence, provided they show that they did not condone the use of such methods. The companies may even seek to show that as part of their "due diligence" conduct, they had actively provided fire or fuel breaks like trenches to prevent the spread of fires. Alternatively, they could seek to show that the villagers themselves did not construct the fire breaks (it is unclear from Law No. 32 of 2009 whose responsibility it is to provide the fire breaks; presumably, the responsibility lies with the villagers themselves).

As a matter of interest, it should be noted that there is nothing in the Act to suggest that the villagers or local communities cannot be liable to prosecution or civil action. Of course, it would be unrealistic and impractical to pursue action against individual villagers or farmers. However, to the extent that these parties commonly belong to village or sub-district co-operatives in Indonesia, it is not inconceivable that these entities can be held liable under the Act. After all, the Act defines an "entity" to mean "sole proprietorship, partnership, corporation or other body of persons, whether corporate or unincorporate"²⁹. A village co-operative would, at the minimum, be an unincorporated body of persons. However, it does

²⁹ *Ibid.*, Section 2.

mean that any prosecution under the Act will encounter the fact that the local communities' use of fires to clear land is actually contemplated and allowed under Indonesian law!

The other party that is outside the reach of the Act appears to be governments which would enjoy sovereign immunity in any event. Even sovereign immunity is not absolute, as international law principles provide for a "commercial activity" exception that allows governments to be subject to a foreign court's jurisdiction for acts that are private or commercial (*jure gestionis*) as opposed to governmental or sovereign in nature (*jure imperii*). In addition, local governments are not generally entitled to sovereign immunity. Be that as it may, it is highly unlikely that the Act will be used against any Indonesian governmental unit, be it central or local, as this would be politically untenable. The same cannot be said, though, for Indonesian government-linked entities that engage in commercial or business activities. These would be fully open to criminal and civil action under the Act.

ii. General Defences under Criminal Law

Under Singapore criminal law, the general defences provided under Part IV of the Penal Code will apply to all criminal provisions in any statute. For strict liability offences such as those prescribed in the Act, the defence of mistake of fact under section 79 of the Penal Code will generally be applicable. Section 79 reads:

Nothing is an offence which is done by any person who is justified by law, or who by reason of a mistake of fact and not by reason of a mistake of law in good faith believes himself to be justified by law, in doing it.

The mistake must be one held in good faith. This concept is, in turn, defined by Section 52 of the Penal Code:

Nothing is said to be done or believed in good faith which is done or believed without due care and attention.

Furthermore, section 32 states:

In every part of this Code, except where a contrary intention appears from the context, words which refer to acts done extend also to illegal omissions.

The key in proving a defence of mistake of fact lies in showing that the accused committed the mistake despite having taken due care and attention. This defence could be relevant, for instance, if the company had good reason to believe that a certain tract of land did not come within its ownership or occupation (although in fact, it *did*). The company could thus show that its failure to control (i.e. an omission amounting to an act) the use of fires by third parties on that land was borne out of a mistake of fact held in good faith. It would have to show, however, that it had taken all reasonable steps to check with the relevant authorities and had come to the conclusion that it had no ownership or occupation rights over that land. In the event that the prosecution tenders a map showing such ownership or occupation rights to have existed, the company would have to counter that it was relying on other maps, and that there were good reasons for its having done so and for entertaining its mistake.

The other more general defence typically available to strict liability offences is the common law defence of “due diligence”. Here, the company would have to show that it had taken all reasonable steps in the circumstances to prevent and control the use of fires on lands that it owns or occupies. Of course, this is closely related to the explicit statutory defences provided under the Act discussed above. For instance, the company would have to show that it had taken all reasonable steps to provide its sub-contractors with alternative means of land clearing and to prohibit the use of fires.

On encroachers, it would have to show that it took all reasonable steps to prevent encroachment (this is difficult if the boundaries are disputed) and to prohibit the use of fires. Other “due diligence” steps the company could demonstrate include: adopting and practicing sustainable forestry and planting practices, educating employees, sub-contractors and local communities on the danger of using fires, reporting transgressors to public authorities and enforcing a “zero burning” policy consistently throughout its concessions.

In general, it would be difficult to succeed on this “due diligence” defence, even if the courts were to give the company a wide measure of latitude given the size of its concessions. In

essence, it boils down to whether the courts are prepared to accept that the company has done all that it could reasonably have done in the circumstances to prevent the use of fires, including in attempting to control the conduct of its employees and sub-contractors, and more problematically, that of local communities living within areas under its ownership or occupation.

4. Extra-Territorial Action for Transboundary Pollution in Other Countries

At this point, it is instructive to survey the laws that exist in other countries that contemplate the possibility of extra-territorial prosecution of offending individuals. In general, extra-territorial legislation (both criminal and civil, but particularly criminal) against individuals or companies engaged in transboundary pollution is rare.

Where they exist, the reach of the legislation is not particularly contentious, since they typically target companies of the legislating state itself that operate outside the jurisdiction. In other words, the legislation would be targeted at the legislating state's own citizens, albeit operating overseas. The basis here would be the "nationality principle" of jurisdiction under international law, wherein citizens of the legislating state come within its reach even if the conduct is committed and harm felt entirely abroad.

What is less common is for a state to claim jurisdiction over the conduct of non-citizens occurring abroad. The basis for such a claim would typically arise when the victim of the harm caused is a citizen (the "passive personality" principle). A second basis for claiming jurisdiction could be when the interests of the legislating state are threatened, typically national security or other state interests (the "protective principle). Finally, a more contentious basis of jurisdiction known as the "effects doctrine" has been developed by U.S. courts, allowing them to claim jurisdiction over conduct wholly outside the U.S. that has consequences within its borders. This doctrine has commonly been used in antitrust/competition cases, where effects or harm (even if purely economic) are claimed to be felt within the legislating state.

To the extent that the Act targets companies incorporated in Singapore with operations in Indonesia, there would be little controversy since these are Singapore entities or citizens in

the first place. What is unusual is that the Act also claims jurisdiction over non-Singapore entities operating outside Singapore, i.e. companies or individuals with little or no link to Singapore. Examples of potential accused parties or defendants here would include Indonesian or Malaysian companies operating in Indonesia. The bases for Singapore's jurisdiction or the claimed "nexus" in such cases would have to reside in the "passive personality" principle, the "protective" principle, and/or the "effects doctrine", given that the harm of haze pollution is felt in Singapore by Singapore citizens.

In many countries, there is often a presumption against a statute having extra-territorial effect, unless the legislature has made it explicitly clear that such was the intended effect. In the case of the Act, this intention to bear extra-territorial effect is clearly spelled out. The Act appears to derive some inspiration from a piece of legislation in the United States known as the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as "Superfund". CERCLA is a U.S. federal law that authorizes federal natural resource agencies, states and private individuals to recover natural resource damages caused by releases of hazardous substances. CERCLA also establishes a clean-up authority that is tasked with the powers to direct the cleaning up of sites contaminated with hazardous substances.

In 2006, in the case of *Pakootas v. Teck Cominco Metals Ltd*,³⁰ the Ninth Circuit Court of Appeals in the U.S. ruled that a CERCLA case could proceed against a Canadian lead-zinc smelter that discharged hazardous untreated effluents into the Canadian part of the Columbia River which carried the effluents southwards into the U.S. state of Washington. The *Pakootas* case was significant in that it was the first to establish that a U.S. court had jurisdiction over a foreign entity for operations conducted abroad that would have been permitted in its own country (Canada) but which violated U.S. law. In January 2008, the U.S. Supreme Court denied *certiorari* (i.e. declined to hear the case on appeal) and allowed the Ninth Circuit ruling to stand.

It should be noted that the *Pakootas* case involved a citizen suit or private litigation, and not a criminal prosecution. Further, there is no explicit contemplation of extraterritorial effect for CERCLA's criminal provisions (which deal mainly with dereliction of the duty to report or

³⁰ 452 F.3d 1066 (9th Cir. 2006); No. CV-04-256-AAM, 2004 WL 2578982, at 12 (E.D. Wash. Nov. 8, 2004) (District Court).

to maintain records). Even on the civil suit, the lower District Court and the Ninth Circuit Court of Appeals differed in their understanding of CERCLA's extra-territorial effect. The plaintiffs in the case were private citizens who had sought a declaration that the smelter violated a Unilateral Administrative Order (UAO) issued by the U.S. Environmental Protection Agency (EPA) that directed the smelter to conduct certain remedial feasibility studies. On its terms, the UAO asserted CERCLA jurisdiction over a foreign company operating in a foreign country for harms felt in the U.S. The plaintiffs also sought to compel the smelter to comply with the UAO as well as to pay statutory penalties for non-compliance. The issue of the plaintiff's own harm or damages did not appear to arise in the case.

It must be noted that CERCLA is a remedial statute that aims to address contamination occurring in the U.S. alone. It was never meant to regulate the activities at the source in a foreign country like Canada, something that was wholly within the province of Canadian law. Hence, what was at issue was the smelter's failure to prevent and address *the harm occurring in the U.S.* – in short, to clean up the mess in the U.S. that it had created. On this point, the District Court had supported the extra-territorial application of CERCLA.

However, the Ninth Circuit clarified that the release of hazardous substances complained of had occurred within the U.S., and therefore involved a domestic as opposed to extra-territorial application of CERCLA. The *Pakootas* case was eventually resolved when the U.S. government and the smelter entered into a settlement agreement pursuant to which the smelter's U.S. subsidiary agreed to fund and perform the requisite remedial feasibility studies. In the U.S. government's view, the settlement rendered moot the citizen suit claims. The EPA eventually agreed to withdraw the UAO and not to seek civil penalties.

In a subsequent Canadian case in 2008, *Edwards v. DTE Energy*, a provincial court in Ontario, Canada similarly ruled that a lawsuit against a Detroit, Michigan energy company for allegedly causing mercury pollution in Canadian territory could proceed. This was in the context of a "private prosecution" of a criminal offence allowed under Canadian law. The case was ultimately settled after the energy company put in place stringent requirements on its mercury emissions.

Overall, both cases revealed the courts' concerns (also shared by various expert findings or *amici curiae*) that an extra-territorial application of a national statute was problematic in that it interfered with the principle of comity of nations (in the *Pakootas* case, Canadian law over the smelter). The concern also relates to problems that might arise if other countries sought reciprocal extra-territorial jurisdiction over U.S. companies' polluting activities. Hence, in as much as the *Pakootas* case involved compelling the smelter to clean up pollution in the U.S., it is not directly comparable to the haze pollution, which does not entail any clean-up issues.

The *Pakootas* decision is thus more directly relevant in guiding civil claims and claims alleging a breach of statutory duty in cleaning up or performing remedial measures. This is where a parallel can be drawn to the Act on haze pollution, where the criminal prosecution can be characterized as a breach of statutory duty. Of course, the breach here does not relate as much to clean-up or remedial measures as it does to causing or contributing to haze pollution.

Otherwise, the *Pakootas* case and its enquiry into whether CERCLA should have extra-territorial effect have no direct bearing on the Act, which is explicitly intended to have such effect. This is entirely within the Singapore Parliament's competence, as long as the bases of jurisdiction can be satisfied. As explained above, the Act's extra-territorial effect can be claimed under international law on the bases of the protective or passive personality principles or the "effects" doctrine. Of course, problems of comity with Indonesia remain, but that is something the Singapore government will have to deal with politically. In the result, whilst the Act's extra-territorial provisions are not legally problematic, practical difficulties are likely to arise when enforcement and prosecution are contemplated. These shall be addressed below.

5. Practical Issues in Bringing Adversarial Action under the Act

a. Additional Evidence Beyond Maps, Satellite Imagery and Legal Presumptions

As argued above, the realities of governance in Indonesia mean that whatever maps are shared might not even be accurate in terms of according with realities on the ground. In the first place, plantation concessions and their boundaries are known to be extremely ill-defined in Indonesia. Some companies may not themselves know for certain where their boundaries are.³¹ There are typically overlaps with other competing rights such as community lands, state forests, protected areas, other concession areas and even indigenous peoples' ancestral claims, all of which arise from fundamental and long-standing land use uncertainties.

In the ensuing confusion, local governments and their leaders commonly award concessions to companies without regard for existing occupants or rights-holders. Consequently, it is normal to find different versions of concession maps being issued by a variety of agencies at the central or local levels. On their part, the environmental NGOs have long called for the disclosure of official maps showing where the forestry, timber, mining and oil palm concessions are and how they overlap with forest, peatland and ancestral lands as well as the distribution of fire "hotspots" when they occur. However, such calls are premised on the mistaken belief that whatever maps that exist are both authoritative and adhered to by all the competing interests.

At the same time, it is inaccurate to assume that all companies with "concessions" own or occupy their lands and exercise actual control over them. Quite apart from the lack of reliable maps or boundaries, the term 'concession' may include a company's exclusive right to purchase the harvest (of the oil palm crop, for instance) from local farmers cultivating lands that the company has set aside for local communities. Such lands may technically fall within the company's concession but there may be little control over the farmers' activities. In any event, some companies or concession holders may sub-contract the tasks of planting, harvesting and clearing land to local villagers, many of whom belong to farmers' co-operatives controlled by regency or village leaders. In many of these cases, the companies

³¹ Neo, note 3.

are mandated by law to sub-contract such activities to local residents in order to create jobs.

As a result, the companies may have little actual control over the activities or modes of land clearance that take place, given the large size of their concessions and their indeterminate boundaries. In turn, this allows some companies to claim that they have no role in the burnings and that the fires are started by sub-contractors, farmers, encroachers and other parties. Meanwhile, the involvement or acquiescence of corrupt local leaders results in little or zero enforcement of anti-burning laws on the ground.

There is also the tension between local communities and the companies. Resentful villagers dispossessed of their lands are known to use fire to burn tracts claimed by the concessions, with some companies retaliating in similar fashion on the villagers' crops or staked lands.³² Even in the absence of outright hostility, encroachment by villagers practicing slash-and-burn agriculture is all too common. The fires that they set to clear land can spread quickly and widely in peat-rich areas, and frequently into the companies' plantations. Again, the fundamental problem here is that there is no respect for alleged concession boundaries.

For these reasons, it is doubtful whether the concession maps – even if they are freely shared by the Indonesian side – can accurately identify the most serious transgressors. On the part of affected states like Singapore, any legislation that allows the authorities to target and prosecute Singapore-based companies must grapple with important questions of evidence and burden of proof. As discussed above, it is conceivable that a “strict liability” regime premised on a series of legal presumptions that throw the burden of disproving certain facts onto the companies themselves can be employed under the victim states' own laws. However, the robustness (and fairness) of such a system must depend on the accuracy of the maps and the availability of supporting evidence. The maps' accuracy, as it is now clear, cannot be assumed.

It would seem that even the much-vaunted satellite identification technology is not without its issues. While generally regarded as reliable, the accuracy of satellite tracking can be compromised by thick cloud cover and other weather-related factors. “Hotspots” showing

³² Charles V. Barber & James Schweithelm, World Resources Institute, *Trial by Fire: Forest Fires and Forestry Policy in Indonesia's Era of Crisis and Reform* (2000), page 28.

up on satellite images may not necessarily correlate to actual fires on the ground. In fact, a fire can be represented by a number of adjacent hotspots, and it is not necessarily the case that one fire corresponds to one hotspot. In addition, “false positives” regularly show up on satellite images – extremely hot soil surface, particularly in peat-rich areas, can show up as multiple hotspots even where there is no actual fire. Finally, the use of hotspots as prosecution evidence is also problematic because it is highly unlikely that the accused or defendant company can produce aerial photographs or call witnesses, after the fact, to prove that the hotspots were not fires after all.

As stated above, the main evidence that the prosecution is expected to rely upon would be the maps and satellite images, as aided by the effect of the legal presumptions. Due to the problems associated with such evidence, it is likely that the prosecution will have to seek additional, independent evidence to bolster its case. This is particularly so if the relevant maps are outdated or unclear, or if the fires appear to occur in areas marked out as disputed. In any event, the prosecution knows that its case would be that much stronger if it can point to fires occurring within areas clearly owned or occupied by a relevant company such as areas in the middle of the concession, as opposed to areas at the periphery. These are also areas that are unlikely to have local communities conducting their own burnings.

Even then, the prosecution would be well-advised to adduce additional evidence in the form of aerial photography that shows the sources of fires and smoke more accurately than satellite imagery can. At the same time, on-the-ground witness testimonies would be critical in identifying where exactly the fires have been ignited deliberately (and possibly by whom). Collecting such evidence - both witness testimonies and aerial photography using low-flying planes - requires the explicit consent of Indonesia to enter or overfly its territory. If Indonesia’s consent can be obtained through diplomatic channels, securing such evidence should not prove too difficult. The evidence will thus be very useful and relevant in bolstering the prosecution’s case for a successful conviction.

b. Picking a Strong Case: Oil Palm Plantations

The evidence collected by independent observers in Indonesia suggests that deliberate land-clearing by fire occurs predominantly in areas where land is cleared for oil palm cultivation. The soaring price of palm oil in recent years, coupled with the generous return on investments (oil palm trees continue to be productive for some two decades) has resulted in massive clearance of land for oil palm cultivation. In addition, when mature palm trees need to be replaced, clearance by fire is the cheapest and most convenient method.

It is also important to appreciate the identity of the players on the ground. For example, in Riau province alone, an estimated 50% of total cultivated oil palm land is run by the big companies. 40% of cultivated land is operated by small operations such as village or local communities, with the remaining 10% being accounted for by mid-sized companies. Forest research organizations such as the Centre for International Forestry Research (CIFOR) agree that both large-scale and small-holder operators have been alleged to use fires.³³ The scale of the fires caused by each respective camp, however, remains uncertain.

At the same time, the term “plantation” or “concession” is broadly used to refer to all sizes of operations. Hence, it is important to distinguish between operators who are more responsible (or who claim to be so) and those who flagrantly use fires to clear land. Even among Singapore-based or -linked operations, there are those with huge concessions and others with smaller, mid-sized operations. It is thus important for the prosecutors to get reliable information or intelligence on the ground as to which players are the more intransigent in using fires and violating zero-burning laws. Anecdotal evidence collected by the present author suggests that the transgressors are more likely to be the mid-sized players with less of a reputation to protect. Even assuming that the use of fires is equal among the different players, prosecuting a large-scale operator leaves at least half of the fires and haze problem unresolved.

³³ Centre for International Forestry Research (CIFOR), *Q&A on Fires and Haze in Southeast Asia*, <http://blog.cifor.org/17591/qa-on-fires-and-haze-in-southeast-asia#.U3Q1Dq32NMu>.

c. Proving that an Entity Controls the Decisions of the Second Entity

There is also the conceivably difficult task of proving that one entity participates in the management of a second entity to use fires on the ground (e.g. by controlling the latter's decisions). While the legal presumptions may help, it is likely that the prosecution will err on the side of caution and obtain independent evidence of such participation in management.

d. Do the Presumptions Apply in Civil Actions?

It is not entirely clear from the Act if the presumptions discussed above may be employed by plaintiffs in a civil claim (such as hoteliers, airlines or business concerns that suffer losses as a result of haze pollution). Potential defendants such as agri-business companies should be even more concerned with liability under civil actions because there are no limits to such liability. It is likely, however, that potential plaintiffs will wait for a criminal action taken by the government to conclude first before proceeding with a civil action. For practical reasons, civil plaintiffs are unlikely to be able to procure the necessary maps, satellite and other evidence to implicate the defendants.

The question then arises if a civil action may follow a successful criminal conviction and employ the evidence that had been accepted by the criminal trial (including the proof that had been aided by the presumptions). There are rules of evidence that govern this question, including in the Singapore Evidence Act and under common law, and it is likely that the court will allow the use of the presumptions. The plaintiffs would, of course, have to prove their damages or losses.

e. Enforcing the Judgments

If the criminal prosecution or civil action is taken out against a Singapore-based company, any penalties (e.g. fines or damages) imposed can be easily enforced against that company as it has a presence in Singapore. However, if the prosecution or civil action is taken against

an entity that has no presence in Singapore, there will be problems in enforcing any judgment against it. In principle, if that company has assets in Singapore that can be traced, there can be enforcement against those assets. More problematic would be to trace the assets of the top management or officers of these companies, or to attempt enforcing judgments against these officers if they happen to come within Singapore's jurisdiction.

f. Making Sense of Land Rights in Indonesia

A prosecution before the Singapore courts would conceivably raise issues as to the nature of ownership or occupation of lands by the relevant company. The plantation concessions in Indonesia are typically operated by way of a defined fixed-term right (known in the Indonesian language as *hak*). The concession could have the right to cultivate the land, but a concurrent right to mine the mineral resources under the land could be separately awarded to another party. As explained above, there are commonly overlapping rights, including disputes with local communities over the ownership and use of the lands and the fact that government authorities (e.g. the different levels of local governments) could have awarded overlapping concessions to different parties.

To take into account such realities, the Act extends the definition of "owner" to include not just a person who holds a valid lease, license, permit, concession or other similar authorisation, but also one who has an agreement or arrangement with another person who has a customary right under local law as regards the land, and the agreement or arrangement relates to any farming or forestry operations to be carried out by any person in respect of that land. Consequently, a company that operates on customary lands in such fashion will still fall within the Act's ambit, even if the actual farming or forestry operations are carried out by other parties. This will cover the common situation where a concession holder typically buys the harvest from adjoining customary lands that have been set aside for local communities to conduct farming.

The ambit of "owner" was expanded following the public consultation exercise for the draft Bill. During the exercise, suggestions had been raised to broaden the concept of ownership

by including other interests in land. This would widen the net dramatically to cover more categories of interests or rights in land. As mentioned above, the Act could now even cover any agreement by a company to purchase the harvest from a local community cultivating lands that are outside the company's concession.

6. Conclusion

Now that the Act is in force, it seems inevitable that it will be used against an entity the next time a serious haze hits Singapore. This is simply because the Singapore public will not tolerate anything less. For a start, that entity to be charged is likely to be a Singapore-based operation that is either listed on the local stock exchange or, even if not publicly-listed, is operated and run out of Singapore (hence, having a clear link to Singapore).

Of course, a successful prosecution could go a long way in mollifying an angry public, but there is no guarantee that it will resolve the problem. This is simply because there are too many other entities or plantation interests using fires to clear land in Sumatra, Kalimantan and other parts of the sprawling Indonesian archipelago. Ultimately, Indonesian enforcement and prosecution action on the ground will matter most to resolve the problem at its core, together with cooperation mechanisms among regional states (including financial and technical assistance).

Hence, the true value of the unilateral action by Singapore lies more in bringing pressure on Indonesia to take greater action. In other words, it will take the wind out of the sails of Indonesian officialdom's argument that victim states should look at their own entities first. In a nutshell, adversarial action before the Singapore courts is not a long-term solution. Any higher expectation by the Singapore public would be naïve. At the same time, it is conceivable that the tough sanctions provided by the Act might drive agri-business concerns out of Singapore, particularly the ones that view themselves to be responsible and thus victimized.

Here, there could be a problem with action being taken against the wrong defendant or accused or those that matter less in resolving the problem. Indeed, the publicly-listed companies could de-list and easily relocate to places like Hong Kong and Malaysia, and still carry on with the *status quo* on the ground. It is not as if they will take the haze problem with them.