CONTENTS

Lim Heng Gee
Green Technologies, Patents and Competition Law

Maizatun Mustafa, Mariani Ariffin
Mohd Hazmi Rusli
Nurulnabila Hanis Mat Seman
Haze Pollution: Regulating Corporate
Responsibility and Liabilities under Environmental
Law in Malaysia

Daleeleer Kaur Randawar
Sheela Jayabalan
Creating A Harmonious Environment: Special
Consideration to the Family Unit

Nurulnabila Anis Mat Seman
Maizatun Mustafa
Mohd. Hazmi Rusli
Transboundary Haze Pollution and the Legal
Framework at National Level with Respect to
Malaysia and Singapore

Azni Mohd Dian
Normawati Hashim
Norha Abu Hanifah
Public – Private Partnership in Heritage Sustainable
Development in Malaysia

Irwin Ooi Ui Joo
A Legal Evaluation of the ‘Green’ Credentials of the
ASEAN Transport Facilitation Agreements

Rasyikah Mohd Khalid
From the 1st to the 3rd Generation of Human Rights:
Where is Malaysia in Fulfilling the Right to Healthy
Environment?

Siti Hafsyah Idris
Bioethical Issues of Genetically Modified (GM)
Crops: Farmers’ Right to Keep Conventional
Agriculture from Gene Contamination
ADVISOR
Dr Hartini Saripan
Dean, Faculty of Law

CHIEF EDITOR
Assoc Prof Dr Norha Abu Hanifah

DEPUTY CHIEF EDITOR
Dr Siti Hafsyah Idris

EDITORIAL COMMITTEE
Prof Dr Lim Heng Gee
Assoc Prof Dr Maizatun Hamzah
Assoc Prof Dr Rasyikah Mohd Khalid
Assoc Prof Dr Irwin Ooi Ui Joo
Dr Sharifah Saeedah Syed Mohamed
Dr Siti Sarah Sulaiman
Dr Normawati Hashim
Dr Azni Mohd Dian
Dr Rafizah Abu Hassan
Universiti Teknologi MARA
International Islamic University Malaysia
Universiti Kebangsaan Malaysia
Universiti Teknologi MARA
Universiti Teknologi MARA
Universiti Teknologi MARA
Universiti Teknologi MARA
Universiti Teknologi MARA

BUSINESS MANAGERS
Assoc Prof Rohani Md Shah
Assoc Prof Rohazar Wati Zuallcobley
Dr Irini Ibrahim
Dr Faridah Hussain

WEB DESIGNER
En Hanafi Hasan
En Mohd Rushidi Jamaluddin
The Journal for Environmental Law, Development and Research is an e-journal published on line by the Centre for Environmental Law, Governance and Policy (CELGoP), Faculty of Law, Universiti Teknologi MARA (UiTM), 40450, Shah Alam, Selangor MALAYSIA.

This volume should be cited (2019) 1 JELDR.

E-ISSN NO: 2682-7980


Copyright: Copyright is vested in the Centre for Environmental Law, Governance and Policy (CELGoP), Faculty of Law, Universiti Teknologi MARA (UiTM) and in each author with respect to her or his contribution.

E-subscription: e-JELDR is available for e-subscription via a link from CELGoP Faculty of Law. Please send your request to:

Attention - The Business Managers via email: ejeldr.celgop.uitm@gmail.com

Submission of articles: We welcome the submission of articles, comments under 2000 words, shorter notes and book reviews for publication in the e-JELDR. Manuscripts should be addressed to:

The Editors
Journal for Environmental Law, Development and Research
Centre for Environmental Law, Governance and Policy
Faculty of Law
Universiti Teknologi MARA
40450 Shah Alam
Selangor
MALAYSIA

Telephone : 603 5544 4122
Facsimile : 603 5521 1094
Email Address : ejeldr.celgop.uitm@gmail.com

A style guide is available on line and from the editors.
AN INTRODUCTION

On behalf of the researchers, authors, reviewers, editorial team and supporting institutions, I welcome you to the inaugural issue of the Journal for Environmental Law, Development and Research (JELRD).

As an environmental journal, JELDR aims at broadening visibility around environmental law and policy concern by showcasing work across the disciplines, thus becoming a premier legal forum for environmental law and natural resources scholarship. JELDR is spearheaded by our team from the Centre of Environmental Law, Governance and Policy (CELGoP), Faculty of Law, Universiti Teknologi MARA, hailing from diverse backgrounds and research interests, united by the common vision to address environmental concerns through breakthrough research and progress. In 2017, the centre was officially registered under the International Union for Conservation of Nature Academy for Environmental Law (IUCNAEL), leading endeavours towards sustainable practice and the conservation of environment policy.

You will find that the issues covered under this journal are of a wide variety, ranging across different industries related to environmental concerns that are plaguing the world today. This ultimately showcases the diversity of the issues covered across different methodologies that is the strength of this journal. We have decided to delineate a practice of accentuating the practitioner viewpoint on environmental law and policy issues, merging with the traditional scholarship attributed to law journals. Thus, the selected works for this inaugural issue feature topics while relevance to Malaysian environmental regulatory landscape, still possess a global significance. The publication of this journal coincides with numerous environmental regulatory concerns not only nationally, but across borders involving both developing and developed countries alike. While cognizance of the environmental regulations and policy continues to surge, there is also a growing sense of the disconnect between academia and the public. Unquestionably, it is of paramount importance than ever that we begin dialogue and collaboration across the boundaries of discipline as well as community. We welcome contributions of ideas, research, solutions, concerns, observations and developments of any kind as JELDR continue to foster these pivotal conversations about environmental law and policy, nurturing the spirit of interdisciplinary partnership that serves as the cornerstone of this publication.

Dr Hartini Saripan,
Dean Faculty of Law
EDITORIAL NOTES

This e-journal is the first for the Faculty of Law. The idea to have an online journal have been discussed for quite some time at the centre however, only now has it materialised. There are eight articles in this inaugural issue of the Journal for Environmental Law, Development and research or in short to be known as eJELDR. The Centre for Environmental Law, Governance and Policy or better known as CELGoP held its first conference in 2017 i.e. the International Conference for Environmental Teachers and Researchers (ICERT2017) and after the conference the centre decided to have its publication of articles.

This eJournal is hope to be a meeting point for law teachers, environmental researchers and practitioners where they can share a common interest in various areas of law. It will provide them a source of information on the current and topical issues of law. May it also creates a forum for the exchange of ideas and for engaging in discourse over some intricate or vexed legal issues with special reference to the areas of environmental law.

We hope that this eJournal will make an important contribution to debate on vital legal matters in our society. It is with great pleasure and some satisfaction at its completion that we complete this inaugural issue.
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>NAME</th>
<th>CONTENT</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Dean</td>
<td>An Introduction</td>
<td>4</td>
</tr>
<tr>
<td>Chief Editor</td>
<td>Editorial Notes</td>
<td>5</td>
</tr>
<tr>
<td>Lim Heng Gee</td>
<td>Green Technologies, Patents and Competition Law</td>
<td>7</td>
</tr>
<tr>
<td>Maizatun Mustafa</td>
<td>Haze Pollution: Regulating Corporate Responsibility and Liabilities under Environmental Law in Malaysia</td>
<td>18</td>
</tr>
<tr>
<td>Mariani Ariffin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mohd. Hazmi Rusli</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurulnabila Hanis Mat Seman</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daleeleer Kaur Randawar</td>
<td>Creating A Harmonious Environment: Special Consideration to the Family Unit</td>
<td>32</td>
</tr>
<tr>
<td>Sheela Jayabalan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurulnabila Anis Mat Seman</td>
<td>Transboundary Haze Pollution and the Legal Framework at National Level with Respect to Malaysia and Singapore</td>
<td>38</td>
</tr>
<tr>
<td>Maizatun Mustafa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mohd. Hazmi Rusli</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Azni Mohd Dian</td>
<td>Public – Private Partnership in Heritage Sustainable Development in Malaysia</td>
<td>49</td>
</tr>
<tr>
<td>Normawati Hashim</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Norha Abu Hanifah</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Irwin Ooi Ui Joo</td>
<td>A Legal Evaluation of the ‘Green’ Credentials of the ASEAN Transport Facilitation Agreements</td>
<td>60</td>
</tr>
<tr>
<td>Rasyikah Mohd Khalid</td>
<td>From the 1st to the 3rd Generation of Human Rights: Where is Malaysia in Fulfilling the Right to Healthy Environment?</td>
<td>66</td>
</tr>
<tr>
<td>Siti Hafsyah Idris</td>
<td>Bioethical Issues of Genetically Modified (GM) Crops: Farmers’ Right to Keep Conventional Agriculture from Gene Contamination</td>
<td>74</td>
</tr>
</tbody>
</table>
Green Technologies, Patents and Competition Law

Lim Heng Gee

Faculty of Law, University Teknologi MARA, 40450 Shah Alam, Selangor
henggeelim@yahoo.com

Abstract

This paper examines the interplay between patent and competition law in relation the adoption of environmentally sound technologies (ESTs) or green technologies to protect the environment. When such technologies are protected by patent, the owners of such technologies are given certain exclusive rights which entitle them to prevent others from using the technologies, or to condition licences to use such technologies on the payment of excessively high royalty fees. The result is that such environmentally friendly technologies will not be extensively adopted, to the detriment of the environment. There are provisions in the Patents Act 1983 to prevent abuse of the patent monopoly, however, these provisions are inadequate to prevent any anti-competitive act by a patent owner. It is envisaged that as more and more efficient green technologies are developed, they would eventually be adopted as technical standards to be complied with by competitors in the various industries. In such a situation, if the technologies are patented, they would be classified as “standard essential patents”. This would mean that any competing products would have to conform to these standards, failing which they would not be allowed to be marketed. The holders of such standard essential patents would thus be in a very powerful position to dictate terms as to their uses, leading to possible abuse of their dominant positions by preventing, restricting or distorting competition. This paper examines the various provisions of the Patents Act which would prevent possible misuse of the patent monopoly by the imposition of unfair terms in licensing contracts. It also looks into the mechanism provided under the Competition Act 2010 which would penalize the licensing of such patented green technologies on anti-competitive unfair terms, including the imposition of FRAND (fair, reasonable and non-discriminatory) terms.

Keywords: Competition law, FRAND Terms, Green Technologies, Standard Essential Patents
Introduction

This paper examines the interplay between patent and competition law in relation the adoption of environmentally sound technologies (ESTs) or green technologies to protect the environment. Basically, environmentally sound technologies or green technologies “protect the environment, are less polluting, use all resources in a more sustainable manner, recycle more of their wastes and products, and handle residual wastes in a more acceptable manner than the technologies for which they were substitutes”\(^1\)

Some intellectual property laws have recognised the importance of green technologies. For example, the Patents Act 1983 (the Patents Act) now provides an expedited procedure for the grant of patents involving green technologies. However, when such technologies are protected by patent, the owner of such technologies are given certain exclusive rights which entitle them to prevent others from using the technologies, or to condition licences to use such technologies on the payment of excessively high royalty fees. The result is that such environmentally friendly technologies will not be extensively adopted, to the detriment of the environment. There are provisions for the issue of compulsory licences in the Patents Act 1983. However, the present grounds to trigger the issuance of a compulsory licence does not include the need or desire to adopt environmentally sound technologies. Similarly, the provisions of section 84 of the Patents Act, which allows for Government use, do not expressly provide for the adoption of green technologies as a ground for Government intervention.

It is envisaged that as more and more efficient green technologies are developed, they would eventually be adopted as technical standards to be complied with by competitors in the various industries. In such a situation, if the technologies are patented, they would be classified as “standard essential patents”. This would mean that any competing products would have to conform to these standards, failing which they would not be allowed to be marketed. The holders of such standard essential patents would thus be in a very powerful position to dictate terms as to their uses, leading to possible abuse of their dominant positons by preventing, restricting or distorting competition.

This paper examines the various provisions of the Patents Act which would prevent possible misuse of the patent monopoly by the imposition of unfair terms in licensing contracts. It also

---

looks into the mechanism provided under the Competition Act 2010 (the Competition Act) which would penalize the licensing of such patented green technologies on anti-competitive unfair terms, including the imposition of FRAND (fair, reasonable and non-discriminatory) terms in relation to standard essential patents.

Definition of Terms

The term green technology (environmentally friendly, clean technology) refers to the technology which is environmentally friendly. Among these technologies are those that generate energy through renewable sources, technologies which boost efficiency and those which reduce greenhouse effects.

A patent is a certificate granted by the Government giving the inventor of a new and inventive product or process the exclusive right to commercial use of the invention for a term of 20 years from the date of filing of the patent application. The aim of the patent system is to provide an incentive to invent. On being granted a patent, the patent owner has the exclusive right to commercially exploit the patent to the total exclusion of others, even against an independent inventor of the same product or process. The law governing the conditions for the grant of a patent as well as the exclusive rights granted to and the limitations imposed on a patent owner is governed by the Patents Act 1983 (as amended).

Competition law is a law that aims to ensure that enterprises compete fairly, in particular, that competition is not prevented, restricted or distorted by anti-competitive behaviours. The governing statute is the Competition Act 2010. The Competition Act prohibits certain actions that may harm competition. Infringer will be subject to financial penalty.
Increased Rate of Patenting of Green Technologies

To recoup R&D costs and to gain a competitive edge, invariably these green technologies will be protected by patents. As can be seen from the statistics given below, an increasing numbers of green patents have been applied for.²

<table>
<thead>
<tr>
<th>Country</th>
<th>Increase in Green Tech Applications</th>
<th>Increase in Other Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>1040%</td>
<td>611.5%</td>
</tr>
<tr>
<td>India</td>
<td>784%</td>
<td>188.2%</td>
</tr>
<tr>
<td>South Korea</td>
<td>436%</td>
<td>171.9%</td>
</tr>
<tr>
<td>Denmark</td>
<td>331%</td>
<td>12.6%</td>
</tr>
<tr>
<td>Spain</td>
<td>220%</td>
<td>37.2%</td>
</tr>
<tr>
<td>Brazil</td>
<td>185%</td>
<td>64.2%</td>
</tr>
</tbody>
</table>

The Government recognises the importance of encouraging the development of green technology. In 2011, the Patents (Amendment) regulations 2011 was enacted. Under this Amendment Regulations, a new Regulation 27E on Expedited Examination was introduced. Section 27E states that an applicant who requests or has requested for substantive examination under regulation 27 may request the Registrar to undertake an expedited examination of the application once it has been made available for public inspection under section 34 of the Act. One of the grounds that can be relied upon in the request for an expedited examination is provided under sub-regulation 3(e) which provides that “the invention relates to green technologies that will enhance the quality of the environment or conservation of energy resources.” This fast-tracking of patent applications relating to green technology through the search and examination procedure enables businesses to obtain granted patents faster to help them to secure external investment. The Amendment Regulations come into operation on 15 February 2011.

The Strong Position of a Patent Owner – the right of exclusion

On being granted a patent, the patent owner has the exclusive right to commercialise his invention – i.e., the patent owner has the sole right to use, make, sell or import products or process incorporating his patent.³ The powerful position of the patentee was best reflected by an early US case, Victor Talking Machine Co. v. The Fair, where it was said that:

³ See s 36(3)(a) and (b) of the Patents Act 1983.
"within his domain, the patentee is czar. The people must take the invention on the terms he dictates or let it alone for 17 years. This is a necessity from the nature of the grant. Cries of restraint of trade and impairment of the freedom of sales are unavailing, because for the promotion of the useful arts the constitution and statutes authorise this very monopoly."\(^4\)

However, contemporary judicial and statutory attitude is reflected in *Transparent-Wrap Machine Corp. v. Stokes & Smith Co.*,\(^5\) where the US Supreme Court said, "The fact that a patentee has the power to refuse a licence does not mean that he has the power to grant a licence on such conditions as he may choose." Aware of the potentially powerful position of the patentee, and the need to curb any attempts at abuse by the exercise of the patentee's patent monopoly,\(^6\) the Patents Act contains express provisions to deal with actions or inactions which might be contrary to the public interest. The two provisions in the Patents Act designed to deal with the abuse of the patent rights are those on compulsory licensing, and the prohibition against the insertion of certain clauses in a licence agreement which attempt to extend the patents rights beyond their lawful scope. The provisions of the Patents Act on invalid clauses practically echo the sentiment voiced in *Transparent-Wrap*.

\(^4\) Victor Talking Machine Co. v. The Fair 123 Fed. Rep. 424 (CCA 7th Cir. 1903), *per* Baker, Circuit Judge, at page 426. In the UK, see *Incandescent Gas Company Ltd v. Cantelo* (1895) 12 RPC 262, *per* Wills J., at page 264, "[T]he patentee has the sole right of using and selling the articles, and he may prevent anybody from dealing with them at all. Inasmuch as he has the right to prevent people from using them or dealing in them at all, he has the right to do the lesser thing, that is to say, to impose his own conditions. It does not matter how unreasonable or how absurd the conditions are." See also *Columbia Graphophone Co. Ltd v. Murray* (1922) 39 RPC 239 (Ch.D.), *per* Russell J., at page 241, "[T]he owner of a patented article is entitled to impose any conditions he likes when he is granting a licence to somebody to use the patented article. There appears to be no limitation to the conditions that he may impose, and if he imposes conditions and those conditions are brought to the knowledge of the person who uses the patented article, the person using the patented article must refrain from violating those conditions. It appears to me that ... if he violates the conditions imposed by the licence, then he has no licence at all, and, therefore, he has committed a breach of the patentee's rights."


\(^6\)Although the word "monopoly" is used to refer to the exclusive rights given to a patent owner under the Act, it is merely used here for the sake of convenience. It is recognised that it is not strictly correct to refer to a patent right as a monopoly within the traditional and accurate sense of that term. For example, the US Court in *Standard Oil v. United States* 221 US 1 (US Sup. Ct 1911) defined monopoly thus, "(1) the monopolists have the sole right to buy, sell or make, and (2) others [are] deprived of a pre-existing right to buy, sell, or make. The patent grant gives the patentee only the right to exclude others; his own right to practise the invention may be subservient to another patent. Moreover, since novelty is a requisite of patentability, the grant does not exclude the public from a pre-existing right." In *United States v. Dubilier* 289 US 178 (US Sup. Ct 1933), the Supreme Court said, "Though often so characterised, a patent is not, accurately speaking, a monopoly. ... The term monopoly connotes the giving of an exclusive privilege for buying, selling, working or using a thing which the public freely enjoyed prior to the grant. Thus a monopoly takes something from the people. An inventor deprives the public of nothing which it enjoyed before his discovery, but gives something of value to the community by adding to the sum of human knowledge. ... He may keep his invention secret and reap its fruits indefinitely."
Provisions in the Patents Act to Prevent Misuse of Patents

There are several provisions in the Patents Act to prevent misuse of patent power. They are section 49 dealing with compulsory licensing, section 45 dealing with invalid terms in patent licensing contracts and section 84 dealing with Government use.

Compulsory licences

Under section 49, any interested person can apply to the Registrar of Patents for a compulsory licence, even against the wish of the patent owners. The combined effect of section 49(1) is that an applicant has to show that any one of the grounds listed below exists:7

– There is no local production of the patented product or use of the patented process,
– No patented products are produced for sale in Malaysia,
– The patented products are sold at an unreasonably high price, or
– There is not enough production of the patented products to meet public demand.

A perusal of the grounds above shows that this section is inapplicable for many anti-competitive acts by the patent owner which do not encompass any one of the situations mentioned above.

Invalid terms

Section 45 prohibits any clause or condition in a licence contract that imposes on a licensee restrictions not derived from the grant of a patent or unnecessary for the safeguarding of such rights. Examples of such clauses include the following:8

a. Tie-in or tie-out

This is the most common method of extending a patent owner's rights in a patent to non-patented products. A tying arrangement may consist of either a tie-in or a tie-out. Basically, a tie-in clause is one in which the patent owner makes the purchase, hire or use of a patented article or invention conditional on the purchaser, hirer or licensee also acquiring other goods from the patent owner or his nominee. In a tie-out situation, the purchaser, hirer or licensee is prevented from using certain goods, materials or processes not supplied or owned by the patent owner. In the case of a process patent, a tying arrangement could, for example, involve the patent owner allowing the licensing of the use of his process

7 See s 45(1)(a) and (b), patents Act 1983.
patent only if the licensee agrees to practise the process together with the use of the patent owner's machinery.

b. Mandatory packaging

The practice of mandatory patent package licensing occurs where the patent owner refuses to grant a licence under one or more of his patents unless the licensee accepts and pays for additional patents which are not required by him.

c. Post expiration royalties

This type of clause in a licence contract imposes an obligation on a licensee to pay royalty for the use of a patent even after the patent has expired. The general rule is that any obligation imposed on a licensee to continue payment after the expiration of the patent in issue is a patent misuse and unenforceable.

d. Non-competition

Such clauses are usually inserted with the intention of imposing restrictions on obtaining patents, know-how or trade marks from other companies with regard to the manufacture or sale of competing products, thus prohibiting the use of competing technologies. The clause involves the patent owner using his patent monopoly to suppress the manufacture of possible competing goods not covered by his patent, by, for example, imposing a condition that the licensee would not manufacture any other products other than those covered by the patent licensed.

e. Grant back

A grant-back clause is defined as a clause in a patent licence which provides for licence or assignment to the licensor of any improvement patented by the licensee in the products or processes of the licensed patent. Such grant-back clauses may be of two main types. When the licensor acquires full patent rights to the improvement patents, the grant-back is termed an “assignment-back”. Where the licensee under the clause retains the patent rights to the improvement patents and the licensor is only given the right to use the improvement patents, for example, on a non-exclusive, royalty free basis, the grant-back is called a “licence-back”.
The effect of a patent licensor imposing such a term in the licence contract is that the relevant clause is invalid and cannot be enforced. This is so even in the absence of any evidence to show that the patent owner has market power in the relevant sector of the industry.

Government Use

Finally, Section 84 allows a Government agency or a third person appointed by the Minister to exploit a patented invention on any one of the following grounds:
- National emergency
- In the public interest, in matters relating to:
  - National security
  - Nutrition, health
  - Development of other vital sector of national economy
- Anti-competitive behaviour

As is apparent, the Government use provisions do not expressly provide for the adoption of green technologies as a ground for Government intervention. Where this power is exercised, the patent owner is entitled to payment of an adequate remuneration.9

The Role of Competition Law

As mentioned earlier, the objective of competition law is to ensure that enterprises compete fairly, in particular, that competition is not prevented, restricted or distorted by anti-competitive behaviours. Patents, as one type of intellectual property falls within the purview of competition law as the definition of goods under the Competition Act covers property of every kind, whether tangible or intangible.10

There are provisions in the Competition Act to prevent anti-competitive acts in relation to:
- agreements which have the object or effect of significantly preventing, restricting or distorting competition in any market for goods,11 or
- acts by those with who are in a position of dominance.12

A prohibited act can be carried out through horizontal or vertical agreements,13 between enterprises or through conducts by an enterprise in a dominant position. The Malaysian Competition Commission (MyCC) will consider a market share above 60% as indicating an

---

9 See section 84(3) of the Patents Act 1983.
10 See section 3, definition of “goods”.
11 Chapter 1 prohibitions.
12 Chapter 2 Prohibitions.
13 Horizontal agreements are agreements made between competitors (i.e., in the same market) or between those who are not competitors but who operate at the same level in the production/distribution chain. Vertical agreements involve parties at different levels of production/distribution, and involve either a seller and buyer, or a licensor and licensee.
enterprise is dominant.\textsuperscript{14} Besides tie-in or tie-out, post-expiration royalties and mandatory packaging which have been discussed earlier in section 4.1.2 above, other examples of prohibited conducts include the following:

a. Price fixing

Price fixing can occur at two levels. Horizontal price fixing occurs when patent owners of actual or potential competing technologies agree on the price they will each charge for the license. This reduces competition in the licensing market. Vertical price fixing is concerned with price control exercised by a patent owner over one or more of its licensees. The control may be in the form of fixing a minimum price at which the licensees may sell patent-protected goods or by requiring the licensees to sell at the same price, or not less than the price charged by the licensor in its own sales.

b. Discriminatory pricing

This refers to the practice of charging different buyers different prices for the same product. It is regarded as an anti-competitive practice as the different prices charged are not attributable to any reasons associated with costs of supply. The effect of such conduct is likely to distort competition among the sellers.

c. Predatory pricing

Predatory pricing occurs when the patent owner sets prices below its costs, deliberately sacrificing profitability. Normally this is done to drive out competitors from the market so that the patent owner can subsequently increase the price, to the detriment of the consumers.

d. Refusal to deal

A refusal to deal could take several forms. It can be executed by a patent owner in a dominant position, or it could result from collusive agreements between competitors to refuse to deal with a targeted competitor. A refusal to license or sell a patented product is not wrong per se. However, where the refusal to deal stems from an intention to distort or prevent competition, then it could be actionable as an anti-competitive practice.

\textsuperscript{14} See MyCC Guidelines of Chapter 2 Prohibitions, para 2.2.
Infringement by a patent owner carrying out any of the prohibited acts would lead to imposition of a financial penalty, which can be as high as a maximum of 10% of the worldwide turnover multiplied by the number of years of infringement, in addition to being sued by any person who suffers loss or damage directly as a result of an infringement of any of the prohibited acts.\(^\text{15}\)

It would be apparent from the above that some of the activities that would be considered as patent abuse under section 45 of the Patents Act would also be considered as anti-competitive practices under the Competition Act. However, there is a major difference in that any violation of section 45 of the Patents Act would result only in the impugned clauses or restrictions being held invalid, and hence unenforceable. The rest of the licence agreement is still binding and enforceable. In contrast, a violation of the Competition Act would give rise to severe financial penalties.

**Industry Standards**

The term Industry Standard refers to standard specifications for a specific product, material, component or system to be complied with when making such products etc.\(^\text{16}\) Standards are meant to:

- maximise the reliability of products or materials
- make products work better,
- make them compatible and able to interact with other products, and
- safeguard consumer safety.

**Industry Standards and Standard Essential Patents**

A patent that protects technology essential to a standard is called a standard-essential patent (SEP). Once a standard has been agreed upon, manufacturers in the relevant industry would have to use the SEPs to ensure that their products are standard-compliant. Holders of SEPs could use their patent monopoly to engage in practices that could either weaken their competitors or virtually eliminate them from the relevant industry. Hence, in relation to SEPS, the holders of such SEPS have an even greater duty to ensure competition is not prevented, restricted or distorted.

\(^{15}\) See sections 40(4) and 64(1), Competition Act, respectively.

Competition Law and SEPs

In the MyCC Guidelines, refusal to supply and share essential facilities is one form of abusive conduct. In the context of SEP, access to that essential patent would be necessary to competitors. The refusal to allow the use of that patent would be considered as abusive and anti-competitive if their competitors are willing to accept a licence and pay a reasonable royalty. Further, granting of licences for SEPs on unfair or unreasonable terms could also result in investigation and imposition of a fine by the MyCC.

In the determination of the royalty payment for the access of the SEPs, the standards used by Competition Authorities in the EU and US is that it has to be on fair, reasonable and non-discriminatory, or FRAND terms.

Conclusion

A sound knowledge of the interplay between patent law and competition law is vital both for the patent owner and potential licensees of the patented technology. As owners of patented green technologies, the owners need to be aware of what constitutes anti-competitive practices, so as not to fall foul of the Competition Act. As potential licensees of patented green technologies, the licensees would be able to resist unfair and onerous terms which will make them uncompetitive in the market from the word go. As the saying goes, “To be forewarned is to be forearmed”.

---

18 Note that in principle, under Patent law, a patent owner is entitled not to allow others access to his technology.
Haze Pollution: Regulating Corporate Responsibility and Liabilities under Environmental Law in Malaysia

Maizatun Mustafaa, Mariani Ariffinb, Mohd. Hazmi Ruslic and Nurulnabila Hanis Mat Seman

d1, 4 Ahmad Ibrahim Kulliyyah of Laws, International Islamic University Malaysia, Jalan Gombak 53100 Kuala Lumpur

bFaculty of Environmental Studies, Universiti Putra Malaysia, 43400 Serdang, Selangor

cFaculty of Syariah and Law, Universiti Sains Islam Malaysia, 71800 Nilai, Negeri Sembilan

1maizatun@iium.edu.my

Abstract

In the past 30 years Malaysia has been enjoying significant economic growth that arises mainly from industrialization. However, the expansion of economic sector and industrial process have inevitably jeopardised environmental quality and contributed towards degrading air quality and occurrence of haze. Consequences of economic activities on the environment have already been acknowledged and various measures have been introduced to regulate such activities. However, while the main focus of controlling air pollution has always been on regulating emission discharge, one important but less developed aspects of such control is pertaining to corporate environmental duties as well as liabilities. The notion of corporate’s legal duty to meet general environmental protection obligations is something relatively new to Malaysia but progressing. This can be seen from the introduction of strategies within environmental law that invoke either self-regulation or shared responsibility between government and industry relating to environmental protection and pollution control, and in imposing criminal sanction upon corporation that commit environmental offences. In light of the fact that sources of haze pollution can be attributed to “growth-related” activities as manifested by the rise in the emission of air pollution which causes haze, the objectives of this article are to examine the role of domestic law in requiring corporations to fulfill their environmental responsibility, and in imposing criminal liabilities for haze related offences. While the extent of company’s duties as well as accountability can be found within the provisions of domestic environmental law, the article also seeks to find out to what extent similar provision can be applied in relation to transboundary haze pollution which has been affecting Malaysia for many years. This paper concludes that understanding of the scope and limitation of domestic law is pertinent in facilitating Malaysia’s next cause of action towards enhancing the regulation of corporate environmental responsibility as well as liabilities associated with domestic and transboundary haze pollution, and in promoting environmental sustainability.
Keywords: Corporate Environmental Responsibility, Criminal Liabilities, Environmental Law, Haze Pollution, Transboundary.
Introduction

The status of environmental quality in Malaysia is much related to the state of its economic development. While it is an advanced developing country with the GDP showing an upward trend of approximately 5 percent\(^1\), economic related activities continue to be identified to be main contributors towards environmental degradation\(^2\). Air pollution including the haze phenomenon which is an attribute of poor air quality are among environmental problems facing Malaysia at present as a result of gaseous emissions from industrial sources and motor vehicles, apart from open burning activities.

Consequences of economic activities on the quality of the atmosphere have already been verified by the Department of Environment in its reports\(^3\), and current legal framework on air and haze pollution control have already been identified\(^4\). However, while the main focus of the law has always been on regulating emission discharge, one important but less developed aspects of haze control is pertaining to corporate environmental responsibility. Even though environmental law imposes certain duties as well as liabilities upon corporation pertaining to their activities that cause air pollution, the notion of corporate’s legal duty to meet general environmental protection obligations is still something new to Malaysia. However, there is a gradual change within the legal framework whereby environmental law has started to apply instruments that integrate environmental and economic policy as means to secure compliance. This can be seen from the introduction of strategies that invoke either self-regulation or shared responsibility between government and industry relating to environmental protection and pollution control, and in imposing criminal sanction upon corporation that commit environmental offences.

In light of the fact that sources of haze pollution can be attributed to “growth-related” activities as manifested by the rise in the emission of air pollution which causes haze, the objectives of this paper are to examine the role of domestic law in requiring corporations to fulfill their environmental responsibility, and in imposing criminal liabilities for haze related offences. While the extent of company’s duties as well as accountability can be found within the provisions of

---

domestic environmental law, the article also seeks to find out to what extent similar provision can be applied in relation to transboundary haze pollution which has been affecting Malaysia for many years. This is due to the fact that unlike other types of air pollution problems, the control of haze pollution is considered a challenge since the source of this pollution is not confined within a national boundary. A number of discussions have been made relating to claims made by Indonesia that smoke emitted from that country and travelled into the Malaysian’s atmosphere were actually due to forests and peatland clearing activities by palm oil plantations owned by the Malaysian companies\(^5\). While the claims have not been adequately verified\(^6\), such claims have nevertheless raised a question of the scope of domestic law pertaining to corporate environmental liability involving transboundary pollution, and whether Malaysia’s law can in fact be imposed upon this type of offence. This paper concludes that understanding of the scope and limitation of domestic law is pertinent in facilitating Malaysia’s next cause of action towards enhancing the regulation of corporate environmental responsibility as well as liabilities associated with domestic and transboundary haze pollution, and in promoting environmental sustainability.

**Materials and Methods**

The endorsement of environmental criminal liability on the corporate entity is a recent development within the law whereby the entity is expected to owe a duty not to cause pollution to the environment. Generally, the aim of criminal liability is to achieve accountability on the part of corporations apart from imposing punishment. For the control of air and haze pollution, the legislation which is most relevant are the Environmental Quality Act 1974 together its various Regulations.

The research methodology is primarily qualitative through primary and secondary data. Primary data refers to legislation and decided cases. Secondary source refers to is publication such as articles’ journals, books, thesis and official documents. The approach adopted will be a critical analysis of the provisions of the law.

---


Results

Generally, the term “corporate responsibility” refers to the way businesses manage their activities to produce an overall positive impact through economic, environmental or social actions. Government’s commitment to ensure sustainable development can be executed in the form of legal strategy that imposes corporate responsibility on the corporation through the creation of a regulatory framework that directly influences the types of responsibilities a corporation can undertake. This includes legal measures to compel companies to comply with certain laws such as environmental law. Under environmental law, corporate responsibilities would be monitored through mechanisms such as mandatory reporting to ensure that their activities are in accordance with the law. With the emergence of the discourse on sustainable development following the report by World Commission on Environment in 1987, the responsibility of corporation towards environmental sustainability became more prominent. At present, the term “corporate environmental responsibility” (CER) has been accepted to be part and parcel of the broader corporate social responsibility concept. For example, Salem et al. define CER as “the duty of the corporation to mitigate its impacts on the natural environment.” Whereas according to Surroca, et al., corporate environmental responsibility is “the broad array of strategies and operating practices that a company develops in its efforts to deal with and create relationships with its numerous stakeholders and the natural environment.”

Within the law, one of the most common CER measures imposed on corporate entities is the application of environmental impact assessment (EIA) which embraces the sustainability principle of precautionary. The link between EIA, precautionary principle and CER has been deliberated by Som, Hilty & Kohler. According to them, the aim of precautionary principle is to anticipate and minimize potentially serious or irreversible risks committed by businesses in order to preserve the potential for future developments. In Malaysia, EIA is enforced under section 34A of the Environmental Quality Act 1974 and the Environmental Quality (Prescribed Activities)

---

In the context of CER, EIA is meant to ensure that the development options are sustainable by identifying possible environmental problems likely to arise out of a proposed development project and rectifying those problems in the planning stage thereby avoiding potential liabilities\textsuperscript{14}. The requirement on EIA is being imposed on activities that are considered to be having the possibility of causing significant environmental impacts. The list of such activities, known as “prescribed activities” include those that have the potential of causing air pollution such as industrial, mining and quarry activities. Through the EIA requirement, prior investigation of potentially serious environmental impacts, including that of air pollution will be undertaken. According to the Department of Environment\textsuperscript{15}, as a result of EIA, companies are reducing environmental loads across all activities prescribed for EIA and developing methods to measure and verify their environmental performance on project development. In order to be an effective compliance instrument, penalty is imposed on those who contravene the law. The EIA’s violations include non-compliance with the provisions of section 34A; non-compliance with the implementing measures for mitigating and for the abatement of an impact on the environment; and non-compliance with the “terms of reference”. A fine of up to RM500000 or a jail of up to five years shall be imposed on any person is found liable. A further fine of RM1,000 for every day that the offence is continued, after a notice requiring him to comply with the Act has been served. The Environmental Quality Act 1974 is also strict in ensuring that the EIA consultants who are responsible to carry out the assessment of environmental impact adheres to the integrated concept of professionalism. This responsibility which is provided in clause (2A) of section 34A includes the need for the Department of Environment to maintain the EIA standards by ensuring that only fully qualified professionals with professional skills in the required areas able to practise. In the course of carrying of the impact assessment, the appointed consultant is further required by section 34A (2B) to take a professional indemnity insurance from any liability arising from the EIA and its recommendations. Since company directors or officers are potentially vulnerable to the environmental offence provisions contained in the law, the requirement of such insurance allows for the mitigation of risk on the project proponent through corporate indemnity.

While EIA is imposed as a CER before the commencement of a project, another economic measure, environmental audit is applicable as a means of CER on existing corporations. In

\textsuperscript{14} Maizatun, Mustafa, (2011b). The Role of Environmental Impact Assessment in Addressing Marine Environmental Issue Arising from Oil and Gas Activities: Examples from Malaysia. International Proceedings of Chemical, Biological &Environmental Engineering (IPCBEE).
Malaysia, environmental audit has largely been practiced in a voluntary manner by ISO14001 certified companies and multinational industrial facilities\(^\text{16}\). Thus, for the purpose of ISO 14001, corporate entities are required to comply with all the elements in order to be qualifying for the certification which includes environmental policy; legal and other planning requirements; implementation and operation; and checking and corrective action\(^\text{17}\). In order to make ISO14001 more widely applicable, environmental audit has been made a requirement under the Environmental Quality Act 1974 which defines the term as “a periodic, systematic, documented and objective evaluation to determine: the compliance status to environmental regulatory requirements; the environmental management system; and the overall environmental risk of the premises”. Primary objective of this type of audit is to assess the compliance status of industrial facilities and development projects that are subject to the Act and to provide a systematic approach to ensuring compliance. Whereas the long-term goal is for industry and developers to eventually self-regulate its environmental management and help achieve sustainable development. The regulatory compliance-type audit is the one applied by the Act in order to investigate the organization’s intent to manage its environmental issues for compliance and improvement of performance purposes. In the context of air pollution control, compliance audit means that reference will be made to relevant provisions of the Act to identify sources and extent of air pollution from that organization, its adherence to air quality criteria, and strategies to reduce air pollution\(^\text{18}\).

It has been noted that industrial and commercial activities that emit pollution are often associated with the risk of environmental quality degradation impacting human health and natural resources. Under the legal framework on environmental protection, such risk can be translated into the legal liability risk on the part of the owners and operators for the consequences of environmental damage caused from their activities. Thus, Darabaris\(^\text{19}\) is of the view that environmental liability would mean transferring the responsibility for the cost of environmental damage to those that cause such damage. Environmental liabilities may arise in any number of business circumstances and apply to various corporate and individual actors. For instance, corporations may attract criminal liability under environmental law in respect of their operations, whereas and individuals

may be found similarly liable for breaches of the law in their specific capacity relating to corporation. A number of provisions are already available to impose criminal sanction on corporations if their activities cause air and haze pollution. Such imposition is a strict reminder to any person who has the responsibility over such activities of possible pollution consequences and liability. Thus, when an environmental responsibility is being imposed by the law, the corporation which causes environmental damage may be required to either reverse or restore such damage, or otherwise pay the compensation, fine, or any type of penalty for violating the law.

According to Maizatun & Nurah S., corporate environmental liability can be enforced through several economic principles including polluter pays. Main objectives of polluter pays principle are to reduce damage to the environment by preventing, remediating, or compensating environmental damage they caused, and deterring against non-compliance with regulatory environmental requirements. In pursuance to the enactment of the Environmental Quality Act in 1974, several provisions were framed dealing with the control of various environmental medium on the basis of polluter pays principle. Section 22 on the restriction of the atmospheric pollution provides for actions that constitute air pollution offences as well as the imposition of fine and imprisonment to those who contravene the law. This section is based on criminal sanction which is enforced in relation to allowable emission limits of acceptable conditions provided in section 21. In order to identify between a wrong and right environmental corporate practices, section 21 provides for standardization of emission standards including parameters limit for air pollution emission.

Section 21 must be read together with the Environmental Quality (Clean Air) Regulations 2014 which contain provisions on air pollution emission and are applicable for any industrial or trade purposes or premises that contain fuel burning equipment. It is noted that there can be diverse causes behind corporate entities’ committing actions that constitute environmental offences including that of negligent behaviour, poorly maintained equipment causing pollution to occur or failure to report actual discharge. Thus, in addition to criminal sanction under section 22, another relevant provision on air pollution is section 29A which strictly prohibited any person from causing open burning on any premises, and land. The scope of section 29A on open burning is

---

wide to include “any fire, combustion or smouldering that occurs in the open air and which is not
directed there through a chimney or stack”. Thus it can be applicable to regulate activities of any
premises, factories or industries involving air pollution emission.

In Malaysia, general liabilities of corporate entities are regulated by the Companies Act 1965.
However, environmental criminal liability of the corporation is available under section 43 the
Environmental Quality Act 1974. According to this Act, there are three categories of person whom
should be liable in the event of crime and prosecution, namely the “owner”, “occupier” and
“company director”. The term “occupier” for the purpose of the Act includes “a person in
occupation or control of any premises” whereas “owner” in relation to a premise includes
registered proprietor of the premises; the lessee of a lease; or the agent or trustee of the owners.
Another person that may be held liable is the company director and other company officials or
their agents24. Usually officers and directors owe fiduciary duties to the corporation and would be
liable under the law such as that of environmental regulations25. Under the same section, “chief
executive officer”, may also be held liable when his company, firm or society commits such
offences. However, a defence can be raised if he can prove that the offence was committed without
his consent or connivance and that he had exercised all such diligence as to prevent the commission
of the offence as he ought to have exercised, having regard to the nature of his functions in that
capacity and to all the circumstances (Mustafa, 2016). To avoid conviction, it is necessary for the
company director or chief executive officer to prove that the offence was committed without his
consent and that he had exercised all diligence as to prevent the commission of the offence. In the
case of Pendakwa Raya v. Synenviro Sdn Bhd [2012] 2 MLJ 829, the company directors of
Synenviro Sdn Bhd which were charged under section 34B of the Act for accepting schedule waste
managed to raise a reasonable doubt them they proved that they did not have any knowledge or
mens rea of the scheduled waste. For this reason, their appeal was allowed.

Discussion

Environmental law in Malaysia, following the global trend in CER, has started to impose measures towards corporation such as by enforcing environmental liability directly upon company directors and even upon chief executive officers. Securing CER through legal measure can also be found within the requirement on EIA and environmental audit which are also meant to help change corporations’ environmental values within their governance. Under the law, environmental responsibility as well as liabilities may arise in any number of business circumstances and apply to a variety of corporate and individual actors. In relation to air pollution control, the law in Malaysia imposes responsibilities on the corporation in a number of ways. For example, through environmental audit, the ISO standards certifications is applied either voluntarily or as a mandatory legal requirement allowing corporations to showcase that their environmental policies and practices conform to the standards drawn out. At the same time, corporations that attract criminal liability in respect of their operations may be found similarly liable for breaches of environmental statutes in their capacity as directors, officers, or chief executive officers of that corporation. However, one way to minimize the risk of being prosecuted for an environmental offence is in the form indemnity insurance. Under the Act, such insurance is required upon the EIA consultant which indirectly provides protection to the project proponent from wrong EIA recommendation and decisions with respect to specific environmental issues including that pertaining to air pollution.

The polluter pays principle has already been adopted in the liability and compensation mechanism on the regulations of air pollution emission by corporations. The issue is to what extent this mechanism helps enforce liability on the Malaysian companies that are causing transboundary haze pollution from Indonesia into Malaysia? Section 29A on open burning could not be applicable to such companies as its scope is limited to activities within Malaysia only even if the perpetrator has been identified to be a Malaysian company. Similar concern can be raised pertaining to section 43 on environmental liability of company director or chief executive officer relating to their daily administration and decisions that violates environmental law. This research supports an earlier study made by Kamaruddin et.al. (2016) that the scope of section 43 is confined to those within a local registered company that carries out activities within the Malaysian boundary and not beyond. There is an inherent limitation of domestic law in the allocation of corporate liability in the context of the environmentally damaging effects of multinational or transnational corporations and their foreign subsidiaries. Present position of international law does not appear to permit “piercing the corporate veil” in order to attract the liability of parent companies for the
corporate environmental liabilities of their subsidiaries as argued by Kolstad\textsuperscript{26}. Consequently, enforcement of section 43 and even section 29A on haze pollution is confined to that of local registered companies that carries out activities within Malaysian boundary only.

While existing legal framework seems unable to control transboundary haze pollution including to impose liability on the Malaysian perpetrator, the increased recognition of environmental problems as issues of international concern further demonstrates the insufficiency of national solutions to address transboundary problem\textsuperscript{27}. Even though there already exist principle of state responsibility and liability for environmental damage, a settled international legal regime has yet to emerge even within ASEAN pertaining to CER involving transboundary affect. This can be seen from the ASEAN’s multilateral environmental agreement on Transboundary Haze Pollution 2002 which lacks in provision on international environmental liability.

In a situation where limitation of domestic law hinders the right of a nation to protect the quality of its air from transboundary haze pollution, reliance on international cooperation would still be an appropriate means to secure commitment including through international cooperation. The UN General Assembly, Resolution 2849 on Development and Environment supports this contention which recognized the importance of bilateral and multilateral cooperation to solve environmental problems has become the basis for a number of international environmental treaties on the regulation of transboundary pollution. One justification for the reliance on international cooperation is that pollution such as haze is a transboundary phenomenon and has already crossed national boundaries. Moreover, pollution that originates in one state and transgress into another is very difficult for either jurisdiction to regulate effectively. It is about time that Malaysia recognises that its domestic law is rather weak and insufficient in tackling haze pollution from international sources. Malaysia must convince Indonesia that its jurisdictional ability to take action against the its own company committing transboundary pollution is very limited as it is not able to obtain jurisdiction over actors in the source state. Even if Malaysia managed to acquire such jurisdiction, it may face trouble enforcing any decree it enters. It is irony that Malaysia and even Singapore continue to suffer the environmental consequences of Indonesia’s active palm oil plantation expansion which contribute towards open burning activities resulting in transboundary haze pollution. The source state may be reluctant to impose extensive controls on local industry when


it is due to economic benefits gained\textsuperscript{28}. Given the choice between domestic economic development and foreign environmental harm, Indonesia seems to prefer choosing domestic economic growth over foreign environmental quality as past experiences have suggested so far\textsuperscript{29}.

Given the inherent difficulties in regulation by any single state, transboundary pollution would seem to present a clear case of international cooperation to resolve the issue. Thus, despite its inherent weaknesses, the platform of ASEAN can still be used to urge its member to revise some of their domestic law pertaining to transboundary pollution\textsuperscript{30}. For example, EIA laws of the ASEAN countries particularly Indonesia should aspire to include provision that directly considers how transboundary environmental effects can be addressed particularly for projects that will cause significant adverse environmental effects in another country. The recognition of EIA as a basis for sustainable development has already been accepted by ASEAN such as through the Bangkok Declaration on the ASEAN Environment 1984. Extending the scope of domestic EIA to include transboundary EIA has becoming a global trend elsewhere in a situation where environmental impact that has transgressed international boundary requiring the development of new international EIA standards\textsuperscript{31}. According to Schrage & Bonvoisin\textsuperscript{32}, one of the most common situation to carry out environmental impact assessment of transboundary projects is the one that involves two countries, namely where the project is situated and another on whose territory it may cause significant environmental effects. It can also be applicable in a situation where large-scale projects physically located in more than one country and which are likely to have significant environmental effects in each country. Transboundary EIA can be attained through bilateral or multilateral agreements that provide a binding reciprocal framework. Previous efforts towards transboundary EIA can be found within the UNECE Convention on Environmental Impact Assessment in a Transboundary Context. It can also be found within the Framework Convention on the Protection and Sustainable Development of the Carpathians, adopted and signed in Kiev in 2003\textsuperscript{33}. In both situations, the countries involved have agreed to conduct a transboundary EIA.

\textsuperscript{33} Kersten, C. M. (2009). Rethinking Transboundary Environmental Impact Assessment, 34 Yale J. Int'l L.
process through a bilateral treaty. The rationale for having a transboundary EIA is to regulate and imposed environmental liability on corporation pertaining to their large-scale projects which may trigger the environmental and socio-economic impact and even cause regional conflicts such as the large-scale burning of land for the purpose of palm-oil plantation. At the same time, the transboundary EIA regime is a practical tool monitor just how diligently a country is acting in holding the project proponent responsible for causing haze pollution. ASEAN on its part should anticipate possible resistance of certain member states on blanket prohibition against transboundary harm due to economic and other factors, thus strategy towards transboundary EIA must be structured in a way that does not infringe on state sovereignty. Experience from other nations has shown that transboundary EIA would be a practical solution if it is applied thoroughly by detailing the precautions that must be taken which can compel a state to consider in advance, the purpose of the project, its probable side effects including transboundary pollution, the range of alternative schemes, and possible mitigation measures.

Conclusion

This article outlines the scope of law pertaining to CER and environmental liability and addresses more specifically environmental issue on transboundary haze pollution affecting Malaysia. Based on the discussion above, it can be concluded that there already exists legal framework for environmental law which incorporate CER through a number of statutory provisions that impose liability on directors and officers for their involvement in the commission of an environmental offence by a corporation. The ability of law in managing corporation’s environmental performance is emerging as a strategic issue for many companies worldwide. However, key question is whether the scope of existing law can be extended to include corporate liability in relation to transboundary haze pollution. This issue is being raised mainly as a response to the contention that it is Malaysia that should take the responsibility over its own companies that were involved in open burning activities in Indonesia causing transboundary haze pollution. The ASEAN agreement on transboundary haze pollution was a reasonable attempt to achieve progress in confronting transboundary air pollution problems. Unfortunately, the provision for inter-state liability for environmental damage is currently limited in its application international law and not included within the scope of this ASEAN agreement. Given that transboundary harm is a concern in ASEAN, and that taking actions against a company that causes transboundary haze pollution requires international intervention, Malaysia and other member states must continue to find the

answer in how to best address it such as through the incorporation of CER within the transboundary EIA of respective member states. What more, the idea that environmental pollution does not stop at the border has already emerged for a long time, in particular after the 1972 Stockholm Declaration. On the part of Malaysia, reliance on domestic law alone is gravely insufficient because the law currently has little application in the transboundary context, and is not ideal mechanisms to address transboundary harm.

Acknowledgements

This work was supported by the Ministry of Higher Education Malaysia and the International Islamic University Malaysia.
Creating a Harmonious Environment: Special Consideration to the Family Unit

Daleeleer Kaur Randawar¹ and Sheela Jayabalan²

¹, ² Faculty of Law, Universiti Teknologi MARA, Shah Alam, Selangor Darul Ehsan, Malaysia
¹dolly_uitm@yahoo.com

Abstract

Keeping peace and harmony in a society is important. A peaceful society will essentially boost the economic, social and political status of a country. To achieve harmonious environment in a society, a happy, healthy and functional family is required. In today era of globalization, humans are faced with various form of challenges and hurdle to overcome with. Even a family unit is not precluded from various obstacles. This includes domestic violence, divorce, failure to provide maintenance during marriage and same sex marriages. Parents need to present a unified front in order to ensure stability in the home. This article will emphasize on some these obstacles and how it has impacted the family institution for a harmonious environment. Children growing in a healthy happy environment helps in a child’s health development and future achievements. Living in a good happy environment increases the likelihood that a child will develop positive social relationships.

This article adopts a doctrinal analysis of primary and secondary sources. This study adopts a critical analysis approach of the legislation. Its aim is to explore, revise and improve the concept, theory, principles, and application of law. In other words, the research adopts the method of legalistic analysis that emphasizes on legal problems and issues. Legal research relies on primary and secondary data with the former referring to legislation and court cases from Malaysia. Cases decided by courts are primary documents in legal research. In this study, we have adopted court cases for use as examples to explore obstacles faced by families in Malaysia involving domestic violence and divorce which affects the congruous environment in a family unit. Qualitative approach considered as non-empirical and less rigorous compared to quantitative research, but it is more suitable for legal research as it is more in-depth and flexible in critical social science.

Keywords: Divorce, Domestic Violence, Environment, Family, Harmonious.
Introduction

Peace and harmony in a society is important as a peaceful society will essentially boost the economic, social and political status of a country. To achieve harmonious environment in a society, a happy, healthy and functional family is required. In today era of globalization, humans are faced with various form of challenges and hurdle to overcome with. Even a family unit is not precluded from various obstacles. This includes domestic violence, divorce, failure to provide maintenance during marriage and same sex marriages. In West Tripura, India, it was found that comparatively women in nuclear families were more able to be concerned about their pride and dignity than their counterparts in joint or extended families.\(^1\) Hussain, Samsurijan, Ishak and Awang explained that neighbourliness is essential for social wellbeing as a combination of family ties and good neighbourliness promotes social cooperation and solidarity.\(^2\) Hassan, Yosooff and Alavi in their article gave an overview on the importance of the level of family health in generating a prosperous community, wherein prosperity in a family means that every unit of the family are free from social problems, free from divorce cases, free in making positive, independent decisions and free in making a living for their family.\(^3\) Children growing in a healthy happy environment helps in a child’s health development and future achievements. Living in a good happy environment increases the likelihood that a child will develop positive social relationships. Risky families which are characterized by conflict and aggression and by relationships that are cold, unsupportive, and neglectful create vulnerabilities and/or interact with genetically based vulnerabilities in offspring that produce disruptions in psychosocial functioning.\(^4\)

Although these writings discussed about the family and environment, it does not adequately measure the shortcomings of the problems faced in a family which impacts upon the environment and society at large.

To address this shortcoming, this article examines court cases as examples to explore obstacles faced by families in Malaysia involving domestic violence and divorce which affects the congruous environment in a family unit. When the quarrels, squabble and altercation are brought out to the notice of public, it does impact on the environment and surrounding. Some wrangles

that occur in a home are spewed out to the public which does have a significant impact on the society and environment. These squabbles, shouting and tussle which are demonstrated in public does to an extent create disharmony and chaos in the society and environment at large.

**Meaning of Environment**

Environment basically deals with surroundings or conditions in which a person, animal, or plant lives or operates. Section 2 Environmental Quality Act 1974 clearly defines the meaning of “environment” and “environmental risk” as:

“environment” means the physical factors of the surroundings of the human beings including land, water, atmosphere, climate, sound, odour, taste, the biological factors of animals and plants and the social factor of aesthetics.

“environmental risk” means any risk, hazard or chances of bad consequences that may be brought upon the environment;

Hence, every human has the right to live in physical comfort and safe environment as it is a global recognition of a human right to live in safe and healthy environment. No human should be deprived from living in a peaceful environment as everyone in the society bears a solemn responsibility to protect and improve the environment for present and future.

**Challenges to the Family Unit**

The rudiments of every society are the family unit. The family usually is the most essential basis for the care, upbringing and wellbeing of every member. To achieve harmonious environment in a society, a happy, healthy and functional family is required. In today era of globalization, humans are faced with various form of challenges and hurdle to overcome with. Even a family unit is not precluded from various obstacles. This includes domestic violence, divorce, failure to provide maintenance during marriage and same sex marriages. A study in Uttar Pradesh stated that marriage does change the living environment and the behavioural patterns of Indian women and hence it is imperative for them to develop new skills to help them cope and manage their new life challenges. Moreover, a study conducted in Calabar Metropolis, Nigeria revealed that for both married and single women, housework and child care are both very stressful and combining both

---

5 (Act 127) An Act relating to the prevention, abatement, control of pollution and enhancement of the environment, and for purposes connected therewith.  
tasks with paid employment is even more demanding.\(^7\) Results further showed that the highly demanding task of having to combine childcare and housework with paid employment results in incidences of negative attitudinal trends among subjects.\(^8\)

Various forms of challenges and obstacles are faced by a family unit which directly or indirectly does to an extent effect the environment. The prevalence of domestic violence does impact on families, society and even the economy. Afolabi study showed that a risky and harsh early family environment exacerbates disturbances in children’ physiological and neuroendocrine responses to stress and has long term adverse implication on their mental health.\(^9\) Children who grow up in abuse usually are very fearful and anxious about their surroundings.

Domestic violence is a pattern of behaviour which involves violence by one person against another in a domestic setting, such as in marriage or cohabitation. No doubt, it happens in a domestic setting (family), it may at times occur outside the home. When such violence occurs outside the home, it does impact on the society and environment. In the case of Ngieng Shiat Yen v Ten Jit Hing\(^10\), wherein the husband started beating the wife approximately one year after the marriage and on one occasion following an argument between them, the husband locked the wife and their three children outside their shared residence. Similarly, in the case of Jennifer Patricia a/p Thomas v Calvin Martin a/l Victor David\(^11\) the husband and the wife encountered problems with their marriage in January 2004 after which the husband denied the wife entry to the matrimonial home. These cases reflect the fearless behaviour of the husbands in evicting out their wives from the matrimonial home whom have bravely brought the quarrels out to the notice of public. Locking the wives out of the house depicts an unpleasant scene to the society.

In another case of Jayakumari A/P Arul Pragasam v Suriya Narayanan A/L V Ramanathan\(^12\), the wife was assaulted by the husband who also used foul and abusive language on her solicitors when the solicitors issued the husband a letter exploring the possibility for an agreement to present a joint petition for divorce by mutual consent. The husband in the above case has spewed out his

\(^8\) Ibid
\(^10\) (2001) 1 MLJ 289
\(^11\) (2005) 6 MLJ 728
\(^12\) (1996) 4 MLJ 421
tactless and disrespectful behaviour onto others. In this case, the husband may feel bold and heroic of his behaviour but least that he knows, society perceives this as atrocious and ill-mannered.

Domestic violence is a private matter which occurs within a home. However, in the case of Renuka a/p Muniandy @ Ramakrishnan v Jeeva a/l Kalia Perumal\textsuperscript{13}, violence which is to occur within the four corners of the home was seen to be happening in public. The husband in this case would come to the government school where the wife was teaching in and create a ruckus and commotion. The husband even chased the wife and the 3rd son out of the house and later caught hold of them and he threw the 3rd son who was then an infant to the grass in the compound. He even grabbed wife by her neck and started choking and strangulating her. The husband even harassed the wife’s babysitter and warned her to stop caring for the said children of the marriage.

The wife’s PhD books and materials were also torn by the husband in his effort to prevent the wife from furthering her doctorate studies, which the wife was pursuing in Universiti Sains Malaysia. The husband had even called the wife’s university lecturer and told them not to give her the opportunity to represent the University to Netherlands for an environmental conference, which the wife was selected for.

The husband even went to the wife’s parent’s house and started carrying huge stones and throwing it into the house. The husband threw a large stone and broke the wife’s car windscreen. The husband then climbed over the gate and barged into the house. He damaged the grill and then assaulted and injured the wife. The eldest son was punched when he came to protect the mother from being physically assaulted by the father. The wife ran out of the house and sought her neighbours help. The husband damaged all the vases and pots in the wife’s parent’s house. The husband even damaged the wife’s brother’s car and the wife’s car too.

Divorce too can have an impact on the family’s financial stability and the social environment in a society. In the case of Thurlow v Thurlow\textsuperscript{14}, husband lived with a wife who suffered from epileptic fits. Her condition was due to her epilepsy and a severe neurological disorder. She became bad-tempered and threw objects at her mother in law as well as causing damage by burning household items. Her act of burning the household item endangered the mother in law as well as the society and environment.

\textsuperscript{13} (2017) MLJU 411 \\
\textsuperscript{14} (1975) 2 ALL ER 979
Furthermore, in the case of *Kiranjit Kaur Kalwant Singh v Chandok Narinderpal Singh*\(^\text{15}\), the husband’s conduct had caused deep humiliation and untold embarrassment to the wife since the blog posted by the husband on the internet operated in a borderless realm and would continue to exist until the creator of the blog removed it. The husband’s slanderous statement equating the wife to a prostitute and a swindler had damaged the wife’s reputation as a woman and a human being and would continue to haunt and harass the wife even after the blog is removed from the internet and extended over a period of time from the past into the future.

In *Loh Kwee Eng v Phua Nai Peng*\(^\text{16}\), the husband and wife had three children, aged 24, 17 and 13. The wife alleged that the husband did not contribute financially to the upbringing of the children, frequently disturbed the peace of the family by making noise, beating her and their children daughters. Additionally, in the case of *Tan Keok Yin v Cheah Saw Hong*\(^\text{17}\), the husband asserted that the wife began a trail of harassment and harmful activities to discredit the husband and undermine his position in the workplace such as calling and imposing on the husband’s superior and disturbing close friends and relatives of the husband. Such idiosyncratic act of the wife creates a very unpleasant environment.

**Conclusion**

Hence, we can see from the cases above, that any form of tiff or brawl in a family which is paraded or exposed to the public do have an impact on the society and environment outside. Family issues are seen to be private matters, but when these issues are brought to the society’s attention, it does affect the outside peaceful environment and the society at large. The spectacle of some people washing their dirty linen in public is not only distinctly embarrassing but also impacts on the well-being and safety of the society living in an environment. Attention to safe and peaceful environment is not just about being socially responsible. Everyone should regard safe environment as just as important as the achievement of any other key business, work or entertainment objective. Such ill-mannered, barbaric and horrifying behaviour of some people which is witnessed by the society impact on the safety and well-being of the environment.

\(^{15}\) (2010) 3 CLJ 724
\(^{16}\) (2012) 7 MLJ 343
\(^{17}\) (1991) 2 MLJ 266
Transboundary Haze Pollution and the Legal Framework at National Level with Respect to Malaysia and Singapore

Nurulnabila Anis Mat Seman¹, Maizatun Mustafa² and Mohd. Hazmi Rusli³

¹, ²Ahmad Ibrahim Kulliyyah of Laws, International Islamic University Malaysia, Jalan Gombak, P.O. Box 50728 Kuala Lumpur
³Faculty of Syariah and Law, Universiti Sains Islam Malaysia, 71800 Nilai, Negeri Sembilan.
²maizatun@iium.edu.my

Abstract
This paper presents an overview of transboundary haze pollution which has been a serious environmental issue both in Malaysia and Singapore. This cross-border pollution that affects countries in the Southeast Asia region is the result of emission of smoke due to land or forest fires from Indonesia. Being geographically adjacent to Indonesia, both Malaysia and Singapore suffer more severe impacts as compared to other Southeast Asia countries. In the efforts to maintain good air quality and combating transboundary haze pollution, the aim of this paper are to analyse the concept of transboundary haze pollution and to examine causes of haze that originates from Indonesia. The paper then examines impacts of transboundary haze pollution to Malaysia and Singapore in the context of public health and economy. Finally the paper proceeds to discuss existing legal framework of both Malaysia and Singapore relevant to transboundary haze pollution control. The paper concludes that while the legal framework of both countries is sufficient in terms of controlling domestic haze pollution, such framework needs to be supported by international law in order for both countries to address the transboundary pollution and to protect their air quality more effectively.

Keywords: Air Quality, Forest Fire, Legal Framework, Transboundary Haze Pollution.
Introduction
The haze problem in Southeast Asia is largely caused by emission of smokes from agricultural fires due to industrial-scale slash-and-burn practices in Indonesia. Because of their geographical proximity to the larger islands of the Indonesian archipelago and prevailing wind patterns, Malaysia and Singapore are most affected by Indonesia haze. While haze pollution itself is causing various problems due to its negative effect on health and environmental impacts, the problem turns out to be more complex and problematic when it involves transboundary haze pollution. Being transboundary in nature, there are numerous legal complications with regards to rights and liabilities in relation to haze problem. The affected countries like Malaysia and Singapore unfortunately unable to take any direct action against the perpetrator as the source of the fires or haze lies within the jurisdiction of Indonesia and are left with almost no definite solution to claim compensation against Indonesia. This brings about questions of environmental justice and leads to resentment in Malaysia and Singapore.

Materials and Methods
This paper adopts the method of qualitative research. It employs descriptive assessment and critical analysis relating to the problem of transboundary haze pollution in Malaysia and Singapore. It includes the primary and secondary sources. The Primary source includes the statutes, rules, regulation and the secondary source includes books, academic journals and newspaper articles relating to transboundary haze pollution in Malaysia, Singapore as well as Indonesia.

Results and Discussion
The Concept of Transboundary Haze Pollution
Transboundary haze pollution is more than mere haze pollution as it inflicts jurisdictional conflict between states since the air pollutant which is made of fine particles has the ability to travel extensive distances up to thousands of kilometres crossed national boundaries. In other words, transboundary haze pollution is a situation whereby potentially harmful environmental agent is released in one political jurisdiction (the source state) and physically migrates through a natural medium in the form of deposition of airborne pollutants across national borders of the affected state. While haze pollution concerns about dust, smoke and other dry fine particles dispersed at a high concentration through a portion of the atmosphere which obscure the clarity of the sky, transboundary haze pollution appears to be the same situation but beyond the national boundaries.
Domestic haze pollution can come from various sources. According to Mustafa & Rusli\(^1\) and Salihuddin\(^2\) apart from uncontrolled open burning, emission of smoke both from motor vehicle and industrial emission are main causes of domestic haze pollution in Malaysia. Whereas the emission of smoke resulted from industrial scale slash and burn activities in Indonesia especially in the province of South Sumatra and Riau in Indonesia's Sumatra island, and Kalimantans on Indonesian Borneo have been identified by to be the sources of transboundary haze pollution in Malaysia.\(^3\) Previous studies have shown that burning method is resorted because it is the cheapest and fastest way to clear it for new planting as compared to the other method of excavation\(^4\). Besides, the burnt soil is very fertile for the purpose of agriculture which make the value of the land is higher compared to ordinary one.

While the domestic haze pollution is giving so much burden to Malaysia, it turns out to be more complex and problematic when involving transboundary haze pollution. In fact, the complexity of transboundary haze pollution has led to a number of difficult issues. Among these issues includes the question of attribution in the sense whether Indonesia as a source state is legally responsible for transboundary haze pollution emanating from facilities operated by persons within its territorial jurisdiction. The complexity of haze pollution issue is compounded by the fact that there is no clear relationship between how much pollution Indonesia emits and how much is deposited onto the affected state.\(^5\) As a consequence, the exact amount of losses caused by Indonesia is difficult to be determined what more to directly impose punishment upon Indonesia. Consistent with the polluter pays principle, Indonesia should bear the cost of its pollution. In theory, both Malaysia and Singapore could argue that it is fair to make the Indonesia bear the costs of its pollution, but in practise, it is difficult to compel Indonesia to agree because of this imbalance of interests. Therefore, it is the concern of this paper to compare and examine existing domestic law of Malaysia and Singapore on haze pollution.

---

\(^1\) Maizatun Mustafa and Mohd Hazmi Mohd Rusli, ‘The Position of Environmental Law in Malaysia in Dealing with Domestic and Regional Air Pollution Problems’ (2016) 3 Jurnal Sultan Alauddin Sulaiman Shah 155.


The Transboundary Haze Pollution in Malaysia and Singapore

Indonesia National Institute of Aeronautics and Space revealed that the estimated area of land and forest fires in Indonesia reached 2,089,911 hectares, which is calculated from 1 July to 20 October 2015. That number includes 618,574 and 1,471,337 hectares of peat land and non-peat land respectively. The problem of transboundary haze pollution become worsen if it involves peat soil, which characterises much of the affected areas, since it is highly flammable, causing localised fires to spread and making them difficult to stop. The burning of carbon-rich peatland would send off acrid smoke, dust and dry particles into the atmosphere thereby forming haze. Alarmingly, these fires cause up to 90 per cent of the haze that plagues health at a regional level, releasing three to six times more unhealthy airborne particulate matter than fires on other types of soil. At the same time, a concern was raised that the recurrence of the El Nino-Southern Oscillation phenomenon has also contributed to the particularly dry season and intensified the pervasiveness of forest fires and consequently transboundary haze pollution.

Being geographically adjacent to Indonesia, both Malaysia and Singapore have suffered from poor air quality in the event of transboundary haze pollution. Whenever the reading of Malaysia’s Air Pollution Index (API) or Singapore Pollution Standards Index (PSI) reached the unhealthy level due to transboundary haze pollution, it means that human health is at risk. Exposure to haze pollution particles can be detrimental to health. Particulate mattes especially with the size smaller than 2.5 micrometres can cause health symptoms of irritation of the eyes, nose, and throat, coughing, difficulty in breathing, cold attacks and chest pain in healthy individuals and more extreme symptoms towards unhealthy person as well as children. From medical perspective, these symptoms occurred when sulphur dioxide and nitric oxide gases which are part of the haze come into contact with the mucus membranes of the upper respiratory tract or the conjunctiva.

In the event of haze, both Malaysia and Singapore had been forced to bear the cost in mitigating the haze pollution. Latest studies have identified there are different types of cost incurred. These include the cost in providing medical treatment towards citizens who suffer health problem due to

---

haze pollution\textsuperscript{10}, loss in industrial production caused by temporary unfit workers which can be translated as loss of productivity of country\textsuperscript{11} as well as of declining tourism sector and recreation in haze-affected areas which affected performance of businesses and overall gross domestic product including the cancellation of flights and shut down of schools.\textsuperscript{12}

In 2014, the total economic cost of the haze impacts on Peninsular Malaysia was estimated to be MYR 1,494.4 million. The haze caused a significant reduction in work output and the country’s productivity had been affected. When this happened, the country suffers loss in its income and subsequently there is no money flow in to the country which may lead to the depreciation of Malaysia currency. The most significant economic impact of the haze was the impact it had on people’s opportunities to earn an income. According to Shahwahid, in the case of Malaysia, haze pollution has resulted in the household having to bear an average of MYR 182.05 per household. When calculating the same cost for the whole of peninsular Malaysia, the figure derived was a staggering MYR 958 million, which is over 64 \% of the total economic cost of the haze\textsuperscript{13}. Singapore also had suffered economic loss due to transboundary haze pollution. The worst haze in 1997 cost Singapore S$300 million, while a milder event in 2013 was estimated to be S$50 million for the total cost of losses in terms of health, tourism, and business losses. In 2015 haze episode which was caused by forest fires in Indonesia and exacerbated by a severe El Nino effect, Singapore has estimated S$700 million of losses.\textsuperscript{14}

The law on Haze Pollution in Malaysia

In Malaysia, API which includes five major pollutant components which are carbon monoxide, ozone, nitrogen dioxide sulphur dioxide and suspended particulate matter is being used to describe the ambient air quality measurement.\textsuperscript{15} API plays the important role to determine the level of air pollutants together with its associated health effect. Presently, Malaysia is practising continuous

\textsuperscript{13} Mohd Shahwahid, ‘What impact is the haze having on Peninsular Malaysia?’, (2016) No. pb20160416 Economy and Environment Program for Southeast Asia (EEPSEA)
\textsuperscript{14} Olly Barrat, Haze episode cost Singapore estimated S$700m last year: Masagos (15 March 2016) <http://www.channelnewsasia.com/news/singapore/haze-episode-cost-singapore-estimated-s-700m-last-year-magos-8147924>
air quality monitoring whereby the monitoring is done by Department of Environment through a network of 52 strategically located stations in residential, traffic and industrial areas.\textsuperscript{16} Apart from that, the National Air Quality Monitoring network is also being supplemented by manual air quality monitoring stations at 19 different sites to measure total suspended particulate, particulate matter (PM10), and several heavy metals.

The law on haze, though not specifically mentioned is being governed by Environmental Quality Act (EQA) 1974 under the purview of air pollution with the enforcement agency of the Department of Environment under the Ministry of Natural Resources and Environment. This can be illustrated by section 22 of the Act which provides for the restrictions on the pollution of the atmosphere regardless of the sources. Generally, there is a limit in pollutants emission, but a licence may be given by the Director General to provide for an exception as to the amount of emission prescribed limits. It is worth to note that while section 51 of the Act give power to the Minister to make regulations aimed at environmental protection and pollution control, exception given to the prescribed limit of pollutants emission defeat the purpose of the section. Further, in response to seriousness of haze pollution, a new section of 29A has been incorporated to provide for a complete ban on ‘open burning’ which had been identified as major contributor to haze pollution besides resorting to Environmental Quality (Declared Activities) (Open Burning) Order 2003.

Corresponding to the major contributor of haze pollution in Malaysia which include industries and power plants, emission from motor vehicles, and open burning activities, the applicable law does not confine to EQA 1974 per se. There are few others relevant Regulations that were implemented to cater the problem of haze pollution in accordance with the type of pollutants sources such as Environmental Quality (Clean Air) Regulations 2015, Environmental Quality (Control of Emission from Petrol Engines) Regulations 1996, and Environmental Quality (Control of Emission from Motorcycles) Regulations 2003. For instance, the Environmental Quality (Clean Air) Regulations 2015 is responsible to specify ambient standards of gaseous emission for stationary air pollution. This regulation adopts best practical means requirement in the sense of taking into account the latest technological advances and standards adopted by developed and

regional countries for the purpose of preventing the emission of noxious or offensive substances and subsequently control the air quality status.\textsuperscript{17}

Apart from these laws and regulations, Malaysia do embrace the National Haze Action Plan which states the guidelines and the standard operating procedure in tackling haze pollution issue. In addition, Malaysia, through the Department of Environment conducts the aerial surveillance program to detect air pollution due to activities such as open burning and industrial emissions.\textsuperscript{18}

Another form of management directly relevant to air pollution monitoring is the Fire Danger Rating System programmed conducted by the Department of Meteorology Malaysia\textsuperscript{19}.

After few series of amendment since its establishment in 1974, it is not overwhelming to say that the EQA is a comprehensive legal instrument in protecting the national environment. Notwithstanding its comprehensiveness, EQA 1974 is lacking in terms of its protection upon transboundary pollution. The provision failed to appreciate the notion of transboundary haze pollution when it was only relevant to tackle the issue of domestic haze pollution and nothing had been mentioned about open burning happened abroad which affected the air quality in Malaysia.\textsuperscript{19}

Regrettably, in the 2015 haze episode which was reported to be among the worst incident after the API reading on September 2015 were beyond hazardous level due to forest fires in Indonesia, to this end, there is no specific law in Malaysia that govern and regulate the matters regarding the transboundary haze pollution.

With the domestic piece of legislation covering domestic pollution, environmental law in Malaysia provides no definite solution in addressing the transboundary haze pollution. Hence, the inexistence of such a law and limitation of Malaysian domestic law prevent Malaysia from taking action against Indonesia as it involves the matter of sovereignty and jurisdiction of a state unless the action is taken under the purview of international law.


The law on Haze Pollution in Singapore

As another victim state which suffered similar impacts, Singapore seems to be more advanced as compared to Malaysia by initiating the dynamic steps in passing a new law on transboundary haze pollution. Similar to Malaysia, Singapore is suffering from few series of haze incident during the forest fires taken place in Indonesia. After several incident of transboundary haze that have been engulfing Singapore, in July 2013, the Ministry of Foreign Affairs, Ministry of Law, and Ministry of the Environment and Water Resources embarked on a study of the appropriate legislative structure and reforms needed to deter, and take action against, entities responsible for transboundary haze. The new Transboundary Haze Pollution law which was enacted to penalize entities found to be guilty of contributing to the transboundary haze was passed unanimously in the Singapore parliament on August 5, 2014.

Prior to the enactment of the Transboundary Haze Pollution Act, environmental issues in Singapore had been handled the Environmental Pollution Control Act (EPCA) 1999 and its subsidiary regulations of Environmental Pollution Control (Air Impurities) Regulations 2000. This law and regulation were administered by the National Environment Agency which was established in 2002 under the supervision of Ministry of Environment and Water Resources. The Environment Pollution Control Act (EPCA), which was effective since 1st April 1999 consolidates the separate laws on air, water and noise pollution and hazardous substances control before its title was amended on 1st January 2008 to be known as the Environmental Protection and Management Act (EPMA). The changes of the title is believed to provide for a better protection and management of the environment and resource conservation besides serve its main purpose of providing a legislative framework for the control of environmental pollution in Singapore.

However, despite such amendments, existing environmental related laws were not formulated to deal with transboundary haze pollution and the protection towards air quality. Rather, they are merely sufficient to stipulate emission standards for air pollutants that caused domestic haze in Singapore. In fact, no word of ‘haze’ can be found in the Act. Such limitation has caused a difficulty to Singapore to take action against the responsible entities that causing the problem of transboundary haze.

---

21 Saifulbahri Ismail, Singapore cannot enter Indonesia’s legal domain on forest fire issues: Forestry Minister (14 June 2016) <http://www.channelnewsasia.com/news/asiapacific/singapore-cannot-enter-indonesia-s-legal-domain-on-forest-fire-1-7975016>
Finally the passing of Transboundary Haze Pollution Act which incorporates the extra-territorial mechanism in the Act creates liability for entities engaging in setting fires abroad that cause transboundary smoke or “haze” pollution in Singapore. It is worth to note that this legislation which tilts towards deterrence and prevention is not targeting the individual State, but the private parties who are responsible in engaging with the conduct that causes or contributes to any haze pollution in Singapore.\textsuperscript{23} Thus, Singapore government is of the view that the legislation passed is neither about national sovereignty nor it shall inflict the jurisdictional conflict issue.\textsuperscript{24}

In the event of causing haze pollution in Singapore, a person is guilty of an offence and shall be liable for the penalties of which includes a hefty fine of not exceeding S$100,000 and a further fine of not exceeding S$50,000 for failure of compliance and each day the activity continues.\textsuperscript{25} According to section 6, the affected parties may also bring civil suits against entities causing or contributing to haze pollution in Singapore. 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).

While the enactment of the Act is meant to allow Singapore to take action against those who has caused open burning beyond its national boundary, this new law nevertheless works on the presumption basis which casting a wider net on perpetrators.\textsuperscript{26} In this regards, the Act presumes that if there is haze pollution occurs in Singapore, about the same time that there is a fire in a land outside Singapore, and the smoke from that fire is moving in the direction of Singapore causing the transboundary haze pollution, thus guilty of an offence under the 2014 Act. Yet when dealing with the presumption, there is issue of causation that need to be looked into as to whether or not the direct linkage of the fires and haze pollution is established. As such, it gives the impression that the Transboundary Haze Pollution Act 2014 is one kind of unilateral move made by the Singapore government to bring in greater pressure on Indonesia in order for proper action that supposed to taken by Indonesian government especially on the big plantations that causing fires.


\textsuperscript{25} Transboundary Haze Pollution Act 2014 s.5

\textsuperscript{26} Transboundary Haze Pollution Act 2014 s. 8
As transboundary haze pollution is a pollution that involves more than one country, it falls under the realm of international environmental issue. However, despite this fact, at the moment, there exist only one international instrument that regulates the issue of transboundary haze pollution in Southeast Asia which is the ASEAN Agreement on Transboundary Haze Pollution 2002. This Agreement which has the objective of calling upon all States to take legislative, administrative and/or other measures to implement their obligations to prevent and monitor transboundary is the only international instrument that applicable to Malaysia and Singapore in dealing with transboundary haze pollution. Nonetheless, it is concerned when dealing with ASEAN, there are many protocols, traditions and principles that need to be observed like the non-interference and non-confrontation principle. The embracement of ASEAN Way also would not be able to hinder the Indonesia from any conduct that lead to transboundary haze pollution which at the end might defeat the purpose of having such an Agreement.

The new 2014 Act of Singapore is in fact in line with international law principles, which do permit a country's laws to have extraterritorial jurisdiction in some instances and is based on the objectives of this ASEAN Agreement. As such, the enactment of the 2014’s domestic law on transboundary haze pollution by Singapore is a drastic measure for this nation to protect itself from the consequences of haze.

**Conclusion**

Transboundary haze pollution is a complex issue that inflict many wellbeing and securities of sectors, communities, nations and regions as no single solution will work to address this issue. Instead, in addressing the issue of transboundary haze pollution, it requires cooperation from all stages including international, regional, national and even local levels. While it is undeniable that addressing transboundary haze pollution is very challenging in terms of the implementation of the law and its limitation at the domestic level, Malaysia should be more committed towards the control of air pollution especially regarding its transboundary effect. Though facing with the same situation, Malaysia and Singapore are seen to be handling the haze pollution in different ways. It is obvious enough that Singapore has taken earlier step to establish the law in tackling the issue of haze, meanwhile Malaysia is still at the old notch by relying on the existing legal framework in protecting and maintain quality of air. Devastated by inexistence of specific law on transboundary haze pollution should not be an excuse for Malaysia to stay silent on the matter. Instead, the new

alternatives should be sought and it is something to ponder for Malaysia by looking at Singapore Act 2014. Hence, it is hoped that Malaysia can learn a new way of managing the issue of transboundary haze pollution from Singapore and improve on the current legal framework in order to protect the air quality of the country.

Acknowledgment

This research was supported by the Fundamental Research Grant (FRGS) under the Ministry of Higher Education Malaysia.
Public-Private Partnership in Cultural Heritage Sustainable Development: Malaysian Experience

Azni binti Mohd Dian¹, Normawati bt Hashim², Norha Abu Hanifah³

¹-² ³Faculty of Law, Universiti Teknologi MARA, 40450 Shah Alam, Selangor Darul Ehsan
¹azni378@salam.uitm.edu.my

Abstract

The importance of a Private-Public Partnership (PPP) and cultural heritage sites sustainability could not be denied. Even though Malaysia has introduced the PPP as one of its economic advancement strategies in 1981 through Privatization Programmes, there are no deliberate efforts to promote PPP in cultural heritage conservation domain. In many other developed countries, the cooperation between the industry and culture is a well-known cultural heritage practice namely in the development of heritage management, funding, scientific, technical, and research. Through this endeavor, it is not merely acknowledged as a new way to deliver public sectors’ heritage related projects but have also enhanced the local community engagement to which the heritage belongs. Consequently, the cultural heritage sites sustainable development is reinforced. Hence, this article aims to examine why and how the PPP approach could extend the heritage sustainable process as implemented by other jurisdictions. This qualitative research applies a doctrinal approach whereby the implementation of the PPP in heritage protection initiatives as experienced in some selected countries was analysed. The findings revealed that while the application and implementation of the PPP in other jurisdiction have some positive impacts on the growth of the cultural heritage preservation, the position in Malaysia is at its infancy stage. Thus, this article recommends that relevant public authorities set strategic directions to explore and extend the cultural heritage conservation based on PPP method so that the private agencies would be encouraged to invest and subsequently complemented the corporate social responsibility.

Keywords: Conservation of Cultural Heritage, Public and Private Partnerships, Sustainable
Introduction

After the introduction of the National Heritage Act 2005 (Act 645), the attention given to the protection of heritage building has begun to grow rapidly in Malaysia. In 2008, Penang and Melaka became the first two states that gained the world heritage title known as “the World Historic Cities of the Straits of Malacca”. With this prominent title, Malaysia started to make the necessary adjustment and arrangement to oversee the heritage sites activities, not only on its the world-historical cities but also to cover the local heritage sites, comprises of the national and state heritage sites. Although Act 645 is said to be timely introduced to regulate the heritage designation and conservation process, unfortunately, it places a high financial burden on the heritage owners to maintain the heritage buildings.1 As a result, it has caused some adverse impacts that may be detrimental to the objectives of Act 645 whereby many heritage buildings were left to deteriorate while some have also decided to sell them to foreigners for better proceeds.2 Financial assistance established by the State and Federal governments in the form of grants and loans offered by the state governments is limited and subject to various conditions which are not rewarding to the heritage owners. Hence, the cooperation between the public bodies and private companies is endorsed to be one of the best alternatives to fund and operate joint initiatives in planning, decision-making and distributing benefits to satisfy the heritage conservation needs.3 The aims of this article are to provide a review of the Malaysian PPP for possible future investments in cultural heritage sites but the discussion limits to tangible heritage. The review is conducted through extensive literature reviews of relevant documents and publications. This article is structured into a brief overview of the concept of PPP followed by the discussion on several challenging factors that PPP practice may be of help to foster the heritage assets management system. Some recommendations which could intensify cultural heritage preservation management based on PPP concludes this article.

PPP was not given appropriate attention in the cultural heritage sustainable development mainstream despite its wide acknowledgment of its great potential to contribute to social, economic and environmental goals. PPP relates to a long-term contract between a private party and a government entity, whereby the private sector delivers and funds public services using capital assets, bears the significant risk and management responsibility. The evolution of PPP benefits heritage sustainable development, in the social, economic and environmental spheres.

Many writers demonstrated that in order for the cultural heritage sites to be inclusive, safe, resilient and sustainable, PPP has been widely used to support the heritage conservation practice. They relate to heritage interpretation, research and technology, human resources and funding. Subsequently, many researchers have disclosed that the PPP approach has successfully enhanced the democratic principles in the local authorities by encouraging two-ways of communication, increase the economic activities, quick delivery of the project and service enhancement, increased level of accountability, efficiency, and effectiveness. Having said that, no matter how great the partnership is, it will only consequential if the people's interests are prioritized. Thus, the role of citizens in the heritage designation could not be under-estimated.

In Malaysia while the concept of PPP has been long introduced via various policies and strategies among others, the Privatization Policy (PP) of 1983, the Private Finance Initiative (PFI) of 2006, and the Public Private Partnership (PPP) of 2010, many of the private sectors in this context,

---

however, are the creation of the State or Federal governments. For example, Think City Sdn. Bhd. (TCSB) a private agency has cooperation arrangement with the local authorities to rejuvenate cities through public grants and programs in facilitating communities’ initiatives to develop capacity and skills. For that purpose, in 2018, TCSB has approved RM16.5 million total grants to rejuvenate the historic city of George Town, Penang and RM74 million for other related project expenditure. Another private organisation, the George Town World Heritage Incorporated (GTWHI) tasked by the Penang government to protect, promote, and preserve the heritage site. Indirectly, the fate of heritage places depends on the spirit of Federal or State Government that may have a final say in the decision-making process. In some other PPP projects, such as in the management, maintenance, refurbishment and replacement of public sector assets payments for these projects may come from the government own companies such as the government-owned Pension Funds, Hajj Pilgrims Fund (Tabung Haji) and Employees Provident Fund (EPF). Inevitably, the success of execution of the PPP is thus subject to the political wills.

In strengthening the collaboration practice, partnership incentives to the private sectors should be attractive such as via tax exemptions or deductions. In Singapore, for instance, the government provides an exemption of property tax for properties used for charitable purposes by the NGOs or for heritage monuments owned by religious institutions. Another tax exemption is known as the “Tax Exemption for Donations to National Monuments” administered by the Preservation of Monuments Board to assist heritage site owners or the NGOs to raise fund to protect and maintain the heritage monuments. Further, the Singapore Urban Redevelopment Authority shall waive the payment of development charges for any development within a conservation area. In Malaysia, the main focus of the PPP projects and its implementation were on the planning and infrastructure sectors, while a similar approach in heritage sustainable programs is yet to be tested.

PPP Roles in Heritage Conservation Projects

In Malaysia, two (2) relevant public sectors at the federal government level that involve in the built heritage preservation task are the Ministry of Information, Communication and Culture which oversees the designation process and the Ministry of Housing and Local Government having the roles of managing the planning and protection of heritage after completion of the heritage designation. As public partners in both the designation and management process, the issues of finance are inevitable and at this juncture, the PPP plays a crucial role to assist. In the designation process, Act 645 empowered the Commissioner and Minister to nominate and designate sites that have satisfied certain criteria as a heritage site or national heritage respectively.

In advising the Minister and Commissioner of Heritage on heritage sites issues and related matters, Act 645 provides for the formation of a National Heritage Council (Section 9(1) of Act 645. Heritage management that relates closely to the planning system is about addressing development and change. The role of the Local Planning Authority in attending to the needs of the planning development is not only restricted under Town and Country Planning Act 1976 (Act 172), it but extends to a greater duty to comply with the World Heritage Site Convention and Operational Guidelines for the Implementation of World Heritage Site Convention in undertaking world heritage areas. There are several challenging factors that PPP could assist both Heritage Department and Town and Country Planning Department in the designation and conservation development among others, the issues of high maintenance cost, lack of local community’s engagement, and weaknesses in technical aspects. All these facets could be well addressed within the PPP dimension.

PPP and Heritage Maintenance Cost

Issues of the fund are not only relevant in the heritage management process, but it has become an important criterion in the designation decision-making when there is any nomination of heritage site made by the public. Under Act 645, the Commissioner of Heritage is empowered to designate any site which has a natural or cultural heritage significance as “heritage site” subject to other conditions stated in Section 24 of Act 645. However, in this realm, the issue of high maintenance cost was raised by the Minister for rejecting the proposed nomination of Bok House and Kampung Siam as heritage sites. Ironically, the issue of funds is not a criterion to be considered for designation under Act 645. The demolition of Bok House in 2006 soon after Act 645 was gazetted has drawn a serious debate by many quarters on the question of criteria for gazetting heritage
Kampung Siam which is one of Penang’s surviving heritage enclaves but was decided to be demolished to give way for a hotel development. It was refused for heritage designation by the Chief Minister on a financial ground too, i.e., the state government needs to compensate the landowner, Five Star Heritage Sdn Bhd, and it is costly to do so. Apparently, even at the designation level the issue of fund was raised and thus, the PPP arrangement is highly needed.

After the heritage designation is gazetted, heritage site preservation management requires a considerable cost for protection and maintenance. Act 645 imposes a hefty duty on the heritage owner to keep his designated heritage building in good repair (Section 42(1) of Act 645) failing which the law empowers the Commissioner to carry out such repair works when he is satisfied that reasonable steps are not being taken by the owner to preserve the sites. All costs and expenses incurred shall thereafter be reimbursed by the heritage owner. Nevertheless, there are mechanisms available to assist the heritage owners, for example, the establishment of a Heritage Fund which consists of sums allocated by Parliament from the Consolidated Fund, or money received by way of donations, gifts or grants (Section 20(3) of Act 645). This Fund may be used for payment for the purchase of heritage and conservation areas, payment of the expenses incurred for the conservation and preservation of any heritage and conservation areas whether they are owned by the Government or otherwise. In Penang, as most of the heritage buildings are the privately-owned, thus it is the responsibility of the owners to bear the cost for restoration and maintenance. The cost ranges between RM150,000 and RM500,000 for a heritage property with a 2,000 sq. ft built-up area. The burden is further increased when restoration works are subject to the rules and guidelines, and to be approved by the local authority. Among others, the owner must observe the original architecture, the raw materials, interior layouts and functionality of the property so that they are similar to those used at the time they were built. Some raw materials like roof tiles and timber truss of the same quality may need to be imported from other countries.

When the maintenance cost is no longer affordable by the owners, the lucrative offer to purchase from the foreigners has swept their eyes. Many heritage owners in Penang have decided to sell

---

14 Rosli Hj Noh, General Manager of World Heritage in Melaka. ((Personal Interview held on 2015, August 17)
their property to foreigners, especially the Singaporeans.\(^{15}\) (Teoh, 2016). With the invading of the historical properties’ activities, it has caused the local community and old businesses being driven away from the historic area that they have been occupying for generations. It is evident that in one area, a row of 12 pre-war shops has been dubbed "Little Singapore" because of their similar appearance to the restored pre-war houses in Singapore. The old shophouses were restored and turned into boutique hotels, modern eateries, and tourism-related businesses.

At this juncture, the PPP approach is very much desired by offering the private sectors to be involved in the sale then reuse programmes. In Singapore, the public-private partnership flourished from promotions carried out by the Urban Redevelopment Authority to encourage annual land sales programme offered to private sectors for recovery purpose. The sale provides an opportunity for the private agencies to own historic building apart from participating in the conservation process. Initiatives by the private sector to restore historical buildings were also supported by the Urban Redevelopment Authority in providing infrastructure and other facilities such as pedestrian walkways and open spaces. In Hong Kong, PPP is used to encourage the private sector input in financing the adaptive re-use of Government-owned historic buildings with the aims to preserve the unique character of historical properties including the building fabrics and surrounding landscape.\(^{16}\) In Macao, the Tak Seng On project is an example of a successful public-private partnership in the heritage site preservation and re-use of a pawnshop. The Macao government has subsidized the repairs and restoration of the pawnshop for a consideration that the owner does not demolish the building for redevelopment. After the renovation, while the Cultural Affairs Bureau has used part of the ground floor and tower of the pawnshop building to stage the "Heritage Exhibition of a Traditional Pawnshop Business", the rest of the restored building is left to the property owner to lease the space for commercial uses. In Kowloon, one partnership scheme known as the “Revitalisation Scheme” was launched in 2008 by its government inviting the public to submit proposals to revitalise selected government-owned historic buildings in the form of social enterprises. The applicant, if successful, will get financial support from the government in the form of a grant to cover the cost of major renovation to the buildings, nominal rental for the buildings, and a grant to meet the initial costs of the social enterprises for a maximum of two years of operation at a ceiling of $5 million. Through this mechanism, the public-private partnership has


made positive impacts not only on the preservation of the heritage site but also in reducing the financial burden of the government in the maintenance of such sites as well as improving the financial income of the participants in that scheme.

**PPP and Local People Empowerment/NGOs**

The role of PPP is not limited to the financial aspect but also extends to strengthen community empowerment in conserving heritage places. The citizens’ insights are very crucial in the interpretation of heritage values which is directly connected to the designation process. In recent decades, the concept of what heritage is has evolved, and new groups of citizens, of professionals from other fields, and of representatives of special interests have joined the specialists in heritage identification. These groups have their own criteria and opinions – their own “values” – which often differ from heritage specialists.

As the stakeholders have different interpretations which derive from a different interest of heritage values, the move made by heritage NGOs representing the voice of the people has to be acknowledged.\(^{17}\) The involvement of local community would enable to define the priorities for and directions of PPP as the decision of some of the conservation projects such as the re-use of historical buildings may have impacts on the daily life of the people living within the heritage area. At this level, the PPP approach could sustain community support, create greater awareness and uphold places identity. In order to acknowledge the role of the NGOs, their presence should be made mandatory in the Heritage Council, be it at the state or federal level. At present, while Act 645 explicitly empowers the Minister and Commissioner, to receive advice from the National Heritage Council, it also permits the National Heritage Council to appoint a Committee, any persons who are not members of the Council to assist them on such matters concerning their functions (Section 18 of Act 645). This person can be a representative of the NGO and it should have a steady platform to ensure that the PPP could achieve its goals effectively.

\(^{17}\) Elizabeth Cardosa, President of Badan Warisan Malaysia. (Personal Interview held 2016, December 14)
PPP and Technical Assistance

The public-private collaboration does not merely limit to the financial needs and maintenance strategies but extends to seeking technical solutions to conserve. The heritage expert’s opinion is very significant in providing advice on the best practices and techniques to restore designated buildings with different architectural elements. They are also responsible for evaluating the intrinsic merit of property, specific techniques including sustainable land-use. Among the technical aspect that craves for expert advice is on the climate change adaptation planning that aims to moderate the harm or benefit from opportunities associated with current or potential future climate change impacts. The focus on improving protection from changing climate conditions requires continuous and regular maintenance to ensure historic buildings are weather-proof. In managing this effort, it requires a multi-level decision-making process which involves collective action across multiple levels of government, non-governmental organizations, other public and private entities, and local communities.

The role of professional architects is also valuable in introducing innovative solutions and creative design to ensure the historic buildings is fully utilised for a wide variety of new uses such as for tourism spot, residential, commercial outlets and public hall. For instance, the George Town World Heritage Incorporated provides its list of expertise as well as architects and contractor for heritage restoration purpose. Without the appropriate advice acquired from the heritage and other related experts, the interest of the built heritage would be jeopardised. It is evident during the construction of the Taming Sari revolving tourist tower near the heritage area whereby the famous Porta de Santiago believed to be part of A Famosa on the St Paul’s Hill was ‘unexpectedly’ uncovered. Instead of getting experts opinion and necessary measures to save it, more ruins emerged in the central part of the Portuguese Fort.

In another case, the absence of the role of expert advice had led to the destruction of an ancient Hindu temple, in Bujang Valley, Kedah. The temple is believed to be more than 1,000 years old which makes it the oldest man-made structure to be recorded in South-east Asia. The defense raised by the housing developer who demolished the structure was that from the title search conducted at the Land Registry, there is no record indicating that it was a heritage site. It is

---

18 Heathcote, J.; Fluck, H.; Wiggins, M. Predicting and adapting to climate change: Challenges for the historic environment. Hist. Environ. Policy Pract. 2017
disputable whether the expert advice was acquired when the planning permission for a housing development on the land was approved by the local planning authority. In both situations above, the historians and conservationists were of the view that this matter could be avoided if the professional technical assistance was obtained.

Problems with technical skills can be prevented if all information on the development of heritage designation and management is digitized through digital technologies. Digital tools have become critical devices in communicating and expressing heritage value. Among the benefits derived from digitalisation is the democratisation of heritage institutions, such as museums and most importantly in complementing the engagement of the local people and promoting good governance. Digitisation plays a vital role to keep track of the heritage activities which comprised of digital documentation, representation, and dissemination which facilitate great opportunities in improving public access to different forms of cultural assets and its reuse. Again, the efficient use of digitisation capacity and, the sharing of digitisation instruments between the heritage department and other sectors remains widely dependent on state cultural institutions’ initiatives and funding. In the EU, the potential of cultural heritage for urban and rural regeneration in Europe was explored by the government and the private agencies to fund 'Digital Heritage' and 'Heritage in Changing Environments' programmes.\(^{21}\) This matter can be successfully addressed via the PPP arrangement.

**Conclusion**

Even though Malaysia has employed the PPP scheme in various public services infrastructure such as water, transportation, and hospitals, etc. but its adoption in cultural heritage sustainable development seems immaterial except for some initiatives carried by the state government of Penang. In order to secure the sustainability of the PPP in the cultural heritage development domain, the cooperation structure of the parties and their roles is crucial. Another core principle to foster and integrate strategic planning is by formalizing agreements between agencies and identifying opportunities for partnerships between different levels of government, private and the NGOs to achieve sustainable conservation outcomes. The involvement of these stakeholders is pivotal in setting the priorities for and directions of PPP in the cultural heritage projects

---

\(^{21}\) The Digital Preservation Declaration of Shared Values (2017) was issued by representatives of the Academic Preservation Trust (APTrust), Chronopolis, CLOCKSS, Coalition for Networked Information (CNI), Digital Preservation Network (DPN), DuraSpace, Educopia/MetaArchive Cooperative, Stanford University - LOCKSS, Texas Digital Library (TDL), and the Council of Prairie and Pacific University Libraries (COPPUL). It is available at https://docs.google.com/document/d/1cL-g_X42J4p7d8H7O9YiuDD4KChnRUIITC2syfXSn5/edit.
mainstream. Thus, this article recommends that Federal government to design the pertinent key policy and contractual features that shape a holistic PPP model for cultural heritage management so that the private investors would increase their interest that complements the social responsibility benefits.
A Legal Evaluation of the ‘Green Logistics’ Credentials of the Asean Transport Facilitation Agreements

Irwin Ooi Ui Joo  
Faculty of Law, Universiti Teknologi MARA, 40450 Shah Alam, Selangor Darul Ehsan  
dr_irwinooi UITM@yahoo.co.uk

Abstract

This paper uses ten well known benchmarks for green logistics and uses it as a yardstick to evaluate the extent the ASEAN Framework Agreement for Facilitation of Inter-State Transport (AFAFIT) and the ASEAN Framework Agreement for Facilitation of Goods in Transit (AFAFGIT) is consistent with green logistics principles. Using the doctrinal method of legal analysis, the paper concludes that at its core, both AFAFIT and AFAFGIT are indeed consistent with the fundamental principles of green logistics. The paper suggests that although both AFAFIT and AFAFGIT are primarily trade logistics facilitation frameworks, it can be used as a basis to facilitate sustainable trade logistics by incorporating principles of green logistics.

Keywords: AFAFIT, AFAGIT, Green Logistics
Introduction

The Association of South East Asian Nations (ASEAN) has two major transport agreements which are aimed at the facilitation of cross border transportation of goods. The first is the ASEAN Framework Agreement on the Facilitation of Goods in Transit (AFAFGIT). The second is ASEAN Framework Agreement on the Facilitation of Inter-State Transport (AFAFIST). Both these framework agreements share a similar objective of facilitating trade between ASEAN member states through efficient transportation of goods across borders. Hence, the agreements are in reality trade logistics facilitation legal frameworks. At the time when these two agreements were signed, green logistics was in its infancy and thus, not a primary consideration in the formulation of the framework. This paper’s objective is to provide an analysis of the various provisions of AFAFIST and AFAFGIT in order to determine the extent to which it is consistent with the principles of green logistics. This paper will not extend to an examination of the 9 Protocols under AFAFGIT, which deserve its own individual treatment.

Methodology

This study identifies the key legal obligations of AFAFIST and AFAFGIT, and then proceeds to compare it to benchmarked list of practices, which are hall marks of ‘green logistics’. The benchmark chose for this purpose is arguably the magnum opus of green logistics. In 2010, Professor Alan McKinnon published his seminal work Green Logistics: Improving the Environmental Sustainability of Logistics, published by KoganPage. The chapters in this book are dedicated to various aspects of green logistics. The following have been identified Professor McKinnon as measures which are the fundamental features of ‘green logistics’ practices, and will be used as benchmarks for this paper. These 10 Benchmarks include:

[1] Restructuring of logistics and supply chain systems;
[2] Sourcing of food locally to reduce ‘food miles’;
[5] Improving vehicle utilization;

---

1 Signed on 16 December 1998, at Hanoi, Vietnam.
3 McKinnon, Green Logistics: Improving the Environmental Sustainability of Logistics, KoganPage, p 101.
5 Ibid, p 140.
6 McKinnon, Green Logistics: Improving the Environmental Sustainability of Logistics, KoganPage, p 124.
7 Ibid, p 195.
[6] Optimise the routing of vehicles;\(^8\)

[7] Increasing fuel efficiency for road haulage;\(^9\)

[8] Managing waste using reverse logistics;\(^10\)

[9] Switching to alternative fuels / power sources (including use of better grades of fuels);\(^11\)

[10] Minimising the environmental impact of warehousing;\(^12\)

These benchmarks largely fall into several areas of green logistics research areas, for example, environmental assessment, reverse logistics, and green supply chains.\(^13\) What is missing from the research areas is a legal study of trade logistics facilitation frameworks such as AFAFIST and AFAFGIT, in order to determine how far green logistics principles are reflected in these international legal documents. A green perspective is important as freight transport (i.e. the transportation of goods) accounts for about 8 percent of energy related CO2 emissions worldwide.\(^14\) The inclusion of warehousing and goods handling is likely to add around 2-3 percent to this total.\(^15\)

**Doctrinal Legal Analysis of the ASEAN Facilitation Agreements from a Green Logistics Perspective**

*Are the Objectives of AFAFIST and AFAFGIT Consistent with Principles of Green Logistics?*

The objective of AFAFGIT in Article 1(c) states that it aims to ‘establish an effective, efficient, integrated and harmonised transit transport system’. Similar words are also used in AFAFIST, Article 1(c) which stipulates that its main purpose is to ‘work in concert towards establishing an effective, efficient, integrated and harmonised regional transport system that addresses all aspects of inter-state transport’. The core principles of these facilitation frameworks are ‘effectiveness’ and ‘efficiency’. These are also core principles of green logistics which aim to use as little resources as possible and also generate as little waste as possible. ‘Effectiveness’ and ‘efficiency’ are reflected in Benchmarks [1] to [10].

---

\(^8\) Ibid, p 215.

\(^9\) McKinnon, Green Logistics: Improving the Environmental Sustainability of Logistics, KoganPage, p 229.


\(^11\) Ibid, p 306.

\(^12\) McKinnon, Green Logistics: Improving the Environmental Sustainability of Logistics, KoganPage, p 167.


Does a Wide Definition of ‘Transit Transport’ and ‘Inter-State Transport’ Facilitate the Implementation of Green Logistics Practices?

In AFAFGIT, Article 3(a), “Transit transport” refers to “… beginning and terminating beyond the frontier of one or more Contracting Parties across whose territory the traffic passes”, see AFAFGIT, Article 3(a). As the scoping provision is widely drafted, it could easily be read to equally authorise both outward and homeward bound transportation of goods. This means hauliers are not forced to practice returning home empty. Therefore, ‘back-haulage’ can be kept to a minimum as the haulier is allowed to pick up goods even when not in its home state. This provides for efficient transportation of goods both ways, thus being consistent with benchmarks [1], [5], [6] and [7].

An equally wide definition of ‘Inter-State Transport’ is found in AFAFIST, Article 3(e). “Inter-state transport” means transport of goods and the movement of means of transport into and/or from Contracting Parties. Similarly, there is no restriction on backhaul as AFAFIST authorises both outward and homeward transportation of goods, i.e. no empty ‘back-haulage’. Benchmarks [1], [5], [6] and [7] are therefore met.

In both AFAFGIT and AFAFIST, identical Articles 5(1)(b) provide express consent for backhaul of goods. In particular, the concluding phrases ‘… the right to load and discharge third countries’ goods destined for or coming from Contracting Parties’ are particularly useful in making it clear goods can be picked up and discharged in third counties. Hence this enable hauliers to optimise vehicle routes and the usage of fuel, thus meeting the standard set in Benchmark [6].

Does AFAFGIT and AFAFIST Minimise the Double Handling of Goods at Frontier Facilities?

The simple answer to this is ‘YES’. In particular, ‘AFAFGIT, Article 7(3)(a) provide that “… frontier posts which are physically adjacent to those of other Contracting Parties concerned with control areas with checking requirements in order to facilitate the clearance and examination of the means of transport and goods in transit, so that repeated unloading and reloading of these goods may be avoided …’ . This formula is repeated in AFAFIST, Article 7(4)(a). Double handling occurs when goods have to be unloaded from a vehicle and then reloaded on board for the purposes of inspection. Both AFAFGIT, Article 7(3) and AFAFIST, Article 7(4)(a) expressly say that ‘control areas’ should be physically adjacent to frontier posts so that double handling to be kept to a minimum. This is in line with Benchmarks [1] and [5].
Is there Minimising of Delay with the Harmonisation of Procedures?

Minimising of delay at the border should in theory reduce wastage in fuel and man-hours. This is frequently on the wish list of stakeholders who have been consulted about the AFAFGIT and AAFIT. Both AFAFGIT, Article 7(3)(b) and AAFIST, Article 7(4)(b) provide that ‘… adequate manpower resources are [to be] made available for the speedy completion and clearance of frontier formalities, such as immigration, customs, health and foreign exchange controls, and see also which has the same drafting. This is reinforced by AFAFGIT, Article 7(3)(d) and AAFIST, Article 7(4)(c) which require Member States to ‘coordinate working hours of adjacent posts’. Therefore, these general practices, and any more detailed operations practiced pursuant to it, if implemented in good faith, should be consistent with Benchmarks [1] and [5].

As with many international agreements, the devil is usually in the details. Hence, AFAFGIT and AAFIST have tried to identify certain areas through which ASEAN Member States can focus their efforts on. For example, the ‘periodic inspection of road vehicles registered in each respective territory and used for transit transport operations’ under AFAFGIT, Article 12(2) and undertaking ‘… to harmonise road transport permit requirements in order to facilitate inter-state transport …’ under AAFIST, Article 10. Further circumstances include, harmonisation and simplification of customs procedures, pursuant to identical provisions in Article 17 of AFAFGIT and AAFIST, as well as the establishment of sanitary and phytosanitary measures under both Articles 19 of AFAFGIT and AAFIST. Take note that AFAFGIT, Article 18, provides for establishment of a customs transit system. The equivalent of this is absent from AAFIST as transport of goods are merely ‘inter-state’, and not ‘transit’. This does not mean that AAFIST is a lesser companion to AFAGIT. The icing on the cake is that these provisions merely provide for a minimum standard. Both AFAFGIT, Article 23 and AAFIST, Article 22 expressly provide that there is no prevention of the application of higher standards which can be adopted. It is there with confidence that one is able to conclude that the facilitation frameworks are not inconsistent with Benchmarks [1] and [5].

Is Intelligence Led Customs Inspection Consistent with Green Logistics Principles?

Intelligence led Customs practices is something that cuts down delay, thus saving man-hours and fuel. Under AFAFGIT, Article 5(4), goods carried in sealed road vehicles, combination of vehicles or container shall not be subjected to examination at Customs offices en route. However, to prevent abuses such as smuggling and fraud, Customs authorities of either Contracting Party, may in exceptional cases, and particularly when irregularity is suspected, carry out an examination of the goods at such offices or other areas designated by Customs authorities.
There is no equivalent to AFAFGIT, Article 5(4) for ‘inter-state’ transport. The closest stipulation is a general provision against unnecessary restriction under AFAFIST, Article 5(3). It states, ‘inter-state transport, provided that it complies with the relevant laws and rules of the host Contracting Party, shall not be subject to any unnecessary delays or restrictions’.

Conclusion

Even though AFAFGIT and AFAFIT were originally designed for the purposes of facilitation of trade transportation, many of its core provisions are not inconsistent with Green Logistics practices. These provisions can be used as the foundation to set standards for green logistics practices which are necessary for sustainable trade facilitation. The issue now for ASEAN is whether there is political will to give effect to the natural and ordinary meaning of AFAFIT and AFAFGIT which authorises the implementation of green logistics principles, whilst facilitating trade logistics across the borders of Member States. As can been seen from the analysis above, all the Benchmarks for green logistics, i.e. Benchmarks [1] to [10] are reflected at various points with the AFAFIT and AFAGIT facilitation framework.
From the 1st to the 3rd Generation of Human Rights: Where is Malaysia in Fulfiling the Right to Healthy Environment?

Rasyikah Md Khalid

Faculty of Law, Universiti Kebangsaan Malaysia, 43600 Bangi, Selangor
rasyikah@ukm.edu.my

Abstract

The discourses on the right of a person to live in a clean and healthy environment is rather new in Malaysia. At the international level, this right has been promoted in the late 20th century when the international community commits themselves to sustainable development. However, many countries including Malaysia have not incorporated this rights in their constitutions. As a result, there have been difficulties in upholding this right due to the requirement of locus standi. This paper evaluates on the development of rights to clean and healthy environment as part of a human rights, from the first to the present generation of human rights. Towards this end, the paper employs the doctrinal analyses of relevant laws, treaties and cases. The paper concludes that attempts towards achieving the right to clean and healthy environment in Malaysia remains an isolated endeavor under the first generations of human rights. It is thus submitted that the rights to clean and healthy environment to be incorporated into the Federal Constitution to ensure that Malaysia is not left too far behind from other countries in upholding this fundamental right as a human.

Keywords: International Human Rights, Malaysia, Right to Clean and Healthy Environment.
Introduction

After the World War and the establishment of the United Nation, the international community have reached several agreements that states must respect their human rights including their rights to life, personal liberty as well as their social and political rights. In the late 20th century, the rights of a human have been extended to the right to live in a clean and healthy environment. This right has been promoted when the international community commits themselves towards ensuring sustainable development, a concept that recognizes environment as an equally important partner to the economic pursuits and social development. Within the phases of human rights development, the right to clean environment falls under the third generation of human right. However, each country must recognize this right in their laws and constitution as the international recognition is not an automatic recognition of such rights in all states. To date, there is no such provision in the laws of Malaysia; and although a liberal interpretation was once given to the right to life under Article 5 of the Federal Constitution to include the right to clean and healthy environment, such interpretation has not been much elaborated in the following cases. Lack of inextricably link between the right to sue and the right to clean environment has impeded the development of such right in Malaysia. This paper aims to analyse the development of such right in the global setting and how does the right to clean and healthy environment can be achieved. In particular, it examines the mechanisms of which such right needs to be exercised in accordance with a series of generation of international human rights which support a person’s life and the enjoyment of his life. This exercise will determine the phases of development of such rights from the first to the current generations of international human right.

Historical Development of International Human Rights

The concept of human rights is as old as the human civilization and has been developed through the human practices based on their religion and culture. This can be seen through evidences of human rights documents in some parts of the world. Amongst other are the Edicts of Ashoka issued by Ashoka the Great of India between 272-271 BC; and the Constitution of Medina of 622 AD drafted by Prophet Muhammad (peace be upon him) as a formal agreement between all tribes of Medina. ¹ These documents lay down the rights and duties of the citizens within the state and to some extent of the aliens. However, after the period of Renaissance and capitalism in the western world, slavery became common while the poor were treated inhumanly. Only after the two tragic world wars, the international community had been pressing for recognition of human

¹ http://shodhganga.inflibnet.ac.in/bitstream/10603/192456/8/08_chapter2.pdf (retrieved on 2/2/2019)
rights which are universal in nature. Soon, a series of conventions was promulgated by the United Nations and demonstrate the phases of human rights in the 20th century.

**The First Generation of Human Right**

The first-generation of human rights is understandably refers to the rights that must be protected by states following the violation of rights of the people before and after the World Wars. It deals with the right to life a person against all types of slavery and the guarantee of a personal liberty. The Universal Declaration of Human Rights 1948 is the important document which lays down those right which include the right to life, the right to personal liberty and the right to privacy. It also prohibits torture and inhuman punishments as well as slavery and forced labour. The first phase of human rights also encompasses the right participation in the civil and political life. These rights are drawn from Articles 3 to 21 of the Universal Declaration of Human Rights 1948 and the International Covenant on Civil and Political Rights 1966.

**The Second Generation of Human Right**

Since the first generation of human rights has accommodated the basic principle of a human to live with respect as human being, individual wanted more rights to further their potential as a human. As a result, the second phase of human rights was revolving around the social and economic rights of a person. These rights are embodied in Articles 22 to 27 of the Universal Declaration of Human Rights and the International Covenant on Economic, Social, and Cultural Rights 1976. Hence each individual has the rights to equal conditions and treatment in their social and economic activities, including the right to work, the right to association, the right to education and the right to take part in cultural life. Technically, these rights are not automatically possessed by a person but the government has the duty to respect and fulfil them.

**The Third Generation of Human Right**

The economic and social pursuit of individuals exercise within the purview of the second-phase of human rights has inspired capitalism and excessive use of natural resources. Massive deforestation and industrialization has also led to displacement of the indigenous people and the marginalized. Parts of the international community recognized this externalities and calls were made for more protection of these groups whose rights can only be exerted collectively. As a result,

---

2 [https://www.kas.de/c/document_library/get_file?uuid=9e3a8a7e-4152-d817-8473-a19e1952c1f5&groupId=252038](https://www.kas.de/c/document_library/get_file?uuid=9e3a8a7e-4152-d817-8473-a19e1952c1f5&groupId=252038) (retrieved on 2/2/2019)


in 1992, the Rio Declaration on Environment and Development, and in 1994, the Draft Declaration of Indigenous Peoples’ Rights has been promulgated. These has been described as the third phase of human rights and it includes the right of people to self-determination, the right to peace and development, the right to humanitarian assistance and the right to clean and healthy environment. The right has also been extended to the rights of women, children, ethnic and religious group, as well as the indigenous people. The third-generation of collective rights has gained acknowledgment universally and are more contested than the preceding first and second generations of human rights.

The fourth generation of human right
The most recent ‘fourth’ generation of human rights embodies the concept of material equality. This arises as a consequence of depletion of earth resources and the need to protect certain resources for all humankind. Hence all human has the right to benefit from the common heritage of mankind such as the outer space, while the limited earth resources must be subjected to equitable sharing. The fourth generation of human rights can also be seen as an extension of the right to clean environment since extensive use of natural resources will lead to environmental degradation and will deny the rights of future generations to enjoy the same resources as we have today. Hence concepts including intergenerational equity have been introduced to remind the present generation that we are borrowing the earth from the future generation.

Right to Clean Environment in Malaysia
The fundamental rights of all citizens in Malaysia is embodied in Part II Article 5-13 of the Federal Constitution which includes personal liberty, prohibition of slavery, protection against retrospective criminal laws, equality, freedom of movement, freedom of speech, assembly and association, freedom of religion, rights to education and rights to property. Prima facie, it can be seen that the rights provided for the Malaysian citizens depicts several rights from all generations of international human rights. Unfortunately, there is no clear reference as to the right of a citizen to enjoy clean and healthy environment.

---

6 Ibid.
Malaysian judiciary have attempted, albeit obliquely, to infer that the right to clean environment may be part of the right of life under Article 5 (1) the Federal Constitution which provides that “no person shall be deprived of his life or personal liberty save in accordance with law”. The most significance inference to the right to live in a clean environment was made by Gopal Sri Ram, JCA in an unfair dismissal case of Tan Teck Seng v Suruhanjaya Perkhidmatan Pendidikan when he said:

“The expression ‘life’ appearing in Article 5 does not refer to mere existence. It incorporates all those facets that are an integral part of life itself and those matters which go to form the quality of life. Of these are right to seek and be engaged in lawful and gainful employment and to receive those benefits that our society has to offer to its member. It includes the right to live in a reasonable healthy and pollution free environment”.  

Unfortunately, Gopal Sri Ram, JCA did not expand this interpretation in the following appeal case of Ketua Pengarah Alam Sekitar & Anor v Kajing Tubek & Ors. In this case, conflict arose as to whether the controversial Bakun Dam project was subjected to the Environmental Impact Assessment (EIA) under section 34A of the Environmental Quality Act (EQA) 1974 or excluded under PU (A) 117/95 [the Amendment Order] of the Sarawak’s Natural Resources Ordinance 1949. The High Court held that the amendment was invalid as it was done retrospectively and took away vested rights of the natives. 

Justice James Fong in his judgement said:

The issue is not what is the appropriate legal measure to safeguard the environment; the nucleus of the plaintiffs’ challenge is on the validity of PU (A) 117/95 [the Amendment Order], in relation to the procedural aspect of its enactment. This does not involve the determination of the jurisdictional aspect between state legislation and the Federal Parliament concerning who has the legislative power on various matters, either listed or not listed in the Ninth Schedule of the Federal Constitution.

---

The Court of Appeal however overturned the decision on the grounds that the state of Sarawak had the exclusive jurisdiction to exclude the EQA and as a result the natives had no locus standi to bring the action. Gopal Sri Ram, JCA believed that Justice Fong’s argument was wrong for disregarding the doctrine of federalism under the Federal Constitution. On this point he said:

It is plain that both Parliament and the Legislative Assembly of the State of Sarawak have concurrent power to make law regulating the production, supply and distribution of power. This, in my judgment, includes hydroelectric power. The place where that power is to be generated is land and water. This, on the facts of the present case, is the 'environment' upon which the project will have an impact. Since the 'environment' in question, by reason of Item 2(a) of List II and Item 13 of List IIIA, lies wholly within the legislative and constitutional province of the State of Sarawak, that state has exclusive authority to regulate, by legislation, the use of it in such manner as it deems fit.12

Gopal Sri Ram, JCA believed that Justice Fong was correct to recognize the basis of the respondents' complaint under Article 5(1) of the Federal Constitution as the project will deprive their livelihood and cultural heritage. He however was of the opinion that this was not a concern in the appeal as the validity of Sarawak Ordinance or the adequacy or fairness of the propose compensation has not been called into question. On this very basis, he had to aptly, but rather eccentrically, stated:

These are matters that are not in issue here since, in this instance, life is being deprived in accordance with an existing and valid law, the requirements of Article 5(1) are met. Accordingly, the respondents have suffered no injury which calls for a remedy.

The judgement seemed to be unfortunate and inopportune. When Gopal Sri Ram famously declared that the right to healthy and pollution-free environment is part of Article 5 (1) of the Federal Constitution, he provided an excellent opportunity to strengthen environmental protection as part of constitutional right. He had strangely ousted this possibility based on the fact that the state ordinance is a valid law. Rather, he reached a rather disappointing conclusion to even deny

---

locus standi of the respondents. This raises doubt over the possibility of the implementing intergenerational equity within Malaysian jurisprudence.
Right to Clean and Healthy Environment as a Constitutional Right

Many countries have incorporated the right to clean environment or healthy ecology as a constitutional right. The Federal Constitution of the Swiss Confederation 1999 provides the best illustration on this matter where a large number of provisions have been promulgated to incorporate the concept of sustainability and environmental protection. Here, Article 73 provides that the Confederation and the Cantons shall try to achieve “a balanced and sustainable relationship between nature and its capacity to renew itself”. Article 74(1) requires the Confederation to legislate on the protection of the population and its natural environment against damage or nuisance while Article 74(3) makes the Cantons responsible for the implementation of such regulations. Both of them shall take account of the requirements of spatial planning in fulfilling their duties.

Within Association of South East Asian Nations (ASEAN), Philippine leads the green judiciary march where judicial notice was given to intergenerational equity. Philippine is also at the forefront to incorporate sustainability of a healthful environment in its 1987 Constitution. In this respect, section 15 of Article II preserves the right to health while and section 16 provides that “the State shall protect and advance the right of the people to a balanced and healthful ecology in accord with the rhythm and harmony of nature”. Read together, states are required to protect and promote the right to a healthful environment. The Supreme Court in David & Ors v The Rionable Fulgencio S Factoran JR & Ors\(^\text{13}\) continues the spirit of the Oposa case and held that the right to a balanced and healthful ecology is a basic right assumed to exist from the inception of mankind.

Extensive provisions on environmental and natural resources sustainability found in the Swiss Constitution are rarely found in the constitution of the former Commonwealth countries like India and Malaysia. The development of sustainability principle will depend on judicial activism of each country in construing relevant constitutional provisions. In India and Pakistan, the judges have used the existing rights under their constitution to include the right to clean environment. This has been done through the provision on “the right to life”. In this respect, Article 21 of the Indian Constitution provides that 'no person shall be deprived of his life or personal liberty except according to procedures established by law.' As the law is prescribed in a negative right, the Supreme Court in Subhash Kumar v. State of Bihar\(^\text{14}\) interpreted the right to life to include the right to a wholesome environment. The Court observed that this right includes ‘the right of

\(^{13}\) G.R. No. 101083 July 30, 1993.

enjoyment of pollution-free water and air for full enjoyment of life' as Article 21 infers the liberties of a person to a clean environment.

It is important to note that besides judicial activism in India, the Indian government has also amended the Indian constitution in 1976 to incorporate important environmental protection provisions. They are Article 48A which provides that ‘the State shall endeavour to protect and improve the environment and safeguard the forests and wildlife of the country' and Article 51A (g) that requires individuals 'to protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures'. These provisions helps to direct the judiciary to be more focussed towards achieving sustainability of natural resources in the fast developing India.

**Conclusion**

International human rights have been fast evolving in the 20th century and very been depended upon the needs of individuals during certain era. The first generation of human rights emphasizes on the civil rights of a person while the second generation enhances their rights to social and economic rights. It is when that social and economic activity utilized a large deal of natural resources and degraded the environment, international community calls for sustainable development and introduced the third and the fourth generation of human rights which must be done collectively and emphasized on equal sharing of natural resources. The fact that the right to clean environment is not listed in the Federal Constitution and can only be inferred within the right to life, it is submitted that the right to clean environment in Malaysia is still dependent on the first generation of international human right. As many countries have embraced the third and the fourth generation of human rights to equip its citizen with a specific right to environment, Malaysian Parliament must not be left behind and should equip the rights to clean environment as a fundamental right of all citizens of Malaysia.
Bioethical Issues of Genetically Modified (GM) Crops: Farmers’ Right to Keep Conventional Agriculture from Gene Contamination

Siti Hafsyah Idris
Faculty of Law, Universiti Teknologi MARA, 40450 Shah Alam, Selangor Darul Ehsan
sitihafsyah@uitm.edu.my

Abstract

Genetically modified (GM) crops contamination illustrates the enormous difficulty in containing GM crops technology. This gene contamination will ultimately put the onus on farmers who have been the victims. A farmer who is the victim of gene contamination could find himself liable to the corporation that created the GM crops, regardless of the mental state of the person who carries out the infringing acts. Based on court cases, if GM crops cross-pollinate with organic or conventional crops on neighbouring farms, the lack of a liability regime will force farmers to fight it out in court. Organic farmers suffering contamination can lose their organic certification and the premium they earn for their organic crop. This paper analyses the law and bioethical issues of GM crops in protecting farmers’ rights from gene contamination. It is found that the current biosafety law does not comprehensively protect the rights of farmers on this gene contamination issues. Through bioethical principles, it is suggested that farmers’ rights could be protected.

Keywords: Bioethical Issues, Farmers’ Rights, Gene Contamination, Genetically Modified Crops (GM Crops),
Introduction

Genetically modified (GM) crops contamination is well documented. This gene contamination illustrates the enormous difficulty in containing GM crops technology. Not only is gene contamination impossible to prevent, inadequate regulation also fails to hold seed companies accountable for any resulting damages and ultimately puts the onus on farmers who have been the victims of gene contamination. The companies can, and have, taken legal action against farmers who grow the GM crops without the companies’ permission. A farmer who is the victim of gene contamination could find himself liable to the corporation that created the GM crops, regardless of the mental state of the person who carries out the infringing acts.

Based on court cases, the consequences on farmers have been severe. If GM crops cross-pollinate with organic or conventional crops on neighbouring farms, the lack of a liability regime will force farmers to fight it out in court. This can spark dramatic economic losses for farmers who face rejection from export markets that ban GM crops. Organic farmers suffering contamination can lose their organic certification and the premium they earn for their organic crop. As consumer demand for non-GM crops products expands, farmers are looking for opportunities to diversify into non-GM crops markets that pay higher prices. But the inability of companies to properly segregate GM crops from conventional varieties continues to threaten these options for farmers.

Bioethical Issues on Farmers’ Right

The inadvertent presence of GM crops on the non-GM farmers’ lands and the infringement under patent law has, raised a number of legal issues, since even a completely innocent neighbour could be held liable for patent infringement. The Monsanto v. Schmeiser decision gives a clear warning to farmers worldwide that they have to monitor their fields for the presence of GM seeds even if they have no knowledge of the potential presence of GM seeds. This is an odd situation, as the

---

farmer is deemed to have infringed upon the patent even if his fields were, in fact, inadvertently contaminated by drifting pollen.\(^7\)

Therefore, regulatory measures should be introduced and enforced to protect farmers from liability concerns in relation to GM crops, specifically to protect farmers who grow conventional crops from any contamination by GM crops. Strict legislation on contamination is therefore vital to protect non-GM growers against the multinational companies that develop and own the intellectual property rights in the GM crop causing the contamination. There is a need for the recognition of an innocent bystander’s defence and a farmer’s privilege under biosafety regulatory measures.

**The Biosafety Act 2007**

It must be reiterated that the provisions under the Biosafety Act 2007 (“the Act”) only provides for the penalty for its contravention.\(^8\) Though the *Hansard* mentions the risk of cross-pollination, the Act itself is silent on this issue. It, however, fails to consider the possible compensatory claim by individuals who have suffered damage resulting from cross-pollination of GM crops. Section 12(1) provides that no person shall undertake any release activity or any importation of LMOs, or both without the prior approval of the Board. This provision, limit the fault only if the offender imported LMOs without the prior approval of the National Biosafety Board (the decision-maker in GMOs’ case). Hence, this provision does not protect the farmers from gene contamination.

The only avenue for the farmers is through common law. However, due to the nature of GMOs, it would be difficult to proving the causation to prove damage. Hence, the Act should enact a provision on liability and redress to protect parties who have been affected by the GMOs brought in by the companies, either legally or illegally.

In Australia, under the Gene Technology Act 2000 (GTA), it is a matter for individual states and territories to decide whether to allow GM crop production. There have been few cases between organic and GM farmers and little Australian case law with respect to the analogous situation of the spread of conventional agricultural organisms from one property to another.\(^9\)

---

\(^7\) Ibid.

\(^8\) Section 12; Section 16; Section 19; Section 22; Section 26; Section 30; Section 31; Section 32; Section 33; Section 36; Section 37; Section 40; Section 48; Section 50; Section 52; Section 53; Section 59; Section 66; Section 67; Section 69 of the 2007 Act.

The decisions of the Supreme Court and Court of Appeals of Western Australia in *Marsh v. Baxter*\(^\text{10}\) have attracted widespread interest, both domestically and internationally, as it is thus understood to be the first legal proceeding of its kind; a claim for economic loss caused by a GM incursion brought by one farmer against his neighbour. The Supreme Court of Western Australia dismissed the Marshes’ causes of action in common law negligence and private nuisance. The judgement showed that it was not the legal responsibility for a conventional farmer to abide by his organic farming neighbour’s organic standard. Uncertainty in respect to those who have suffered economic loss from GM farmers should therefore not be a basis for refusing to find a duty of care, particularly in the context of neighbouring farmers. On the question of negligence, the majority of judges of the Court of Appeal ruled that the appellants did not establish that a duty of care was owed in the particular circumstances of this case and that in any event, reasonable foreseeability of the risk of economic loss was not in itself sufficient to generate a duty of care in the circumstances of the case. Even if such a duty was feasible, the joint judges considered it to be too indeterminate on the facts of this case.\(^\text{11}\) Hence, the tort regime will not always compensate economic loss, as illustrated by *Marsh v. Baxter*.

This area of law and development remains very much unsettled. A reform should be introduced to allow the common law remedies such as negligence or private nuisance to compensate non-GM farmers for economic loss disregard whether the loss was caused by a self-inflicted vulnerability or whether the level of contamination was reasonable.\(^\text{12}\)

In India, the Supreme Court in 2010 declared a moratorium of ten years on any field trial of *Bt* Brinjal while the Technical Advisory Committee (TEC) also recommended a ban on the “release of GM crops for which India is a centre of origin or diversity, as rice, brinjal, and mustard”. The only GM crop cultivated in India is *Bt* cotton. However, the experience of *Bt* cotton cultivation over the past 15 years has exposed the hype about GM crops and devastation on farmers’ livelihoods and biodiversity. Within a decade *Bt* cotton was adopted by nearly 7 million farmers, who cover 97 per cent of the area planted with the crop today. But the pests for which *Bt* cotton was created have become resistant and pesticide use on farmers’ fields has increased.\(^\text{13}\) In May 2017, hundreds of farmers and activists asked from the government to reject the commercialisation

---

\(^{10}\) *Marsh v Baxter* [2014] WASC 187. (CIV 1561 of 2012)

\(^{11}\) *Marsh v Baxter* [2015] WASCA 169


of GM mustard. The release of GM mustard would threaten farmers’ livelihoods and pose a high risk of contamination of mustard germplasm in a centre of cultural diversity such as India. Farmers are worried that GM mustard will impact pollen and nectar collection by honeybees resulting in lower mustard honey production and exports and will open the gates for the entry of tens of other GM food crops. For these farmers it is important to save and propagate the indigenous diversity of mustard.\textsuperscript{14}

The farmers’ battle is therefore not against technology. The country needs a democratic debate on the systems of food and agriculture that protect biodiversity, people’s health, and farmers’ livelihoods. They need democratic processes to govern their lives and their choices.

In the Malaysian context, the law is unclear as to whether non-GM seed farmers or those with contaminated crops should be liable or responsible to those farmers who are actively seeking to gain from the cultivation of GM crops and who are also in a position to reduce the risks of contamination of non-GM crops.\textsuperscript{15} Likewise, the question arises whether the mere fact of possessing the patented gene should lead to liability and whether it would be reasonable to transfer the burden to the farmers. The potential for liability due to genetic contamination and its effects on non-GM farmers must be carefully assessed. The Act does not clearly identify cross-pollination issues. Even the Environmental Quality Act (EQA) 1974, has no specific provisions on GM crops pollution. The most relevant provisions could be on soil pollution or inland water pollution or atmosphere pollution under the EQA. Still, without clear authority and power under the EQA to govern this type of pollution, court interpretation is required to solve this issue when the time arrives. As of now, ethical approach through the Precautionary Principle is the best way to overcome or prevent this pollution from becoming reality in Malaysia, however, without certainty and strong measures to implement this principle, it remains an impossibility to address bioethical issues relating to farmers’ rights arising from GM crops in Malaysia.

\textbf{Bioethical Issues to Farmer’s Right}

Farmers get supply from the relevant governing agriculture bodies to cultivate a certain rice variety. If he does not agree to this, the consequence will be not to grow competitive rice at all. Several other questions were raised, e.g. what about the freedom to say no to cultivating this new

\textsuperscript{14} Ruchi, S.(2017).
variety rice? In terms of the fair distribution of benefits and costs (justice), it is particularly acknowledged that farmers must produce efficiently and rationally in order to keep up with competition from imported crops. While farmers recognised that adoption of GM in crops breeding might provide new opportunities for knowledge generation, they are also concerned about a just distribution (justice) of resources between different approaches for crops breeding.\textsuperscript{16} The autonomy of the farmers to produce safe and nutritious crops must be a high priority of our system of biosafety. Autonomy implies expanding not narrowing choices. Once farmers save the second generation seeds or accidently pollute the neighbouring non-GM crops field, non-GM crops farmers lose their choice to autonomy and polluter’s farmers are liable for non-maleficence. A balance approach based on ethical principle such as Principalism is required to guide the stakeholders in weighing GM crops technology.

It must also be noted that unlike activities such as oil pollution or nuclear outbreak where the damage from oil pollution and nuclear outbreaks is clearly visible to the naked eye and the sufferings are clearly identifiable, the adverse effects from GMOs would not be as clear. Nonetheless, this dilemma has now been answered by the provision of Article 4 to the Nagoya-Kuala Lumpur Supplementary Biosafety Protocol on Liability and Redress, where it is provided that a causal link shall be established between the damage and the LMOs in question in accordance with domestic law on causation. Thus, it is the duty of the respective Contracting Parties to establish a nexus between the damage and the particular LMO. The effect of Article 4 to the Nagoya-Kuala Lumpur Supplementary Biosafety Protocol on Liability and Redress is that the Contracting Parties would be given a free hand to determine the rules on causation in establishing liability for damage resulting from transboundary movement of GMOs. In relation to this, the Department of Biosafety is in the process of providing a policy regarding liability and redress.\textsuperscript{17} The liability and redress policy will protect the conventional farmers in Malaysia. In the event that the specific policy/legislation of liability and redress has not been finalized, existing civil legislation will be used to resolve any issues arising. The liability and redress policy will protect the rights of farmers in protecting the original plant and protection in their contracts.\textsuperscript{18}

\textsuperscript{16} Personal interviews with farmers from Tanjung Karang, Selangor and Kedah in December 2017. Interview also conducted with the officer from the with the farmers and the Malaysian Agricultural Research and Development Institute (MARDI) in January 2018.

\textsuperscript{17} Personal interview with the Director, Research & Evaluation Section, Department of Biosafety, NRE Malaysia in January 2018.

\textsuperscript{18} Ibid.
Conclusion

It would be wise for Malaysia to incorporate the rules on liability and redress in its domestic biosafety law namely the Biosafety Act 2007 by taking pointers from the civil liability legislations in India and Australia. Alternatively, in the event if the LMOs escape and inflict damage to the surrounding area where the GMOs are kept, it would seem that such individual would have to resort to the common law of torts to obtain compensation for the grievances suffered.19

19 The law of negligence be used to promote the idea that seed and GM crops must disclose all information, all risks and all adverse dimensions of their product to their recipients. Afrox Healthcare BPK v Strydom 2002 (6) SA 21 (SCA).