

THE NEED FOR IMPROVEMENT ON ENVIRONMENTAL LAW IN MALAYSIA

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ABSTRACT

Malaysia has experienced growth in various development sectors. From the agro-based industry to the production and manufacturing-based industries. All these activities have boosted the development of the economic sector. Despite the positive developments in various fields, environmental issues are also colouring the development of the country. Environmental Quality Act 1974 (EQA) have been implemented for more than 46 years. However, various issues arise in the aspect of the enforcement of this Act. This study aims to identify current issues regarding the implementation of EQA 1974 and identify the important thing that needs to be considered in improving environmental law in Malaysia. This study is done by using systematic literature review method. This study indicates a few important dimensions that need to be considered in improving EQA 1974. These include emerging pollutants, setting more stringent standard limits, setting higher penalties and punishment, integrating sustainable development concepts in EIA, and integrating the current environmental control approach.

Keywords: Environmental quality act 1974, environmental law, pollutant standard limit, emerging pollutant, best available technology, best management practices

INTRODUCTION

Environmental law is a broad concept that refers to all elements of the law that protect the environment. In Malaysia there are lot of environmental related legislation that control by few ministry and department. The most important environmental law in Malaysia is Environmental Quality Act 1974. In the late 50s, Malaysia has experiences in environmental pollution from exploration of natural resources through logging and mining activities. Despite the rapid development, environmental issues are increasing and need to be addressed effectively through legislation. To address various environmental problems that arose, the government of Malaysia gazetted the Environmental Quality Act (EQA) 1974 on 15 April 1975. This Act was created in line with Malaysia's commitment to the International Conference on Human Environment declaration in June 1972 in Stockholm organised by the United Nations (UN). Subsequently, Malaysia has taken steps to address environmental problems through legislation approach (Muhamad Rizal Razman, Payus, and Jamaludin Md Jahi 2010). This study is aim to identify the environmental issues with regard to the implementation of EQA 1974 and to identify the important issue that need to be consider in improving the act.

ENVIRONMENTAL QUALITY ACT 1974

Department of Environment (DOE) was established to enforce the Act EQA 1974. The Act aims to prevent, eliminate, control pollution, and improve the quality of the environment. This Act has been amended six (6) times from 1985 until 2012. Among the amendments that have been implemented are as follows:

- Year 1985 (Act A636) involving 28 amendments by including EIA Provisions (Section 34A).
- The year 1996 (Act A953) involved 66 amendments relating to the increase in Penalties, Audits, and the Environment Fund.
- Year 1998 (Act A1030) involved 4 amendments relating to open burning (Sections 29A, 29B and 29C) and power to prosecute (Section 44).
- Year 2001 (Act A1102) involved 3 amendments related to open burning (definition and exemption of Section 29AA).
- Year 2007 (Act A1315) involved 2 amendments relating to mandatory imprisonment and maximum fine in cases of illegal disposal and illegal movement of Schedule Waste (Section 34B) and persons who can be prosecuted (Section 43).
- Year 2012 (Act 1441) involves 48 amendments namely expanding in membership of Environment Council Members, Improvement of EIA (involving issuance of prohibition order or stop work order), Environment Fund, Power of Arrest, Seizure and Forfeiture, Authorized Person and Grantor Information.

Beside implementing the enforcement of EQA 1974, Malaysia also participated in international conferences and ratifications related to environmental management, as shown in Table 1.0

Table 1.0 International Environmental Convention

International Convention	Description
Basel Convention	The Basel Convention aims to control the movement and disposal of Hazardous Wastes. The Basel Agreement is an international agreement aimed at reducing the movement of hazardous waste between countries and preventing the transfer of hazardous waste from developed countries to developing countries.
Montreal Protocol	The Montreal Protocol, finalized in 1987, is a global agreement to protect the stratospheric ozone layer by eliminating the production and use of ozone-depleting materials (ODS).
Stockholm Convention	The Stockholm Convention is a global agreement to protect human health and the environment from persistent organic pollutants (POPs).
Rotterdam Convention	The Rotterdam Convention is a multilateral agreement to promote mutual responsibility related to the importation of hazardous chemicals.
Minamata Convention	The Minamata Convention on Mercury aims to protect human health and the environment from anthropogenic emissions and the release of mercury and its compounds.

Environmental Issues in Malaysia

Rapid development in various sectors in the country has brought impact on the quality of the environment. These include deterioration of river and marine water quality, the impact on air quality, and increase in industrial waste generation. According to DOE, there are 53,262 total premises are being monitored in 2018. As a result, DOE enforcement tasks and activities are facing more challenges and complex.

Complaint against environmental issues

One of the DOE functions is to investigate the causes of environmental pollution. DOE received various complaints related to environmental pollution issues such as river pollution, open burning, industrial effluent discharge that pollutes the river, and noise pollution. Figure 1.0 shows the number of complaints received from 2006 to 2016. There is no significant changes in the number of complaints received each year. An average of 5,882 complaints is received annually. During the five years (2012-2016), DOE has received a total of 30,397 pollution complaints. Air pollution complaints are the highest at 23,740, followed by water pollution complaints at 3,214 and noise at 860 (DOE 2018). Environmental pollution could disrupt human well-being if there are no effective measures being taken. In this case, DOE is also faced with constraints in terms of the number of enforcement personnel required as compared to the number of pollution sources that need to be monitored.

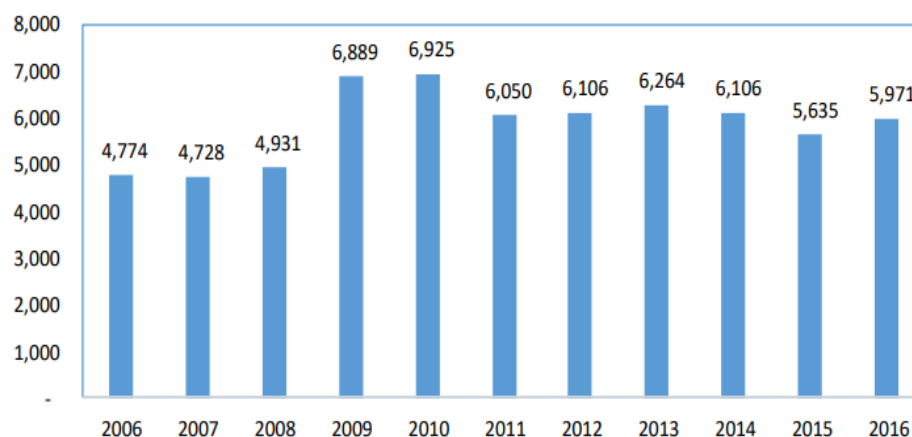


Figure 1.0 Number of environmental complaint (DOE 2018)

Deterioration of water quality

Rapid developments in various economic sectors such as infrastructure development, agriculture and plantations have given impact to the water quality. Until 2018 there are 3,299 industrial sources that discharges effluent, 9884 sewage treatment plant that discharge sewage and 76 landfills that discharges leachate. There are a total of 477 rivers monitored by DOE nationwide. As of 2016, there are 46 polluted rivers are reported.

Increases in Air Pollution Issues

In air quality management, DOE has enforced several relevant sections and regulations under EQA 1974. It is to ensure that air pollutants released into the air can be reduced to a controlled level. The sources of pollution that are identified such as industrial activities, gas emissions from motor vehicles, and open burning. In 2014 a total of 138 cases related to air pollution from industrial premises were brought to the court (DOE 2018). Several severe haze incidents occurred in Malaysia in 1997, 2005 and 2013 until the government had to declare a 'Haze Emergency' in certain areas when level of Air Pollutant Index (API) recorded above 500.

THE NEED FOR IMPROVEMENT

Based on the above issues. There are significant weaknesses that need to be improved in implementing environmental quality act 1974. As an overall there are five important issues need to be consider to improve EQA 1974.

1. Penalties and punishment for environmental offenders are still seing very low. The penalties should take into account the impact and environmental damage that has been done by the offenders.
2. The allowable limits on the release of environmental pollutants are still high. It must take into account the current status of environmental quality.
3. This law still does not take into account the issue of emerging pollutants that need to be given attention.
4. The applications of the concept of sustainable development I less emphasis in current law. Therefore, the law related to EIA needs to be improved in EQA 1974.
5. The new concepts and approaches in environmental control are given less emphasis in the existing act.

Therefore, comprehensive reforms need to be implemented to ensure that Malaysia's environmental laws remain relevant. The next part will elaborate more on important issues that need to be considered in improving Malaysia's environmental law.

Increase the limits of punishment and penalties

To provide a lesson, learn and increase awareness among the polluters, the limit of penalties and punishment should be review and increase. The first step that needs to be conducted is to study the existing law and make comparison with other environmental legislation at the international level. It can be looked from the perspective of the value of the fine imposed. Ding, Qu, and Shahzad (2019) found that the level of voluntary environmental information disclosure (EID) is significantly affected by environmental penalties. Secondly, the number of penalties, punishments and compounds should be based on the impact on the environment. Barrett et al. (2018) found that noncompliance decreases immediately following the strictly environmental penalties. The new approach on punishment can be introduce. Among the best approach can be implement is to direct environmental offenders to carry out social works such as environmental conservation activities. It is also can contribute to the environmental awareness among the society.

Improving the standard limit.

One of the essential aspects that need to be considered is to improve limit standards. The current standard limit needs to be reviewed. The achievability aspect of compliance needs to be study. The pollution has caused the quality of the environment to deteriorate. Therefore, more stringent emission and discharge standards are needed. According to Haines-Young, Potschin, and Cheshire (2006), the latest technology can help in the aspect of better pollution control. Emission or discharge limits are important to ensure that pollutants released into the environment is in the acceptable limit (Geiger and Cooper 2010; United Nations Environment Programme 2019). In determining the level of pollutant emissions, several things need to be taken into account:

1. The capacity of environmental segment to recieve the pollutant loads.
2. The standards that set should also take into account the quality of the existing environment.
3. Take into account the emission limits with other countries.

Comparisons with developed countries on limit standards need to be made. The enforcement of the new limit standard can be implemented by stages. It provides an opportunity for the industry to switch to the new technology gradually.

Emerging pollutants

In order to improve current legislation issues related to emerging pollutants should be taken into account. It is because the potential sources of emerging pollutants could occur in the future. What is the emerging pollutant? According to UNESCO, emerging pollutants can be understood in a broad sense as any synthetic or naturally-occurring chemical or any microorganism that is not commonly monitored or regulated in the environment with potentially known or suspected adverse ecological and human health effects (Oberg 2017). Emerging pollutants result from an increasingly complex range of activities caused by human action either in the industrial field or caused by pollutants' chemical reaction to produce new pollutants. Stefanakis and Becker (2015) classified emerging pollutant into three main categories. Compounds that have recently been added to the atmosphere fall into the first category (e.g., industrial additives). The second group of compounds includes those that may have been present in the atmosphere for several years in the past but whose existence was only recently discovered and whose importance began to pique interest (e.g., pharmaceuticals). Compounds that have been identified for a long time but whose possible harmful effect on humans and the environment has only recently been recognised fall into the third group (e.g., hormones). According to Vicent et al. (2013), the

occurrence of emerging pollutants in wastewater and surface freshwater ecosystems has been much better reported than groundwater. Wastewaters are the primary sources of emerging pollutant in the environment, so surface waters have the highest emerging pollutants loads. Boxall (2012) mention that there are several emerging pollutants types of potential concern, including:

- Naturally produced compounds such toxins produced by fungi, bacteria, and plants;
- Bio-terrorism/sabotage agents;
- Human personal care products such as essential oils, herbal medicines, antibacterials and fragrances;
- Emerging persistent organic pollutants such as flame retardants and dioxin-like compounds;
- Veterinary medicines such as antibiotics and antiparasitic agents;
- Hormones such as synthetic and natural estrogens and androgens;
- Nanomaterials;
- Human medicines;
- Metabolites and transformation products of artificial chemicals that are produced from biological, chemical, and physical breakdown reactions

Integrating sustainability in the development

In order to enhance sustainable development aspects existing environmental law must be improve. Sustainable development is emphasising in the aspect of environmental, social, and economic (Campion and Essel 2013). Therefore, legislation should be able to ensure sustainability on environmental aspects can be implemented in the development project. The implementation of environmental impact assessment (EIA) in EQA 1974 seen can be improved. Malaysia has been implemented EIA for more than 30 years. Abdul Rahman Mahmud, et. al (2019), mention that the EIA in Malaysia should be improve in three important dimensions. First is the quality of EIA report, second is improving the capacity of DOE roles, and the third is strengthening the legislation. The role of developers, consultants, and competent personnel should be clearly stated in the law. Existing law, still less focused on the responsibilities of developers, consultants, and authorities.

Best Available technology & Best Management Practices

Latest technology developments and approaches need to be implement in the EQA 1974. There are new concepts and approaches in environmental pollution control that need to be introduced in legislation. Best Available Technic (BAT), Best Management Practices (BMPs), Performance Monitoring and Cleaner Production are the current approach that can be implemented in the law. This approach is a vital concept in improving environmental control. Best available techniques (BAT) mean the available techniques to prevent or minimise emissions and impacts on the environment (Bundesamt 2017). BAT is introducing in air pollution control industries. According to Berezyuk and Rummyantseva (2015), this approach is based on a comparison of the environmental protection measures effectiveness with costs. The industries must choose the best available technology to be use to ensure the pollutant is release at very low concentration. According to Abdul Rahman Mahmud et al. (2017), best management practices (BMPs) is defined as the methods that have been determined to be the most effective and practical means of preventing or reducing pollution sources to help achieve water quality goals. It applies especially in soil erosion and sedimentation control at the earthwork activities. BMPs is integration between structural and non-structural measures. By applying essential concepts in environmental management, it can help improve the effectiveness of environmental control.

CONCLUSION

Based on the issue that has been discussed in the early part of this paper. There is an increase in cases of environmental pollution, which is getting worse. This issue gives the impression that enforcement activities need to be strengthened continuously. At the same time, reforms to existing legislation need to be implemented immediately. This study has identified five key dimensions that need to be taken into account in implementing improvements to environmental legislation in Malaysia. Five essential aspects need to be improved in EQA 1974, including emerging pollutants, setting more stringent pollutant emission limits, setting higher penalties and punishment, integrating sustainable development concept in EIA and finally implementing the latest environmental control concept.

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