

# Legal and Social Issues in the Development of Waste Management in Malaysia

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## ABSTRACT

Throughout man's history, waste disposal has put great stress in maintaining a clean and healthy green environment. The tremendous increasing amount of solid waste becomes a major challenge for the people and the government in analyzing the national legislations and the international policy framework for an effective control and enforcement measures in handling the waste management. Failure of a state to implement the effective rules, regulations and social policies will lead to numerous environmental hazards. The objective of this paper is to analyze the national legislations and policies in developing the methods necessary to formulate waste management plans in Malaysia. The Solid Waste and Public Cleaning Management (Act 672) came into effect in 2011 and then proceeded by awareness programs to educate people on the 3R concept – reduce, reuse and recycle. This paper attempts to discuss some practical methods introduced by the government, like the so-called “waste-separation scheme” which was implemented in September 2012. This scheme is in accordance with the government declaration of educating the people about going green. At the end, we make some recommendations in reducing the current negative social impact of environmental changes due to an increasing quantity of waste disposal.

## Keywords

*Waste disposal; Waste management; Legislations; Environmental hazards; Healthy environment.*

## 1. INTRODUCTION

Malaysia has thirteen states (Selangor, Negeri Sembilan, Malacca, Johor, Pahang, Trengganu, Kelantan, Perak, Penang, Perlis, Kedah, Sarawak and Sabah) and three federal territories (Kuala Lumpur, Putrajaya and Labuan) govern by a Federal Constitutional Monarchy. It has a total landmass of 329,847 square kilometres (127,350 sq mi)[1] with an estimated 30 million population based on 2014 statistical report. The citizens are largely consists of Malays, Chinese, Indians and natives (*orang asli*). The Federal Constitution provides for the right to protect its multi-ethnic and multi-cultural citizens to live and adopt a safe and healthy environment.

The Malaysian Government established in 1975 the *Jabatan Alam Sekitar* (renamed as Department of Environment-DOE) as an

agency to enforce the Environmental Quality Act (EQA) on March 14, 1974. The DOE's function is not only to administer and enforce the Environmental Quality Act, 1974 but also to apply Section IV of the Exclusive Economic Zone Act, 1984 in order to ensure and sustain sound environmental management in the process of nation building. From 1976 to 1990, Malaysia's population had increased doubled and the government had to pull and develop more waste management facilities and other related infrastructure projects in treating hazardous waste. The DOE has its own official website that features guidelines on the national policy on environment, particularly on hazardous waste substances in preventing pollutions. Its national policy on environment is in accordance with the 1992 Earth Summit in Rio de Janeiro and other international treaties.

The Department of Environment has been established under the Ministry of Natural Resources and Environment Malaysia (NRE) for environmental management particularly in enforcing the National Environmental Quality Act 1974. The Ministry identified its eleven (11) goals for environmental functions, including the emission reduction of Greenhouse Gases (GHG), strengthening the Environmental Quality Act (1974) and enhance awareness on environment and climate change.

The solid waste management in Malaysia is not within the jurisdiction of Environmental Quality Act 1974. Before the establishment of the Department of Solid Waste Management, it was operated by the local authorities under the Local Government Act 1976. The Solid Waste and Public Cleansing Management (SWPCM) Act 2007 have been approved by Parliament which provides an executive power to the Federal Government to implement solid waste management and public cleansing. For the purpose of implementing this statute, the Department of Solid Waste and Public Cleansing Corporation has been organized. The Corporation has power to administer and enforce the solid waste and public cleansing management laws and other related regulations. It is clearly stated in SWPCM Act 2007 (Part 1) that solid waste and public cleansing laws are applicable throughout the Peninsular, Federal Territories of Putrajaya and Labuan.

## 2. LEGAL FRAMEWORK

It is globally recognized that poorly managed waste disposal adversely affect the people lives and the environment. Its negative impact to the society must be given a greater priority by the

international or national authorities. Its implications on climate changes must not be encouraged. Therefore, there is a need to educate people on their rights and their responsibility in maintaining a safe and clean environment. Malaysia signed and ratified all related international agreements for the protection of environment. The United Nations Conference on Human Environment in 1972 became an important factor in implementing the National Environment Quality Act 1974. It was followed by other regulatory measures on clean air and scheduled waste. In 1992, Malaysia became a signatory for the implementation of the Earth Summit Agenda 21 (Declarations of the United Nations Conference on Environment and Development) and the World Summit on Sustainable Development in 2002.

The Department of Solid Waste Management has been created under the Home Ministry of Housing and Local Government to propose, plan and set up strategies related to waste management in Malaysia. In addition, it exercises regulatory functions, by setting standards, specifications and codes of practices. While the Solid Waste Management and Public Cleansing Corporation becomes the recognized body or enforcer in implementing the laws related to solid waste management. The government gives full privatisation in the Central (Selangor, Pahang, Trengganu, Kelantan, Kuala Lumpur, and Putrajaya) and Southern Region (Negri Sembilan, Malacca, Johore) while the North (Perlis, Kedah, Penang, Perak) was under interim regime for a year.[2] The government 3rd Outline Perspective Policy Plan (2001—2010) had been considered for the past few years by adopting a comprehensive waste management policy including the installation of incinerators for safe and efficient disposal of waste as well as in formulating the 3Rs (reuse, reduce and recycle) strategies for waste.

Based on the reported survey, prior to the implementation of SWPCM Act 2007, Malaysia has more than 43 environment-related legislations. The core environmental legislation is the Environmental Quality Act of 1974 (EQA) that provides the legal framework for laws to regulate the activities deemed to affect the environment. Rules and regulations that have been passed under the powers of this Act includes: the Environmental Quality (Clean Air) Regulations of 1978, the Environmental Quality (Prescribed Activities/Environmental Impact Assessment) Order of 1987, Control of Infectious Diseases Act, 1988 and the First Schedule of the Environmental Quality (Scheduled Waste) Regulations of 1989.[3] It shows that the main role of EQA,1974 and its 34 subsidiary legislations for solid waste management is to prevent, control and abate pollution.

The national policy on solid waste has been implemented based on the following objectives: To establish a comprehensive, integrated, cost-effective, sustainable and socially acceptable of solid waste management; and to implement solid waste management based on waste management hierarchy that gives priority to waste reduction through 3R, intermediate treatment and final disposal.[2]

### 3. ISSUES ON PRIVATISATION OF SOLID WASTE MANAGEMENT

Under the Federal Constitution, the states and the Federal government have jurisdiction on solid waste management. It is clearly provided in the Local Government Act (Act 171) that local authority has the power to establish, maintain and carry out sanitary services with regard to solid waste and public cleansing for areas within its jurisdiction. It becomes a traditional tasked for the local authorities in implementing the solid waste system to

private contractors. After having many criticisms on the local authorities in handling the solid waste management, the Cabinet decided to have a national privatization after the enforcement of SWPCM Act 2007. Some local authorities have been criticized due to the following: lack of human and financial resources to manage solid waste and public cleansing; there is no integrated system and holistic approach for solid waste management; the interim privatisation period is too long – difficult to secure loans; and the need to consider the environmental degradation. Therefore, the national privatisation must be in accordance with the development policy, such as, to pursue environmentally sustainable development to reinforce long term growth; to promote new source of growth so as to strengthen and diversify the economic base; privatisation master plan to expedite growth and efficiency. [4]

The federal territories of Kuala Lumpur and Putrajaya as well as Pahang, Kelantan and Terengganu are supervised by Alam Flora Sdn Bhd; Kedah and Perlis by Environment Idaman Sdn Bhd and Johor, Malacca and Negri Sembilan by SWM Environment Sdn Bhd. There are three states in peninsular Malaysia, Perak, Selangor and Penang which are still under the management of the local authorities. These three states have been urged by the government to privatise their solid waste management, as had been done by the other states and the federal territories in peninsular Malaysia. In privatisation of solid waste management, they will not incur any additional charge as the Federal government will bear all the extra costs. Perak, Selangor and Penang remained to be exempted from privatization, although, these states will not be able to get financial assistance from the Federal government to settle the bills for such services. The Housing and Local Government Minister urged these states to privatise their solid waste management as soon as possible to ensure good public health.

The government required the three concessionaires involved to be subjected to a Key Performance Indicator (KPI) system to ensure they live up to the required standards. Thus, payments to service provided by each of these concessioners for collecting, transporting, transferring and disposing the solid wastes depends upon their performance or through KPI, a system which emphasize the quality of services.

### 4. SOCIAL IMPACT OF A MANAGEABLE WASTE DISPOSAL

Health protection is an integral part of the increasing need of developing green environment. It is the fundamental rights of every human being to live in a safe and healthy environment. The Federal Constitution of Malaysia clearly provides for sanitation under the Concurrent List in its Ninth Scheduled. Not only Malaysia but other countries are also facing serious environmental challenges in terms of air pollution, water pollution and managing solid, hazardous, and toxic waste. In Southeast Asia, some of the rivers, particularly, those flowing through urban areas are polluted and severely contaminated by a toxic and hazardous waste disposal from different industries.

Malaysia implements the SWPCM Act 2007 as a restrictive and punitive measures to protect the people's right to live in a free pollution environment. The Act provides for, among others, the separation of wastes, storage, collection, transportation, processing, recycling and waste disposal. It clearly requires households to separate and recycle their waste, but punishment would only be meted out in a couple of years to enable residents to get used to the idea. [5] In line with the privatization of solid

waste management, the government provided three million units of mobile bins to residents and business owners in all local councils to improve solid waste management efficiency. The waste mobile bins have been classified; for the owners of landed properties, they have a 120-litre bin each, while those who lived in high-rise buildings have a 60-litre or 110-litre bin and for those commercial property owners have a 240-litre bin for each of them.

Some local authorities have started a toll-free hotline to receive complaints about rubbish collection in order to make it easier for the public to lodge reports connected to rubbish collection. The State of Selangor announced that all complaints will be acted upon immediately and the toll-free hotline will be available on a 24-hour basis, in which complaints can be recorded after 6.00 pm every day for action on the following business day. [6] Distribution of mobile bins and toll-free hotlines have been launched as a new programme by the government to improve the solid waste management in the country. Purposely, it will back-up the 3R (Reduce, Reuse and Recycle) Programme which was implemented in late 1980's and then re-launched in 2001 by the Ministry of Housing and Local Government to improve and develop the recycling rate of activities in the country. The 3R Programme was introduced to increase people's awareness through seminars, workshops, exhibition, carnivals, distributing posters, pamphlets to schools and commercial institutions, bulletin, and different electronic mediums such as television, radio and websites through advertisements. Aside from the Ministry of Housing and Local Government and the local authorities as main players and actors, non-governmental organizations (NGOs), concessionary companies, collectors and manufacturers, private residents associations, educational institutions, private waste recyclers and others have taken part in promoting this Programme. Majority of the people are aware of the importance of 3Rs in promoting a sustainable healthy environment. However, in spite of the 60% (RM70 million or US\$18 million) yearly allocated to increase awareness among the public, the environmental drive was not so effective. [7]

The Department of Solid Waste Management is a government institution with a mechanism to implement efficiently the national policy on 3R as clearly provided in the 3<sup>rd</sup> Outline Plan Policy of the government. Considering the factors that contributed towards the failure of 3Rs implementation in most developing countries, Malaysia adopted several policies and plans to promote an efficient waste management. The SWPCM Act 2007 incorporated at least two clauses which directly undertake 3Rs strategy. These include Clause 101 on reduction, reuse and recycling of controlled solid waste and Clause 102.

In line with the SWPCM Act 2007 (Act 627), which was enforced on September 1, 2011, the Putrajaya Council had increased its efforts in motivating the public to recycle waste. They claimed that people's participation in recycling waste had increased to 22% last year from 10.4% in the year 2010. According to the Council's President, they collected some 4.2 tonnes of recyclable materials, which is almost 10% from the total amount of garbage collected every day.

The government implemented the waste separation scheme to increase the recycle and reuse of waste materials. The greatest challenge will be the participation of individuals in making a recycling campaign in addressing reduction waste to productive side. In 1992, less than 2% of solid waste in Malaysia was being separated at the source or by scavengers for recycling purposes. [11] This situation motivated the government to consider the waste separation scheme as an alternative solution of which the

public, not just the environmentalists will do. With this scheme, household source waste is separated from co-mingled recyclables wastes. It's a scheme which take the wastes problem beyond the landfill-incinerator.

The international organizations like UNDP have contributed in handling seminars to implement a more structured approach to waste management, integrating recycling, organics recovery, land filling, with collection and waste prevention. In year 2006, both the Danish and Malaysian governments have cooperated and agreed to the Environmental Cooperation Programme (ECP). One of the 5 areas involved in the current phase of Malaysia-Danish International Development Assistance (DANIDA) cooperation is Solid Waste Management (SWM). Funded by the Danish Government, DANIDA was established to provide support and assistance on the federalization of solid waste management to the Department of National Solid Waste Management (DNSWM) under the Ministry of Housing and Local Government (MHLG), Malaysia. The development objective of the project is "An efficient, cost effective and sustainable solid waste management system to safeguard public health and the environment and to enhance the quality of life in Malaysia by 2020."

The Ministry of Health (MOH) plays an important role in the social sectors by promoting the health implications of a clean environment. The Engineering Services Department of MOH has carried out programmes on health awareness through the Environmental Cleanliness Programme in rural areas.

## 5. REDUCTIONS MEASURES ON THE NEGATIVE IMPACT

Poorly managed waste continues to be a burden in developing a green environment for a sustainable society. It is deemed as a major pressing issue threatening the environment and health of the people. Several restrictive and punitive measures have been enforced to reduce and overcome the burdens of solid waste management. In spite of those, developing countries, like Malaysia have been facing many more challenges and problems in tackling solid waste management.

The negative impact of poor solid waste management is exacerbated by social and environmental trends such as rapid urbanization, including an increase of industrialization and poorly managed construction waste as well as inadequate environmental practices due to human irresponsibility. These are causes which need to be addressed immediately. In reducing risks against environment, a variety of policies and tools are available that can be used to accomplish vulnerability reduction. With proper enforcement of solid waste laws, much of the risk posed by mismanaged solid waste will be reduced. Another approach is to promote and raise awareness to the public. The media have played an important role in transmitting current issues on waste management to educate the public. An article was written to analyze and evaluate 616 articles on waste management published in two Malaysian daily newspapers, The Sun and the New Strait times from 2003-2006. This article found out that most of the published articles gave suggestions of solutions, defined problem and stated consequences. [8] Some examples are:

- a) "Bulk waste collection to prevent illegal dumping." *The Public Hygiene and Solid Waste Management Board, together with SWM Environment, will be providing a service to collect and dispose bulk waste for free....* (New Straits Times, 13 January 2012).

- b) "Cleanliness is a shared responsibility." "*The attitude of proper disposal of garbage must be instilled. The Public should know that it all starts with them. It doesn't take much to preserve our environment for our future generation.*" (New Straits Times, July 11, 2011)
- c) "Stop wasteful ways, start practicing 3R." "*We believed teachers are the best 'agents' to pass on information about 3R and to inculcate good habits in the school children...At home, parents should lead example by recycling, inculcate the good habit.*" (New Straits Times, 1 July 2011)

Solid waste has been identified to be one of the main contributors of soil and inland water pollution in Malaysia. [9] To achieve the solid waste reduction goals, the government enforced several statutes, such as: Environment Quality (Scheduled Wastes) Regulations 2005, Environment Quality (Dioxin and Furan) Regulations 2004 and Environment Quality (Sewage and Scheduled Effluent) Regulations 2009. These laws were enacted as tools or source of prevention, at least, as reduction of pollution rather than upon treatment and disposal. Pollution prevention is a strategy that proved to be successful in reducing industrial pollutant loads while at the same time improving productivity and competitiveness. [10]

## 6. CONCLUSION

The Malaysian legislators have exerted their best effort in strengthening and improving the regulations on waste management for the past few years. With that effort, they were able to achieve and enforce a legislation, the Solid Waste and Public Cleansing Management Act 2007 with strong regulatory measures and able to establish an institution, the Solid Waste and Public Cleansing Corporation as an enforcement arm in formulating its goals and objectives. This is an Act which adopts more restrictive strategies and policies enforceable to all government programs and activities on solid waste to avoid irresponsible solid waste management in Malaysia. The central aspect of this statute is privatisation to ensure that all issues relating to the weaknesses of the local authorities in handling the solid waste management and public cleansing will be improved and healthy environment will be preserved. However, privatisation of solid waste management will be successfully achieved if there is integration among all states. Aside from this, policies and actions must be taken into account in looking for a sustainable solution. In other words, environment and social goals must be blended in a team to overcome the challenges in sustainable waste management.

As public awareness is a key element for public support, the new laws should be presented and explained to the people, to fully understand the goals, objectives, planning issues and strategies in implementing it. The following are some recommendations to reduce the current negative social impact of environmental changes to an increasing quantity of waste disposal: strict application of law against lawbreakers, to eliminate the use of shopping plastic bag every Saturday and Sunday and to impose higher waste tax for construction and industrial waste. With this

effort, Malaysia will face a bright future for a sustainable environment, the way to a sustainable society.

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