

Critical Analysis on the Malaysian Legal Approach and Policy in Plastic Waste Reduction

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Abstract

The proliferation of the plastics manufacturing sector, rise in consumer plastic usage, and the inadequacy of waste and recycling infrastructure in Malaysia have contributed to the country's growing plastic waste problem. Several reports and research reveal that improper handling of plastic waste poses serious risks to human health, the environment, and social systems. Thus, Malaysia has created a 12-year action plan called the Roadmap towards Zero Single-Use Plastics 2018-2030 in response to the pitfalls of failing to execute strong governance in tackling plastic waste reduction. The goal of the roadmap is to minimize the use of single-use plastic garbage via an integrated effort by all stakeholders. Educating decision-makers across the plastic manufacturing, use, and disposal processes is also crucial. This article will analyse Malaysia's plastic consumption and waste policy, as well as the legislative structure in Malaysia. It is suggested that Malaysia develops a legislative framework and strengthening enforcement on single-use plastics to cut down on waste using the preventive principle and incorporating ideas closely connected to Green Economy.

Keywords: Plastic, Waste, Malaysia, Law, Policy

1. Introduction

Plastics have become a ubiquitous man-made commodity in every element of contemporary culture and daily life. This is primarily attributable to the apparent advantages of its robust and lightweight nature. Unfortunately, the rising consumption and reliance on plastics has posed a threat to Malaysia's natural environment and public health. Plastic garbage, littering, and the unlawful dumping of plastic debris are prevalent problems in Malaysia that create a strain on waste management and the ecosystem as a whole. From an economic

standpoint, the increasing usage of plastics might contribute to the depletion of petroleum, the primary component of plastics (Ministry of Housing and Local Government Malaysia, 2011). Plastic manufacturing has increased, generating 348 billion tons in 2017 compared to 1.5 million tons in 1950 and reaching 8.3 billion metric tons globally, with an anticipated growth by 2050 (Parker, 2018). The effect of packaged items is unquestionably associated with the expansion of plastics usage (Ritchie & Roser, 2018). Plastic debris from a variety of sources, including plastic bags, PET bottles, and microbeads, ends up in the ocean, harming the marine ecology. In the marine environment, the increasing consumption and mobility of single-use plastics has become a cause for worry (Cirino, 2019). It is estimated that 8.8 million tons of plastic enter the ocean annually (Howe et al., 2019). From the 0.94 million tons of improperly handled plastic waste produced in Malaysia, at least 0.14 to 0.37 million tons have entered the ocean (Jambeck et al., 2015). On a global scale, such persistent problems as plastic consumption and marine litter, including microplastics waste, prompted the United Nations Environment Assembly to pass UNEP /EA.4/Res.6, urging all countries to develop "information tools and incentives to promote sustainable consumption and production." (UNEP, 2019). Against this, the notion of Green Economic has arisen, signifying the close relationship between the environment and economy, which serves as a means of achieving sustainable development. In this context, "circular economy" is another closely related term to Green Economy, which refers to an economy that reduces resource use and waste creation through the reuse and recycling of wastes from production processes to resource consumption.

Malaysia's population increase and rapid industrialisation since post-Independence have contributed to a rise in solid waste production. Agamuthu and Victor claimed that generation of solid waste is projected to grow by at least 3 million tonnes between 2015 and 2020 (Agamuthu & Victor, 2011). Organic waste accounts for around 45 percent of the overall waste stream in Malaysia, followed by plastics at 24 percent, paper at 7 percent, metal at 6 percent, glass at 3 percent, and miscellaneous garbage at 15 percent (Agamuthu & Victor, 2011). The bulk (74%) of this waste consisted of single-use plastic films, with rigid plastics and foam plastics accounting for 17% and 9%, respectively (Chen et al., 2021). In 2020 alone, the estimated value of Malaysia's annual food plastic packaging consumption was 148 thousand metric tons, while the annual per capita plastic packaging consumption was 16.78 kilograms (Muller., 2021). It was found that between 0.14 and 0.37 million tons of rubbish from almost 1 million tons of waste are detected in the Malaysian waters as a result of human activities at recreational beaches (Jambeck et al., 2015). The majority of plastic packaging may be found on beaches, where plastic film formed from plastic packaging films is the primary source of plastic garbage (Fauziah et al., 2021). In addition, it was discovered that fishing operations, the processing of seafood, and the upkeep of fishing equipment, such as nets and boats, were the primary contributors to the accumulation of plastic garbage (Fauziah et al., 2021). In Malaysia, where only garbage with a high recycling value is collected for recycling, low recycling rates have also led to a rise in plastic waste output. Lack of technology or economic feasibility has hampered the recycling of non-valued garbage (Ministry of Environment and Water (KASA), 2018).

1.1 Malaysia Policy and Legal Framework

In order to promote waste management and plastic reduction in Malaysia, the government has undertaken several initiatives and attempts to increase the efficiency and effectiveness of local authorities' and operators' garbage disposal policies.

In 2007, a policy framework comprising legal supplementary provisions in selected laws, such as the Local Government Act 1976, the Environmental Quality Act 1974, and the

Solid Waste and Public Cleansing Management Act (SWMA), was implemented in order to facilitate enabling conditions for sustainable solid waste management. In addition, environmentally sound waste management policies have been in place since the 1990s. These include the 1998 Action Plan for a Beautiful and Clean Malaysia (ABC), the 2005 National Strategic Plan for Solid Waste Management (NSP), the 2006 Master Plan on National Waste Minimization (MWM), the 2006 National Solid Waste Management Policy, the Solid Waste Corporation Strategic Plan (2009-2013), and the Tenth Malaysian Plan (2011-2015), which strengthen and advance Malaysia. In an effort to achieve environmental sustainability by 2030, the Ministry of Environment and Water (KASA) has introduced Malaysia's Roadmap to Single Use Plastic (2018-2030), which is complemented by Malaysia's Circular Plastics Economy Roadmap 2020-2030 and Malaysia's Marine Litter Roadmap 2020-2030 (Chang, 2020).

There is currently no comprehensive legislative framework aimed at reducing the use of plastics and mitigating the effects of plastic pollution. The Environmental Quality Act of 1974 (EQA) is the primary law enacted in Malaysia to protect environmental quality, as it addresses waste prevention and control concerns. Section 2 of the Environmental Quality Act of 1974 defines "Waste" as "*any matter specified to be scheduled waste, or any matter in solid, semi-solid, liquid, or gaseous form that is emitted, discharged, or deposited in the environment in such volume, composition, or manner as to create pollution.*" Although there is no definitive interpretation of plastic under the EQA, it is argued that plastic falls within the category of waste under Section 2 of the EQA and the First Schedule of the Environment Quality (Scheduled Wastes) Regulations 2005.

The Solid Waste and Public Cleansing Management Act (SWPCMA) of 2007 regulates and governs the management of controlled solid wastes and public cleansing to preserve adequate cleanliness. On September 1, 2015, as part of the measures to increase recycling of waste, the SWPCMA implemented mandatory waste segregation for homes in certain Peninsular Malaysian states and the Federal Territories (Kuala Lumpur and Putrajaya). Section 101 of the Act contains the duty to reduce, reuse, and recycle solid waste, which is complimentary to promoting the 3R concept and practices in the community. Parts 4 and 8 of the Act outline the prescribed methods for addressing plastic pollution concerns and reducing their use. To guarantee appropriate management and control of solid waste producers, the competent authorities must grant a license to people in possession of regulated solid waste (Mustafa, 2011), however precise methods to minimize plastic waste or any other kind of garbage are not provided. These parts only outline the responsibilities of any person who deposits, separates, stores, maintains, collects, transfers, transports, treats, or disposes of, or causes or permits the depositing, separating, storing, maintaining, collecting, transferring, transporting, treating, or disposal of controlled solid waste using environmentally friendly mechanisms to reduce the controlled solid waste's negative impact on the environment. However, the SWPCMA does not apply in Sabah and Sarawak. In general, these two states address their solid waste problems by implementing their respective state laws. The Anti-Litter by-law of 2005 and the Conservation and Hygiene by-law of 1984 are the most pertinent by-laws in Sabah for addressing solid waste concerns. According to the Local Authority (Cleanliness) By-Laws of 1999, solid waste management is the responsibility of local administrations in Sarawak. It mandates that the local government determine, develop, and maintain a system for the collection, removal, and disposal of waste from all properties within its jurisdiction. Compared to Peninsular Malaysia, the community in Sarawak does not actively engage in recycling and waste segregation, despite having basic infrastructure for MSW management. This may be owing to the enormous size of Sarawak, which necessitates rural network expansion, the promotion of recycling practices, and ongoing educational awareness.

The State of Sarawak must also engage in research and development (R&D) in addition to a strong commitment to resolving difficulties in solid waste management and plastic pollution (Tang, 2020). To achieve zero single use plastics in Malaysia, the NST reports that initiatives at the supermarkets in Selangor, Penang, Melaka, and Kedah, for example, have imposed a bag tax and banned the use of straight bags and plastic drinking straws, respectively, and the Federal Territories of Kuala Lumpur, Putrajaya, and Labuan have banned plastic straws as of 1 January 2020 (The Star, 2019).

Some of the obstacles to successfully implementing initiatives to reduce plastic waste can be attributed to flaws in the implementation of policies and strategies, which are largely attributable to a lack of political will, resistance from the relevant stakeholders including plastic producers, and the infeasibility of some measures directly adopted from other developed nations that may not be suitable to local circumstances (Agamuthu & Victor, 2011). In addition to enhancing green economy initiatives at the development and planning stages in all plastic-using sectors in Malaysia, these obstacles can lead to the deployment of new strategies, such as the creation of a separate law to govern and manage recycling practices, or to legislate on reducing plastic usage and sustainable production or manufacturing of plastics, as well as deploying new strategies for the deployment of green economy initiatives.

2. Methods

This article employs doctrinal legal research through content document analysis. Legal provisions in statutes; government's policy and case law are the primary sources; meanwhile, textbooks and journals become the secondary sources. These documents are analysed to give a critical review on Malaysia's law and policy in plastic waste reduction.

3. Finding & Discussion

Reducing the usage of plastics or plastic waste has been the major goal of plastic bag bans, fee levies, and the implementation of SWPCMA 2007 in Malaysia. However, there is no binding legal framework to ensure that these prohibitions or fees are enforced, and the efficiency of current implementation is highly dependent on the human resources of local authorities and company owners. There will be issues with the costs to retailers, to consumers, to governments for enforcement, and to the long-term viability of community support of bans on plastic bags if any regulatory measures to do so are introduced (Macintosh, Simpson, & Neeman, 2018). Additionally, implementation may vary and be inconsistent throughout Malaysia due to variances in authority between the Federal and State governments. Though there are gaps in the available data on the consumption and trends in using plastic items, particularly bags, in Malaysia, the government should nonetheless consider enacting plastic bag ban law. Otherwise, one may think of adopting a policy or regulatory framework that takes into account the connections between consumers' plastic use, companies' investments in plastics production and manufacture, and long-term sustainability. Investments in certain sectors that restore and sustain natural resources or boost efficiency in their usage might benefit greatly from the notion of Green Economy in this context. The ultimate goal of Green Economy is to create *"an economy that results in greater human well-being and social fairness while considerably lowering environmental dangers and ecological scarcities."* (UNEP, 2011) It is thought that through increasing investments in social and economic infrastructure, poverty might be reduced. According to UNEP's assessment, the Green Economy should arise as a consequence of general economic activity if the proper *"mix of fiscal measures, regulations,*

norms, international frameworks, know how, and infrastructure" is in place. Key enabling conditions for a transition to a Green Economy are outlined in the report. These include establishing sound regulatory frameworks; prioritizing government investment and spending in areas that stimulate, the greening of economic sectors; limiting spending in areas that deplete natural capital; using taxes and market-based instruments to shift consumer preference and promote green investment and innovation; investing in capacity building and training; and strengthening institutional frameworks. Government policy frameworks should be put in place to foster an atmosphere where incentives for green economy activities are actively promoted (Weick, 2016). Although such a shift could have an impact on the petrochemical industries that produce plastic, it could aid in the transition to a greener outcome in production of goods and products. The production of petrochemicals and plastic is expected to increase in the next 20 years, which will push oil demand until 2050 (Gardiner, 2019; IEA, 2018). Although plastic has many practical uses, its production and usage, as well as its after-use impacts, contribute to the emission of greenhouse gases (GHGs), creating a persistent environmental crisis that calls for prompt response.

Meanwhile, actions that may lead to a future rise in plastic waste in Malaysia may be mitigated, lessened, or managed via the adoption of the concept of preventative action within a good regulatory framework. In the case of *Pulp Mills on the River Uruguay (Argentina v. Uruguay)* (Judgment) (2010) ICJ Rep 2010, the International Court of Justice established a customary international law ruling those mandates strict enforcement and administrative control of public and private operators within the capabilities of States. Because environmental harm is often permanent and options for repair of environmental damage are severely restricted, the International Court of Justice affirmed this concept in *Gabcikovo-Nagymaros (Hungary v. Slovakia)* (1997) ICJ Reports 7. In light of this, it is incumbent upon States to use, within their legal framework, measures that are both reasonable and suitable in order to emphasize the significance of considering sustainable development objectives and environmental issues in any decision making. Malaysia, as a signatory to the Basel Convention, recognizes the need of taking measures to reduce hazardous waste in order to safeguard human health and prevent environmental damage. Economic incentives are needed to fund the high cost of disposal in an ecologically friendly way, which means that the effort to reduce or minimize waste from any activity centred on the notion of "Reduce, Reuse, Recycle" must be complemented with management of wastes including disposal (Rayfuse, 2016).

4. Conclusion

As for conclusion, in order to achieve the objective of the 2018-2030 Roadmap towards Zero Use of Plastic in Malaysia, it is also essential to engage public participation, which is a major factor in programs or initiatives to ensure a sustainable environment through education, awareness, and comprehension of plastic use. Throughout the participation process, individuals will be invited to evaluate their desires, explore viable solutions, and generate possible outcomes based on their talks. There are three processes: 1) the early preparatory decision-making process (decision-making, planning, and design); 2) the middle implementation process (management and delivering); and 3) the end assessment process (monitoring and evaluation). At the international level, public engagement is recognized as one of the key components in Principle 10 of the Rio Declaration of 1982, which states: "Environmental challenges are best addressed with the participation of all concerned individuals at the appropriate level." At the national level, each citizen must have access to environmental information kept by public agencies, including information about hazardous materials and activities in their localities, as well as the chance to participate in decision-making processes."

Similarly, the Aarhus Convention of 1998 also established the right to participate in decision-making on activities that may have severe environmental effects. Article 6 confers a broad right to early public involvement, which encompasses the submission of pertinent comments, facts, analyses, and views, as well as the conclusion of the public participation exercise and the communication of such a decision to the public. The Convention also requires parties to permit public involvement in the reconsideration or updating of operating conditions, as well as the formulation of environmental plans and programs, within a transparent and equitable framework. In addition, Article 8 requires Parties to "strive to foster" public engagement at all stages of drafting and establishing legally binding rules or executive regulations in topics that may have a substantial effect on the environment.

Section 34A of the Environmental Quality Act (EQA) 974 of Malaysia demands public involvement in the preparation of the Environmental Impact Assessment (EIA) report. To guarantee that public opinion or input on the development of any project is taken into account, it is the duty or responsibility of the project's proponent or developer to carry out the necessary procedures. Cases illustrating the significance of the public involvement process in Malaysia, such as the Bakun Dam project in Sarawak and the Lynas Nuclear Power Plant in Gebeng. Despite the fact that the highlighted cases have demonstrated some setbacks in implementing the public participation process effectively within the constraints of the legal framework and access to justice, the importance of a proper and meaningful public participation must be carefully considered in order to achieve environmental sustainability. Regarding public participation in reducing plastic usage and waste in Malaysia, a study found that there is a close relationship between the attitudes of consumers and the willingness of retailers to provide plastic bags or carriers for free or at a minimal price near the checkout counters for the convenience and quick accessibility of buyers or consumers. This would promote and support actions to eliminate the use of plastic bags by reducing consumption and raising awareness about the terrible effects of plastic waste on the environment.

To effectively address the decrease of plastic waste in Malaysia, it is essential to integrate many factors. The establishment and implementation of laws alone may not be sufficient to resolve plastic waste-related issues; rather, a green and sustainable economy, a specific set of rules, and the empowerment of institutional mechanisms for securing compliance and encouraging public participation are required. Nonetheless, Malaysia seemed to be on the right track to build a new waste management regulatory framework, as envisioned in the Roadmap 2018-2030, that would offer ecologically sound procedures for the long-term reduction of plastic waste.

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