

LEGAL CONTROL ON DISPOSAL OF PLASTIC WASTE IN MYANMAR

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Abstract

Plastic waste refers to the accumulation of discarded plastic materials in the earth's environment. It is a serious issue that must be addressed urgently and internationally. The most common methods for plastic waste disposal are landfill, incineration, and recycling. Among them, land disposal is the most widely practiced method worldwide. However, improper disposal of plastic waste can lead to plastic-polluted beaches and oceans, plastic-littered landscapes, and the release of toxic fumes from burning plastic. Therefore, public education and awareness are essential elements in changing human behaviors to address plastic waste issues. The main aim of this paper is to prevent the improper disposal of plastic waste with effective legislation. This paper will examine the legal measures for uncontrolled disposal of plastic waste, the best methods of plastic waste disposal, and prevention of plastic waste in Myanmar. The results from this paper indicate that Myanmar would be able to take action with effective legislation for uncontrolled disposal, to get the best methods of disposal in reducing plastic waste, to implement the effective legislation and practices in preventing plastic waste, to promote public education and awareness concerning disposal, and finally, to become a clean environment from plastic pollution.

Keywords: Plastic Waste, Methods of disposal, Environmental Impact, Education and Awareness

Introduction

Plastic waste is a category of solid waste and any plastic discarded after use. It is ubiquitous in the natural environment. Since uncontrolled disposal of plastic waste can affect land, waterways, and oceans, plastic waste issues have become crucial and require special attention. Thus, improper disposal of plastic waste requires effective handling to eliminate environmental and health impacts. The Ayeyarwaddy River is one of the most polluted rivers in the world, and Myanmar's coastlines are also heavily affected by microplastics. Therefore, this paper analyzes how to use the methods of disposal, how to address the uncontrolled disposal of plastic waste, how to prevent it under International Conventions, the Environmental Conservation Law of 2012, the relevant City Development Laws and the Sectorial Laws regarding plastic waste disposal, and the enforcement actions contained in national legislation that address the disposal of plastic in Myanmar.

Aims and Objectives

The aims of this paper are to protect the environment from plastic pollution, to know that the uncontrolled disposal of plastic waste can harm people, animals, and the environment and to promote public awareness and education about responsible plastic waste disposal and recycling.

Materials and Methods

This research explored the prevention of the improper disposal of plastic waste under International Conventions, Resolutions and National Laws. The materials used for this paper are books, articles, and other publications. Interview data were collected from the relevant officers of the Pollution Control and Cleansing Department of the Yangon City Development Committee.

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International Legal Frameworks of Plastic Waste

Plastic pollution is a global phenomenon. At the international level, plastic waste is one of the major problems and it has to be addressed throughout the world.

Due to the worsening of plastic pollution, at the 14th meeting of the Conference of the Parties to the Basel Convention (COP-14, 29 April to 10 May 2019), amendments to Annexes II, VIII and IX of the Convention were adopted with the aim of increasing control of the transboundary movement of plastics waste.² Also, the Ministry of Natural Resources and Environmental Conservation (MONREC) issued the Notification No. 74/2023 on 7 June 2023. This notification provides the Promulgation of Procedures for Cross-Border Transportation of Hazardous Wastes and Other Wastes to control the impacts on human health and the environment and to implement the obligations of the Basel Convention in Myanmar.

The 2001 Stockholm Convention on Persistent Organic Pollutants (POPs), the United Nations Convention on the Law of the Sea, 1982, the Convention on Biological Diversity, 1992, the London Convention, 1972, the Prevention of Pollution by Garbage from Ships (MARPOL), Annex V, 1988 and the 1992 Report of the United Nations Conference on Environment and Development (Agenda 21) have been adopted relating to plastic waste.³

In Myanmar, the National Guidance for the Prevention of Pollution by Garbage from Ships was set out for the prevention of pollution by garbage from ships on 1st March 2017, according to Directive 2/2017.

By following the SDG Goals, waste generation can be reduced through prevention, reduction, recycling, and reuse.⁴ Resolutions 1/6, 2/11, 3/7, 4/6, 4/7, 4/9, and 5/14 were adopted by the UN Environment Assembly relating to the reduction of marine litter, micro-plastics, and single-use plastic products pollution.⁵

In the ASEAN region, the ASEAN Member States propose the gradual implementation of a systematic and integrated response to guide regional action to address the problem of marine plastic pollution in ASEAN in the next five years (2021-2025).⁶

The international community has enacted several legal instruments that address this important issue. Myanmar has already ratified all of these instruments except for the London Convention, 1972.

Definition of Plastic Waste

Plastic waste is the accumulation of plastic objects in the environment. When plastic waste enters the natural environment, it is difficult to degrade. "Wastes" are substances or objects

² Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 1989 (Revised Edition 2019)

³ Article 1 of the Stockholm Convention on Persistent Organic Pollutants (POPs), 2001, Article 210 of the United Nations Convention on the Law of the Sea, 1982, Article 6 of the Convention on Biological Diversity, 1992, Article 4 of the London Convention, 1972, Regulation 3 of the Prevention of Pollution by Garbage from Ships (MARPOL), Annex V, 1988, clause 21.8 of the Report of the United Nations Conference on Environment and Development, 1992.

⁴ 2030 Agenda for UN Sustainable Development Goals, 2015.

⁵ UNEP/EA.1/Res.6,2014, UNEP/A.2/Res.11,2016, UNEP/ EA.3/ Res.7,2018, UNEP/EA.4/ Res.6, UNEP/EA.4/L.7, 2019.

⁶ ASEAN, World Bank, ASEAN Regional Action Plan for Combating Marine Debris in the ASEAN Member States (2021-2025), Jakarta, Indonesia, 2021, p-vi.

which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law.⁷ Plastic waste can be defined as any discarded plastic generated by any industrial process, or by consumers.⁸

Section 2(h) of the Myanmar Environmental Conservation Law, 2012, provides that “Waste” includes solids, liquids, or vapours and also includes anything that is classified as waste in accordance with this Law, including any radioactive substance that is discharged, emitted, or deposited in the environment. “Plastic” means a solid material that contains as an essential ingredient one or more high molecular mass polymers and that is formed during either manufacture of the polymer or the fabrication into a finished product by heat and/or pressure.⁹

Myanmar does not have a specific definition of plastic waste, it does have a definition of “waste” and a definition of “plastic”.

Identification Codes of Plastic

ASTM International (American Society for Testing and Materials), is a globally recognized leader in the development and delivery of voluntary consensus standards, has adopted a Resin Identification Code (RIC) for these seven types of plastic. As contained in the RIC, plastics comprise the seven structure types mentioned below;

- (1) Polyethylene Terephthalate (PET or PETE or Polyester) – recycled;
- (2) High Density Polyethylene (HDPE) – recycled;
- (3) Polyvinyl Chloride (PVC) – sometimes recycled;
- (4) Low Density Polyethylene (LDPE) – non-recyclable;
- (5) Polypropylene (PP) – non-recyclable;
- (6) Polystyrene or Styrofoam (PS – non-recyclable;
- (7) Other Plastics – non-recyclable.¹⁰

By classifying plastics into these seven types, the basic raw material and hence the recyclable quality of plastics can be more easily identified. In Myanmar, the Department of Research and Innovation (DRI) entered into a MOU with the ASTM in October 2016.¹¹

Today, people use a majority of polystyrene types of plastic, which are non-recyclable. Thus, there is an urgent need to reduce the use of this type of plastic in order to protect the environment from its harmful effects. Therefore, all countries, including Myanmar, need to prohibit the manufacture, import, stocking, distribution, sale, and use of single-use plastic, such as polystyrene or styrofoam.

Methods of Disposal

The three most popular methods for getting rid of plastic are landfill, incineration, and recycling. Safe disposal of plastic waste is a serious environmental problem.

⁷ Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 1989 (Revised Edition 2019).

⁸ <https://www.leap.unep.org/knowledge/glossary/plastic-waste>

⁹ Directive 2/2017, National Guideline for the Prevention of Pollution By Garbage from Ships, Department of Marine Administration (DMA), Myanmar, 2017, p-5.

¹⁰ ASTM D7611/D7611M – Standard Practice for Coding Plastic Manufactured Articles for Resin Identification, 2020.

¹¹ <https://www.myanmarstandards.org.mm/>

Landfill

Landfills are a common way to dispose of plastic waste, but they are no longer the preferred option because it can take years for plastic to decompose. Plastic pollution of the soil and water results from the abiotic and biotic degradation of plastics caused by land disposal or plastic dumping. Therefore, a landfill is not the best method for the disposal of plastic waste.

Additionally, landfill space shortage is becoming a significant issue, even though landfilling is still the most widely used conventional waste management technique in many countries. For instance, since 1979 in land-scarce Singapore, Waste-to-Energy (WtE) plants have been an effective method of managing plastic waste by reducing its volume for disposal in landfills and thus reducing landfill areas. Also, Yangon built a WtE plant to prevent waste from going to the landfill in 2017.

Incineration

One of the main causes of air pollution is the burning of plastic waste in an open field. The open burning of plastic releases harmful chemicals into the atmosphere, causing pollution. When animals and people breathe in polluted air, it can lead to respiratory issues and other health problems.

In Yangon, a huge fire outbreak happened at Htein Bin final disposal site, and it spread quickly, consuming more than half of the disposal site area on 21st April 2018. Most of the plastics were burnt in the Htein Bin Garbage Dump site, and firefighters and people who live around it, suffered severe impacts on their health and had to be taken to the hospital for treatment. Therefore, guarding against any future fire risk is urgent and important for protecting the health and safety of the people living in the surrounding areas of waste disposal sites.

SDG 3 focuses on ensuring health and promoting welfare for all ages.¹² “No person shall pile or burn any kind of waste except within the specific area”.¹³

However, incineration can be used to generate energy from the waste combustion heat. Electricity produced from plastic waste not only conserves the natural environment but also reduces plastic pollution. The waste disposal infrastructure needs improvement. In 2017, the WtE plant constructed in Htawai Chaung in Yangon. The plant treats all waste delivered to the Htawai Chaung Final Disposal Site.¹⁴ Furthermore, “The Committee shall coordinate with the relevant departments to connect the energy recovery from wastes to the power network”.¹⁵

The Philippines also adopts the Guidelines Governing Waste-To-Energy (WtE) Facilities for the Integrated Management of Municipal Solid Waste. Singapore’s first WtE plant was established in 1979. By reducing the volume of waste by up to 90%, incineration has been an effective method of waste disposal for Singapore.

¹² 2030 Agenda for UN Sustainable Development Goals, 2015.

¹³Section 322(u) of the Yangon City Development Law, 2018 and Section 105(l) of the Mandalay City Development Law, 2014.

¹⁴ JFE Engineering Corporation, Waste to Energy Plant for Yangon City in Myanmar (Final Report), Kawasaki City, March 2018, pp-4-9.

¹⁵ Section 254 of the Yangon City Development Law, 2018.

Therefore, like the Philippines and Singapore, Myanmar needs to build more WtE facilities in its major cities. Furthermore, the relevant city development laws need to prescribe the use of plastic waste for energy recovery.

Recycling

Plastic is one of the most problematic types of waste that is troubling waste management. The recycling method is the best solution for plastic waste management. There is also an urgent need to address the plastic waste pollution in Myanmar. Accordingly, the Yangon Region Chief Minister has stated that the plastic waste management services for recycling, recovery and reuse are being implemented in Yangon city.¹⁶ Mandalay City Development Committee (MCDC), however, initiated its “Thin Plastic Free Zone” Program in March 2006. Mandalay city has now become the model of a plastic-bag-free region of the country, and Yangon and Nay Pyi Taw are now planning to emulate the success of the MCDC by adopting its program.¹⁷ “The Ministry shall adopt the necessary programs for the conservation, protection, control and reduction of pollution in the environment and for reconversion”.¹⁸

The recycling of waste, including plastic waste, has traditionally been carried out in many cities in Myanmar mostly by the informal sector. Myanmar Recycles is the leading recycling company that collects and recycles traditionally unrecyclable waste that is a significant contributor to the global plastic waste crisis. In addition to working with private companies, Myanmar Recycles collaborates with YCDC, Pollution Control and Cleansing Department (PCCD), which has shown its commitment to tackling plastic pollution with Myanmar Recycles at the country’s largest landfill.¹⁹

“No one shall oppose the community’s directive on waste disposal and recycling”.²⁰ Moreover, Goal C of Myanmar’s strategy plan (2018-2030) identifies a requirement to promote “reduce, reuse, recycle and recovery” of waste materials before final disposal.

Recycling is the best solution method, but most of the plastic waste cannot be recycled, especially single-use plastics, which are mostly not recyclable. Therefore, recycling is only a temporary solution, and it alone is not sufficient to tackle the whole plastic crisis. There is no adequate recycling system in Myanmar.

Prevention of Uncontrolled Disposal

The Myanmar Environmental Conservation Law, 2012, was enacted with the aim for reducing air, water, and land pollution. After that, Myanmar’s National Waste Management Strategy and Master Plan (2018-2030) was adopted and launched in January 2020. The key activities in Goal A are identified to improve the municipal solid waste collection and eliminate uncontrolled waste disposal and open burning.

¹⁶ Akenji, L, (2019), *Circular Economy and Plastics: A Gap-Analysis in ASEAN Member States*, p-64.

¹⁷ Ministry of Industry, Country Analysis Paper on 3R Practice in Myanmar, Fourth Regional 3R Forum in Asia, Myanmar, March 2013.

¹⁸ Rule 16(a) of the Environmental Conservation Rules, Myanmar, 2014.

¹⁹ <https://www.mmmtimes.com/news/worlds-first-plastic-credit-scheme-comes-to-myanmar>

²⁰ Section 105(o) of the Mandalay City Development Law, 2014.

“Disposal site means a site where there are temporary bins for the collection and storage of rubbish and pile waste designated by the Committee”.²¹ Waste collection and improper disposal are issues that are also being faced by Myanmar. Waste collection and disposal have traditionally been the responsibility of the respective townships and city development committees.

In urban areas, in addition to increasing waste generation levels, data gaps, low levels of public awareness about waste management and willingness to pay for waste services, a general lack of compliance with existing waste rules/ regulations, and poor cooperation with local authorities are common occurrences. There is no waste separation system in place, and recycling activities are mainly carried out by the informal sector.²²

Out of the total waste generation in the country, at least half is generated by three major cities: Yangon (2,000 tonnes/day), Mandalay (955 tonnes/day), and Nay Pyi Taw (200 tonnes/day). Yangon, Mandalay and Nay Pyi Taw engaged with foreign partners’ cities to establish new waste collection, recycling, treatment, and final disposal facilities. Presently, in most rural communities, people are disposing of their waste directly into water sources. The most popular way of managing is open burning. Most of the people in rural communities utilize an informal management system.²³

Thus, the environmental impacts of plastic waste are a major issue also in Myanmar. According to the recent survey conducted by Fauna & Flora International (FFI) and Thant Myanmar, the beaches are located at the delta of the Irrawaddy River transports a shocking 119 tons of plastic pollution every day. Both marine habitats around Myanmar, especially in the Bay of Bengal, and Myanmar’s coastlines are heavily polluted by microplastics. Both domestic and industrial waste in the Gulf of Mottama (GoM) is mostly dumped in the watercourses. Plastic fragments are most abundant from Rakhine and Delta areas, while fibers are most abundant on Tanintharyi coast.²⁴ Abandoned, Lost, or otherwise Discarded Fishing Gear (ALDFG) was found to be highly prevalent across the Myeik Archipelago of Myanmar.²⁵

Research by the campaign has found that the amount of rubbish dumped in the zone – which encompasses Nyaung-U, New Bagan and Old Bagan – each day is about 36 tons, of which about 20 percent is plastic waste such as water bottles. Nyaung U is a popular tourist area but lacks a proper waste collection system, thus heavily impacting biodiversity, health, and livelihoods.²⁶

The regional initiatives includes the action taken by the Coordinating Body on the Seas of East Asia (COBSEA) which brings together nine countries: Cambodia, People’s Republic of China, Indonesia, Republic of Korea, Malaysia, the Philippines, Thailand, Singapore and Viet Nam in development and protection of the marine environment and coastal areas of the region, for the health and wellbeing of present and future generations. COBSEA aims at the

²¹ Clause 1(o) of the Nay Pyi Taw Bye-Law, 2016.

²² ECD, MONREC, UNEP, National Waste Management Strategy and Master Plan for Myanmar (2018-2030), Myanmar, 2018, pp-19,34,39.

²³ Wint Hte, Yin Yin Htay, Aung Naing Soe, Waste Research in Gulf of Motama, Swiss Agency for Development and Cooperation SDC, IUCN, September 2019, pp-17, 24.

²⁴ Ibid, p-7.

²⁵ Thanda Ko Gyi, (2020), *Abandoned, Lost or otherwise Discarded Fishing Gear (ALDFG) in Myanmar’s Myeik Archipelago*, Myanmar Ocean Project, p-8.

²⁶ <https://www.frontiermyanmar.net/en/at-myanmars-tourist-hotspots-a-dirty-habit/>

sustainable development and protection of the marine environment and coastal areas of East Asian Seas.²⁷

ASEAN ratified the Bangkok Declaration on Combating Marine Debris and the ASEAN Framework of Action on Marine Debris at the 34th ASEAN Summit in Bangkok, Thailand in 2019. The ASEAN Framework IV takes actions in Private Sector Engagement such as product life-cycle management, sustainable consumption and production and “3R” approaches.²⁸ The 2018 East Asia Summit (EAS) participating countries on their part, are also taking action in combating marine plastic debris, to improve and promote environmentally sound management of plastic waste.²⁹

Also, Section 45 of the Constitution of the Republic of the Union of Myanmar, 2008, states, “The Union shall protect and conserve natural environment,” and according to Section 390(b) “Every citizen has the duty to assist the Union in carrying out the environmental conservation.” And, an important contributor in mitigating the country’s plastic waste problem is the National Environmental Policy, 2019, which provides long-term guidance for government organizations, civil society, the private sector, and development partners on the achievement of environmental protection and sustainable development objectives in Myanmar.

Thus, the Environmental Conservation Law, 2012, the Environmental Conservation Rules, 2014, and National Waste Management Strategy and Master Plan (2018-2030) have provided for relating to paying compensation for environmental impacts by the polluter who causes damage to the environment.³⁰

Notwithstanding the other existing laws, the Government shall advise, examine, supervise, revise and prohibit health matters such as collecting and disposing of garbage and sewage in public areas to improve the health of the working people.³¹

Also, “no person shall, without the permission of the Committee within the municipal boundaries, dispose of garbage, sewage, dirt, etc. in a lake, roads, on the streets, sidewalks, in rivers, in streams, or in a place not designated for disposal.”³² And Section 322(y) of the Yangon City Development Law, 2018, states that “no person shall throw and place refuse, plastic bags, plastic bottles, and paper at the public places.” Moreover, Clause 2(a) of the Nay Pyi Taw By-law, 2016 provides that “the Committee shall specify the place of disposal for each category and class of wastes including plastic, plastic bags, P.V.C pipes, and recyclable waste.”

²⁷ COBSEA, Regional Action Plan on Marine Litter, 2019, p-4.

²⁸ <https://www.asean.org/asean-framework-of-action-on-marine-debris/>

²⁹ Clause 1 of the 2018 East Asia Summit Leaders’ Statement on Combating Marine Plastic Debris, Singapore, 2018.

³⁰ Section 7(o), 32, 33(a) of the Environmental Conservation Law, 2012, Rule 30(a) of the Environmental Conservation Rules, 2014 and National Waste Management Strategy and Master Plan for Myanmar (2018-2030).

³¹ Section 3(1)(a) of the Public Health Law, 1972.

³² Section 67(c) the Kachin State Municipal Development Law, 2013, Section 99(a) and (e) of the Kayah State Municipal Development Law, 2020, Section 60(c) of the Karen State Municipalities Law, 2012, Section 63(c) of the Chin State Municipal Law, 2013, Section 52(d) of the Mon State Municipal Law, 2017, Section 67(c) of the Rakhine State Municipal Law, 2013, Section 69(d) of the Shan State Municipal Development Law, 2013, Section 317(b), 322(h) and (v) of the Yangon City Development Law, 2018, Section 105(c) of the Mandalay City Development Law, 2014, Section 164 (c) and (n) of the Sagaing Region Municipal Development Law, 2018, Section 64 (c) of the Irrawaddy Region Municipalities Law, 2012, Section 62 (d) of the Magway Region Municipalities Law, 2012, Section 66 (d) of the Bago Region Municipal Development Law, 2016, Section 59(d) of the Tanintharyi Region Municipal Development Law, 2017.

Thus, the followings sectorial laws are indirect laws related to the disposal of plastic waste. They have descriptions relating to the discharge of waste but do not specifically mention plastic waste, plastic bags, and single-use plastic.

- The Penal Code, 1861 (amendment in 2016)
- The Port Act, 1908 (amendment in 2008)
- Myanmar Port Authority Law, 2015
- Myanmar Investment Law, 2016 (amendment in 2019)
- Myanmar Territorial Sea and Maritime Zones Law, 2017
- The Conservation of Biodiversity and Protected Areas Law, 2018
- Forest Law, 2018
- Industrial Zone Law, 2020

Public education and awareness are essential factors relating to the disposal of plastic waste. Environmental knowledge and attitudes are key elements for changing human actions. Section 6(a) of Myanmar Environmental Conservation Law, 2012, states, “The powers of the Committee include carrying out organizational education and activities relating to environmental conservation.” Both YCDC and MCDC have implemented environmental education programmes in local schools aimed at raising awareness of students about waste separation and recycling. Thus, Section 264 of the Yangon City Development Law, 2018, provides that “the Committee shall educate the public about environmental conservation works and the management of wastes.”

Although Myanmar has the provisions of public education and awareness in laws, in practice, Myanmar’s implementation of public education and awareness programs is weak, and public participation in plastic waste management needs improvement.

Economic growth and changes in consumption behaviour have accelerated plastic waste generation in Myanmar. Consumption of single-use plastic has increased manifold over recent years. In total, approximately 2 billion PET bottles are estimated to be consumed in Myanmar every year. Since the COVID-19 outbreak, plastic packaging (especially single-use plastic) used in the food service industry and retail sector has increased in line with government advice and individual precaution to follow more stringent hygiene protocols.³³

For instance, in China, the State Council issued the Work Plan on “Zero-waste City” Pilot Program in China and launched the pilot program in 11 cities (including Shenzhen) and 5 special areas (including Xiong’ a New Area) in 2018. The pilot sites have taken plastic pollution control as a vital task for building zero-waste cities. The comprehensive development of zero-waste cities significantly helps promote source reduction, recycling and harmless disposal of plastic waste. As an important part in the transition to zero-waste cities, prevention and control of plastic pollution involves many fields, such as industries, agriculture, and people’s daily lives.³⁴ In September 2021, the National Development and Reform Commission (NDRC) and the Ministry of Ecology and Environment (MEE) jointly issued the Action Plan for Plastic Pollution Control During the 14th Five-Year Plan Period. Thus, local authorities have also been working actively to

³³ Ingrid Nesheim, (2022), *Towards improved waste management in Bago Region*, Report SNo.7706-2022, Royal Norwegian Embassy Yangon, Myanmar, p-16.

³⁴ MEESCC and SWITCH-Asia RPAC (2022), *Study on the Roadmap of Plastic Pollution Control for the Zero-Waste Cities in China*, p-6,8.

achieve plastic pollution control targets set out for the 14th Five-Year Plan period. The output value of recycled plastic waste was about 105 billion yuan in 2021, rising 33% from 79 billion yuan in 2020.³⁵

Also, India and the Philippines have respectively issued Rule 4(2) of the Plastic Waste Management (Amendment) Rules, India, 2021, and Section 4 of Single-Use Plastics and Single-Use Styrofoam Products Regulation Act, Philippines, 2021, to prohibit the manufacture, production, sale, distribution, import, and use of single-use plastic. Myanmar, on the other hand, has not enacted any legislation prohibiting the manufacture, production, sale, distribution, import, and use of single-use plastic.

Therefore, Myanmar needs to implement such legislation relating to single-use plastic. Moreover, the relevant Cities Development Laws do not contain the prohibition of specific plastic bags, plastic cups, and plastic box for disposal like Section 322(y) of the Yangon City Development Law, 2018. Also, the major cities in Myanmar need to implement the “Zero-Waste Pilot program and the Action Plan for Plastic Pollution Control like China.

Enforcement of Plastic Waste Disposal

Plastic pollution has been recognized as an urgent issue by Myanmar. To properly handle plastic waste management at this time, however, the laws, policies, and initiatives in place are currently insufficiently developed.

The Ministry of Natural Resources and Environmental Conservation (MONREC) is the focal and coordinating agency for overall environmental management in Myanmar. Waste management, however, is a principal function of City Development Committees and Township Development Committees designated within Myanmar cities. Each committee maintains a Pollution Control and Cleansing Department (PCCD), which is responsible for overseeing household solid waste and industrial, medical and hazardous waste management. However, collection and disposal are currently the main priorities of the municipalities and intermediate waste treatment, such as recycling, plays a minimal role at present.³⁶

With regard to enforcement, YCDC’s Accounting Officer has announced that “Shops such as restaurants, café, etc., must dispose of waste in the specific areas. If a shop fails to comply with the conditions, they shall be punished with a fine imposed by the Committee. YCDC shall take action with a fine of 10,000 kyats upon a person found to be in violation of the said conditions.”

In one case, a restaurant did not systematically dispose of wastes in Thakata Township in Yangon on 15th December 2014. Thus, it was decided that as the restaurant had failed to comply with a condition or order issued by the Committee under Section 322(h) of the Yangon City Development Law, 2018, it should be punished with a fine of 10,000 kyats.

Mostly, factories are located in Yangon. In the case of the Maha (Resin Industry), the industry had been emitting pollutants that were causing air pollution, water pollution, and land pollution from its factory in the Shwe Lin Ban Industrial Zone, Hlaing Tharyar Township on 17th

³⁵ Ibid, p-6.

³⁶ ECD, MONREC, UNEP, National Waste Management Strategy and Master Plan for Myanmar (2018-2030), Myanmar, 2018, p-17.

October 2017. It was found that the Maha (Resin Industry) had violated the conditions issued by the YCDC Committee and was punished with a fine of two lakhs of kyats under the Yangon City Development Law, 2018.

“No person shall discharge wastewater into rivers, streams, and sewers without treatment of wastewater and shall emit smoke causing air pollution into atmosphere from businesses, workplaces and factories in accordance with the prescribed quality standards. If a person convicted under section 322(n) and (o) and section 105(f) and (n) violates or fails to comply with this Law, they shall be punished with imprisonment or with fine or with both”.³⁷ Furthermore, the relevant States and Regions have enacted to dispose of and clean properly the wastewater from workshops and factories to prevent environmental pollution.

Nay Pyi Taw is taking enforcement action regarding plastic waste with a Bye-law enacted on 21st March 2016, which states that “no person shall dispose of wastes any other place except the place prescribed to dispose of waste in clause 63”. Enforcement action in Nay Pyi Taw’s Bye-law clause 65 states that “whoever violates or fails to comply with clause 63, he shall be punished by law and be bound to carry out restoration. If the committee imposes penalties, the costs incurred by the violator must be paid to the committee”.

With regard to enforcement of the States and Regions, “Whoever violates or fails to abide by any of the provisions, he shall be punished with fine or with imprisonment or both”.³⁸

Moreover, for example, in Australia’s states such as Queensland and New South Wales, the Protection of the Environment Operations Act, 1997, and Waste Reduction and Recycling Act, 2011, have respectively provided the maximum penalty for illegal dumping and waste dumping. Additionally, in Rwanda, Law Relating to the Prohibition of Manufacturing, Importation, Use, and Sale of Plastic Carry Bags and Single-Use Plastic Items, 2019, has provided the maximum penalty to ban all plastic bags and plastic packaging. Thus, Rwanda became the world’s first ‘plastic-free’ nation.

Nowadays, there is still little action being taken regarding improper disposal of wastes in Myanmar. After 2014 (not including the improper disposal from factory), no enforcement action has been taken regarding the disposal of plastic waste in Yangon. The weakness of enforcement action regarding the disposal of plastic waste in Myanmar is the main problem. Although the penalties are sufficient, in practice enforcement of action for uncontrolled disposal of plastic waste has been weak.

Findings

The major cities (Mandalay and Nay Pyi Taw) need to establish WtE plants and include such a provision in the relevant City Development Laws, as Section 254 of the Yangon City

³⁷ Section 322(n) and (o) of Yangon City Development Law, 2018 and Section 105(f) and (n) of Mandalay City Development Law, 2014.

³⁸ Section 81 and 82 the Kachin State Municipal Development Law, 2013, Section 114 and 115 of the Kayah State Municipal Development Law, 2020, Section 73 of the Karen State Municipalities Law, 2012, Section 72 and 76 of the Chin State Municipal Law, 2013, Section 72 and 73 of the Mon State Municipal Law, 2017, Section 80 of the Rakhine State Municipal Law, 2013, Section 77 and 83 of the Shan State Municipal Development Law, 2013, Section 191 and 192 of the Sagaing Region Municipal Development Law, 2018, Section 77 of the Irrawaddy Region Municipalities Law, 2012, Section 75 of the Magway Region Municipalities Law, 2012, Section 79 and 81 of the Bago Region Municipal Development Law, 2016, Section 70 and 71 of the Tanintharyi Region Municipal Development Law, 2017.

Development Law, 2018. The relevant Cities Development Laws fail to provide prohibitions and penalties for using and disposing of single-use plastic items. Moreover, Myanmar is still weak in taking action for violations of law and weak in complying concerning disposal of waste in industry, urban and rural areas. Concerning public education and awareness, Myanmar has only a weak awareness of the risks posed by improperly disposed plastic waste, industrial plastic waste and also of the need for public participation. Additionally, the relevant Cities Development Laws need to insert the disposal of plastic waste and single-use plastic separately from municipal waste and household waste. In this context, although Myanmar possesses a number of sectorial laws, Myanmar does not have a specific law on plastic waste management.

Conclusion

Plastic waste is a global problem. Against the plastic pollution crisis, the government has passed the Environmental Conservation Law, 2012, the respective Cities Development Laws, and relevant laws relating to environmental management. However, these initiatives remain inadequate in solving the plastic waste problem. Although Myanmar has endeavored to prevent waste through Six Goals in the National Waste Management Strategy and Master Plan (2018-2030) and Cities Development Laws about waste management, it would be more effective to do so by providing specific provisions in a legal framework, including provisions on prohibition and penalties for uncontrolled disposal of plastic waste. In practice, Myanmar needs to take action for violating laws concerning the disposal of plastic waste. Although recycling is a suitable method for reducing the plastic waste, most of the plastic waste cannot be recycled, especially single-use plastics, which are mostly not recyclable. Therefore, WtE plants have been the only effective method of plastic waste disposal. Furthermore, the major cities in Myanmar would be more effective at reducing plastic waste if these issues were addressed as “Zero-Waste City” Pilot program and the Action Plan for Plastic Pollution Control like China. And, Myanmar needs to implement and enforce legislation and practices based on preventive and mitigation measures to prevent the improper disposal of plastic waste. As a result, Myanmar would be able to reduce from plastic pollution.

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References

Conventions

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 1989.

Convention on Biological Diversity, 1992.

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