



Policy effectiveness assessment of selected tools for addressing marine plastic pollution

Regulations on plastic products and Extended Producer Responsibility in Thailand



ENVIRONMENTAL LAW PROGRAMME



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Report prepared by Naporn Popattanachai

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IUCN is pleased to acknowledge the support of its Framework Partners who provide core funding: Ministry for Foreign Affairs of Finland; Government of France and the French Development Agency (AFD); the Ministry of Environment, Republic of Korea; the Norwegian Agency for Development Cooperation (Norad); the Swedish International Development Cooperation Agency (Sida); the Swiss Agency for Development and Cooperation (SDC) and the United States Department of State.

Published by: IUCN Environmental Law Centre, Bonn, Germany

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Citation: Popattanachai, N. (2020). *Policy effectiveness assessment of selected tools for addressing marine plastic pollution. Regulations on plastic products and Extended Producer Responsibility in Thailand*. Bonn, Germany: IUCN Environmental Law Centre. 20pp.

Cover photo: Sirachai Arunrugstichai

Layout by: IUCN Environmental Law Centre, Bonn, Germany

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1 Introduction

For the past recent years, plastic pollution has been one of the top priorities in Thailand's national environmental agenda. However, the possibility of devising legal and policy interventions in order to resolve the problem is under-explored. The aim of this work is to conduct a legal and policy effectiveness assessment for the combat of plastic pollution in Thailand. Four legal and policy tools have been chosen to assess their utility in Thailand. These are (i) Extended Producer Responsibility (EPR), including incentives on waste segregation at source; (ii) bans or limitations on single use plastics / plastic bags, including incentive-based measures; (iii) limitations on international imports of plastic scraps, including taxes; and (iv) coordination and sharing of information.

In assessing the legal and policy effectiveness, this report tries to answer the four following questions. At the instrumental level, it addresses the question as to how the tool or policy could be developed within the regulatory framework (including a deemed appropriate legislation, regulation, policy and case law). At the institutional level, it answers the question as to how the tools could be implemented through institutions and organizational structures in Thailand. In addition, at a behavioural level, it analyses how instruments and institutions affect, or would affect, the behaviour of government officials, businesses/private sector actors, regulated entities, consumers and users, civil society, and others. And lastly, it considers the expected outcomes.

However, some limitations for this report should be noted at the outset. One of the challenges faced by the author was the access and availability of necessary information regarding plastic pollution. Most of the official documents on plastic wastes management are not publicly available. So, most of the information relied on by this report is that available for the public access. In light of such limitation, this report assesses each legal and policy tool against each question and provides the discussion in turn.

2 Instrumental level

2.1 Limitations on international imports of plastic scraps

The plastic wastes amendment under the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 1989¹ entered into force for Thailand since 24 March 2020.² According to the plastic waste amendment, certain types of plastics are included in Annex II and are rendered 'other wastes' under the Basel Convention. In effect, this allows Thailand, a Party to the Convention, to regulate imports of plastics specified in it.³ This is, therefore, a significantly important justification for Thailand to reorientate its plastic regulatory system to one that is robust and more environmentally friendly in tackling plastic pollution. One of the available policy and legal options is to impose limitations on international imports of plastic scraps into the kingdom of Thailand.

2.1.1 Current regulatory system for international imports of plastic scraps.

Before proceeding to the way in which the limitations on international imports of plastic scraps can be implemented, it is important to analyse the current Thai regulatory framework for international imports of plastic scraps. Under the Export and Import of Goods Act, B.E. 2522 (1979) plastic scraps, whether used or unused, are treated as goods which may affect public health and the environment.⁴ For that reason, imported plastic scraps have been designated as goods requiring prior authorisation before importing into Thailand.⁵ This designation is defined in the Ministry of Commerce Notification on Import of Goods (No.122) B.E. 2539 (1996).⁶ According to the notification, in addition to the requirement for prior authorisation from import, plastic scraps have now been listed in the Emergency Act on Tariff Classification B.E. 2530 (1987) rendering plastic scraps subject to import tariffs.⁷ In practice, according to the Ministry of Commerce Notification, plastic scraps can only be imported when an applicant is given a prior authorisation from the Ministry of Industry. Such prior authorisation can be granted by the Department of Industrial Works under the Ministry of Industry, in accordance with the Ministry of Industry Notification on Guidelines for Consideration and Approval in relation to an Authorisation for an importation of plastic scraps, used and unused into the Kingdom, B.E. 2551 (2008).⁸ The person who meets the qualification above shall be deemed approved by the Department of Industrial Works for importation of plastic scraps into Thailand and shall be able to obtain an authorisation certificate from the Ministry of Commerce.⁹ Such certificate shall be used as an import authorisation.

2.1.2 Devising limitations on international imports of plastic scraps

Placing limitations on international imports of plastic scraps is legally viable under the current regulatory system. However, which limitation is to be devised depends on how ambitious the government is for the protection of the environment from plastic pollution. Legal basis for imposition of a stricter limitation such as an import ban is permissible, so is the less restrictive limitation, like imposing a quantity import limitation. Both options can be devised by virtue of the legal grounds set forth in the Export and Import of Goods Act.

¹ 1673 UNTS 57 (adopted 22 March 1989; entered into force 5 May 1992). Hereinafter referred to as 'Basel Convention'.

² See, Plastic Waste Amendments, <http://www.basel.int/Countries/StatusofRatifications/PlasticWasteamendments/tabid/8377/Default.aspx> <accessed 24 September 2020>.

³ Basel Convention, article 4 (1).

⁴ Royal Gazette Vol 96/Chapter 74/Special Vol 1/Page 1 (9 May 1979). Hereinafter referred to as 'Export and Import of Goods Act'.

Royal Gazette Vol 113/Chapter 17 Ngor (27 February 1996). Hereinafter referred to as 'Ministry of Commerce Notification', preambular provision.

⁵ Ibid, Section 5 (2).

⁶ Ibid.

⁷ Ibid, No. 3.

⁸ Royal Gazette Vol 125/Special Chapter 36 Ngor/ Page 10 (19 February 2008). Hereinafter referred to as 'Ministry of Industry notification on an authorisation for plastic scraps import'.

⁹ Ibid, No. 7.

For economic stability, public benefits, public health, national security, public orders and good morals, as well as other benefits of the State (including for the protection and conservation of the environment) the Export and Import of Goods Act allows the government to impose a variety of conditionalities. This ranges from (i) imposing a ban on export and import; (ii) a prior authorisation before export and import; (iii) determining a category, type, quality, standard, quantity, volume, size, weight, price, tradename, logo, trademark, and origin for exported and imported goods; (iv) determining a category and type requiring a payment of special fees for export and import; (v) determining exported and imported products be accompanied by a certificate of origin, quality assurance certificate, or other certificate required by international trade agreements or customs; and (vi) establishing other measures for the purpose of regulating export and import into Thailand.¹⁰

Currently, plastic scraps are determined as goods requiring a prior authorisation to their importation in accordance with section 5 (2) of the Export and Import of Goods Act. Imposing a stricter limitation to prohibit international import of plastic scraps, can lawfully be done through issuance of a ministerial notification in accordance with section 5 (1) of the Export and Import of Goods Act. Nonetheless, the less restrictive and ambitious option is also available. Instead of devising a prohibition on international import of plastic scraps, restriction on quantity of the import of plastic scraps can also be imposed by virtue of section 5 (3) of the same Act, also by the issuance of the ministerial notification for such purpose.

In addition, plastic scraps are listed in the Emergency Act on Tariff Classification B.E. 2530 (1987) and are subject to a custom payment upon importation.¹¹ Plastic scraps are listed in category 39.15 and subject to different tariff rates depending on types of plastics.¹² This means that certain forms of taxation are already in place for the regulation of international imports of plastic scraps into Thailand. In order to discourage the international movement of plastic wastes suspicious of un-environmentally sound management and disposal, the custom tariffs rates may be revised. It is, however, important to note that given that customs and tariffs have already been imposed on imported plastic scraps, there is no guarantee that the money collected will be reverted to the conservation and protection of the environment especially for combating plastic pollution. This is because the resources collected are managed by the Custom and Excise Departments under the Ministry of Finances respectively and their main functions are not tied to environmental protection. In addition, all money collected through the Tariff Classification Act is not originally and specifically intended for environmental purposes.

2.2 Imposition of a ban or limitation on single use plastics – plastic bags

2.2.1 Current regulatory system for single use plastics – plastic bags

Regarding the current regulatory framework in relation to plastic pollution, there is no limitation, from quantity perspective, placed on the production of single use plastic bags. From quality perspective, there is no compulsory industrial standard for the production of single use plastic bags except for the voluntary industrial standard which sets out an acceptable quality for the plastic bags to ensure public trust.¹³ At the retail and consumption phase, there is currently no law on the sale or distribution of single use plastic bags except for voluntary private initiatives.¹⁴

¹⁰ Export and Import of Goods Act, Section 5 (1) – (6).

¹¹ Royal Gazette Vol 104/Chapter 276/Special Vol/Page 1/31 (31 March 1987). Hereinafter referred to as ‘Tariff Classification Act.’

¹² Ibid, see the attached list to the Tariff Classification Act.

¹³ Ministry of Industry Notification (No. 1835) B.E. 2523 (1992) on a determination of industrial standard for U-shaped plastic bags (TIS 1116 – 2535).

¹⁴ For example, Everyday say no to plastic bags campaign initiated by the Ministry of Natural Resources and the Environment. Available at: <https://www.thaigov.go.th/news/contents/details/25552> (accessed 7 February 2020); Several department stores and retailers stops providing plastic bags. Available at: <https://www.bbc.com/thai/thailand-50963578> (accessed 7 February 2020).

2.2.2 *Devising a ban or limitation on single use plastics – plastic bags*

a) Ban and limitations on single use plastics – plastic bags

In relation to the possibility of imposing a ban on plastic bags taking into account the plastic bag lifecycle, there are two possible options where regulatory interventions can be adopted in order to ban and/or limit the use of these products. These are at (i) the production phase; and (ii) the retail and consumption phase.

At the production phase, there are two main legislations relating to the production of single use plastic bags: (i) Hazardous Substances Act B.E. 2535 (1992);¹⁵ and (ii) Factory Act B.E. 2535 (1992).¹⁶ The former regulates initial substances for producing plastics, whereas the latter involves regulations through factory standards as well as some forms of product and process standards.

Under the Hazardous Substances Act, initial substances for plastic production such as vinyl chloride, and various forms of ethylene or propylene are classified as hazardous substances.¹⁷ It is theoretically possible to ban single use plastic bags through its production by classifying the initial substances for producing single use plastic bags as Category 4 substances. Under the said Act, hazardous substances listed in Category 4 shall be banned from production, import, export, transit, or possession.¹⁸ In effect, this results in the impossibility for production of single use plastic bags, as there will be no initial substance for it. This is arguably the most radical option which can be devised under this Act. Although it is theoretically possible, this option is unlikely to be adopted, as it creates severe incidental effects and unnecessarily excessive burden on those who also rely on the said substances for producing other kinds of plastic goods ranging from industrial products such as vehicle parts to normal utilities such as bottles and food containers.

If banning production of single use plastic bags is not practically viable, other kinds of limitations can be put on the production phase through the Factory Act. Under this Act, factories are divided into 3 categories.¹⁹ The first category includes factories which can be operated without any license, whereas the second category refers to factories which can be operated with the condition of notifying the competent authority. Lastly, the third category is that in which the factory can be operated only after obtaining a license.²⁰ The factory producing plastics falls either in the second or the third category depending on horsepower used.²¹ If the factory power does not exceed 75 horsepower, it falls into the second category. If, however, the power exceeds 75 horsepower, it falls into the third category and requires a license to operate. In order to place any limitation on the production of plastics, the Minister, with approval of the cabinet is empowered to prescribe (i) the kind, quality, ratio of raw materials, and sources of raw materials to be used or to produce in the factory; and (ii) the kind or quality of products manufactured in the factory allowed to be set up or expanded for the purpose of environmental conservation.²² This, therefore, would allow the relevant government department to prescribe a product standard requirement for single use plastic bag production, such as determining thickness of the plastic bags and/or types of plastics for bag production. This requirement would be applied to both factories of the second and third categories, and entails limitations to the single use plastic bags production.

In addition to the above option, a total prohibition could also be placed at the retail and consumption phase by banning the sale of single use plastic bags. This can be implemented through the Commodities Control Act B.E. 2495 (1952).²³ Under this Act, commodities mean consumer goods including any other items specified in the ministerial rule adopted in accordance with this Act.²⁴ It is

¹⁵ Hereinafter referred to as 'Hazardous Substance Act'.

¹⁶ Hereinafter referred to as 'Factory Act'.

¹⁷ Ministry of Industry Notification on Hazardous Substances List (No. 2) B.E. 2556 (2013).

¹⁸ Hazardous Substances Act, section 18 (4).

¹⁹ Factory Act, section 7.

²⁰ Ibid.

²¹ Ministerial Rule on a determination of category, type, and size of the factory, B.E. 2563 (2020), No. 53.

²² Factory Act, section 32 (2) – (3).

²³ Royal Gazette Vol 69/ Chapter 12/ Page 184 (26 February 1952). Hereinafter referred to as 'Commodities Control Act'.

²⁴ Commodities Control Act, section 4.

undeniable that consumer goods include single use plastic bags. Hence, single use plastic bags can be regulated by the Commodities Control Act.

Under this Act, the government may adopt a ministerial rule listing any particular consumer good to be controlled, if it is for public welfare or national economic and security necessity.²⁵ If plastic pollution is counted as a significant threat to public welfare as well as national economy and security through environmental deterioration, single use plastic bags are well justified for the regulation. If listed as the controlled commodities, the government may adopt a royal decree for (i) limiting the quantity in possession of a person; (ii) limiting the quantity to be obtained by a person; (iii) regulating trade, storage, and any actions taken with respect to such commodities as well as controlling stores selling them; (iv) determining sale period, venue and conditions of sale; (v) limiting kind, quantity, and type of the commodities authorised to be sold; (vi) prohibiting sale of such commodities; (vii) determining allocation of the commodities; and (viii) laying down other necessary procedures sufficient to achieve the purpose of controlling the commodities.²⁶

It can be seen that the Commodities Control Act gives a wide discretionary power to the government to regulate single use plastic bags through different kinds of regulatory measures including a ban on the sale of single use plastic bags in order to achieve the protection of public welfare, national economy and security which arguably includes the protection and conservation of the environment.

b) Tax and incentive-based measures

Under the current regulatory framework, an imposition of actual environmental taxes undeniably requires the adoption of new legislation to give this power to the Ministry of Finances. Initiation for environmental taxes can come from the National Environment Board (NEB). This institution is tasked with several advisory functions, especially providing the cabinets with policy advice on environmental matters and recommending financial, fiscal, and tax measures, including investment promotion measures in compliance with the national policies, and plan on the enhancement and conservation of environmental quality.²⁷ Therefore, NEB can recommend the cabinet financial measures in line with an implementation of policies and plans for enhancement and protection of the environment.²⁸ If the cabinet agrees, the relevant government departments and agencies shall work together in preparing the new legislation for the imposition of environmental tax and incentivised measures. In the past, the Ministry of Finances prepared a Bill on Economic Tools for Environmental Management aiming to employ different economic measures to tackle environmental problems including environmental tax, fees, packaging tax and fees, etc.²⁹ The money collected through the employment of these economic tools would go into an environmental fund.³⁰ Unfortunately, this bill has not reached the parliament for its enactment.

Within the existing legal framework, in order to devise incentive-based measures, there are arguably two options available. The first one concerns juristic person income-tax reduction, and the second one is an investment promotion measure.

Regarding the juristic person income-tax, this tax incentive can be given, as mentioned earlier, through the NEB recommendation to the cabinet. If the cabinet agrees, a royal decree can be adopted in order to allow for such income-tax reduction. This is in accordance with section 175 of the Thai Constitution³¹ and section 3 (1) of the Revenue Code.³² During the past five years, the government has utilised

²⁵ Ibid, sections 4 and 6.

²⁶ Ibid, section 5.

²⁷ The Act on Enhancement and Maintenance of National Environmental Quality, B.E. 2535 (1992) (hereinafter referred to as 'National Environmental Quality Act'), Royal Gazette Vol 109/Chapter 37/ Page 1 (4 April 1992), Section 13.

²⁸ Ibid, Section 13 (5).

²⁹ Mingkwan Khaosaard and Kobkul Rayanakorn, *Economic Tools for Environmental Management* (Log-in Design Work 2009), 26 – 30.

³⁰ Ibid.

³¹ Section 175 of the Thai Constitution reads:

The King has the Royal Prerogative to issue a Royal Decree which is not contrary to the law.

³² Section 3 (1) of the Revenue Code, B.E. 2481 (1938) reads:

economic instruments in the form of tax incentives to support the protection and conservation of the environment. Three royal decrees authorising for juristic person income-tax reduction have been enacted, one of them which deals specifically with plastic pollution. The Royal Decree under the Revenue Code (No. 702) on Tax Exemption B.E. 2563 (2020) was recently adopted by the Revenue Department. This regulation allows a company or juristic partnership to deduct 25 per cent of its expenses on bio-degradable plastic goods specified by the director-general of the Revenue Department and approved by the Office of Industrial Economics for the period of 1st January 2019 – 31 December 2021.³³ This royal decree is designed specifically to support entrepreneurs using environmentally friendly and bio-degradable plastic products as they support the government attempt to reduce plastics.³⁴ Detailed information on which product can be qualified as 'bio-degradable plastic product' is determined by the Office of Industrial Economics Notification, on rules and certifying procedure for bio-degradable plastic product.³⁵ The other two royal decrees support a carbon emission credit trading system regulated by the Thai Greenhouse Gas Management Organisation³⁶ and those donations by companies to support community forests in an attempt to reduce global warming.³⁷ For this reason, this incentive-based measure can also be customised and applied for banning or limiting single-use plastics especially plastic bags depending on who the measure is aimed to target.

While these incentive-based measures are, to certain extent, able to convince businesses and entrepreneurs to be more environmentally friendly through the use of bio-degradable plastics, they arguably are not able to create impetus for changes in societal behaviour resulting in the reduction of plastic usage. This is because the incentive provided by the abovementioned royal decree is not enjoyed by the consumer, but mainly by the producer or service provider. This could create slight impacts or influences the consumer decision-making process making them to be more rational in choosing environmentally friendly goods and services.

Another possibility for employing an incentive-based measure is through adoption of an investment promotion measure. If the cabinet agrees on the need to adopt the investment promotion measure, it may instruct the Thailand Board of Investment (BOI) to give investment promotion in support of an environmentally sound investment, especially when it comes to the plastic recycling industry. This is simply because, under the Investment Promotion Act, B.E. 2520 (1977), any investment activity that contributes to pollution reduction, enhances environmental quality, and ultimately protects and preserves the environment can be considered as a project that is beneficial to economic, social, national and environmental security of the country.³⁸ Therefore, it qualifies for receiving investment promotion, entitling the investor to a wide range of benefits such as tax exemption, and privileges concerning immigration requirements for imported skilled labour.

For taxes collectible under this Revenue Code, a Royal Decree may be issued for the following purposes:
(1) to reduce or exempt tax as suitable to circumstances, nature of business, or local condition;
(2) to exempt tax to persons or international organizations under the commitment between Thailand and United Nations, under international laws, under Conventions, or under reciprocal basis;
(3) to exempt tax to government, state enterprise, Tessaban (municipal), Sukapiban (municipal), religious body or public charitable organization;

The reduction or exemption under (1), (2) and (3) may be amended or revoked by issuing a Royal Decree.

³³ Royal Decree under the Revenue Code (No. 702) on Tax Exemption B.E. 2563 (2020), Royal Gazette Vol 137/ Chapter 45 Kor/ Page 36 (22 June 2020), section 3.

³⁴ Ibid.

³⁵ Office of Industrial Economics, http://www.oie.go.th/assets/portals/1/fileups/2/files/news_notice/noticeof_oie_11_2563.pdf <accessed 14 December 2020>.

³⁶ Royal Decree under the Revenue Code (No. 694) on Tax Exemption B.E. 2563 (2020), Royal Gazette Vol 137/ Chapter 45 Kor/ Page 5 (22 June 2020).

³⁷ Royal Decree under the Revenue Code (No. 688) on Tax Exemption B.E. 2562 (2019), Royal Gazette Vol 136/ Chapter 117 Kor/ Page 1 (12 November 2019).

³⁸ Royal Gazette Vol 94/ Chapter 38/ Special Section Page 1 (4 May 1997). Hereinafter referred to as 'Investment Promotion Act', sections 16 and 19.

2.3 The possibility of devising an Extended Producer Responsibility (EPR) scheme

The Organisation for Economic Cooperation and Development (OECD) defines EPR as an environmental policy approach in which a producer's responsibility for a product is extended to the post-consumer stage of a product's life cycle. In practice, EPR involves producers taking responsibility for collecting end-of-life products and for sorting them before their final treatments, ideally, recycling.³⁹ This coincides with the meaning offered by United Nations Environment Programme (UNEP), within the context of Basel Convention, as an 'environmental policy approach in which a producer's responsibility for a product is extended to the waste stage of that product's life cycle.'⁴⁰ UNEP also defines the EPR system or scheme as 'any system set up by one or several producers to implement the EPR principle. It can be an individual system (or individual compliance system) where a producer organises its own system, or a collective system (collective compliance system) where several producers decide to collaborate and thus fulfil their responsibility in a collective way through a specific organisation (a Producer Responsibility Organisation).'⁴¹ In order to implement this approach into the Thai environmental regulatory system, the compatibility of the EPR system must be assessed against the current legislation to see if there is any room for devising an EPR system for the Thai society.

2.3.1 Waste management and disposal under Thai law

Under the Thai environmental regulatory system, waste management and disposal are regulated by two important legislations, that is, the Public Health Act, B.E. 2535 (1992)⁴² and the Maintenance of Cleanliness and Orderliness of the Country Act, B.E. 2535 (1992).⁴³ The Public Health and Maintenance of Cleanliness and Orderliness Acts overlap as they both regulate waste management and disposal. However, though they are both equal in hierarchy, the first one is implemented by the Ministry of Public Health, while for the second one powers are deferred to the local administrations. In addition, the stakeholders, public and private, are required to comply both regulations.

Under the Public Health Act, waste management and disposal covers dirty refuse and litters. The term 'dirty refuse' refers to stools or urine and other matters which are dirty or contain unpleasant odour, whereas the term 'litters' include waste paper, textile, food wastes, commodity wastes, materials, plastic bags, food containers, ashes, animal carcass or other matters collected from streets, markets, cattle farms, or other places including infected infectious wastes and toxic or hazardous wastes from a community.⁴⁴ It can be seen that the terms are broad enough to cover plastic goods that are usually objects of the EPR system such as plastic bottles, food containers, and etc. However, dirty refuse and litters under this Act does not include hazardous wastes from factories, which are regulated by the Factory Act.⁴⁵ Collecting, transporting, or disposing wastes and litters as business services or for service fees requires an authorisation from a competent local authority.⁴⁶ Two different licenses need to be obtained from the competent local authority in order to provide waste management services. This includes a general license for dirty refuse and litters collection and/or a general license for dirty refuse and litters abatement and disposal.⁴⁷

As explained above, the regulatory system for waste management and disposal establishes a system that applies mainly between the relevant competent local authority and the service provider. The Public Health Act may be able to shape societal behaviour through the adoption of a municipal rule regulating

³⁹ OECD, *Extended Producer Responsibility: Updated Guidance for Efficient Waste Management* (2016), 4.

⁴⁰ UNEP, *Draft practical manual on Extended Producer Responsibility and on financing systems for environmentally sound management* UNEP/CHW/OEWG.11/INF/7 (16 July 2018), 3.

⁴¹ *Ibid.*

⁴² Hereinafter referred to as 'Public Health Act'.

⁴³ Hereinafter referred to as 'Maintenance of Cleanliness and Orderliness Act'.

⁴⁴ Public Health Act, section 3.

⁴⁵ *Ibid.*, section 18 (3).

⁴⁶ *Ibid.*, section 19.

⁴⁷ Ministerial Rule on a determination of a fee for license issuance, notification certificate, and dirty refuse and litters management services, B.E. 2559 (2016), No. 2.

the way in which the public discards and handles their wastes,⁴⁸ but it does not create any entitlement nor obligation upon the producer of the plastics in relation to waste management and disposal. From a legal perspective, this poses challenges to establishment of the EPR system within the Thai waste management and disposal scheme.

In relation to the Maintenance of Cleanliness and Orderliness Act, the responsibilities concerning collection, transportation, abatement and disposal of dirty refuse and litters are of local administration.⁴⁹ The local administration is empowered to lay down municipal rules that include (i) dirty refuse and litters reception facilities within a publicly accessible private property; (ii) separation, collection, transportation, and abatement schemes for dirty refuse and litters; (iii) service fees not exceeding the rates determined in the ministerial rule; (iv) and other matters necessary for dirty refuse and litters sound management.⁵⁰ In this matter, the local administration is supervised by the Department of Local Administration under the Ministry of Interiors for preparing a dirty refuse and litter management plan which shall be corresponded to the provincial development plan.⁵¹

It is important to note that dirty refuse and litter under this Act excludes waste – hazardous and/or non-hazardous – under the Factory Act.⁵² In performing such tasks, the law allows for an assignment of responsibilities to a private operator and such assignment shall not be deemed an investment under the Public-Private Partnership law provided that the relevant rules, procedures, and conditions for entering into public-private partnership are taken into account.⁵³ They are allowed to charge service fees for dirty refuse and litters collection, transportation, abatement and disposal services as long as it does not exceed the rate determined in the Ministerial Rule.⁵⁴

On the other hand, under the Maintenance of Cleanliness and Orderliness Act, the responsible local administration or the assigned private operator is entitled to manage, use, or utilise collected wastes and litters in accordance with rules, procedures, and conditions taking into account those concerning public-private partnership law.⁵⁵

In order to operate waste management services, the Maintenance of Cleanliness and Orderliness Act requires any person intended to operate waste management services as a business or for service fees, to obtain licenses from the competent local authority. There are three different licenses to be obtained, that is, (i) a license for dirty refuse and litters collection and transportation; (ii) a license for dirty refuse and litters abatement and disposal; and (iii) a license for dirty refuse and litters utilisation.⁵⁶ It is important to note that a service provider obtaining licenses under this Act shall be deemed authorised to perform waste management services under the Public Health Act.⁵⁷

2.3.2 EPR system under the current Thai environmental regulatory system

From the above discussion, the question then arises on whether or not it is possible to devise an EPR system. If collecting and sorting products at their end-of-life stages for recycling and treatment is interpreted as part of the management and disposal of dirty refuse and litters, the EPR system could fit in these two legislations. However, the abovementioned arrangement poses limitations on the establishment of the EPR system under the existing regulatory setting since they do not specify the rights and obligations of all the relevant EPR stakeholders. While the Maintenance of Cleanliness and Orderliness Act lays down general prohibitions on the public of discharging dirty refuse and discarding litter on a public space,⁵⁸ it does not mention the relevance of producers and/or retailers in the waste

⁴⁸ Public Health Act, section 20.

⁴⁹ Except for Provincial Administrative Organisation, see. Maintenance of Cleanliness and Orderliness Act, section 34/1

⁵⁰ Ibid, section 34/3.

⁵¹ Ibid, section 34/4.

⁵² Ibid, section 34/1 (6).

⁵³ Ibid, section 34/1 (2).

⁵⁴ Ibid, section 34/1 (5).

⁵⁵ Ibid, section 34/1 (3).

⁵⁶ Ibid, section 34/2.

⁵⁷ Ibid.

⁵⁸ Ibid, sections 29 – 34.

management and disposal process. This is unfortunate considering the fact that Thailand endorses the polluter-pays principle within its own domestic policy in the Environmental Quality Management Plan B.E. 2560 – 2564 (2017 – 2021).⁵⁹ If one looks at the two legislations, both Acts focus on the local administration and the private waste management service provider. One holds responsibility determined by law, whereas the other may be assigned to perform waste management and disposal tasks. In addition, the Producer Responsibility Organisation (PRO) is also not recognised by the Thai waste management and disposal regulatory setting. In order to establish the EPR system in Thailand, the following options may be considered by the government.

The first option concerns the amendment to the Maintenance of Cleanliness and Orderliness Act, as it is the main legislation in handling waste management and disposal.⁶⁰ This allows the inclusion of an EPR system into the legislation. In addition, amending the current law means that stakeholders – producers, retailers, PRO – essential to the EPR system and their roles, rights and obligations in the waste management and disposal process will be officially recognised. This adds clarity to all stakeholders on what they can do and/or are obliged to do in managing their own products at the end of their product life. Amending the law can also add different kinds of EPR schemes as policy choices for the relevant government departments to employ as they see fit. However, the amendment of the Maintenance of Cleanliness and Orderliness Act is required to go through the newly established procedure, that is, a regulatory impact assessment under the Act on Legislative Drafting and the Evaluation of Law, B.E. 2562 (2019).⁶¹ This process can be time-consuming and adds more financial burden to the responsible government department in preparing for such evaluation.

If the first option is not feasible from time and resource perspectives, voluntary EPR could be implemented. The relevance of other stakeholders, as an alternative, may be included through a private law relationship, such as a contract, to supplement the existing framework. PRO can be established under private company law, which is governed by the Thai Civil and Commercial Code (CCC), to operate waste management and disposal services. In this instance, PRO can conclude an agreement to represent the producers to operate EPR scheme on targeted plastic products. Of course, the company would need to apply for the relevant licenses from the local administration in order to operate waste management services. Private contracts can also be concluded between PRO and retailers, and waste management and disposal service providers to ensure effectiveness in the system. In addition, a memorandum of understanding between all stakeholders can be done to show commitment to establish and comply with the EPR scheme in solving plastic pollution, even though it is a voluntary agreement.

⁵⁹ Office of Natural Resources Environmental Policy and Planning (ONEP), 'Environmental Quality Management Plan B.E. 2560 – 2564' available at: <http://www.onep.go.th/ebook/spd/environment-plan-2560-2564.pdf> <accessed 14 December 2020>, at 53.

⁶⁰ Amnart Wongbandit, *Environmental Law*, 4thedn (Winyuchon, 2019).

⁶¹ Royal Gazette Vol. 136/ Chapter 72 Kor/ Page 1 (31 May 2019). Hereinafter referred to as 'Evaluation of Law Act'.

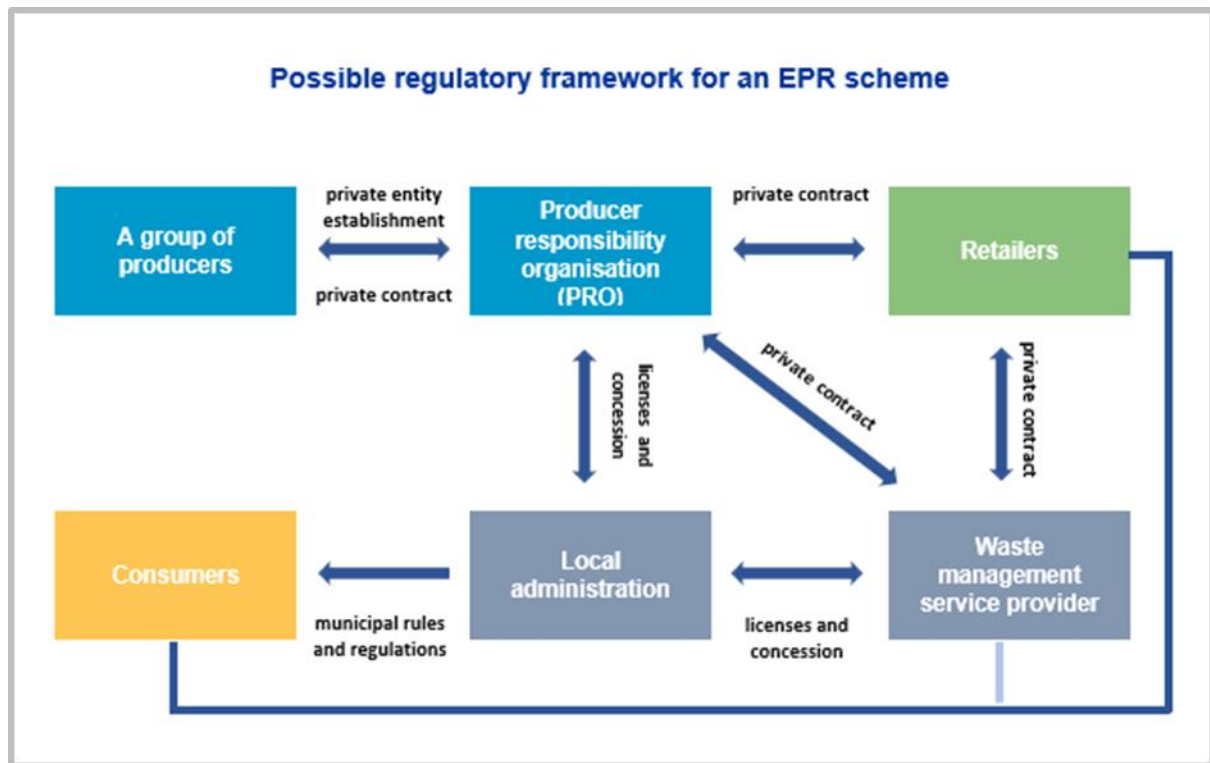


Figure 1. Possible regulatory system for EPR based on private law

In addition to the abovementioned options, incentives on waste segregation at source can be devised through an adjustment of the waste management service fees. Under the Maintenance of Cleanliness and Orderliness Act, the local administration is entitled to charge waste management and disposal fees provided that it does not exceed the rate specified by the ministerial rule.⁶² In order to charge such fees, the local administration is required to adopt a municipal rule determining the rate for waste management services.⁶³ Introducing an increase in the waste management fee by weight arguably signals the public to be considerate in what they want to throw away and results in changing behaviour to separate plastic wastes and enjoy benefit from the EPR scheme. Under this Act, the service fees are divided into (1) collection and transportation fee and (2) abatement and disposal fee. Regarding the collection and transportation fee, the local administration can charge monthly up to 150 baht per 120 kg or 600 litres of litters. If the litters exceed 120kg or 600 litres of litters, the collection and transportation fee will be 150 baht for every unit of litters.⁶⁴ In relation to abatement and disposal, the local administration can charge monthly up to 200 baht per 120 kg or 600 litres of litters. If the litters exceed 120kg or 600 litres of litters, abatement and disposal fee will be 200 baht for every unit of litters. If the monthly amount of litters exceeds 3600 kg or 18000 litres, additional fees of 200 baht can be charged for every unit of litters collected, transported, and abated.⁶⁵

Further to the power to prescribe appropriate rates for waste management service fees, the local administration is also entitled to lay down compulsory requirements for installing litter reception facilities in the private property as well as for waste segregation, collection, transportation, abatement and disposal.⁶⁶ This means that the local administration can adopt a municipal rule requiring waste segregation and determine different levels of waste management service fees in favour of those who properly adhere to good waste segregation practice. In effect, this acts as an incentive that can be immediately applied to the community of the local administration. This incentivised measure will be

⁶² Maintenance of Cleanliness and Orderliness Act, section 34/1 (5).

⁶³ Ibid, section 34/3 (3).

⁶⁴ 1 unit is equal to 120 kg or 600 litres of litters.

⁶⁵ Maintenance of Cleanliness and Orderliness Act, the list of waste management fee rate.

⁶⁶ Ibid, section 34/3 (1) – (2).

effective when the fee collected reflects the actual costs of waste management and disposal and show a noticeable difference between the cost of complying and not complying with good waste segregation practices.

2.4 Coordination and sharing information

When it comes to the protection, preservation of the environment from and management of plastic pollution, access to information relating to this issue from the relevant government departments has become a challenge for the stakeholders. Hence, it is important to stress the need for coordination and information sharing not only between stakeholders – government and non-government organisations, but also the wider public in order to increase transparency and accountability of the relevant persons.

Under the Constitution of Thailand, people have the fundamental right to be informed and be able to access public data and information withheld by the government departments and agencies, as provided by law.⁶⁷ At the same time, the government shall reveal public data and information possessed by its departments and agencies and ensure that such data and information is conveniently accessible for the public provided that it is not concerned with State's security or confidentiality.⁶⁸ In addition, to ensure effective public participation and transparency for the protection of the environment,⁶⁹ it is imperative that relevant environmental information is disclosed. Therefore, it is clear that the government departments and agencies shall disclose all environmental information and make it easily accessible for the public if such information does not qualify as exceptions provided by the Constitution.

This is also the case with coordination, which is indispensable in order to achieve the desired objectives especially when it comes to the protection of the environment. The relevant government departments and agencies should work together to ensure that environment is effectively protected. In fact, the government adopted a Royal Decree determining Rules and Procedures for Public Good Governance, B.E. 2546 (2003) which requires all the relevant government departments and agencies to lay down guidelines for their cooperative and integrative works where their missions are closely connected.⁷⁰ In ensuring information sharing and coordination, it is important that the executives of the government departments and agencies observe their duties enshrined in the Constitution and the Royal Decree on Public Good Governance and make sure its officers strictly adhere to this duty to disclose environmental information as well as coordinate effectively with other departments and agencies to protect the environment.

3 Institutional level

3.1 Limitations on international imports of plastic scraps

3.1.1 *An import ban and quantity restriction*

As discussed earlier, the imposition of limitations on international imports of plastic scraps involves several government departments depending on the types of limitations to be imposed.

In the case of an import ban, the relevant government departments are the Department of Foreign Trade under the Ministry of Commerce and the Department of Industrial Works under the Ministry of Industry. The former is the responsible government department under the Export and Import of Goods Act, which regulates plastic scraps as goods requiring prior authorisation before importing into and from Thailand.⁷¹ The latter is the Department of Industrial Works under the Ministry of Industry, which assesses applications and grants authorisation for imports of plastic scraps. An import ban can be imposed by the Minister of Commerce, with an approval of the cabinet, by reclassifying plastic scraps

⁶⁷ Constitution of Thailand, section 41 (1).

⁶⁸ Ibid, section 59.

⁶⁹ Ibid, sections 43 (2) and 50 (8).

⁷⁰ Royal Gazette Vol 120/ Chapter 100 Kor/ Page 1 (9 October 2003), hereinafter referred to as 'the Royal Decree on Public Good Governance', section 10.

⁷¹ Section 5 (2) and Ministry of Commerce Notification on Import of Goods (No.122) B.E. 2539 (1996).

from requiring a prior authorisation for import to a prohibition of import into Thailand.⁷² As discussed before, this option is readily available, if approved by the cabinet, through an adoption of a ministerial notification in accordance with section 5 (1) of the Export and Import of Goods Act. However, the Ministry of Commerce, in reality, has to work with the Ministries of Industry and of Natural Resources and the Environment to reconcile the different competing interests in order to devise the import ban. In addition, the less-restrictive measure is also available for the abovementioned Ministries where the quantity restriction can be determined for import of plastic scraps. At the present, the Ministries of Natural Resources and the Environment, of Industry, and of Commerce have mutually decided not to extend the import quotas that recently expired at the end of September. As things stand, this means that the *de facto* ban on import is already implemented.

3.1.2 *An adjustment to custom tariff rate*

By virtue of the Ministry of Commerce Notification on Import of Goods (No.122) B.E. 2539 (1996), used and/or unused plastic scraps to be imported has been listed on category 39.15 and are subject to different tariff rates depending on types of plastics. The responsibility for an imposition and collection of custom tariff lies with the Custom Department under the Ministry of Finances. An adjustment to the custom tariff to a higher rate for plastic scraps will arguably result in a measure equivalent to a restriction on import of plastic scraps and discourage importation into Thailand. As noted above, all money collected through the Tariff Classification Act is not designed for environmental purposes. Instead all taxes and tariff collected will be included in the national budget which would require the government to set a specific budget for environmental purpose in the next annual budget through the adoption of the Annual Budget Act which is to be approved by the cabinet and the parliament respectively. Therefore, although increasing tariff rates for importation of plastic scraps may to some extent discourage imports, there is no guarantee that the money collected will be used for tackling plastic pollution or for the protection of the environment.

3.2 Imposition of a ban or limitation on single use plastics – plastic bags

3.2.1 *Ban and limitations on single use plastics – plastic bags*

The authority to impose limitations on single use plastic bags lies in the Department of Industrial Works under the Ministry of Industry. As banning initial substances for the plastic production may create unnecessary burden and severe effects upon other businesses, an alternative option may be for the Industry Minister to impose product standards through the Factory Act. This creates a level of playing field to prescribe product standards for single use plastic bag production such as determining certain types of plastic to be use for production, thickness of the plastic bags, etc.

In addition to the intervention at the production phase, limitations on single use plastic bags can be placed at the retail and consumption phase. This is under the authority of the Ministry of Commerce and the responsible government department is the Department of Internal Trade. Limitations can be imposed by virtue of the Commodities Control Act where single use plastic bags arguably fall within the meaning of ‘commodities’. Under this Act, the Department of Internal Trade under the Ministry of Commerce may propose the cabinet to adopt a royal decree to regulate sales and distribution as well as fee/charges on single use plastic bags in accordance with the powers provided in the Commodities Control Act.⁷³ Laying down limitations in the form of fee/charge on single use plastic bags accelerates the implementation of the Roadmap on Plastic Wastes Management adopted by the NEB (pending the cabinet approval). The Roadmap lays down two important goals for this issue that is (i) reducing and phasing out the use of targeted plastic products including single use plastic bags; and (2) to achieve 100 per cent rate of recycling plastic within the year 2027. The cabinet has acknowledged with targets and set as national agenda which will be implemented nationwide to tackling plastic pollution.⁷⁴

⁷² Export and Import of Goods Act, (n 4) section 5 (1).

⁷³ Commodities Control Act, section 5.

⁷⁴ Pollution Control Department (7 October 2020), A letter re comments on the IUCN’s report on the legal and institutional framework governing marine plastics in Thailand’, para 2.

From this extensive power, a ban or a quantity restriction can be imposed on single use plastic bags in order to achieve the protection of public welfare, national economy and security which arguably includes the protection and conservation of the environment from plastic pollution.

3.2.2 Tax and incentive-based measures

When it comes to measures involving tax and incentive-based measures, the principal responsible government department is the Ministry of Finance. An initiation to adopt tax and incentivised measures can be made by the NEB. If the cabinet so agrees, it can adopt tax and incentivised measures. On this matter, the Revenue Department of the Ministry of Finance is the responsible government for the adoption of tax measures. It can prepare a royal decree for the Finance Minister to allow income-tax reduction – especially for a juristic person – for their environmentally friendly activities. As mentioned earlier, income-tax reduction has already been given to the juristic person by the Ministry of Finance for businesses using specified bio-degradable plastic goods.⁷⁵ Hence, additional incentives can be utilised to other activities that results in the reduction of single use plastic bags.

In addition to tax measures, an investment promotion can be given by the BOI for an environmentally sound investment especially when it comes to the plastic recycling industry. The Investment Promotion Act allows an investment promotion to be given to any investment activity that enhances benefits to economic, social, national and environmental security of the country.⁷⁶ Certainly, any investment that contributes to the protection and preservation of the environment from plastic pollution is well qualified such purpose.

3.3 Extended Producer Responsibility (EPR) scheme

When it comes to waste management and disposal, the responsibility lies with the Ministry of Interiors and more specifically a local administration. The former institution supervises the latter in implementing legislations relating waste management and disposal as well as setting out policies on this matter. The local administration includes (i) municipality; (2) sub-district administrative organisation (SDAO); and provincial administrative organisation (PAO). As of September 2020, Thailand has 2472 municipalities; 5300 SDAOs; 76 PAOs; and 2 special local administration (Bangkok and Pattaya) resulting in the total of 7850 local administrations nationwide.⁷⁷ Inevitably, this results in a fragmented system for managing wastes across the country. While the Maintenance of Cleanliness and Orderliness and Public Health Acts empowers the local administration to perform waste management and disposal function, they do not recognise other key players of the EPR scheme. Only the roles of local administration, waste management service provider, and the general public (consumer) are recognised. Producers, retailers, PRO, and recycle industry are not mentioned in these legislations.

To effectively implement the EPR scheme, the Ministry of Interiors may be in the best position to prepare for an amendment of the Maintenance of Cleanliness and Orderliness Act in order to establish a compulsory EPR scheme. The suitability of the Ministry of Interiors comes from the fact that its subsidiary departments (Department of Local Administration and the local administrations) are entrusted by law to perform waste management tasks. Indeed, they have been and are continuously working in practice on waste management and disposal. However, the amendment of the Maintenance of Cleanliness and Orderliness Act is required to go through the regulatory impact assessment under the Evaluation of Law Act which can be time-consuming and adds more financial burden to the responsible government.⁷⁸ In addition, the amendment needs to go through parliamentary process requiring its approval before the amendment become effective.

On the other hand, if implementing a voluntary scheme within the current legal framework, the missing key players can be supplemented through private agreements and contracts. In addition, to avoid

⁷⁵ Royal Decree under the Revenue Code (No. 702) on Tax Exemption B.E. 2563 (2020), Royal Gazette Vol 137/ Chapter 45 Kor/ Page 36 (22 June 2020), section 3.

⁷⁶ Investment Promotion Act, sections 16 and 19.

⁷⁷ For more information, see. Department of Local Administration website available at: <http://www.dla.go.th/work/abt/> <9 October 2020>.

⁷⁸ Royal Gazette Vol. 136/ Chapter 72 Kor/ Page 1 (31 May 2019).

fragmentation of the waste management system, the waste management and disposal tasks performed by the local administrations especially by municipalities and SDAOs should be transferred to the PAOs in order to create a more comprehensive waste management and disposal system. At this point, it should be noted that PAO can only be responsible for waste management and disposal services when it is assigned such a task by other local administrations and in so doing it must observe the relevant rules and procedures specified by the Ministry of Interior for this purpose.⁷⁹ A waste management and disposal system can also be established collectively by several PAOs if all the relevant PAOs give consent to do so.⁸⁰ The collective and comprehensive waste management and disposal system will cover sufficient areas of local administrations and amount of wastes and litters to be subject to the EPR scheme.

PRO can also be established by the producers in accordance with private company law under the CCC. In addition, all stakeholders may conclude a memorandum of understanding to show their commitment to comply and participate in the system so as to ensure an effective EPR scheme. However, having numerous local administrations means that it will be quite a challenging task to obtain waste management function assignments from SDAOs and municipalities to create a more comprehensive EPR system by the PAOs. Indeed, this also means that it is utterly difficult if not impossible to have a single comprehensive EPR system under the current regulatory framework.

3.4 Coordination and sharing information

Ensuring information sharing and coordination can be done through the decision-making institutions to which these government departments and agencies belong to, and by the executives of each governmental departments and agencies themselves. For example, the NEB could adopt a decision to disclose relevant environmental information under its possession and ensure that the sub-committee under its auspices also do so. This due to the fact that the NEB is the top environmental policy making institution for the plastic pollution problem and is in line with its constitutional duty⁸¹ and also the Public Data and Official Information Act, B.E. 2540 (1997).⁸² In addition, NEB can ensure coordination among government departments and agencies as well as state enterprises and private actors through an adoption of supportive measures for such purpose.⁸³ The PCC is also equipped with the same power to enhance cooperation and coordination among stakeholders for tackling pollution.⁸⁴ In addition, the government departments and agencies forming part of the NEB and PCC can ensure coordination and information disclosure and sharing through the executives' internal order within their own departments.

4 Behavioural level

4.1 Limitations on international imports of plastic scraps

From an environmental perspective, it is reported that 323,167 metric tons of plastic scraps were imported into Thailand in 2019.⁸⁵ The import ban and quantity restriction will likely reduce substantially the amount of plastics coming into Thailand and, in effect, reduce the possibility of plastics leak to the environment from transportation and unsound and ill-manage practices. The Department of Industrial Works has gradually reduced the import quotas which should achieve the total import ban in 2021.⁸⁶ It is reported that all import licenses have now been expired since September 2020 so, if not renew, there

⁷⁹ Maintenance of Cleanliness and Orderliness Act, section 34/1 (2) – (4). Provincial Administrative Organisation Act, B.E. 2540 (1997), Royal Gazette Vol 144/ Chapter 62 Kor/ Page 1 (31 October 1997). Hereinafter referred to as 'PAO Act', section 45 (7) and (8).

⁸⁰ PAO Act, section 46.

⁸¹ Constitution, section 59.

⁸² Royal Gazette Vol 114/ Chapter 46 Kor/ Page 1 (10 September 1997).

⁸³ National Environmental Quality Act, section 13 (11).

⁸⁴ Ibid, section 53 (8)

⁸⁵ National News Bureau of Thailand 'Special Report: Thailand and the management of plastic and electronic wastes' (8 September 2020) available at: <https://thainews.prd.go.th/th/news/detail/TCATG200908131558644> <accessed 13 October 2020>.

⁸⁶ For more information, see. Department of Industrial Works, 'Department of Industrial Works and measures on managing imported plastic scraps.'

will be no import of plastic into Thailand.⁸⁷ In the light of political uncertainty whether the import quota will be extended for 2021, while a complete ban on plastic scraps ensure the protection of the environment and reduction of plastic pollution in Thailand, this potentially creates negative impacts on plastic-recycling industry which relies significantly on imported plastic scraps for their production.⁸⁸ Domestic plastics are usually contaminated and hence cannot be recycled.⁸⁹

Interviews with key stakeholders also highlight the negative impacts on the recycling industry as there will be no supply to be feed into the production. The interviewers suggest that banning may not be a solution to tackle pollution as it does not address the root cause of the problem, where all hold the convergent view that the root cause is the fact that the waste management system in Thailand is ineffective.⁹⁰ In addition, an interviewed environmental economic professor points out that imposing a ban without proper alternatives or an effective waste management system, is likely to push producers to seek for recycled plastics from illegal markets and encourages illegal transboundary movements of plastics.⁹¹ However through his press interview, President of Wongpanit Co., Ltd., a leading recycling company in Thailand, supported the import ban as this will result in a significant increase in the value of the domestic plastic scraps.⁹² In effect, it incentivises people to conduct waste segregation as they see the benefit from selling the plastics instead of discarding them. In addition, the repercussion of the ban is that it will encourage waste segregation at sources and captivate the society to segregate plastics for sale. It is important that the government establish a proper system for recycling plastics and regularly inspects and monitors illegal trade and movement of plastic wastes from abroad to ensure the stability of the domestic plastic value and ultimately the plastic recycling industry.⁹³ What seems to be convergent here is the need to improve the waste management system and encourage waste segregation so that Thailand can utilise more domestic plastics at a quality that is recycle friendly.

4.2 Imposition of a ban or limitation on single use plastics

Regarding the ban and limitations of single use plastics bags, banning initial substances from plastic bag production would create an upheaval in the plastic industry as it will affect the production of other plastic goods as well. Though theoretically possible, this option is not practically convincing for the Department of Industrial Works and the plastic industry, as it puts too much burden on the producer. The author is of the view that it will also have a negative impact on the Department of Industrial Works due to the fact that this renders it condemnations and criticisms from the industry. In addition, if the ban on initial substances is imposed, it may be challenged through litigation, as such measure may be considered unproportioned and unlawful according to the Constitution as it creates an excessive and unnecessary burden upon those subject to the said ban.⁹⁴ The chair of the PTTGC Good Governance Commission along with all the interviewees agree that banning the initial substances for plastic production entail excessive burden on the producers and should not be the chosen option.⁹⁵

Alternatively, it is also possible to impose a ban on the retails and production phase. As discussed above, the Commodities Control Act gives an expansive power to regulate consumer goods including single use plastic bags. Inevitably, imposing a ban on sales of single use plastic bags significantly affects public convenience and their normal way of life. Having said that, the a PCD officer interviewed,

⁸⁷ National News Bureau of Thailand 'Special Report: Thailand and the management of plastic and electronic wastes' (8 September 2020) available at: <https://thainews.prd.go.th/th/news/detail/TCATG200908131558644> <accessed 13 October 2020>.

⁸⁸ There is a difficulty in getting the information on this discussion. It is held by the Sub-Committee on Plastic and Electronic Wastes Management who have decided not to make the report of its meeting publicly available. This limits the policy effectiveness assessment as it is crucial information.

⁸⁹ Matchon, 'signalling a channel for importing plastics if facing domestic insufficiency' (11 September 2020) https://www.matchon.co.th/news-monitor/news_2344134 <accessed 13 October 2020>.

⁹⁰ Interviews of Professor Somkit Lertpaitoon, Assistant Professor Chol Bunnag, and the PCD officer. See, Annex.

⁹¹ Interview of Assistant Professor Chol Bunnag, SDG Move Thailand. See, Annex 36 – 37, 48 – 49, 55 – 56.

⁹² BBC Thailand, 'Plastic wastes: What will happen after Thailand discontinue plastic imports' (7 October 2020) available at: <https://www.bbc.com/thai/thailand-54445023> <accessed 13 October 2020>.

⁹³ Ibid.

⁹⁴ Constitution of Thailand, section 26.

⁹⁵ Interviews of Professor Somkit Lertpaitoon, Professor Amnart Wongbandit, Assistant Professor Chol Bunnag, and the PCD officer. See, Annex 36 – 38, 41 – 42, 52 – 53, 59 – 61.

is convinced by the application of the Commodities Control Act and affirms this can surely be used. In addition, the officer mentioned that the Commodities Control Act has never been mentioned before in all the plastic-related meetings that he has attended.⁹⁶ The only concern is that it is unsure whether or not the Ministry of Commerce will accept the proposed interpretation and adopt such a ban as this creates impact on the society and the Ministry has no expertise on plastic pollution.⁹⁷

A study led by a researcher at Environmental Research Institute of Chulalongkorn University, shows the changing perception regarding the plastic pollution in Thailand and that people are more willing to accept the imposition of a plastic ban, as they perceive of the negative impacts of plastic bags and, hence end up using reusable plastic bags.⁹⁸ In addition, having 'no plastic bag given away' as a policy, fundamentally creates impetus for people to bring their own reusable bags.⁹⁹ Along with the no free plastic bag policy, charging for a plastic bag helps raising awareness of pollution and results in the consumers internalisation of the cost of a plastic bags.¹⁰⁰ However, the charge must be sufficiently high to impact their normal behaviour and induce changes.¹⁰¹ Professor Chol Bunnag, an environmental economist of Faculty of Economics, Thammasat University seems to be in favour of this option as he said that substitution of single use plastic bags has not been carefully studied both from economic and environmental perspectives.¹⁰² Also, the Professor is of the view that banning would not be helpful, but lead to another problem such as illegal trade in the black market. The interviewed stakeholders hold the convergent view that a single use plastic bag itself is not a problem, but societal behaviour and ineffective waste management system.¹⁰³ This suggests that measures that induce changes in behaviour would be suitable for the situation and a fee/charge on plastic bags is promising in this scenario. In addition, it should be noted that the voluntary ban of single use plastic bags has been introduced since the beginning of 2020. The Thai society has already in mind the idea of no free plastic bags. For this reason, this should ensure the government that introducing a fee/charge on single use plastic bags will not create huge frustration in the society and that it will correspond to its Roadmap on Plastic Wastes Management.¹⁰⁴

As mentioned before, the less restrictive limitation can be introduced through the product standard adopted in accordance with the Factory Act where it allows quality standards be set for the plastic bags production.¹⁰⁵ This option seems promising, as it has been discussed in the 1st Working Group on Development of Plastic Management Mechanism under the Sub-Committee on Plastic Wastes Management, where it was an intention to phase out U-shaped plastic bags with less than 30µm thickness completely phased out by 2023 at the latest.¹⁰⁶ Therefore, laying down a product quality standard will not trouble the government departments or the industry, as the proposal for doing so has been discussed among stakeholders already. An interviewed environmental law professor, Professor Amnat Wongbandit, who sits in the PCC confirms that this proposed solution is legally sound and can be adopted through the Factory Act.¹⁰⁷

In terms of tax and incentivised measures, offering a tax reduction will likely benefit juristic-person retailers for being more environmentally friendly and the Revenue Department has already put in place the Royal Decree under the Revenue Code (No. 702) on Tax Exemption B.E. 2563 (2020) allowing a

⁹⁶ Ibid, the interview of the PCD officer. See, Annex 61.

⁹⁷ Ibid. See also, the interview of Professor Amnat Wongbandit. See, Annex 43.

⁹⁸ Sujitra Vassanadumrongdee, Dawisa Hoontrakool and Danny Marks, 'Perception and Behavioural Changes of Thai Youths Towards the Plastic Bag Charing Program' 42 Applied Environmental Research, 27 – 45, 36.

⁹⁹ Ibid, 39.

¹⁰⁰ Ibid.

¹⁰¹ Ibid, 40.

¹⁰² Interview of Assistant Professor Chol Bunnag, SDG Move Thailand. See, Annex 52.

¹⁰³ Interviews of Professor Somkit Lertpaitoon, Professor Amnat Wongbandit, Assistant Professor Chol Bunnag, and the PCD officer. See, Annex, 36 – 37, 48 – 49, 56.

¹⁰⁴ Report No. 3/2561 of 1st Working Group on Development of Plastic Management Mechanism (December 2018). Available at: http://www.pcd.go.th/Info_serv/waste_plastic.html <15 April 2020>, at p. 4. See also section III, B, 1) above.

¹⁰⁵ Factory Act, section 32.

¹⁰⁶ Report No. 3/2561 of 1st Working Group on Development of Plastic Management Mechanism (December 2018). Available at: http://www.pcd.go.th/Info_serv/waste_plastic.html <15 April 2020>, at p. 4.

¹⁰⁷ Interview of Professor Amnat Wongbandit. See, Annex 42.

company or juristic partnership to deduct 25 per cent of its expense on bio-degradable plastic goods. This surely is useful and attractive for organisational retailers with juristic person status. The same kind of measure could therefore be adopted to support phasing out single use plastic bags. However, all the interviewed stakeholders agree in principle that the government shall extend this benefit to other non-juristic person retailers in order to convince the wider public and enhance effectiveness in tackling plastic pollution. Some challenges as to the means and verifications of the bio-degradable plastic products by the non-juristic persons (natural person or sole-person entrepreneur without juristic person registration) must be overcome.¹⁰⁸ These challenges lie with the Department of Revenue under the Ministry of Finances whose one of the important tasks is to collect income tax both personal and juristic person.

4.3 Extended Producer Responsibility (EPR) scheme

It seems that the EPR scheme is welcomed by all the stakeholders. From the producer side, some of the major producers are already initiating their own recycling schemes. PTTGC has already established its own recycling facilities to not only its own plastics, but also plastic wastes from elsewhere. The Chair of the PTTGC Good Governance Commission is of the opinion that the company welcomes the EPR establishment.¹⁰⁹ The economist also believes that this benefits all stakeholders and encourages consumers to segregate wastes and recycle, as the EPR scheme incentivises the public to take action. It is recommended that the recycling reception points and facilities should be quickly installed to enhance convenience and promote recycling behaviours.¹¹⁰ However, the implementation of the EPR scheme under the current regulatory system may not be effective as not all the stakeholders are recognised. The new legislation is needed to recognise all stakeholders and determine their rights and duties in the EPR scheme.¹¹¹ Also, the legislation set an obligation of result for each stakeholder to achieve and leave them rooms to improvise (legal and economically feasible) means to achieve the result.¹¹² A possibility is that this is done through the adoption of statutory instrument under the Maintenance of Cleanliness and Orderliness Act.¹¹³

In addition to the establishment of the EPR scheme, the adjustment of waste management service fees can arguably help create an impetus for waste segregation at sources, especially for plastic wastes. In reality, Thai people have a bad perception about waste management and disposal administered by their local administrations, as they often see the waste management service staffs ultimately mix the collected wastes or put them on the same truck without separation.¹¹⁴ In addition, they are happy with their *status quo* by paying the waste management service fees which are as low as 20 baht per month and do not reflect the real cost of the waste management and disposal service.¹¹⁵ As discussed above, the local administration has a leeway in adjusting the fees in order to both merit those segregating wastes and those who do not. A recent study shows that people may be willing to pay the higher fees in the range of approximately 50 – 70 baht to help improve the waste management service.¹¹⁶ Such amount is still substantially less than the actual cost of waste management service which should be at 150 baht per month.¹¹⁷

¹⁰⁸ Interviews of Professor Somkit Lertpaitoon, Professor Amnart Wongbandit, Assistant Professor Chol Bunnag, and the PCD officer. See, Annex 38, 45, 49 – 50, 63.

¹⁰⁹ Ibid, Interview of Professor Somkit Lertpaitoon. See, Annex, 34 – 35.

¹¹⁰ Ibid, Interview of Assistant Professor Chol Bunnag. See, Annex 51 – 52.

¹¹¹ Ibid. See also Interviews of Professor Somkit Lertpaitoon and Professor Amnart Wongbandit. See, Annex 36, 44.

¹¹² Interview of Professor Amnart Wongbandit. See, Annex 44.

¹¹³ Interview of Professor Somkit Lertpaitoon. See, Annex 36.

¹¹⁴ Sujitra Vassanadumrongdee and Suthirat Kittipongvises, 'Factors influencing source separation intention and willingness to pay for improving waste management in Bangkok, Thailand' 28 Sustainable Environment Research, 90 – 99, 96, 98.

¹¹⁵ Ibid.

¹¹⁶ Ibid.

¹¹⁷ Ibid.

From the local administration side, there are 2257 waste treatment facilities operating incorrectly.¹¹⁸ This includes ill-management and disposal through improper open dumping sites, open-air incineration, and no air pollution treatment device installed on the incineration facilities.¹¹⁹ Increasing the waste management service fee would help improve the waste management and disposal services to better quality and ensure the sound treatment and disposal. However, an increase in the waste management service fee can affect the local administration as this influences their political image within their areas.¹²⁰

In addition, another behavioural challenge faced by the Thai society is the inconvenience to recycle. However, a behavioural study shows that Thai people can be influenced significantly by other people's behaviour.¹²¹ It is possibly easier for people to recycle if 'their involving societies have positive norm on recycling'¹²² as they feel socially rewarded from being an environmentally friendly person.¹²³ To enable recycle behaviour, more recycling facilities and drop-off service points should be installed in order to facilitate public's convenience and encourage recycling.¹²⁴ These facilities should be easily accessible and 'a universal standard of classification of separation container as well as sorting criteria should be clearly specified.'¹²⁵ This can be supplemented by comprehensive, consistent, and continuous environmental education and campaigns especially on waste segregation.¹²⁶ Therefore, not only it would be welcomed by the public, but also facilitate people to participate in the EPR scheme and make recycling an easy task in their daily life.

4.4 Coordination and sharing information

Within the existing government structure, Professor Somkit Lertpaitoon is of the view that the system is not designed to enhance coordination, due to the fact that each government department is a juristic person having its own mission and capacity. For this reason, all the government departments work strictly according to their determined function as acting *ultra vires* may subject to challenges and litigations which are time and resource consuming.¹²⁷ This is one of the biggest challenges of the Thai government system. For information sharing, where there is no complication concerning national security and government confidentiality, disclosing information should not affect the information holder and should benefit the society at large. However, an interview with the regulator shows that there is sometimes reluctance for the disclosure of environmental information. This is due to the fact that in some occasions institutions cannot ensure the accuracy of the information due to the lack of human and financial resources to prepare it.¹²⁸

5 Outcome level

Due to the confluence of different interests within different groups of society, it is unlikely that the government will adopt all measures illustrated in this analysis. However, it is hoped that necessary interventions are adopted to promote changes in societal behaviour.

Regarding the flood of plastic scraps into Thailand, possibilities include that either the government decides not to reclassify plastic scraps to the Category 1 goods under the Export and Import of Good

¹¹⁸ PCD, 'Thailand State of Pollution, 2019' available at: http://www.pcd.go.th/file/Thailand_Pollution_%20Report_2019_Thai.pdf <accessed 14 October 2020>, 101 – 102.

¹¹⁹ Ibid.

¹²⁰ Interviews of Professor Somkit Lertpaitoon. See, Annex 38.

¹²¹ Vassanadumrongdee and Kittipongvises, 96.

¹²² Amphorn Ittiravivongs, 'Factors influence household solid waste recycling behaviour in Thailand: an integrated perspective' 167 WIT Transactions on Ecology and The Environment, 446.

¹²³ Roland Hohman and others, 'An Exploration of the Factors Concerned with Reducing the Use of Plastic Carrier Bags in Bangkok, Thailand' 3 ABAC ODI Journal Vision Action Outcome, 10.

¹²⁴ Vassanadumrongdee and Kittipongvises, 96. See also, Ittiravivongs, 437 – 448, 446.

¹²⁵ Ittiravivongs, 446.

¹²⁶ Ibid.

¹²⁷ Interviews of Professor Somkit Lertpaitoon. See, Annex 40.

¹²⁸ Interviews of the PCD officer. See, Annex 63 – 64.

Act, or decides not to extend the import quotas that recently expired at the end of September.¹²⁹ Either way would result in the imposition of a ban on the import of plastic scraps into this country and would ensure that the floodgate is closed for plastic scraps. Should the Government decide that the import of plastic scraps is really a necessity for the country, this should be kept at minimum and ensure transparency for verification and inspection of the import.

When it comes to single use plastic bags, the option to ban may not be a plausible at the moment. However, it is possibly more feasible to adopt a quality standard that enhances recyclability and durability of the plastic bags. Also, the government could adopt measures to leverage the societal change towards reducing plastic bag consumption. This measures can include imposing fees/charges instead of handing out free single-use plastic bags. All of these actions should be done along with the immediate and serious overhaul of the waste management and disposal system in Thailand. The government has the pending task to improve the waste management and disposal system as well as consistently campaigning for waste segregation to encourage recycling.

In order to generate impetus, various kinds of economic instruments can be adopted or adjusted. Incentivised measures e.g. tax incentive, can be extended to the wider public, whereas the waste management and disposal fee can be adjusted to reflect the actual cost of pollution. Within the limited regulatory framework, the voluntary EPR system can be established to support the improvement of waste management and disposal system that would also facilitate and incentivise people to recycle. Hopefully, in the long run, the government may be able to adopt a new legislation for the comprehensive regulation of waste management and disposal that is equipped with an effective and mandatory EPR system. Regarding information sharing and coordination, provided the present legal framework, it is expected that the government make the environmental information readily available and accessible by the public without the need to request for such information. Also, it would be useful that the relevant departments and agencies could adopt a guideline for environmental coordination and cooperation to enhance effectiveness for the protection of the environment.

6 Conclusion and recommendations

The following points are, at the same time, conclusion and recommendations directed especially to authorities relevant to combating plastic pollution in Thailand.

It is recommended to reclassify plastic scraps from the Category 2 to Category 1 of Goods under the Export and Import of Goods Act or to ensure no renewal of plastic scraps imports quotas into Thailand, in order to prevent such imports to continue happening.

The adoption of quality standards for plastic bags would be acutely relevant in order to ensure the more durable plastic bags (as a way to encourage their reuse) as well as increase their recyclability. In addition, fees/charges should be introduced to discourage the use of single use plastic bags and increase their reuse.

Incentivised measures such as tax incentives should be adopted and extended to the wider public especially to those natural persons who are the actual consumers of the plastic products including plastic bags.

Significant improvement of the waste management and disposal system in Thailand is paramount to the combating of plastic pollution in Thailand. The government has the responsibility to ensure that this issue is taken seriously. An EPR scheme adoption is widely recommended to encourage recycling behaviour as well as an adjustment to waste management and disposal fees that should be made in order to reflect the actual cost of such management and disposal. This also signals the public to produce less wastes and encourages recycling.

¹²⁹ See, Section 3 A 1) above.

Environmental information should be readily available and accessible to the public without the need to request. This can be done through the internal order of the executives of the relevant departments and agencies. Also, the adoption of a guideline for environmental coordination and cooperation that is strictly followed by the relevant government departments and agencies to enhance effectiveness for the protection of the environment, would be of outmost relevance to the improvement and effectiveness of these policies in Thailand.



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