FINAL REPORT

Technical Inputs to Support the Vietnam Government in Preparation for the Development of the Global Agreement on Marine Debris Pollution

CONSULTANT TEAM:

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PROJECT: REUSE, REDUCE, RECYCLE TO PROTECT THE MARINE ENVIRONMENT AND CORAL REEFS (3RProMar)

CONSULTANT SERVICE:

Technical inputs to support the Vietnam government in preparation for the development of the Global Agreement on Marine Debris Pollution, including:

1. Desk study on process description of waste management system in Vietnam
2. Desk Studies on technical inputs needed for the Vietnam government in preparation for and participation in the development of the Global Agreement on Marine Debris Pollution
3. Study on capacity development demand for the Vietnam government regarding the preparation of and participation in the development of the Global Agreement on Marine Debris Pollution
4. Facilitate participatory planning meetings/ expert meetings preparing for the development of the Global Agreement on Marine Debris Pollution, with the engagement of the private sector, the informal sectors, and municipalities.

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INTRODUCTION

Plastic pollution is a major issue around the world. Each year, 19-23 million tonnes of plastic waste seep into aquatic ecosystems, which contaminates lakes, rivers, and oceans. This pollution affects natural habitats and processes and reduces the ecosystems' ability to adapt to climate change. It has a direct impact on the livelihoods, food production capabilities, and social well-being of millions of people[1]. The pressing need to tackle plastic waste pollution has spurred the creation of numerous international agreements, protocols, conventions, and initiatives focused on marine litter. These agreements serve as the basis for a global governance system to combat marine litter. Several international agreements and initiatives regarding marine pollution include marine plastic waste. For example, the United Nations Convention on the Law of the Sea (UNCLOS) is considered the most comprehensive global framework on marine pollution caused by plastics. It is the only binding agreement that requires nations to establish regulations to prevent, reduce, and control pollution from both marine and land-based sources that may enter the marine environment. Besides, the International Convention for the Prevention of Pollution from Ships (MARPOL) oversees the accidental discharge of pollutants from ships. It necessitates all vessels, including fishing boats, to take all possible measures to prevent the loss of plastic items during operations. United Nations Environment Assembly (UNEA) has taken steps to address the issue of plastic pollution by passing several resolutions. One of these resolutions was to establish an Ad Hoc Expert Group (AHEG) on marine litter and microplastics, which will identify response options at the national, regional, and international levels. Additionally, other international organizations are also conducting work related to marine litter and microplastics. Although there have been many voluntary initiatives targeting marine litter, public-private partnerships addressing land-based sources of marine pollution, and dialogues regarding plastic pollution, regulatory frameworks aimed at these issues still have gaps (IISD, 2022).

The participants at INC1 focused on various organizational matters, including the election of officers and the adoption of rules of procedure and agenda. However, the key objective was to prepare an international legally binding instrument (ILBI) on Plastic Pollution, and delegates were given the opportunity to discuss their priorities for the INC process. This included exploring the scope, objective, and structure of the ILBI. At INC1, the discussion also covered core obligations, control measures, voluntary approaches, National Action Plans (NAPs), monitoring and evaluation, and national

[1] https://www.unep.org/plastic-pollution

reporting. INC2, which took place in Paris from 29 May to 2 June 2023, continued the work on officer selection, organizational matters, and ILBI preparation. In sessions, delegates were asked to raise their voices on core obligations such as *phasing out and/or reducing the supply of, demand for, and use of, primary plastic polymers,* reducing microplastics, and strengthening waste management (UNEP, 2023).

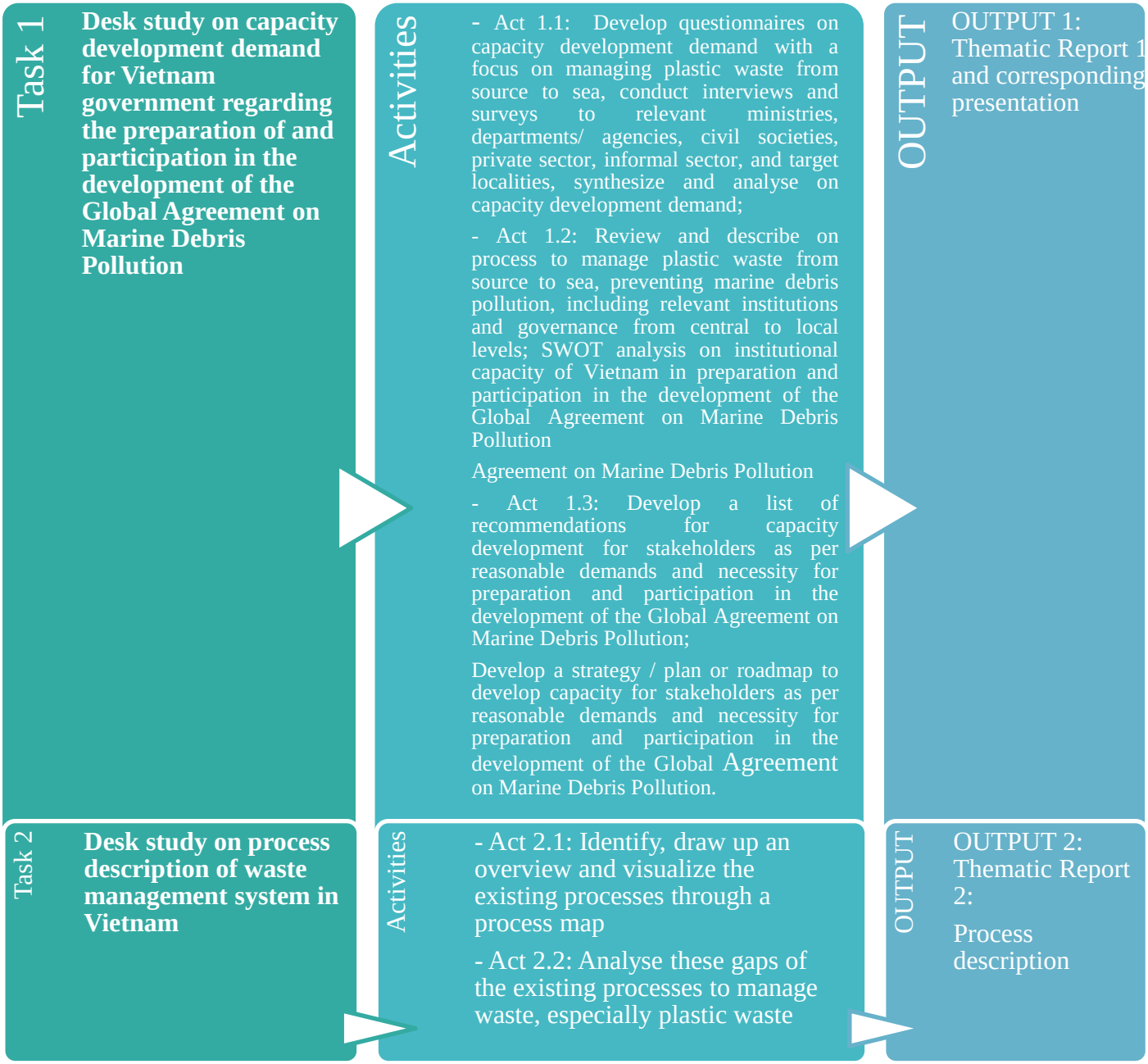
Based on the contents of sessions in previous INC, it is essential to equip Vietnamese delegates with knowledge and skills for upcoming INC discussions, particularly in light of Prime Minister's approval of Vietnam's participation in building a global agreement on ocean plastic pollution (Decision 1407/QD-TTg).

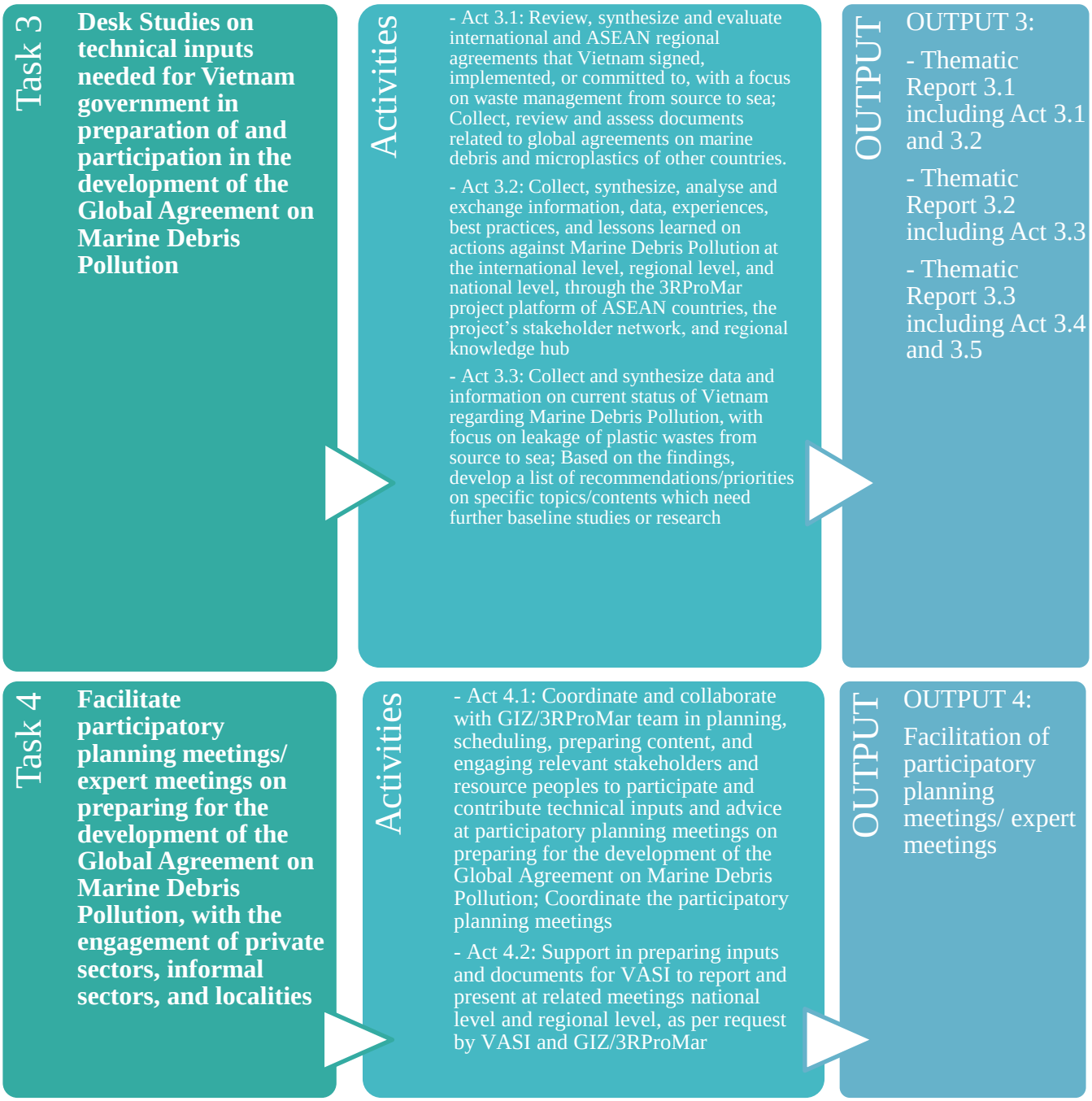
This report falls under the framework of the German – ASEAN Regional Project "Reduce, Reuse and Recycle to Protect the Marine Environment and Coral Reefs" (3RproMar), which aims to assist the ASEAN Member States (AMS) in enhancing their implementation capabilities to reduce land-based waste leakage and protect the marine environment. The report supports ministries to strengthen their waste management capabilities and identify measures to combat plastic waste. Based on that, it supports Output 2 of the project when offering technical expertise to develop national strategies to improve the collection and recycling of reusable materials, thereby reducing waste leakage into the sea. The report is divided into two parts, with the first part is the description of the consultation process and the second part is providing technical inputs to support the Vietnamese government in preparing for the development of the Global Agreement on Marine Debris Pollution.

1. THE DESCRIPTION OF THE CONSULTATION PROCESS

1.1. Tasks and activities

To fulfill the four tasks delineated in the Term of Reference, the consultant team developed an inception report, comprising a total of ten activities which was described in the below.





1.2. Methodology

The team engaged in talks with GIZ and VASI representatives to establish a methodology. The discussions aided in the refinement of methods that aligned with task requirements.

a. Desk study and information synthesis

- Collect current legal and policy documents related to the solid waste management system in Vietnam which paved the way for us to develop a process map for identifying and

visualizing the steering, core, and support processes, including actors involved and responsible for the regulations, policies, and road map to manage waste, especially plastic waste and preventing marine debris in Vietnam. Based on that, we explored, drew up an overview, and visualized existing processes of Vietnamese waste management through the map. It is also a basis for us to find gaps in the existing processes to manage waste, especially plastic waste, from source to sea, preventing marine debris pollution.

- Review and evaluate ASEAN agreements that Vietnam has signed, implemented, or committed to, with a specific focus on waste management from source to sea. This is a crucial activity during the development of the Global Treaty, as it enables Vietnam's delegates to assess the effectiveness and implementation status of current agreements. By identifying gaps and challenges within these agreements, delegates can gain a better understanding of the importance of all countries participating in a global and comprehensive approach to the agreement.
- Collect experiences, best practices, and lessons learned on actions against Marine Debris Pollution at the international level, regional level, and national level, through the 3RProMar project platform of ASEAN countries, countries by the Mekong Delta, the project's stakeholder network and regional knowledge hub. Based on best practices and lessons learned, Vietnamese delegates can leverage experiences from existing initiatives such as the 3RProMar project and regional networks, thus, helping them to propose Decisions based on successful foundations and avoid failures in waste management.
- Collect and synthesize of data and information on the current status of Vietnam regarding Marine Debris Pollution, with a focus on the leakage of plastic wastes from source to sea. Those lessons learned provided a solid foundation for evidence-based policymaking when policymakers can understand the extent and sources of marine debris pollution, especially plastic leakage, as a result, they can design targeted and effective interventions.

b. Develop questionnaires on capacity development demand with a focus on managing plastic waste from source to sea

To support Vietnam delegates in developing Global Treaty agreements, consultation with relevant ministries such as MONRE, MPI, MOFA, MOIT, MOC), departments/ agencies under MONRE (e.g. VASI, Legal Affairs, VEA, ICD), functional department at the pilot province (e.g. DONRE, DARD, DOC of Soc Trang province) is important. To fulfill the task, the consultant team conducted semi-structured interviews and surveys to assess necessary staff competencies for negotiations. Survey results will be used to consult with agencies responsible for capacity building of Vietnamese representatives, allowing them to participate in negotiation sessions with adequate preparation actively.

In the task, the consultant team collaborated with GIZ and government personnel to determine the essential skills required for delegates. After reaching a consensus, our consulting team categorized these skills into distinct areas:

- Ability to develop legal documents with the participation of stakeholders.
- Network cooperation capacity
- Organizational and institutional capacity
- Personal skills

Besides, knowledge needs to be prepared has been proposed including:

- Information on the background of the negotiation process.
- Prioritizing issues in VN and negotiating parties.
- Factors affecting negotiation: national security, army, diplomacy, borders, planning.
- Summary of commitments on plastic waste for Vietnam.
- Summary of policies, regulations on plastic wastes in Vietnam.
- Information on marine plastic waste: quantities, composition, leakage and discharging amounts.
- Recommendations on solutions an road map for implementation.
- Options for negotiations, plan and road map for the next INCs

The questionnaire includes inquiries regarding the current state of plastic waste management, aimed at evaluating the respondent's level of knowledge on the subject. Our findings will indicate a need for improvement or categorization of this knowledge. Therefore, the survey was conducted into two sections: Plastic Waste Management Status and Capacity Demand for Plastic Waste Management. The questionnaire has been customized according to the background of the representatives. For interviewees from government agencies, the questionnaire includes relevant questions related to solid waste management. However, for enterprises and NGOs, those questions were excluded. Instead, we focused on their opinions regarding the current state of waste management and the challenges they face while implementing regulations related to plastic waste.

c. SWOT analysis on the institutional capacity of Vietnam in preparation and participation in the development of the Global Agreement on Marine Debris Pollution

Based on the findings from the desk review and questionnaire, the consultant team conducted a SWOT analysis to determine the strengths, weaknesses, opportunities, and threats of the institutional capacity of Vietnam. Besides, a list of recommendations was developed in terms of four parts preparation of resources and capacities for negotiations and participation in the

Global Treaty; completion of the system of policies and legal documents, strengthening financial resources and improving the environmentally sound management of plastic waste. The plan and roadmap of participation and negotiation have also been developed.

d. The description of the consultation process

From December 2022 to January 2023, the team conducted extensive research on plastic waste management at global, regional, and national levels. We reached out to representatives from GIZ and VASI to gather their feedback through questionnaires. Thanks to the valuable input from GIZ and VASI in February 2023, the questionnaires were refined to better cater to the needs of various stakeholders. Subsequently, the questionnaires were distributed to a range of partners including departments, institutes, associates, NGOs, and businesses through official VASI dispatch. Moreover, an online questionnaire was created using Google Form and shared with colleagues and partners in the plastic waste sector.

In May 2023, a field visit in Soc Trang province was conducted to assess the demand for plastic waste management capacity. Our team engaged in fruitful discussions with DONRE Soc Trang, PC Tran De, and the solid waste treatment company, and collected valuable data to prepare recommendations for the forthcoming Global Treaty negotiations. Armed with this information, we prioritized the development of a comprehensive draft of Proposal to prepare for Vietnam delegates to participate and negotiate Global Treaty, which we submitted to VASI in December 2022 in preparation for INC2.

During and after INC2 which was held from 29 May to 2 June 2023, Paris, France, we kept supporting VASI in preparing documents and presentations to share the results of Vietnamese delegates joining INC2. On August 11th, 2023, the team (Tu Binh Minh) gave a brief speech during the workshop "Highlights of INC-2 and Next Steps". The speech was focused on raising problems in marine plastic waste and proposing recommendations based on the Basel and Stockholm Conventions and the team's study on capacity assessment and capacity demand which took place in Soc Trang province in May 2023.

Workshop "Highlights of INC2 and next steps"

Picture 1.1. A photo of participants joining workshop[1]

"We have recently participated in a study on capacity assessment and the need to strengthen capacity for Vietnam in preparing and participating in negotiations Global Treaty on plastic waste, supported by GIZ. It is my honor to be here today and share with you about some findings from the study: Firstly, regarding the current status of ocean plastic pollution, there is a conflict in data of plastic waste and ocean plastic waste in Vietnam when different data about ocean plastic trash inn Vietnam are found in many reports. Some reports show that Vietnam is one of the top 4 countries with the world's largest ocean plastic trash. Therefore, the first issue that should be raised is the need for a common methodology to inventory and survey the amount of ocean plastic waste, and countries participating in the convention need to consistently implement that methodology. Of course, in reality, having a unified method may not necessarily give the desired results, but it will gradually eliminate the errors in calculating the amount of plastic waste. To achieve this, we suggest establishing an international expert group led by a reputable international organization (such as UNEP) to coordinate the implementation of a unified methodology. Similarly, for the inventory and monitoring of ocean plastic pollution, there needs to be an official internationally regulated document that participating countries will follow.

Another important issue is the roadmap to reduce ocean plastic waste. The World Economic Forum has proposed 7-8 steps to do this, with the first steps related to management at the source such as banning or controlling single-use plastic products, increasing EPR, and raising awareness. In Vietnam, we need to improve capacity in two main areas: propaganda to raise awareness and change behavior, and technology. While Vietnam has been doing relatively well with the former, it needs more frequent activities and long-term participation in international and regional forums. On the other hand, the latter is still a challenge, as most plastic waste reduction projects focus on recycling, but the technology for plastic recycling processing is still underdeveloped in localities. It is necessary to call for capital mobilization from international organizations to support improving plastic recycling processing technology. Finally, we need to consider enhancing the role of coast guard or patrol units around the sea to detect current leakage of marine waste, among other specific issues." The consultant team shared opinions in the workshop

[2] The photo was provided by organizers of the workshop.

2. PROCESS OF WASTE MANAGEMENT IN VIETNAM

2.1. Status of solid waste management process in Vietnam

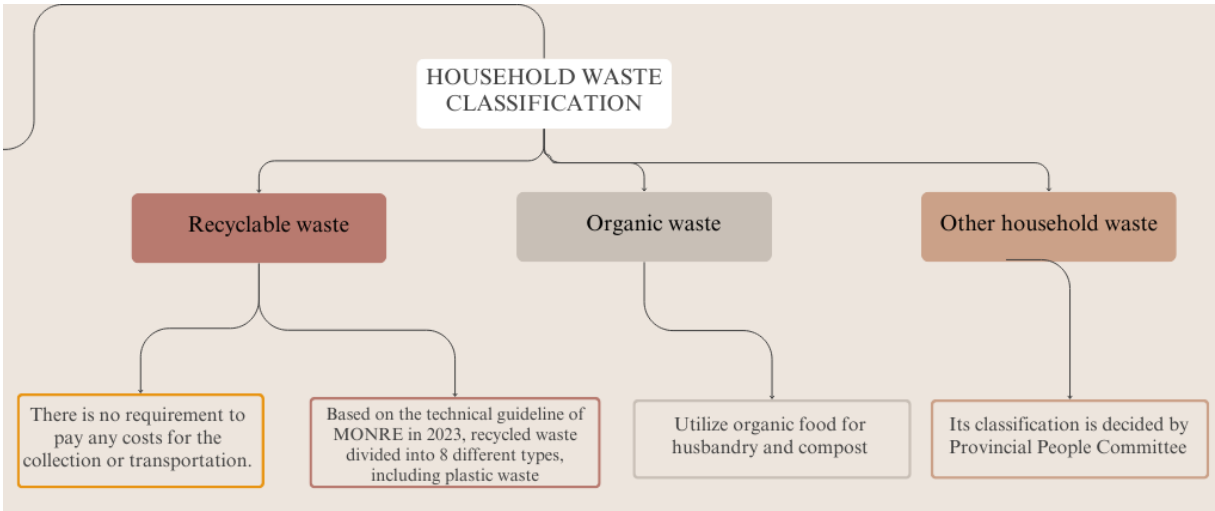
With the rapid economic development, urbanization, and population growth in Vietnam, the volume of solid waste produced has been increasing significantly. This has put immense pressure on environmental management. To address this issue, the Law on Environmental Protection has been amended several times, specifically focusing on solid waste management. The latest amendment, the Law on Environmental Protection 2020, has put forth some general requirements for solid waste management as following:

- These requirements include the proper management of waste throughout its entire lifecycle, i.e., from generation, reduction, classification, collection, storage, transfer, transportation, reuse, recycle, treatment, and disposal.
- Owners of hazardous and normal industrial solid waste sources shall responsibly reuse, recycle, treat, and recover energy from such waste, or transfer it to licensed facilities with the appropriate environmental license.
- Controlled industrial waste source owners must determine whether waste is hazardous or normal industrial solid waste by collecting and analyzing samples at competent facilities according to the regulations of the law. Following identification, industrial waste must be managed according to legal requirements.
- Waste that meets the standards and technical regulations applicable to raw materials, fuels, and materials, according to the regulations of the law on product and goods quality, must be handled as products and goods and may be used as raw materials, fuels, and materials in production activities.
- Entities responsible for transporting domestic solid waste, hazardous waste, and normal industrial solid waste subject to treatment must transport waste to licensed facilities with appropriate environmental licenses or transfer them to other transporters to be taken to licensed facilities with appropriate environmental licenses.
- The management of radioactive waste must comply with the regulations of the law on atomic energy.

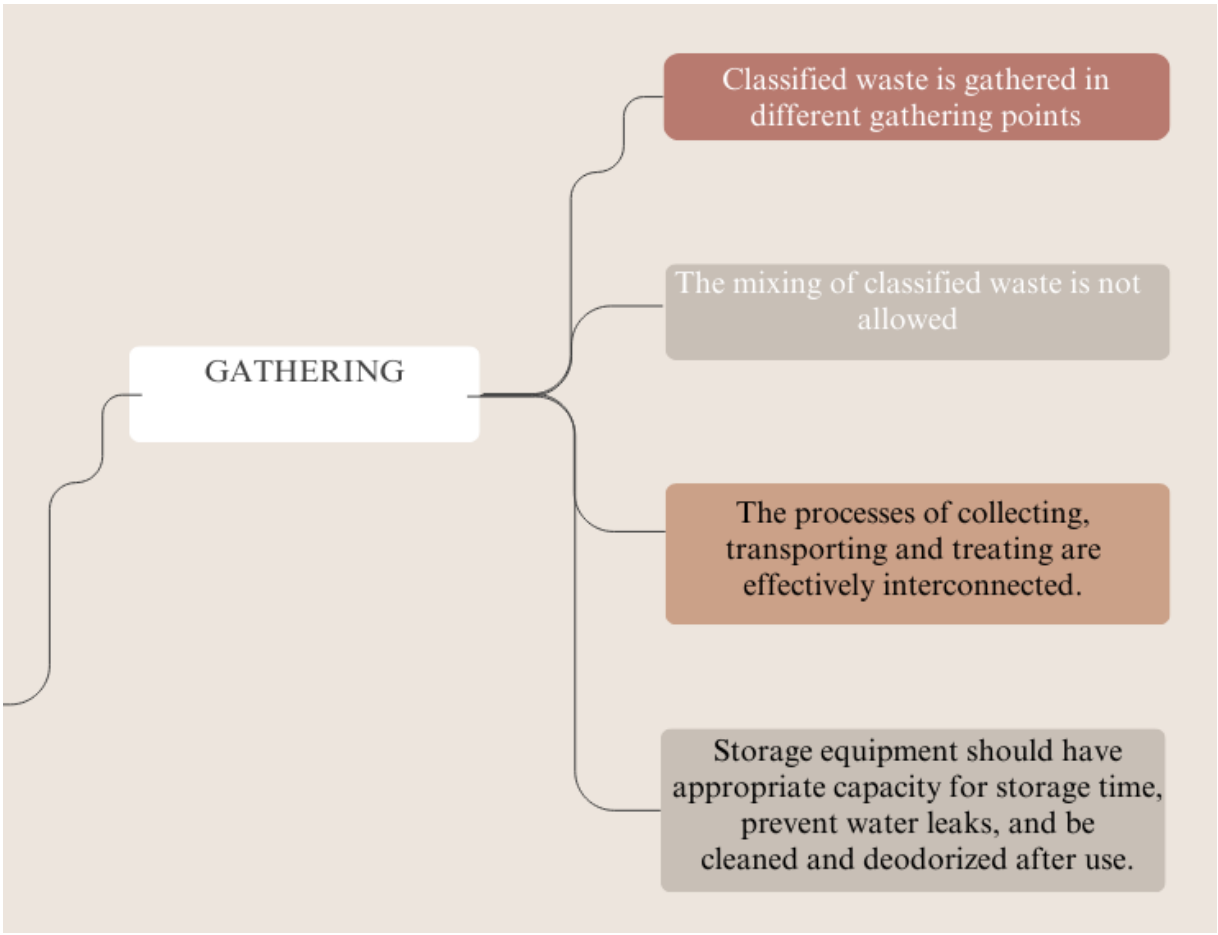
For each stage of the solid waste management process, the Law on Environmental Protection also has specific provisions summarized as follows[3]:

[3] The consultant team developed figures based on the Law on Environmental Protection

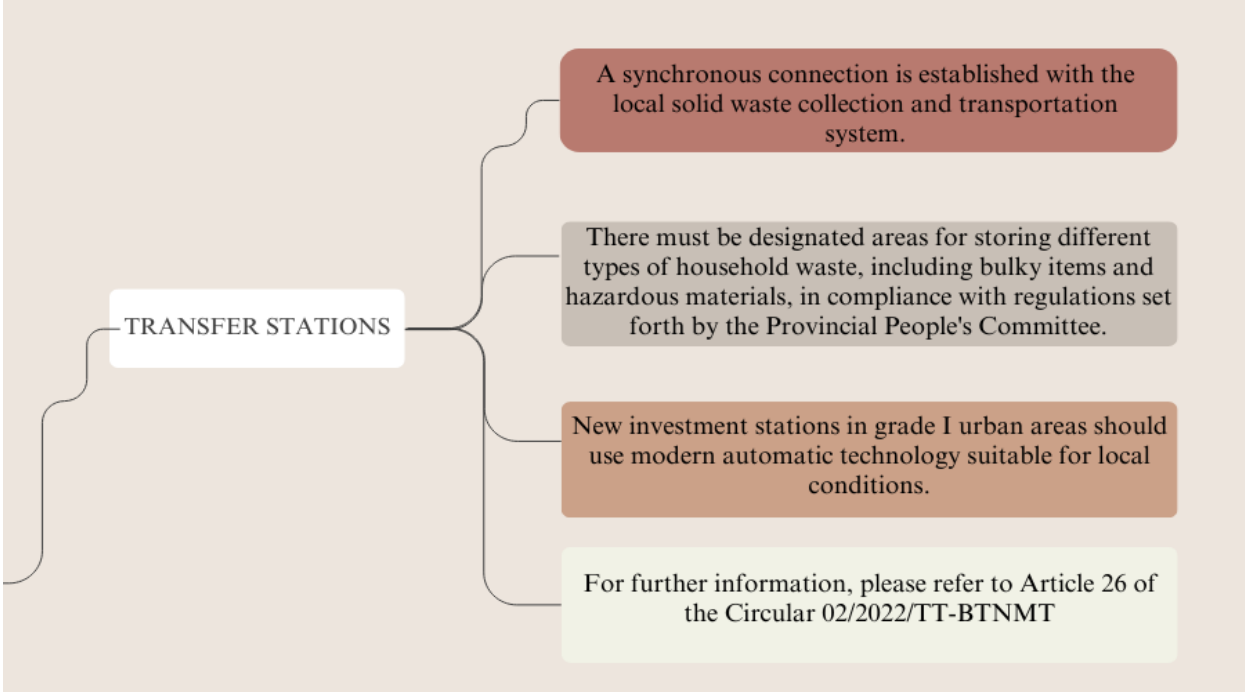
Classification



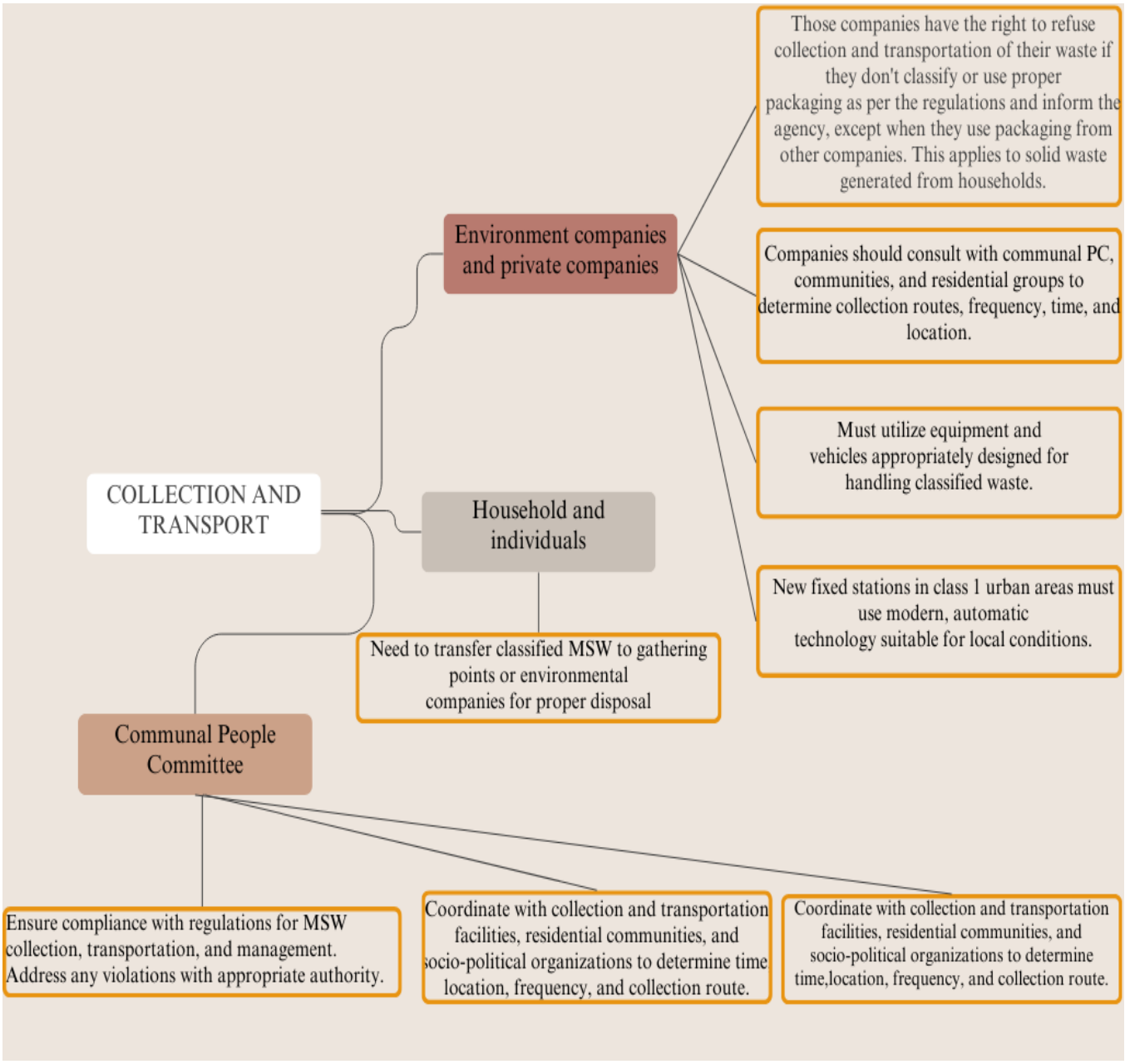
Gathering



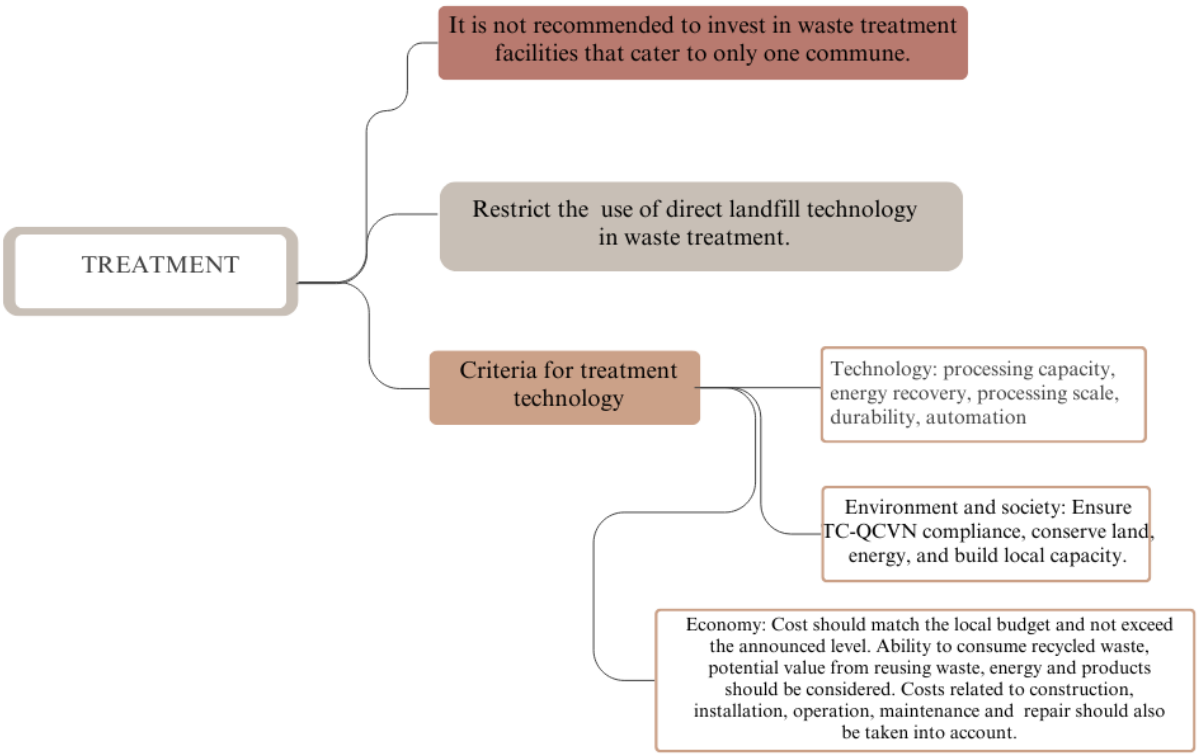
Transfer stations



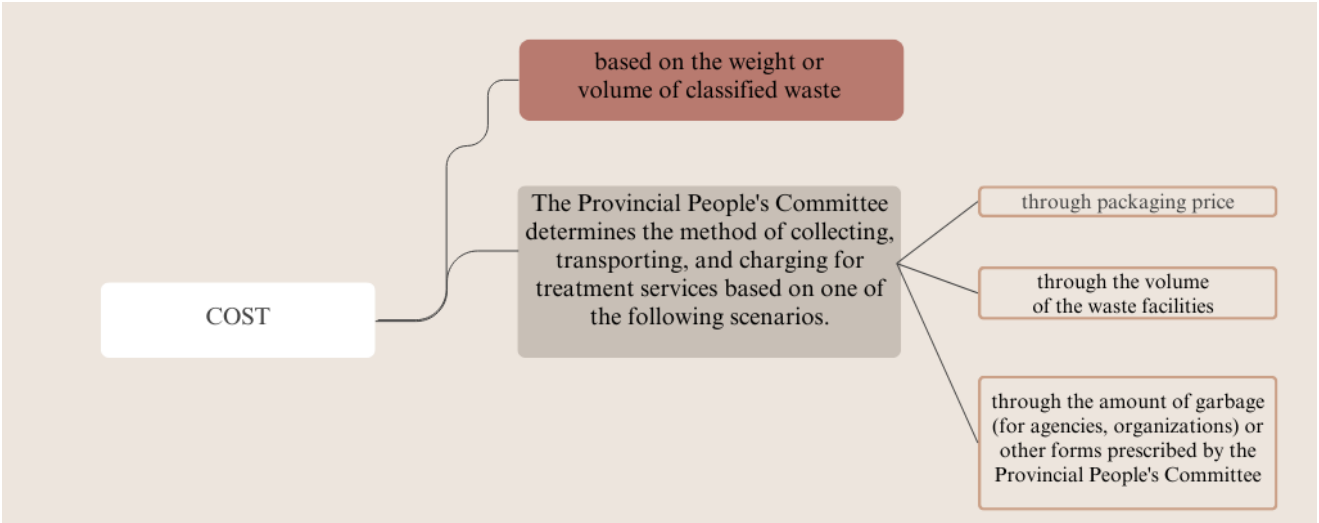
Solid waste collection and transportation



Treatment of solid waste



The cost of collecting, transporting and handling solid waste



By January 1, 2025, domestic solid waste classification is mandatory for all individuals and households. Currently, almost provinces in Vietnam manage solid waste according to this system as description in Figure 2.1.

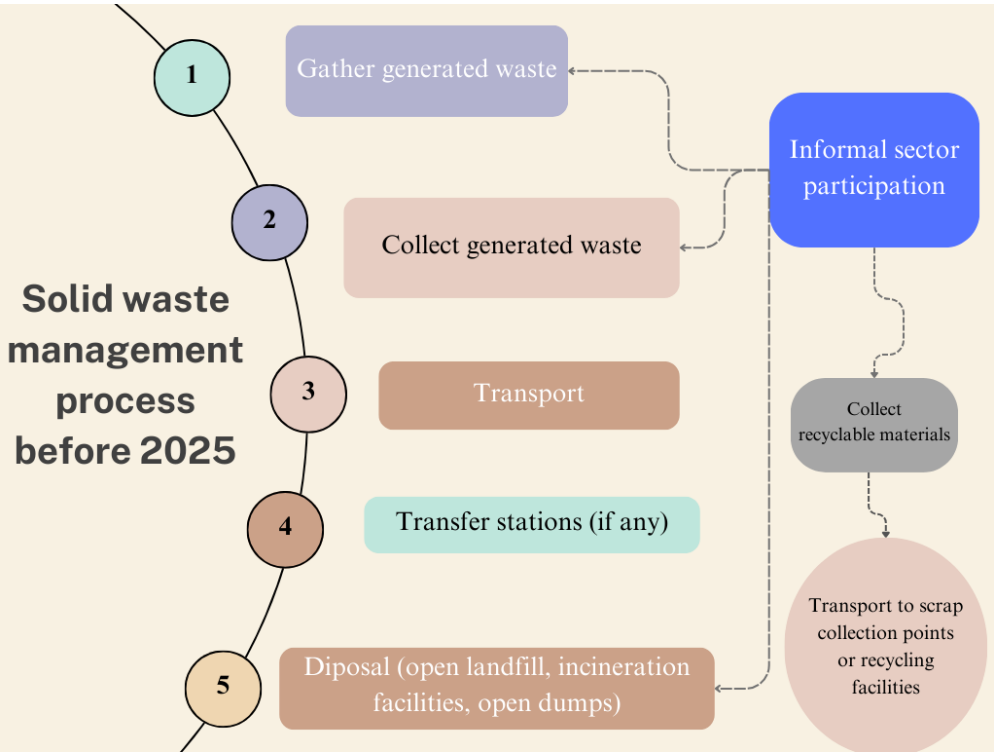


Figure 2.1. Current Solid Waste Management Processes in Vietnam until 2025

Classification: Based on the technical guidance of MONRE in 2023[4], household waste is divided into 3 types: organic, recyclable and others.

- Organic waste was divided into 2 types: leftover, expired food and vegetables, tubers, berries, fruits and waste parts after preliminary processing and food processing. The waste type is recommended to be stored in a sealed, leak-proof bag to prevent odors from spreading.
- Recyclable waste includes 8 types: paper waste, plastic waste, metal, glass, fabric and leather goods, woods, rubber, discarded electrical and electronic equipment with

[4] MONRE. (2023). Technical guidance No 9368/ BTNMT-KSONMT on classification of household solid waste issued 2 November 2023.

different classification techniques. Plastic waste such as plastic packaging for food, cosmetics, pharmaceuticals, products for household use, agriculture, medicine, plastic chairs, and cups are classified as recyclable waste.

- Other waste such as hazardous materials which is recommended to store in the bags or collect and stack sharp objects to avoid injury during classification, collection and treatment. Bulky waste is suggested to collapse, reduce size and volume. In case of dismantling, the waste is then classified into waste groups based on the technical guidance.

However, classification at source is encouraged but only done in a few locations due to its non-compulsory nature. Many locals have piloted in some areas, such as Ho Chi Minh City, Hue, Hanoi. The absence of classification in all areas might come from the reason that localities currently do not have equipment, separate collection vehicles for each type of waste classified. As a result, in many cases, waste is transported together in the same equipment or vehicle, leading to ineffective sorting at source. Another reason preventing waste classification is the waste classification regulations (technical guidance of MONRE) have only been recently established. For plastic waste, classifying the waste type separately is challenging to implement in some cases. This is because there are several types of plastic waste that are difficult to recognize and classify visually. In the future, we suggest that we need to have more detailed classification of plastic waste, which will make collection and recycling activities more effective.

- ***Gathering:*** In many cases, waste collection has not been implemented at each household. Most of the households have to take their waste to designated gathering points. Waste bins are also available at some gathering points for temporarily storing domestic waste before it is being collected. However, in many places, waste bags are left on the road, leading to the release of waste and harmful substances into the environment.
- ***Collection:*** In urban areas, household waste is usually collected on a fixed schedule by manual vehicles operated by the collectors. The waste is transferred to collection points and then transported to a transfer station. From there, it is either taken to a treatment facility or directly transported to a disposal facility. In rural areas, there are often self-governing bodies and women's associations that collect waste at regular intervals and transport it to a collection point. The waste is then taken to temporary landfill sites, which unfortunately pollutes the environment in rural areas.
- ***Transport:*** Waste landfills are often situated far away from residential areas, which leads to high transportation costs. Moreover, some vehicles tend to leak and drop waste during transportation. The problem is that many localities are making efforts to improve the collection and transportation of solid waste but are facing obstacles due to the regulations

of the transport sector. For instance, similar cases have been reported in the province of Thua Thien Hue and Phu Quoc. Therefore, there is a need for technical guidelines on vehicle collection, transport, and compliance with requirements to ensure efficiency and registration accredited according to the regulations of the transportation industry.

- ***Transfer station:*** There are currently 22 provinces/cities that use waste transfer stations (MONRE, 2019). The choice of selecting gathering points and transfer stations can be challenging, as they might produce scent, debris and attract insects, which can harm the environment.
- ***Disposal:*** Municipal solid waste treatment typically involves landfill (71% of the total waste processed), organic fertilizer (16% of the total waste processed), and incineration (13% of all waste) (MONRE, 2022). Although there are diverse municipal solid waste processing technologies being applied in Vietnam (including foreign technologies), their actual effectiveness has not been fully assessed. Most landfill sites currently receive unclassified municipal solid wastes at the source, which have a high organic composition and low stability, occupy large areas of land, generate large amounts of rusty wastewater, and may become sources of environmental pollution. These unhygienic burials can also affect the health and activities of the surrounding communities.
- ***Finance***: The majority of the funds for managing solid waste come from the local budget. This budget is allocated to different administrative levels, such as provinces, districts, and municipalities, based on their individual needs. The Department of Finance advises the People's Committee of each province or city on how to allocate and provide the annual national budget to these localities within the province.

National management responsibility for solid waste management

The Ministry of Natural Resources and Environment (MONRE) has been entrusted by the Government with the primary responsibility for managing solid waste. The overall responsibility for waste management and disposal in a province lies with the Chairman of the Provincial People's Committee. Here is a summary of the responsibilities and mandates of line ministries and agencies in waste management:

- MONRE is responsible for creating regulations on the technical requirements for environmental protection of the aggregation point, domestic solid waste transfer station, and domestic solid waste transport vehicles. They are also responsible for issuing criteria on the technology of domestic solid waste treatment, developing guidance on the valuation of domestic solid waste treatment services, creating regulations on the economic and technical levels of collection, transport and treatment of domestic solid waste, providing

technical guidance on the classification of domestic solid waste, and creating guidelines for landfill closure of domestic solid waste.

- The Ministry of Construction is responsible for organizing and issuing guidelines for the design of solid waste collection systems, including standards and technical regulations. These should be in accordance with the classification of solid waste at the source of the commercial center in combination with apartments and apartments in combination with offices and complexes of high-rise buildings with mixed functions.
- The Ministry of Agriculture and Rural Development is responsible for guiding the collection and treatment of livestock waste and agricultural residues for other purposes, as well as organizing and issuing technical standards and regulations.
- The Ministry of Transport is responsible for developing and promulgating national technical regulations on technical safety and environmental protection of transport vehicles in accordance with the law.
- The Ministry of Health is responsible for guiding and organizing the implementation of the law on waste management and environmental protection in hospitals and medical establishments.
- The Ministry of Science and Technology is responsible for appraising environmental technical regulations, publishing national environmental standards in accordance with the law on technical standards and regulations and the law on environmental protection. They should also coordinate the formulation, issuance, and implementation of the best existing technical guidance in accordance with the law.
- The Ministry of Education and Training is responsible for integrating environmental knowledge and protection contents in constructing and implementing educational programs and training at different educational levels.
- The Ministry of Finance is responsible for developing, issuing, or submitting regulations on the management and use of environmental protection deposits. They should also sum up and submit to the competent authority to allocate national budget regular expenditure for environmental protection activities in accordance with the law.
- Provincial and municipal People's Committees are responsible for making decisions on the specific classification of domestic solid waste according to the guidelines of the Ministry of Natural Resources and Environment. They should arrange the installation site and transfer station of domestic solid waste to meet the requirements of environmental protection in accordance with the provisions of the Ministry of Natural Resources and Environment. They should also select the facilities for the collection and transportation of domestic solid waste, as well as the facilities for the treatment of domestic solid waste. Additionally, they are responsible for planning and laying out land funds for domestic solid

waste treatment zones, timely allocating land for the construction and operation of domestic waste treatment zones in the area, arranging funds for the construction and operation of the collection, storage, transition, transport and treatment of domestic solid waste, creating a system of public works, measures, and equipment for the management of domestic solid waste, and implementing detailed regulations on the management of domestic solid waste of households and individuals in the area. They should also create detailed regulations on the collection, transport, and treatment of domestic solid waste and implement specific regulations on the form and level of budget of households and individuals must pay for the collection, transport and treatment of domestic solid waste based on the mass or volume of waste classified.

The organizational structure of solid waste management is depicted in Figure 2.2.

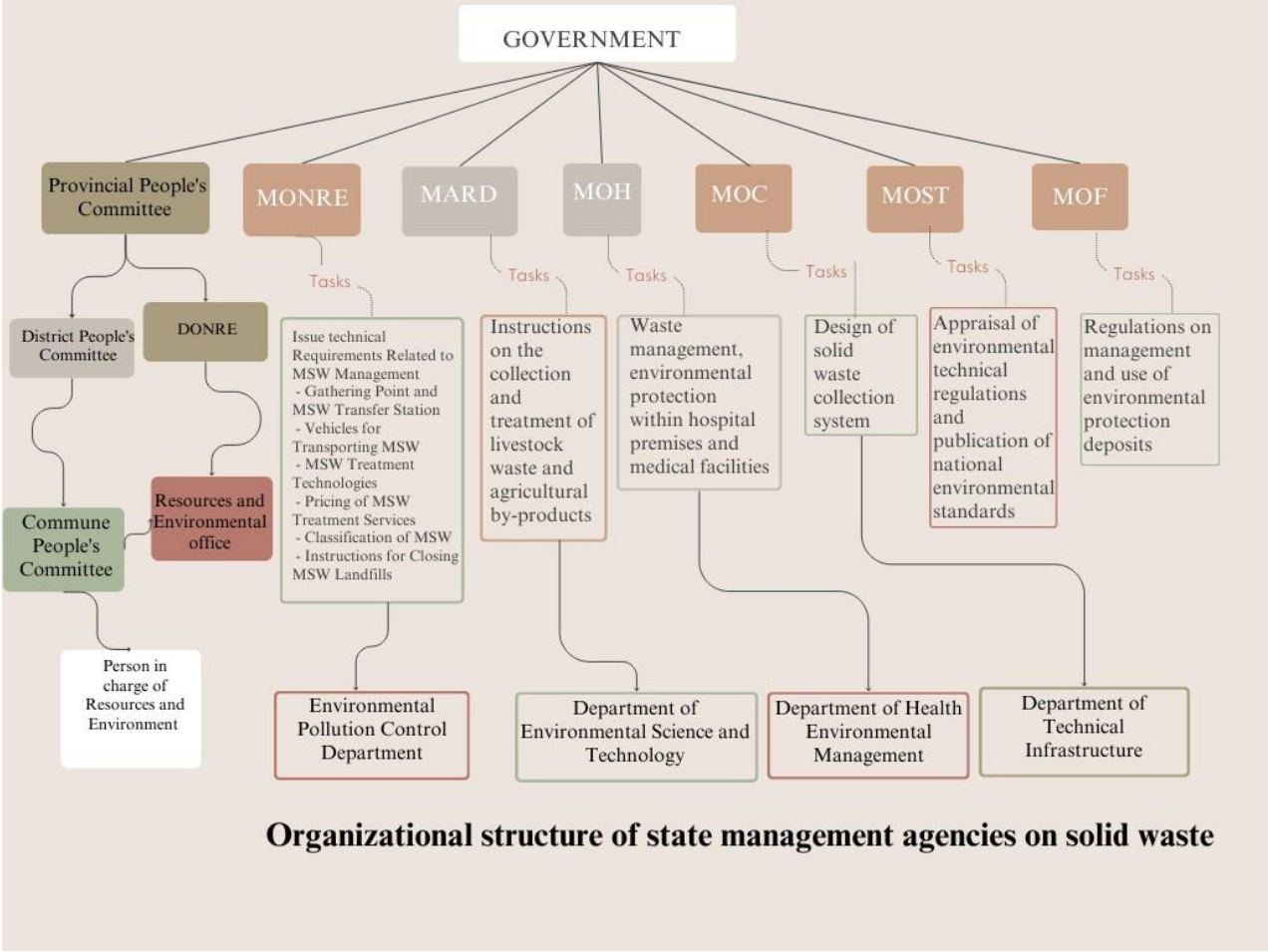


Figure 2.2. Structure of solid waste management in Vietnam[5]

Besides, the 2020 Law on Environmental Protection and related documents introduced the current MSW management regulations which are described in Figure 2.3.

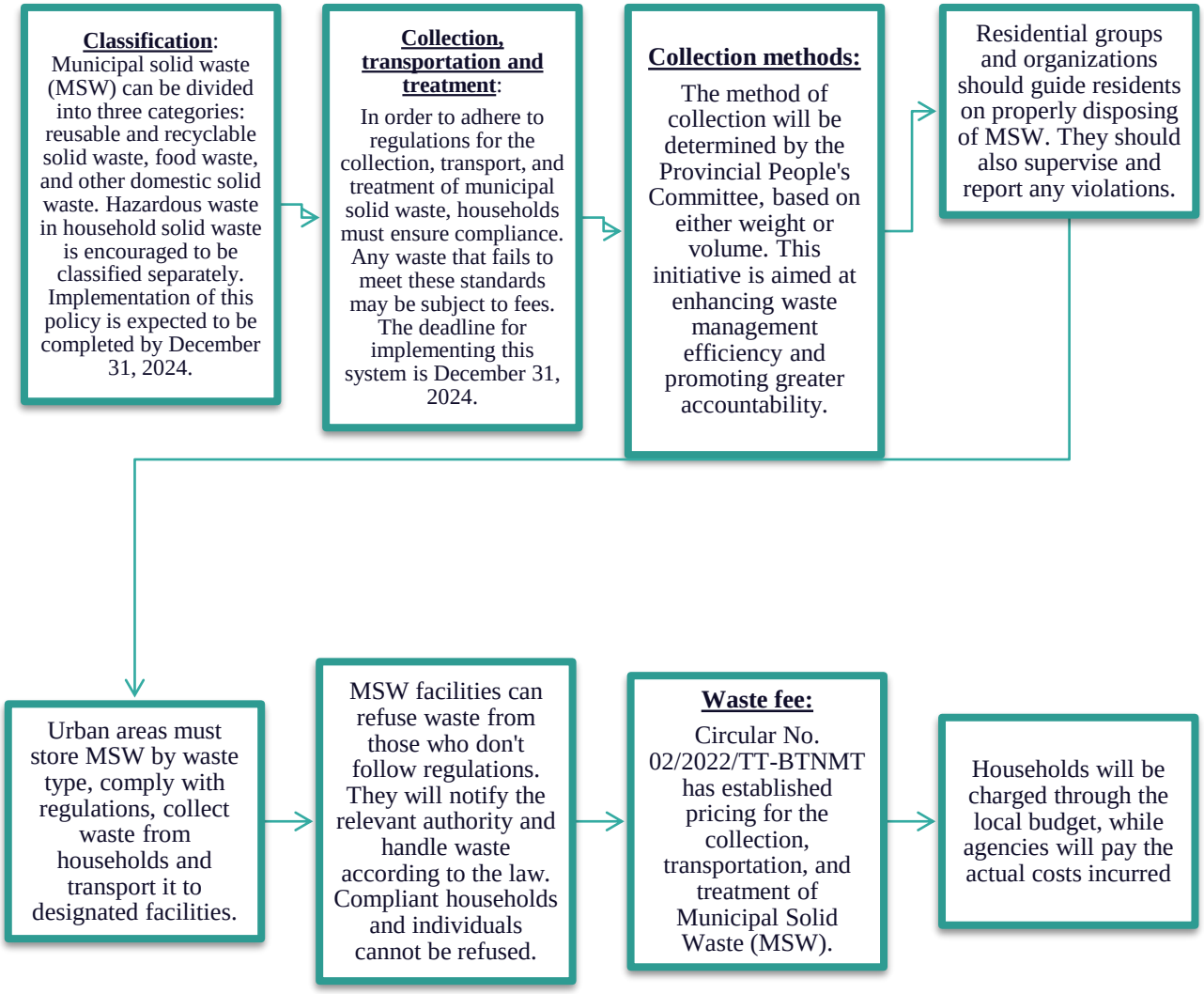


Figure 2.3. The current MSW management regulations in Environmental Protection Law[6]

[5] The consultant team developed it based on Circular 02/2022/TT-BTNMT and current MSW.

2.2. The drawback of current waste management process in Vietnam

From the current process of waste management, it seems clear that Vietnam's current waste management process has some significant drawbacks including:

a. Organizational structure of the national regulator for Vietnamese solid waste

Currently, the Government has entrusted the MONRE with the responsibility for national management on waste issues in general. MONRE takes leading role in chairing and coordinating with the Ministries, the relevant agencies for research and development of a unified system of management in the direction of the MONRE as the national regulatory body for all types of solid wastes, and the relevant Ministries are responsible for carrying out specialized technical management according to the functions and tasks prescribed by law. However, coordination mechanisms between ministries that are not specifically regulated may lead to difficulties, inefficiencies, in coordination between the ministries, especially the MONRE and MOC, in the design and collection of solid waste.

One issue that needs to be considered and decided on to effectively implement the regulation of solid waste management at the local level is the compliance and enforcement of local policies. According to the analysis in section 1.1, the provincial government has an important role in local waste management. The provisions on waste management in the Environmental Protection Law only come into existence and promote value with the guidance and implementation of the organizations belonging to provincial government. However, in the process of implementing the regulations on waste management, most localities are still embarrassed and encountering difficulties, mainly concentrating on the following issues. i) The majority of the contents stipulated in the Environmental Protection Law on the responsibility of the provincial government in local waste management are new contents that the provincial Government department needs to have time to research, survey and evaluate in order to have a proper deployment plan; ii) There are different views between the localities on the direction of issuing specific regulations in waste management. Without the guidance of the central national agencies, the coordination between localities could lead to the inconsistent local regulations for each location, and to the ineffectiveness in overall management.

b. The household waste has not been classified yet

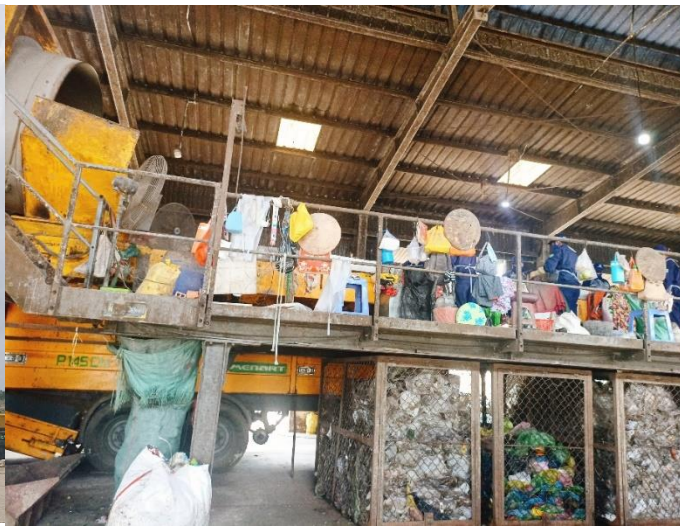
As per the 2020 Environmental Protection Law, it is mandatory to sort household and individual solid waste into three categories - reusable and recyclable materials, organic waste, and hazardous waste. The law also requires the implementation of waste classification at source by December 31, 2024. However, to prepare for it, some localities have developed

specific waste classification projects. While waste classification at source has been implemented on a pilot scale, it has not yet been widely applied, synchronized, or formalized.

Additionally, essential infrastructure, equipment, and facilities required for the collection, transportation, and treatment of MSW have not received adequate investment. Moreover, with rapid economic growth, the solid waste generation rate in Vietnam has been rapidly increasing, and the recycling rate is still low, mainly carried out by the informal sector, causing environmental pollution in craft villages and lacking management, and control by local environmental protection authorities. Picture 2.1 captured the landfill in Soc Trang, which was taken on the field trip in the province on May 24th and 25th, 2023. Picture 2.2 showed workers at a treatment facility in Soc Trang City sorting waste into categories such as plastic bags and high-value plastics.

Solid waste recycling is still small, spontaneous, mainly carried out by informal sectors in craft villages, resulting in serve environmental pollution. There is also a lack of management and control by local authorities responsible for environmental protection. Most of the recycling facilities are small-scale, the level of technology investment is low, technology is outdated and causes serious secondary environmental pollution.

Picture 2.1. Household waste collected in a treatment point in Soc Trang city



Picture 2.2. Waste sorted by workers in a treatment point in Soc Trang city

c. The current waste treatment technology is unable to keep up with the increasing amount of waste produced in Vietnam

It is estimated that the country currently produces about 60,000 tons of solid waste per day, of which urban areas account for 60%. By 2025, the rate of solid waste generation is projected to increase by 10 to 16 % per year[6]. The rapid increase in the amount of waste generated puts great pressure on the waste treatment process (Picture 2.3 & Picture 2.4). Some treatment technologies in Vietnam are not suitable for the characteristics of domestic solid waste, which has low calorific value and high humidity. Although there is domestically manufactured MSW treatment equipment and technology, they are not yet synchronized and complete, and cannot be disseminated and replicated. There is no clear guidance on technology use and no criteria for selecting appropriate equipment and technology. Waste recycling activities are still small and spontaneous, lacking management and control by competent environmental protection agencies. In addition, rural areas continue to face the issue of indiscriminate dumping of municipal solid wastes, leading to environmental degradation. There are no centralized waste landfill facilities in villages and communes.

In Vietnam, numerous islands have limited land resources when is mainly on economic development and tourism. As a result of this, there are no sanitary landfill sites available, and most solid waste is simply dumped at landfill sites. This practice has led to a high risk of plastic waste leaking into rivers and seas.

The informal workforce engaged in plastic waste recycling does not have insurance policy coverage or labor protection and their roles and status are not recognized. The recycling process is usually carried out in unlicensed facilities or business villages, where environmental problems are left uncontrolled and unmonitored. This leads to water discharges and solid waste being released into the environment, which has an adverse impact on the ecosystem and human health.

[6] https://tapchitaichinh.vn/quy-dinh-ve-chi-phi-thu-gom-xu-ly-chat-thai-sinh-hoat-de-bao-v-moi-truong.html.

Picture 2.3. 70,000 tons of garbage on the coast of Con Dao Island[7]

Picture 2.4. Every day, about 180 tons of garbage are gathered and collected at the temporary Dong Cay Sao Landfill, Phu Quoc Island[8]

d. The participation and informal sectors have not been acknowledged.

The informal sector plays a vital role in waste management and recycling. As mentioned above, most recyclable waste is collected and recycled by informal groups. However, the participation and efforts of the informal workforce in waste recycling are often overlooked and unacknowledged. This group of workers generally does not receive insurance policies or labor protection equipment and their status and role are not recognized. Plastic waste recycling is typically carried out at private or unlicensed facilities and craft villages where environmental issues are not monitored or controlled. This results in serious secondary contamination, which can have adverse effects on both the ecosystem and human health.

The field trip conducted on 24th and 25th May in Soc Trang indicates that classified plastic bags and high-value plastic have been moved to craft villages or household-level treatment points for recycling. Plastic bottles are pressed into bales, while other plastics such as jars, tables, and chairs are ground into small pieces and treated with simple techniques like washing, chopping, cleaning, heating, and granulating (Picture 2.5 and Picture 2.6). However, waste treatment

[7] https://vnexpress.net/70-000-tan-rac-lo-thien-o-bo-bien-con-dao-4683184.html

[8] https://kinhtedothi.vn/phu-quoc-bai-rac-tam-thanh-nui-rac.html

might lead to environmental issues when wastewater in a household-level treatment area is discharged into a pond behind the facility and the city's canals.

Picture 2.5. Bottles are pressed into bales in Soc Trang

Picture 2.6. Plastic bags is recycled to tablets

2.3. Recommendations to improve the waste management system

Based on the identification and analysis of drawbacks, the following recommendations are proposed to improve the current waste management process:

- The departments responsible for solid waste management are performing their tasks well. However, the ministries involved, especially MONRE and the Department of Construction, need to coordinate closely during the construction process by issuing documents, standards, and guidelines to manage the entire solid waste management process effectively.
- To implement solid waste management processes at the local level, the relevant departments need detailed, easy-to-understand guidelines to facilitate local implementation.
- The Department of Resources and Environment provides detailed guidelines for classifying, collecting, and handling waste at the source for each classified waste to ensure efficient processes.
- Local authorities actively prepare equipment, vehicles, and human resources to implement solid waste management processes in accordance with regulations.
- Waste will be divided into three categories starting in 2025, requiring a separate collection system suitable for the volume and characteristics of the waste generated. The current

informal collection system must be gradually transformed into a formal collection group to manage recyclable and reusable waste effectively.

To meet the demand for organic waste treatment, a specialized collection system for producing compost is necessary. The remaining mixed waste will be collected using primary and secondary models, with the three collection systems operating independently.

Figure 2.4 provides a visual representation of the management process for each solid waste based on current regulations. Waste transfer points must meet specific equipment, hygiene, and environmental requirements to manage waste effectively. Facilities and equipment for the collection and transportation of classified wastes need strengthening, including an assessment and synthesis of investment requirements for collection, transportation, and processing operations in local areas. Infrastructure should respond to the classification at the source, accompanied by storage and collection operations. Social resources need mobilizing to reduce, classify, collect, transport, and handle solid waste. Research and improvement of equipment for collecting and transporting should ensure quality and efficiency.

- Solid waste treatment requires strengthened research and development capacity for scientific and technological organizations related to research, manufacturing, and production of environmentally friendly treatment technologies. Treatment technologies should be developed in conjunction with energy recovery. The government should allocate priority financial and land funding for solid waste treatment operations that comply with regulations. Recycling of recyclable waste should be strengthened through mechanisms, policies, and financial and legal support for waste collection facilities to make use of raw materials and reduce waste disposal pressure.

[9] Consultant team developed the figure based on the Law on Environmental Protection 2020.

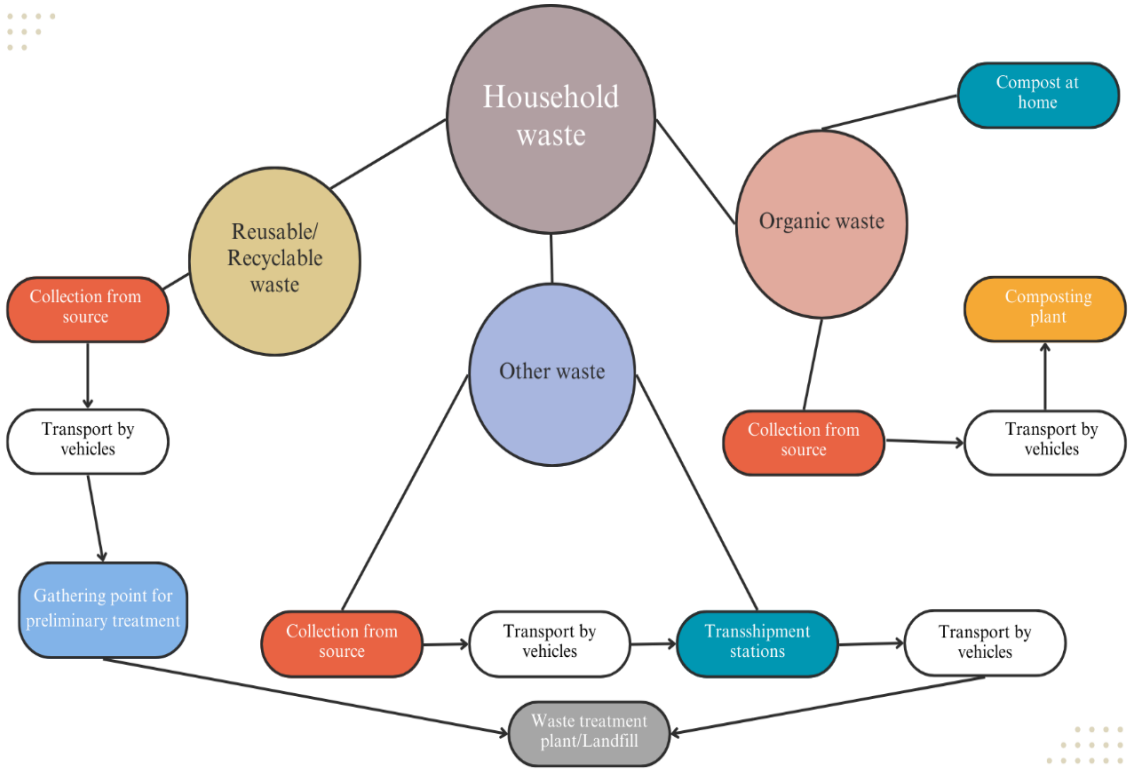


Figure 2.4. Proposed household waste treatment process in 2025[10]

- Complete regulations, control mechanisms, penalties: To strengthen the inspection and inspection of waste management activities, including the responsibility of State management for local waste management, and to enhance the capacity of state management bodies to inspect and supervise the activities of solid waste management processes, with prompt incentives or sanctions.
- Finance: Currently, the Environmental Protection Law regulates the prices for the collection, transportation and treatment of solid waste from households and individuals, calculated on the basis of: Compliance with the provisions of the price law; Based on the mass or volume of waste that has been classified; Solid waste that can be reused, recycled, hazardous waste from households, individuals that have been classified separately, does not have to pay for collection, transportation and disposal services. If households or individuals do not classify or classify inappropriately, they shall pay for the collection, transportation and treatment services as for other solid waste; Regarding the form of collection, transportation and treatment of solid waste, Article 30 of Circular No. 02/TT-BTNMT issued by MONRE provides the method of collecting, transporting and handling solid waste by mass or volume of waste. The provisions of the law on pricing and environmental protection for the price of services of collection, transportation and

treatment of solid waste have been gradually completed and clearly stipulated, more specifically on the authority to issue the maximum price and specific pricing, the basis for the establishment of the service price and the rate of collection of services has been calculated on the volume or volume of waste of the owner of the waste source... Thus, it contributes to a fundamental transformation in the management of solid waste, reducing environmental pollution and reducing expenditure from the state budget for the maintenance of annual environmental hygiene. Strengthened exchanges and cooperation with countries, international organizations and non-governmental organizations, seeking financial support for facilities, equipment for the collection and transport of solid waste.

- Increase awareness and community responsibility for prevention, reduction, reuse, recycling, treatment of solid waste, creating environmentally friendly lifestyles; - Implement training programs, communications to raise public awareness in schools, residential communities, state agencies, production facilities, service business on reduction, classification at source, recycling, re-use of solid waste, disposal of wastes in the prescribed place;
- Promoting, advocating and organizing commitments against plastic waste, non-use of disposable plastic publications for production facilities, product distribution organizations, shopping centers, shops, restaurants, markets, supermarkets that do not use degradable plastic bags and disposable plastics.

3. CURRENT STATUS OF MARINE DEBRIS POLLUTION IN VIETNAM

3.1. Current status of Vietnam regarding Marine Debris Pollution

Similar to other countries, Vietnam has been grappling with the issue of marine debris pollution, particularly the leakage of plastic waste from various sources to the sea. The rapid economic growth and urbanization contributed to increased plastic consumption in Vietnam. The country has witnessed a surge in the production and use of plastic products in various sectors. According to the Vietnam National Plastic Action Partnership (NPAP) 2022[10] report, consumers in Vietnam generated more than 3.7 million tons of plastic waste in 2018. Unfortunately, 42% of this waste, which is equivalent to 1.5 million tons, was not managed properly. Most of the unmanaged plastic waste was disposed of through open burning (28%) and dumped at landfills (15%). The report also revealed that 7% of the unmanaged plastic waste was thrown onto land, while 5% was introduced into waterways (Figure 3.1).

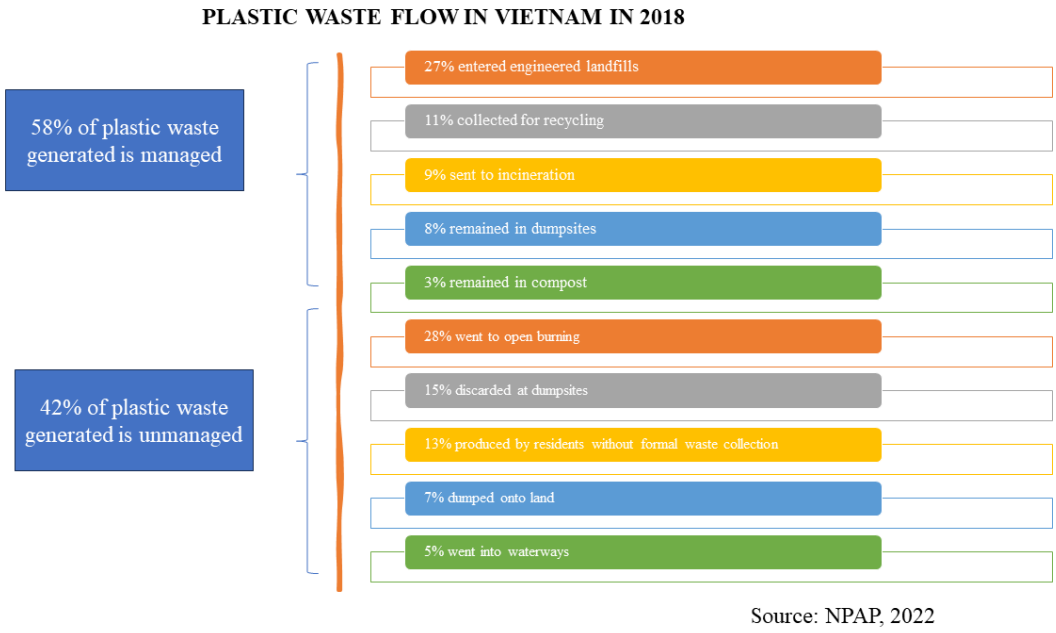


Figure 3.1. Plastic waste flow in Vietnam in 2018 (Source: NPAP,2022)

[10] Vietnam National Plastic Action Partnership. (2022). Viet Nam Plastic Action Assessment and Roadmap Considerations. Retrieved from https://www.globalplasticaction.org/resources/casestudies/aJY68000000PAvCGAW#

The unwell plastic waste management was found in the coastal area of Vietnam. According to the survey by the World Bank on the plastic waste types leaking into rivers and oceans in Vietnam from July 2020 to April 2021, 71% of coastal locations surveyed were rated extremely dirty based on the Clean Coast Index measurement due to the amount of plastic waste. Plastic waste was also the most commonly collected type at their survey sites, accounting for 94% in volume and about 71% in weight. Three common types of plastic waste are food packaging waste (44% of the amount), waste from fisheries (33% of the amount), and household waste (22%) (World Bank, 2021). A 2023 report by GIZ in Tran De town, Tran De district, Soc Trang province revealed that 40 tons of plastic waste, which accounts for 10.4% of the total plastic waste produced, is leaked into the environment every year. The lack of proper plastic waste management in the town can be attributed to several factors, including limited collection services in some small alleys and scattered areas, households disposing of trash in inappropriate places, fishing boats dumping trash directly into the sea, and waste leakage at landfills. Therefore, the increasing efforts towards proper plastic waste management in Vietnam is essential. If no actions are taken to improve the current waste collection, recycling, and treatment system, plastic leakage into Vietnam's waterways will increase by 106% in 2030 (from 182,000 tons in 2018 to about 373,000 tons in 2030), as indicated in NPAP report (2022).

3.2. Status of plastic waste management in Vietnam

The issue of plastic waste leakage has prompted the Vietnam government to issue several legal documents for better plastic waste management (as shown in Figure 2.1). The Environmental Protection Law (2020) is particularly noteworthy as it includes Article 73, which regulates the reduction, reuse, recycling, and treatment of plastic waste, as well as prevention and control of ocean plastic waste pollution. The law includes the following provisions:

1. Restrictions on the use, reduction, classification, and disposal of single-use plastic products and biodegradable plastic packaging. There can be no discharge of plastic waste directly into drainage systems, ponds, lakes, canals, streams, rivers, or oceans.

2. Plastic waste arising from tourism and maritime services, maritime economy, oil and gas extraction and marine mineral resources, agriculture and fishery exploitation must be collected, stored and transferred to a recycling and treatment facility.

3. Incentives and support for environmentally friendly products, single-use plastic replacement products, and certified biodegradable plastic packaging substitute products.

4. Plastic waste must be collected, sorted for reuse, recycled, or processed. Non-recyclable plastic waste must be transferred to a facility with treatment function. Plastic waste arising

from economic activities at sea must be collected for reuse, recycling, or treatment and must not be discarded at sea.

5. Encouragement for the reuse and recycling of plastic waste for the production of goods, construction materials, and transportation works. Encouragement for research and development of collection and treatment systems for plastic waste floating in the sea and oceans. Policies to promote the re-use and recycle of plastic waste.

6. The provincial government should direct the organization of the collection and processing of plastic waste on the ground. Advocacy and promotion of restrictions on the use of biodegradable plastic packaging and single-use plastic products. Propaganda on the harmful effects of the dumping of fishing tools directly into the sea and plastic waste on the ecosystem.

Decree No. 08/2022/ND-CP has established a roadmap to restrict the production and import of disposable plastic products, biodegradable plastic packaging, and products containing microplastics. From January 1st, 2026, the manufacture and import of biodegradable leather bags with dimensions less than 50 cm x 50 cm and a film thickness of less than 50 μm will be prohibited, except in the case of production for export or production and import for packaging of products or goods for sale on the market. After December 31st, 2030, the production and import of single-use plastic products (excluding products certified with the Vietnam Ecolabel), biodegradable plastic packaging (including biodegradable plastic bags, plastic boxes, food containers), and products and goods containing microplastics will be ceased, except for the case of manufacturing for export and manufacturing and import of biodegradable plastic bags for product packaging.

The government has also issued the National Action Plan on Plastic Waste Management, which aims to reduce the amount of plastic waste released into the ocean by 75% by 2030. This plan includes measures to raise awareness, change behavior, increase the collection and treatment of plastic waste, and control the sources of plastic leakage. International cooperation, research, and technology transfer related to the plastic waste issue are also part of the plan.

However, plastic waste is still being treated similarly to other solid wastes. While some high-value plastic wastes, such as ABS, PCV, and PET, are collected by informal collectors and sold to waste collection facilities and recycling facilities, this process is mainly carried out by the informal sector, which has not been properly taken care of by the government to improve the efficiency of the sorting, collection, and recycling of plastic waste. The regulations are mostly encouraging, with no control sanctions or reasonable penalties resulting in low recycling efficiency and an increased amount of plastic waste being emitted into the

environment. Other national level legal documents on plastic waste management are summarized Table 3.1.

Table 3.1. National level legal documents on plastic waste management

No	Document	Description
1	Decision No. 491/QD-TTg dated May 7, 2018, on approving the adjustment of the National Strategy on integrated solid waste management to 2025, with a vision to 2050	In clause b of the National Strategy on integrated solid waste management until 2025, vision to 2050, specific goals have been outlined to address the issue of solid waste management. The goals include collecting, transporting, and treating 85% of hazardous solid waste generated by households and individuals to meet environmental protection requirements. Additionally, 90% of the total amount of domestic solid waste generated in urban areas should be collected and treated to meet environmental protection requirements. The aim is to enhance the ability to recycle, reuse, process combined with energy recovery or produce organic fertilizer. The proportion of household solid waste treated by direct landfilling should be less than 30% of the amount of waste collected. The strategy also calls for the use of 100% environmentally friendly plastic bags at shopping centers and supermarkets for daily use to replace non-degradable plastic bags. Furthermore, 90 - 95% of domestic solid waste landfills in closed urban areas should be renovated, treated, and reused. Investing in new construction of domestic solid waste treatment facilities ensures that the landfill rate after treatment does not exceed 20%. In clause b of the National Strategy on integrated solid waste management until 2025, vision to 2050, specific goals have been outlined to address the issue of solid waste management in rural areas. The goals include developing socialization models in the collection, transportation, storage, and treatment of rural household solid waste. This involves the establishment of organizations operating under the mechanism of financial autonomy, people and property management, with investment in purchasing specialized vehicles and garbage collection carts to expand areas and increase collection rates.

		The strategy also promotes the reduction, reuse, recycling, and treatment of solid waste combined with energy recovery to save resources and limit environmental pollution caused by waste. Plans will be developed and gradually implemented effectively to classify household solid waste at source, consistent with natural, socio-economic conditions, and local solid waste management capacity. Advanced, environmentally friendly technologies suitable to the characteristics, nature of waste, and characteristics of each locality will be selected. The strategy also calls for renovating and upgrading unhygienic domestic solid waste landfills and areas polluted and degraded by solid waste to ensure environmental protection requirements. Spontaneous landfills of domestic waste will be thoroughly treated, and the formation of spontaneous landfills will be promptly prevented, preventing them from arising after 2025. To mobilize all investment resources, enhance socialization of collection, transportation, recycling, and treatment of household solid waste, and create an equal competitive environment among economic sectors, a price roadmap for domestic solid waste collection, transportation, and treatment will be developed in accordance with local socio-economic conditions to ensure payment for collection and transportation to offset costs. The strategy also promotes the implementation of investment in the construction of investment projects on domestic solid waste treatment in the form of public-private partnership (PPP) in accordance with the socio-economic conditions of each locality. Finally, the strategy aims to raise community awareness and responsibility for prevention, reduction, reuse, recycling, solid waste treatment, and forming an environmentally friendly lifestyle.
2	Law on Environmental Protection No.	The Law on Environmental Protection 2020 outlines specific articles and clauses pertaining to managing household solid waste at the city level. These include the classification, storage, and transfer of

	72/2020/QH14, issued on November 17, 2020	household solid waste, as well as the establishment of gathering points and transfer stations for such waste. The Vietnam Fatherland Front Committee and socio-political organizations at all levels are responsible for mobilizing communities, households, and individuals to classify household solid waste at the source. Meanwhile, residential communities and grassroots socio-political organizations are tasked with monitoring the classification of household and individual solid waste. People's Committees at all levels are responsible for arranging meeting points and transfer stations that meet technical requirements for environmental protection, as stipulated by the Ministry of Natural Resources and Environment. They are also responsible for selecting facilities to collect and transport household solid waste through bidding, in accordance with the law on bidding. If bidding is not possible, the selection will be done through ordering or assigning tasks, as per the provisions of the law. In terms of the collection and transportation of household solid waste, People's Committees at all levels are responsible for ensuring compliance with legal regulations on environmental protection. They must also handle violations of the law on daily-life solid waste management, consider and resolve recommendations and feedback from organizations, communities, households, and individuals, and coordinate with domestic solid waste collection and transportation facilities, residential communities, and grassroots socio-political organizations to determine the time, location, frequency, and collection route for household solid waste. Furthermore, they must instruct households and individuals to transfer household solid waste to collection and transportation facilities or to collection points in accordance with regulations, and guide residential communities to monitor and publicize cases of non-compliance with regulations on the classification and collection of household solid waste.

		People's Committees at all levels are responsible for selecting domestic solid waste treatment facilities through bidding, in accordance with the law on bidding. If bidding is not possible, the selection will be done through ordering or assigning tasks, as per the provisions of the law.
3	Decree No. 08/2022/ND-CP issued on January 10, 2022 detailing a number of articles of the Law on Environmental Protection 2020.	According to Decree No. 08/2022/ND-CP, People's Committees at all levels have specific responsibilities in managing household solid waste. These include creating regulations, programs, and plans for waste management, organizing the implementation of waste management strategies, and ensuring proper classification of domestic solid waste at the source. To promote recycling efforts, Clause 8, Article 79 outlines the responsibilities of People's Committees, organizations, individuals, and consumers in supporting manufacturers, importers, recycling units, and authorized parties in the classification and collection of post-consumer products and packaging. Finally, localities are responsible for environmental protection activities, as stated in Clauses a and b, Article 152. This includes assessing and forecasting the situation of waste generation, collection, and treatment, as well as supporting the classification, collection, transportation, and treatment of household solid waste and other types of waste generated in the area under local responsibility.
4	Circular No. 02/2022/TT-BTNMT issued on January 10, 2022 on detailed regulations implementing a number of articles of the Law on	Circular No. 02/2022/TT-BTNMT outlines the specific requirements that must be implemented and adhered to by city officials. These include technical guidelines for environmental protection at household solid waste collection points and transfer stations, as well as regulations for managing imported waste and controlling pollutants. Under Point d, Article 26, the District People's Committee is responsible for coordinating with waste collection units to determine the appropriate location, gathering time, operating time, and scale for receiving household solid waste at a suitable gathering point. This must be done while ensuring traffic safety and minimizing operations during peak hours.

	Environmental Protection 2020.	Similarly, under Point h, part 2, People's Committees at all levels must determine the location, operating time, and scale of receiving household solid waste at the transfer station, in accordance with the technical requirements for environmental protection outlined in Article 26, section 2, and Chapter IV. Finally, Clause 1, Article 63 requires the District People's Committee to prepare environmental protection reports in accordance with Form No. 01, Appendix VI issued with the Circular. This is part of the larger effort to monitor and report on environmental protection work, as outlined in Section 3.
5	Decree No. 45/2022/ND-CP issued on July 7, 2022 on Regulations on sanctioning administrative violations in the field of environmental protection.	Decree No. 45/2022/ND-CP lays out the consequences for breaking environmental protection laws in public spaces, residential areas, urban areas, and during the transportation of materials that cause pollution. Article 25 specifies fines for improper handling, discharge, and disposal of materials, as well as for not using specialized equipment during transportation. Fines are also imposed for inadequate waste management in public areas. Article 26 outlines fines for households and organizations that do not properly classify and package household solid waste according to regulations. Fines are also imposed for not signing contracts with waste management units and using vehicles that do not meet environmental protection requirements. Penalties for violating regulations related to the collection, transportation, and treatment of household solid waste range from 5,000,000 VND to 40,000,000 VND. Violations include failure to provide professional training and protective equipment for workers, failure to transport waste to the correct location, failure to coordinate with local committees, failure to ensure adequate resources, and using equipment that does not meet environmental protection requirements. Penalties for violating solid waste management regulations in Vietnam range from 20,000,000 VND to 300,000,000 VND for various offenses, such as failing to comply with regulations related to the operation of solid waste treatment facilities, the collection and transportation of household solid waste, and the storage of hazardous waste.

		Additional penalties include the suspension of operations of regular solid waste treatment facilities for a period of one to six months and the confiscation of means of administrative violations in cases of serious violations.

3.3. Recommendation to minimize the leakage of plastic waste

Based on the current status of plastic waste leakage and the legal documents of the Vietnamese government on waste management, we suggest some recommendations based on our issue on policy, technology, and international and regional cooperation as described in Table 3.2.

Table 3.2. Recommendations to minimize the leakage of plastic waste

Issues	Recommendations
3.1. Policy	
In the previous section, we discussed the various policies that the government has put in place to manage plastic waste. However, these policies and regulations are not complete. The government has set specific targets for reducing plastic waste in official documents such as the National Action Plan on marine plastic debris management through 2030. The targets include reducing 50% of plastic waste in seas and oceans, collecting 50% of lost or discarded fishing gear, ensuring that 80% of coastal areas, tourist attractions, tourist accommodation, and other tourism services do not use single-use plastic products and non-biodegradable plastic bags, achieving zero plastic waste in 80% of marine protected areas by 2025, and reducing the amount of plastic released into the ocean by 75% by 2030. Decree No. 08/2022/ND-CP outlines a roadmap for limiting the production and import of single-use plastic products, non-biodegradable plastic packaging, and microplastics products. Starting from January 1, 2026, the production and import of	It is necessary to implement an improved policy system for the regulation of safety management of plastic products and plastic waste in order to achieve the following goals: - Develop policies that regulate safety management for the entire life cycle of plastic products, from design to plastic waste treatment. - Create standards and regulations for conditions necessary for plastic waste to be regarded as raw materials and production goods. Also, establish standards and regulations for safe recycled plastic products. - Develop regulations that manage fishing gear for aquatic exploitation. - Establish regulations and technical instructions for waste assessment methods on Vietnamese beaches, applicable to all coastal provinces in Vietnam.

non-biodegradable plastic bags with dimensions less than 50 cm x 50 cm and a film thickness of less than 50 μm will be prohibited. After December 31, 2030, the production and import of single-use plastic products, plastic packaging that is difficult to biodegrade, and products containing microplastics will also be prohibited, except in cases of production for export and domestic use. *However, no specific regulations on budget resources are allocated to carry out the tasks, monitor and track progress, or appropriate sanctions for non-compliance.* There is no established mechanism in Vietnam for reporting or tracking plastic waste, which makes it difficult to effectively manage it. Furthermore, there are no guidelines on the evaluation and monitoring of plastic waste applied throughout the country. Currently, the Ministry is working on draft communication on the Technical Regulations for the Investigation, Survey and Evaluation of Marine Plastic Waste. However, from 2021 until now, the Circular has not been completed and issued, there are no official guidelines for the localities to evaluate marine plastic waste. Plastic waste is only surveyed and assessed on a small scale (projects, missions, research...) leading to not having a full database of the state of plastic waste in the whole country.	- Create a reporting mechanism for the current status of plastic products' production, import, use, and the volume of plastic waste generated and safely treated annually. - Create more detailed and robust policies on EPR, circular economy, and sustainable consumption of plastic products. - Establish regulations for financial allocation for plastic waste management activities, incentive mechanisms, financial support, and tax reduction for environmentally friendly products and products from recycled plastic. - Issue policies on mechanisms, sanctions, and fines strong enough for those who do not comply with the law. - It is crucial to establish a comprehensive database on plastic waste in Vietnam that can serve as a basis for planning and implementing effective waste management strategies.

3.2. Strengthen safety management

Firstly, plastic waste management is currently being treated as part of Municipal Solid Waste (MSW) and is not considered a separate waste. This approach creates challenges in achieving the set goals of minimizing plastic waste generation. Besides, the lack of resources for implementing waste management results in information on the situation of waste generation; the impact of waste on people's health, ecological environment, and socio-economic damage has not been fully evaluated.

The informal sector plays a crucial role in reducing plastic waste in waterways. It has been reported by NPAP (2022) that approximately 83% of plastic waste is collected and recycled by the informal sector. Specifically, recycling and waste collectors gathered about 259,000 tonnes of plastic waste directly from residential areas. At the same time, landfill material pickers collected 64,000 tonnes of plastics from engineered landfills, official dumpsites, and open dumps in areas without collections.

- Management agencies need to assign officers to be in charge or concurrently responsible for plastic waste management. Those officials need to be intensively trained in managing the entire life cycle of plastic products, with knowledge of characteristics, applications, environmental impacts, and specific management solutions for each type.
- It's crucial for the government and other sectors to acknowledge the vital role of the informal economy in waste collection and recycling. The informal sector deserves support in terms of access to proper equipment and facilities for their work, as well as social welfare benefits like occupational health, and safety and security protections such as paid maternity leave, sick leave, pensions, or insurance.
- Raising the status of the informal sector is essential to ensure that they are appreciated and respected in society, which will give them more motivation to continue doing a commendable job of collecting and recycling plastic waste.

Individuals who operate outside of the formal system are often faced with limited accessibility to essential resources such as equipment, facilities, and social welfare benefits. This absence of access, in turn, leaves them vulnerable to lacking safety and security protections, such as paid maternity leave, sick leave, pensions, or insurance.	

3.3. Infrastructure and Technology

Currently, most plastic waste is not recycled and is disposed of in ways such as burning, open burning, or dumping in open landfills, which can be found in many rural areas. This is one of the main sources of plastic waste leakage from land into water streams.	Based on the issues, the following recommendations can be given: - Increase investment and upgrade infrastructure to tackle the rising issue of plastic waste. - Allocate land specifically for solid waste treatment facilities. - Focus on researching and implementing eco-friendly alternatives to plastic products, such as biodegradable plastic. - Invest in the development of plastic waste recycling technology, with a special emphasis on low-value plastic waste that currently lacks economic incentives for businesses to recycle. - Invest in appropriate waste treatment technology to avoid unsafe disposal of waste in open landfills.

3.4. Strengthen international and regional cooperation

Ocean plastic pollution is a global issue that requires collaborative efforts from countries, international and regional organizations to reduce and ultimately eliminate effectively. Vietnam has made significant strides in international cooperation, particularly in the environmental sector as highlighted in next p(participation in treaties, international organizations, and areas). However, Vietnam must continue to strengthen its international cooperation in the future.

For Vietnam, it is very important to actively and thoughtfully prepare human resources and content to prepare and participate in the Global Treaty on plastic pollution. After participating in negotiations and signing the Treaty, the Government will ratify and legislate the obligations committed in the agreement. It means that a number of policies will be adjusted and supplemented to match what Vietnam has committed to in the Treaty.

Besides, it is also necessary to cooperate with countries and international organizations to seize opportunities in the fields of policy development, research, and technology transfer for solid waste treatment and plastic waste. It creates chances to receive support on consultation advices and equipment in plastic waste management;

Thirdly, Vietnam needs to increase participation in international and domestic treaties, forums, and meetings that clearly demonstrate Vietnam's efforts in minimizing ocean plastic waste and improving waste management.

Finally, in order to promote international cooperation and establish a positive image for countries and organizations across the globe, it is imperative that the Vietnamese government establish a secure, transparent, and efficient legal framework. This should include a

	streamlined process for approving bilateral and multilateral programs and projects that is both scientifically sound and easily accessible to all involved parties. Additionally, it is essential that those tasked with facilitating international cooperation possess the necessary professional knowledge and expertise in environmental cooperation.

3.5. Propagate to raise business and community awareness and attract the participation of the private sector

The report does not assess the community's awareness of the current state and harmful effects of plastic waste. However, it has been found that national agencies and businesses have limited awareness and understanding of plastic waste and need to improve their knowledge. To solve plastic waste pollution, both general and ocean plastic waste, it is essential to involve businesses and communities. Specialized agencies in management should provide guidance and management for the entire life cycle of plastic products.	- To encourage businesses and communities to adopt eco-friendly habits and reduce plastic waste, propaganda activities should be promoted to raise awareness and change behavior towards reusing, reducing, recycling, and avoiding single-use plastic products. - Developing content on environmental protection, household solid waste, and plastic waste management and integrating it into training programs at all levels can help orient and form good habits and behaviors towards environmental protection. - It is important for the private sector to participate in the efforts to reduce plastic waste in Vietnam. Businesses should be prepared to respond when Vietnam joins the Global Treaty by eliminating problematic plastics, meeting product design requirements, implementing an Extended Producer

	Responsibility (EPR) program, and adhering to recycling definitions and standards. - The private sector should provide and share data on the plastic industry, participate in survey activities, contribute to the development of scenarios and negotiation plans with the Ministry of Natural Resources and Environment, study Vietnam's conditions and roadmap for implementing mandatory obligations in the Treaty, propose and comment on solutions for implementation (technology, policy, finance...), and participate in resource support such as consultation, communication, research, impact assessment, capacity building, and technology transfer. By doing so, they can play a meaningful role in reducing plastic pollution in Vietnam.

4. REVIEW AND EVALUATE INTERNATIONAL AND ASEAN REGIONAL AGREEMENTS AND ACTION PLANS WITH A FOCUS ON MARINE PLASTIC WASTE MANAGEMENT FROM SOURCE TO SEA

Resolution No. 36-NQ/TW, issued in 2018 by the Central Executive Committee of the Party, lays out a Strategy for the Sustainable Development of Vietnam's Marine Economy to 2030, with a vision to 2045. The resolution proposes a solution to actively strengthen and expand international cooperation on the sea. Vietnam should take the following measures: seriously implement the regional and international treaties and agreements on the seas and oceans to which it is a party, study participation in important international agreements about the sea, and complete the institution, policy, strategy, and planning for sustainable development of the marine economy.

This includes controlling and completing the system of policy and law on the sea in the direction of sustainable development, ensuring feasibility, synchronization, and consistency in accordance with the norms of law and international treaties to which Vietnam is a party. Vietnam should also create legal channels to mobilize domestic and foreign resources for infrastructure investment, scientific, technological, human resources, and marine knowledge transfer. Furthermore, Vietnam should actively participate and promote the formation of global and regional mechanisms related to the seas and oceans.

In consistent compliance with the directives of the Party and the State, Vietnam has always been a pioneering member of international agreements and treaties on the environment, such as the Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (BASEL, 1989) focusing on Waste and Chemicals, and the 1982 United Nations Convention of the Law of the Sea (UNCLOS). In the face of the global scale of plastic waste pollution, the United Nations Environment Assembly (UNEA) adopted a number of resolutions to address plastic waste contamination. As planned, UNEA will hold the negotiations for the Agreement in five sessions, the first being in 2022 and expected to end by the end of 2024. The creation of a global legal instrument is expected to boost action at the national, regional and global levels, while enabling countries to develop policies that adapt to domestic circumstances and adopt a circular approach to plastics. The agreement will allow measures to be calibrated, both at the national and regional levels.

The review of the international and regional conventions that Vietnam has signed, its commitments to implement, will create the overall picture of Vietnam's efforts to fulfil its international commitments as a prerequisite for its accession to the Agreement. Furthermore, results of the review of international and regional treaties that Vietnam has signed and participated in will support the preparation of negotiations to avoid conflict, or overlap with other international agreements, and will also be a valuable lesson for negotiating and preparing for the Agreement.

To that end, the consultant team has reviewed all of the international and regional treaties to which Vietnam is already a member. It summarizes the main content of the treaty and the content that Vietnam has committed and the outcome of its implementation. The results of the review are presented in the following sections.

4.1. International agreements that Vietnam signed, implemented or committed related to waste management from source to sea

Table 4.1 compiles the international agreements, conventions, and initiatives established to safeguard the marine environment and mitigate pollution risks from waste and chemicals. Most of these agreements and conventions were developed in the 1970s and garnered active participation from diverse countries, including Vietnam. However, international agreements on ocean waste are incomplete, posing a significant threat to the global marine environment. While plastic waste was later included in these agreements after being recognized as a risk, they only cover a specific aspect of plastic waste management, mainly focused on preventing and treating plastic waste when it becomes waste. Unfortunately, there are no regulations governing the entire life cycle of plastic products, and the existing regulations are not binding.

Additionally, not all member states have committed to participate, leaving gaps in global efforts to address ocean environmental issues, particularly plastic waste. Countries in the South and Central regions of Africa, for example, do not participate in the UNEP Global Initiative, depriving them of effective regulation for managing plastic waste.

Despite the constant issuance, updates, and supplementation of international treaties, the amount of plastic waste that leaks into the ocean remains high, causing harm to the marine environment and ecosystem. Thus, there is a pressing need for a more comprehensive, multilateral agreement that addresses the entire life cycle of plastic waste. This agreement should require all countries' participation and close cooperation to reduce waste and promote cultural change with a view of "waste as a resource." These programs must have clear objectives, develop an effective and integrated regulatory system, and undertake a series of actions related to monitoring and research, infrastructure, education, incentive programs, enforcement and compliance, and establishing private partnerships and public participation to ensure effective implementation. Such programs should focus on long-range land-based waste management plans leading to adequate collection and treatment services because land-based solid waste management directly affects the amount of ocean waste.

Table 4.1. International agreements Vietnam signed, implemented, or committed related to waste management from source to sea

Name	Description	Main content	Vietnam signed, implemented, or committed
United Nations Convention on the Law of the Sea (UNCLOS)	The agreement was signed in 1982 and subsequently became effective in 1994. As of today, a total of 168 members actively participate in the aforementioned agreement.	UNCLOS provides a comprehensive approach that covers the most important aspects of the world's seas and oceans. It also highlights the unifying methods for determining the spatial extent of maritime zones under the sovereignty, sovereign rights, and national jurisdiction of coastal countries. The document also includes articles and clauses concerning waste prevention, particularly ocean plastic. It covers pollution originating from land, caused by dumping at sea, and pollution caused by ships, as indicated in Articles 207, 210, and 211.	Vietnam ratified UNCLOS in 1994, becoming the 63rd country to express its commitment to building a fair legal order and promoting development and cooperation at sea. In 2012, Vietnam introduced the Vietnam Sea Law, which is largely consistent with UNCLOS. In 2021, Vietnam and 11 other countries recently established the Group of Friends of UNCLOS, a platform for open and friendly maritime discussion.
International Convention for the Prevention of Pollution from Ships (MARPOL)	The International Convention was established in 1973 and subsequently amended and supplemented in 1978. The convention is a global treaty that seeks to prevent and controls maritime pollution by ships. To	The Convention provides regulations to prevent pollution caused by the transportation of petroleum, dangerous and toxic goods, as well as water, garbage, and gases emitted from ships. Appendix V of MARPOL 1973/1978 prohibits plastic disposal into the sea. It also recognizes the	Vietnam joined the Convention on March 18th, 1991. In 2016, the Prime Minister approved a plan to implement Annexes III, IV, V, and VI of the Convention through Decision No. 795/QD-TTg. This plan involved in providing waste

Name	Description	Main content	Vietnam signed, implemented, or committed
	date, a total of 155 member countries have participated in the convention, demonstrating a widespread commitment to the preservation of the marine environment.	obligations of ship owners in collecting and treating waste. Besides, plastic mixed with other trash must be treated as if it were all plastic and not disposed of at sea (as per Section 2.4.6 2017 Guidelines). However, there are a few exceptions to this rule. Plastic waste can be disposed of at sea if it is necessary for the safety of the ship and its occupants or in the event of rescuing people at sea. Waste falling overboard due to damage to the ship or its equipment is also permissible, provided that all reasonable precautions have been taken before and after the damage to prevent or reduce waste falling out. Lastly, the accidental loss of synthetic fishing nets is allowed, provided that all reasonable precautions have been taken to prevent such loss.	reception equipment and ozone-depleting substance reception equipment at ports and ship repair factories.
Basel Convention	The Convention was approved in Basel in 1989 by the Conference of Ambassadors Extraordinary and Plenipotentiary. It became effective on May 5, 1992, and	In 2019, at the 14th Conference of the Parties, the Plastic Waste Amendments were adopted to improve control over the movement of plastic waste across borders and to clarify the	Vietnam became a member of the Basel Convention on March 13th, 1995, and it came into effect for the country on June 11, 1995. Since then, Vietnam has always

Name	Description	Main content	Vietnam signed, implemented, or committed
	currently has 186 participating countries. .	scope of the Convention as it pertains to such waste. As outlined in document B3011, wastes such as cured resins and polymers of different varieties are included. These wastes must be nearly uncontaminated and recycled in an environmentally responsible manner. Additionally, mixtures of polyethylene (PE), polypropylene (PP), or polyethylene terephthalate (PET) wastes are encompassed in this entry, with the stipulation that each material is recycled separately and with the utmost care for the environment. The third amendment involves the addition of a new entry, Y48, to Annex II. This entry covers plastic waste, including mixtures of such waste that are not hazardous (as they would be listed under B3011) or presumed not to be hazardous (as they would be listed under A3210). These new entries will take effect on January 1st, 2021.	fulfilled its obligations and responsibilities as a member country. The coordination and cooperation among ministries, departments, domestic sectors, and international organizations has been enhanced to manage hazardous waste and prevent illegal cross-border transportation of hazardous waste.

Name	Description	Main content	Vietnam signed, implemented, or committed
		The Basel Convention has also created a Plastic Waste Partnership with the goal of enlisting resources, interests, and expertise from all sectors of society to promote and improve the environmentally sound management of plastic waste at the global, regional, and national levels while minimizing its generation.	
Stockholm Convention	The convention was signed in 2001 and became effective on May 17, 2004.	The Stockholm Convention is a global treaty that aims to eliminate or restrict the production and use of persistent organic pollutants. Currently, 181 countries are participating in the Convention. According to the United Nations Environment Programme (UNEP), the Stockholm Convention on Persistent Organic Pollutants (POP) imposes several regulations on the production, use and disposal of additives used in plastic production. The Convention applies only to POP plastics produced under its purview and may have an impact on the recycling and	Vietnam ratified the Convention on July 22, 2002. Since then, the government has issued several policies to manage residual pesticides, and treat Agent Orange/Dioxin pollution in hot spots. The Law on Environmental Protection has also introduced new regulations to prevent and control chemical pollution in general, as well as manage POPs. Furthermore, the infrastructure and capacity for environmental analysis, monitoring, and POP pollution treatment have been

Name	Description	Main content	Vietnam signed, implemented, or committed
		reuse of products containing regulated chemicals.	invested in and upgraded. This has gradually enabled Vietnam to meet the needs of POP management and treatment in the country.
Action Plan to Address Marine Plastic Litter from Ships	Until now, 175 countries including Vietnam have supported the Action Plan.	The Action Plan has been devised to address the issue of marine plastic litter caused by ships. It aims to contribute to the global effort of preventing marine plastic litter from entering the oceans due to ship-related activities. The plan has the following objectives: (i) Reduce the amount of marine plastic litter generated by fishing vessels and retrieve them from the oceans; (ii) Decrease marine plastic litter from shipping activities to marine plastic litter; (iii) Improve the efficiency of port facilities to reduce marine plastic litter; (iv) Increase public awareness, through education and training of seafarers; (v) Enhance the understanding of the impact of ships on marine plastic litter; (vi) Improve the comprehension of the regulatory framework related to marine plastic litter	Vietnam has taken a significant step towards better ocean plastic waste management by releasing its National Action Plan by 2030. The plan aims to achieve a few key goals, such as collecting 100% of lost or abandoned fishing gear and ending the disposal of fishing gear into the sea. Additionally, the plan aims to ensure that 100% of marine protected areas remain free of plastic waste. On November 14, 2017, the Ministry of Transport issued Circular No. 41/2017/TT-BGTVT, which regulates the management of collection and

Name	Description	Main content	Vietnam signed, implemented, or committed
		caused by ships; (vii) Strengthen international cooperation; (viii) Provide targeted technical cooperation and capacity-building.	treatment of waste from ships in seaport waters. Although the circular does not include any specific regulations on plastic waste, it serves as a significant step toward managing waste from ships in seaport water.
The Global Programme of Action (GPA)	A total of 108 governments adopted the GPA. The UNEP Regional Marine Program and GPA on Marine Environmental Protection from Land Activities were launched in 2003.	The parties have agreed to work together to take sustained and effective action to deal with all land-based impacts on the marine environment. Specifically, they aim to address the negative consequences of sewage, POPs, radioactive substances, heavy metals, oils (hydrocarbons), nutrients, and sediment mobilization, litter, and physical alteration and destruction of habitats. Since 2012, marine litter, nutrient management, and wastewater have been identified as priority areas to be tackled.	The 2030 Agenda for Sustainable Development Goals SDGs (SDG NAP) has been implemented through the National Action Plan, as per Decision 633/QD-TTg dated May 10, 2017. The plan aims to achieve 17 SDGs by 2030, comprising of 115 specific targets that align with global SDGs targets approved at the UN Summit Meeting in September 2015 wich promote land and marine resource protect. On December 23, 2020, GPAP, in partnership with the Ministry of

Name	Description	Main content	Vietnam signed, implemented, or committed
			Natural Resources and Environment of Vietnam and WWF-Vietnam, launched a national collaboration platform to combat plastic pollution.
United Nations Environment Assembly	The biennial meetings of the United Nations Environment Assembly (UNEA) serve to underscore the pressing need for immediate action to tackle the issues posed by plastic waste and microplastics. These sessions, held in Nairobi, Kenya, aim to identify key priorities in global environmental policy and the development of international environmental law.	Meetings highlighted that further urgent action is needed to address the challenges posed by plastic debris and microplastics in the sea. To eliminate the pollution caused by plastic waste, improving waste management practices, and cleaning up existing debris and trash are crucial. The meetings paved the way to develop some policies such as (1) Resolution UNEP/EA/UNEA1/6 on marine plastic debris and Microplastics; (2) Resolution No. UNEP/EA.3/Res.728 on Ocean plastic waste and microplastics; (3) Resolution UNEP/EA.2/Res.11 on marine plastic litter and microplastics;	Vietnam became an official member of the United Nations on September 20, 1977. Since then, the country has been actively participating in various fields related to peace and security, disarmament, socio-economic development, population, and environmental protection. These topics are prioritized in the country's national unification proposal. Vietnam has been constantly improving and enhancing its contributions and position at the United Nations through policies of independence, self-reliance,

Name	Description	Main content	Vietnam signed, implemented, or committed
		(3) Resolution UNEP/EA.3/Res.7 on marine litter and microplastics; (4) Resolution UNEP/EA.4/HLS.1 on marine plastic litter and microplastics	expansion, instrumentalization, and diversification. The country aims to diversify its international relations and become a reliable partner to other countries. At the 3rd group meeting held in Thailand, Vietnam sent a representative to participate, speak, and discuss, thus contributing to the common work of the Expert Group.
London Convention and London Protocol	The Convention on the Prevention of Pollution from Dumping of Wastes and Other Matter is an international treaty that came into effect on August 30, 1975. Presently, 87 countries are signatories to the treaty.	In comparison to the 1972 Convention, the London Protocol aims to prevent the disposal of waste in the sea. It also prohibits the incineration of waste at sea and the export of waste to other countries for disposal or incineration at sea.	Vietnam has not participated in the convention yet.
Convention on Biological Diversity	Up to now, 196 countries and territories have participated in the Convention.	It is indicated that the Convention does not directly mention ocean plastic waste. However, in December 2016, the Executive	Vietnam signed the Convention on Biological Diversity on May 28, 1993, ratified it on November 16,

Name	Description	Main content	Vietnam signed, implemented, or committed
		Committee of tes Convention adopted Resolution CBD/COP/DEC/XIII/10 which addresses the issue of plastic waste reaching the sea and coastal biodiversity: "Promote the participation of parties, governments, relevant organizations, industries, sectors, other stakeholders, indigenous peoples and local communities, to take appropriate measures, in accordance with national and international law and to the extent possible, to prevent and minimize the potential adverse impacts of marine debris on biodiversity and habitats in marine and coastal areas".	1994, and became an official member on February 14, 1995. It was one of the first countries to ratify the Convention, and the Ministry of Natural Resources and Environment is currently responsible for implementing it. To meet the requirements of the Convention, the 2008 Biodiversity Law was developed, which codifies the basic contents of the Convention on Biological Diversity.

4.2. ASEAN agreements related to marine plastic waste with the participation of Vietnam

Southeast Asian countries have taken a proactive approach to joining international treaties concerning plastic waste. Despite global concerns, the challenges faced by Asian nations in managing plastic waste are varied and dependent on various factors. As a result, regional agreements have been developed, as outlined in Table 4.2. Our analysis of these agreements has highlighted Vietnam's efforts in managing plastic waste, providing necessary information for those who worked on the topic.

Table 4.2. ASEAN agreements related to marine plastic waste with the participation of Vietnam

Name	Description	Main content	Vietnam signed, implemented, or committed

Action plan to combat marine waste for the period 2021-2025	The plan was issued on May 28, 2021 with the participation of Southeast Asian countries	The ASEAN Marine Debris Action Plan is a regional initiative that aims to support existing national actions and policies, and mobilize resources to address marine waste in the ASEAN Member States. The plan spans 14 regional actions across four pillars, which include policy support and planning, research, innovation and capacity building, awareness, education and outreach, and private sector engagement.	Vietnam's Government has developed a National Action Plan for the Management of Marine Plastic Litter by 2030, which includes a comprehensive strategy to tackle marine waste. The plan provides baseline information on the status of managing land- and sea-based sources of waste, interventions to prevent and reduce marine litter, and thematic strategies. Additionally, the Ministry of Industry and Trade has created the National Action Plan on Sustainable Consumption and Production for 2021-2030, which focuses on sustainable management, enhancing sustainable lifestyles, and improving living quality towards a circular economy.
Regional Action Plan on Marine Litter	It was issued by Coordinating Body for the Seas of East Asia (COBSEA) in 2019	Cambodia, Indonesia, Malaysia, the People's Republic of China, the Philippines, the Republic of Korea, Singapore, Thailand, and Vietnam	The East Asian Seas region aims to consolidate, coordinate, and facilitate cooperation to implement environmental policies, strategies, and measures for sustainable, integrated management of marine litter. The objectives of the region are to prevent and reduce marine litter pollution, foster sustainable consumption and production, remove existent marine litter, improve monitoring and assessment of marine litter, enhance knowledge sharing and awareness about marine litter, and support national efforts towards adequate institutional, policy and implementation frameworks, cross-sector coordination, and regional and international

			cooperation. The region has identified four specific actions to achieve these objectives, which include preventing and reducing marine litter from land and sea-based sources, monitoring and assessment of marine litter, and activities supporting the implementation of COBSEA RAP MALI.
Bangkok Declaration	The Bangkok Declaration on combating ocean plastic waste in the ASEAN region was issued by leaders of 10 ASEAN countries during the 34th ASEAN Summit in Bangkok, Thailand on June 22 - 23, 2019.	Member States are encouraged to adjust their national laws to reduce plastic waste flowing into the ocean from land-based production activities. However, ASEAN's principle of non-interference in the internal affairs of other countries means that member countries are not mandated to do so. The Bangkok Declaration is seen as a positive step for Southeast Asia's efforts to eliminate its image as one of the leading contributors to ocean plastic pollution in the world, despite not imposing a complete and immediate ban on plastic waste imports as environmental organizations had expected.	In the National Action Plan on Ocean Plastic Waste Management to 2030, Vietnam aims to cut ocean plastic waste by 50% by 2025 and 75% by 2030. A number of measures have been introduced. The ban will be imposed on the production and import of plastic bags for domestic use by 2026 and most single-use plastic products by 2031.

After reviewing documents, it is realized that Southeast Asian countries face similar challenges on plastic waste.

- *The database on the life cycle of plastic products is still incomplete*: The issue of plastic waste pollution in Southeast Asian countries is a major concern, with websites ranking them as high in the region and the world. However, the reality is that many of these countries are struggling with incomplete and unreliable databases on the life cycle of plastic products. This lack of knowledge is especially evident when it comes to data on single-use plastic imports and non-hazardous plastic waste production in Laos and the Philippines. To address this challenge, some countries have taken the first steps towards building comprehensive plastic lifecycle databases. For instance, Singapore has established a mandatory packaging reporting framework, while Maldives has initiated a national data collection mechanism as part of its Single-Use Plastic Elimination Plan. These efforts are positive, but there is still an individual method to address the challenges on plastic waste data.

- *Southeast Asian nations face difficulties in monitoring marine plastic pollution.* A dearth of surveillance data and a lack of uniform methodologies to establish surveillance systems and evaluate collected data are major hurdles. In Singapore, the absence of an internationally recognized protocol for monitoring marine litter has impeded data collection efforts. Similarly, Vietnam is currently working on developing guidelines and methods to assess coastal waste and manage the movement of plastic waste from land to ocean.

At the regional level, the ASEAN Regional Action Plan on Combating Ocean Plastic Waste acknowledges the need for more comprehensive data on sources of ocean plastic pollution and the impacts of microplastics. To address this issue, the Action Plan recommends the development of a guidebook on standard assessment and monitoring methods for ocean waste, the establishment of a robust ASEAN regional knowledge network on marine plastic waste, and the undertaking of a regional study on microplastics and appropriate actions to take by 2025.

As analyzed above, collaborating through regional agreements is key factor for Southeast Asian nations to work together more closely, exchange valuable insights, and jointly combat plastic waste to safeguard the marine environment in the area. Besides, addressing ocean plastic pollution is a global challenge that requires all countries worldwide to unite

and take action. Though current methods at the regional level are insufficient, a globally binding agreement that builds on successful international governance models and best practices is imperative. Establishing such an agreement is both necessary and urgent. This global effort for plastic waste management must involve the participation of all nations to ensure a level playing field, remove trade barriers, and integrate policy systems. This way, individual country initiatives can be incorporated into a comprehensive international framework aimed at the shared goal of reducing global ocean plastic waste. Therefore, it is imperative that a global treaty is reached to tackle the issue of ocean plastic pollution. The agreement should strengthen the global legal framework to comprehensively address plastic pollution. Besides, this agreement must take into account the evaluation standards for plastic management throughout the entire life cycle - from production to disposal and pollution treatment and varying priorities and objectives of each country and region, while also establishing a framework for national action plans.

4.3. Assessment of recent activities of Vietnam to reach its commitment to plastic waste management

Vietnam has expressed its commitment to reducing plastic waste and protecting the environment, ecosystems, and oceans through active participation in international conventions and agreements related to environmental protection. These include the United Nations Convention on the Law of the Sea 1982, International Convention on Civil Liability for Oil Pollution Damage, 1992, International Convention for the Prevention of Pollution from Ships 1973/1978 (MARPOL Convention 73/78), Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, 1989, Stockholm Convention on Persistent Organic Pollutants 2001, Convention on Biological Diversity 1992, and regional agreements such as the Action Plan to combat marine waste for the period 2021-2025 of ASEAN countries and the Bangkok Declaration.

Apart from participating in international and regional conventions, Vietnam actively participates in Summits and implements commitments on environmental protection, climate, and sustainable development. For instance, Vietnam joined the list of 127 countries through the United Nations Environment Program on CTN and ocean microplastics in 2017. In 2018, at the G7 Summit held in Canada, the Prime Minister called for global cooperation in solving the problem of plastic trash at sea. At the World Economic Forum in 2019, the Minister of Natural Resources and Environment and representatives of

the World Economic Forum signed a Letter of Intent related to waste treatment and building a circular economy.

Furthermore, the World Economic Forum supports Vietnam to participate in the Global Action Partnership Program on Plastics (GPAP) Initiative, which aims to innovate sustainable plastic production and consumption models and create a foundation for policies, actions, and solutions to manage waste effectively, minimizing the impact of plastic on the environment. Vietnam is a pioneering member, proactively and actively participating in negotiations and passing the Resolution "Ending plastic pollution: Towards an international legally binding instrument" in March 2022 at the General Assembly of United Nations Environment (UNEA - 5) in Nairobi (Kenya).

Vietnam has been actively participating in the first and second sessions of the International Negotiating Committee (INC-1 and INC-2), which aims to develop an international legally binding agreement on plastic pollution, including in marine environments. For instance, Vietnam's representatives joined the Ad Hoc Open-Ended Expert Group (AHEG) on Marine Litter and Microplastics of the United Nations Environment Assembly. The government of Vietnam approved a project that outlines six key objectives, including enhancing negotiation skills, creating a database of relevant information, allocating resources for negotiation preparation, establishing a coordination mechanism, garnering support from domestic and international stakeholders, and reinforcing national roles and responsibilities to actively prepare and participate in the global treaty on reducing marine plastic pollution.

In the upcoming time, Vietnam will participate in the Intergovernmental Negotiating Committee session to develop an international legal agreement on plastic pollution, specifically in marine environments. The government of Vietnam is continuing to carefully prepare to participate in the negotiation of the Global Agreement on plastic waste, clearly and strongly demonstrated by Decision No. 1047/QD-TTg dated August 16, 2021 of the Prime Minister. The decision sets out six tasks, including building capacity to prepare for negotiations, collecting information, establishing a database, arranging resources for negotiation preparation, establishing a coordination mechanism, mobilizing domestic and international support, and strengthening national roles and responsibilities.

Ocean plastic waste is a multi-sectoral, inter-regional, and inter-sectoral problem. The contents of the Agreement will therefore also be related to many areas under the

management authority of ministries and branches, including Industry and Trade, Agriculture and Rural Development, Planning and Investment, Justice, Foreign Affairs, Science, Technology, Finance, and Transportation. Therefore, ministries, with the support of international organizations such as GIZ, UNDP, and WWF, are continuing to carefully prepare human resources, finance, and databases to achieve good results during the preparation and participation in this Agreement.

4.4. Summarizing remarks

The issue of marine plastic pollution is of particular concern to most Southeast Asian countries as more than 50% of the total amount of plastic waste discharged into the ocean is from countries located in this region. Vietnam is one of the countries with large amounts of plastic wastes in the world[11]. To solve the problem of marine environmental pollution in general and pollution caused by plastic waste in particular, the international community has approved and issued many international commitments with different binding legal values. However, up to now, there has not been an international treaty at both global and regional levels that specifically regulates the control of marine plastic waste. Conventions on the marine environment such as the MARRPOL Convention, the London Convention, the Basel Convention and the regional marine environmental protection treaties only address one or several aspects of the control of marine plastic wastes. Therefore, when preparing negotiation contents, the negotiation mission needs to consider harmonizing contents with signed conventions, avoiding duplication, overlap or conflict with the above Conventions.

Over the past years, Vietnam has actively participated in the signing, and implementing various activities to show its cooperation with the international community in solving the problem of marine plastic wastes. In 2017, Vietnam officially adopted the United Nations Environment Program's Environment Council Resolution on marine plastic waste and marine microplastics. In 2018, at the G7 Summit held in Canada, the Vietnamese Prime Minister pledged to act as well as call for global cooperation in tackling marine plastic

[11]https://tainguyenvamoitruong.vn/hop-tac-quoc-te-ve-bien-va-hai-dao-trong-giai-quyet-o-nhiem-nhua-va-dai-duong-cid1385.html

waste, towards the goal of blue and clean oceans with no more plastic waste. In 2019, at the G20 Summit in Japan, Vietnam raised an initiative to promote the formation of a global network on sea-ocean data sharing and move towards a Global Framework for prevent plastic waste at sea for blue oceans. In particular, at the 6th session of the General Assembly of the Global Environment Facility (GEF6) held in June 2018 in Da Nang, Vietnam proposed the initiative "Establishing a regional partnership in the marine East Asia on ocean plastic waste management".

At the national level, Vietnam has issued legal documents on waste management, including plastic waste, and the National Action plan on Marine plastic waste management has brought certain effective results. However, the control of plastic waste and marine plastic waste at sea still faces many challenges. To solve these challenges, Vietnam needs to carry out synchronous measures, in which it is necessary to actively participate in international and regional conventions and treaties related to plastic waste management and continue to improve the legal framework on marine plastic waste management.

Vietnam needs to actively improve its mechanisms, policies and measures for preventing, preventing and reducing plastic waste. In order to reach the common goals of the region and the world, Vietnam has enacted many relevant laws and documents to address the problem of plastic waste such as the Environmental Protection Law 2020; the Resource Law, the Marine and Island Environment, the National Plan of Action for the Management of Oceans Plastic Waste, etc. These documents represent a major step forward in Vietnam's efforts to tackle the problem of ocean plastic waste, even though there are still many common, unspecified objectives and contents. Therefore, Vietnam needs to improve its policy, legislation, instruments and specific measures for institutionalization of the objectives, content and plans of the Declarations towards the common national and regional objectives in the protection of the marine environment from plastic waste. The establishment of mechanisms and policies requires reference, adhering closely to the content framework of the Agreement to ensure that the implementation process complies with the regulations of Vietnam and fulfils the commitment to the agreement. The draft possible obligations of the INC-2 agreement include the following:

Possible obligation 1	phasing out and/or reducing the supply of, demand for and use of primary plastic polymers

Possible obligation 2	banning, phasing out and/or reducing the use of problematic and avoidable plastic products
Possible obligation 3	banning, phasing out and/or reducing the production, consumption and use of chemicals and polymers of concern
Possible obligation 4	reducing microplastics
Possible obligation 5	strengthening waste management
Possible obligation 6	fostering design for circularity
Possible obligation 7	encouraging reduce, reuse and repair of plastic products and packaging
Possible obligation 8	promoting the use of safe, sustainable alternatives and substitutes
Possible obligation 9	eliminating release and emission of plastics to water, soil and air
Possible obligation 10	addressing existing plastic pollution
Possible obligation 11	facilitating a just transition, including an inclusive transition of the informal waste sector
Possible obligation 12	Possible core obligation: protecting human health from the adverse effects of plastic pollution.

Source: UNEP, 2023

To date, Vietnam does not have an official national report on the situation of plastic waste pollution, nor does it have a full database to accurately assess the life cycle of plastic products (production, use, disposal, treatment). However, on the basis of existing data, it is possible to see that the management and handling offices, as well as the resources, the funding for plastic waste management and treatment operations have not met the actual needs. Therefore, when setting targets, the implementation road map needs to be in line

with the real situation and it needs to offer suitable, flexible, soft, less rigorous options to engage in negotiations.

Vietnam needs to invest in resources to actively implement domestic policies and laws as well as the contents of regional agreements. In order to effectively and effectively implement regional agreements, Vietnam needs to invest both human resources and equipment to implement domestic policies and laws effectively.

Vietnam needs also to prepare funding to actively participate in cooperative activities with countries in the region. Currently, cooperation on plastic waste is mainly based on funding from foreign countries and international organizations. Therefore, Vietnam's cooperative activities to implement the contents of the plans, the project on plastic waste is still passive, not synchronized, not implemented on a large scale, each sponsor agency has different goals and regulations, so the deployment process is not really effective. Therefore, Vietnam needs to actively set its domestic budgets and mobilize the involvement of domestic and international organizations with a well-coordinated, unified mechanism to proactively organize the implementation of the contents of the Declarations, the plan of action of the regional organizations in order to jointly the common objectives to combat plastic waste from marine sources.

Vietnam needs to prioritize its assessment of the current status of implementation plans, targets on reducing production, reducing the use of plastic products, and managing the plastic waste. This would help providing in-depth understanding on the status of resources and implementation efficiency across the country by building official national reports and reliable database. On that basis, the feasibility of each phase can be evaluated. This is the basis to prepare, develop appropriate negotiations and ensure feasibility with the current situation in Vietnam.

5. REVIEW OF BEST PRACTICES, AND LESSONS LEARNED ON ACTIONS AGAINST MARINE DEBRIS POLLUTION AT THE INTERNATIONAL LEVEL, REGIONAL LEVEL, AND NATIONAL LEVEL, THROUGH THE 3RPROMAR PROJECT PLATFORM OF ASIAN COUNTRIES

Upon reviewing both international and national agreements regarding waste management from source to sea, it is evident that global and national communities have taken a significant interest in this topic. In response to the threat marine debris pollution poses to

our oceans and marine life, along with building collaborative agreements, countries have implemented various measures to reduce its impact. In this report, we will explore the best practices and lessons learned from initiatives against marine debris pollution at international, regional and national levels. By examining both successful and unsuccessful projects, we hope to provide valuable insights for those striving to improve plastic waste management systems.

5.1. Best practices and lessons learned on Actions against Marine Debris pollution at the international level

5.1.1. Lessoned learned in waste management in Japan

Japan's impressive achievements in waste management are an inspiration for countries all over the world, providing valuable insights into addressing waste-related issues. By combining effective public participation, cutting-edge technologies, and unwavering dedication to sustainability, Japan's waste system has become a good model for others to follow. Figure 5.1 presents a comprehensive outline of the challenges encountered and the solutions implemented, rendering Japan's waste management journey an informative blueprint for countries such as Vietnam that aim to devise successful plans for a cleaner and more sustainable future.

Figure 5.1. Lessons learned in waste management system in Japan (source: MOE)

Picture 5.1. The photo of waste collection points in Japan taken by the consultant team in December 2023

Picture 5.2. The photo of waste bins in Japan taken by the consultant team in December 2023

Picture 5.3. The photo of incineration in a waste treatment plant in Yokohama, Japan taken by the consultant team in December 2023

5.1.2. The failure of Single Use Plastic Ban in India

Single-use plastic has a devastating impact on the environment and requires immediate attention. It is considered as one of the significant ecological issues of recent times (Vimal et al., 2020), prompting governments to establish policies to eliminate single-use plastics. In India, the prohibition on the use of plastic bags has been in place since 2012, but street vendors and smaller stores in the city still mainly use plastic bags (Block, 2013). In 2011, the government set the minimum thickness level of carry bags, which was updated in 2016 to address the issue of plastic waste. In the updated 2016 Plastic Waste Management Rules, the usage of plastic bags with a thickness of less than 50 μm is prohibited in most Indian cities (Vimal et al., 2020). Although efforts have been made to reduce single-use plastic, their effectiveness is currently limited. Plastic bags with different thicknesses and sizes are found in urban areas due to overuse and littering of non-recycling materials (Koushal et al., 2014).

According to researchers, the plastic waste ban's failure could be attributed to several reasons, such as the absence of environmental taxes for manufacturers (Vimal et al., 2020), the lack of development of suitable alternatives and governmental initiatives and financial support to promote biodegradable single-use products (Beber and Pagano, 2013; Vimal et al., 2020), and the lack of awareness programs on environmental issues (Vimal et al., 2020).

Moreover, implementing India's product ban relies on state governments and pollution control boards, which could be a challenging task (Kanwar et al, 2023). Finding affordable alternatives is also difficult, and small businesses could suffer job losses. Political resistance and lack of planning could pose further obstacles, while COVID hinders efforts to reduce single-use plastics when residents use numerous single plastic waste (Kanwar et al, 2023).

Lessons learned.

Eliminating single-use plastic waste requires more than just individual efforts. It necessitates a joint approach and a well-defined strategy with precise deadlines to completely eradicate single-use plastics. Furthermore, a rigorous regulatory or monitoring framework is essential in India to ensure that the regulation's implementation aligns with the objective. Vimal et al. (2020) suggested that financial assistance to small-scale manufacturers to enhance their technology in creating thicker plastics is also critical. Additionally, increasing consumers' awareness with the aid of media can help them comprehend the consequences of plastic waste and encourage them to modify their actions.

5.2. Best practices and lessons learned on Actions against Marine Debris pollution at the regional level

The ASEAN region is home to some of the world's most diverse marine ecosystems, but it is also facing severe marine debris pollution. To address this issue, ASEAN member states have been taking actions at the national and regional levels to combat marine debris pollution. In the part, we will explore the best practices and lessons learned from these actions, highlighting successful stories that have been implemented in the region to reduce the amount of marine debris.

Case study 1. Increasing Local Capacity in Sustainable Waste Management and EPR for Plastic Packaging in Indonesia[12]

1.Location: Malang Regency, East Java, Indonesia

2.Description:

- Supported by Rethinking Plastics, CSEAS has implemented a Local Capacity Building project in Sustainable Waste Management & Extended Producer Responsibility (EPR) for Plastic Packaging in Kendal Payak Village, Malang Regency, East Java.
- This project is carried out through the implementation of various training for local leaders; increasing household capacity in sorting waste; providing separators for waste transport vehicles; providing work safety equipment at waste management sites; and providing TPS3R sorting rooms.

3.Achievements

- 442 heads of families to start sorting organic and inorganic.
- 43 RT/RW heads were trained in household waste management, and 23 TRS3R in Malang Regency were trained and developed institutional capacity-building modules in the form of entrepreneurship, workplace safety and financial training. It leads to a reduction in waste disposed at the TPS3R Lagging Jaya landfill.

[12]Rethink Plastic. (n.d.). Rethink Plastic Booklet. Retrieved May 19, 2023, from https://rethinking plastics.eu/media/acfupload/Rethinking_Plastics_Booklet_lDN_English_Final.pdf

- This project has also contributed to increased productivity in the form of business development in selling compost, maggot, and fish cultivation, as well as increasing the efficiency of working hours of up to one hour at TPS3R, Langgeng Jaya.

Case study 2. Plastic People - Transform all types of plastic waste into useful, safe and beautiful products[13]

1.Location: Malang Regency, East Java, Indonesia

2.Description:

- Producing construction materials, making furniture, and household appliances from plastic (all kinds of plastic including difficult-to-recycle plastics such as plastic bags, confectionery shells, foam boxes, and straws...).

- Organize workshops with communities and schools to help people become self-aware and reduce their plastic consumption.

3.Achievements

- In 2022, Plastic People collaborated with 4P in Cambodia to turn Pizza 4Ps at the BKK1 area into a Plastic Recycle Hub. It offers customers a space to hand over plastic waste.

- A new store was constructed and got the supply of recyclable plastic and process it into a valuable raw material. The project collected and recycled 7 tons of plastic (the equivalent of the waste for 70 persons over a year) to fabricate louvres that will dress the interiors of the restaurant and protect the glass facade from sun radiation.

Case study 3. Reporting of gear loss and gear recovery programs[14]

1.Location: Malaysia

2.Description

[13] PLASTICPeople. (n.d.). PLASTICPeople. https://PLASTICPeople.vn.

[14] Macfadyen, G., Huntington, T., & Cappell, R. (2009). Abandoned, lost or otherwise discarded fishing gear (No. 523). Food and Agriculture Organization of the United Nations (FAO).

- Reporting of gear loss may come from the operators of the fishing gear themselves or from other operators that have come across ALDFG (abandoned, lost, discarded fishing gear).
- Ships over 400 GT and ships certified to carry 15 or more persons are to be provided with a garbage record book, to include the dumping or loss of fishing gear at sea as well as discharging gear to reception facilities.
- The garbage record book is subject to inspection by the appropriate administration, usually on an annual basis, but it is also subject to random inspections by the coast guard and fisheries monitoring, control and surveillance officers, and port state officers.

3.Achievements

- Direct reporting from the operator of the gear should enable more accurate location and identification of the gear, but such reporting is rare.
- The Norwegians have a mandatory reporting procedure that is effective - it is estimated that more than 80 percent of losses are reported
- Can be applied in Vietnam with detailed instructions so that fishermen and ship owners can fill in the information completely and accurately.
- There should be a team of officials who can control the accuracy of reported data and regularly update the status of fishing gear loss.

Case study 4. Fees charged to consumers[15]

1. **Location:** Cambodia
2. **Description:** In 2019, Cambodia implemented a fee for plastic bags. Across the country, all supermarkets and commercial centers are required to charge consumers Cambodian riel 400 ($0.10) per plastic bag.

[15] World Bank. (2022). Toward a National Single-use Plastics Roadmap in Vietnam: Strategic Options for Reducing Priority Single-use Plastics. East Asia and Pacific Region, Marine Plastics Series;. © Washington, DC : World Bank. http://hdl.handle.net/10986/37692.

3. **Achievements:** The overall impact of the measure is unknown, interviews conducted with some supermarkets showed that two-thirds of them were implementing the measure, and the number of plastic bags they provided had declined by 50 percent.

Case study 5. Ban on plastic bags, polystyrene, and plastic straws[15]

1. Location: Bali, Indonesia

2. Description

- In late 2018, the Balinese Governor announced a ban on plastic bags, polystyrene (Styrofoam), and plastic straws. The adaptation period for the new regulation was six months.
- Producers, distributors, and suppliers are prohibited from producing, distributing, and supplying SUPs (plastic bags, Styrofoam, and plastic straws), and, at the same time, they are obliged to produce, distribute, and supply substitutes for SUP products.
- The public companies, as well as other economic operators and traditional villages/ Pakraman Villages, are prohibited from using SUPs. The Governor provided guidance and supervision on the implementation of the ban and established a Monitoring and Evaluation Team that assesses the implementation of the ban in Bali's regencies/ cities.
- Traditional villages/Pakraman Villages that successfully implemented the ban get an award from the local government in the form of support for facilities and infrastructure, and funds for assistance.
- Due to the success of this initiative, it has been piloted in more markets on the island.

5.3. Best practices and lessons learned on Actions against Marine Debris pollution at the national level

Vietnam has taken strong political commitments and carried out various campaigns and initiatives to manage and reduce plastic waste, including marine plastic waste. The government of Vietnam achieved some success when promoting the participation of international, governmental, and non-governmental agencies, private sectors, and the public in plastic waste management. Best practices to control plastic litter at source, change behavior, international copporation and scientific research are mentioned in the part.

Case study 1. Reviving Plastic Waste Program from Unilever Vietnam[16]

1.Location: Hanoi, Vietnam

2.Description

- Objectives: Promote a circular economy model in plastic waste management through waste separation at source, collection, and recycling of plastic waste.
- The Program has been preliminarily implemented in Hanoi with 3 main activities: building a system of collection, training on communication, and transfer of recyclable waste.
- The program uses sorted and collected plastic waste for Unilever's packaging production.
- Non-recyclable plastics will be converted to fuel oil.
- Recruiting and building collection agents on the streets, large collection stations, and a network of freelance waste pickers in Hanoi, establishing associations and collection groups in each area.
- Training freelance waste pickers, collectors' associations, collection stations, and bottle dealers to help them grasp information on ensuring hygienic and safe working conditions.

3.Achievements

- This initiative has successfully built a collection system in Hanoi by selecting and building collection agents on the streets, large collection stations, and a network of self-employed workers. with more than 1,200 employees (as of March 2022)
- The program has also sorted and collected 7,500 tons of recyclable waste, including 6,500 tons of plastic waste, which can be transferred for recycling and used in Unilever's packaging production.
- Unilever's mass media campaigns also achieved more than 12 million hits.
- Businesses can learn from this idea of Unilever to increase their responsibility in the recovery of waste products and develop circular economy models in plastic waste management.

[16] Unilever. (2022, March 3).Circular economy in plastic waste management. https://www.unilever.eom.vn/news/2022/kinh-te-tuan-hoan-trong-quan-ly-rac-thai-nhua/

Case study 2. Homo Plastic campaign organized by French Embassy in Vietnam[17]

1.Location: Vietnam

2.Description:

- The Homo Plastics campaign is a component of the COMPOSE project - "Building a system to observe plastic waste in society and the environment" initiated by the French Embassy in Vietnam to build a monitoring system for plastic waste, the social and environmental impact of plastic in Vietnam.
- The campaign provided reliable data and scientific knowledge, raising awareness, and contributing to public policies that reduce plastic pollution. The campaign focuses on the story of a group of scientific researchers who receive a message from the future of Homo Plastic - a half-human half-plastic species - warning about the prospect that humans will become Homo Plastic if they don't change their habits for disposable plastic consumption.

3.Achievements

The campaign has built an information website platform that combines interactive games, 2 animation videos about Homo Plastic's story, and the event "Green Research Station" with more than 1.8 million searches and more than 430,000 participants.

Case study 3. Replace plastic straws with straws made from eco-friendly materials[18]

1.Location: Mekong Delta region, South Vietnam

2.Description

- 3T Store is a Vietnamese company that manufactures consumer products (such as straws, bags, hats, baskets, and hammocks) from sedge and bamboo that grow naturally in the Mekong Delta.

[17] Rethink Plastic. (n.d.). Rethink Plastic Booklet. Retrieved May 19, 2023, from https://rethinking plastics.eu/media/acfupload/Rethinking_Plastics_Booklet_lDN_English_Final.pdf

[18] Viet Nam Circular Economy. (n.d.). Grass straws and alternatives to plastic straw. Viet Nam Circular Economy. https://vietnamcirculareconomy.vn/showcase/ong-hut-co-va-cac- lua-chon-thay-the-khac-cho-nhua-su-dung-mot-lan/

- Typical products: (i) fresh grass straws, which can be kept for 10 days at a temperature of 18-20 degrees Celsius, sold for 600 VND / straw and (ii) hay straws, which can be stored 6 months at room temperature, selling for 1,000 VND/straw.

3.Achievements

- 3T Store has produced and sold 1.8 million grass straws and 8,650 bamboo straws.
- The production and storage of straws do not require any chemicals, and the ingredients are locally sourced.
- There are some companies that produce straws (such as Hung Hau Foods, and Ochao) bamboo straws (such as Mao Meo bamboo straws), stainless steel straws, and disposable wooden spoons. Although the price is higher than plastic products, there is still high demand from domestic and international customers for substitute products.

Case study 4. Waste separation at the household level[19]

1.Location: Binh Dong 2 Street, Ward 3, Tan An City, Vietnam

2.Description

- WWF Project, pilot activities in Tan An City, Long An province, south Vietnam
- Local people will have to classify their waste into 03 categories: organic waste, recyclable waste, and other waste.
- These wastes will be collected on different days based on their type. Waste will then be treated separately, in which recyclable wastes will be recycled and the rest will be treated in a factory.

3.Achievements

- There were 430 households that participated in the model and the results are inspiring with some remarkable achievements.
- Outcomes include maximizing the amount of recyclable and reusable waste and minimizing the amount of landfilled or burned waste.

[19] VASI (2022). Technical meeting "Strengthening information sharing, establishing domestic and international databases on ocean plastic waste, supporting Vietnam to participate in the negotiation of an internationally binding instrument on plastic pollution, included in the marine environment".

- Currently, many provinces and cities have built waste separation schemes at source such as Hanoi, Thua Thien Hue Province, Da Nang City.

Case study 5. Pilot model: Turn waste into money organized by Women Union Ha Long Communes[20]

1.Location: Ha Long, Vietnam

2.Description

To build an increasingly green, clean, and beautiful rural environment and implement the movement collecting garbage and selling it to raise funds for women and children in extremely difficult circumstances" by the Women's Union of Ha Long Commune. Launching the campaign, the Women's Union of Village 9 had a good way to implement the model "Turn waste into money" to many women in the branch into money" to many women in the branch.

3.Achievements

- After two months of operation, the model was deployed to all members of the branch and received the active participation of 124 members.
- Each member, every day from collecting garbage at home, takes advantage of all the time and everywhere to pick up plastic bags and bottles that are left indiscriminately on the street. Soft drinks bottles, cartons, wastepaper to water pipes, broken plastic bowls... are collected and classified by the sisters for a month.
- People who collect a lot can sell 20,000 - 30,000 thousand VND. The money from the waste collection has been nearly one million dong. The branch has used to raise funds to take care of women and children in the village with extremely difficult circumstances.
- This model is small but very effective, "turning garbage into money" both to help clean houses, protect the environment, and help organize the association with accumulated funds to help poor and needy members and economic development.

[20] GreenHub. (2020, March 22). Turn waste to money - GreenHub. https://greenhub.org.vn/vi/bien-rac-thanh-tien-phan-3-nguoi- uom-rac-no-hoa/.

- Ha Long City Women's Union and GreenHub implemented the idea of recycling brick laces. From burnt or shredded brick ties, households are encouraged to keep brick ties as raw materials for knitting handicrafts.

Case study 6. Adopt Carbon Credits to reduce Low Value Plastic waste in Phu Quoc and Kien Giang, supported by WWF[21]

1.Location: Phu Quoc, Kien Giang, Vietnam. The model was also adopted in different areas of Cambodia

2.Description:

- Since the beginning of 2020, Tontoton has cooperated with WWF Vietnam, within the framework of a waste reduction project in Phu Quoc. The process of reducing plastic waste was carried out as follows: one company will support Tontoton's cost to treat an equal amount of plastic waste. the amount of plastic they make in the production process.
- Tontoton pays scavengers to collect the low-value plastic; This plastic is bagged and transported to the mainland, then transported to the Ecocycle cement plant in Kien Giang. Here, plastic orphan will be converted into energy for cement kilns.

3.Achievements

Based on the Operational Impact report of Tontoton in October 2022, 1877 tons of all types of mismanaged plastic were collected in the first 10 months of 2022. Three collection centers in Phu Quoc Island, Hon Son Island, and Hai Phong contributed to reducing 68.02 tons of post-consumer mismanaged plastic collected from the coastal environment and created more jobs for local people (50 plastic collectors with 100% women).

Case study 7. Using trash trapper installed in river to collect waste[22]

[21] TONTOTON (2022). Operational Impact Report: October 2022. https://tontoton.com/wp- content/uploads/2022/ 12/October-2022-Monthly-Operational-Report-.pdf.

[22] World Bank. (2022). Toward a National Single-use Plastics Roadmap in Vietnam: Strategic Options for Reducing Priority Single-use Plastics. East Asia and Pacific Region , Marine Plastics Series;.© Washington , DC : World Bank.http://hdl.handle.net/10986/37692.

1.Location: Giao Thuy, Nam Dinh province

2.Description:

- Conducted studies on topographical conditions, hydrological regime, flow and social conditions.
- Design of the trash trappers.
- Chose location and got admin permission, the trash trappers were manufactured and installed on the rivers at the selected places.

3.Achievements:

- River trash capture devices have significantly reduced the amount of waste floating in the rivers.
- Pilot site 1: in the period from December 2019 to March 2021, more than 25 tons of waste were collected with about 48% plastic of the total amount of non-biodegradable waste.
- At pilot site 2, from February 2021 to the end of March 2021, more than 485 kg of waste was collected by river trash capture device, of which recyclable wastes accounted for 14%.
- The trap can be easily adjusted with details to suit different locations. It can be suitable for many different conditions of the Vietnamese river.
- Vietnam has 2,360 rivers which 93% are short and small rivers. Most of those are inter-provincial waterways and can apply trash trappers. Using trash trappers could reduce a large amount of plastic waste from land to sea.

Case study 8: Waste assessment and brand audit in 7 coastal areas of Vietnam[23]

1. Location: Vietnam

2. Description

[23] Vietnam Zero Waste Alliance. (2020). The Vietnam waste assessment and brand audit report 2018-2020 highlights and recommendations for initiating zero waste in Vietnam.

- In 2018-2020, the member organizations of the Vietnam Zero Waste Alliance undertook a solid waste auditing effort.
- Generated foundational data for the pursuit of the right solutions to Vietnam's solid waste problems.
- Residential communities in seven coastal areas (Ha Long, Nam Dinh, Da Nang, Sa Huynh, Cu Lao Cham, Hoi An, and Phu Yen) participated in the audit, as did twelve hotels, nine restaurants, two schools, and six tours.
- In all, 16,730kg and 108,787L of waste were sorted, including almost 55,000 branded pieces of plastic. Weight, volume, and composition information was recorded for all wastes, as well as brand of origin for all plastic.

3. Achievements:

- The assessment and brand audits found out that >80% of Vietnam's waste doesn't need to go to landfill - it can either be composted (75.7% of the waste in our audits) or recycled (12.2% of the waste in our audits)
- Of the remaining waste, over half (55%) is accounted for by plastic bags (36%) and single-use plastic packaging (19%).
- Coca- Cola, PepsiCo, and Nestle Companies were found to be the top 3 corporate contributors to plastic waste when results from all locations and audit types were aggregated.
- Vinamilk and Acecook were identified as the top corporate contributors to household plastic waste.
- A considerable amount (upwards of 40%) of plastic sold in Vietnam is unlabeled.

Case study 9: Reduce land-based sources of ocean plastics pollution through MWRP, supported by USAID[24]

1.Location: Hoi An and Cham Islands Vietnam

2.Description:

[24] USAID. (May 2020). Partnering with cities to reduce ocean plastics The municipal waste recycling program. https://urban-links.org/wp-content/uploads/20200608-USAID-MWRP-Fact_Shee t.pdf

- To reduce ocean plastics pollution, USAID collaborated with local and national governments, businesses and civil society to implement SWM and recycling solutions in four Asian countries: Indonesia, the Philippines, Sri Lanka, and Vietnam.
- MWRP's grants strengthen local stakeholders' capacity to effectively manage solid waste and expand recycling through mechanisms that promote social inclusion, empower women and youth, support independent waste collectors, and generate jobs and economic growth. USAID's funding has supported applied research to identify locally appropriate technology and improve decision- making processes for urban SWM and recycling. MWRP bolsters the private sector to implement market-driven solutions to reduce ocean plastics pollution and to strengthen the recycling value chain.
- In Vietnam, the MWRP provided a grant to the Global Alliance for Incinerator Alternatives Philippines Inc. (GAIA) to improve SWM and recycling practices in the Cam Thanh commune (a ward of Hoi An) and in the Cham Islands, a UNESCO designated global biosphere reserve, and the Cham Islands.
- With the support of the project, local governments have developed ten-year SWM and recycling plans "Zero Waste" model and strengthened local organizations' capacity to implement localized "Zero Waste" programs. Door-to-door training to households, businesses, and other community stakeholders on waste separation was delivered to improve the recycling value chain. Over 2,000 households were trained to improve waste separation at source.

Case study 10. Monitoring and assessment program on plastic litter in Vietnam shoreline (IUCN production, supported by SIDA and US FWS)[25]

1.Location: Vietnam

2.Description:

Monitoring surveys and assessing the beaches' debris items were developed to achieve the goal of developing a standard method for monitoring plastic pollution and assessing the state

[25] Chu, T.C., Bui, T.T.H., Nguyen, T.T.T., Nguyen, M.Q., (2021). Monitoring and Assessment programme on plastic litter in Viet Nam shoreline - Report 2020. Hanoi, Viet Nam. IUCN: Viet Nam Country Office. 42pp.

of waste pollution and plastic waste on beaches. This can be considered one of the first quantitative studies on plastic waste in coastal areas of Vietnam.

3.Achievements:

- The average amount and mass of waste found on survey beaches was relatively high, reaching an average of 63.25 (pieces/m) and 1.04 (kg/m). Specifically, plastic debris accounted for a huge proportion in terms of number (92%) and mass (58%). In the composition of plastic waste, plastic waste that originated from fishery activities (aquaculture, fishing, trading, etc) accounted for an overwhelming proportion (44.8% in terms of number, 47.6% mass), followed by single-use plastic products (26% number, 26% mass) and plastic generated by other activities (21% number, 12% mass).
- The first survey in 2019 had the highest number of waste items, followed by the fourth survey, and the third survey had the lowest number of items. The number and mass of waste on the beaches during the northeasterly monsoon season is similar to that of the southwesterly season.
- Southern beaches (beaches from Hai Van Cape to the end of Kien Giang) had a higher waste mass than the Northern beaches, however, this is not a statistically significant difference.
- There were statistical differences in the number and mass of plastic debris on the beaches, with the beaches on coastal islands having the lowest number and mass among all the beaches. The average amount and mass of waste on coastal islands were lower than that of the other two location categories. The beaches of Ly Son and Nha Trang have higher numbers and mass of waste compared to the beaches in other localities.

Case study 11. The failure of household waste classification in Hanoi[26]

[26] JICA. (n.d.). Project for Implementation Support for 3R INITIATIVE in Hanoi City to Contribute to the Development of a Sound Material-Cycle Society (3R-HN). https://www.jica.go.jp/Resource/vietnam/english/activities/activity15.html#:~:text=In%20November%202006%2C%20URENCO%20and,in%20four%20districts%20within%20Hanoi.

However, it has been recognized that there are many failures in waste management in Vietnam. One of those failures is the failure in household classification in Hanoi. Article 79 of the Law on Environmental Protection in 2020 stipulates that localities must classify domestic solid waste discharged from households and individuals by December 2024; However, until now, almost solid waste in Hanoi has not been sorted at home. All kinds of waste have been collected and dumped in landfills. The city used to have a pilot project to separate solid waste at source, known as project 3R-HN funded by JICA. At first, the project set the target to contribute to developing Hanoi as a sound material-cycle society. Under the project, four model areas were created in Hanoi, where waste was separated and then collected or composted. Hanoi citizens were provided the knowledge on 3Rs (Reduce, Reuse, Recycle). A strategic paper was being prepared toward improving the urban garbage collection system through discussion by a wide range of stakeholders and involved partners. The project received a lot of positive feedback from Hanoi citizens and is expected to bring a brighter future to the 3R movement. However, the project had to stop in just three years after JICA cut the program's funds. Most street bins were too small, causing garbage to overflow onto the streets. Additionally, outdated garbage trucks result in garbage water flowing into the streets. There are also no separate vehicles for different waste types, leading citizens to revert to their old mixing habits.

Lesson learned:

- The successful implementation of household waste classification requires the synchronization of infrastructure. The lack of separate vehicles for different waste types in Hanoi, small bins on Hanoi's streets, and outdated garbage trucks leading to wastewater must be addressed in the 3R-HN issue. In urban areas, Standard trash cans of adequate size must be available. Garbage collection trucks should be improved to avoid environmental pollution. Two parallel trucks are required to collect two types of classified garbage.
- It is essential to obtain the consent of all stakeholders involved. Despite citizens continuing to sort waste at home in the 4 pilot areas of 3R-HN, environmental companies collected all kinds of waste together, resulting in wasted efforts from households. To tackle this issue, the local authority needs to develop a comprehensive plan outlining the responsibilities of all stakeholders.

- Allocating finances for 3R activities is imperative. The budget for collection vehicles, compost facilities, human resources, education training, etc. should be developed in detail in the master plan of the city/region.
- It is necessary to enforce the regulations related to garbage segregation strictly. There were fines for not sorting garbage, but no preparation was made for their implementation.

6.RECOMMENDATIONS FOR CAPACITY DEVELOPMENT FOR STAKEHOLDERS FOR PREPARATION AND PARTICIPATION IN THE DEVELOPMENT OF THE GLOBAL AGREEMENT ON MARINE DEBRIS POLLUTION

6.1. Questionnaire on demands to improve the capacity in plastic waste management

6.1.1. Description

UNEA has taken steps to address the issue of plastic pollution by passing several resolutions. One of these resolutions was to establish an Ad Hoc Expert Group (AHEG) on marine litter and microplastics, which will identify response options at the national, regional, and international levels. Additionally, other organizations such as the Basel Convention, SAICM, IMO, WHO, WTO, and Regional Seas Programs and Conventions are also conducting work related to marine litter and microplastics. Although there have been many voluntary initiatives targeting marine litter, public-private partnerships addressing land-based sources of marine pollution, and dialogues regarding plastic pollution, regulatory frameworks aimed at these issues still have gaps (IISD, 2022)[27].

In a milestone decision, UNEA passed resolution 5/14 in March 2022 to end plastic pollution. The resolution set up an INC to create an international legally binding instrument (ILBI) that would address the issue of plastic pollution. INC1 took place in Uruguay from 28 November to 2 December 2022, organized to raise awareness and find effective solutions to combat plastic pollution. They also opened a multi-stakeholder forum, held on 26 November 2022, for stakeholders to share information and activities related to plastic pollution.

The participants at INC1 focused on various organizational matters, including the election of officers and the adoption of rules of procedure and agenda. However, the key objective was to prepare an ILBI on Plastic Pollution, and delegates were given the opportunity to discuss their priorities for the INC process. This included exploring the scope, objective, and structure of the ILBI. At INC1, the discussion also covered core obligations, control measures, voluntary approaches, NAPs, monitoring and evaluation, and national reporting. INC2, which took place in Paris from 29 May to 2 June 2023, continued the work on officer selection, organizational matters, and ILBI preparation. In sessions, delegates were asked to raise their voices on core obligations such as *phasing out and/or reducing the supply of, demand for, and use of, primary*

[27] https://enb.iisd.org/sites/default/files/2022-12/enb3607e.pdf

plastic polymers, reducing microplastics, and strengthening waste management (UNEP, 2023)[28].

Based on contents of sessions in previous INC, it is important to equip Vietnamese delegates with knowledge and skills for upcoming INC discussions, particularly in light of Prime Minister's approval of Vietnam's participation in building a global agreement on ocean plastic pollution (Decision 1407/QD-TTg). To assess necessary staff competencies for negotiations, a questionnaire has been developed. Survey results will be used to consult with agencies responsible for capacity building of Vietnamese representatives, allowing them to participate in negotiation sessions with adequate preparation actively.

In order to achieve our goals, the consultant team collaborated with GIZ and government personnel to determine the essential skills required for delegates. After reaching a consensus, our consulting team categorized these skills into distinct areas:

- Ability to develop legal documents with the participation of stakeholders.
- Network cooperation capacity
- Organizational and institutional capacity
- Personal skills

Besides, knowledge needs to be prepared has been proposed including:

- Information on background of the negotiation process.
- Prioritizing issues in VN, and negotiating parties.
- Factors affecting negotiation: national security, army, diplomacy, borders, planning.
- Summary of commitments on plastic waste for Vietnam.
- Summary of policies, regulations on plastic wastes in Vietnam.
- Information on marine plastic waste: quantities, composition, leakage and discharging amounts.
- Recommendations on solutions an road map for implementation.
- Options for negotiations, plan and road map for the next INCs

[28] https://wedocs.unep.org/xmlui/bitstream/handle/20.500.11822/42205/2304072English.pdf?sequence=8&isAllowed=y

The questionnaire includes inquiries regarding the current state of plastic waste management, aimed at evaluating the respondent's level of knowledge on the subject. Our findings will indicate a need for improvement or categorization of this knowledge. Therefore, we have split the survey into two sections: Plastic Waste Management Status and Capacity Demand for Plastic Waste Management. The necessary inquiries are outlined in Table 4.3. We were planning to interview:

- Officials of agencies developing and approving policies on plastic waste such as MONRE, MPI, MOFA, MOIT/ Department of Energy Saving and Sustainable Development, MOC, etc.
- Officials of stakeholders implementing and enforcing plastic waste policies: VASI, VEA, ICD, Legal Department, etc.
- Officials are working with agencies in provinces and participating in plastic waste management such as DONRE, DARD, DOC, etc.
- Representatives from institutes, NGOs, businesses, etc. are active in the field of plastic waste.

The questionnaire has been customized according to the background of the representatives. For interviewees from government agencies, the questionnaire includes relevant questions related to solid waste management. However, for enterprises and NGOs, those questions were excluded. Instead, we focused on their opinions regarding the current state of waste management and the challenges they face while implementing regulations related to plastic waste (Table 6.1).

Table 6.1. Key questions in a questionnaire on capacity demand of plastic waste management

No	Content	Question
A	**Plastic waste management status**	
1	Status of waste in Vietnam/locality	Do you have information on the volume of domestic solid waste in Vietnam/locality in the area in charge?
		For solid waste coming from other sources, please indicate the largest volume of waste?
2	What is the most significant volume of garbage from which source? rough estimate?	

3	Current status of plastic waste management in Vietnam (or the locality in charge)	
3.1	Human resources for plastic waste management	*Which agencies are involved in plastic waste management (central level, local level, association, etc.) and their role? Do the above agencies have specialized departments or roles in plastic waste? Is there a need to add functions for plastic waste management and monitoring?*
		Are the agencies involved in plastic waste management working together to manage plastic waste?
		Method of coordination (if any) in plastic waste management(meeting/workshop/focal agency report, etc.)
		What should be improved the coordination between agencies when managing plastic waste? (establishing a management board, which specifically divides the functions and duties of each department, etc.)
3.2	a. Are any documents regulating plastic waste management at the central/local level?	*Has the development and issuance of the above documents consulted and integrated the opinions of local communities and civil society organizations and associations? If not, please suggest solutions to make the consultation process more efficient?*
3.3	The situation of sorting plastic waste in your locality?	
3.4	The situation of local plastic waste collection	

3.5	The situation of handling plastic waste locally	*Do you see plastic waste drifting into water sources (such as canals, ponds, rivers, streams)? Precisely where in the locality?*
3.6	Information on monitoring and evaluation of ocean plastic waste	*What model/method/guideline does the assessment/monitoring use to assess ocean plastic waste?*
		Difficulty in using these methods
3.7	What actions have localities taken to achieve the goals in the National Action Plan on ocean plastic waste to 2030?	*Briefly list advantages and challenges in implementing key tasks. (eg, advantages: Clear action plan and regulations, challenges: lack of manpower, overlapping departments, etc.)*
3.8	Do you know that Vietnam has joined any international conventions, treaties and agreements on plastic waste management?	
3.9	According to you, the support of international projects and organizations (if any) should be prioritized on what content/issues in tare in managingstic waste and waste in general (for example, support to increase energy consumption). resources, develop effective waste treatment models, connect and develop networks, etc.)	
B	**The need to improve capacity for negotiating, participating in the development and signing of the Treaty to End Global Plastic Pollution**	
1	What capabilities should participants in the negotiation,	

	formulation and signing of the Treaty be equipped with?	
2	Knowledge and input need to prepare for the negotiation round	
3	Your proposal on the role and organization of the delegation in the negotiation round (For example, MONRE is in charge of the general coordination of consultation contents, the Ministry of Industry and Trade is responsible for the negotiation parts. related to the operation of enterprises, manufacturers, etc.)	

6.1.2. Results of the questionnaire

Questionnaires were sent to state agencies, businesses, NGOs, and research institutes working in the field of plastic waste through VASI's dispatch. At the same time, the consulting team also directly met with representatives of agencies such as the Environmental Pollution Control Department, Vietnam Administration of Seas and Islands (VASI), and DONRE Soc Trang. Information on the respondents is shown in Table 6.2.

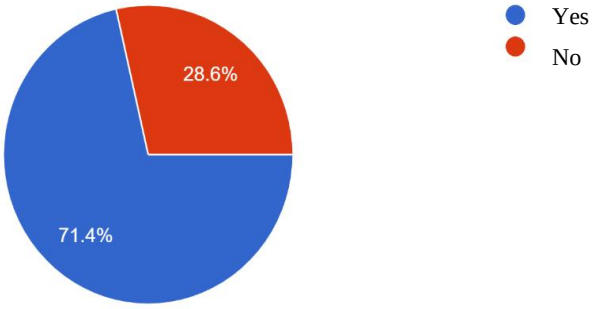
Table 6.2. Information of respondents

No	Name of respondent	Name of organization/agency
1	Nguyen Thanh Yen	Department of Environmental Quality Management, Environmental Pollution Control Department, Ministry of Natural Resources and Environment
2	Luu Linh Huong	Ministry of Construction
3	Le Thi Hanh	Department of Natural Resources and Environment, Thua Thien Hue Province

4	Nguyen Thi Huynh Nhu	Environmental Protection Sub-Department, Kiên Giang province
5	Nguyen Thanh Lam	Domestic Solid Waste Management Division, Environmental Pollution Control Department
6	Nguyen Ngoc Son	The Vietnam Agency of Seas and Islands, Head of the Department of Management of Basic Investigation of Seas and Islands
7	Do Van Sen	Head of Marine Resources Control and Environmental Protection Department, The Vietnam Agency of Seas and Islands
8	Pham Van Tung	EPA, DONRE Soc Trang
9	Le Anh Thang	Director of Center for Planning and Investigation of Marine Resources and Environment in the Northern Region (CPIM)
10	Cao Vu Hung	Director of Invitek Company
11	Cao Quoc Thang	Lam Tran Plastic Recycling Joint Stock Company - Head of Import-Export Department
12	Vo Van Phu	Waste Treatment Branch - Binh Duong Water - Environment Joint Stock Company
13	Le Thi Tan	CCBO Program, Program and Administration Specialist
14	Pham Minh Chinh	Lecturer - Hanoi University of Civil Engineering

Current situation on solid waste management

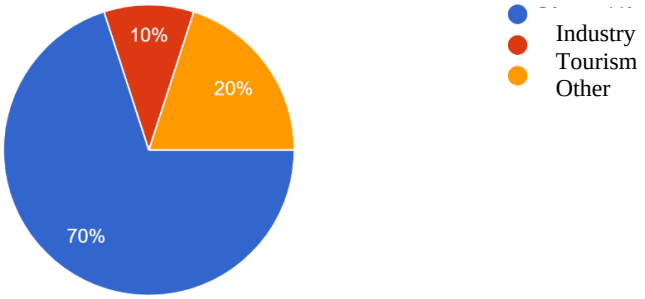
Do you know the amount of domestic solid waste in Vietnam/your local area?



Interview results showed that 71.4% of respondents understood the volume of household solid waste in Vietnam or the locality in charge. Among them, 4 people provide information about the amount of waste nationwide, the rest provide information for provinces such as Hanoi, Soc Trang, Thua Thien Hue, and Binh Duong. Information based on interview of only 4 peoples, the data on waste per capita in rural and urban areas are given differently on average from 0.35 kg/person/day - 0.75 kg/person/day in rural and urban areas is 0.62 kg/person/day - 1.08 kg/person/day. This fact suggests there are shortcomings in the current waste management system when the amount of waste per capita nationwide has not been updated (the official data on the waste situation mentioned in the 2019 National Environmental Status Report may be outdated).

What is the largest contributor to the total solid waste, except for domestic

10 responses



A similar situation occurred with plastic waste, where four national data providers gave different answers, ranging from 6-20%. The representative from Soc Trang said that, based on the results of the Task to develop a thematic report on the current status of plastic waste generation in Soc Trang province in 2021, and according to the actual survey results, the rate of plastic waste accounting for 9.17% of landfills in urban areas; The proportion of plastic waste accounts for 7.42% in commune landfills. A representative from Thua Thien Hue province provided that the plastic waste figure of 8.2% was taken from the overall project of solid waste collection, transportation and treatment of Thua Thien Hue province. When asked which source the largest amount of solid waste comes from, 70% of respondents said it comes from industry, 10% said it comes from tourism and 20% said it comes from other sources, for example agriculture. When asked to estimate the amount of waste, the most of people could not provide data because they did not know or believed that there was no specific calculation data.

Perspectives on domestic solid waste management

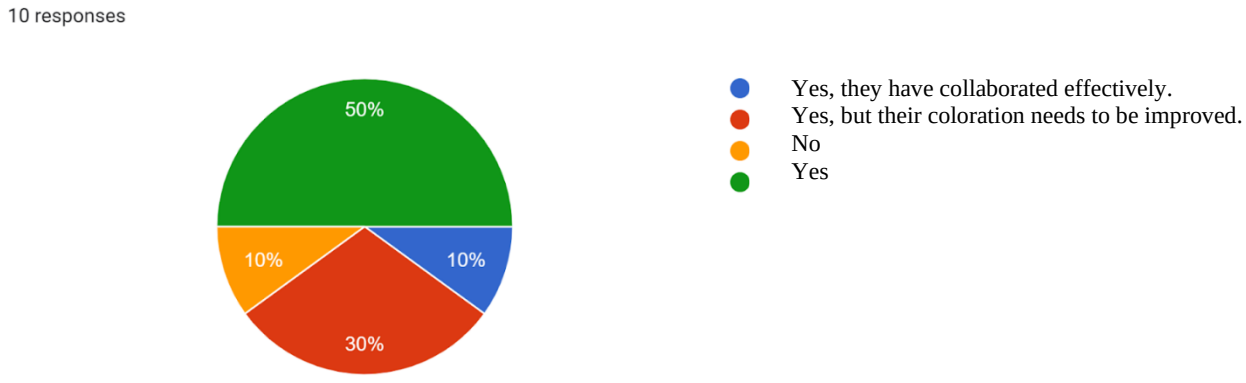
When being asked if plastic waste pollution is a matter of concern in Vietnam, 71.4% of people answered yes and 21.4% said it was very urgent. 13/14 people said MONRE is mainly responsible for managing and monitoring plastic waste and promulgating tax and environmental protection fees (including plastic waste) regulations. 2/14 people shared details about the roles of other ministries and departments. For example:

- Ministry of Construction: Management and control plastic wastes releases from activities in the field of construction.
- Ministry of Finance: Support promulgating tax rates and environmental protection fees including plastic wastes.

- Ministry of Agriculture and Rural Development: Management and control plastic wastes from activities: Manage and monitor plastic waste from activities in the field of agriculture and rural development.
- Ministry of Industry and Trade: Support in managing and monitoring plastic waste.
- People's Committee of province/city, district, commune: Receive direction from central levels to issue decisions on management and supervision of plastic waste.
- Department of Natural Resources and Environment: Mainly responsible for managing and monitoring plastic waste in the province.
- Department of Construction: Manage and monitor plastic waste from construction sector activities in the province.
- Department of Agriculture and Rural Development: Manage and monitor plastic waste from activities in the field of agriculture and rural development in the province.

The collaboration among agencies taking responsibility for waste management.

Have waste management agencies worked together?



50% of respondents suppose that agencies involved in plastic waste management coordinate with each other, 30% of respondents chose “yes” but need improvement the coordination, 10% said yes and very effective, 10% said there is no support yet. Regarding the coordination manner, respondents said that the agencies often organize seminars or send reports to focal agency to share results on waste management. Many agencies also coordinate with each other by co-organizing programs on collecting, recycling, and reusing plastic waste. When they were asked “what needs to be improved in coordination manner of the agencies, respondents' opinions were diverse, including:

- There is a need for a focal agency, and there needs to be closer linkages and coordination among plastic waste projects in Vietnam to achieve the common goal of reducing plastic waste. Currently, plastic waste projects, which have been implementing in Vietnam are funded from different funds, donors. The projects do not have a strong connection, leading to low efficiency.
- Clearly define the functions and duties of departments
- Avoid overlapping tasks and functions of agencies and departments in plastic waste management.
- Stakeholders should report information related to manufacturing plastic products and plastic waste generation once a year to the focal agency.
- Should develop only focal point agency of plastic waste management and appoint specific responsibilities for each department under the agency.
- Proactively develop plans and exchange information

What priorities should international projects and organizations support for plastic waste and garbage management in Vietnam?

9 respondents gave different opinions but mainly focused on:

- Technology and technical support
- Technology transfer
- Develop technical guidelines; Develop models for collecting and recycling plastic waste
- Support in technology, science - engineering, equipment, etc
- Support to develop/provide solutions of new materials that are friendly, sustainable and low cost
- Strengthen capacity to investigate and evaluate marine plastic waste
- Develop plans and accompany in the implementation of plastic waste reduction.
- Financial support
- Connect and develop networks for sharing initiatives
- Financial and technical support to seriously investigate and evaluate marine plastic waste, to build a reliable, and official database

It is worth noting that Vietnam's position as one of the leading contributors to plastic waste in our oceans may not be entirely accurate, as shared by a government staff working in plastic waste

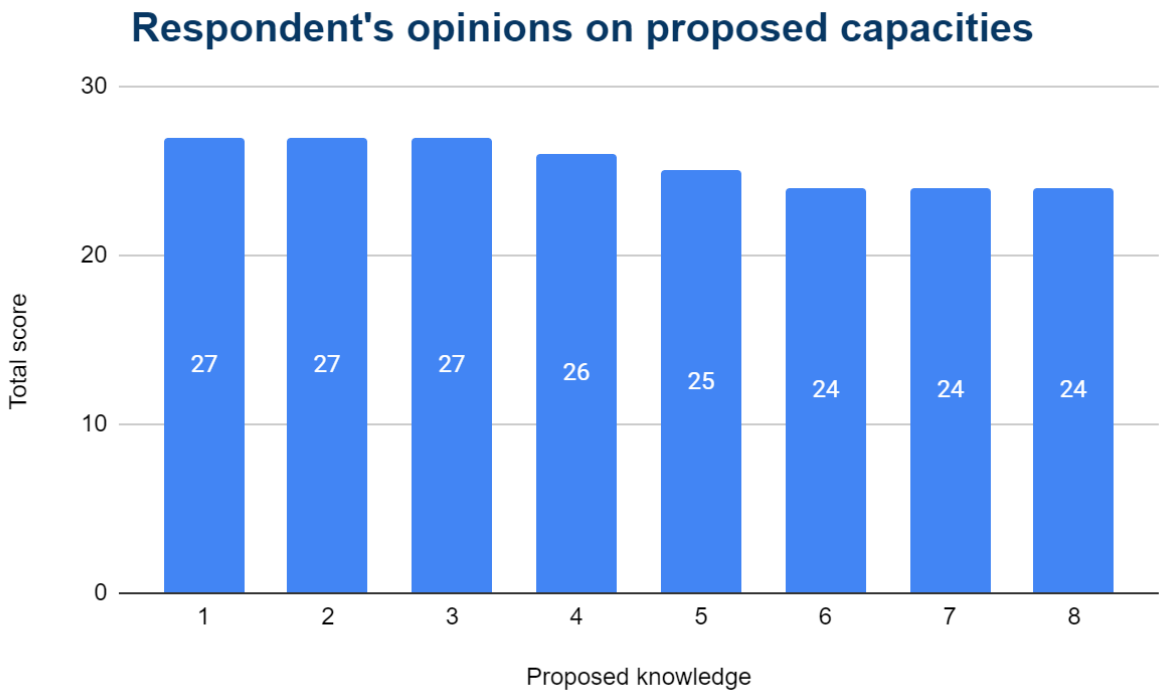
management. This is due to the fact that the Ministry of Natural Resources and Environment, the primary agency responsible for monitoring marine plastic litter, has yet to establish an official database. Without this key information, it is challenging to make an informed assessment of Vietnam's impact on plastic pollution. Therefore, it is essential to avoid passing overly harsh judgments on Vietnam based on incomplete or unreliable data.

Investigation and monitoring of plastic waste

It is widely believed that plastic waste in Vietnam is not being monitored on a national scale, but rather on an individual project basis. According to a representative from VASI, the Ministry of Natural Resources and Environment is still finalizing the draft of a circular on technical regulations for investigating marine plastic waste. Once the circular is issued, it will serve as the foundation for investigating marine plastic waste in Vietnam. Respondents provided varying estimates for the annual amount of plastic waste in Vietnam, indicating the need for a standardized plastic waste monitoring method. Respondents also proposed different suggestions for monitoring plastic waste in Vietnam such as classify and evaluate in some coastal provinces with a lot of plastic waste or using some methods such as remote sensing technology, models of material flow analysis of plastic waste, and 2D maps to show the distribution of marine plastic waste.

While respondents acknowledged the importance of detailed ocean plastic waste investigation and assessment guidelines from the Ministry of Natural Resources and Environment (MONRE), they also highlighted the crucial role of organizational and institutional capacity as well as personal skills. Specifically, respondents stressed the need for the capacity to assess the current state of plastic waste management, the ability to develop a report on the current status of plastic waste, the capacity to train and guide localities to effectively use models, and the ability to implement, enforce, and monitor policies and laws on plastic waste classification, collection, and recycling. Furthermore, most respondents suggested enhancing the management capacity of Producer Responsibility (EPR).

The need to improve capacity for negotiating, participating in the development and signing of the Plastic Pollution Treaty



From top to bottom:

1. Information on the background of the negotiation process.
2. Prioritizing issues in VN, and negotiating parties.
3. Factors affecting negotiation: national security, army, diplomacy, borders, planning.
4. Summary of commitments on plastic waste for Vietnam.
5. Summary of policies, regulations on plastic waste in Vietnam.
6. Information on marine plastic waste: quantities, composition, leakage and discharging amounts.
7. Recommendations on solutions a road map for implementation.
8. Options for negotiations plan and road map for the next INCs

The following is a list of priorities for the knowledge and information that needs to be prepared for the negotiation rounds. According to the respondents, the background of the negotiation process, issues prioritization in Vietnam, negotiating parties, and factors affecting the negotiation, such as national security, army, diplomacy, borders, and planning, need to be the top priorities for training.

In terms of the negotiating team, all respondents agreed that the Ministry of Natural Resources and Environment (MONRE) should take on a leadership role in coordinating the negotiation contents while other ministries, such as the Ministry of Industry and Trade, which is responsible for negotiations related to the activities of businesses and manufacturers, and the Ministry of Finance, should participate in sessions related to financial issues.

6.1.3. SWOT analysis on the institutional capacity of Vietnam in preparation and participation in the development of the Global Plastic Pollution Treaty

Table 6.3. SWOT Analysis on the institutional capacity of Vietnam in preparing and participating in Global Plastic Pollution Treaty

Strengths	Weaknesses	Opportunities	Threats
- Vietnam has been proactive and focused on preparing and participating in building a global plastic pollution Treaty through Decision No. 1407/QD-TTg in 2021. These tasks under the Decision include covers necessary elements and contents including building capacity, collecting information, establishing databases, allocating resources for negotiation preparation, establishing coordination mechanisms, and mobilizing national and international support, and strengthening national roles and responsibilities.	- There are no specific regulations to manage and handle violations related to plastic waste (Currently, plastic waste is being managed as solid waste). There are no guidelines on assessing the current status of plastic waste, leading to a lack of a unified and reliable database on the current status of solid waste/plastic waste in Vietnam. - The coordination between ministries and branches is not really close and effective. About 50 % of surveyed opinions show that agencies have not coordinated with each other in plastic waste management, and	- Some local governments have evaluated the amount of plastic waste in household waste, beaches... on small scale (within projects, pilot activities...). The existing database contributes to creating a premise for continuing to deploy, evaluate and update to build a unified and reliable database through tasks, schemes and projects by the Government. or implemented by domestic and international organizations. - Officials and employees of government agencies and businesses involved in plastic waste management willing and hope to be trained and improved their capacity on relevant	- The capacity of some officials are not fully and comprehensively could leading results which is not as expected in the process of preparing for and participating in developing the Treaty - Incomplete and unreliable data on the current status of plastic waste can lead to inaccurate assessments of the current status of plastic pollution in Vietnam. - The plastic industry in Vietnam and the world is still is developing. Plastic production and consumption are increasing. Leading to difficulties in performing tasks and achieving

Strengths	Weaknesses	Opportunities	Threats
Relevant ministries are assigned responsibilities in preparing and participating in the building the Global plastic pollution Treaty. - Vietnam has became a party, and joined in many international treaties and conventions related to waste pollution management and control, so Vietnam has experience in preparing, participating and building international agreements and treaties. Besides, Vietnam has also built relationships and reputation with countries/organizations in the region and the world. Therefore, Vietnam receives a lot of support/sponsorship in technology, engineering, and finance from developed countries, and international organizations.	this coordination needs to be strengthened. - Decision No. 1407/QD-TTg of 2021 only outlines the goals and tasks for preparing and participating in the development of the Global plastic pollution Treaty, but not mention to financial resource allocation for the organizations for the tasks. Therefore, financial resources are also an issue that needs to be considered. - Many officials in management agencies and businesses related to plastic waste do not know all the regulations on plastic waste management, the current status of plastic waste pollution, and do not know about the global plastic pollution Treaty; - Plastic waste has not been monitored nationwide, official	knowledge to serve negotiations and preparation for building global plastic pollution Treaty. - Plastic waste is a global problem, agencies, organizations in the whole country is paying the attention to plastic pollution -> is an important factor in deciding to avoid the use of plastic products and reduce plastic pollution. - Plastic pollution is an emerging problem that countries in the region and around the world are paying attention to and prioritize to manage and reduce it. - International organizations (GIZ, UNDP, WWF….) have been supporting/sponsoring Vietnam in solid waste management in general and plastic waste in particular, and especially assisting in preparing	the goals set in the Decisions/Plans. - Up to now, there is no product/materials that can completely replace/alternative to plastic products. Furthermore, alternative products will also have a certain impact on ecological, agricultural and environmental sustainability. Therefore, solving plastic pollution will face many difficulties;

Strengths	Weaknesses	Opportunities	Threats
- Members of the team have a knowledge, understanding of the current status of solid waste management, plastic waste and legal regulations on waste management. - Businesses, associations in plastic and packaging industry, and recycling organizations actively participate in plastic waste management. - Vietnam has received technical and financial support from many international organizations.	database of overall status of marine plastic wastes is still not available. - Plastic waste management capacity is still limited, so the proposed list of capacity enhancement proposals received great support from those consulted, covering all areas of the entire waste management activity. plastic - Funding sources for delegations participating in negotiations and technical meetings are limited, mainly depending on sponsorship from organizations; Contributing annual financial obligations within the framework of international and regional treaties/organizations in Vietnam is still low. (For example, Vietnam is a member of PEMSEA, but in recent years	the contents of negotiations and building the global plastic pollution treaty. Vietnam needs to take advantage and mobilize support/sponsorship in terms of techniques, technology, experience, and finance to achieve the goals of reducing plastic waste and carefully prepare for negotiations and participation in developing the Treaty	

Strengths	Weaknesses	Opportunities	Threats
	has not paid annual financial obligations); Funding for implementing Vietnam's obligations and commitments, or for implementing new proposals and initiatives with international treaties is still limited; - The participation of consulting businesses and residential communities is almost non-existent in the process of preparing and participating in agreement negotiations. However, reality shows that policies developed by international treaties have a great influence on businesses. Furthermore, the participation of businesses and communities greatly determines the effectiveness and implementation of the Agreement's commitments.		

6.2. Recommendations for capacity development for stakeholders to prepare and participate in the development of the Global Agreement on Marine Debris Pollution

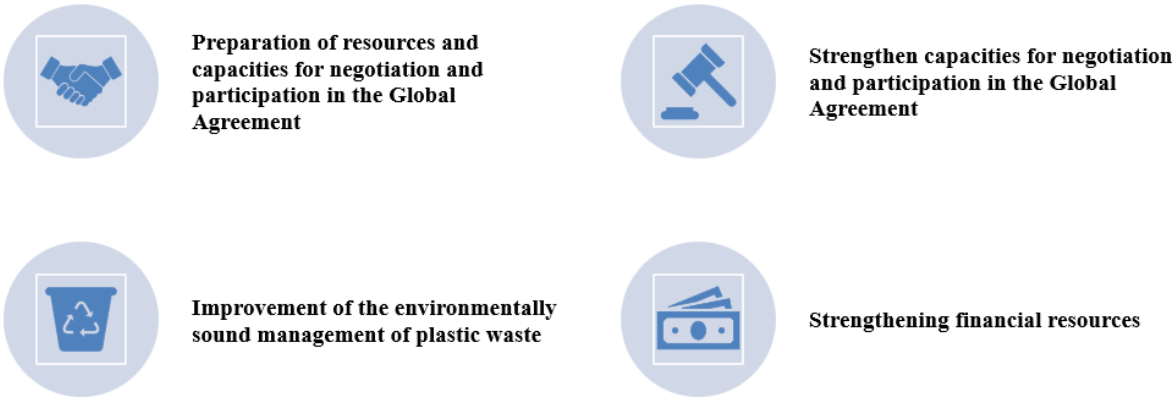


Figure 6.1. Recommendations for capacity development for Vietnam in the preparation and implementation of the global treaty on ocean plastic waste proposed by consultant team

6.2.1. Preparation of resources and capacities for negotiation and participation in the Global Agreement

Strengthening the negotiation capacity and human resources prerequisite in negotiating the Treaty, especially in the current and future periods. To enhance the representatives' capacity to negotiate the Agreement, the proposed solutions provide intensive or online short-term training courses that will foster the ability of those who are:

- National officials of agencies/departments in charge of implementing the regulations on environmental protection and ocean plastic waste management; the officials of national focal agencies participating in foreign affairs and international cooperation activities.
- Managers and technicians directly formulate and implement policies and legal and environmental regulations in the ministries, central agencies, local departments, and agencies.
- Management and technical staff of public and private enterprises compliance with the provisions of the Treaty.
- Lecturers at training centers and institutions at all levels.

- The collaboration between ministries and agencies plays an essential role in the training and capacity building for target audiences to be influential. It is suggested that MONRE should be the primary coordinator to facilitate activities, while MOFA, MOIT, MPI, MOF, and so on support MONRE in doing specific tasks:
- MONRE investigates and evaluates requirements and objectives, creates programs and documents, and offers training to enhance the knowledge and abilities of individuals involved in international negotiations focused on environmental issues, including environmental protection management related to international integration, marine environmental protection, and ocean plastic waste management.
- MOFA assists MONRE in organizing training courses covering negotiation skills, processes, and procedures required for agreement negotiations.
- MOIT, MPI, MOF, and other relevant entities provide support by offering training and refresher courses on professional knowledge and skills needed to implement the Treaty. These courses target managerial and technical staff at all levels and relevant personnel from the private sector.
- The MOJ develops and implements a training program on international law and dispute resolution for staff members to enhance their understanding of domestic and international legal regulations concerning waste management and ocean plastic waste. This training aims to prepare them for participating in agreement negotiations.

6.2.2. Strengthen capacities for negotiation and participation in the Global Agreement

- Capacity to assess the status of plastic waste management and skills to develop reports on the quality of plastic waste, synthesize and analyze information, and establish domestic and international databases to develop methods and negotiation options.
- Capacity to monitor and control plastic waste from source: Consider using remote sensing to monitor waste movement, especially from land to ocean.
- Capacity to promote public-private partnerships in plastic waste management: Currently, the participation of the private sector in waste management in general and plastic waste management is increasing significantly. It plays an essential role in determining the success of plastic waste management. The private sector in plastic waste management includes individuals and groups working in the recycling and waste treatment sectors and

plastic product manufacturers (packaging, bottles, etc.). To achieve the best cooperation, public-private cooperation must ensure the parties' rights, obligations, and respect.

- Capacity to manage Extended producer responsibility (EPR): Compared to the traditional solid waste management approach, EPR involves a shift in responsibility (administratively, financially, and physically) from governments or municipalities (and thus taxpayers) to the entities that make and market the products that are destined to become waste. To this extent, EPR still constitutes implementing the polluter-pays principle (PPP) but induces a change in the definition of the 'polluter.' Whereas in the classical version of the PPP, the polluter was the individual directly causing pollution (i.e., the consumer), within the EPR framework, the polluter is the economic agent who can play a decisive role in avoiding pollution, e.g., through eco-design efforts. The main topics for strengthening capacity include sharing responsibilities and dialogue between stakeholders; cost coverage and true cost principle; fair competition; and transparency and surveillance.
- Management capacity to shift to a circular economy: Stakeholders need to understand the basic principles of the circular economy and its cycle. They are expected to have enough ability to clearly define roles and priorities in each step of the circular economy cycle, mainly focusing more on the product design phase to optimize it and create favorable conditions for the following stages. The circular economy requires research and development in technology, materials, and product design. Therefore, it is necessary to improve research and development capacity to support enterprises in the plastic sector.
- Capacity to implement policies and laws: Vietnam must invest resources to enforce domestic policies and regulations and the contents of regional agreements actively and effectively. In recent years, implementing procedures and laws in the country is still considered weak when facing numerous challenges, from lacking human resources to ineffective inspection and handling of violations. However, up to now, although the activity is popular in Vietnam, almost no individual has been sanctioned for violating this regulation. Therefore, Vietnam should invest in human resources and equipment to effectively implement domestic policies and laws to overcome the weakness.
- This agreement requires specialized and in-depth technical knowledge, so it requires people participating in negotiations, in addition to have specialized skills, to be able to use the English language directly in the negotiation session to convey all the contents

that needs to be discussed and negotiated. Therefore, enhancing the ability to use English is very important.

6.2.3. Completion of the system of policies and legal regulations

Policy instruments are crucial in creating a practical framework and legal conditions for addressing marine plastics. In response to the global issue of ocean plastic pollution, numerous countries and organizations have taken steps to address the plastic crisis. These actions have had a significant impact in encouraging other nations also to take measures to tackle the problem. The government of Vietnam, recognizing this trend, has been actively formulating policies and action plans concerning plastic waste management. It is recommended that Vietnam's policies and legal framework be continuously updated, developed, and strengthened to a higher degree. This is necessary to ensure consistency and uniformity, meet stringent enforcement requirements, and fulfill the country's commitments to addressing ocean plastic waste. Policies and legal regulations related to ocean plastic waste should align with the global trend of international integration while also adhering to international standards. The development and completion of standards for ocean plastic waste should be prioritized, addressing the actual needs and promoting international economic integration through international trade activities.

Surveys of officials in charge of environmental management of ministries, provincial Departments of Natural Resources and Environment, and businesses show that it is necessary to develop more detailed legal documents and provide technical instructions; organize activities to strengthen capacity to guide policy implementation, capacity to monitor plastic waste, etc.

Based on opinions collected through surveys related to policies and laws, the following measures can be recommended:

- Develop policies, laws, and financial and economic tools to manage waste based on its life cycle. The target is to reduce the amount of solid waste generated and increase reuse, recycling, and treatment.
- Establish standards and methodologies for measuring and monitoring marine plastic, microplastics, and marine plastic waste collection.
- Develop the Guideline of Financial Mechanisms for Investments in Plastic Waste Management to provide guiding principles for promoting investments in plastic waste

management. The guidebook will focus on mechanisms for plastic waste management and should cover at least the following contents: EPR fees and eco-modulated fees, deposit refund schemes; waste fees mechanisms for waste collection; data reporting and audits; other financial instruments supporting plastic waste prevention, separate collection, and recycling tax; Public-Private Partnership contracts; and explain steps needed for implementation of cost recovery mechanisms, assessment of financial and administrative resources required per option and affordability for the population.

- The issue of single-use plastics is significant due to their extensive consumption, leading to massive amounts of waste in a relatively short period. More policy initiatives are necessary to address the problem of single-use plastic items, focusing on the symptoms and the underlying causes that have fostered a culture and habits of disposable item usage. These policy efforts can have an immediate and positive impact, significantly reducing plastic waste.
- Encouraging the market for sustainable plastics and alternatives: To foster the growth of a market for recycled plastics (through mechanical and chemical recycling), specific quality standards are required to ensure that the recycled plastics are safe and suitable for use as raw materials. Standards are also needed for separately collected and sorted plastics to demonstrate that they are sufficiently clean and uniform to meet the requirements of recycling facilities. Establishing quality standards for both sorted plastics and recycles is crucial to enhance confidence in recyclers and promote using recycled materials.
- Developing economic and technical waste collection and treatment norms, including collection strategies for the ocean.
- Establishment and strengthening of interdisciplinary coordination and cooperation mechanisms: Vietnam has been deeply and broadly integrated with the world in the environmental field through its participation and membership in many international treaties as described in Chapter 2. Surveys and assessments show that preparation and participation in the Agreement requires close coordination and cooperation among relevant agencies and organizations at all stages.
- Establishment of mechanisms to mobilize and enhance enterprise participation and contributions: Effective enforcement of the legislative policies on plastic waste management, ensuring serious and effective implementation of the contents of the

Agreement largely depends on the participation of resource contributions and promoting the responsible role of private enterprises in the process of environmental management. Therefore, when implementing the Agreement, it is necessary to take into account the establishment of mechanisms to promote and encourage, create an enabling environment for the development of the role and responsibility of enterprises, allowing the participation and contribution of private enterprises in the management of the entire life cycle of plastic products, especially through forms such as public private partnership (PPP), extended producer responsibility (EPR), circular economy.

6.2.4. Strengthening financial resources

Financial resources allocated for state management agencies in international integration and environmental cooperation are mainly used for the following activities:

(i) negotiation and integration (with new frameworks expected to join), (ii) maintaining the enforcement of annual and regular obligations (within international frameworks of which Vietnam is a member), and (iii) enforcing policies and laws (which have been internalized and legislated from committed obligations).

Tasks and solutions for investing financial resources to strengthen Vietnam's enforcement capacity in the Global Agreement on Ocean Plastic Waste will be towards supplementing and allocating appropriate funding sources for activities:

- Perform annual and regular obligations in the Agreement.
- Build and maintain the operation of the information system and database of the Agreement, which supports the management, reporting, and decision-making of the management agencies and provides information for enterprises.
- Provide training and capacity building for staff participating in international cooperation, especially those negotiating and implementing the Agreement.
- Provide support to delegation joining and working in the negotiation process, attend technical meetings and annual meetings of the Agreement.
- Contribute to funds, regional and international programs, and projects to tackle global, regional, and national plastic waste problems.
- Contribute to and implement regional and international proposals, initiatives, programs, and projects initiated and hosted by Vietnam.

6.3. Plan and roadmap of the participation and negotiation of the Global Agreement on End Plastic Pollution

Figure 6.2. Roadmap of the participation and negotiation of the Global Treaty on End Plastic Pollution proposed by consultant team

6.3.1. Capacity building for negotiation preparation

- The MONRE surveys and assesses the current capacity situation and capacity demand of representatives and supporting staff in negotiation.
- Develop and implement training programs on the status of plastic production, use, and emission; Status of plastic waste management and plastic pollution in Vietnam; Domestic laws and international agreements that Vietnam has signed; Negotiation skills, processes, and procedures when participating in the negotiation of the Global Agreement on Ocean Plastic Pollution.
- Research, analyze, and evaluate the advantages and challenges when Vietnam participates in negotiating the Global Agreement on ocean plastic pollution.
- Analyze and develop negotiation scenarios and options for Vietnam when participating in the Global Agreement on Ocean Plastic Pollution negotiation process.
- Allocate sufficient financial resources for formulating and collecting information and data for the Agreement's construction.

6.3.2. Information collection and database setup

a) Review, synthesize, and evaluate international agreements related to plastic waste that Vietnam has signed.

Collect the information on the negotiation context; priority issues in Vietnam, countries participating in the negotiation, and worldwide so that Vietnam can negotiate reasonably and authentically.

b) Review, research, and evaluate domestic legal regulations related to plastic management, which focuses on plastic waste pollution.

c) Collect information from investigations and surveys on plastic waste from projects and programs of ministries, localities and international organizations, and domestic individuals.

d) MONRE develops a form for the report on assessing the status of plastic waste emissions and pollution. It is recommended that the provincial DONRE update the annual report on the level of plastic waste emissions and corruption in the provinces based on the form of the Ministry of Natural Resources and Environment. On that information, MONRE developed a national report on the status of plastic waste.

e) Synthesize, analyze, and evaluate information and data at international forums; synthesize programs, projects, and regional and global initiatives related to ocean plastic waste and propose negotiating orientations for Vietnam.

6.3.3. Establishing a coordination mechanism

a) Establish a Negotiating Team for a Global Agreement on Ocean Plastic Pollution by clearly defining the Team members' roles. Develop and approve the Global Agreement Negotiating Group Working Regulations on Ocean Plastic Pollution.

b) Build a network of stakeholders in the country (ministries, sectors, localities, and relevant organizations and individuals) and assign tasks to relevant ministries:

MONRE is the lead agency of the Working Group/Committee. Leader of MONRE as Head of Committee Members: Government Office, MOFA, MOJ, MOIT, MOF, MPI, MOST, MPS, VCCI, Vietnam Plastics Association …

(1) MONRE is in charge of coordinating relevant agencies to prepare and participate in the development of the Global Agreement on Ocean Plastic Pollution; Develop a national report on ocean plastic waste as a basis for building our orientation in the Agreement negotiation;

Coordinate with the MOJ, the MOFA and other agencies to review, synthesize and evaluate domestic legal regulations and international agreements on the management of plastic waste and ocean plastic waste to prepare for participation in the construction of the Agreement; Coordinate with the MOFA in organizing training courses on negotiation skills for officials of relevant ministries and stakeholders; Implement procedures for proposing negotiation and signing of the Global Agreement on Ocean Plastic Pollution after determining the name, authority and title of negotiation and signing, as well as the essential contents of the Agreement which must be in accordance with the provisions of the Law on International Treaties and the Law on International Agreements.

(2) MOFA should oversee and coordinate with the MONRE in mobilizing countries and international organizations to support Vietnam in the development process of the Agreement.

(3) MARD, MOT, MOIT, MPI, MPS, MOND, MIC and agencies, and People's Committees at province and city levels: Provide information and data on the status of plastic and plastic waste management in their respective fields; Coordinate with MONRE to develop a national report on ocean plastic waste; Contribute to the content to build the Agreement.

c) MONRE shall organize discussions on the Global Agreement on Ocean Plastic Pollution before participating in the INC meeting.

d) After the INC meetings, the MONRE hosts the workshops with the participation of stakeholders to continue sharing the results of the discussion and orientations for the next negotiation.

6.3.4. Mobilization of domestic and international support

a. Vietnam shall prepare funds to participate in cooperation activities with regional and international countries actively.

Currently, cooperation activities in the East Sea on plastic waste are mainly based on the activities of regional organizations such as PEMSEA and COBSEA. Vietnam's implementation of cooperation activities within the framework of these organizations on the issue of plastic waste mainly relies on funding from other countries and international organizations. Therefore, Vietnam needs to allocate the domestic budget and mobilize the participation of domestic organizations and industrial enterprises to actively organize the

implementation of the Declarations and action plans of regional organizations to jointly achieve common goals to combat plastic waste from sources into the sea.

b. **Mobilize resources and enlist support and funding from international organizations to promote research activities, lessons learned, and good practices from countries in the ASEAN and worldwide**. In addition, Vietnam is ready to share information and data with countries in the area and the world on ocean plastic pollution and capacity building for representatives involved in the negotiation.

c. Build and organize a partnership network between the government, private sectors, and organizations related to plastic and plastic waste or effectively support the negotiation preparation.

d. **Calling for the participation and contribution of the private sector in providing/sharing data on the plastic industry**; Participating in survey activities; Contributing to the process of developing scenarios and negotiating plans of MONRE; together with the Government/MONRE to study the conditions of Vietnam and study the roadmap for the implementation of the compulsory obligations in the Agreement; Proposing and commenting on solutions (technology, policies, finance....) for the performance; Participate in resource support (consultation, communication, research, impact assessment, capacity building, technology transfer...).

e. **Promote the participation of Youth Unions, Women's unions, and volunteers in plastic waste collection campaigns in coastal areas, thereby systematically inventorying the amount of plastic waste discharged into the sea**. Organize campaigns to collect garbage and clean up some beaches on a national/provincial scale.

f. **Considerations to involve and improve the role of the Coast Guard and marine ships in observing, taking pictures, and collecting plastic waste.** This way of coordination will be more effective and give more accurate information on the inventory of plastic waste in the ocean.

6.3.5. Strengthening national roles and responsibilities

- Raise awareness and sense of responsibility of ministries and localities which are in charge of and coordinate in the process of negotiation preparation; Integrate propaganda and dissemination of the Agreement in propaganda and dissemination programs in tasks and projects based on Decision No. 1746/QD-TTg dated December 4, 2019, of the Prime

Minister; Investigate, evaluate and develop a national report on plastic ocean waste based on Decision No. 1316/QD-TTg of the Prime Minister on July 22, 2021.

- Strengthen coordination among agencies, between levels and branches, and bilateral and multilateral diplomacy. Develop a plan to organize international forums and seminars to affirm Vietnam's responsibility and efforts in tackling ocean plastic pollution.
- Actively participate in bilateral and multilateral construction and negotiation, with specific contributions of Vietnam, to ensure the interests and suitability of Vietnam's conditions; host international forums, conferences, and seminars on ocean plastic pollution affirming Vietnam's responsibility and efforts in solving global plastic pollution.

6.4. Conclusion

From the content analyzed in the above section, in order for the negotiations of the Agreement in the future to be as effective as possible, ensuring national interests, in accordance with the conditions of Vietnam, the following issues can be considered.

- Allocate sufficient resources, develop specific plans for implementation of the above recommendations, especially solutions related to strengthening the capacity of the negotiating team for the Agreement both in terms of negotiation skills and technical skills.
- Build a complete policy system on the basis of references to the draft framework of the Agreement, and in accordance with the status and resources of Vietnam; develop monitoring and sanctions policies to improve the enforcement of the regulations; Development of coordination mechanisms, coordination of implementation between ministries and related sectors; Develop mechanisms to promote the participation of private and community enterprises;
- Planning and allocating financial resources for negotiating and implementing the agreement. At the same time, the campaign calling and mobilizing of international support for strengthening the negotiating capacity of the staffs involved in the negotiating process, technical and financial support for the process of negotiation and participation in the Agreement.
- Actively coordinate, cooperate with relevant international organizations, promote financial and technical resources, exchange of international expertise and experience in order to strengthen the capacity for negotiation.

- Information and propaganda should be focused on information, full communication of issues related to the Agreement to all sectors and components of the society, in order to create social consensus from the beginning of negotiation.

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Annex 1. List of plastic waste transportation, collection, and treatment units

Units/Businesses	Area	Description
Soc Trang Urban Joint Stock Company Address: 422 National Highway 1A, Ward 2, Soc Trang	Waste collection, transportation, and treatment	Currently, there needs to be a suitable recycling technology. Previously, the factory had a plastic recycling line. However, it is now suspended due to the unsatisfactory wastewater treatment system. Currently, plastic waste at the factory, after being sorted, will be sold to a unit in Ho Chi Minh City.
Soc Trang City solid waste treatment plant Address: Phu My, My Tu, Soc Trang	Treatment	Capacity: 200 tons of garbage/day. Preliminary classification, and separation of plastic, organic and other waste. Organic waste is composted as fertilizer. Plastic waste after sorting is sold to a treatment unit in Ho Chi Minh City.

		Other types buried.
Household waste treatment facility Address: Ken Luu Sen Street, Ward 5, Hamlet 2, City. Soc Trang.	Collection and Treatment	The facility receives plastic waste from the city's waste treatment plant (about 3 tons/day). The facility has about 10 employees. Currently, the facility is applying simple techniques to treat plastics such as washing, chopping, cleaning, and heating and granulating. Wastewater is discharged into a pond located behind the facility and into the city's canals.
Plastic waste business Address: 576 Van Ngoc Chinh, No. 1, Ward 10, Soc Trang	Collection and treatment	Collect all kinds of plastic including bottles, jars, tables, chairs. Plastic bottles are pressed into bales. Other flukes are ground into small pieces. The product is sold to a processing company in Ho Chi Minh City.

		Output: 500–700 kg of plastic/day. In Soc Trang city, there are about 5-7 households dealing in plastic waste.

Annex 2. Phiếu phỏng vấn nhu cầu nâng cao năng lực trong quản lý rác thải nhựa

Phiếu phỏng vấn được thực hiện bởi nhóm tư vấn của GIZ, nằm trong khuôn khổ dự án "Giảm thiểu, tái sử dụng và tái chế để bảo vệ môi trường biển và rạn san hô" (3RproMar) do Ban thư ký ASEAN và GIZ thay mặt Bộ Kinh tế Liên bang Hợp tác và Phát triển (BMZ) triển khai để hỗ trợ các Quốc gia Thành viên ASEAN (AMS) trong việc nâng cao năng lực thực hiện công tác giảm thiểu rò rỉ chất thải từ đất liền để bảo vệ môi trường biển.

Thông tin do người tham gia cung cấp chỉ được dùng cho mục đích nghiên cứu và được bảo mật nghiêm ngặt. Ngoài ra, đối với các trường hợp phỏng vấn trực tiếp, thời gian trả lời phỏng vấn dự kiến là 30-40 phút.

I. Đối tượng

- Cán bộ các cơ quan xây dựng và thông qua các chính sách về rác thải nhựa như MONRE, MPI, MOFA, MOIT/ Vụ Tiết kiệm năng lượng và Phát triển bền vững, MOC, v.v

- Cán bộ các bên liên quan đến thực hiện và thực thi chính sách về rác thải nhựa: VASI, VEA, ICD, Phòng pháp chế, v.v

- Cán bộ đang làm việc các cơ quan ban ngành tại các tỉnh và tham gia vào quản lý rác thải nhựa như DONRE, DARD, DOC, v.v

- Các đại diện đến từ các viện, tổ chức phi chính phủ, doanh nghiệp,v.v đang hoạt động trong mảng rác thải nhựa

II. Mục tiêu

Căn cứ theo quyết định 1407/QĐ-TTg của Thủ tướng chính phủ về Phê duyệt đề án Việt Nam chủ động tham gia và xây dựng thảo thuận toàn cầu về ô nhiễm nhựa đại dương, phiếu phỏng vấn này được xây dựng để khảo sát và đánh giá các năng lực cần thiết của đội ngũ cán bộ cho công tác đàm phán. Kết quả sau phỏng vấn sẽ là cơ sở tham vấn cho các cơ quan

phụ trách trong việc nâng cao năng lực cho đại diện Việt Nam tham gia vòng đàm phán và ký kết hiệp định Chấm dứt ô nhiễm rác thải nhựa.

III. Thời gian phỏng vấn: Từ tháng 2 năm 2023

IV. Địa điểm phỏng vấn: Hà Nội, Tp. Hồ Chí Minh, Sóc Trăng

V. Nội dung phỏng vấn: (Bảng câu hỏi kèm theo)

PHẦN 1. THÔNG TIN NGƯỜI ĐƯỢC PHỎNG VẤN

1. Họ và tên: ……..

2. Tuổi: ……

3. Giới tính: ……

4. Đơn vị công tác và vị trí phụ trách

……
……..

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……..

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……..

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……..

5. Điện thoại/email: ……..

PHẦN 2: CÂU HỎI PHỎNG VẤN

A. Thông tin chung về hiện trạng quản lý rác thải nhựa

1. Hiện trạng rác thải ở Việt Nam/địa phương

1.1. Anh/Chị có nắm được thông tin khối lượng chất thải rắn sinh hoạt tại Việt Nam/địa phương trong khu vực phụ trách không?

Nếu có, vui lòng cung cấp thông tin dưới đây:

a. Thông tin được cung cấp cho:

□ Việt Nam □ Địa phương (cụ thể ……)

Trong đó:

b. Khối lượng rác thải rắn sinh hoạt ở khu vực nông thôn (kg/người/ngày)?.....

c. Khu vực thành thị (kg/người/ngày)?: …….……

d. Tỷ lệ chất thải nhựa (%)? …….……

e. Loại chất thải nhựa phổ biến? …….

f. Theo Anh/Chị, những con số này đã phản ánh chính xác lượng rác thải tại Việt Nam/địa phương chưa (nhiều hơn, ít hơn, chính xác)? …….

1.2. Đối với rác thải rắn đến từ các nguồn khác, vui lòng cho biết khối lượng rác từ đâu là lớn nhất? Có thể ước lượng sơ bộ không? (Bỏ qua nếu Anh/Chị không nắm được thông tin hoặc không nằm trong lĩnh vực Anh/Chị phụ trách)

□ Công nghiệp □ Du lịch □ Nguồn khác (cụ thể)

Theo Anh/Chị, khối lượng rác thải đến từ các nguồn khoảng:

- Công nghiệp (tấn/năm);

……..…….

- Du lịch (tấn/năm);

……..

- Nguồn khác (tấn/năm);

…….

Theo Anh/Chị, ô nhiễm rác thải nhựa có phải là một trong những vấn đề cần quan tâm tại Việt Nam/địa phương hay không?

□ Có □ Không □ Không rõ

□ Cấp thiết □ Không cấp thiết

2. Hiện trạng quản lý rác thải nhựa tại Việt Nam (hoặc địa phương đang phụ trách)

2.1. Về nguồn nhân lực quản lý chất thải nhựa

a. Anh/Chị vui lòng cho biết các cơ quan nào tham gia quản lý rác thải nhựa (cấp trung ương, cấp địa phương, hiệp hội, v.v.) và vai trò của họ. Các cơ quan trên đã có phòng ban hoặc vai trò chuyên biệt về rác nhựa hay chưa? Có cần bổ sung chức năng về quản lý và giám sát rác nhựa hay không? (Tích vào ô nếu câu trả lời là có)

Đơn vị	*Vai trò về rác thải nhựa*	*Có phòng ban hoặc vai trò chuyên biệt về rác nhựa hay chưa?*	*Có cần bổ sung chức năng về quản lý rác nhựa hay không?*
Cấp Trung Ương			
Bộ TN&MT		□	□
Bộ Xây dựng		□	□
Bộ Tài chính		□	□
Bộ Kế hoạch và Đầu tư		□	□
Bộ NN&PTNT		□	□
Bộ Công thương		□	□
Cấp địa phương			
UBND tỉnh/thành phố, quận, huyện, xã		□	□
Sở TN&MT		□	□
Sở Xây dựng		□	□
Sở NN&PTNT		□	□

<u>Các hội đoàn thể</u>			
Hội liên hiệp Phụ nữ		□	□
Đoàn Thanh niên		□	□
<u>Khác</u>			
Lực lượng phi chính thức (đồng nát, ve chai)		□	□
Khác ( )		□	□

b. Theo Anh/chị, các cơ quan tham gia quản lý chất thải nhựa có đang phối hợp với nhau trong quá trình quản lý chất thải nhựa không?

□ Có và đang rất hiệu quả □ Có nhưng cần cải thiện □ Chưa phối hợp

Phương thức phối hợp (nếu có) trong quản lý chất thải nhựa (họp/hội thảo/báo cáo cơ quan đầu mối, v.v.)

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Tần suất tổ chức họp/ hội thảo/báo cáo cho đơn vị đầu mối quản lý chất thải nhựa (bao lâu một lần?)

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Công tác phối hợp giữa các cơ quan khi quản lý rác thải nhựa cần cải thiện điều gì? (thành lập ban quản lý, trong đó phân chia cụ thể chức năng và nhiệm vụ của từng phòng ban, v.v)

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2.2. Anh/Chị vui lòng cho biết, hiện nay đã có những văn bản nào quy định về quản lý rác thải nhựa tại cấp trung ương/địa phương?

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Việc xây dựng và ban hành những văn bản kể trên đã tham vấn và tích hợp ý kiến địa phương và các hiệp hội, tổ chức xã hội dân sự chưa? Nếu chưa, vui lòng đề xuất các giải pháp để quá trình tham vấn hiệu quả hơn?

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2.3. Anh/Chị vui lòng chia sẻ về tình hình phân loại chất thải nhựa tại địa phương

a. Các hộ gia đình đã phân loại rác thải nhựa tại nhà chưa?

□ *Tất cả các hộ gia đình đã phân loại*

□*Một số hộ gia đình đã phân loại*

□ *Tất cả các hộ gia đình đều chưa phân loại*

b. Khu công nghiệp đã tách riêng rác thải nhựa ra chưa?

□*Tất cả các khu công nghiệp đã tách riêng*

□ *Một số khu công nghiệp đã tách riêng*

□ *Tất cả các khu công nghiệp đều chưa tách riêng*

c. Các khu du lịch đã tách riêng rác thải nhựa chưa?

□ *Tất cả các nơi đã tách riêng*

□ *Một số nơi đã tách riêng*

□ *Tất cả các nơi đều chưa tách riêng*

d. Tại những khu vực trên, sau khi tách riêng, rác thải nhựa có được phân loại thành các loại khác nhau không (ví dụ nhựa tái chế, nhựa không thể tái chế, v.v)?

□ *Có*

□ *Chưa*

Vui lòng liệt kê chi tiết ……

e.Tình hình thu gom rác thải nhựa tại địa phương

□ Đã thu gom và thu gom

chung với các loại rác khác □ Đã thu gom và thu gom

riêng với các loại rác khác □ Chưa thu gom

Tỷ lệ thu gom rác thải nhựa ước lượng tại địa phương (%) .....

Trong quá trình vận chuyển, rác nhựa có được để trong các túi/xe/điểm gom riêng biệt hay không?

□ Có □ Chưa

2.4. Phương thức xử lý rác thải nhựa tại địa phương

Phương thức	**Có/Không** *(vui lòng tích vào ô nếu có sử dụng phương pháp này tại địa phương)*	**Khối lượng rác thải (khoảng tấn/năm)**
Chôn lấp	□	
Chôn riêng	□	
Đốt	□	
Đốt phục vụ cho phát điện	□	
Tái chế, tái sử dụng	□	
Khác	□	

Anh/Chị có thấy hiện tượng rác thải nhựa bị trôi dạt vào nguồn nước (như kênh rạch, ao hồ, sông, suối) hay không? Cụ thể ở nơi nào tại địa phương?

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2.5. Anh/Chị có nắm được thông tin về quan trắc và đánh giá rác thải nhựa đại dương không? Nếu có, vui lòng trả lời câu hỏi dưới đây:

a. Khối lượng chất thải nhựa đại dương (tấn/năm): ……..……

b. Chất thải nhựa đại dương đã được quan trắc, đánh giá chưa?

□ *Có* □ *Chưa*

Nếu có, tần suất đánh giá/quan trắc chất thải nhựa đại dương (lần/năm);……..

Việc đánh giá/ quan trắc sử dụng mô hình/phương pháp/hướng dẫn nào để đánh giá lượng chất thải nhựa đại dương?

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Khó khăn trong việc sử dụng các phương pháp này:

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Nếu chưa, vui lòng đề xuất phương pháp quan trắc rác thải nhựa đại dương:

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c. Theo Anh/Chị, Việt Nam đã xây dựng được cơ sở dữ liệu về rác thải nhựa đại dương chưa?

□ *Có* □ *Chưa*

Cơ quan nào đang quản lý cơ sở dữ liệu này? .....

Dữ liệu về rác thải nhựa đại dương có dễ truy cập hay không?

□ *Có và mở cho công chúng sử dụng* □ *Chỉ một số cơ quan, tổ chức mới được chưa cập* □ *Không biết*

d. Sau khi quan trắc, đánh giá, rác thải nhựa đại dương tại các khu vực đó đã được thu gom, xử lý chưa?

□ *Có* □ *Chưa*

Nếu có, rác thải nhựa đại dương đã được thu gom, xử lý bởi đơn vị nào?

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Ước lượng khối lượng đã được thu gom, xử lí (%).....

3. Các địa phương đã và đang thực hiện những hành động nào để đạt được mục tiêu đề ra trong Kế hoạch hành động quốc gia về rác thải nhựa đại dương đến năm 2030? (vui lòng tích vào ô nếu Anh/Chị đồng ý)

Hành động	**Đã và đang thực hiện**	**Hành động trọng tâm**
1. Tuyên truyền nâng cao nhận thức, thay đổi hành vi nhằm giảm thiểu chất thải nhựa	☐	☐
2. Sử dụng sản phẩm thân thiện, thay thế sản phẩm nhựa	☐	☐
3. Tổ chức chiến dịch thu gom rác thải, làm sạch một số bãi biển quy mô quốc gia/tỉnh	☐	☐
4. Điều tra, thống kê, phân loại, đánh giá các nguồn thải nhựa từ đất liền ra biển và từ các hoạt động trên biển, hải đảo.	☐	☐
5. Duy trì và phát triển quan hệ hợp tác với các nước và các tổ chức quốc tế, chủ động phối hợp trong việc kiểm soát, quản lý rác thải nhựa đại dương	☐	☐
6. Tổ chức các hội thảo khoa học quốc gia, quốc tế về rác thải nhựa đại dương;	☐	☐

7. Thực hiện các nghiên cứu khoa học chuyên sâu về tác động của rác thải nhựa đại dương, đặc biệt là vi nhựa đến tài nguyên, môi trường, các hệ sinh thái biển và sức khỏe con người;	□	□

Hoạt động khác: xin vui lòng liệt kê

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Vui lòng liệt kê ngắn gọn các thuận lợi, thách thức trong việc thực hiện các nhiệm vụ trọng tâm. (ví dụ, thuận lợi: Kế hoạch hành động và quy định rõ ràng, thách thức: thiếu nhân lực, các bộ phận hoạt động chồng chéo nhau,v.v)

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Các năng lực cần được ưu tiên đào tạo trong quá trình triển khai các hành động trọng tâm đó (ví dụ Năng lực xây dựng văn bản pháp lý có sự tham gia của các bên liên quan; Năng lực hợp tác mạng lưới (tham gia các diễn đàn quốc tế và trong nước); Năng lực tổ chức và thể chế (triển khai và thực thi các chính sách); Năng lực cá nhân (lãnh đạo, cán bộ kỹ thuật, cộng đồng))

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Anh/Chị có biết Việt Nam đã tham gia các Công ước, hiệp ước, thỏa thuận quốc tế nào về quản lý chất thải nhựa chưa?

□ *Có* □ *Chưa*

Nếu có, vui lòng liệt kê tên công ước, hiệp ước, hiệp định và thời gian tham gia?

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4. Theo Anh/Chị, hỗ trợ của các dự án và tổ chức quốc tế (nếu có) nên ưu tiên vào nội dung/vấn đề gì trong quản lý rác thải nhựa và rác thải nói chung (ví dụ: hỗ trợ tăng cường năng lực, phát triển các mô hình xử lý rác hiệu quả, kết nối và phát triển mạng lưới v.v)

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B. Nhu cầu nâng cao năng lực cho đàm phán, tham gia xây dựng và ký kết Hiệp ước chấm dứt ô nhiễm nhựa toàn cầu

1. Người ham gia đàm phán, xây dựng và ký kết Hiệp ước cần được trang bị các năng lực gì? (Đánh giá trên thang 1-4, 1- Không đồng ý, 2 – Ít đồng ý, 3 – Cơ bản đồng ý, 4 – Hoàn toàn đồng ý)

Năng lực đề xuất	1	2	3	4	Nội dung đề xuất chi tiết
a. Năng lực xây dựng văn bản pháp lý có sự tham gia của các bên liên quan					
Năng lực xây dựng chính sách nhằm ngăn ngừa, hạn chế việc rò rỉ chất thải nhựa từ nguồn ra biển					
b. Năng lực hợp tác mạng lưới					
Năng lực đàm phán với các đối tác					
Năng lực kết nối hợp tác công tư trong quản lý chất thải nhựa					
c. Năng lực tổ chức và thể chế					
Năng lực hướng dẫn và hỗ trợ cho những người ra quyết định và chính quyền địa phương và quốc gia về quản lý rác thải nhựa					
Năng lực quản lý Trách nhiệm mở rộng của nhà sản xuất (EPR)					
Năng lực quản lý nhằm chuyển dịch sang nền kinh tế tuần hoàn					
Năng lực triển khai, thực thi, giám sát thực thi các chính sách, pháp luật về phân loại, thu gom, tái chế chất thải nhựa					
Năng lực xây dựng các mô hình đánh giá dòng chảy, lượng chất thải nhựa rò rỉ từ nguồn ra đại dương					

Quản lý và tổ chức cơ sở tái chế. Hướng dẫn kỹ thuật cho các hoạt động tái chế trong cơ sở tái chế					
d. Năng lực cá nhân					
Năng lực giám sát, kiểm soát chất thải nhựa từ nguồn					
Năng lực đào tạo, hướng dẫn cho các địa phương sử dụng thành thạo mô hình đã xây dựng					
Năng lực tổng hợp, xây dựng cơ sở dữ liệu về hiện trạng chất thải nhựa					
Năng lực đánh giá hiện trạng quản lý chất thải nhựa và kỹ năng xây dựng báo cáo hiện trạng chất thải nhựa					
Năng lực quan trắc chất thải nhựa trong các thành phần môi trường					
Năng lực sử dụng các mô hình dự báo hiện trạng chất thải nhựa từ nguồn thải ra biển					
Khác:					

2. Các kiến thức và thông tin đầu vào cần chuẩn bị cho vòng đàm phán (Đánh giá trên thang 1-4, 1- Không đồng ý, 2 – Ít đồng ý, 3 – Cơ bản đồng ý, 4 – Hoàn toàn đồng ý)

Đề xuất	**1**	**2**	**3**	**4**	**Cụ thể**
Thông tin về bối cảnh đàm phán					

Các vấn đề ưu tiên ở Việt Nam, các quốc gia tham gia đàm phán và quốc tế					
Các yếu tố ảnh hưởng hoặc chi phối việc đàm phàn hoặc nội dung đàm phán *(ví dụ an ninh – quốc phòng, ngoại giao, đường biên, quy hoạch, chủ trương của quốc gia)*					
Bản tóm tắt các cam kết về rác thải nhựa Việt Nam đã, đang và có kế hoạch tham gia					
Bản tổng hợp các văn bản pháp lý về rác thải nhựa tại Việt Nam					
Thông tin về hiện trạng rác thải nhựa đại dương (ví dụ: số lượng, thành phần, lượng rác rò rỉ, hiện trạng xả thải)					
Các đề xuất từ các bên liên quan về giải pháp và lộ trình thực hiện)					
Các phương án đàm phán, tình huống dự kiến và lộ trình/kế hoạch cho các vòng tiếp theo của Đàm phán					

Khác (đề xuất):

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3. Đề xuất của Anh/Chị về vai trò và cách tổ chức của đoàn đại biểu trong vòng đàm phán (Ví dụ Bộ TNMT giữ vai trò điều phối chung các nội dung tham vấn, Bộ Công thương chịu trách nhiệm các phần đàm phán liên quan đến hoạt động của các doanh nghiệp, nhà sản xuất, v.v)

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4. Đề xuất khác

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Annex 3. Results of the questionnaire surveys (google form)

1. Họ và tên của Anh/Chị là	Cao Vũ Hưng	Lưu Linh Hương	Nguyễn Thành Yên	Lê Thị Tân	Cao Quốc Thắng
2. Tuổi	43	51	45	38	29
3. Giới tính	Nam	Nữ	Nam	Nữ	Nam
4. Hiện tại Anh/Chị đang công tác ở đâu và phụ trách vị trí gì?	Công ty Cổ phần Invitek, Giám đốc	Chuyên viên chính, Bộ Xây dựng	Phòng Quản lý chất lượng môi trường, Cục Kiểm soát ô nhiễm môi trường, Bộ TNMT	Chương trình CCBO, Cán bộ CHương trình và hành chính	Công ty cổ phần Tái chế nhựa Lam Trân - Trưởng phòng XNK
5. Vui lòng mô tả thêm kinh nghiệm của Anh/Chị liên quan đến nội dung phiếu hỏi	Làm chuyên gia công nghệ xử lý môi trường	Có kinh nghiệm khảo sát, thu thập thông tin, xây dựng chính sách liên quan đến chất thải rắn sinh hoạt	Từng đầu mối về rác nhựa	Đã từng làm cho công ty về sản xuất hạt nhựa và đang làm cán bộ cho Chương trình với mục	Công ty tái chế nhựa phế liệu

		và chất thải rắn xây dựng		tiêu giảm thiểu chất thải nhựa đại dương	
6. Email của Anh/Chị	Hungcv@invitek.com.vn	luulinhhuong@gmail.com	ngthanhyen@gmail.com	tanle2959@gmail.com	thang@lamtranplastic.com.vn
7. Số điện thoại của Anh/Chị	0904442426	09013560464	0911860068	0985249963	0919578589
1.1.Anh/Chị có nắm được thông tin khối lượng chất thải rắn sinh hoạt tại Việt Nam/địa phương trong khu vực phụ trách không?	Không	Có	Không	Có	Không

1. Thông tin được cung cấp cho (Ví dụ Việt Nam, Hà Nội, Sóc Trăng, v.v)	Tổng toàn quốc. 2020 khoảng 45.000 tấn/ ngày. Hà Nội khoảng 7.500 tấn/ngày, HCM khoảng 10.000 tấn/ngày	Hà Nội
Khối lượng chất thải rắn sinh hoạt ở khu vực nông thôn (kg/người/ngày)?	Không biết	0,68
Khu vực thành thị (kg/người/ngày)?	trung bình 1,0kg/người/ngày tùy từng đô thị lớn, nhỏ	0,75 - 0,95
Tỷ lệ chất thải nhựa (%)?	Không biết	khoảng 8 - 12%

Loại chất thải nhựa phổ biến?	Vỏ bao vì thực phẩm, túi nylon, vỏ bao bì một số đồ dân dụng, công nghiệp khác	Túi nilon, chai nước
2. Đối với chất thải rắn đến từ các nguồn khác, vui lòng ước lượng khối lượng rác từ đâu là lớn nhất?	Du lịch	Công nghiệp
Theo Anh/Chị, khối lượng rác thải đến từ công nghiệp khoảng (tấn/năm)	Không biết	863,2 tấn/ngày
Khối lượng rác thải đến từ du lịch (tấn/năm) khoảng	Không biết	Không có thông tin

Khối lượng rác thải đến từ nguồn khác (tấn/năm) khoảng		Không biết		Không có thông tin	
2.1. Theo Anh/Chị, ô nhiễm rác thải nhựa có phải là một trong những vấn đề cần quan tâm tại Việt Nam/địa phương hay không?	Có	Có	Có	Có	Có
2.2. Anh/Chị có biết hiện nay những bộ/cơ quan (địa phương được khảo sát) đang tham gia quản lý chất thải nhựa	Có	Không biết	Có	Có	Không biết

1. Anh/Chị vui lòng cho biết các cơ quan nào tham gia quản lý rác thải nhựa (cấp trung ương, cấp địa phương, hiệp hội, v.v.) và vai trò của họ trong quản lý rác thải nhựa (VD: vai trò của cấp trung ương, cấp địa phương, cấp hội đoàn thể, v.v về rác thải nhựa như thế nào)	Bộ Tài nguyên Môi trường	Bộ TNMT	Bộ Tài nguyên và Môi trường, Sở Tài nguyên và Môi trường, các phòng Tài nguyên và Môi trường cấp Quận, huyện
2.Các cơ quan tham gia quản lý chất thải nhựa có phối hợp với nhau trong quá trình	Có	Có	Có

quản lý chất thải nhựa không?			
1. Phương thức phối hợp (nếu có) trong quản lý chất thải nhựa (họp/hội thảo/báo cáo cơ quan đầu mối, v.v.)	Báo cáo cơ quan đầu mối	Nhiều hình thức, đặc biệt có một số liên minh	Báo cáo cơ quan đầu mối
2. Tần suất tổ chức họp/ hội thảo/báo cáo cho đơn vị đầu mối quản lý chất thải nhựa (bao lâu một lần?)	3 tháng/lần	Có vẻ hơi nhiều quá mức cần thiết	1 năm/lần
3. Công tác phối hợp giữa các cơ quan khi quản lý rác thải nhựa cần cải thiện điều gì? (thành lập ban quản	Phân rõ chức năng nhiệm vụ	Ko rõ	Các bên liên quan cần báo cáo thông tin liên quan đến sản xuất sản

lý, trong đó phân chia cụ thể chức năng và nhiệm vụ của từng phòng ban, v.v)			phẩm nhựa, phát sinh chất thải nhựa định kỳ 1 năm/lần cho cơ quan đầu mối
4. Theo Anh/Chị, hỗ trợ của các dự án và tổ chức quốc tế (nếu có) nên ưu tiên vào nội dung/vấn đề gì trong quản lý rác thải nhựa và rác thải nói chung (ví dụ: hỗ trợ tăng cường năng lực, phát triển các mô hình xử lý rác hiệu quả, kết nối và	Chuyển giao công nghệ	Tài trợ để khảo sát rác nhựa biển nghiêm túc, ko hồ đồ quy chụp VN trong những nước thải nhựa ra biển hàng đầu vì đây là thông tin ko có căn cứ vì Bộ TNMT là cơ quan chủ quản còn chưa có số liệu	Tăng cường năng lực, hỗ trợ tài chính, chia sẻ những sáng kiến

phát triển mạng lưới v.v)			chính thống từ quá trình khảo sát khoa học, thì ko hiểu các tổ chức quốc tế lấy số liệu đâu ra, xong để các cơ quan, tổ chức trong nước đặc biệt Bộ TNMT lại nhại lại như 1 vòng luẩn quẩn		
1. Anh/Chị vui lòng cho biết, hiện nay đã có những văn bản nào quy định về quản lý rác thải nhựa tại cấp	Không biết	Không biết	Rất nhiều, tốt nhất liên hệ cơ quan đầu mối là phòng quản lý chất thải rắn sinh	Luật Bảo vệ môi trường và các van bản hướng dẫn dưới luật; Kế hoạch hành động quốc gia	Luật Bảo vệ môi trường năm 2020 ; Nghị định số 08/2022/NĐ-CP

trung ương/địa phương?			hoạt của Bộ TNMT	nhằm giảm chất thải nhựa	
2. Theo Anh/Chị đánh giá, tình hình phân loại chất thải nhựa tại Việt Nam đang diễn ra như thế nào?	Chưa phân loại tại nguồn	Chưa phân loại tại nguồn	Đã phân loại tại nguồn tại một số hộ gia đình/ Khu công nghiệp/ Khu kinh tế..	Chưa phân loại tại nguồn	Chưa phân loại tại nguồn
1. Các hộ gia đình đã phân loại rác thải nhựa tại nhà chưa?			Phân riêng nhựa đã tốt rồi còn phân làm bao nhiêu loại thì hài quá, câu hỏi ngớ ngẩn		

2. Đó là những loại nào?	Đó là việc của dân đồng nát, vựa phế liệu, đơn vị thu gom, tái chế nhựa
Nếu khác, vui lòng chia sẻ	hàng chục năm nay hệ thống đồng nát giúp phân loại nhựa ra khỏi rác vô cùng tốt (trừ túi nilon mỏng khó tái chế), chứ chưa có chuyện phân loại từng loại nhựa, đặc biệt tại nguồn

Tình hình thu gom rác thải nhựa tại địa phương	Đã thu gom	Đã thu gom	Đã thu gom	Đã thu gom	Chưa thu gom
Nếu đã thu gom, việc thu gom diễn ra như thế nào	Thu gom CHUNG rác thải nhựa với các loại chất thải khác	Thu gom CHUNG rác thải nhựa với các loại chất thải khác	Thu gom RIÊNG rác thải nhựa với các loại chất thải khác	Thu gom CHUNG rác thải nhựa với các loại chất thải khác	Thu gom CHUNG rác thải nhựa với các loại chất thải khác
Tỷ lệ thu gom chất thải nhựa (%)	80%	Không biết	chưa có số liệu chính thức nhưng theo cảm quan, kinh nghiệm thì khá cao, nếu ko tính túi nilon thì chắc phải dc trên 90%, cụ thể: nếu từ khâu gia đình		30%

			(ko nhiều), ra đến xe rác dc phân loại,. thu gom riêng tiếp, điểm tập kết (chủ yếu); ra đến trạm trung chuyển, bãi rác, nhà máy xử lý lại dc phân loại, thu gom riêng (phần còn lại)		
Phương thức xử lý rác thải nhựa tại địa phương	Tái chế, tái sử dụng	Tái chế, tái sử dụng	Tái chế, tái sử dụng	Chôn lấp	Chôn lấp
Cụ thể, khối lượng chất thải tại địa phương theo phương	Không nắm rõ	Không biết	chưa có số liệu chính thức, nhưng sẽ tương	Chất thải rắn tại Hà Nội chủ yếu được xử lý bằng	400.000 tấn

thức xử lý rác nêu trêu là (tấn/năm)			đương tỉ lệ thu gom nêu trên	phương chôn lấp	pháp
Anh/Chị có nắm được thông tin về quan trắc và đánh giá rác thải nhựa đại dương [1] không? **[1] Theo Cơ quan Môi trường Liên hợp Quốc, rác thải nhựa đại dương là những vật liệu khó phân hủy đã qua sử dụng và chế biến, được thải bỏ hoặc trôi dạt ra đại dương và các khu vực ven**	Chưa	Không biết	Chưa	Chưa	Không biết

biển (https://www.unep.org /explore-topics/oceans-seas/what-we-do/working-regional-seas/marine-litter)
1. Khối lượng chất thải nhựa đại dương (tấn/năm):
Việc đánh giá/ quan trắc sử dụng mô hình/phương pháp/hướng dẫn nào để đánh giá lượng chất thải nhựa đại dương?

Khó khăn trong việc sử dụng các phương pháp này			
Nếu chưa, vui lòng đề xuất phương pháp quan trắc rác thải nhựa đại dương	Cần làm điểm, phân loại và đánh giá tại một số tỉnh khu vực biển có nhiều rác thải nhựa. Phân loại xác định thành phần	đã có đề xuất dùng viễn thám nhưng theo các chuyên gia thì khó khả thi. và có lẽ là khó khả thi, đợi xem thế giới đã nghĩ ra chưa thì học vậy chứ trình độ VN kém nhưng hay nói trạng, toàn nghĩ ra thứ trên trời ko khả thi y như Luật BVMT 2020 và	dùng công nghệ viễn thám

			các văn bản hướng dẫn		
1. Theo Anh/Chị, Việt Nam đã xây dựng được cơ sở dữ liệu về rác thải nhựa đại dương chưa?	Chưa	Có	Chưa	Chưa	Có
1. Đã xây dựng cơ sở dữ liệu về rác thải nhựa đại dương chưa?					
4. Sau khi quan trắc, đánh giá, rác thải nhựa đại dương tại các khu	Chưa	Có	Chưa	Chưa	Chưa

vực đó đã được thu gom, xử lý chưa?

Các hành động địa phương đã và đang thực hiện để đạt được mục tiêu đề ra trong Kế hoạch hành động quốc gia về rác thải nhựa đại dương đến năm 2030	1. Tuyên truyền nâng cao nhận thức, thay đổi hành vi nhằm giảm thiểu chất thải nhựa, 2. Sử dụng sản phẩm thân thiện, thay thế sản phẩm nhựa, 3. Tổ chức chiến dịch thu gom rác thải, làm sạch một số bãi biển quy mô quốc gia/tỉnh, 4. Điều tra, thống kê, phân loại, đánh giá các nguồn thải nhựa	1. Tuyên truyền nâng cao nhận thức, thay đổi hành vi nhằm giảm thiểu chất thải nhựa, 2. Sử dụng sản phẩm thân thiện, thay thế sản phẩm nhựa, 5. Duy trì và phát triển quan hệ hợp tác với các nước và các tổ chức quốc tế, chủ động phối hợp trong việc kiểm soát, quản lý rác thải nhựa đại dương	1. Tuyên truyền nâng cao nhận thức, thay đổi hành vi nhằm giảm thiểu chất thải nhựa, 2. Sử dụng sản phẩm thân thiện, thay thế sản phẩm nhựa, 3. Tổ chức chiến dịch thu gom rác thải, làm sạch một số bãi biển quy mô quốc gia/tỉnh, 5. Duy trì và phát triển quan hệ hợp tác với các nước và	1. Tuyên truyền nâng cao nhận thức, thay đổi hành vi nhằm giảm thiểu chất thải nhựa, 2. Sử dụng sản phẩm thân thiện, thay thế sản phẩm nhựa	1. Tuyên truyền nâng cao nhận thức, thay đổi hành vi nhằm giảm thiểu chất thải nhựa, 2. Sử dụng sản phẩm thân thiện, thay thế sản phẩm nhựa, 3. Tổ chức chiến dịch thu gom rác thải, làm sạch một số bãi biển quy mô quốc gia/tỉnh, 4. Điều tra, thống kê, phân loại, đánh giá các nguồn thải nhựa từ đất liền ra biển và từ các hoạt động trên biển, hải đảo., 5. Duy trì và phát triển quan

	từ đất liền ra biển và từ các hoạt động trên biển, hải đảo., 5. Duy trì và phát triển quan hệ hợp tác với các nước và các tổ chức quốc tế, chủ động phối hợp trong việc kiểm soát, quản lý rác thải nhựa đại dương, 6. Tổ chức các hội thảo khoa học quốc gia, quốc tế về rác thải nhựa đại dương;	các tổ chức quốc tế, chủ động phối hợp trong việc kiểm soát, quản lý rác thải nhựa đại dương, 6. Tổ chức các hội thảo khoa học quốc gia, quốc tế về rác thải nhựa đại dương;	hệ hợp tác với các nước và các tổ chức quốc tế, chủ động phối hợp trong việc kiểm soát, quản lý rác thải nhựa đại dương, 6. Tổ chức các hội thảo khoa học quốc gia, quốc tế về rác thải nhựa đại dương;, 7. Thực hiện các nghiên cứu khoa học chuyên sâu về tác động của rác thải nhựa đại dương, đặc biệt là vi nhựa đến tài nguyên, môi trường, các hệ sinh thái biển

và sức khỏe con người;

Hành động nào là hành động trọng tâm	1. Tuyên truyền nâng cao nhận thức, thay đổi hành vi nhằm giảm thiểu chất thải nhựa, 2. Sử dụng sản phẩm thân thiện, thay thế sản phẩm nhựa, 4. Điều tra, thống kê, phân loại, đánh giá các nguồn thải nhựa từ đất liền ra biển và từ các hoạt động trên biển, hải đảo., 7. Thực hiện các nghiên cứu	1. Tuyên truyền nâng cao nhận thức, thay đổi hành vi nhằm giảm thiểu chất thải nhựa, 2. Sử dụng sản phẩm thân thiện, thay thế sản phẩm nhựa, 3. Tổ chức chiến dịch thu gom rác thải, làm sạch một số bãi biển quy mô quốc gia/tỉnh, 6. Tổ chức các hội thảo khoa học quốc gia, quốc tế về rác thải nhựa đại dương;	1. Tuyên truyền nâng cao nhận thức, thay đổi hành vi nhằm giảm thiểu chất thải nhựa, 2. Sử dụng sản phẩm thân thiện, thay thế sản phẩm nhựa, 3. Tổ chức chiến dịch thu gom rác thải, làm sạch một số bãi biển quy mô quốc gia/tỉnh, 4. Điều tra, thống kê, phân loại, đánh giá các nguồn thải	1. Tuyên truyền nâng cao nhận thức, thay đổi hành vi nhằm giảm thiểu chất thải nhựa, 2. Sử dụng sản phẩm thân thiện, thay thế sản phẩm nhựa, 4. Điều tra, thống kê, phân loại, đánh giá các nguồn thải nhựa từ đất liền ra biển và từ các hoạt động trên biển, hải đảo., 7. Thực	1. Tuyên truyền nâng cao nhận thức, thay đổi hành vi nhằm giảm thiểu chất thải nhựa, 2. Sử dụng sản phẩm thân thiện, thay thế sản phẩm nhựa, 3. Tổ chức chiến dịch thu gom rác thải, làm sạch một số bãi biển quy mô quốc gia/tỉnh, 4. Điều tra, thống kê, phân loại, đánh giá các nguồn thải nhựa từ đất liền ra biển và từ các hoạt động trên biển, hải đảo.

	khoa học chuyên sâu về tác động của rác thải nhựa đại dương, đặc biệt là vi nhựa đến tài nguyên, môi trường, các hệ sinh thái biển và sức khỏe con người;	nhựa từ đất liền ra biển và từ các hoạt động trên biển, hải đảo., 5. Duy trì và phát triển quan hệ hợp tác với các nước và các tổ chức quốc tế, chủ động phối hợp trong việc kiểm soát, quản lý rác thải nhựa đại dương, 6. Tổ chức các hội thảo khoa học quốc gia, quốc tế về rác thải nhựa đại dương;	hiện các nghiên cứu khoa học chuyên sâu về tác động của rác thải nhựa đại dương, đặc biệt là vi nhựa đến tài nguyên, môi trường, các hệ sinh thái biển và sức khỏe con người;

Vui lòng liệt kê ngắn gọn các thuận lợi, thách thức trong việc thực hiện các nhiệm vụ trọng tâm. (ví dụ, thuận lợi: Kế hoạch hành động và quy định rõ ràng, thách thức: thiếu nhân lực, các bộ phận hoạt động chồng chéo nhau,v.v)	Trên diện tích rộng và nhận thức người dân	Các địa phương có biển đều đã có các phong trào tăng cường năng lực trong sử dụng, thu gom, vận chuyển, xử lý chất thải nhựa đại dương. Khó khăn là kiểm soát sự tuân thủ của người dân, doanh nghiệp và đặc biệt là khách du lịch để không vứt rác thải nói chung , rác thải nhựa nói riêng ra	Thiếu tiền và kinh nghiệm; trừ điểm 1, 3, 5, 6 VN có kinh nghiệm nhưng thiếu tiền	Chưa có chế tài xử phạt, không đủ nguồn lực, sản phẩm thay thế đắt hơn nhiều sản phẩm bằng nhựa tương ứng	Ý thức người dân chưa cao

		đường phố, đại dương.			
Các năng lực cần được ưu tiên đào tạo trong quá trình triển khai các hành động trọng tâm đó (ví dụ Năng lực xây dựng văn bản pháp lý có sự tham gia của các bên liên quan; Năng lực hợp tác mạng lưới (tham gia các diễn đàn quốc tế và trong	Cần cả hai	Tăng cường năng lực giám sát, kiểm soát chất thải nhựa từ nguồn phát thải	Mọi mặt, đặc biệt kỹ năng làm việc thực tiễn thay vì chém gió	Năng lực hướng dẫn thực thi chính sách, năng lực giám sát chất thải nhựa	Kiểm soát nhựa từ nguồn + Nâng cao năng lực tuyên truyền, thay đổi ý thức

nước); Năng lực tổ chức và thể chế (triển khai và thực thi các chính sách); Năng lực cá nhân (lãnh đạo, cán bộ kỹ thuật, cộng đồng))					
Anh/Chị có biết Việt Nam đã tham gia các Công ước, hiệp ước, thỏa thuận quốc tế nào về quản lý chất thải nhựa chưa?	Chưa	Có	Chưa	Chưa	Có
Nếu có, vui lòng liệt kê tên công ước, hiệp ước, hiệp định và thời gian tham gia?	Không rõ	Không nhớ	đang đàm phán hiệp định toàn cầu về nhựa nhưng phải vài năm mới xong	Chưa tham gia công ước nào về chống ô nhiễm chất thải nhựa	Basel - 1995

1. Người tham gia đàm phán, xây dựng và ký kết Hiệp ước cần được trang bị các năng lực gì? (tập trung vào 4 dạng năng lực: Năng lực xây dựng văn bản pháp lý có sự tham gia của các bên liên quan, Năng lực hợp tác mạng lưới, Năng lực tổ chức và thể chế, Năng lực cá nhân) [Năng lực đàm phán với các đối tác]	Đồng ý	Đồng ý	Đồng ý	Đồng ý	Đồng ý

1. Người tham gia đàm phán, xây dựng và ký kết Hiệp ước cần được trang bị các năng lực gì? (tập trung vào 4 dạng năng lực: Năng lực xây dựng văn bản pháp lý có sự tham gia của các bên liên quan, Năng lực hợp tác mạng lưới, Năng lực tổ chức và thể chế, Năng lực cá nhân) [Năng lực hướng dẫn và hỗ trợ cho những người ra quyết định và chính quyền địa phương và	Đồng ý	Đồng ý	Đồng ý	Đồng ý	Đồng ý

quốc gia về quản lý rác thải nhựa]					
2. Các kiến thức và thông tin đầu vào cần chuẩn bị cho vòng đàm phán [Thông tin về bối cảnh đàm phán]	Không đồng ý	Đồng ý	Đồng ý	Đồng ý	Đồng ý
2. Các kiến thức và thông tin đầu vào cần chuẩn bị cho vòng đàm phán [Các vấn đề ưu tiên ở Việt Nam, các quốc gia tham gia đàm phán và quốc tế]	Đồng ý	Đồng ý	Đồng ý	Đồng ý	Đồng ý

Khác, vui lòng chia sẻ	Không có	Năng lực tài chính và nguồn nhân lực thực hiện cam kết của quốc gia.			
3. Đề xuất của Anh/Chị về vai trò và cách tổ chức của đoàn đại biểu trong vòng đàm phán (Ví dụ Bộ TNMT giữ vai trò điều phối chung các nội dung tham vấn, Bộ Công thương chịu trách nhiệm các phần đàm phán liên quan đến hoạt động của các doanh nghiệp, nhà sản xuất, v.v)	Đồng ý như trên	Đồng ý Bộ TNMT giữ vai trò điều phối chung các nội dung tham vấn, Bộ Công thương chịu trách nhiệm các phần đàm phán liên quan đến hoạt động của các doanh nghiệp, nhà sản xuất. Sở TNMT các địa phương là cơ quan chủ trì tại các địa	Cơ bản như vậy nhưng hiệp định chất thải nhựa cần nhiều bộ tham gia ví dụ Bộ Tài chính vì hiệp định có hướng có ràng buộc tài chính	Bộ Tài nguyên và Môi trường giữ vao trò điều phối chung, phối hợp chặt chẽ, cập nhật thông tin thường xuyên với các Bộ liên quan	Bộ TNMT giữ vai trò chính

		phương, huy động sự tham gia của các doanh nghiệp du lịch, sản xuất, người dân.	
Đề xuất khác	Không có	Giúp đính chính và tuyên truyền rằng chưa có số liệu về thải nhựa ra đại dương của VN nên phải vô hiệu hoá toàn bộ thông tin về lượng thải nhựa đại dương của VN đang đầy rẫy	

			trong các báo cáo trong nước và quốc tế, trên báo chí và đặc biệt của chính lãnh đạo, cán bộ, công chức của Bộ TNMT		
1. Người tham gia đàm phán, xây dựng và ký kết Hiệp ước cần được trang bị các năng lực gì? (tập trung vào 4 dạng năng lực: Năng lực xây dựng văn bản pháp lý có sự tham gia của các bên liên quan, Năng lực hợp tác mạng	Không đồng ý	Đồng ý	Đồng ý	Đồng ý	Đồng ý

lưới, Năng lực tổ chức và thể chế, Năng lực cá nhân) [Năng lực xây dựng chính sách nhằm ngăn ngừa, hạn chế việc rò rỉ chất thải nhựa từ nguồn ra biển]					
1. Người tham gia đàm phán, xây dựng và ký kết Hiệp ước cần được trang bị các năng lực gì? (tập trung vào 4 dạng năng lực: Năng lực xây dựng văn bản pháp lý có sự tham gia của các bên liên quan, Năng lực hợp tác mạng lưới, Năng lực tổ chức	Không đồng ý	Không đồng ý	Không đồng ý	Đồng ý	Đồng ý

và thể chế, Năng lực cá nhân) [Năng lực quản lý Trách nhiệm mở rộng của nhà sản xuất (EPR)]					
1. Người tham gia đàm phán, xây dựng và ký kết Hiệp ước cần được trang bị các năng lực gì? (tập trung vào 4 dạng năng lực: Năng lực xây dựng văn bản pháp lý có sự tham gia của các bên liên quan, Năng lực hợp tác mạng lưới, Năng lực tổ chức và thể chế, Năng lực cá nhân) [Năng lực quản	Đồng ý	Đồng ý	Đồng ý	Đồng ý	Đồng ý

lý nhằm chuyển dịch sang nền kinh tế tuần hoàn]					
1. Người tham gia đàm phán, xây dựng và ký kết Hiệp ước cần được trang bị các năng lực gì? (tập trung vào 4 dạng năng lực: Năng lực xây dựng văn bản pháp lý có sự tham gia của các bên liên quan, Năng lực hợp tác mạng lưới, Năng lực tổ chức và thể chế, Năng lực cá nhân) [Năng lực triển	Đồng ý	Không đồng ý	Không đồng ý	Đồng ý	Đồng ý

khai, thực thi, giám sát thực thi các chính sách, pháp luật về phân loại, thu gom, tái chế chất thải nhựa]					
1. Người tham gia đàm phán, xây dựng và ký kết Hiệp ước cần được trang bị các năng lực gì? (tập trung vào 4 dạng năng lực: Năng lực xây dựng văn bản pháp lý có sự tham gia của các bên liên quan, Năng lực hợp tác mạng lưới, Năng lực tổ chức và thể chế, Năng lực cá	Đồng ý	Không đồng ý	Không đồng ý	Đồng ý	Đồng ý

nhân) [Năng lực xây dựng các mô hình đánh giá dòng chảy, lượng chất thải nhựa rò rỉ từ nguồn ra đại dương]					
1. Người tham gia đàm phán, xây dựng và ký kết Hiệp ước cần được trang bị các năng lực gì? (tập trung vào 4 dạng năng lực: Năng lực xây dựng văn bản pháp lý có sự tham gia của các bên liên quan, Năng lực hợp tác mạng lưới, Năng lực tổ chức và thể chế, Năng lực cá	Đồng ý	Không đồng ý	Không đồng ý	Đồng ý	Không đồng ý

nhân) [Năng lực đào tạo, hướng dẫn cho các địa phương sử dụng thành thạo mô hình đã xây dựng]					
1. Người tham gia đàm phán, xây dựng và ký kết Hiệp ước cần được trang bị các năng lực gì? (tập trung vào 4 dạng năng lực: Năng lực xây dựng văn bản pháp lý có sự tham gia của các bên liên quan, Năng lực hợp tác mạng lưới, Năng lực tổ chức và thể chế, Năng lực cá	Đồng ý	Đồng ý	Đồng ý	Đồng ý	Đồng ý

nhân) [Năng lực giám sát, kiểm soát chất thải nhựa từ nguồn]					
1. Người tham gia đàm phán, xây dựng và ký kết Hiệp ước cần được trang bị các năng lực gì? (tập trung vào 4 dạng năng lực: Năng lực xây dựng văn bản pháp lý có sự tham gia của các bên liên quan, Năng lực hợp tác mạng lưới, Năng lực tổ chức và thể chế, Năng lực cá nhân) [Năng lực tổng	Đồng ý	Đồng ý	Đồng ý	Đồng ý	Đồng ý

hợp, xây dựng cơ sở dữ liệu về hiện trạng chất thải nhựa]					
1. Người tham gia đàm phán, xây dựng và ký kết Hiệp ước cần được trang bị các năng lực gì? (tập trung vào 4 dạng năng lực: Năng lực xây dựng văn bản pháp lý có sự tham gia của các bên liên quan, Năng lực hợp tác mạng lưới, Năng lực tổ chức và thể chế, Năng lực cá nhân) [Năng lực kết	Đồng ý	Đồng ý	Đồng ý	Đồng ý	Không đồng ý

nối hợp tác công tư trong quản lý chất thải nhựa]					
1. Người tham gia đàm phán, xây dựng và ký kết Hiệp ước cần được trang bị các năng lực gì? (tập trung vào 4 dạng năng lực: Năng lực xây dựng văn bản pháp lý có sự tham gia của các bên liên quan, Năng lực hợp tác mạng lưới, Năng lực tổ chức và thể chế, Năng lực cá nhân) [Năng lực đánh	Đồng ý	Đồng ý	Đồng ý	Đồng ý	Không đồng ý

giá hiện trạng quản lý chất thải nhựa và kỹ năng xây dựng báo cáo hiện trạng chất thải nhựa]					
1. Người tham gia đàm phán, xây dựng và ký kết Hiệp ước cần được trang bị các năng lực gì? (tập trung vào 4 dạng năng lực: Năng lực xây dựng văn bản pháp lý có sự tham gia của các bên liên quan, Năng lực hợp tác mạng lưới, Năng lực tổ chức và thể chế, Năng lực cá	Đồng ý	Không đồng ý	Không đồng ý	Đồng ý	Đồng ý

nhân) [Năng lực quan trắc chất thải nhựa trong các thành phần môi trường]					
1. Người tham gia đàm phán, xây dựng và ký kết Hiệp ước cần được trang bị các năng lực gì? (tập trung vào 4 dạng năng lực: Năng lực xây dựng văn bản pháp lý có sự tham gia của các bên liên quan, Năng lực hợp tác mạng lưới, Năng lực tổ chức và thể chế, Năng lực cá nhân) [Năng lực sử	Đồng ý	Không đồng ý	Không đồng ý	Đồng ý	Không đồng ý

dụng các mô hình dự báo hiện trạng chất thải nhựa từ nguồn thải ra biển]					
1. Người tham gia đàm phán, xây dựng và ký kết Hiệp ước cần được trang bị các năng lực gì? (tập trung vào 4 dạng năng lực: Năng lực xây dựng văn bản pháp lý có sự tham gia của các bên liên quan, Năng lực hợp tác mạng lưới, Năng lực tổ chức và thể chế, Năng lực cá	Đồng ý	Không đồng ý	Không đồng ý	Đồng ý	Đồng ý

nhân) [Quản lý và tổ chức cơ sở tái chế. Hướng dẫn kỹ thuật cho các hoạt động tái chế trong cơ sở tái chế]					
2. Các kiến thức và thông tin đầu vào cần chuẩn bị cho vòng đàm phán [Các yếu tố ảnh hưởng hoặc chi phối việc đàm phàn hoặc nội dung đàm phán (ví dụ an ninh – quốc phòng, ngoại giao, đường biên, quy hoạch, chủ trương của quốc gia)]	Đồng ý	Đồng ý	Không đồng ý	Đồng ý	Đồng ý

2. Các kiến thức và thông tin đầu vào cần chuẩn bị cho vòng đàm phán [Bản tóm tắt các cam kết về rác thải nhựa Việt Nam đã, đang và có kế hoạch tham gia]	Đồng ý	Đồng ý	Đồng ý	Đồng ý	Không đồng ý
2. Các kiến thức và thông tin đầu vào cần chuẩn bị cho vòng đàm phán [Bản tổng hợp các văn bản pháp lý về rác thải nhựa tại Việt Nam]	Đồng ý	Đồng ý	Đồng ý	Đồng ý	Đồng ý
2. Các kiến thức và thông tin đầu vào cần	Đồng ý	Đồng ý	Đồng ý	Đồng ý	Đồng ý

chuẩn bị cho vòng đàm phán [Thông tin về hiện trạng rác thải nhựa đại dương (ví dụ: số lượng, thành phần, lượng rác rò rỉ, hiện trạng xả thải)]					
2. Các kiến thức và thông tin đầu vào cần chuẩn bị cho vòng đàm phán [Các đề xuất từ các bên liên quan về giải pháp và lộ trình thực hiện)]	Đồng ý	Đồng ý	Đồng ý	Đồng ý	Đồng ý
2. Các kiến thức và thông tin đầu vào cần chuẩn bị cho vòng đàm phán [Các phương án	Đồng ý	Đồng ý	Đồng ý	Đồng ý	Đồng ý

đàm phán, tình huống dự kiến và lộ trình/kế hoạch cho các vòng tiếp theo của Đàm phán]

Annex 4. Current plastic waste management in Soc Trang province

a. Programs and activities on plastic waste management in Soc Trang province

The Soc Trang Provincial People's Committee has been working on various programs and activities, as outlined in Table 5.1, to comply with the National Action Plan on plastic waste until 2030, under Decision No. 1746/QT/TTg dated December 4, 2019.

Table a.1. The programs and activities have been implemented for better plastic waste management

No	Tasks and Solutions	Programmers and Activities
1	**Education and change to behavior pertaining to plastics and marine plastic litter**	
	Organize the launching ceremony for the implementation of the National Action Plan on ocean plastic waste management by 2030 in the province.	- Organize more than 100 training courses, propaganda and small-scale propaganda for civil servants, public employees, workers, people (fishermen, sailors, coastal communities, etc.) to change their usage habits of single-use plastic and non-biodegradable plastic bags. - Propaganda with a duration of 1,850 minutes on loudspeakers about the harmful effects of plastic in coastal communes, wards, and towns. - Organize 01 plastic waste recycling contest, and establish women's groups and unions with the slogan" Say no the single-use plastic products."

		- Build a model Plastic waste collection house model at school to arrange waste facilities located at fishing ports and tourist piers. - Distribute more than 10,000 leaflets about the harmful effects of plastic waste and 20 Pano boards (in which 01 electronic Pano board). - Make 350 plastic bags with propaganda slogans on plastic waste, supporting over 200 trash cans to sort waste at source to schools, coastal localities, and island communes. - Hang banners at roads, concentration areas, and residential areas, and organize garbage collection on 02 polluted river areas in coastal localities in the province to propagate and guide the restriction of garbage use plastic waste.
	Communication and propaganda	- Conduct programs and news on Soc Trang Radio and Television Station, Soc Trang Newspaper, Natural Resources and Environment Newspaper related to plastic waste. Specifically: - Build a model of collecting, classifying, and transporting plastic waste at farm households. - Build a model of plastic waste collection in craft villages. - Build a series of media events, introducing the program of Khmer women combating plastic waste,

		eco-friendly environment, and safe production on local radio and television. - Incorporate messages about environmental protection and methods to prevent and decrease plastic waste into classroom lessons, outdoor activities, after-school programs, and during break times through various forms of communication. - Hang banners featuring the slogan "Say No to Single-Use Plastics." And label and organize trash bins to make sorting more accessible. Involve officials, teachers, and staff to encourage students to participate in collecting and sorting waste in their classrooms and schools.
2	**Collection, classification, storage, transfer, and processing of plastic waste from coastal and ocean-based activities.**	
	Campaigns to collect and treat waste at estuaries	To collect and treat waste at estuaries before dumping it into the sea, integrate campaigns into response activities, including Vietnam Sea and Islands Week in response to World Oceans Day; World Environment Day; Clear the World.
	Mobilize the participation of community groups and organizations in	- Mobilize the Women's Union, Farmers' Union, Youth Union, etc. to participate in the collection and classification of waste, - Building a model of “5 No, 3 Clean”.

	waste collection and classification.	- The "Women collecting waste to raise funds" groups supports arranging 3-compartment trash bins for coastal and island communes to arrange storage and classification of garbage.
	Propaganda for units, organizations, businesses, and individuals participating in the collection, classification, storage and treatment of plastic waste	- Encourage enterprises to produce biodegradable, reusable, and environmentally friendly products. - Encourage businesses, distributors, and consumers to limit plastic products, packaging, and single-use plastic bags and actively seek practical solutions to reduce consumption and increase the reuse and recycling of plastic waste in distribution and consumption. - Launching the movement "Fighting plastic waste" for production and trading establishments of plant protection drugs, fertilizers, and plant varieties in the province.
3	**Control of plastic litter at source**	
	Develop a thematic report on the current status of plastic emissions.	- In 2021, Soc Trang province developed a thematic report on the current status of plastic waste generation in the province, implementing the task of "Reporting the current state of marine and island environment - Theme: Plastic waste in coastal areas of Soc Trang province in 2023". - Develop a project on a model of waste classification at source, regularly update

		propaganda information on plastic waste on the electronic boards of the Department of Natural Resources and Environment and coastal districts and towns.
	Waste management on boats	- Educate fishermen to limit plastic waste, collect garbage and fishing gear damaged to shore, and handle it based on regulations. - Establish guidelines regarding hygiene, waste collection, and treatment specifically for fishermen.
	Manage plastic waste from tourism	- Create posters to raise awareness about the harmful effects of plastic waste. Advocate for cultural regulations for tourists with regards to environmental protection. Distribute leaflets with the message "Say no to plastic waste" to encourage eco-friendly behavior. - To minimize environmental pollution, maintain a clean environment, and create a positive impression on tourists is by strategically placing trash cans at popular tourist spots and attractions throughout the province.
4	International cooperation, scientific research, application,	Conduct a field trip as a prerequisite for implementing the project "Reduce, reuse, recycle and protect the marine environment and coral reefs in Southeast Asia (3RProMar Project) with GIZ staff.

	development, and technology transfer on ocean plastic waste treatment	

b. The limitation in plastic waste management in Soc Trang province

- The waste classification at source has already been piloted in Soc Trang province. However, all types of waste have been collected and transferred together after classification.
- Plastic bags are still prevalent in shops and markets due to convenience and consumer habits. Meanwhile, products to replace disposable products are limited in type and high cost, so they have not attracted and encouraged many communities to participate, which contributes to reducing the use of non-biodegradable plastic products.
- Communication and raising people's awareness activities about reducing plastic waste have been organized. However, propaganda activities have not been carried out regularly, leading to low access and raising awareness in the community.
- The capacity and technology of businesses and plastic collection and recycling facilities are still limited (Read more detailed information in the Appendix).

c. Pictures

A discussion with DONRE officials

A discussion with staff of Soc Trang Urban Joint Stock Company

Waste treatment in Soc Trang City solid waste treatment plant

Waste collection point at Ken Luu Sen Street, Ward 5, Hamlet 2, City. Soc Trang

Annex 5. List of Vietnam delegates joining INC2

Country	Name	Ministry	Department
Vietnam	Mr. Vo Tuan Nhan	Ministry of Natural Resources and Environment (MONRE)	MONRE, Vice Minister
Vietnam	Mr. Hoang Xuan Huy	Ministry of Natural Resources and Environment (MONRE)	International Cooperation Department , Deputy Director
Vietnam	Mr. Ho Kien Trung	Ministry of Natural Resources and Environment (MONRE)	Pollution Control Department, Deputy Director
Vietnam	Mr. Bach Quoc An	Ministry of Justice (MOJ)	International Law Department
Vietnam	Ms. Nguyen Thi Van Anh	Ministry of Foreign Affairs (MOFA)	International Organizations Department, Deputy Director
Vietnam	Ms. Do Phuong Dung	Minister of Industry and Trade (MOIT)	Industrial Safety and Environment Agency, Deputy Director
Vietnam	Ms. Nguyen Thi Thanh Ha	Ministry of Science and Technology (MOST)	Department of Social Sciences and Humanities Literature and Nature, Deputy Director
Vietnam	Mr Le Huynh Quoc	Ministry of Public Security (MPS)	Economic Security Department, Deputy Director
Vietnam	Ms. Tong Thi Hong Minh	Government Office	International Relations Department
Vietnam	Ms. Nguyen My Hang	Ministry of Natural Resources and Environment (MONRE)	Department of Science, Technology and Cooperation International, Vietnam Agency of Seas and Island
Vietnam	Ms. Kim Thi Thuy Ngoc	Ministry of Natural Resources and Environment (MONRE)	Department of Science and International Cooperation, Institute of Strategy and Policy on Natural Resources and Environment
Vietnam	Mr. Nguyen Minh Cuong	Ministry of Natural Resources and Environment (MONRE)	Domestic Solid Waste Management Department, Pollution Control Department
Vietnam	Ms. Vu Huyen Phuong	Ministry of Industry and Trade (MOIT)	Department of Public Environmental Protection, Department of Industrial Safety and Environment

Vietnam	Ms. Nguyen Thi Tuong Van	Ministry of Foreign Affairs (MOFA)	Department of Law and International Treaties
Vietnam	Captain Nguyen Cam Van	Ministry of Public Security (MPS)	Economic Security Department, Officer
Vietnam	Mr. Do Tien Doan	Ministry of Natural Resources and Environment (MONRE)	Pollution Control Department, Officer
Vietnam	Ms. Vu Thi Hong Nghia	Ministry of Science and Technology (MOST)	Department of Social Sciences and Humanities Literature and Nature, Officer
Vietnam	Mr. Nguyen Thi	Ministry of Natural Resources and Environment (MONRE)	Legal Department, Officer
Vietnam	Ms. Nguyen Thi Ngoc Anh	Ministry of Natural Resources and Environment (MONRE)	Department of Science and International Cooperation, Institute of Strategy and Policy on Natural Resources and Environment
Vietnam	Ms. Vu Thuy Dung	Ministry of Natural Resources and Environment (MONRE)	International Cooperation Department , Officer
Vietnam	Ms. Pham Thuy Duong	Ministry of Foreign Affairs (MOFA)	International Organizations Department, Officer
Vietnam	Mr. Tran Van Hung	Ministry of Natural Resources and Environment (MONRE)	Department of Science, Technology and Cooperation International, Vietnam Agency of Seas and Island
Vietnam	Nguyen Khanh Linh	Ministry of Justice (MOJ)	International Law Department

Annex 6. List of Vietnam delegates joining INC3

1. Mr. Ngoc Tuan, Director General, International Cooperation Department, Ministry of Natural Resources and Environment, Head of Delegation
2. Ms. Dung Vu Thuy, International Cooperation Department, Ministry of Natural Resources and Environment
3. Mr. Kien Trung Ho, Deputy Director General, Pollution Control Department, Ministry of Natural Resources and Environment
4. Mr. Thanh Lam Nguyen, Official, Pollution Control Department, Ministry of Natural Resources and Environment
5. Ms. Nguyen My Hang, Head of Division, Division of Science, Technology and International Cooperation, Viet Nam Agency of Seas and Islands, Ministry of Natural Resources and Environment
6. Ms. Pham Thi Thu Ha, Deputy Head of Division, Division of Planning and Finance, Viet Nam Agency of Seas and Islands, Ministry of Natural Resources and Environment

7. Dr. Tu Thi Lan Huong, Officer, Division of Science, Technology and International Cooperation, Viet Nam Agency of Seas and Islands, Ministry of Natural Resources and Environment
8. Mr. Tran Van Hung, Officer, Division of Science, Technology and International Cooperation, Viet Nam Agency of Seas and Islands, Ministry of Natural Recourses and Environment
9. Mr. Nguyen Le Tuan, Director, Environment and Marine Science Institute, Ministry of Natural Resources and Environment
10. Ms. Nguyen Thi Tuong Van, Assistant Director General, Department of International Law and Treaties, Ministry of Foreign Affairs
11. Ms. Dung Phuong Do, Deputy Director General, Industrial Safety Techniques and Environment Agency, Ministry of Industry and Trade
12. Dr. Nguyen Giang Thu, Deputy Director General, Department of Science, Technology and Environment, Ministry of Agriculture and Rural Development
13. Mr. Nguyen Xuan Khoi, Official, Department of Science, Technology and Environment, Ministry of Agriculture and Rural development
14. Ms. Nguyen Thi Tuyet Giang, Head of Division, Department of International Law, Ministry of Justice
15. Mr. Nguyen Ngoc Van, Official, The Department of Organization and Personnel, Ministry of Natural Resources and Environment

Annex 7. Supporting materials for Vietnam delegates

7.1. Proposal to prepare for Vietnam delegates to participate and negotiate Global Treaty

7.2. Preparing documents and presentation for INC2

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