

Trade and Circular Economy in Vietnam

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Abstract:

This study aims to determine whether that ideal circular trade is facing any restrictions and the research results indicate that these trade flows are indeed being blocked by some barriers namely import bans (e.g. China's National Sword Policy & Basel Convention) by "waste" importing countries including Vietnam. Based on a review of the literature on theories of circular economy and trade policy, it is revealed that such barriers are resulted from the lack of international cooperation for agreed common standards and regulations. Legal review also presents with Vietnam's existing laws regulating trade in waste and scrap and the restrictions in place. On that basis, it is recommended that Vietnam should promote its domestic circular economy, and then engage in collaboration through dialogues, trade agreements, and missions to lift unnecessary trade barriers to circular goods & services, and participate in the development of a harmonized system of standards. Further research is needed to identify how circular economy could be integrated into trade policy and trade agreements.

Keywords: Circular economy, international trade, Vietnam

1. Introduction

As a matter of fact, the excessive exploitation and consumption of the earth's limited natural resources plus poor waste management and treatment are shown to lead human beings to the exhaustion of resources and serious environmental pollution. Notably, signs of climate change which is originated from human activities have become more and more obvious as "global warming reaches above 1 degree Celsius above preindustrial level"¹. Understanding the global challenges, countries are now trying to settle the problems. 17 UN Sustainable Development Goals (SDGs) by 2030 and the Paris Climate Agreement are among those efforts to "save" humanity from disasters. Circular economy – a new economic model – was later introduced and now has gained much attention globally for its promising potential in achieving sustainability as set forth in the Paris Agreement and SDGs.

Circular economy could be simply understood as "where the value of products, materials and resources is maintained in the economy for as long as possible, and the generation of waste minimized"², which seeks to combat pollution and achieve sustainable development. Leading the movement towards circular economy is the EU, its member states, China, etc. who have started their efforts for years with the implementation of national action plans, strategies, and promulgation of relevant laws, etc. Vietnam, among the most vulnerable countries to the negative impacts of climate change³, has also recently made its first baby steps in the circular economy shift by, among others, organizing workshops to educate and promote circular economy to relevant entities including policy making bodies and enterprises.

It is reported by Ellen MacArthur Foundation and UNCTAD in 2016 that circular economy can have massive impact on nations, on giant economies such as India and China as examples, the report estimates that India, by adopting circular principles, could create approximately \$624 billion in additional economic value, 44% reduction in greenhouse gas emissions, and a 38% reduction in the use of virgin materials all by 2050⁴. Similarly, circular economy in China could reduce emissions of fine particulate matter by 50%, emissions of greenhouse gases by 23%, and traffic congestion by 47% - all by 2040⁵.

However, the Circularity Gap Report 2019⁶ finds that only 9% of the global economy is circular, which means, only an annual rate of 9% of total weight of minerals, fossil fuels, metals, and biomass that enter the economy

are re-used, implying a huge room for the transition from the linear “take-make-waste” economy to a circular economy.

From a trade perspective, the transition requires comprehensive efforts of different sectors and actors of the economies, including trade sector. It is argued in the most recent relevant working paper of OECD that “the transition towards a more resource efficient and circular economy has broad linkages with international trade through the emergence of global value chains as well as trade in second-hand goods, end-of-life products, secondary materials and waste”⁷. Indeed, in a circular economy “materials can be recycled and are injected back into the economy as new raw materials.... These “secondary raw materials” can be traded and shipped just like primary raw materials”⁸. According to modern trade theory, these materials and products should flow into countries of relevant competitive advantages (i.e. in waste sorting or recycling). Therefore, in order to promote global circular economy, it is apparently essential to facilitate the cross-border circulation of recyclable waste as inputs and recycled products as outputs of the circular economy. However, the other “competitive advantages” of countries namely low labor costs and lax environmental enforcement are being taken advantage of, evidenced by the statistics that import of waste are concentrated in a small number of countries.⁹ To control these huge inflows of waste, countries like China and Vietnam start imposing waste and scrap import restrictions in the course of environment and human health protection. In this spectrum, Vietnam, as well as other countries, do have regulations governing the import and export of the mentioned materials for production and recycled products.

Nevertheless, the question is whether such trade restrictions and other relevant regulations in trade policy of countries hinder the transition towards circular economy, and what could be done in terms of trade policy to promote circular economy. Up to date, specialized policies and legal framework towards the formation and development of circular economy, which is supposed to cover trade sector, are not made available in Vietnam. As a follower in the circular economy trend, it is necessary for Vietnam to recognize the significance of circular economy, to learn from other countries’ experiences to apply to its own transition; moreover, as a part of the global supply chain, to understand its role in contributing to a global circular economy to develop proper relevant trade policies.

2. Literature review

So far, quantitative data on the relationship between trade and circular economy is rather limited. The number of qualitative researches on the potential linkages between the two is not so considerable either.

Acknowledging that lack of research on the issue, OCED has published a backbone concept paper on international trade and the transition towards an energy efficient and circular economy in 2018, authored by Shunta Yamaguchi of the OECD Secretariat, in order to map out potential issues to address and to guide further research areas to explore on the topic. The research introduces circular economy concept and how trade can come into play; highlights the various ways in which trade and the circular economy can potentially interact with one another i.e. trade in waste and scrap, second-hand goods, secondary raw materials, goods for refurbishment and remanufacturing; and proposes further work to answer the ultimate question of how could circular economy policies and trade policies be aligned to encourage the decoupling of resource consumption from economic growth at the global level without creating unnecessary barriers to international trade as well as undesirable environmental consequences.

The concept paper was then followed by a research by Preston F., Lehne J., and Wellesley L., in 2019 on circular economy priorities for developing countries. The paper discussed the potential interrelation between domestic trade policies and WTO rules and circular economy. A wide range of issues are brought to the table for discussion namely the non-discrimination principle of the WTO which should also be applied for circular goods and services, relevant protectionist trade measures, product standards & classification, the integration of circular economy into trade agreements, etc. It argued that domestic trade policies potentially provide an

important means through which national governments can encourage and incentivize the transition towards circular economy.

The EU is one of the pioneers in the transition towards Circular Economy. The block has even formulated a Circular Economy Action Plan to achieve the ultimate goal. The effectiveness of the Action Plan and existing policies of the EU are then evaluated by researchers including those of Institute for European Environmental Policy. In their paper just published at the end of 2019, Kettunen M., Gionfra S., and Monteville M. examine the interface between the EU circular economy, trade and sustainable development. The paper investigates the role of trade in either incentivizing or hindering the process of shifting to circular economy and highlights the need for better policy coherence among circular economy, trade and sustainable development in the EU.

UNIDO (2019) has also studied this issue recently. According to the organization, there are several trade-related barriers that hinder recycling industry towards a circular economy. The first barrier is regulatory requirements: the complexities and inconsistencies of the international legal and policy framework, as well as the difference in national definitions of the materials in national legislation and the absence of internationally agreed limits and tolerances of contaminants create obstacles for international trade in recyclable materials. The second barrier is import bans on recyclable materials, mostly for the purpose of protecting human health and the environment from the negative effects of materials that are considered hazardous. However, import bans reduce the availability of recyclable or recycled material in a country. Last but not least, tariffs (border costs, customs duties, etc.) and non-tariff barriers (permits, licenses, testing requirements and emission controls) also contribute to the hindering of the cross-border movement of recyclable materials. And to settle the issue, UNIDO recommends harmonization of national regulations (definitions, codes and import/export requirements), modification of import bans (for non-hazardous recyclables) and engagement through global or regional trade agreements for the liberalization of trade in secondary raw materials, machinery and equipment used by the recycling industry.

In Vietnam, Nguyen Hoang Nam (Institute of Strategy and Policy on Natural Resources and Environment) appears to be the expert with most publications on circular economy. In his researches, he and his colleagues have explained in details the definition of circular economy, current circular economy practices, Vietnam's legal framework for circular economy implementation, and propose policy recommendations for Vietnam. However, like other available researches in Vietnam, his have not touched the trade dimension of circular economy. The international experiences or recommendations discussed in his researches focus on the general implementation of circular economy within the boundaries of nations rather than at a global scale. Therefore, the role of trade has never been mentioned in any researches of his or his Vietnamese colleagues.

3. Trade and circular economy in vietnam: laws, regulations and practices

3.1. *Legal framework for the circular economy*

Vietnam has ratified and become Party to different multilateral environmental agreements over the last decades with the 2030 United Nations 17 Sustainable Goals, the Paris Agreement on Climate Change, and the Basel Convention on the Control of cross-border movement of hazardous wastes and their disposal.

The UN Sustainable Development Goals (SDGs) were adopted by all United Nations Member States in 2015 with 17 sustainable development goals, 169 specific targets with the implementation roadmap to 2030, recognize that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability.⁶⁶ As a responsible member country of the United Nations, Viet Nam has been actively participating in the implementation of the global sustainable development agendas. The country has nationalized SDGs in its National Action Plan to implement the 2030 Agenda for SDGs in May 2017.

The Paris Agreement of the United Nations Framework on Climate Change, adopted in December 2015 at the 21st session of the Conference of Parties to the United Nations Framework Convention on Climate Change, is the first legal document that binds each country's responsibility and commitments, through Nationally Determined Contributions (NDCs), to coping with global climate change. Accordingly, each country is expected to make efforts to limit the temperature increase to 1.5 degrees Celsius and achieve net zero emissions in the latter half of the century. On October 31, 2016, Prime Minister Nguyen Xuan Phuc has signed Resolution No. 93/NQ-CP on behalf of the Government of Vietnam to ratify the Agreement. Together with the ratification of the Paris Climate Change

Agreement, Vietnam has issued a plan for the implementation of the document, with a focus on implementing its NDC.

In close connection to the transition towards circular economy is the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Convention), a global treaty governing the classification and cross-border movement of "hazardous" and "other wastes". Parties to the Basel Convention, including Vietnam, have agreed to enact national measures to implement the Convention's prior notice and consent regime for transboundary shipments, along with obligations for environmentally sound management, documentation and financial assurances related to cross-border movements of covered wastes. The Convention also includes several trade bans, including a party- to-nonparty ban on trade in covered wastes. In May, 2019, at COP14, Parties to the Basel Convention have adopted amendments that will dramatically expand the Convention's international controls and trade bans applicable to plastic wastes shipped across borders for recycling. The amendments will be legally binding on the 187 parties to the agreement and will have a lasting impact on the global circular economy for plastics, which valued at over \$5 billion per year. The amendments could affect the ability of many companies to fulfill ambitious circular economy commitments, which rely on ready access to increasing amounts recycled plastics for use in new products. The amendment could also pose near-term challenges for countries that lack adequate national recycling infrastructure for properly managing plastic wastes.⁶⁷ However, Vietnam has not ratified this Amendment yet.

Besides, Vietnam is a signing member of many free trade agreements namely AEAN-AEC, ASEAN – Australia/New Zealand, AEAN – China, ASEAN – Hong Kong, ASEAN – India, ASEAN – Japan, ASEAN – South Korea, CPTPP (TPP11), Vietnam – Chile, Vietnam – EU (EVFTA), Vietnam – EEU, Vietnam – Japan, Vietnam – South Korea, not to mention 3 others are under negotiations including RCEP, Vietnam – EFTA and Vietnam - Isarel, in which Vietnam affirms its commitments on environmental protection, mostly through the chapter on trade and sustainable development.

Domestic legal framework as a platform for circular economy development

The political report of the 12th National Party Congress of Vietnam Communist Party has affirmed: "Rapid, sustainable development, striving to soon turn our country into a basically industrialized country towards modernization". The Party has determined the goal by 2020 is to ensure rapid and sustainable development on the basis of macroeconomic stability. This development direction is in line with the "UN Sustainable Development Agenda for the next 15 years" (2016 - 2030). This proves the determination of Vietnam in moving towards sustainable socio-economic development.

As explained in Section I, circular economy is closely linked to SDG 12 of the UN 17 SDGs. Vietnam has also consistently implemented policies connected to SDG 12, including the National Strategy for Sustainable Development in 2011- 2020, National Strategy on Green Growth in 2012-2020 and Vision to 2050, and Strategy on Cleaner Industrial Production until 2020. These policies are in line with the previous Law on Economical and Efficient Use of Energy. Among those policies, Vietnam's National Action Plan on Sustainable Production and Consumption until 2020 and Vision to 2030 is the most comprehensive and direct document which explicitly mentions SDG 12 and is intended to guide the country's path towards sustainable consumption and production until 2030. The impacts of Vietnam's activities on sustainable consumption and production have

been considerable in some sectors. For example, the Strategy on Cleaner Industrial Production until 2020 has been widely implemented across 63 provinces and municipalities, with participation of more than 9,000 enterprises in the mining, steel manufacturing, food and beverage, chemical, construction and other processing industries (Switch Asia, 2019).

However, to date, the term “circular economy” has not been officially used in any regulatory documents of Vietnam. In Vietnam's legal system of environment, there are references to circular economy such as: Promotion of environment- friendly technologies, supporting environment-friendly production, etc. Existing laws of Vietnam emphasizes the principle that resources must be exploited and used in an economical, safe and effective manner, ensuring integrated, multi-purpose, fair and reasonable use, harmony of benefits and equality in interests and obligations among organizations and individuals (See summary of key legislation and policies related to circular economy in Vietnam in Annex 3).

Nguyen Hoang Nam (2019), one of the authors of “Circular Economy in Vietnam”, came to the conclusion that although the term “Circular Economy” has not been officially used in Vietnam’s legal documents, or there is no Circular Economy Law available, many aspects of circular economy have been addressed and supported, including: (i) consuming less raw materials, reducing energy leakages and waste; (ii) enhancing the use of renewable energy, limiting the use of fossil fuels; (iii) reducing the use of plastic and promoting the use of environmentally friendly products; (iv) encouraging reduce, reuse and recycle (3R); and (v) promoting sustainable production and consumption, especially green supply chain and green public procurement, etc. These indicate that the Communist Party of Vietnam and the State Government have great desire for the transition and have actually initiated it toward Circular Economy.

Among those legal documents, Law on Environmental Protection is the back bone of Vietnam’s legal framework to protect the environment. Just recently in 2019, Vietnam’s Ministry of Natural Resources and Environment has released a new Draft Law on Environmental Protection to replace the current 2014 Law which is expected to reduce administrative procedures without affecting the environmental protection management, and add provisions on environmental protection associated with sustainable development. In its Proposal to the Government, Ministry of Natural Resources and Environment acknowledged the global trend in circular economy transition and underlined that Vietnam, in facing the challenges of resources management and climate change, needs to complete its legal framework to support the country’s transition towards circular economy. “Green growth” and “circular economy that consider wastes resources” is the guiding light for the development of amendment to the Law (Ministry of Natural Resources and Environment, 2019). Though the Draft Law is still being developed and there is a long way ahead for it to be adopted and take effect, the comprehensive integration of “circular economy” principle in the new Law as proposed in the New Law Proposal is a proof of Vietnam’s vision and determination in moving towards circular economy.

3.2. Circular economy-based practices in Vietnam

Developing a circular economic model with a focus on responsible natural resource consumption and efficient waste management is being paid attention by many countries in the world, including Vietnam. Though circular economy as a concept is still quite new to Vietnam, the National Action Plan on Green growth includes many actions that fit perfectly with the transition towards a circular economy and many companies and organisations are familiar with the cleaner production principle of ‘Reduce – Reuse – Recycle’. Moreover, organisations like the governmental Central Institute of Economic Management (CIEM) and the Vietnam Chamber of Commerce and Industry (VCCI) are interested in the potential of circular economy strategies. VCCI, also involved in the Global Compact and the Vietnam Business Council for Sustainable Development, is considering the establishment of a Centre of Excellence on circular economy. The Vietnam Cleaner Production centre (VNCPC), involved in initiatives like the development of eco- industrial parks and cooperating with Dutch institutions like the TU Delft, is also familiar with circular economy approaches and could be a valuable partner in next steps in the country. The United Nations Industrial Development Organisation has been active in

Vietnam for many years already and is interested to build on its cleaner production work to include circular economy approaches.

Currently, Vietnam has not yet reached a circular economy. We have just stopped at reusing and recycling wastes that bring financial benefits to production and consumption establishments, not bringing economic benefits. However, models close to the circular economy have been around quite early. In agriculture, there are models of “VAC” garden - pond - barn, recovering biogas and wastes from livestock farms. In industry and handicraft, there are craft villages that use industrial wastes, by-products and wastes, in addition to applying and improving production stages towards saving resources, energy and waste recovery, or recent eco-industrial parks in Hai Phong, Ninh Binh. 69 Recently, in the field of aquatic product processing, the reuse of shrimp heads (formerly considered discarded waste) to extract the active ingredients for drug processing is also applied. Moreover, some businesses such as Heineken have made use of field waste to generate electricity to produce and recycle beer cans after consumer products. 70 Other examples includes combining steam production and power generation in sugar mills, making use of excess heat for processes of drying raw materials of industrial production establishments, using ash and slag of power plants for cement production plants, construction materials, cooling water circulation in thermal power plants and industries.

Vietnam Business Council for Sustainable Development has been coordinating with related parties and a number of enterprises to pilot circular economy programs such as developing secondary market of construction materials, helping sellers, buyers, service providers interact with each other, assisting each other in dealing with the output of recycled products from waste. Or building a post- consumer recycled plastic market in Ho Chi Minh City.

Although this concept has gradually become popular in Vietnam, the application of the model in practice is still limited, mainly applied in large enterprises and foreign-invested enterprises.

3.3. Vietnam in the supply chain of the global circular economy

Waste are traded among countries for recycling. As the trends for recycling and reusing experiences an upward tick, the market is expected to continue growing. In 2017, this market was valued at about 265 billion U.S. dollars. By the year 2024, the market is expected to grow to about 377 billion U.S. dollars. There are various kinds of recycling methods for different material types. Plastic have recently gained a lot of media attention for their impacts on the environment. 77

Global recycling rates are also rising, with metal predicted to reach USD

\$434.55 billion by 2023. Paper will climb from USD \$4.29 billion in 2017 to \$5.42 billion in 2024. Plastics are also part of the story and are expected to rise from USD

\$25 billion in 2018 to \$33.8 billion by 2023. Germany has one of the highest rates of PET bottle recycling. Recent data suggests that up to 97 percent of bottles are being recycled in Germany. Globally, the plastic recycling market is expected to grow dramatically by 2024.

China as the recycling hub

According to data from UN COMTRADE, in the global recycling industry, China is the industry's biggest market, accounting for around 8 million tonnes (or 60%) of global imports. Prior to China's ban of plastics import, 95 percent of the plastics collected for recycling in the European Union and 70 percent in the US were sold and shipped to Chinese processors. There, they were turned into forms to be repurposed by plastic manufacturers.

The largest exporters of plastics waste to China in 2016 were Hong Kong, the United States, Japan, Germany, and the United Kingdom (Figure 3.2), with each shipping between 0.5 million tonnes and 1.3 million tonnes of material. France, Canada, and Italy shipped 0.2, 0.1, and 0.05 million tonnes respectively. Taken together, G7

countries accounted for around half of all the exports of plastics waste to China in 2016. The monetary value of this trade amounted to USD 0.9 billion.

Countries were sending their materials to China because their contamination standard was low and their pricing was very competitive. However, China has now cut off imports of all but the cleanest and highest-grade materials — imposing a 99.5 percent purity standard that most exporters find all but impossible to meet.

Impact of trade restrictions to global recycling industry

Different national definitions of the materials in national legislation and the absence of internationally agreed limits and tolerances of contaminants pose significant obstacles to international trade in recyclable materials, as the material will be subject to different levels of import and export control in different jurisdictions: China's National Sword Policy and the Basel Convention are examples.

The China's National Sword Policy

The China's National Sword policy, enacted in January 2019, banned the import of most plastics and other materials headed for that nation's recycling processors, which had handled nearly half of the world's recyclable waste for the past quarter century, for the protection of the environment or of human health, which is consistent with China's rights and obligations as a Party of the Basel Convention. The move was an effort to halt a deluge of soiled and contaminated materials that was overwhelming Chinese processing facilities and leaving the country with yet another environmental problem—and this one not of its own making. The effects of China's import restrictions on global trade and on domestic markets are already emerging. Recently, data reported by Reuters suggests that China's imports of plastics waste from all countries was less than 10 000 tonnes in February 2018.

For exporters of plastics waste, China's import restrictions are leading to growing domestic waste stockpiles and diversion of material into other export markets. Domestic prices for waste plastics have fallen as a result. Waste management firms in most countries are generally responding through a mix of increased disposal and a search for alternative export markets, mostly in Asia. In the year since, China's plastic imports have plummeted by 99 percent, leading to a major global shift in where and how materials tossed in the recycling bin are being processed. While the glut of plastics is the main concern, China's imports of mixed paper have also dropped by a third. Recycled aluminum and glass are less affected by the ban. As a result, globally, more plastics are now ending up in landfills, incinerators, or likely littering the environment as rising costs to haul away recyclable materials increasingly render the practice unprofitable.

Even before China's ban, only 9 percent of discarded plastic was being recycled, while 12 percent was burned. Without China to process plastic bottles, packaging, and food containers—not to mention industrial and other plastic waste—the already massive waste problem posed by our throwaway culture will be exacerbated. The planet's load of nearly indestructible plastics—more than 8 billion tons have been produced worldwide over the past six decades—continues to grow.

The urgency of tackling global plastics pollution in land & at sea is increasingly recognized around the world. According to UNEP, 127 countries have adopted legislation to regulate plastic bags, mostly in the form of restrictions on manufacturing, distribution, use and imports. Among these countries, 61 have adopted manufacturing and/or import bans on plastic bags, and a number of them have also taken steps to reduce other single-use plastics. Between 2009 and 2018, members notified 128 measures affecting trade in plastics for environmental reasons, mostly under the TBT Agreement. These included technical requirements related to waste management, import licensing schemes to control trade flows, and bans on single-use plastic items or shopping bags.

Allowing waste plastics (and other materials) to flow towards jurisdictions with a comparative cost advantage in sorting or recycling can help to boost global recycling rates, while also generating increased shared economic benefits and improving environmental outcomes. Despite that, global trade in plastics waste remains small relative to overall plastics waste generation. Of the 300 million tonnes of plastics waste generated in 2015, only around 14 million tonnes (or 4%) was exported outside the country of origin.

Basel Convention

Although adopted since 1989, some developed countries, especially the United States, strongly opposed the Basel Convention on the control of cross-border transport of hazardous wastes and their disposal. However, the ban does not violate the MFN Most Favored Nation principle under the General Agreement on Tariffs and Trade (GATT) as this is the exclusion provided for in Article XX (b) of GATT to protect life and health of human.

Therefore, the waste import ban, on one hand, is a source of motivation for the development of circular economy in the exporting country itself, but on the other hand, hinders the transition towards global circular economy for import ban does not facilitate the cross-border movement of materials to countries that have the competitive advantage in recycling. Although the reason for this import ban is justified - protecting human health and the environment from inadequate waste, and the short-term ban on imports will promote source-based sorting, quality assurance, and development of treatment technologies, but it is not a long-term solution for global waste treatment issue.

Vietnam's trade in the transition towards circular economy

Volume of trade in recyclable materials

Huynh Trung Hai (2012) pointed out in that yearly, Vietnam needs 4.5 million ton of iron & steel scrap (the imported scrap makes up 50 % of the total scrap demand, equals to about 2-2.5 mil ton), 1.1 million ton of paper scrap (the imported scrap makes 50 % of the total), that meets 66 % demand of paper production, more than 1.5 million ton of plastic scrap (the imported one takes 80 % of the scrap demand), tens of thousands ton of the other metals such as lead, copper, aluminum, zinc, etc.

In nine months of 2019, Vietnam has imported 1.3 billion USD in value of iron and steel scraps (4.2 million ton).⁷⁸ Main export markets include Japan (1.5 billion tons), the U.S (1.1 tons), Hong Kong, the EU, Taiwan, some Southeast Asia countries. It is notable that in 2019, there are 3 more countries from which Vietnam imports its iron and steels craps which are Poland, Sweden and Bangladesh.

And the demand for the recyclable materials is increased yearly by 10-20 %. The imported scraps are mainly waste plastic, waste paper, waste glass and other metal scraps such as iron and steel, copper, aluminum, and some precious metals (which is allowed to import under Decision No. 12/2006/QD-BTNMT). It was estimated that, in 2008, 1,4 million ton of waste scraps were imported via 60 national borders ports and 49 sea ports of Vietnam.

Plastics

Due to China's ban on imports of certain kinds of solid waste by the end of 2017 (plastic & paper scrap), that material is now being sent to countries that have weaker waste regulations in Southeast Asia, such as Vietnam, Malaysia, Indonesia, Cambodia and the Philippines. Many of them quickly imposed import restrictions around mid-2018. These new import restrictions likely further contributed to the drop in import volume.

Vietnam's imports spiked to 100,000 tons per month in mid-2017 then dropped to 7,500 tons per month in mid-2018, with main exporters USA, Japan, Germany and the UK. In late-2018, the imports increased slightly to 16,000 tons per month. Since May 2018, major ports in Vietnam have banned scrap plastic imports until further

notice. In July 2018, the Vietnamese government announced it will no longer issue new license for plastic waste import.

Vietnam hasn't ratified the Basel Amendment. If the country wants to participate in the export ban, it needs to base on its circumstances to build a specific integration roadmap to harmonize the interests of all parties. Vietnam joined the Basel Convention on March 13, 1995 and the Convention entered into force with Vietnam on June 11, 1995. Since that time, Vietnam has made certain efforts in fulfilling its obligations towards the Basel Convention, including: issuing a series of legal instruments related to waste management, most recently the Law on Environmental Protection 2005 (under revision), Decision No. 23/2006/QĐ- BTNMT dated December 26, 2006, promulgating the List of hazardous wastes, Circular No. 12/2011/TT-BTNMT regulates the management of hazardous waste, Circular No. 01/2013/TT-BTNMT stipulates the scrap allowed to be imported for use as production materials, etc.; entrust the Department of Waste Management and Environmental Improvement - Vietnam Environment Administration to act as the national focal point for the implementation of the Basel Convention; and investing in building material facilities, improving the capacity of the contingent of officials in service of waste management, etc.

Under the direction of Deputy Prime Minister Trinh Dinh Dung in Document 2227/ VPCP-KTTH on handling imported scrap in stock at ports nationwide, the Ministry of Finance shall assume the prime responsibility and coordinate with the Ministry of Finance. Natural Resources and Environment, localities established Interdisciplinary Working Group (the Ministry of Finance is the leader) to handle outstanding scrap imported at ports across the country, in accordance with the provisions of Decree 29/2018/ND-CP on the order and procedures of establishing the entire people's ownership of property and dealing with the property with the ownership of the entire people and related legal provisions; Report to the Prime Minister the implementation results in March 2019.

Previously, in Resolution 09/NQ-CP, the Government assigned the Ministry of Natural Resources and Environment to direct the Department of Natural Resources and Environment not to directly inspect and assess the quality of imported scrap; promptly implement the official dispatch No. 1036/VPCP-TH of February 1, 2019.

The Ministry of Natural Resources and Environment, provincial-level Natural Resources and Environment Departments continue to consider and grant certificates of eligibility for environmental protection in importing scrap as raw production materials for organizations and individuals directly use imported scrap to produce intermediate products: metal ingot, plastic beads, commercial recycled plastic products if meeting environmental protection requirements as prescribed by law. Particularly for scrap plastic, only imported as raw materials to produce the above intermediary products until the end of December 31, 2024.

For the customs sector, the Deputy Prime Minister asked the General Department of Customs to create favorable conditions for businesses that have needs and meet import conditions to quickly clear customs clearance for shipments eligible for production. Customs authorities must also strictly control, promptly detect and strictly handle violations. According to the latest statistics of the General Department of Customs, the whole country has more than 21.5 thousand containers of scrap in ports.

4. Conclusion

In the transition towards circular economy, the state plays a constructive role, enterprises are the central driving force, organizations and individuals participate in the implementation. The constructive role of the state is shown in creating an environment for the development of a circular economy.

Domestically, Vietnam should improve its legislation to fit with the demand and supply of the other countries in the region and the ability to control international trade of recyclables, whilst develop recycling industry with proper database, infrastructure for the extension of imported/domestic waste/scrap/recyclable and technology.

More mechanisms and policies are needed for developing clean technologies, reducing, reusing, and recycling wastes and wastes that must be resources in the economy, in terms of both production and consumption. To promote the circular economy, according to the Ministry of Natural Resources and Environment, a clear legal corridor is needed for the formation and development of circular economic models.

Vietnam can learn from the EU's experiences in (i) developing an improved knowledge base and support for enterprises (with a focus on SMEs) for the substitution of hazardous substances of very high concern; (ii) supporting enterprises on public-private partnerships, cooperation platforms, voluntary business approaches and exchanges of best practices by providing training to SME support organizations and policy advice to regional authorities; (iii) establishing an open network of technological infrastructures for enterprises to integrate advanced manufacturing technologies into their production processes towards resource and energy efficiency and sustainability.

The circular economy is associated with technological innovation and model design. This is a big challenge to overcome because Vietnam is a developing country, most of the technology is backward and small-scale production. The current advantage is that we are aiming for the 4.0 revolution and the application of the CE models which will be associated with high technology will be a great opportunity for investing in new models. In addition, the development of the CE models should be based on the existing models, and complementary, complete, with each industry and sector from pilot to scaled up. In near future, digital and blockchain technologies may soon be able to better traceability and aid identification and classification of CE materials and goods. Vietnam should attract the technology and management skills from abroad so that Vietnamese firms can use the spillover and learning effects from international enterprises in developing their circular economy business model.

Circular economy is a solution for the paradox caused by economic development and environment protection. It is all about retaining value in the value chain, which could link from one country to another through trade.

Circular economy can change trade patterns and, vice versa, trade can affect the transition towards circular economy. Pursuing circular economy through trade, Vietnam, like any other countries, do face the obstacles that limit their participation namely trade restriction in the form of import ban, lack of harmonization between national standards and regulations, and lack of international cooperation. To overcome such challenges, Vietnam and its trade partners must at the same time, develop their domestic circular economy and promote international collaboration for the achievement of a global circular economy.

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