

Chapter 1

Circular Economy for Plastics and Digitally Enabled Community Towards ASEAN Halal Hub in Asia

Khairunnisa Musari



<https://orcid.org/0000-0003-0525-9903>

Kiai Haji Achmad Shiddiq State Islamic University, Jember, Indonesia

ABSTRACT

This chapter highlights the significant economic opportunities from the implementation of the circular economy paradigm for plastics as a requirement for halal industry in the ASEAN region. If this can be realized, the ASEAN halal industry will have a comparative advantage that will all at once leads radically in reducing plastic pollution in halal market. ASEAN has opportunities for influencing the value to halal market in Asia. All the more, Asia also has opportunities for influencing the value to halal market around the world. With support from the digitally enabled community, this circular economy best practice may spread and influence another region or another industry in Asia. This not only opens up opportunities of ASEAN for leading a halal hub in Asia, but it can also be encouraging the collaboration between community groups, businesses, industry, local and national governments, international donors, and world-class experts seeking meaningful actions to defeat plastic pollution.

INTRODUCTION

Plastic is an overwhelming driver of the economy. Without a doubt, plastic leads plentiful merits to society and is often viewed as environmentally friendly than other materials, at least for its lightweight. However, plastic explosion brings in fact not only severe impacts on human health and environment but also detonates a tremendous volume of greenhouse gas effect. Ellen MacArthur Foundation (2016, 2017), Europe Commission (2019), Hisham and Florent (2019), Heinrich Böll Foundation and Break Free From Plastic (2019), Son (2020) confirmed the abundance of evidence that plastics have serious

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effects on human health and environment, particularly to marine ecosystems and coastal environments. Three percent of all plastic leaks into the ocean every year. Without immediate undertaking, marine debris pollution may negatively impact marine biodiversity, society, and the global economy.

Ellen MacArthur Foundation (2017) declared the use of plastics has increased twentyfold in the past half-century. More than 40 years after the launch of the first universal recycling symbol, that only 14% of plastic packaging is collected for recycling globally. Each year, US\$80-120 billion plastic packaging material value is lost to the economy. As a part of daily life around the globe, Son (2020) justified the production of plastic has been continually escalating since 1950. Because of plastic's ubiquitous use, incomparable properties, and low production costs, production is predicted to enlarge in the next two decades. Figure 1 shows the global plastic production during 1950 until 2019. PlasticsEurope (2020) reported global plastics production in 2019 reached 368 million tonnes and covered as much as 51% in Asia with composition 31% of China, 3% of Japan, and 17% rest of Asia.

Prior to 2018, Tiseo (2020a, 200b) and Arkin (2019) explained that China was the leading destination for plastic waste exports. However, at the beginning of that year, China decided on much stricter standards, only accepting plastic waste with less than 0.5 percent contamination by non-recyclable materials. This put pressure on major exporting countries such as the United States (US), Germany, and the United Kingdom (UK) to find new waste destinations. With China no longer an option, other nations, especially in Southeast Asia (SEA), began to increase plastic waste imports. Between January and November 2018, Malaysia was the leading nation to import plastic waste worldwide. Its shares of imports were twice that of Thailand's, which was ranked second and Vietnam was the third. However, in 2018, Malaysia and Thailand also have announced bans on imports of plastic scrap by 2021 and Vietnam in 2019 followed suit with their own plastic import bans, whilst Indonesia and Cambodia have earlier restricted imports of non-recyclable waste.

Furthermore, Akenji, Bengtsson, Kato, Hengesbaugh, Hotta, Aoki-Suzuki, Gamaralalage, and Liu (2019) mentioned SEA has emerged as a global hotspot for tackling plastic-related issues. Major economies in the region have been found to be among the largest contributors to marine plastic pollution globally. Hisham and Florent (2019) announced eight of the world's most polluted rivers flow through the Association of Southeast Asian Nations (ASEAN) countries and six of the top 20 countries based on the percentage of waste that is littered or inadequately disposed are located in ASEAN. Refer to Jambeck, Geyer, Wilcox, Siegler, Perryman, Andrady, Narayan, and Law (2015), five of the top 10 countries ranked by mass of mismanaged plastic waste in 2010 were ASEAN countries. Table 1 shows the ASEAN countries ranked by mass of mismanaged plastic waste.

In the face of growing public pressure to address a plastic pollution crisis, research and investigations by Changing Market Foundation (2020) in over 15 countries across five continents reported that industries have obstructed and undermined legislative solutions for decades. The voluntary initiatives by industries failed to contain the plastics crisis. The industries even have used these initiatives as a tactic to delay and derail progressive legislation and distracting consumers and governments with empty promises and false solutions. In ASEAN, Akenji et al (2019) wrote all national governments of the ASEAN Member States recognize the need to address the issues of plastics. Although all governments in the region agree with the need for more and better recycling, few countries have policies that effectively contribute towards these objectives. That's why the rationale of member states for taking action to address the issues of plastics varies in the ASEAN.

However, referring to Yates (2017), ASEAN has proved its capability as the 'primary manager' in SEA and the 'regional conductor' of the order of Asia Pacific in negotiating the social roles. By considering

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