

**ENVIRONMENTAL IMPACT OF CIGARETTE BUTT LITTER
IN BORACAY, AKLAN IN THE PHILIPPINES**

EXECUTIVE SUMMARY

Boracay, particularly White Beach, is the top beach destination in the Philippines, and is recognized as one of the best beaches in the world, with its soft, powdery white sand stretching for about 4 kilometers. It is the top tourist spot in the Philippines, attracting about 2 million visitors before the pandemic in 2019 (about 170,000 visitors per month or 4,000 to 6,000 visitors per day). In April 2022, tourist arrivals "[reached a new two-year high](#) of 186,751, or a daily average arrival of 6,225 since the pandemic was declared in March 2020."

The management of waste brought by tourists and the many businesses that cater to them, as well as residents, is one of the biggest problems on the island, such that the Philippine President dubbed it a "[cesspool](#)". In 2018, the government closed the island to visitors for six (6) months for environmental rehabilitation and restoration, followed with the strict enforcement of existing ordinances which banned smoking and littering on beaches and other public places in Boracay. Rehabilitation efforts are slated to end in June 2022. The 6-month closure was estimated to cost USD1 billion in lost revenue, with thousands of people losing their jobs.

Cigarette butts actually contribute significantly to the island's environmental pollution and waste management problem. Cigarette butts are one of the most littered items on the planet, found mainly along waterways and coastlines. In fact, for more than 30 years, cigarette butts consistently topped the list of littered items picked up in beach cleanups worldwide.

Cigarette butts are made of plastic, contributing to microplastic pollution, and contain toxic and hazardous substances that leach into the environment. Tobacco companies resorted to using synthetic fibers in filters, despite considering natural fibers like cotton, charcoal and food starch, because cellulose acetate, a type of plastic, was cost effective and suitable for mass production.

Today, cigarette filters continue to be made of cellulose acetate which is non-biodegradable and simply breaks down into microplastics that end up polluting

waterways and oceans. Cigarette butts were also found to contain toxic materials, including nicotine, heavy metals and other chemicals that leach into the environment and are dangerous to marine life, when exposed or when eaten by them.

In 2010, the Philippines Department of Environment and Natural Resources (“DENR”) ranked cigarette butts as the second highest pollutant in the Philippines. A survey conducted in April 2022 found that an estimated **34,385 cigarette butts are littered every day*** in Boracay, equivalent to about **12.55 million cigarette butts littered per year**. Further, it is estimated that 33 to 49.6 billion cigarette butts are littered every year in the whole Philippines, based on a review of 2015 cigarette consumption data in the country.

According to local environmental organization, EcoWaste Coalition, cigarette butts take more than a decade to break down into tiny plastic powder, and release thousands of remaining chemicals that are toxic, which can leach into the water and soil and harm ecosystems. Cigarette butt litter can also be accidentally ingested by animals and even humans.

The ingestion of such litter by animals has been shown to have adverse consequences, including poisoning, with symptoms and effects ranging from salivation, excitement, tremors, vomiting, lack of coordination, weakness, convulsions, respiratory failure, and even death. The risk increases as one considers the potential for bioaccumulation of such toxins in animals as they go further up the food chain, which may eventually affect the health of humans who eat them.

When ingested by humans, particularly, children, they can choke on the cigarette butts, while the nicotine and other toxic chemicals may cause poisoning. One study found thousands of cases of cigarette butt ingestion by humans, mostly children below six (6) years old, some of whom manifested severe symptoms of poisoning.

The environmental impact of tobacco actually spans its entire life cycle which World Health Organization divides into five key stages: (1) growing and curing; (2) product manufacture; (3) distribution and transportation; (4) product consumption, including second-hand and third-hand smoke exposure; and (5) post-consumption tobacco

* Taking into account only the accommodation establishments accredited by the Philippines’ Department of Tourism (“DOT”)

product waste disposal. The tobacco industry contributes to climate change, releasing the equivalent of 84 megatons of carbon dioxide every year.

Electronic cigarettes (e-cigarettes) also constitute a potential waste management problem, as its number of users continue to grow. The different components of an e-cigarette make its disposal more complicated, as parts of it are plastic, parts of it constitute hazardous waste, and parts of it constitute electronic waste. E-cigarettes already becoming an environmental concern, as e-cigarette waste are found during beach cleanups. Its plastic and electronic components, and chemical substances each pose unique environmental concerns.

Recommendations

Recommendations to address post-consumption tobacco product waste disposal, particularly cigarette butt litter, include the following:

International and national levels

- Strengthen implementation of the WHO FCTC. WHO FCTC implementation effectively reduces tobacco use, which will have the beneficial effect of reducing cigarette butt litter.
- Ban plastic cigarette filters. In the Philippines, there have been several bills filed that propose to regulate plastic products in general, which may also impact cigarette filters.
- Impose additional taxes on tobacco, the proceeds of which shall be used to cover the costs associated with the environmental impact of tobacco in its entire life cycle, from production to disposal.
- Require tobacco companies to establish and undertake deposit-return schemes or take-back programs.
- Require tobacco companies to report the waste produced and other environmental impacts of their activities through all stages of their product's life cycle.

Local or subnational level

- Develop and/or improve enforcement of laws against littering relative to cigarette butts. Anti-littering legislation will complement the policy banning plastic cigarette filters.
- Develop and/or improve enforcement of smoke-free measures in parks, beaches and other outdoor public spaces.
- Regulate cigarette butts as toxic hazardous waste.
- Impose a per-pack fee on cigarettes, the proceeds of which shall be used to cover the costs associated with cigarette butt litter.
- Regulate the disposal of e-cigarettes, which has plastic components; liquid chemicals (e-juice, e-liquid) that should be treated as hazardous waste; and batteries, chargers, and other electronic components that should be treated as electronic waste.