

Environmental Impact of Tobacco – White Paper

European Dental Students' Association

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We are harmed by tobacco both directly and indirectly through smoking. Simultaneously, tobacco does not only affect human beings, but also the environment. Growing, cultivating, manufacturing, distributing, using, and disposing of can all have an influence. We shouldn't ignore the hidden health repercussions of smoking, which ultimately lead to less "hidden" issues, aside from the obvious ones.

Year	Trees cut	Land used	Water used	CO2	Cigarette
	(millions)	(hectares)	(tonnes)	Emissions	butts littered
				(tonnes)	(trillions)
2023	600	200,000	22 billion	84 million	4,5

Did you know that 22 billion tonnes of water are used in tobacco production globally? Did you know that 2 million tonnes of cigarette packaging waste weigh as much as the weight of 9433 freight trains? Did you know that more than 700 chemicals have been identified in tobacco, and 70 are known to cause cancer in humans and animals?

Tobacco growing damages soil, destroys forests, and depletes water supplies, while as it is being manufactured, it contributes to producing toxic waste. Air pollution with residual nicotine and other harmful chemicals on indoor surfaces exposes non-smokers to second-hand and third-hand smoke toxins. Cigarette butts waste poisoned seas and rivers, affecting marine life. Thus, it is also clear that about 4.5 trillion disregarded cigarette butts present an extreme danger to the environment.

In addition, the tobacco life cycle produces significant amounts of CO2, with approximately 14 grams of CO2 emitted per cigarette over its whole life cycle, from production to disposal. This small amount might seem negligible initially, but if we look at the bigger picture, 80 million tonnes of carbon dioxide are released into the environment each year, substantially contributing to global warming. The 84 megatonnes of Co2 emissions, produced by the cigarette factories is equivalent to 280000 Saturn V rocket launches to outer space. This equals 1/5 of the carbon dioxide the commercial airline industry makes yearly!



Activity	CO2 Emissions	
Smoking (per year)	84 million tonnes	
Using a Smartphone (iPhone, first year)	79 kg	
Car Driving (per year)	4.6 metric tons	
Dinner (Beef, per kg)	60 kg	

The environmental problem is proliferating, becoming even more complicated by the newer electronic smoking devices, which need metals, batteries, and plastic for production. All of the above-mentioned are classified as hazardous waste, even if disposed of in a waste bin.

While transnational tobacco companies strive to minimize the environmental impact of tobacco manufacturing and transport, the industry still needs to be more sustainable. The adage "there is no such thing as a safe cigarette" aptly extends to the notion that there is no such thing as an environmentally neutral tobacco industry. As we advance, every effort brings us closer to global recognition of tobacco as a pressing issue. It is crucial that we act swiftly, as the human, financial, and environmental costs are far too significant to ignore.

FREQUENTLY ASKED QUESTIONS (FAQS) CONTACT

Any queries regarding this policy should be directed to the EDSA Policy Officer.



REFERENCES

- 1. Zafeiridou M, Hopkinson NS, Voulvoulis N. Cigarette smoking: an assessment of tobacco's global environmental footprint across its entire supply chain. Environ Sci Technol. 2018;52(15):8087–94. doi:10.1021/acs.est.8b01533.
- 2. Araújo MCB, Costa MF. From plant to waste: the long and diverse impact chain caused by tobacco smoking. Int J Environ Res Public Health. 2019;16(15):2690. doi:10.3390/ijerph16152690.
- 3. Shen M, Li Y, Song B, Zhou C, Gong J, Zeng G. Smoked cigarette butts: unignorable source for environmental microplastic fibers. Sci Total Environ. 2021;791:148384. doi:10.1016/j. scitotenv.2021.148384.
- 4. Tobacco: Poissoning our Planet [WHO] Available at: https://iris.who.int/bitstream/handle/10665/354579/9789240051287-eng.pdf?sequence=1
- 5. Tobacco and its environmental impact: an overview [WHO] Available at: https://iris.who.int/bitstream/handle/10665/255574/9789241512497-eng.pdf

