Tobacco is a threat to the environment and human health

Asmus Hammerich,¹ Fatimah El-Awa,² Nisreen Abdel Latif,³ Sophia El-Gohary ⁴ and Ma Daniella Louise Borrero ⁵

¹Director, Department of Noncommunicable Diseases, World Health Organization Regional Office for the Eastern Mediterranean, Cairo, Egypt. ²Regional Advisor, Tobacco Free Initiative, World Health Organization Regional Office for the Eastern Mediterranean, Cairo, Egypt. ³Technical Officer, Communications, World Health Organization Regional Office for the Eastern Mediterranean, Cairo, Egypt. ⁴⁵Technical Officer, Non Communicable Diseases and Mental Health, World Health Organization Regional Office for the Eastern Mediterranean, Cairo, Egypt. (Correspondence to: F. El-Awa: elawaf@who.int)

Citation: Hammerich A; El-Awa F; Latif N; El-Gohary S; Borrero D. Tobacco is a threat to the environment and human health. East Mediterr Health J. 2022;28(5):319–320. https://doi.org/10.26719/2022.28.5.319

Copyright © World Health Organization (WHO) 2022. Open Access. Some rights reserved. This work is available under the CC BY-NC-SA 3.0 IGO license (https://creativecommons.org/licenses/by-nc-sa/3.0/igo).

The 2022 World No-Tobacco Day campaign focuses on tobacco's threat to the environment (1). It aims to raise awareness on the environmental impact of tobacco throughout its lifecycle, demonstrating its destructive impact not only on human health, but also on the environment and the planet (1). It also aims to expose efforts of the tobacco industry to "greenwash" their reputation and products by increasingly portraying their activities as environmentally friendly (2).

The campaign messages demonstrate the varied ways that tobacco cultivation, production, distribution, consumption, and post-consumer waste threaten the environment (2). Tobacco destroys forests, harms the soil, affects water supply, pollutes the air, and contributes to other types of unsustainable environmental damage (2).

In addition to the more than 8 million lives lost to tobacco every year globally (2), this year's campaign reveals the risks tobacco cultivation poses to human health. For example, a tobacco farmer who plants, cultivates, and harvests tobacco may absorb as much nicotine per day as found in 50 cigarettes (3). 'Green Tobacco Sickness' is a form of nicotine poisoning that occurs in about 1 in 4 tobacco farmers (3). Moreover, tobacco farmers may experience increased concentration of aluminum and arsenic in their blood due to exposure to pesticides used in tobacco cultivation (3). Chronic exposure to certain pesticides results in several health effects, including birth defects, benign and malignant tumors, genetic changes, blood disorders, neurological disorders, and endocrine disruption (3).

At the same time, it is often children who work on tobacco farms, and who are particularly vulnerable, given their low body weight relative to the proportion of nicotine absorbed through their skin from handling tobacco leaves (3). Young tobacco farmers may experience increased risk of early kidney dysfunction and are more likely to smoke (3). Women are disproportionally affected by the harmful effects of tobacco farming because they face a higher risk of infertility and other reproductive issues (3). In other words, the harms of tobacco cultivation threaten everyone, particularly the vulnerable population groups.

In the WHO Eastern Mediterranean Region (EMR), the tobacco epidemic continues to pose a great challenge to public health. The United Nations Sustainable Development Goals challenges Member States to achieving the stipulated 30% reduction in tobacco use by 2030 (4). It is therefore essential to step up tobacco control action through the adoption of evidence-based policies and effective implementation of these policies. Equally important is speaking out and exposing the tobacco industry. Member States can do so at the 27th session of the United Nations Climate Change Conference of the Parties, which will convene in November 2022 in Egypt. This is the first time the Region will host this conference, making it an opportune platform for Member States to shed some light on the threat tobacco exacts on human health and the environment.

The tobacco industry contributes to climate change and reduces climate resilience by wasting resources and damaging ecosystems (5). In fact, the tobacco industry contributes an estimated 84 megatons of carbon dioxide to the annual greenhouse gas and destroys around 3.5 million hectares of land for tobacco growing each year (5).

Although largely overlooked in the past, the impact of tobacco on the environment should be of particular importance to Member States in the EMR, given that about 90% of all tobacco production is concentrated in the developing world (6). Tobacco has an immensely uneven impact on different socioeconomic groups (6). In low- and middle-income countries, many farmers and government officials see tobacco as a cash crop that can contribute to economic growth (6). However, the shortterm cash benefits of the crop are offset by the long-term consequences of increased food insecurity, frequent sustained farmers' debt, illness and poverty among farm workers, and widespread environmental damage in lowand middle-income countries (6). Many Member States in the EMR grow tobacco and must start transiting to more environmentally friendly and profitable crops such as nuts, chili, green vegetables, and rice (7).

In line with Article 18 of the WHO Framework Convention on Tobacco Control, Parties agreed to take the needed measures to protect the environment and the health of their people in relation to the environment and with respect to tobacco cultivation and manufacturing (8). This is a key obligation under the Convention, making this year an opportune time for countries to step-up national action on this issue by calling on (3):

- Governments and civil society groups to raise awareness on this topic.
- Governments to impose an environmental tax levy on tobacco manufacturers, distributors, and consumers for carbon emissions, air pollutants, and other environmental costs caused during the supply chain of tobacco products.
- Countries to consider imposing the 'Extended Producer Responsibility Policy Principle' to mitigate the problem of tobacco and e-cigarette product waste, and to hold tobacco and related industries accountable for clean-up and waste disposal costs.

- Countries to recognize the use of single use non-biodegradable plastics in cigarette filters and other nicotine products and to take appropriate action to phase out the use of plastics in nicotine and tobacco products.
- Farmers to be supported through government incentives to participate in crop substitution by growing more sustainable crops that will help improve the livelihood of the community.

Using a comprehensive approach to tackle tobacco is the best way to achieve success in tobacco control and the 2030 Agenda for Sustainable Development. Protecting the environment from tobacco's destruction is a key component in tackling the tobacco epidemic and should be integrated in all tobacco control programmes at national level (9).

References

- 1. World Health Organization. World no tobacco day 2022: tobacco's threat to our environment. Geneva: World Health Organization; 2022, https://www.euro.who.int/en/media-centre/events/2022/05/world-no-tobacco-day-2022-tobacc cos-threat-to-our-environment#:~:text=The%202022%20global%20campaign%20aims,the%20toxic%20waste%20it%20generates.
- 2. World Health Organization. World no tobacco day 2022: poisoning our planet. Cairo: World Health Organization Regional Office for the Eastern Mediterranean; 2022, http://www.emro.who.int/tfi-campaigns/2022/index.html.
- 3. World Health Organization. Q&A: world no tobacco day 2022. Geneva: World Health Organization; 2022, https://www.who.int/ news-room/questions-and-answers/item/q-a-world-no-tobacco-day-2022.
- 4. Al-Mandhari A; Hammerich A; El-Awa F; Bettcher D; and Mandil A. Full implementation of the WHO Framework Convention on Tobacco Control in the Eastern Mediterranean Region is the responsibility of all. East Mediterr Health J. 2020;26(1):4–5.
- 5. World Health Organization. World no tobacco day 2022: make the industry clean up. Cairo: World Health Organization Regional Office for the Eastern Mediterranean; 2022, http://www.emro.who.int/tfi-campaigns/2022/make-the-industry-clean-up.html.
- 6. World Health Organization. Protect the environment, world no tobacco day 2022 will give you one more reason to quit. Geneva: World Health Organization; 2021, https://www.who.int/news/item/13-12-2021-protect-the-environment-world-no-tobacco-day-2022-will-give-you-one-more-reason-to-quit.
- 7. Jeffrey Drope. Key takeaways from the launch of the Tobacco Atlas 7th Edition. The Tobacco Atlas, 18 May 2022, https://tobaccoatlas.org/key-takeaways-from-the-launch-of-the-tobacco-atlas-7th-edition/.
- 8. World Health Organization. WHO Framework Convention on Tobacco Control. Geneva: World Health Organization; 2003, http://www.emro.who.int/tfi/who-fctc/index.html.
- 9. Zafeiridou M, Hopkinson NS, and Voulvoulis N. Cigarette smoking: an assessment of tobacco's global environmental footprint across its entire supply chain. Environmental Science and Technology. 2018;52(15):8087–8094.