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How Tobacco Undermines the UN Sustainable Development Goals

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How Tobacco Undermines the UN Sustainable Development Goals

Tobacco's influence extends to many areas of society and even threatens the achievement of the 17 Sustainable Development Goals (SDGs). These goals are at the core of the 2030 Agenda and are to be achieved at the global level by 2030. All UN member states are called upon to tackle the world's most pressing problems together.

In this series of articles, AT Switzerland shows what negative consequences tobacco has on the achievement of each of these 17 goals.

This series was developed by Luciano Ruggia, Director of AT Switzerland, and written by journalist Julie Zaugg.

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www.at-schweiz.ch

Introduction

Tobacco jeopardises the achievement of these 17 goals. Yet tobacco companies have enthusiastically adopted them, hoping to influence them from behind the scenes.

The health damage caused by tobacco is now well known. But tobacco also has an impact on many other areas of society. In particular, it endangers the achievement of the Sustainable Development Goals (SDGs), 17 targets adopted in 2015 by UN member states and expected to be achieved by 2030.

"Tobacco has a deleterious effect on all three pillars of the SDGs, economic, social and environmental," says Adriana Blanco Marquizo, who heads the secretariat of the WHO Framework Convention on Tobacco Control. She cites the example of economic growth. "Every year, tobacco costs us more than $1 billion in health costs and lost productivity, as some workers fall ill or die at a young age, while others have to take time off to care for a loved one whose health has been affected."

The environment is another victim. "Tobacco products harm nature from the beginning to the end of their life cycle, whether it is by promoting the advancement of deserts, contaminating water, depleting soil or taking up land that could be used to grow food," add Ms. Marquizo.

This is why tobacco is one of only two consumer goods explicitly mentioned in the SDGs, along with alcohol. Goal 3 calls for better regulation of the industry and the implementation of control measures under the WHO Framework Convention on Tobacco Control.

However, the tobacco industry – made up of five multinationals (Philip Morris International (PMI), British American Tobacco (BAT), Japan Tobacco International (JTI), Imperial Brands and China National Tobacco Corporation), which share 80% of the market – does not see it that way. Achieving the SDGs is based on building partnerships," says Ms. Marquizo. But the tobacco industry has stepped into the breach, presenting itself as part of the solution rather than part of the problem and demanding a seat at the table in the hope of influencing the negotiations to its advantage.

To support these efforts, the industry has begun to reference the SDGs in its social responsibility reports. Geneva-based JTI, for example, has initiated water projects in Bangladesh on behalf of the SDGs.

PMI, based in Lausanne, is committed to food security in Mozambique, Malawi and Tanzania, ostensibly to promote the SDGs. At the same time, the firm has been lobbying foreign ministries in several countries not to include anti-smoking measures in the 17 goals, ahead of their adoption.

This is by no means the first time the tobacco industry has deployed diversionary tactics. "It started with filters, presented as a solution to prevent harmful substances from getting into smokers' lungs, followed by 'light' formulations, intended to convince people about to give up smoking not to give it up," recalls Ms. Marquizo.

More recently, the tobacco industry has approached the umbrella organisations representing tobacco farmers or small shops selling cigarettes with hidden funding, in order to use them as Trojan horses to defend their interests vis-à-vis the governments that consult them. "In my country, Uruguay, the association representing small traders intervened to oppose a new law prohibiting them from including tobacco products in their displays, arguing that this would have a negative impact on their turnover," notes Ms. Marquizo. But this is not the case at all, because cigarettes represent a very small part of their income. The tobacco industry had given them this line.

Tobacco companies have also created their own front companies to influence public discourse and anti-smoking measures. The Geneva-based ECLT Foundation (Eliminating Child Labour in Tobacco Growing), funded by BAT, claims to be working to eradicate child labour on tobacco farms, but it has no binding mechanism to ensure that commitments made are met. It has also become involved in the UN decision-making process through its participation in the Global Compact, an initiative that encourages companies to adopt a socially responsible attitude.

Tracit, another organisation affiliated with the Global Compact and funded by the tobacco industry, claims to want to fight against illicit cigarette trafficking. In reality, however, it is focusing its efforts on preventing the adoption of laws that could curb these flows, particularly in Latin America.

Also, the Codentify cigarette tracking system, developed by PMI and made available to other cigarette companies free of charge, is said to suffer from serious deficiencies that make it ineffective in stopping smuggling. It's a short step from that to an attempt to sabotage efforts to combat cigarette smuggling.

In recent years, the tobacco industry has shifted its tactics slightly, focusing on new nicotine products – electronic cigarettes or heated tobacco products – that are coming onto the market. The tobacco companies' discourse has evolved: they are trying to portray themselves as an innovative industry

through a new generation of products that they describe as being less harmful to health, even though their risk profile has not yet been established with certainty," notes Ms. Marquizo. At the same time, they promise to phase out traditional cigarettes, but without setting a deadline."

One of the spearheads of this new strategy, the Smoke-Free Foundation, was formed in 2017 under the leadership of PMI, which funds it entirely. It claims to support research into new nicotine products. "This entity has been trying for some years to intervene in global discussions on anti-smoking measures by presenting itself as a neutral actor," says Ms. Marquizo.

SDG 1: No Poverty

End poverty in all its forms everywhere, is the mission of the UN's first Sustainable Development Goal. This means eradicating extreme poverty currently measured as people living on less than $1.25 a day. It also means to reduce at least by half the proportion of men, women and children of all ages living in poverty by providing them with protection from natural and man-made disasters, financial resources and access to basic services such as shelter and food.[1]

Tobacco consumption contributes directly to poverty in several ways. For people on low incomes, the daily purchase of one pack cigarettes has an immediate and measurable impact on their and their families' standard of living. In order to feed their addiction, they have to give up other crucial expenditures such as food, housing and education for their children.

The poorest households in Bangladesh spend 10 times more on tobacco products than on school fees. Nationwide, an additional 10.5 million people could be fed if the money spent on cigarettes today was spent on food.[2] In Sri Lanka, low-income households spend almost 10% of their income on cigarettes. Some spend up to 50% of their income on cigarettes.

The phenomenon affects not only developing countries. In Switzerland, where a packet of cigarettes costs an average of CHF 7.85, a person who smokes a pack a day spends CHF 2,865.25 annually. This represents 7.2% of the gross annual income of a sales employee.

In the case of illness or premature death caused by smoking, the consequences can also be catastrophic, especially in countries where a large proportion of the population is not covered by health insurance. An unexpected medical bill or an expensive hospitalization is often enough to plunge an entire family into poverty, especially when its members depend on the salary of the ill person.

In India alone, tobacco use has pushed an estimated 15 million people below the poverty line. [3] In Tanzania, where a quarter of the male population uses tobacco, nearly 24% of smokers live below the poverty line, compared to 19% of non-smokers.[4]

The links between tobacco and poverty are not only expressed at the individual level. Cigarette consumption also impoverishes states, driving up health costs, reducing worker productivity and – for countries that grow tobacco – causing environmental damage. This is also true for Switzerland, where

tobacco consumption generates annual medical costs of CHF 3 billion, or 3.9% of total health expenditure.[5]

In some countries, such as Pakistan and the Sahel states, cigarette smuggling also causes governments to lose important sources of revenue, as they collect no taxes on these illegal products.[6] Given that more than a quarter of cigarettes in these countries are sold on the black market, the amounts involved are considerable.

Conversely, if tobacco consumption were to fall, some of the money saved by citizens would be spent on essential goods that benefit the economy. The amount spent each year on cigarettes in Cambodia, for example, corresponds to 274,304 tons of rice, 1,388,382 bicycles or 27,778 wooden houses.[7]

Faced with these realities, the cigarette industry has adopted a combative discourse, claiming that it contributes to reducing poverty in the world by providing jobs to the many farmers who supply it with tobacco leaves. In reality, however, tobacco growing is itself a source of impoverishment.

Most tobacco farmers are underpaid by the tobacco companies who have a monopoly over local tobacco production in impoverished tropical countries where they can pay low prices. The companies do not hesitate to provide loans to small farmers to buy the pesticides and fertilizers they need to grow tobacco, keeping them permanently in debt.

And because tobacco growing is labour-intensive, farmers often deploy their children to the fields instead of sending them to school, perpetuating the cycle of poverty across generations. In Malawi, where tobacco revenues account for 15% of GDP, most farmers serving the big tobacco companies live below the poverty line. Some even work at a loss.[8]

The processing of tobacco into cigarettes, a more profitable activity, usually takes place in the west and is now largely automated.

The most effective way to remedy this situation is to raise taxes on tobacco, which is then reflected in the price of a packet of cigarettes. Some countries have already initiated reforms along these lines. In Australia, a packet of cigarettes costs the equivalent of CHF 23.10. Closer to home, a packet costs the equivalent of CHF 14.60 in Ireland and CHF 13.10 in the UK.[9] This has been proven to encourage low income people to give up smoking, thereby freeing up additional income that they can spend on improving their daily lives.

[1] https://tobaccocontrol.bmj.com/content/10/3/212

[2] https://www.jstor.org/stable/26686342?seq=1#metadata_info_tab_contents

[3] https://www.jstor.org/stable/41320164

[4] https://www.at-schweiz.ch/news-medien/news?id=33&

[5] https://www.occrp.org/en/loosetobacco/british-american-tobacco-fights-dirty-in-west-africa

[6] https://www.occrp.org/en/loosetobacco/without-a-trace/pakistans-big-tobacco-problem

[7] https://untobaccocontrol.org/impldb/wp-content/uploads/reports/Cambodia_annex1_National_Adult_Tobacco_Survey_2011_final_report.pdf

[8] https://pubmed.ncbi.nlm.nih.gov/29066593/

[9] https://www.statista.com/chart/15293/price-for-cigarettes-per-country/

SDG 2: Zero Hunger

Worldwide, almost 690 million people, or 9 per cent of the world's population, suffer from malnutrition. Of these, 135 million are at acute risk of hunger, with this number possibly doubling with the Corona pandemic. [1] The second UN Sustainable Development Goal formulates the mandate to end hunger globally and achieve food security by 2030. Tobacco control measures play a central role in this.

Four-fifths of the world's smokers live in countries with low or medium economic power. This proportion has been increasing since the number of smokers in the West began to decline. From 2005 to 2018, the Asia-Pacific, Africa and Middle East zones' share of the smoking products market increased from 62 to 73 per cent. [2] However, the money these disadvantaged populations spend on buying cigarettes contributes to their inability to provide a balanced diet for themselves and their families.

In the Philippines, a poor family spends an average of 37 centimes per capita per month on tobacco products. With this money, fish consumption could be increased by 26 per cent or leafy vegetable consumption by 200 per cent. [3] In Bangladesh, every smoker who quits could feed their children at least 500 calories more per day. If everyone quit smoking, an additional 10.5 million people there would have enough to eat and 350 children could be saved from starvation every day. [4]

But this phenomenon not only affects developing countries. The cost of cigarette consumption also prevents many poor families in Switzerland from offering their children a balanced diet with a variety of fruits and vegetables, as well as protein sources.

Smoking also contributes to hunger because valuable cultivated land is misappropriated for the cultivation of tobacco. These intensively cultivated monocultures, mainly in the tropics, now occupy 5.3 million hectares of land, which is the equivalent of Switzerland, the Netherlands and Costa Rica combined.[5]

If food were grown here instead, an additional 20 million people could be fed. In India alone, 4,340 square kilometres of tobacco plantations could produce enough food for two million people. [6] In Malawi, a quarter of the population suffers from food insecurity; yet each hectare of land now devoted to tobacco leaf production could yield 14.6 tonnes of potatoes. [7]

In addition, tobacco cultivation leads to soil impoverishment and depletion, making it unsuitable for food crops. In Malawi and Sri Lanka, practically all cultivated land is now used for tobacco plants because their cultivation is more profitable than food crops.

Paradoxically, this hardly benefits the tobacco workers because they are paid a pittance by the large plantations. In Kenya, they earn a mere USD 120 a year — barely enough to eat after deducting other expenses. In Malawi, workers receive meagre food rations and are often malnourished. Two-thirds (66.6 per cent) of the children on tobacco farms suffer from growth retardation, compared to two-fifths (40 per cent) on other farms.[8]

Notwithstanding this clear link between tobacco farming and food insecurity, the tobacco industry tries to whitewash the facts by pointing to its initiatives to fight hunger. Philip Morris International, for example, claims that its efforts to promote good agricultural practices increase food security for tobacco farmers. From its headquarters in Lausanne, the company announces that it supports food cultivation alongside tobacco production in Mozambique, Malawi and Tanzania.[9]

However, to reduce the contribution of smoking to hunger, the demand for tobacco-containing products in the poorer population groups should be reduced, namely with high fees on the sale of cigarettes and with a ban on advertising. Article 17 of the WHO Framework Convention on Tobacco Control also provides for the possibility of offering farmers alternatives to tobacco cultivation and towards food cultivation.

This can be done through substitution programmes, subsidies and loans, as well as the construction of new roads and warehouses to ensure that farmers can sell their products.

Several countries have already embarked on this path. Sri Lanka, for example, has pledged to stop growing tobacco within five years and to reduce the area under cultivation by 15 to 20 per cent annually. Bangladesh, Bulgaria and Spain have created financial incentives to encourage farmers to replace tobacco production with food crops. And the European Union has cancelled the financial aid previously paid to tobacco farmers.[10]

In Switzerland, however, the road is still long. Tobacco cultivation is still generously subsidised with a tax of 0.3 per cent on cigarette sales. In the process, 150 tobacco farmers divide CHF 16 million among themselves, according to a non-transparent distribution formula via the Purchasing Cooperative for Domestic Tobacco (SOTA).

[1] https://www.un.org/sustainabledevelopment/hunger/

[2] https://www.tobaccofreekids.org/assets/global/pdfs/en/Global_Cigarette_Industry_pdf.pdf

[3] https://unfairtobacco.org/wp-content/uploads/2019/12/SDG-facts01_second-edition.pdf

[4] Efroymson, D.; Ahmed, S.; Townsend, J.; Alam, S. M.; Dey, A. R.; Saha, R. et al. (2001): Hungry for tobacco: an analysis of the economic impact of tobacco consumption on the poor in Bangladesh. In Tob Control 10 (3), pp. 212–217. DOI: 10.1136/tc.10.3.212.

[5] https://www.fctc.org/resource-hub/fact-sheet-tobacco-a-barrier-to-sustainable-development/

[6] https://unfairtobacco.org/wp-content/uploads/2019/12/SDG-facts01_second-edition.pdf

[7] https://ash.org.uk/media-and-news/blog/the-tobacco-industry-and-the-un-sustainable-development-goals/

[8] https://unfairtobacco.org/wp-content/uploads/2019/12/SDG-facts01_second-edition.pdf

[9] https://www.pmi.com/resources/docs/default-source/sustainability-reports-and-publications/pmi-sustainability-report-2016.pdf?sfvrsn=5fef95b5_4

[10] https://www.who.int/fctc/implementation/publications/country-practices-implementation-article-17-WHO-FCTC.PDF

SDG 3: Good Health and Well-Being

Tobacco is the leading cause of preventable death and disease worldwide. This directly contradicts the UN's third sustainable development goal of ensuring good health for all at all stages of life.

The harm of tobacco begins in childhood. Minors are frequently exposed to passive smoke. Passive smoke causes 600,000 deaths per year among non-smokers, and more than a quarter of these deaths are among children under the age of five.[1] In addition, third-hand smoke, i.e., nicotine particles that are deposited on clothes, carpets, walls or curtains and can persist for years, affects the health of children living in a home with a smoker.

This young population is particularly at risk. The brain continues to develop until the age of 25 and nicotine can affect the activity of brain cells.[2] This results in attention and memory problems, anxiety, irritability and impulsiveness.[3]

Most smokers are introduced to smoking in their teens. The deleterious health effects of smoking are felt almost instantly, sometimes within days of starting the habit. Cigarette smoke contains more than 7,000 chemicals, including the various components of tobacco (nicotine, lead, arsenic, hydrogen cyanide, formaldehyde and ammonia, to name a few), as well as the toxins generated by burning tobacco.

Inhalation of these products increases oxidative stress on the smoker's cells, causes inflammation, alters their lipid profile and makes their immune system less effective. Smokers are also more likely to develop serious respiratory diseases such as tuberculosis, asthma or dyspnoea (respiratory failure).[4] In the medium term, a smoker is at risk of developing type 2 diabetes, atherosclerosis (a deposit of plaque on the artery walls) or periodontitis (an inflammatory lesion in the mouth).[5]

Tobacco also has adverse effects on the health of farmers, who are exposed to many pesticides. Some develop green tobacco disease, a poisoning that occurs when the skin absorbs nicotine from the surface of moist tobacco plants. It manifests itself as dizziness, nausea, diarrhoea and general muscle weakness. In some cases, it requires hospitalisation.[6]

In tobacco-producing countries, such as Bangladesh, workers are exposed to the thick tobacco dust that circulates in cigarette factories. This damages their lungs and stunts the growth of the many children who work there.[7]

As people get older, the harmful effects of cigarettes become more pressing. Tobacco use is responsible for 90% of lung cancers and 25% of cancer deaths globally.[8] It causes cancers of the oesophagus, mouth and throat, stomach, liver and colon. These health impacts are directly correlated with the number of years spent smoking and the number of cigarettes smoked per day.

This link is less clear for chronic diseases caused by tobacco, which also tend to be more prevalent in older people. Smoking is an important risk factor for coronary heart disease. But smoking one cigarette a day is almost as dangerous as smoking twenty a day, as this alone increases the risk of a heart attack or stroke by 40%.

The danger is even greater when smoking is combined with other risk factors such as high cholesterol, untreated hypertension or diabetes mellitus. Overall, 20% of deaths from cardiovascular disease are caused by smoking.

Smokers are also at risk of developing lung and respiratory diseases, including chronic obstructive pulmonary disease, a chronic inflammation of the bronchial tubes that leads to progressive shortness of breath. Tobacco users are particularly affected by the coronavirus in the Covid-19 pandemic. Their rate of hospitalisation and death is significantly higher than that of non-smokers.[9]

Some cigarette users are also affected in their vision, with the emergence of cataracts or macular degeneration; others suffer from arthritis, and still others have problems with loss of bone density.[10]

Overall, smoking leads to eight million premature deaths worldwide annually. In Switzerland, this figure amounts to 9,500 deaths per year.[11] Given that the UN Sustainable Development Goals have committed to reducing the mortality rate from non-communicable diseases by 30% by 2030, a reduction in the number of smokers would have a particularly important impact on achieving this goal.

Despite the irrefutable impact of tobacco on health, the cigarette industry has long denied it, simply marketing light or filtered versions of their products. More recently, the industry has changed its tune, choosing instead to highlight innovations such as electronic cigarettes or heated tobacco products. However, the latter remain addictive, contain substances such as nicotine and their real effects on health are still poorly understood.

The most effective measure to limit the negative health effects of smoking is to reduce the number of smokers. However, the WHO Framework Convention on Tobacco Control provides a number of avenues for minimising the impact on health. These are essentially public policies with structural measures to limit tobacco consumption and its effects on health. These include the introduction of laws to limit the exposure of non-smokers to passive smoke, regulation of the ingredients of tobacco products and the obligation to make them public. Cigarette packs should also be banned from using terms such as "light", which gives the impression that they are not harmful, and should always include warnings about their health effects.[12]

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[5] Ibid.

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[9] https://www.who.int/news-room/commentaries/detail/smoking-and-covid-19

[10] Bonnie RJ, Stratton K, Kwan LY, editors. Public Health Implications of Raising the Minimum Age of Legal Access to Tobacco Products. Washington (DC): National Academies Press (US); 2015 Jul 23. 4, The Effects of Tobacco Use on Health.

[11] https://www.bag.admin.ch/bag/de/home/zahlen-und-statistiken/zahlen-fakten-zu-sucht/zahlen-fakten-zu-tabak.html

[12] https://fctc.who.int/

SDG 4: Quality Education

The right to quality education is at the heart of the UN's fourth sustainable development goal. Yet tobacco use puts its achievement at risk. In most low- and middle-income countries, households spend more on tobacco products than on education for their children. In Bulgaria, Indonesia, Myanmar and Nepal, poor families spend 5-15% of their income on tobacco, which often prevents them from paying school fees for their children.[1] In Vietnam, smokers spend almost four times more on cigarettes than on education.

When a parent becomes ill because of smoking, their children often interrupt their studies to take care of them. Sometimes they even must take a job to make up for the loss of income caused by their parent's inability to work. On a national scale, the costs of smoking prevention measures and the health costs associated with cigarette smoking have a negative impact on the amount of money spent on education.

Smoking also endangers the learning abilities of children and adolescents by impacting on their brain development. The prefrontal cortex, the area responsible for so-called higher cognitive functions such as language, working memory and reasoning, is one of the last to reach maturity. In adolescence, it is still developing and exposure to nicotine can induce irreversible molecular changes in the functioning of synapses, according to studies carried out on animal models.[2]

This increases the risk of developing psychiatric problems or attention deficits in young people who use tobacco products. Given that 24% of people aged 15-19 in Switzerland smoke and that the vast majority (87%) of those who use tobacco products had their first cigarette before the age of 21, a significant percentage of adolescents are at risk of having their right to a quality education jeopardised.[3] This percentage is even higher when electronic cigarettes and other heated tobacco products – increasingly popular among adolescents and just as nicotine-laden as conventional cigarettes – are included.

Aware of the risks of nicotine for young people, the tobacco industry nevertheless continues to promote itself to this segment of the population, notably by marketing low-cost disposable vaporisers or nicotine-based liquids with flavours designed to appeal to teenagers, such as strawberry tagada, caramel cookie or Coca-Cola. Between 2003 and 2016, tobacco companies also mounted a lobbying

offensive against UNICEF, the UN agency dedicated to children's rights, and managed to infiltrate it, getting it to mute its efforts to fight youth smoking. [4]

In tobacco-producing countries, smoke indirectly impacts the right to education, forcing many children and adolescents to drop out of school to work on the plantations. Worldwide, some 1.3 million young people under the age of 14 work in tobacco fields and 10 to 14% of farmers' children do not attend school.[5] In India alone, 500,000 children are not in school.

The problem is particularly acute during the harvesting season, which is labour-intensive. The low wages paid to leaf pickers by the tobacco industry force them to also employ their children in order to maximise the family income. [6]

This phenomenon is not limited to developing countries such as Kazakhstan and Malawi: many children work on tobacco plantations in the United States, including Kentucky, North Carolina, Tennessee and Virginia.[7] In some countries, such as Bangladesh, cigarette factories also employ minors, exposing them to harmful tobacco dust and preventing them from attending school. [8]

Contact with tobacco leaves can also cause skin poisoning, which is particularly serious in children.

Aware of the damage to their image generated by photos of children working on tobacco plantations, tobacco companies have created several NGOs whose stated aim is to combat child labour. One of these, the Eliminating Child Labour in Tobacco-Growing Foundation (ECLT), founded in Geneva in 2000, describes itself as an independent foundation seeking to eliminate child labour in the tobacco industry.

In fact, the big four tobacco companies (British American Tobacco, Imperial Tobacco, Japan Tobacco International, Philip Morris International) are all represented on its board of directors and provide all of its revenue, which amounted to US $5.7 million in 2020.[9] Its activities are limited to a handful of conferences, public statements and development projects with no apparent link to the fight against underage labour, with the aim of gaining political clout in tobacco-producing countries.[10] Tobacco control organisations have been denouncing ECLT's smoking activities for years.

It has also been able to influence UNICEF and International Labour Organisation (ILO) policies through its lobbying activities. In 2017, the ILO admitted to receiving $5.3 million in funding from ECLT.[11] Tobacco companies are doing everything they can to make people forget about the harmful impact of the tobacco industry on the right of all to a quality education.

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SDG 5: Gender Equality

In the past, there were always more male smokers than female smokers. However, especially in developed countries and among young women, the trend is reversing. This phenomenon is particularly pronounced in some European countries such as Greece, Denmark, Ireland, the Netherlands, Norway, Sweden and the United Kingdom. In 2018, 19% of women in Europe smoked, compared to 9% worldwide. [1] Switzerland is no exception: 23.3% of Swiss women smoked in 2017, a proportion that has remained virtually unchanged for 10 years. [2] This contrasts with the United Nations' fifth Sustainable Development Goal, which states that women and girls should be empowered and given equal rights.

Women's bodies break down nicotine more quickly than men's. For this reason, they develop tobacco dependence more quickly. [3] They also do not smoke for the same reasons as male smokers. Emotional vulnerability, low self-esteem and depressive moods are the most important predictive factors for tobacco use in women. For women, cigarettes are used to relieve stress and control emotions and anxiety, predominantly in a work context.[4]

The health effects of tobacco are also not the same for women as for men. [5] Of the 8.7 million people who die from smoking each year, 2.15 million are women. [6] They are more prone to developing chronic obstructive pulmonary disease (COPD), show more rapid deterioration of lung function and are younger at onset of the disease.[7]

The risk of lung cancer[8], cardiovascular disease[9] or abdominal aortic aneurysm is also higher in women. And they suffer more from the effects of passive smoking, especially in their own homes. The effects of passive smoke kill 600,000 women every year, accounting for 64% of all deaths from passive smoking worldwide. [10] Since women tend to prefer "light" cigarettes, they also have a higher risk of developing adenocarcinoma. This type of cancer is associated with cigarette filters and low tar levels. [11]

In addition, smoking promotes a number of diseases that exclusively affect women, such as cervical cancer, breast cancer, ovarian cancer and osteoporosis. Women of childbearing age are particularly affected by the health effects of smoking, as it can impair their fertility, slow the growth of the unborn

child or cause fetal malformations. [12] Cigarette consumption can also lead to an earlier onset of menopause, increasing the risk of bone and heart disease and breast cancer. [13]

Women are also at a disadvantage compared to men when it comes to quitting smoking. Women are less likely to be prescribed nicotine-based medicines to quit smoking. Moreover, such drugs are less effective in relieving withdrawal symptoms in women. Several studies have shown that the relapse rate is higher among women, especially after six months of abstinence.[15]

Despite the risks faced by female smokers, the tobacco industry continues to target its advertising campaigns to this population. This began in the 1920s with the establishment of Marlboro as a "softer" brand for women –- long before the famous cowboy became the face of the brand. This continued from the 1950s to the 1970s, with the introduction of brands with female connotations such as Capri, Vogue, Eve, Glamour or Kiss. In the Swiss market, BAT launched the Mary Long brand, whose yellow pack was adorned with a neat-looking female pin-up.

In the 1960s and 1970s, cigarette manufacturers placed smoking in the context of the women's emancipation movement and increasingly launched advertising campaigns in which smokers were portrayed as independent, modern women. During the same period, they launched "light", "slim" and menthol versions of their cigarettes, which were clearly aimed at a female audience. They were also not afraid to equate smoking with weight loss.

Even today the tobacco industry is still massively targeting women.[15] It has even made them a priority target group to make up for the declining smoking numbers among men. Women are particularly targeted in advertising campaigns for new tobacco products. For example, Philip Morris International has recruited numerous female influencers for its IQOS tobacco heating system – including Swiss model Tamy Glauser, who poses with the company's products on social networks. The tobacco heating device itself, available in a variety of pastel shades, is also flirting primarily with the female audience. A recent marketing campaign also encouraged women to choose the device in the colour that matches their lipstick.[16]

In order to promote gender equality, awareness campaigns on the effects of tobacco use and smoking cessation support measures should be better targeted at women. For example, nicotine replacement products can be used in case of fear of weight gain. Similarly, laws regulating tobacco advertising

should ban campaigns that specifically target women. The introduction of neutral cigarette packaging in several countries is a step in the right direction from this point of view.

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[3] https://www.escardio.org/Journals/E-Journal-of-Cardiology-Practice/Volume-20/women-and-tobacco-a-gender-perspective

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[16] https://tobacco-img.stanford.edu/wp-content/uploads/2021/07/21231822/IQOS_Paper_2-21-2020F.pdf

SDG 6: Clean Water and Sanitation

In 2021, an estimated 4.2 million cigarette butts were picked up during beach clean-ups. This represents only a fraction of the 6.5 trillion cigarettes produced worldwide each year, at least 75 percent of which end up in watercourses and oceans. [1] This is in stark contradiction to the sixth UN Sustainable Development Goal, which calls for ensuring the availability and sustainable management of water and sanitation for all. Smokers often throw cigarettes on the ground, on the pavement, on the lawn, from where the rain washes them into the streets and drainage tunnels, eventually reaching the sea via watercourses. Switzerland is no exception: in Geneva alone, smokers throw 476,000 cigarette butts onto the street every day.[2]

Cigarette butts mainly consist of the filter. This is made of cellulose acetate, a non-biodegradable plastic. That is why they remain on beaches and at the bottom of bodies of water for around 15 years. Eventually, they break down into small particles that are ingested by aquatic life. They also release numerous toxic substances such as arsenic, lead and ethylphenol, which pollute the water.[3] A single butt is enough to pollute 1,000 litres of water.[4]

But butts are not the only problem. In 2015, 12,089 lighters, 58,672 cigar tips and 33,865 cigarette packets were picked up in flowing waters in the USA.[5] Recently, used e-cigarettes have also been added to the list. They contain electronic circuitry, batteries with lead and mercury, and liquid cartridges with nicotine salts and heavy metals that can pollute large bodies of water.[6]

In the poorer countries where most tobacco plantations are located, tobacco production reduces the drinking water available to the population. The production of one tonne of nicotine-containing tobacco leaves requires 2,925 cubic metres of water. This makes tobacco cultivation one of the most water-intensive of all. In comparison, one tonne of sugar requires 200 cubic metres, and one tonne of grain 1,600 cubic metres.[7]

Because tobacco is cultivated in monocultures, large quantities of pesticides and fertilisers are required, which seep into the groundwater and nearby watercourses. Imidacloprid and bromomethane are two of the most commonly used substances that are extremely toxic. Another pesticide that is often used is 1,3-Dichloropropene. It causes respiratory problems and skin irritation in humans and is potentially carcinogenic.[8]

After the tobacco leaves have been harvested, a lot of water is also needed during processing. The dried tobacco has to be treated with steam to ensure a certain humidity and to apply additives. Leaf veins and tobacco dust are mixed with water to add them to the tobacco blend of the cigarettes.

For example, 3.7 litres of water are needed to produce one cigarette.[9] And the global production of cigarettes (7.5 t) requires about 22 billion cubic metres of water per year. [10] More vividly for ordinary citizens: someone who smokes a pack of cigarettes a day for 50 years uses 1.4 million litres of water.

Despite its disastrous environmental record, the tobacco industry refuses to accept responsibility. On the contrary. It takes numerous allegedly charitable initiatives to divert attention from its failures. The cigarette manufacturers participate in most beach clean-up or ashtray distribution campaigns, where the emphasis is on consumers' own responsibility; they are not supposed to throw away their cigarettes carelessly.

It would be easy for the industry to solve the problem and develop environmentally friendly filters.[11] Instead, they bring "biodegradable" cigarettes onto the market, which actually decompose faster, but release more toxins.[12] The tobacco industry also invests large sums to conceal its responsibility for water pollution and drinking-water shortages. For example, Philip Morris International gave a presentation at the UN Global Compact in 2016, claiming that tobacco cultivation is less water-intensive than tea and chocolate.[13] Yet in their communication, cigarette manufacturers deliberately report their annual water consumption without taking into account the consumption of their suppliers.

In order to at least partially prevent the cigarette industry from violating the universal right to sufficient clean water, it would have to be subjected to the polluter pays principle. The costs of picking up and disposing of discarded butts, e-cigarettes and lighters would be charged to the industry that causes them, not to consumers. Specifically, this could be achieved with increased taxes on tobacco-containing products. Such measures are currently being considered in the European Union, France, Ireland, the UK and the US.[14]

In the US, some communities go even further: more than 300 have banned smoking on their beaches; over 1,500 in their parks.[15] But the trend is also making itself felt near us: In April 2021, Barcelona banned smoking on its beaches.[16] This gives a little respite to the watercourses and coasts that are littered with cigarette waste.

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[6] Ibidem

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SDG 7: Access to Sustainable Energy

7 AFFORDABLE AND CLEAN ENERGY

The 7th UN Sustainable Development Goal calls for universal access to affordable, reliable, and sustainable energy services. The tobacco industry challenges the achievement of this goal in several ways.

Every year, more than four million hectares of fertile cultivated land in over 120 countries (mainly China, India, Brazil, and the USA) are used for tobacco cultivation. Thus, these huge areas are not available for sugar beets, maize, and soy, which are used for biofuel production.[1] Nor can this land be used for renewable power generation with wind or solar farms.

But the biggest disruption to access to affordable, reliable, and sustainable energy is caused by the tobacco industry with its cigarette factories. In 2014, six trillion cigarettes were produced worldwide, consuming 62.2 petajoules of electricity.[2] Japan Tobacco, Philip Morris International, and British American Tobacco consumed the most energy, followed by Altria and Imperial Tobacco.

By comparison, Altria consumed 1,380 gigawatt-hours of electricity in 2014, and Starbucks consumed 1,392 gigawatts for its 22,000 shops.[3] The cumulative energy demand of the five largest cigarette manufacturers is equivalent to the production of around 2,000,000 cars.[4]

Certain cigarette manufacturing processes are particularly energy-intensive. These include tobacco drying, in which the tobacco leaves are hung in sheds over glowing coal or wood ash for several weeks, or the production of the filters from cellulose acetate and the impregnation of the tobacco with liquid carbon dioxide to increase the volume (DIET process).[5]

In addition, there is the fuel for transporting the cigarette packets by plane, ship, and truck from the factory to the consumer. In its "Corporate Social Responsibility" reports – actually advertising brochures that cultivate the image of the industry[6] – Philip Morris International offers a detailed overview of the group's energy consumption based on CO2 emissions: 23 per cent is accounted for by tobacco cultivation, 51 per cent by cigarette production and 13 per cent by transport.[7]

The Swiss-American group states that the new products with heated tobacco have a strong impact on energy consumption. They require four times more energy than conventional cigarettes, mainly because of the large amount of vapour produced.

All in all, Philipp Morris International has recorded CO2 emissions of 911,160 tonnes for 2020 in production alone, according to the report. The six trillion cigarettes produced worldwide in 2014 produced 84 megatonnes of CO2, or 0.2 per cent of the global total.[8]

Added to this are the large amounts of energy required to dispose of smokers' waste (used e-cigarettes, butts), and to treat ill smokers, including the medicines required. Unfortunately, reliable data on this is scarce.

The tobacco industry knows very well how much it is responsible for global energy consumption. That is why it has set up a PR programme to improve its image in the perception of consumers. Every year, Philip Morris International publishes a richly illustrated report detailing the progress it has made. It says that by 2020, the company had reduced its CO2 emissions by 18 per cent and obtained 34 per cent of its energy consumption from renewable sources.

In addition, its factory in Neuchâtel was equipped in the same year with a pyrolysis process in which the heat for steam and hot water production is obtained from waste instead of fossil fuels. It was certified for this by the Swiss NGO, MyClimate. The award ceremony, which was also attended by politicians from the left-green spectrum, was widely reported in the local media.[9]

The website of Japan Tobacco International says that one of the factories in Malawi reduced its electricity consumption by almost 65 per cent between 2015 and 2017, that a production site in Sweden gets its electricity from a steam-power plant heated with wood pellets, and that warehouses in Turkey were equipped with solar cells.[10]

But these success stories hide a less glittering reality. Tobacco producers like to highlight their small successes while hiding how much there is still to do. For example, Altria boasts in its 2014 Corporate Social Responsibility Report that three of its American factories have been converted from coal to gas heating. The report omits the fact that the other production sites still use coal for heating. Similarly, Imperial Tobacco does not provide data on the amount and type of energy used in the factories in Laos and Turkey.[12]

The way the figures are reported also leaves much to be desired, as there is no independent verification. Instead of reporting energy consumption in absolute figures, the tobacco manufacturers have introduced their own unit: "per million cigarettes". In this way, they conceal the fact that their ecological footprint is growing as cigarette production increases.

Recently, they have started to report the environmental costs of their business only as a percentage of their net revenue. This makes the information even more incomprehensible.[13] In view of this lack of transparency, some countries such as Brazil and Canada are demanding that cigarette manufacturers clearly inform the public about their energy consumption and CO2 emissions.

In Switzerland, there are no efforts to make the energy consumption of the tobacco industry more transparent. In the consultation procedure for the new Sustainable Development Strategy 2030[14], which the Federal Council adopted in June 2021, AT Switzerland submitted a detailed statement detailing the negative environmental impact of this industry sector, especially in the energy sector. Unfortunately, tobacco was not even mentioned in the final document.

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[3] https://apps.who.int/iris/bitstream/handle/10665/255574/9789241512497-eng.pdf

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[7] https://www.pmi.com/sustainability/reporting-on-sustainability/climate-protection-progress-2020

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[10] https://www.jti.com/news-views/sustainable-energy-manufacturing

[11] https://apps.who.int/iris/bitstream/handle/10665/255574/9789241512497-eng.pdf

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[13] Ibidem

[14] https://www.are.admin.ch/are/fr/home/developpement-durable/strategie/sdd.html

SDG 8: Decent Work for All and Sustainable Economic Growth
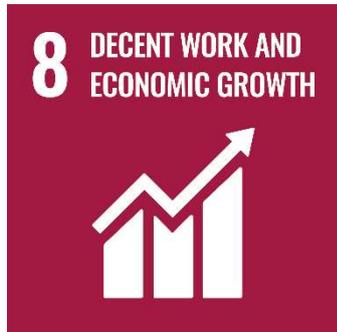
At the heart of the United Nations' eighth Sustainable Development Goal is the promotion of sustained, inclusive, and sustainable economic growth and decent work for all. The tobacco industry employs about 100 million people worldwide; however, most of these jobs are not dream jobs.[1]

The 40 million growers on tobacco plantations – mostly in poor or developing countries like Malawi, Zimbabwe, Indonesia, China, and Brazil – are particularly disadvantaged. They are forced to buy expensive seedlings, fertilisers, and pesticides to maintain their crops. At the same time, they receive only a small return from the wholesalers who buy their tobacco leaves on behalf of the big cigarette manufacturers while pushing prices ever lower.

The average income of a tobacco farmer in Malawi for 10 months of hard work is only CHF 247.[2] In some countries such as Lebanon, tobacco cultivation would not even turn a profit for the farmers without government subsidies.[3] This situation drives farmers into a hopeless spiral of debt. Therefore, many of them have children, women, or migrants working on their farms under slave-like conditions.

About 1.3 million children work on tobacco plantations in just a few tobacco-producing countries: Malawi, Zimbabwe, Mexico, Indonesia, and Kazakhstan.[4] In early 2021, the Continental Tobacco Alliance, one of Brazil's largest tobacco exporters, was put on trial, accused of keeping workers – including minors – in slave-like conditions on its plantations.[5]

This phenomenon is by no means confined to under-resourced countries. In southern Italy, day labourers are recruited on the streets to work for a pittance on tobacco plantations.[6] In the US southeastern states of Kentucky, Tennessee, Virginia, and North Carolina – the country's main tobacco-growing region – many children are found on the farms.[7]

Even in Switzerland, tobacco farmers continue to use minors as harvest workers. In a 2018 advertisement on the job board Adosjob.ch, young tobacco pickers were sought to work on a farm in the canton of Vaud with this announcement: "They should be at least 15 years old and able to work in difficult conditions." The pay? Between CHF 8.- and 15.- an hour, depending on the quality of the work.[8]

Workers on tobacco plantations are not only poorly paid, they are also exposed to serious health risks such as Green Tobacco Sickness, a form of nicotine poisoning.[9] They also run the risk of ingesting dangerous levels of pesticides. In Kenya, 26% of tobacco farmers report symptoms of poisoning from these chemicals.[10]

Workers in cigarette factories fare little better. They are forced to breathe in harmful tobacco dust for excruciatingly long hours and often develop work-related illnesses. In Bangladesh, factories that produce cheap rolled cigarillos – so-called beedis – could not exist without the many children they employ for a pittance.[11]

All this is in striking contrast to the high salaries paid to employees of the major cigarette manufacturers in the wealthy countries where they are headquartered. Supposedly, employers in such industries with a bad ethical reputation have to pay an "immorality bonus" in order to get qualified staff.[12] An executive at Philip Morris International in Neuchâtel gets an annual salary of almost CHF 181,000 – not including bonuses – which is 732 times what a tobacco farmer in Malawi earns, according to the Glassdoor website.[13]

Workers in the lower echelons of these corporations, on the other hand, may soon have to fear for their jobs in the wake of the relocation of part of the production to countries with lower wage levels and the automation of cigarette manufacturing. The Philip Morris factory in Bergen op Zoom, the Netherlands, produces nine billion cigarettes a year with only 1,900 employees.[14]

Tobacco not only has a negative impact on access to decent work, but also on overall economic growth. Health expenditures, premature deaths, and the productivity losses caused by using tobacco costs the global economy USD 2 trillion annually, or 2% of its GDP. In Switzerland, the corresponding amount is CHF 5 billion.[15]

Despite this worrying record, the tobacco industry continues to cultivate the image of a provider of safe, well-paid jobs. "Tobacco farming makes an important contribution to improving the living conditions, health, and resilience of the farmers who devote themselves to it," promises British American Tobacco in a richly illustrated study volume.[16] Philip Morris, for its part, describes in detail the emancipation-promoting importance of employing women on its plantations.[17]

Aware of the damage to their image they have to contend with in view of the high proportion of child labour in their supply chain, in the year 2000, the cigarette manufacturers founded in Geneva an NGO,

the Eliminating Child Labour in Tobacco-Growing Foundation (ECLT). All the big tobacco producers are represented on its board of directors, and they alone contribute to the foundation's budget of USD 5.7 million.[18]

Although the stated goal of the NGO is to abolish child labour on the plantations, this body mainly serves as a propaganda tool for the cigarette industry. In April 2021, the foundation joined the United Nations Global Compact, an initiative to encourage companies to act responsibly. Through this platform, it can now influence the bodies of the United Nations. The tobacco industry is always most powerful where it operates in secret.

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[2] http://tobacco.cleartheair.org.hk/wp-content/uploads/2016/01/CSC-Malawi-tenant-research-study-2015.pdf

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[4] https://www.theguardian.com/world/2018/jun/25/revealed-child-labor-rampant-in-tobacco-industry

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[9] https://tobaccotactics.org/wiki/tobacco-farming/

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[13] https://fr.glassdoor.ch/salaire/Philip-Morris-International-Neuch%C3%A2tel-Salaires-EI_IE7745.0,27_IL.28,37_IC3295561.htm

[14] https://www.ilo.org/global/about-the-ilo/mission-and-objectives/features/WCMS_071230/lang--en/index.htm

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[18] https://tobaccotactics.org/wiki/eclt/

SDG 9: Industry, Innovation and Infrastructure

The ninth Sustainable Development Objective of the United Nations calls for the construction of resilient infrastructure, for promoting inclusive industrialization, and for innovation, in order to further sustainable development, particularly in countries with moderate or low incomes. Although the tobacco industry has adopted a language that echoes these concerns, in fact it innovates essentially in order to acquire new clients or to keep addicted those it already has.

Thus in the past two years, it has invested considerable sums in developing electronic cigarettes and new heated tobacco products, in the hope of attracting a new generation of smokers at the very time that classic cigarettes are losing their desirability. One of the best examples of this innovation is Philip Morris's (PMI) IQOS product, which came on the market in 2016.

This product heats tobacco to more than 350 degrees instead of burning it, which is supposed to reduce the concentration of toxic products inhaled by the smoker, according to research by PMI. The company, whose publications are regularly criticized for their lack of independence,[1] reports having conducted 18 non-clinical studies on this subject,[2] but is careful not to cite independent studies which show diametrically opposed conclusions about the toxicity of these substances.[3]

A new generation of IQOS devices called ILUMAs, rolled out in Switzerland in November 2021, work by induction, and it is claimed that there is no direct contact between the electronic and heating components.[4] However, inside each ILUMA cigarette is a thin layer of metal which, when heated, runs the risk of contaminating the smoke with heavy metals.

While the technology used is hardly complex – it is similar to that of a toaster – the company based in Switzerland has linked its IQOS system with an application for mobile phone, which uses Bluetooth to gather data on the smoking habits of the user. This information - which provides, for example, the frequency or the time at which the smoker uses his device - allows the company to offer them discounts or personal advantages, a form of discrete advertising which evades regulations of publicity about smoking. This knowledge also allows PMI to know its users better and to constantly optimize its products to match their tastes.

However, the tobacco industry is not only innovating on the industrial level. It has also cleverly exploited the new on-line channels of communication, particularly their interactive features, to promote itself to adolescents and young adults, at the very time that most countries are banning the advertising of cigarettes in public spaces and in conventional media. Article 13 of the WHO's Convention Framework for Anti-smoking Campaigns, ratified by 181 countries, also requires that participating countries prohibit all forms of advertising or sponsorship for tobacco-based products.[5]

These prohibitions have incited cigarette makers to seek underhanded ways of getting their harmful message to consumers. The internet is an ideal platform for this type of effort. Portals like Youtube and social media such as Facebook are overflowing with videos and posts that review new tobacco-based products, promote smoking, or show events sponsored by cigarette brands. One even finds clips showing magic tricks using cigarettes, or vintage commercials for the tobacco industry.[6]

Employees of British American Tobacco have no compunctions about promoting their employer's products on Facebook.[7] The Camel brand has also called for internet users to help design a new cigarette packet.[8] And Rizla, which sells cigarette papers, offers a number of interactive games on its website. Besides this, there are apps which, without advertising any particular brand of cigarettes, present smoking in a positive light, such as iShisha, which lets a viewer prepare and smoke a virtual shisha or water pipe.

The internet also serves as a platform where the tobacco industry can sell its products with fewer regulations than in the physical world. Many e-commerce portals offer cigarettes, often at tax-free prices and without the health warnings which are now mandatory in most countries.[9]

The tobacco industry is also innovating by financing research projects whose conclusions often serve its interests. As early as the 1950s, several cigarette companies founded the Research Committee of the tobacco industry in order to cast doubt on the link between smoking and cancer.[10]

In the succeeding decades, the tobacco industry has supported researchers who published scientific papers minimising the harmful effects of second-hand smoke or the link between cigarette smoke and Sudden Infant Death Syndrome.[11] More recently, at the beginning of the coronavirus epidemic, researchers affiliated with

the tobacco industry published articles which argued that nicotine had a protective effect against COVID-19.[12] However, no independent study has corroborated this finding, and today scientific evidence points to a harmful relationship between smoking and Covid-19.[13]

The model adopted by cigarette manufacturers goes against the ninth Sustainable Development Objective of the UN on another front as well, that of inclusive industrialization. Profoundly colonial in nature, it is based on the exploitation of a substance – tobacco – cultivated by peasants In poor countries, whereas the biggest part of its transformation and the profits from it occurs in a handful of developed countries, with Switzerland at the head of the list.

The case of Malawi is particularly eloquent in this regard.[14] This country has a unique relationship with tobacco, which dominates its agriculture, represents 13% of its GDP, and provides 70% of its export revenues. Far from ensuring lasting development in Malawi, this dependence the tobacco plant has created a series of social and environmental challenges. In the ranking of countries by GDP per inhabitant, Malawi ranks 222nd, whereas Switzerland ranks 10th.[15]

Malawi peasants are dependent on prices fixed by the tobacco industry, which are constantly being revised downward, and on price fluctuations for this raw material in international markets. Having to spend significant sums on seeds and fertilizer, they find it difficult to turn a profit and often fall into poverty. And many of the workers on tobacco plantations in Malawi are underpaid or are children.

This crop also contributes to deforestation and soil erosion, increasing the risk of mudslides. The fertilizers and pesticides used by tobacco farmers end up in streams and in Lake Malawi, endangering this unique biotope and its animal population, which represent an important source of protein for the people living in the vicinity of the lake. In this small African country, sustainable development will not happen through growing tobacco.

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[10] https://tobaccotactics.org/wiki/tobacco-industry-research-committee/

[11] https://tobaccotactics.org/wiki/influencing-science-commissioning-research-and-reviews/

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[13] https://tobaccotactics.org/wiki/covid-19/

[14] https://www.diva-portal.org/smash/get/diva2:453290/FULLTEXT01.pdf

[15] https://fr.wikipedia.org/wiki/Liste_des_pays_par_PIB_(PPA)_par_habitant

SDG 10: Reduce Inequality

Reduce inequality within and between countries – this is the goal of the tenth Sustainable Development Objective of the United Nations. Now, while cigarette use continues to decline in developed countries, it is growing in poor regions, where laws are laxer, the population continues to grow, the tobacco companies are increasing their marketing, and public health campaigns have not yet shown any effects. Another contributing factor is the rise in average incomes in these countries, even though they are still low compared to Western levels. The Asian-Pacific region thus accounts for 64% of all cigarette sales in 2018, as compared to 55% in 2005.[1] Globally, developing countries are home to 80% of all smokers.[2]

These inequalities can also be seen within countries, including Switzerland, between the highest- and lowest-earning slices of the population. In the United Kingdom, 35% of women and 40% of men from the most disadvantaged socioeconomic groups smoke, as compared to 10% and 12% respectively for the highest-income and most-educated groups.[3]

The number of smokers is also greater among adults who work at manual jobs, live in subsidized housing, lack a secondary education diploma, are unemployed, or who are mentally ill. Similarly, the proportion of women who do not stop smoking during pregnancy reaches 25 % among the lowest-income groups, compared to 4% of their better-off peers.[4]

This phenomenon persists over the generations. Children who have grown up in a community where smoking was part of everyday life have a higher risk of suffering the effects of second-hand smoke and of becoming smokers themselves. A British study has shown that adolescents ages 11 to 15 who had already tried cigarettes were twice as likely to have a smoker in the family than those who had not.[5]

These inequalities have a negative impact on the health of these groups. Since people from low-income populations have less access to medical and screening services, they are also more vulnerable to smoking-related illness. They are, for example, disproportionally affected by lung cancer, which is usually diagnosed at a later stage, rendering its treatment more difficult.[6]

In the United States, African-Americans smoke fewer cigarettes and start smoking at a later age than whites, but they are at greater risk of dying from a smoking-related illness. Globally, the number of

tobacco-related deaths came to 7.69 million in 2019, and that number is constantly increasing.[7] By 2030 it could reach 8 million, of which 80% would be in poor countries.[8]

Nor are people from low-income backgrounds on an equal footing when it comes to quitting smoking; they are less well-informed about the effects of smoking on health and have less access to smoking-cessation programs. In the United States, only 34.5% of adults living below the poverty line manage to kick the habit, compared to 57.5% of those above it.[9]

These disparities are not the result of chance. The tobacco industry has always targeted vulnerable populations with aggressive marketing tactics. In the U.S., cigarette sellers routinely offer free cigarettes to children living in subsidized housing. They also don't hesitate to furnish coupons for cigarettes to retailers who take food stamps.[10]

Low-income neighborhoods also have a concentration of stores which sell tobacco products, exposing their inhabitants to publicity and to sales offered by these places. In Philadelphia, the ratio of shops selling cigarettes to population is 69% higher in low-income neighborhoods than in more affluent parts of the city.[11]

In the U.S., the tobacco industry has historically targeted African-Americans with its menthol-flavored products. Brands such as Newport or Kool have sponsored numerous music festivals, artists, and Black colleges and universities, and placed their advertising in magazines of interest to them.[12] Even today, more than 70% of African-American smokers prefer menthol cigarettes, compared to 30% of their white counterparts.[13]

In the 1990s, the tobacco industry also began to target members of the LGBT community, buying advertising in publications affiliated with LGBT subcultures, organising LGBT parties, or launching advertising campaigns featuring members of these minorities. E-cigarette brands are following the same strategy, as exemplified by the American brand VaporFi sponsoring the gay pride parade in Miami.[14]

All this has had an impact on the level of tobacco use in these communities. LGBT women smoke three times as many cigarettes and twice as many e-cigarettes as their heterosexual counterparts. Trans young people, for their part, smoke four times as many cigarettes and three times more e-cigarettes than cisgender youths.[15]

Now that they are required to follow stricter rules about advertising in developed countries, cigarette manufacturers are turning to the developing world, where they are free to promote their products. The inhabitants of certain low-income countries such as India, Pakistan, or Zimbabwe are thus exposed to 80 times more cigarette ads than those of Canada or Sweden.[16]

The tobacco industry makes no secret of the fact: "BAT (British American Tobacco) sees emerging countries as the mains source of growth for its future profits," the brand reported in 2017.[17]

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[4] Ibid.

[5] Ibid.

[6] https://www.cdc.gov/tobacco/disparities/low-ses/index.htm

[7] Reitsma, Marissa B.; Kendrick, Parkes J.; Ababneh, Emad; Abbafati, Cristiana; Abbasi-Kangevari, Mohsen; Abdoli, Amir et al. (2021): Spatial, temporal, and demographic patterns in prevalence of smoking tobacco use and attributable disease burden in 204 countries and territories, 1990–2019: a systematic analysis from the Global Burden of Disease Study 2019. In The Lancet. DOI: 10.1016/S0140-6736(21)01169-7.

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[15] Ibid.

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SDG 11: Inclusive, Safe, and Durable Cities

11 SUSTAINABLE CITIES AND COMMUNITIES

Cities must be inclusive, safe, resilient and sustainable; this is the goal of the eleventh Sustainable Development Objective of the United Nations. However, smoking imperils the realisation of this goal on several fronts. It has a visible and tangible impact on the cleanliness of urban spaces, due to the mountains of cigarette butts generated by smokers each year. During a cleanup organised in Switzerland in March 2021, called Stop2Drop, schoolchildren from around the country picked up 958,181 cigarette butts in the space of two weeks.[1] Globally, it is estimated that 18 billion cigarette butts are thrown on the ground every day.[2] It's ugly, it pollutes, and it's costly.

Germany estimates that dealing with the garbage generated by smokers costs it 700 million euros per year. Chicago spends 27 million dollars and New York 80 million on this problem annually.[3] Cigarette butts lying on the ground in cities can also be dangerous for children, who often swallow them accidentally. In Switzerland, Tox Info receives around 300 calls per year reporting this kind of incident.[4]

But smoking also has a less visible – and thus more insidious – effect on urban quality of life. Wherever population density is higher, the incidence of smoking tends to rise as well. Thus the proportion of the population exposed to second-hand smoke is also greater.[5] The problem is particularly acute in the large cities of developing countries, where residents are crowded together in slums with little personal space available.

It is well-known today that for children, second-hand smoke increases the risk of Sudden Infant Death Syndrome, breathing problems, ear infections, and asthma. Globally, it is estimated that 570,000 children die from these every year.[6] In adults, smoking can lead to heart problems, strokes, and lung cancer.[7] Even pets are affected: exposure to cigarette smoke can lead to their developing allergies, skin problems and cancer.[8]

The emergence of electronic cigarettes, which put out clouds of aerosols containing thousands of chemicals, has produced a new source of air pollution. In hundreds of cities, particularly on the west coast of the United States, there have even been competitions of "cloud chasers," where vapers try to produce as much smoke as possible with their electronic cigarettes.[9]

The effects of second-hand smoke are multiplied in indoor spaces. The large multi-story apartment buildings found in many cities lend themselves especially well to such exposure; smoke makes its way into homes through front doors, cracks in the walls, electric outlets, plumbing, and HVAC systems. In the United States, some 28 million residents of apartment buildings are exposed each year to second-hand smoke.[10]

Second-hand smoke is not limited to indoor spaces, either. Even in the open air, it negatively affects the air quality and the health of those who breathe it. The concentration of toxic chemicals in outdoor smoking spaces can be as high or higher than those recorded in closed spaces. This is particularly the case when a business confines smokers to a semi-enclosed outdoor space, such as a patio enclosed by walls.

However, a growing number of cities and towns are beginning to ban the use of tobacco products outdoors as well as indoors, thus becoming tobacco-free zones. This has a positive effect on citizens and helps to "de-normalise" smoking, which ceases to be seen as a normal and acceptable behaviour.

In the United States, New York and Los Angeles were the first cities to ban smoking on playgrounds, in public parks and on beaches. Many university campuses have also been declared "non-smoking," as have all buildings which contain subsidized housing.[11] In recent years, similar measures have been introduced in Mexico, Australia, Singapore, Canada, New Zealand, Thailand, the Philippines and Japan.

In Europe, several countries have launched initiatives along the same lines, especially Hungary, Finland, Malta, Spain, and Sweden. In the United Kingdom, Wales has banned smoking in football (soccer) stadiums and close to hospitals, play areas and school grounds. Nor are parents allowed to light up in the car if their children are present. In the wake of the pandemic, Milan and Florence have banned cigarettes in many public spaces such as parks, playgrounds, sports facilities, and bus and tram stops.[12] Barcelona has, for its part, banned smoking on four of its beaches.

In Switzerland, where smoking has been forbidden in indoor public spaces since 2010, the city of Bellinzone is planning to ban it outdoors as well. And in January, the Geneva parliament extended its smoking ban to the open-air spaces of schools and daycare centers, as well as to playgrounds, splash parks, sports fields, skating rinks, pools, and bus and tram stops, making the entire city a smoke-free place to live.[13]

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[11] City Monitor, «Cities embrace smoke-free public spaces», citymonitor.ai/community/green-space/cities-embrace-smoke-free-public-spaces

[12] Léman bleu, «Genève interdit de fumer dans certains lieux extérieurs», lemanbleu.ch/fr/Actualites/Geneve/2022012889526-Geneve-interdit-de-fumer-dans-certains-lieux-exterieurs.html

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SDG 12: Responsible Consumption and Production

12 RESPONSIBLE CONSUMPTION AND PRODUCTION
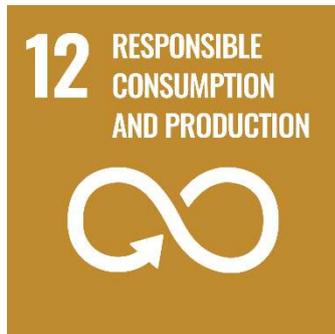
The twelfth Sustainable Development Objective of the United Nations aims to establish sustainable modes of consumption and production. However, the way the tobacco industry functions is in flagrant contradiction to these objectives. Cigarettes are the only consumer product which kills at least half of its users, especially when the makers' instructions are followed to the letter.

Globally, tobacco kills at least 8.2 million people each year, of which 1.2 million die from second-hand smoke.[1] In Switzerland, 9500 people die every year as a result of smoking, or one person every hour.[2] To that can be added the effects on the environment caused by tobacco consumption, particularly the billions of cigarette butts thrown on the ground every year, as well as the harmful effects of greenhouse gases.

Nor does the manufacturing of cigarettes fulfill the criteria for responsible production. Tobacco cultivation contributes to deforestation, soil erosion, and the contamination of streams and rivers, while monopolising land which could be used for growing food and other essential crops. It also helps keep tobacco farmers in a cycle of poverty. In the fields as well as in the factories, cigarette companies use child labor and frequently treat their workers like slaves.

The establishment of responsible production and consumption requires that these jobs be transformed into productive employment which can generate real value for humanity, and which ensure decent working conditions for those who do them. Some countries have already adopted substitution programs, like Kenya which has instituted a training program for its farmers to encourage them to give up tobacco farming for beans. Those who have taken this step have seen their incomes increase noticeably.[3]

Malawi has started a program of subsidies and seed distribution to encourage the production of cotton, tea, sugar, and legumes in place of tobacco. But this change is not without its obstacles: lack of arable land, the need to wait several years before some crops – such as fruit trees – become profitable, and competition from richer countries have hampered these efforts.[4]

Nor do the large subsidies enjoyed by the tobacco industry favour these changes. The 26,000 European farmers who grow this nicotinic plant will receive around 100 million euros in the upcoming

EU agricultural plan from 2023 to 2027.[5] In Switzerland, the SOTA fund, which aims to promote tobacco growing locally, receives 13 million francs annually,[6] whereas the number of Swiss tobacco growers has continually declined and there were only 135 of them left in 2020.[7]

This fact has not stopped the tobacco industry from adopting the language of responsible production and consumption. As early as the beginning of the 21st century, it began to invest large sums of money in reports on social responsibility, often lengthy and richly illustrated. British American Tobacco published its report for the first time in 2003, and in 2020 it launched a program of "environmental and social oversight," which promised, in particular, to reduce the health and environmental impact of its products.[8]

For its part, Philip Morris International has created a dedicated on-line platform, with numerous case studies detailing its activities regarding environmental protection or the defense of human rights.[9] The Altria group has multiplied its donations to these causes. In 2018 alone, it gave 5.6 million dollars to environmental NGOs. It also finances museums, gay pride activities, and the American Red Cross.[10] In Switzerland as well, PMI finances many NGOs, and the Swiss Red Cross in particular has been accepting their donations for a long time.

These actions of social responsibility allow cigarette makers to represent themselves as a part of the solution rather than part of the problem, to have access to the settings where decisions are made about controlling tobacco use, and even to promote themselves in places where advertising for cigarettes is forbidden. Anti-smoking organisations have regularly complained about these offenses.[11]

Behind the scenes, the tobacco companies have behaved much less responsibly. Aware that their future depends on recruiting new smokers, they continue to advertise their products to young people. This is generally done indirectly, disguised as anti-smoking efforts. The Philip Morris campaign entitled "Think, Don't Smoke" was thus founded on two messages – smoking is an adult act, and it carries a risk – more likely to attract adolescents than to turn them away from smoking.[12]

Developing countries represent the other future market targeted by cigarette manufacturers, especially since it has become difficult for them to advertise in developed countries. Africa in particular has been targeted. In Nigeria, it is not rare to see a school play area surrounded by signs advertising Marlboros or Lucky Strikes. Similarly, cigarettes are sold there individually - a practice which has been banned in many countries – which makes them accessible to children and to very low-income people.[13]

The effects of these campaigns have already been begun to be felt. Africa is the continent with the fastest-growing number of smokers over the past 30 years. In North Africa and the Middle East, this growth reached 104% during this period. In sub-Saharan Africa, it has been 75%.[14] This is a worrisome trend which will undoubtedly not appear in the reports on social responsibility put out by the big tobacco companies.

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SDG 13 : Combat Climate Change

The 13th Sustainable Development Objective of the United Nations calls for taking urgent measures to combat climate change. However, the tobacco industry represents a major source of greenhouse gases and pollution. In 2014, the 6 trillion or so cigarettes manufactured around the world generated emissions equivalent to almost 84 million tons of CO_2.[1] This corresponds to launching 280,000 rockets into space.[2]

Tobacco cultivation has a significant ecological cost, as it relies on the use of pesticides and fertilizers whose production causes pollution, and the deforestation of large swaths of land which can no longer fulfill their role as carbon sinks. But the biggest impact on the environment happens when tobacco leaves are made into cigarettes.[3] Switzerland inherits a large portion of this pollution since the three biggest cigarette makers (Philip Morris International, British American Tobacco, and Japan Tobacco International) have manufacturing sites there.

Certain manufacturing processes require especially large amounts of water and energy, such as the process by which leaves are transformed into tobacco pulp, the soaking of this pulp in liquid carbon dioxide - a technology called DIET which was developed in the 1970s to reduce the number of leaves needed per cigarette – or the production of filters made of cellulose acetate, a form of plastic, and of paper treated with chemicals to produce a certain rate of combustion. The inks, the dyes, the glues and the aluminium foils which compose the cigarette packets also require significant quantities of energy.[4]

In 2017, Japan Tobacco International reported having used over 2600 gigawatt hours of electricity. Philip Morris International and British American Tobacco, for their part, used 2500 gigawatt hours in 2018 and 2020, respectively. Together, these three figures correspond to the energy needed to construct around two million automobiles.[5]

Tobacco products also travel long distances. The leaves, which are harvested in southern countries like Malawi, Brazil, or Indonesia, are sent to factories located mainly in Europe, the United States, or China. Once cigarettes are produced, they are shipped again to their points of sale. The three tobacco factories located in Switzerland export 75% of their production, of which a major portion goes to the Middle East and Africa.[6] These trips, on airplanes or in trucks, produce large quantities of CO2. As an

example, Philip Morris's land and air transportation fleet produces 119,461 metric tons of CO_2 every year.[7]

Cigarette production also harms the environment by generating large quantities of waste. Every year, cigarette manufacturing produces more than two million tons of solid residues.[8] In comparison, plastic water bottles yield 1.83 million tons of waste every year. The manufacturing processes adopted by the tobacco industry also produce large quantities of chemical waste, including toxic substances such as ammonia, hydrochloric acid, nitrates, chlorine, and lead by-products.[9]

When the product lands in the hands of the consumer, it continues its environmentally destructive journey. Tobacco smoke contributes to air pollution and contains no fewer than three greenhouse gases: carbon dioxide, methane, and nitrogen oxides. The first two are released into the atmosphere by smokers at a rate of 2.6 billion kilos and 5.2 billion kilos respectively every year.[10]

Worried about the negative publicity that this disastrous ecological impact could produce, the tobacco industry finances many environmental initiatives in its social responsibility programs.[11] These programs often have nothing to do with their pollution-generating activities but instead help to distract the public's attention. Japan Tobacco International has thus invested several million dollars in flood mitigation, Imperial Tobacco helped to construct five botanical parks in Madagascar, and Altria has helped to clean up 6.4 billion liters of water in American waterways.[12] These activities often earn them rewards which are questionable: in 2020, Philip Morris International was featured in a documentary praising its ecological impact and was hailed as a leader in decarbonization by the NGO CDP.[13]

Several tobacco producers have also put on the market cigarette packets which play on ecological images, like the Parisienne Verte, which is sold in Switzerland in plastic-free packaging, or more recently, the Parisienne Eco,[14] which boasts a filter made entirely of paper.[15] However, European legislation forbids touting the ecological virtues of tobacco products, a provision which Switzerland is preparing to introduce in its own new law about tobacco.

In the third part of their strategy, the big cigarette companies have begun to publish information about their CO_2 emissions or their energy consumption, highlighting their progress on these fronts, which are often attested to by "green" labels. But the lack of transparency surrounding these data and the absence of verification by independent sources make many of these announcements dubious. In 2014, British American Tobacco thus declared it had reduced its CO_2 emissions by 45%, but without

mentioning which parts of its chain of production was involved and by what mechanisms this result was achieved.[17]

And when the government or public opinion in the country hosting a particularly polluting factory get involved, cigarette makers do not hesitate to pick up and move to a country with less oversight. In 2013, British American Tobacco thus delocalized a production site from Uganda to Kenya when the local authorities began to complain about emissions which were harmful to the environment and to public health.[18]

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[10] https://www.conserve-energy-future.com/serious-effects-cigarette-smoking-environment-and-human-health.php

[11] https://tobaccotactics.org/wiki/csr-strategy/

[12] https://exposetobacco.org/news/big-tobacco-and-environment/

[13] https://www.pmi.com/media-center/press-releases/press-release-details/?newsId=21751

[14] https://www.at-schweiz.ch/fr/news-media/news?id=94&Verte-Eco-et-Bio-Le-prix-de-la-publicit-plus-hypocrite-de-lanne-va-la-nouvelle-cigarette-Eco-Parisienne X

[15] https://www.srf.ch/sendungen/kassensturz-espresso/themen/umwelt-und-verkehr/die-gruene-zigarette-ist-ein-mogelpaeckchen

[16] Houghton F, Houghton S, O' Doherty D, McInerney D, Duncan B. 'Greenwashing' tobacco products through ecological and social/equity labelling: A potential threat to tobacco control. Tobacco Prevention & Cessation. 2018;4(November):37. doi:10.18332/tpc/99674.

[17] World Health Organization. (2017). Tobacco and its environmental impact: an overview. World Health Organization. https://apps.who.int/iris/handle/10665/255574.

[18] See: Hendlin, Y.H., Bialous, S.A. The environmental externalities of tobacco manufacturing: A review of tobacco industry reporting. Ambio; 49, 17–34 (2020). https://link.springer.com/article/10.1007/s13280-019-01148-3

SDG 14: Preserving Aquatic Life

Smoking has a direct impact on the health of waterways and seas, as well as that of aquatic life. Tobacco requires significant quantities of pesticides and fertilisers, because it is grown as a monoculture, and the plant needs large amounts of nitrogen, phosphorus, and potassium, which results in impoverished soil.[1] These agrochemicals - which include chloropicrin, a pesticide which is toxic for marine organisms - often end up in aquifers and adjacent waterways. Studies conducted in Nicaragua and Brazil showed dangerous levels of these chemicals in streams located near tobacco plantations.[2]

In addition, this crop must be irrigated. It takes 2925 m3 of water to produce a ton of tobacco, more than twice what it takes to grow the same quantity of corn.[3] The fabrication of cigarettes also requires vast quantities of water, mostly in the form of steam used to regulate the level of humidity of the tobacco and to infuse it with additives.

In 2013, British American Tobacco reported consuming 2.45 million m3 of water per year to produce 676 billion cigarettes. Extrapolated to a global scale, this represents 22 million m3 of water per year.[4] Knowing that many plantations and tobacco factories are located in emerging countries which suffer from water shortages, it is clear that this endangers the health of their aquifers.

Cigarette factories also produce toxic residues, including ammonia, nicotine, hydrochloric acid, methanol and nitrates, which often end up contaminating waterways. In 2014, wastewater from the Altria plant contained 450 kg of phosphorus and 7700 kg of nitrogen, according to its own social responsibility report.[5]

But the point at which tobacco poses the greatest risk to aquatic life is at the end of its lifespan. Every year, some 4.5 trillion cigarette butts and two million tons of cigarette cartons, packs, aluminium foil and cellophane packaging are thrown on the ground.[6] Cigarette filters, which are made of cellulose acetate - a plastic - are particularly problematic, as they take an average of 12 years to break down.[7] Introduced by the tobacco industry in the 1950s, when the link between cigarettes and lung cancer were becoming known, they have in fact no beneficial effect on cancer risk, because the smoker makes up for the reduction in tar by inhaling more strongly.[8]

Under the influence of the sun's UV rays, cigarette filters break down into thousands of micro-particles of plastic, which can be ingested by aquatic life and thus enter the food chain.[9] They end up being consumed by humans when they eat fish or seafood. They can also be swallowed whole by fish who confuse them with insects, with the risk of obstructing their digestive systems.[10]

Cigarette butts also contain 7000 chemical products, of which 50 or so are known carcinogens.[11] When they are thrown on the ground, these substances - including nicotine (which is a natural pesticide), arsenic and heavy metals - end up in urban water systems, in rivers and streams, and in seas and oceans. German researchers have demonstrated that a single cigarette butt is enough to pollute 1000 litres of water, and that this happens in less than 30 minutes.[12]

This has grave consequences for aquatic life. A study conducted by the American Environmental Protection Agency demonstrated that if one immerses cigarette butts in water for 96 hours, half of the fish in that water, whether freshwater or marine, will die.[13] And a University of San Diego study showed that it took only one cigarette butt per litre of water to reach a toxicity level fatal to topsmelt silversides (Atherinops affinis) and fathead minnows (Pimephales promelas), two species of fish.[14]

Other researchers have found that the dispersion of cigarette butts in lakes and reservoirs can disrupt the reproduction of copepods (tiny crustaceans), impact the growth and alter the DNA of Nereididae (marine worms), diminish the activity of freshwater snails and reduce the filtration capacity of blue mussels.[15] The chemicals contained in these cigarette residues also tend to accumulate in the bodies of certain species such as trout or mussels, making them unsafe to eat.[16]

The growing popularity of electronic cigarettes and heated tobacco products presents new risks for marine life. Difficult to recycle because of the large number of components, these devices contain lithium-ion batteries, printed circuits, plastic cartridges and residues of liquids containing nicotine and other chemicals. When they are thrown on the ground, they release these harmful substances and heavy metals, particularly lead, into the environment, which can contaminate waterways and seas.[17]

The tobacco industry has, up until now, always refused to accept responsibility for the trillions of cigarette butts which endanger aquatic life. Instead, it has tried to blame consumers, emphasizing their propensity to throw away cigarette butts anywhere and everywhere. Thus most cigarette makers have developed partnerships with environmental NGOs, in the context of their so-called social responsibility activities, which lead them to participate in beach clean-ups, install ashtrays in public places, or sensitise smokers to the environmental risks of throwing their cigarette butts on the ground.[18]

Phillip Morris International, for example, launched an initiative called "Our world is not an ashtray," in which the company pledged to reduce by 50% the quantity of plastic trash generated by their products by the year 2025.[19] Several cigarette manufacturers, following the example of Imperial Brands or R.M. Reynolds, have also tried to market cigarettes with paper or biodegradable filters, but then quickly pulled them from the shelves, arguing that consumers didn't like them.[20] In the meantime, aquatic life continues to suffer from this inaction.

[1] https://apps.who.int/iris/bitstream/handle/10665/255574/9789241512497-eng.pdf

[2] Lecours N, Almeida GEG, Abdallah JM, et al, Environmental health impacts of tobacco farming: a review of the literature. Tobacco Control 2012;21:191-196.

[3] https://unfairtobacco.org/wp-content/uploads/2017/05/tobacco_antisocial_web.pdf

[4] Ibidem

[5] https://apps.who.int/iris/bitstream/handle/10665/255574/9789241512497-eng.pdf

[6] https://exposetobacco.org/wp-content/uploads/TI-and-environment.pdf

[7] https://kwit.app/en/blog/posts/cigarette-butts-the-main-source-of-sea-and-ocean-pollution

[8] https://tobaccotactics.org/wiki/cigarette-filters/

[9] https://tobaccofreelife.org/resources/smoking-ocean-pollution/

[10] https://www.conserve-energy-future.com/serious-effects-cigarette-smoking-environment-and-human-health.php

[11] https://apps.who.int/iris/bitstream/handle/10665/255574/9789241512497-eng.pdf

[12] Amy L. Roder Green, Anke Putschew, Thomas Nehls, Littered cigarette butts as a source of nicotine in urban waters, Journal of Hydrology, Volume 519, Part D, 2014, Pages 3466-3474, https://doi.org/10.1016/j.jhydrol.2014.05.046.

[13] https://ash.org.uk/media-and-news/blog/tobacco-polluted-waterways-marine-death/

[14] Slaughter E, Gersberg RM, Watanabe K, et al, Toxicity of cigarette butts, and their chemical components, to marine and freshwater fish. Tobacco Control 2011;20:i25-i29.

[15] https://apps.who.int/iris/bitstream/handle/10665/255574/9789241512497-eng.pdf

[16] Ibidem.

[17] Pourchez J, Mercier C et Forest V, From smoking to vaping: a new environmental threat?, The Lancet, 2022, https://doi.org/10.1016/

[18] Curtis C, Novotny TE, Lee K, et al, Tobacco industry responsibility for butts: a Model Tobacco Waste Act. Tobacco Control 2017;26:113-117.

[19] https://truthinitiative.org/research-resources/harmful-effects-tobacco/tobacco-and-environment

[20] https://www.nationalgeographic.com/environment/article/cigarettes-story-of-plastic

SDG 15: Protect Life on Land

The fifteenth Sustainable Development Goal of the United Nations is devoted to the protection and restauration of land habitats. This involves sustainable forest management, as well as measures to combat desertification, soil depletion, and the loss of biodiversity. But tobacco farms are particularly harmful to land ecosystems.

First of all, tobacco requires a vast amount of space, thus reducing the land available for food crops or other profitable crops. Globally, some 4 million hectares are sacrificed to growing tobacco in more than 125 countries, led by China, India and Brazil. In Europe, it is grown on 66,000 hectares, essentially in Italy, Spain, and Poland.[1] Even in Switzerland, a country with relatively little arable land, it occupies 400 hectares.[2]

These huge farms are usually located on land which was previously forested. Every year, some 211,000 hectares of woodlands are cleared by the tobacco industry, which accounts for 5% of global deforestation.[3] In certain countries where tobacco is the dominant drop, the situation is even worse. India lost 68,000 hectares of forest to tobacco farms between 1962 and 2002. Brazil, for its part, gave up 74,440 hectares between 1990 and 2007.[4]

In southern Africa, the Miombo, a belt of dry forest which stretched across Tanzania, Malawi, and Angola, and which is habitat for many wild animals such as elephants and lions, is particularly affected. In Tanzania alone, some 11,000 hectares of forest are cleared every year to make room for tobacco farms.[5] In Malawi, one of the biggest tobacco producers in the world, 70% of deforestation is caused by this industry.[6]

Land which is given over to growing tobacco also suffers from impoverishment of the soil, because the plant needs especially large quantities of nutrients (nitrogen, phosphorus, potassium). This frequently results in desertification of these areas, requiring farmers to clear new, fresh fields. This vicious circle is especially apparent in the Urambo district in Tanzania, where 69% of tobacco farmers clear new wooded areas every season, and only 6% reuse the same fields more than wo years in a row.[7] Jordan, India, Cuba, and Brazil also suffer from desertification caused by tobacco farming.[8]

Cigarette manufacturing also requires large quantities of wood. It takes an entire tree to produce enough paper to produce and wrap 15 packets of cigarettes.9 But the part of the process which is most

harmful to forests is the drying of the tobacco. This happens in wooden huts and involves heating the tobacco and maintaining it at a constant temperature for several weeks, using fuel which is usually wood from the surrounding forest. Every year, some 8.05 million tons of wood are used for this, representing 2 to 3% of global deforestation.10 In southern Africa, this proportion reaches 12%.[11]

The tobacco industry also affects land life by spreading vast quantities of pesticides, fungicides, growth regulators, and fertilisers on the fields used for this monoculture. As they accumulate in the soil over the seasons, they eventually contaminate it and enter the food chain by being ingested by the insects and rodents living there.[12]

The waste products produced by the tobacco industry, particularly the billions of cigarette butts containing nicotine which are thrown on the ground every year, have a similar effect. Cattle, which eat great quantities of vegetation, are especially affected.[13]

Confronted with the damage it causes to the environment, the tobacco industry merely points to its social responsibility initiatives, in the hope of repairing its reputation as a "green" industry. In Kenya, British American Tobacco requires its farmers to plant 1000 eucalyptus trees on their land for three consecutive years, to make up for the deforestation they have caused. The only problem is that most of these farmers do not have the necessary amount of land.[14] For its part, Philip Morris touts is program in Malawi which aims to "restore damaged forest lands" and to develop sustainable drying methods.15 These programs, emphasized for communications purposes, have in reality no lasting impact on the rate of deforestation.

Nor do cigarette makers hesitate to finance studies which minimise the impact of their activities, for example, by understating the quantity of wood needed for drying tobacco, or the extent of the deforestation caused by tobacco farming.16 They have also set up organisations, such as the International Association of Tobacco Farmers, to promote tobacco farming in low-income countries, arguing that it is necessary for the economic survival of local farmers.[17]

Yet several initiatives have demonstrated that tobacco could easily be replaced by other crops just as profitable. In Tanzania, the UN has supported a program which aims to substitute tomatoes for tobacco. in Kenya, farmers have turned to growing bamboo. And in India, they have started investing in cotton, beans, and chili peppers.[18] This ensures a stable income while increasing the food security of their countries.

[1] https://www.forbes.com/sites/danieladelorenzo/2021/05/31/ending-tobacco-farming-could-free-over-4-million-hectares-across-120-countries/?sh=46e751c75bd3

[2] https://www.swissinfo.ch/ger/schweizer-tabak-anbauflaechen-auf-unter-400-hektaren-geschrumpft/45309574

[3] Geist HJ. Global assessment of deforestation related to tobacco farming. Tob Control. 1999 Spring;8(1):18-28. doi: 10.1136/tc.8.1.18 [Titel anhand dieser DOI in Citavi-Projekt übernehmen] . PMID: 10465812 [Titel anhand dieser Pubmed-ID in Citavi-Projekt übernehmen] ; PMCID: PMC1763929.

[4] https://www.medicusmundi.ch/en/advocacy/publications/mms-bulletin/fighting-tobacco-in-lmic/kapitel-3/tobacco-the-forest-slayer

[5] Mangora, M.M. (2005), Ecological impact of tobacco farming in miombo woodlands of Urambo District, Tanzania. African Journal of Ecology, 43: 385-391. https://doi.org/10.1111/j.1365-2028.2005.00603.x

[6] https://apps.who.int/iris/bitstream/handle/10665/255574/9789241512497-eng.pdf

[7] Lecours N, Almeida GEG, Abdallah JM, et al, Environmental health impacts of tobacco farming: a review of the literature, Tobacco Control 2012;21:191-196.

[8] https://apps.who.int/iris/bitstream/handle/10665/255574/9789241512497-eng.pdf

[9] https://truthinitiative.org/sites/default/files/media/files/2021/03/Truth_Environment%20FactSheet%20Update%202021_final_030821.pdf

[10] https://www.medicusmundi.ch/en/advocacy/publications/mms-bulletin/fighting-tobacco-in-lmic/kapitel-3/tobacco-the-forest-slayer

[11] https://fctc.org/wp-content/uploads/2019/08/factsnations_en.pdf

[12] https://www.conserve-energy-future.com/serious-effects-cigarette-smoking-environment-and-human-health.php

[13] Ibidem

[14] Lee, K., Carrillo Botero, N. & Novotny, T. 'Manage and mitigate punitive regulatory measures, enhance the corporate image, influence public policy': industry efforts to shape understanding of tobacco-attributable deforestation. Global Health 12, 55 (2016). https://doi.org/10.1186/s12992-016-0192-6.

[15] https://www.pmi.com/sustainability/case-studies/an-ecosystem-lens-on-environmental-impacts-in-malawi

[16] Lecours N, Almeida GEG, Abdallah JM, et al. Environmental health impacts of tobacco farming: a review of the literature. Tobacco Control 2012;21:191-196. https://tobaccocontrol.bmj.com/content/21/2/191

[17] https://www.tobaccoleaf.org/

[18] https://exposetobacco.org/wp-content/uploads/TI-and-environment.pdf

SDG 16: Strong Institutions for a Just and Inclusive Society
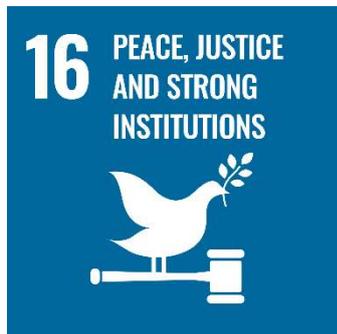
The UN's Sustainable Development Goal 16 aims to promote peaceful, inclusive, and just societies, underpinned by effective and accountable institutions. However, by acting to defend its interests, the tobacco industry jeopardises the achievement of these objectives. It regularly intervenes in the decision-making process of the countries where it grows tobacco and sells cigarettes, deploying lobbyists, funding politicians' campaigns, and providing "ready-made" legislation.

In 2018 alone, tobacco companies and their affiliated organisations spent €4 million on lobbying costs with the European Commission. In comparison, actors campaigning for stricter smoking controls spent €25,000 to €50,000 during the same period.[1] In Switzerland, during the campaign for the popular initiative Children Without Tobacco, approved by the people on 13 February 2022, opponents received at least CHF 6 to 7 million from the tobacco industry, according to an AT Switzerland estimate, while the committee in favour of the initiative spent only CHF 1.2 million.

In Brazil, tobacco companies intervened to prevent the adoption of a law banning additives in tobacco products. It took two years for the legislation to finally pass in 2012.[2] Similarly, in Australia the industry delayed the implementation of addiction prevention messages.[3]

Their efforts focus on low-income countries where institutions are weaker. In Kenya, the passage of tobacco control legislation in 2007 took 13 years. In Namibia, it took until 2010 for a similar law, under discussion since the early 1990s, to be introduced. In both cases, these delays were due to interference from the tobacco industry.[4]

The arguments brandished by the tobacco giants evoke losses in terms of tax revenues, jobs that could disappear, and the impact on small shops selling cigarettes. In Uganda, British American Tobacco (BAT) claimed that a tobacco control law passed in 2015 would decimate the agricultural sector, threatening the survival of 14,000 farmers. To press its point, the firm canceled the contracts it had signed with 709 farms located in the electoral district of the law's author. [5]

Even when legislation has come into force, the tobacco industry continues to work to undermine its implementation. In Kenya, it convinced authorities to place cigarette pack health warnings on easy-to-

remove stickers. In Nigeria, it intervened to limit the definition of public space when smoking was banned there.[6]

When these attempts at covert influence fail, tobacco companies turn to the courts. Thailand, Sri Lanka, Nepal, Paraguay, the Philippines, Uganda, Kenya, Mexico, Argentina, Brazil, South Africa, Colombia, and Panama have all been sued by a tobacco industry representative when they tried to introduce health warnings on their cigarette packs, limit the advertising of tobacco products, or ban smoking in public places.[7]

While these tactics occupy a gray area, they are nonetheless legal. However, this has not always been the case. BAT found itself under investigation by the UK's Serious Fraud Office between 2017 and 2021, accused of paying bribes to politicians in Burundi, Comoros, Kenya, and Rwanda.[8]

The influence of tobacco companies is also felt in the international arena where they try to influence the standards and treaties that could impact their activities. The World Health Organization – and more generally the ecosystem that makes up International Geneva – have emerged as a prime target for them.

To remain incognito, they prefer to go through organisations that, under the guise of charitable activities, have as their main goal to defend the interests of the tobacco industry and are largely financed by them. These include Foundation for a Smoke-Free World, founded by Philip Morris International in 2017 with funding of USD 1 billion over 12 years[9]; the ECLT Foundation (an NGO – Eliminating Child Labour in Tobacco Growing), created in 2000 by representatives of the tobacco industry; and INNCO (the non-profit International Network of Nicotine Consumer Organisations), which brings together several organisations for the defense of electronic cigarettes.

All three have their headquarters in Geneva and regularly try to intervene in the debates within the international bodies based in the city at the end of the lake. INNCO thus managed to infiltrate the conference of the parties to the WHO Framework Convention on Tobacco Control in 2018, obtaining observer status there.[10] The ECLT has secured a consultancy position with the United Nations Economic and Social Council, has established partnerships with the International Labour Organization, and holds a seat on the child labour platform of the UN Global Compact.[11]

Starting in the 1990s, cigarette companies also began challenging the policies of some states to regulate smoking at the World Trade Organization, arguing through allied countries that they violate

intellectual property rules. In 2012 and 2013, Ukraine, Honduras, Dominican Republic, Cuba, and Indonesia filed a complaint against Australia's decision to introduce logo-free cigarette packs.[12]

Countries and international organisations have a powerful tool to counter the influence of tobacco companies on their institutions in the form of Article 5.3 of the WHO Framework Convention on Tobacco Control, which Switzerland still has not ratified. This prohibits the tobacco industry from interfering in public policies relating to health or smoking. By 2014, two-thirds of the 130 States party to the Framework Convention had implemented measures to limit such interference.[13] Several countries, including Brazil, South Africa, Sri Lanka, and the United Kingdom, have also created programmes to monitor the activity of tobacco companies in their territories.[14] The counter-attack is getting organized.

[1] https://www.transparency.org/en/news/tobacco-smokescreen-deadly-consequences-of-undue-influence

[2] https://untobaccocontrol.org/taxation/e-library/wp-content/uploads/2019/07/Tobacco-Atlas-2018.pdf

[3] https://www.revmed.ch/revue-medicale-suisse/2009/revue-medicale-suisse-210/les-entreprises-du-tabac-peuvent-elles-etre-citoyennes

[4] Gilmore AB, Fooks G, Drope J, Bialous SA, Jackson RR. Exposing and addressing tobacco industry conduct in low-income and middle-income countries. Lancet. 2015 Mar 14;385(9972):1029-43. doi: 10.1016/S0140-6736(15)60312-9.

[5] Ibidem.

[6] Ibidem.

[7] Ibidem.

[8] https://tobaccotactics.org/wiki/corruption/

[9] van der Eijk, Yvette; Bero, Lisa A.; Malone, Ruth E. (2019): Philip Morris International-funded 'Foundation for a Smoke-Free World': analysing its claims of independence. In Tobacco control 28 (6), pp. 712–718. DOI: 10.1136/tobaccocontrol-2018-054278.

[10] https://www.medicusmundi.ch/en/advocacy/publications/mms-bulletin/fighting-tobacco-in-lmic/kapitel-2/how-an-international-convention-can-help-lmic

[11] https://tobaccotactics.org/wiki/eclt/

[12] Gilmore AB, Fooks G, Drope J, Bialous SA, Jackson RR. Exposing and addressing tobacco industry conduct in low-income and middle-income countries. Lancet. 2015 Mar 14;385(9972):1029-43. doi: 10.1016/S0140-6736(15)60312-9

[13] https://www.undp.org/publications/who-framework-convention-tobacco-control-accelerator-sustainable-development

[14] https://untobaccocontrol.org/taxation/e-library/wp-content/uploads/2019/07/Tobacco-Atlas-2018.pdf

SDG 17: Acquiring the Means of Implementing the Sustainable Development Goals

Achieving the United Nations Sustainable Development Goals (SDGs) requires the creation of cross-cutting partnerships at the international level, as well as cooperation among countries, in particular in support of the efforts of developing countries. However, the tobacco industry interferes at different stages of this process. In particular, it tries to influence negotiations in the international arena, within the World Health Organization, and in other UN bodies.

"Their objective is to obtain information on the ongoing debates, with the aim of influencing their outcome," emphasises epidemiologist and public health specialist Marcel Tanner. To do this, tobacco companies target people they know within these international bodies and sometimes try to infiltrate the various panels responsible for advising decision-makers, notes the expert.

For example, they intervened to influence the standard for air quality set by the International Organization for Standardization, a Geneva-based body that sets ISO standards. As a result of this interference, the standard stipulates that the adverse health effects of passive smoke can be controlled by a ventilation system.[1]

At the World Trade Organization, tobacco companies argue that certain control measures, such as the requirement to sell cigarettes in plain packages, violate freedom of trade rules. This notably delayed the implementation of such a law passed by Australia in 2011.[12

Sometimes they exploit the delegations of the countries taking part in these debates. In 2012 and 2014, they managed to place people affiliated with pro-tobacco organisations in the Zambian and Italian delegations to the Conference of the Parties (COP) of the WHO Framework Convention on Tobacco Control.[3] However, Article 5.3 of this text says that states parties must ensure that their public health policies on tobacco control "are not influenced by the commercial and other interests of the tobacco industry".[4]

But the weight of the tobacco companies is not only felt in the international arena. "They frequently try to exert their influence on the national level," notes Marcel Tanner. "They will then particularly target fragile states, especially low and middle income countries (LMICs), which are more likely to listen to

their message." Countries with strong institutions are not immune. "In Switzerland, lobbyists – including those from the tobacco industry – can embed themselves into the federal parliament and exercise their influence there with politicians in complete freedom," says Tanner.[5] Switzerland also occupies the penultimate and 79th place in the ranking of the Global Tobacco Industry Interference Index established by the Global Center for Good Governance in Tobacco Control (GGTC), ahead of only Dominican Republic.[6]

These interventions can take a variety of forms: drafting "ready-to-use" legislation, obstructing the development of effective laws, contributing to the campaigns of elected officials, funding government public health campaigns and, in the most extreme case, filing a lawsuit against a national anti-tobacco measure.[7]

Tobacco companies are also quick to exploit differences of opinion within the same government. "They tend to concentrate their efforts on the commerce ministry, which is generally more powerful than the health ministry, creating a conflict between these two authorities," details Marcel Tanner. This tactic has been used in particular in Tanzania, where the trade ministry is integrated into the president's office.

In another strategy, the tobacco industry does not hesitate to create a priori independent organisations that it finances. Many of them are concentrated in international Geneva or have an office there, because they have direct access to UN bodies. "We also see former WHO officials or collaborators joining these organisations through a revolving door system that gives them undue influence on international health negotiations," says Marcel Tanner.

These include, for example, the Foundation for a Smoke-Free World, funded by Philip Morris International, or the ECLT Foundation (Foundation to Eliminate Child Labour in Tobacco Growing), supported by major tobacco companies.[8] On the national level, the tobacco giants are frequently behind associations of tobacco growers or restaurateurs. In Switzerland, Gregor Rutz, national counsellor of the Swiss People's Party, is president of Swiss Tobacco, the organisation representing tobacco product vendors.

In a less direct way, the tobacco industry influences public opinion by hiring public relations companies that hammer home its messages to journalists and NGOs. In Central America, for example, it led a campaign against a tax increase on cigarettes, arguing that this would endanger many jobs.[19 In

Russia, it denounced the ban on cigarette companies sponsoring NGOs, claiming that this would impact their charitable activities.[10]

More perniciously, the tobacco industry often funds its own research. "It grants funds to scientists or even entrusts them with research mandates," says Marcel Tanner. "The risk is that these scientists then exclude from their research the results that contravene the cigarette companies' interests." Universities require their researchers to declare their interests, but verification of this process sometimes leaves something to be desired.

A famous example relates to passive smoking. After demonstrating in secret laboratory studies the toxicity of exposure to passive smoking, Philip Morris International, along with other tobacco companies, subsequently launched an international research program to deny the dangers of passive smoking.[11]

The fight against tobacco industry influence on the achievement of the Sustainable Development Goals calls for one remedy: more transparency, both in terms of the circulation of information and of funding," judges Marcel Tanner. And to conclude: "The problem is not the absence of rules, but the lack of their implementation."

[1] Bialous SA, Yach D, Whose standard is it, anyway? How the tobacco industry determines the International Organization for Standardization (ISO) standards for tobacco and tobacco products, Tobacco Control 2001;10:96-104.

[2] https://portal-uat.who.int/fctcapps/fctcapps/fctc/kh/TIInterference/tobacco-industry-interference

[3] https://www.medicusmundi.ch/en/advocacy/publications/mms-bulletin/fighting-tobacco-in-lmic/kapitel-2/how-an-international-convention-can-help-lmic

[4] https://fctc.who.int/fr/home

[5] Boschetti, Pietro; Mach, Philippe (2018): Attention, ce parlement peut nuire à votre santé. RTS, 9/6/2018. Available online at https://pages.rts.ch/emissions/temps-present/9732471-attention-ce-parlement-peut-nuire-a-votre-sante.html

[6] https://www.at-schweiz.ch/fr/plaidoyer/307/global-tobacco-index?lang=frX

[7] https://www.medicusmundi.ch/en/advocacy/publications/mms-bulletin/fighting-tobacco-in-lmic/kapitel-2/how-an-international-convention-can-help-lmic

[8] https://tobaccotactics.org/wiki/eclt/

[9] https://www.euro.who.int/__data/assets/pdf_file/0005/165254/Tobacco-Industry-Interference-A-Global-Brief.pdf

[10] Ibidem.

[11] https://www.euro.who.int/__data/assets/pdf_file/0005/165254/Tobacco-Industry-Interference-A-Global-Brief.pdf