4 Direct impacts of illicit trade in alcohol

This chapter deals with the impacts of illicit trade in alcohol and shows that it can affect economies in a number of ways, including through effects on consumer health and government revenues, as well as impacts on legitimate producers and on efforts to pursue sustainable development goals, which are compromised due to the role of organised crime in the market.

Consumer health

Illicit and other forms of unrecorded alcohol are commonly the cheapest form of alcohol and have been associated with heavy drinking patterns. The illicit products are often consumed by more vulnerable populations, such as people of low socioeconomic status, rural populations, and people with alcohol dependence (Probst Charlotte et al., 2019[1]). They are thus more vulnerable in two ways: i) their consumption may be higher than would otherwise be the case with fully taxed beverages an ii) they would be more susceptible to purchasing tainted products from unscrupulous parties. In general, the biggest health concern with respect to illicit alcohol is consumer exposure to health risks associated with toxic illicit alternatives. Beyond the fact that these illicit substitutes do not comply with sanitary, quality and safety regulations, the most hazardous are contaminated with toxic chemical additives. According to WHO, "consumption of illicitly or informally produced alcohol could have […] negative health consequences due to higher ethanol content and potential contamination with toxic substances, such as methanol.[1] The use of methanol in the production of illicit alcohol is particularly alarming, as it has a strong causal connection to morbidity and mortality; it can result in a decreased level of consciousness, poor or no co-ordination, vomiting, abdominal pain, permanent blindness and death (Lachenmeier Dirk W. Maria Neufeld and Jürgen Rehm, 2021[2]). Moreover, inferior distillation processes used by counterfeiters can introduce methanol or fail to sufficiently remove methanol from final products. This can result from the methanol or toxic denaturants present in these products as a result of the production or manufacturing processes utilised. That is, the fermented mash may be a substance which has high levels of methanol due to the distillation process, or the illicit alcohol may reflect a failed attempt to remove methanol from denatured or wood alcohol, or the fake alcohol may result from the blending of industrial alcohol (that is, alcohol containing methanol or other toxic denaturant materials) with other substances.[2]

It has been estimated that ethanol as a component of unrecorded alcohol could be responsible for approximately 750 000 to 800 000 deaths per year, compared to several thousand per year in the case of methanol. Instances of the adverse effects of tainted alcohol on consumers are regularly reported in the press, and health ministries in many countries have issued warnings about the consequences of drinking such alcohol (see Box 4.1).

Another potential source of harm comes from the addition of accelerants during fermentation. There are reports of animal carcasses, fecal matter, even barbed wire and other inappropriate additives that can increase health risk. In some parts of the world clandestine production equipment may include oil drums and containers previously used for chemicals, all increasing risk of contamination and toxicity to the consumer.

Box 4.1. Examples of methanol poisoning

An outbreak of methanol poisoning occurred from17-26 December 2016, in the Siberian city of Irkutsk, when 123 people drank a spirits and surrogate mixture that contained methanol. Of the 123 who were poisoned, 76 died. Before this, a series of methanol poisonings occurred in Eastern Ukraine killing at least 38 people.

A methanol-poisoning outbreak occurred in the Czech Republic in 2012 from counterfeit alcohol and resulted in 140 people suffering health damage and more than 50 deaths. The mass poisoning in the Czech Republic was associated with a significant decrease of health-related quality of life for the survivors), as well as to long-term costs for the healthcare system.

Methanol in levels associated with health risk (average concentration: 23%) was identified in 4 of 877 samples in Iran. Although the sources of the methanol in the noncommercial beverages were not provided, a mixture of chemically pure methanol is assumed, as natural levels of methanol at such high concentrations in alcoholic fermentations appear to be impossible.

In a large sampling of illegal beverages by the police in India, 3 of 1,221 samples (0.25%) were found to contain methanol (no ethanol) with concentrations in toxic ranges (70%–92%).

In April 2021, during the height of the COVID-19 pandemic, methanol poisoning resulted in the death of 26 persons, while more than 80 persons suffered adverse effects from drinking illegally produced alcohol in the Dominican Republic. Two possible sources were identified; a homemade adulterated drink known as clerén and the other is a type of frozen cocktail. Clerén is an illegal alcoholic beverage without a health registration that is sold in bulk and consumed by poor people, because of its low cost. Officials also suspected that some bottles of recognized alcohol brands in the Dominican Republic were refilled with product containing methanol.

Also, during the pandemic, in Russia, 34 persons died from drinking illicit vodka containing methanol in October 2021, with another 25 hospitalized. Police investigation discovered a warehouse manufacturing plant in which over 600 litres of alcoholic spirits were seized, with a further 1,279 bottles of counterfeit alcohol discovered in the region affected by the contaminated alcohol during two days of widespread checks.

Source: (Lachenmeier Dirk W. Maria Neufeld and Jürgen Rehm, 2021[2]), Zamani et al., 2019, www.foodsafetynews.com/2021/04/deaths-in-dominican-republic-linked-to-tainted-alcohol/ and www.brusselstimes.com/news/188971/counterfeit-alcohol-in-russia-claims-34-lives/.

Other potentially toxic ingredients found in illicit alcohol include formic acid, which is contained in some antiseptic medicinal surrogates (Lachenmeier Dirk W. Maria Neufeld and Jürgen Rehm, 2021[2]). Formic acid can lead to exacerbation of the chronic effects of ethanol by contributing to an excessive buildup of acid in the body (metabolic acidosis). Some of the toxicological studies from Kazakhstan, Russia, and Ukraine indicate that patients treated for acute poisonings with alcohol not meant for human consumption also showed traces of methanol, isopropanol, acetone, fusel alcohols, bio-solvents, and unknown and unidentified alcohols.

Other contaminants found in unrecorded alcohol include aflatoxins (i.e. toxins produced by certain fungi that are found on agricultural crops such as maize, peanuts, cottonseed, and tree nuts), hydrocyanic acid (a highly poisonous hydrogen cyanide product), cyanide derivatives (including ethyl carbamate), heavy metal contamination (with lead, arsenic, or cadmium), and elevated levels of acetaldehyde (which might contribute to the carcinogenicity of ethanol) (Lachenmeier Dirk W. Maria Neufeld and Jürgen Rehm, 2021[2]).

It should be noted that consumers are often deceived and uncertain about the legality of a product. Consumers do not always know when they are purchasing an illicit alcoholic beverage or how to identify one. To make matters more difficult, vendors sometimes sell a mix of licit and illicit products. In addition, as discussed earlier, illicit players use various methods to make products appear legitimate, such as refilling bottles of legitimately branded beverages with cheaper illicit alcohol, or counterfeiting packaging labels and fiscal stamps. To address this problem, some licit alcohol manufacturers and other organizations have invested in communications campaigns to help consumers learn about the characteristics that may indicate a beverage is illicit (e.g. unusually low prices, damaged labels or seals, dirty bottles, cloudy liquid, etc.).

Impact on legitimate producers

Counterfeit, smuggling and other forms of illicit alcohol can lower the sales and profit of branded products, with severe consequences for legitimate business and for their workers on a commercial basis.

First, legal operators are not able to compete on a level-playing field with illicit trades who evade taxes, particularly those operators whose products are taxed at disproportionate rates. Illicit producers and traders are not subject to the costs associated with running of legitimate businesses (including wages, health securities, operational and marketing costs). In addition, the cost of raw materials is lower for illicit producers, particularly if they are using denatured alcohol as a starting point for production, free from taxes, and also without the need for a lengthy fermentation and distillation process. It means that they can either offer customers a lower price or commercialize the products at a similar price, while having much higher margins. The existing OECD evidence highlights the negative impacts that counterfeiting has on legitimate producers. It also points to strong growth in the trade and production of counterfeit alcohol, especially during the pandemic.[3]

Second, the level of illicit trade in a given country is an important consideration for legitimate operators when taking a decision on whether to enter a market, and whether to invest in production and distribution in that market.

There is also the reputational cost to legitimate producers from consumer dissatisfaction with counterfeit products or the perception that a brand is likely to be counterfeit, eroding trust and reducing sales. Campaigns to combat illicit products can also affect producers, by shifting resources to the campaigns and, in the process, by adding to corporate costs.

Government revenue

The most direct way that government misses out on revenue is the extent to which illicit alcohol does not pay taxes. Within this, there are the taxes particular to alcohol (excise taxes) that represent a large part of the difference in price between illicit alcohol and legal alcohol. This is the situation for all forms of illicit alcohol, noting that the health risks represent additional risk on top for the forms of illicit alcohol that are not just tax leakage or smuggled. On top of excise, there are other general sales taxes that would likely not be paid, depending on the route by which illicit alcohol is sold. Mitigating illicit trade therefore presents a certain challenge to address the potentially growth in demand for illicit untaxed products. Likewise, employment taxes and corporate taxes are not likely to be paid by criminal organisations involved in illicit alcohol.

In addition to lost VAT, tariff and excise taxes, taxes paid by legitimate producers may be diminished to the extent that sales and profits of legitimate products decline. In the case of the United Kingdom, HM Revenue & Customs noted that alcohol excise taxes amounted to GBP 10.5 billion in 2015, which represented 2% of total UK tax receipts. At the same time, illicit alcohol was estimated to have cost the

treasury some GBP 1.2 billion (HM Revenue & Customs, 2016[3]). A 2018 study by IARD of the situation in a number of countries estimated lost tax revenues of more than USD 1.8 billion in the countries studied (IARD, 2018[4]) (Table 4.1). A separate study by Euromonitor calculated the fiscal loss in 20 Latin American, Eastern European and African countries to be on the order of USD 3.6 billion (Euromonitor International, 2018[5]).[4]

Table 4.1. Fiscal loss from illicit alcohol in selected countries

Millions of USD

Region/Country	Fiscal loss	Year
Africa:		
Cameroon	112	2014
Mozambique	344	2018
South Africa	800	2020
Tanzania	110	2015
Uganda	172	2015
Zambia	51	2014
Europe:		
Czech Republic	99	2014
Latin America:		
Colombia	406	2015
Costa Rica	75	2014
Dominican Republic	262	2016
Ecuador	118	2015
El Salvador	16	2015
Honduras	6	2015
Mexico	7	2013
Panama	6	2015
Peru	80.6	2015
Suriname	9	2016
Trinidad and Tobago	9	2013
Asia		
Indonesia	69	2018
Vietnam	441	2019
Total of above	3,192.60	

Source: (IARD, 2018[6]) and Euromonitor.

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Notes

[1] See WHO. (2010). WHO Global Strategy to reduce the harmful uses of alcohol. Geneva: WHO. Section 37. Available at: https://www.who.int/publications/i/item/9789241599931.

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[3] See (OECD/EUIPO, 2021b[7]), Global Trade in Fakes: A Worrying Threat, Illicit Trade, OECD Publishing, Paris, https://doi.org/10.1787/74c81154-en.

[4] Euromonitor has also conducted country studies on Argentina (Euromonitor, 2014[19]), Bolivia (Euromonitor, 2017[18]), Colombia, Ecuador, El Salvador, Honduras, Panama and Peru (Euromonitor, 2016[9]) and (Euromonitor, 2016[8]), Czech Republic (Euromonitor, 2015[14]) Dominican Republic (Euromonitor, 2017[13]), Guatemala (Euromonitor, 2016[17]), Malawi (Euromonitor, 2016[11]), Mexico (Euromonitor, 2018[16]), Paraguay (Euromonitor, 2018[15]), Russia (Euromonitor, 2015[12]) and Sub-Saharan Africa (Euromonitor, 2018[10]).