

**AGROCHEMICALS
& PESTICIDES**

**MAPPING THE IMPACT OF ILLICIT TRADE
ON THE SUSTAINABLE DEVELOPMENT GOALS**

ABOUT THE REPORT

On 18 July 2019, the Transnational Alliance to Combat Illicit Trade (TRACIT) in collaboration with the UN Conference on Trade and Development (UNCTAD) organized a forum to discuss the role of illicit trade in inhibiting positive development outcomes and in particular, the implications for the achievement of the UN Sustainable Development Goals (SDGs).

The event featured the launch of TRACIT's report, *Mapping the Impact of Illicit Trade on the UN Sustainable Development Goals*.

The TRACIT report investigates illicit trade in 12 key sectors that participate significantly in international trade and are most vulnerable to illicit trade. For each sector, the negative impacts of illicit trade are mapped against the 17 UN SDGs. The sectors include: agri-foods, agro-chemicals and pesticides, alcohol, counterfeit and pirated goods, forestry, IUU fishing, petroleum, pharmaceuticals, precious metals and gemstones, tobacco products, trafficking in persons and illicit trade in wildlife.

This document excerpts the chapter on "SDGs and illicit trade in agro-chemicals and pesticides"

ABOUT TRACIT

The Transnational Alliance to Combat Illicit Trade (TRACIT) is an independent, private sector initiative to drive change to mitigate the economic and social damages of illicit trade by strengthening government enforcement mechanisms and mobilizing businesses across industry sectors most impacted by illicit trade.

FOR MORE INFORMATION

The full report, Executive Summary and the sector specific chapter excerpts can be found at: www.tracit.org/publications_illicit-trade-and-the-unsdgs

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SDGs AND ILLICIT TRADE IN AGROCHEMICALS AND PESTICIDES



INTRODUCTION

Illicit trade and the UN SDGs

The UN Sustainable Development Goals (SDGs) lay out an ambitious set of 17 goals to address the world's most acute economic, social and environmental challenges. They cover everything from poverty eradication and zero hunger to clean water, decent jobs and peace. Since coming into effect in January 2016, governments, private sector and civil society have rallied around the SDGs to guide policy, implement investment strategies and allocate funding.

Among the portfolio of tools available to achieve the SDGs is the expansion of international trade.¹ This is because trade has historically proven to be an engine for development, boosting income generating capacity and contributing to unprecedented reductions in poverty levels.² Over the last few decades cross-border trade has expanded significantly, supporting rising living standards across the globe.

At the same time, the expansion in *legal* trade has been accompanied by the alarming emergence of *illicit* trade, with estimates quantifying it and associated transnational criminal activities at between 8 and 15 percent of global GDP.³

From smuggling, counterfeiting and tax evasion, to the illegal sale or possession of goods, services, humans and wildlife, illicit trade is compromising the attainment of the SDGs in significant ways, crowding out legitimate economic activity, depriving governments of revenues for investment in vital public services, dislocating millions of legitimate jobs and causing irreversible damage to ecosystems and human lives.

Mapping illicit trade against the SDGs

Despite the recognition of international trade as an important means to achieve the SDGs, insufficient attention has been given to the substantial impact that illicit trade has on holding back progress.

In order to help governments and business better understand how their efforts to achieve sustainable development must account for the negative forces of illicit trade, this study maps the 17 UN SDGs against the following sectors: agri-foods, alcohol, fisheries, forestry, petroleum, pharmaceuticals, precious metals and gemstones, pesticides, tobacco, wildlife and all forms of counterfeiting and piracy. These sectors were chosen because they participate significantly in international trade and they are particularly vulnerable to illicit trade. Trafficking in persons is also examined as a particularly abhorrent phenomenon affecting supply chains and basic human rights as well as contributing to illicit trade practices.

To the extent that an SDG—or one of the 169 targets established to track progress on the goals—is impacted by illicit trade, this study examines where and how illicit activity undermines progress to achieve it. In some cases, illicit activity is mapped against an overall goal, such as SDG 3 (Good Health and Well-Being). In other cases, a specific target has been examined, such as SDG Target 8.7 (Eradicate forced labor, end modern slavery and human trafficking).

Key findings from the report

The socio-economic impacts of illicit present significant deterrence to all 17 of the SDGs—holding back progress, increasing costs and pushing achievement of the goals further away.

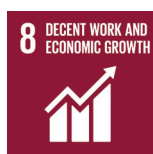
There are notable “macro” impacts where illicit trade cuts deeply across many of the SDGs, undermining achievement of the economic goals for poverty reduction, decent jobs and economic growth (SDGs 1, 2, 3, 4 & 8), and robbing governments of taxable income that can be invested in public services (SDGs 9 & 17). When it generates revenue for organized criminal and terrorist groups, illicit trade undermines goals for peace and stability (SDG 16). Most forms of illicit trade plunder natural resources (SDGs 6, 14 & 15), abuse supply chains and ultimately expose consumers to fake and potentially harmful products (SDG 12).

While findings show that illicit trade poses a threat to all 17 SDGs, nowhere is the nexus as evident than in SDG 16 (Peace, Justice and Strong Institutions) and SDG 8 (Decent Work and Economic Growth).



Illicit trade—in all its forms—stands in direct juxtaposition to SDG 16, by feeding violence and breeding corruption, undermining trust in institutions and the rule of law, and generating enormous illicit financial flows.

Moreover, the links between illicit trade and organized crime are well established, from human trafficking networks and tobacco smuggling, to fuel theft by drug cartels and the involvement of the mafia and organized criminal groups in the trade of counterfeit products. Perhaps most frightening are links to terrorist financing that heighten threats to national and global security.



All types of illicit trade threaten inclusive economic growth and significantly hinder achievement of SDG 8. Lost taxes rob governments of revenues intended for schools, infrastructure and other public services. Illegal and unfair competition reduces sales and dampens the ability of companies to create lasting and dignified job opportunities. Taken together, economic leakages across the sectors susceptible to illicit trade create an annual drain on the economy of US\$2.2 trillion and present a triple threat to financing the necessary “billions to trillions” dollar gap needed to reach the SDGs.

Business is a partner for achieving the SDGs

As illicit trade weakens the viability and sustainability of industries, it simultaneously dilutes private sector contributions to achieving the SDGs. For example, illicit trade is a form of unfair competition that undermines private sector contributions to economic growth and employment. It chokes off market growth, sabotages global supply chains, squanders natural resources and endangers market security. Fake products and inferior materials in supply chains harm consumers and tarnish consumer perception of a corporation's social responsibility (CSR) performance. In some cases, it poses significant threats to the safety and security of personnel and facilities, all adding to the increasing costs of doing business. Where proliferating illicit trade creates socio-economic instability, it dampens private sector investment, holds back research and development (R&D) and discourages technology transfer.

For these reasons, the private sector has a vital interest in defending against illicit trade, helping itself across industry sectors and playing an active role in promoting the SDGs.



The Transnational Alliance to Combat Illicit Trade (TRACIT) provides a platform for business and governments to collaborate holistically to mitigate the incumbrance of illicit trade on the SDGs. Mapping the impacts of illicit trade on the UN Sustainable Development Goals is part of TRACIT's contribution to the partnership approach embodied in SDG 17 and a means by which business, the public sector and civil society—working in partnership—can more effectively achieve the SDGs.

SDGs AND ILLICIT TRADE IN AGROCHEMICALS AND PESTICIDES

Agrochemicals and specifically pesticides are an integral part of conventional agriculture. Insecticides, herbicides and fungicides help maximize crop quantity and quality by reducing the pests and diseases that cause damage to crops and limit crop yield.¹

Given the global widespread use of pesticides—a market projected to reach US\$90 billion by 2023²—it is not surprising that counterfeit and illegally-traded versions are finding their way into markets worldwide.³ Illegal agrochemicals include: obsolete or banned unauthorized pesticides; untested, unregulated, or unlicensed pesticides; unauthorized imports; counterfeit and fake pesticides; relabeled or mislabeled pesticides; and refilled pesticides containers.⁴

According to various estimates, the share of illegal pesticides on the global pesticide market is as high as 25 percent.⁵ These illegal pesticides are untested for safety and may contain unapproved and unknown impurities, uncertified chemicals, illegal formulations, incorrect proportions of active ingredients and have fraudulent or nonexistent guidelines for proper usage.

The proliferation of illicit pesticides presents a range of threats to farm yield, farmer health and safety, reputation of industry and environmental systems that support human, animal, plant and aquatic life. Farmers face potentially irreversible damage to their crops, fields and livelihoods, with large scale losses increasing poverty and contributing to social unrest in rural areas.^{6,7}

Illegal pesticides also generate a number of serious economic and social impacts and undermine the importance and value of legitimate crop protection products on sustainable development, global stability and national food security.⁸ In addition to crop loss and damage to soil fertility, the use of illegal pesticides can tarnish the reputation of trading partners and threaten export markets⁹ causing significant damage to local agricultural economies.

Finally, profits from illegal pesticides represent a highly lucrative activity for organized crime, with criminal networks hiding their operations in complex global supply chains including repackaging, remarking and changing labels.¹⁰ As a criminal enterprise, there is little threat to the profitability of criminal activities with illegal pesticides. Criminals are unlikely to be apprehended as authorities are under-resourced and the penal system does not usually create a significant deterrent.

Case study: Europol Operation Silver Axe III

European law enforcement authorities made the largest ever seizure of illegal pesticides, some 360 tons, as the result of Operation SILVER AXE III. The annual operation coordinated by Europol with the support of the European Anti-Fraud Office (OLAF) targets the illegal trade of pesticides, including their sale and placing on the market (imports). Run over the course of 20 days in April-May 2018, the action saw inspections being carried out at major seaports, airports and land borders, as well as production and repacking facilities in 27 participating countries. Cooperation with private industry was also crucial to the success of the action, with stakeholders from 43 private companies participating.

The record volume of hazardous substances seized in this operation underscores the importance of stemming the flow of these potentially lethal products. According to the investigators, the seized pesticides could have been used to spray 48,000 square kilometers of agricultural land, equaling an area nearly the size of the UK.

Source: Europol (11 July 2018) www.europol.europa.eu/newsroom/news/largest-ever-seizure-of-illegal-or-counterfeit-pesticides-in-europol-silver-axe-operation

Impact of illegal agrochemicals and pesticides on achieving the UN Sustainable Development Goals

The commercialization of a legal agricultural input, such as a pesticide, requires regulatory controls to ensure that the chemical is dealt with safely, from development to disposal. Illegal pesticides are not subject to regulatory controls. Manufacturers of illicit agrochemicals sidestep the regulatory process and do not account for safety risks associated with the use of mislabeled, unregulated, and unidentified substances and chemicals. These risks extend to the treated crops and surrounding ecosystems and also to the foods ultimately consumed by humans and animals.¹¹ The mitigation and eventual elimination of illegal pesticides is thus crucial to support sustainable agriculture without adverse impact on human health, land, water, biodiversity and climate change.

Illegal agrochemicals and pesticides negatively impact achievement of nine SDGs:

- SDG 1 (no poverty);
- SDG 2 (zero hunger);
- SDG 3 (good health and well-being);
- SDG 6 (clean water and sanitation);
- SDG 8 (decent work and economic growth);
- SDG 12 (responsible consumption and production);
- SDG 14 (life below water);
- SDG 15 (life on land); and
- SDG 16 (peace, justice and strong institutions).

Poverty, job creation and economic development



Agriculture drives economic development and provides a livelihood for many of the poorest and most vulnerable people. According to the World Bank, growth in agriculture sectors is at least twice as effective in reducing poverty as growth in any other sector.¹² There are multiple ways through which an increase in agricultural productivity can reduce poverty, including higher incomes and associated multiplier effects that stimulate employment in the rural and urban non-farm sectors.¹³

Consequently, the positive impact of authentic and legal pesticides in supporting agriculture productivity is inextricably linked to poverty eradication and economic growth, development and job creation. Agricultural applications are estimated to account for 86 percent of pesticide sales worldwide,¹⁴ with the global market for pesticides projected to grow from around US\$75 billion in 2017 to US\$90 billion by 2023.¹⁵

There are a number of negative economic impacts extending from the growth in illicit pesticides, starting with lost government revenues from uncollected taxes. For example, illegal agrochemicals represent as much as 15 to 20 percent of the market in Kenya,¹⁶ and the government is reported to be losing at least Sh120 billion (US\$1.19 billion) in revenue from unregistered agrochemical dealers and counterfeit pesticides, according to Agrochemicals Association of Kenya. This illicit activity exacerbates budget deficits and precludes government spending on health care, infrastructure and job creation. Governments also end up spending more on enforcement-related activities to clear markets of illicit products, further burdening limited resources that could be more efficiently used for raising awareness and preventing farmers from becoming victims of criminal trade.¹⁷

Legitimate producers and distributors are faced with unfair competition from low-cost substandard product, which also tarnishes their brands. But beyond financial losses, the presence of “look alike” and counterfeit versions of legitimate products also damages customer trust. For individual farmers, the use of counterfeit pesticides is a triple loss: money is wasted on pesticides that have little or no effectiveness in protecting crops, crop yields are reduced or even lost, and long-run environmental degradation is an ever-present risk.¹⁸

To illustrate the socio-economic losses to Europe, the EUIPO estimated that the knock-on effects due to illegal pesticides in the EU marketplace account for 11,700 lost jobs, €238 million drained from tax revenues and a staggering €1.3 billion annual burden on EU business.¹⁹

On a macro level, illicit pesticides can devastate markets for particular products by eroding public confidence in established producers, agricultural producing countries, and perceptions of food safety. They also cause reputational damage to established food producers, products, and brands and exporters.²⁰ One of the more well-known examples involved detection of isofenphos-methyl in pepper samples exported from Spain to Germany, Finland, Netherlands, UK and Russia. In the wake of the revelation, Spanish pepper exports dropped almost 20 percent and prices decreased by 60 percent. An investigation linked the banned chemical to illicit pesticides used in the pepper fields, which led to production stoppages and the seizure of 2,200 liters of mixed illicit pesticides, with criminal charges and fines for the implicated farmers.²¹

In India, a 2015 study by the Federation of Indian Chambers of Commerce and Industry (FICCI) found that India's position as one of the leading food exporters in the world, a market worth INR 1,578 billion (US\$21 billion), could be at stake if false rumors about illegal pesticide use led importing countries to reduce or ban imports of crops from India.²²

Food stability and sustainable agriculture



Ending hunger, achieving food security, improving nutrition, and promoting sustainable agriculture (SDG 2) is closely connected to continued and productive application of pesticides. Consequently, it is imperative to protect markets from illegal pesticides which jeopardize crop yields and the production of safe, stable and nutritious food supplies.

Food security and hunger top the list of global challenges. The United Nations Food and Agriculture Organization (FAO) estimates that 793 million people are undernourished and lack food security.²³ Moreover, there is a looming challenge to feed the rapidly growing global population, which will require 69 percent more food calories in 2050 than it did in 2006.²⁴

Increasing farmers' access to legitimate pesticides is one of the most fundamental ways to increase agricultural productivity and output. Used properly, pesticides protect and increase agricultural yields and the number of times a crop can be grown on the same land each year. This is particularly important in countries that face food shortages.²⁵

Illegal pesticides in contrast are untested, contain an imbalance of chemicals or lack active ingredients, all of which can cause low yields, crop failure or result in high levels of pesticide residues on food products. Illegal pesticides also may render agricultural land infertile due to soil degradation and contamination of ground water. India, for example, loses about 10 million tons (about 4 percent) of food output a year due to fake pesticides.²⁶

Delivering good health



The use of illegal pesticides presents significant risks to human health (SDG 3) in the forms of food toxicity, exposure to unsafe chemicals, and safety hazards associated with transportation and handling.

- Undeclared active ingredients in illegal and counterfeit pesticides can leave unacceptable levels of toxic residues on crops, rendering them unfit for human (or animal) consumption.
- Exposure to and handling of illegal pesticides containing chemicals which are banned, obsolete or restricted—such as persistent organic pollutants (POPs) and other highly hazardous pesticides (HHPs)—can present significant long-term health, food and environmental risks to agricultural and farm workers.²⁷
- Falsely declared, counterfeit and illegal agrochemicals ignore the international labelling and safety requirements designed to reduce safety risks of transporting highly toxic, flammable or otherwise hazardous substances.²⁸

Finally, SDG 3 for good health is undermined when the sustained use of illegal, ineffective pesticides negatively impacts the nutritional value of harvests.

Peace, justice and strong institutions



According to a 2016 report by the United Nations Interregional Crime and Justice Research Institute (UNICRI), "Illicit pesticides represent a lucrative activity for organized crime and a concrete threat to security, development, health and the environment." Similarly, Europol notes that, "The trade in illegal and counterfeit pesticides is organized by highly sophisticated criminal networks. Criminals have developed complex global supply chains and exploit legal companies to camouflage their activities. The global revenues associated with this crime are estimated to be billions of euros a year."

Additionally, threats to peace and justice are increased when the lack of traceability of illegal pesticides makes available the chemical input components for use as homemade explosives.²⁹ Consequently, the trade in illegal pesticides undermines SDG Target 16.4 (combat all forms of organized crime), and SDG Target 16.1 (significantly reduce all forms of violence and related death rates everywhere).

Protecting the Environment



All chemicals have the potential to be toxic, and agrochemicals are no exception. If not handled properly they can harm rather than help the environment. Accordingly, governments implement strong regulations to monitor and regulate the use, handling and transport of agrochemicals.

However, these regulatory controls are worthless when illegal pesticides are used in the place of legal products, especially when they contain banned and highly persistent organic pollutants (POPs), such as DDT. For example, run-off and releases of the illicit products into waterways, rivers, seas and oceans can lead to widespread environmental contamination and harmful accumulation in humans, local animals and marine life. Additionally, the long-term usage of illegal pesticides on agricultural land can cause resistance in pests, reduce soil fertility or render the land infertile, and contaminate ground water (SDGs 6, 14, 15). For example, the widespread use of illegal pesticides in Cameron Highlands in Malaysia has tainted rivers in the Bertam Valley, Kuala Terla and the district's tap water with toxic chemicals including globally banned substances such as Endosulfan.³⁰

In addition, criminals dealing in illegal pesticides facilitate the pollution of fresh water supplies by illegally—and irresponsibly—disposing harmful chemicals used in the manufacturing process. These practices circumvent safeguards and mechanisms required by governments and can result in serious long-term consequences on the local ecosystem.³¹ Illegal pesticides are also often sold without warning labels or directions for proper use or warnings. Illicit pesticides have also been reported to include false claims like “harmless to human beings and animals” and “safe to use.”³²

Even when illegal pesticides have been detected by authorities, their storage, destruction and disposal is beset with environmental risks and significant costs. Improper destruction of illegal pesticides may result in the release of toxic fumes, such as POPs and other toxins linked to serious adverse effects on human health (SDG 3). Improper storage and destruction may also pollute soils, groundwater or watercourses, with potentially devastating and long-term effects on soil fertility, clean water supplies, marine life and other natural resources vital for human wellbeing (SDGs 6, 14, 15).³³

Illegal pesticides present further health and safety risks associated with their proper disposal, preventing environmentally sound, life-cycle management of the chemical waste (SDG 12). For example, organic pesticides require high heat incineration (1100°C) for at least two seconds in specialist incineration facilities for proper disposal, and other pesticides containing heavy metals or mercury require alternative treatments such as alkaline hydrolysis.³⁴ For proper disposal, experts must therefore first determine the actual composition of the seized pesticides and its active ingredients before implementing the appropriate method of disposal. This process includes chemical and physical analysis in the field with specialized equipment or in an accredited laboratory. These are expensive and technical procedures, often not readily available in developing countries where technical capacity, appropriate storage and waste facilities, and regulatory controls can be limited.³⁵

CONCLUSIONS



Precludes agricultural productivity that can reduce poverty, create jobs and drive higher incomes and productivity.



Destabilizes food security and undermines sustainable food production and access to food.



Presents significant risks to human health via direct exposure to unsafe chemicals, food toxicity, and safety hazards associated with transportation and handling.



Jeopardizes water quality and the protection of water-related ecosystems from contamination.



Drains farmer profitability through spending on ineffective pesticides, causing reductions in crop yields and knock-on effects on GDP, jobs and tax revenues.



Prevents environmentally sound, life-cycle management of chemicals and wastes.



Exacerbates prevention of harmful run-off and releases of toxic chemicals to water bodies.



Renders agricultural land infertile due to soil degradation, increase pest resistance and contaminated ground water.



Undermines governments' capacity to enforce policy, promote the rule of law, eradicate corruption and combat other forms of criminal activity.

IMPLICATIONS AND NEXT STEPS

The sweeping, negative impacts of illicit trade on the SDGs point to a wide range of challenges for both governments and business. Hence, it will be expedient to:

Attend to developing and least developed countries. The alarming consequences of illicit trade are especially evident in developing countries hard-pressed to monetize resources, commercialize innovation, attract investment, establish lasting job opportunities and create genuine, long-term economic growth. As such, it will be critical to support the capabilities of developing countries to better defend against illicit trade by *inter alia* taking stock of national government experiences, challenges, priorities and requests for assistance while also identifying where “in-country” efforts would be most valuable and most effective.

Account for the interconnected nature of the challenge. As noted by the UN, the SDGs are integrated and indivisible in nature with significant inter-linkages across the goals and targets. Ending poverty, for example, must go hand-in-hand with strategies that build economic growth and address a range of social needs including education, health, social protection, job opportunities and environmental stewardship. By the same token, a holistic approach is needed to address the significant number of interdependencies and overlapping problems relating to multiple forms of illicit trade. The impacts of illicit trade cannot be examined effectively in isolation of other sectors, nor can they be addressed in isolation of the SDGs.

Promote shared responsibility. Improving public-private dialogue and promoting partnerships will be needed to address the global nature of illicit trade. Public and private actors can play an important role in determining a responsive, evidence-based work program for addressing illicit trade, including delineation of best practices, and, where applicable, development of regulatory standards.


Prioritize the policy response. The findings from this study demonstrate that illicit trade is a significant deterrent to achieving the SDGs. As governments go about formulating policies and implementing programs to achieve the SDGs, a first order consideration should be to reduce the deterrent forces of illicit trade and plug the fiscal leakages associated with it. This approach has the immediate effect of adding resources and revenues back into the global economy, putting more policy tools back on the table, and reducing timelines, costs and other hurdles to achieving the goals. Consequently, a more level playing field, without the economic drags of illicit trade, can improve the efficiency and effectiveness of policies and programs governments are taking to stimulate growth, employment and investment to achieve the SDGs.

Foster political will and leadership. Addressing the threat of illicit trade on the SDGs will require political will of government officials at all levels to prioritize the problem, actively pursue solutions and invest in enforcement measures. This study provides a first step in raising awareness on the threat of illicit trade on achieving the SDGs. The work also serves as a roadmap to help policy makers identify areas that merit greater attention and to formulate effective strategies to address the serious threats posed by illicit trade.

NOTES

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PRECIOUS METALS AND GEMSTONES											
TOBACCO											
TRAFFICKING IN PERSONS											
TRAFFICKING IN WILDLIFE											