REGIONAL STUDY

ILLICIT FINANCIAL FLOWS

from trafficking of opiates along the northern route
Acknowledgements

The report Illicit Financial Flows from Trafficking of Opiates Along the Northern Route was prepared by the Research and Trend Analysis Branch, Division for Policy Analysis and Public Affairs, United Nations Office on Drugs and Crime (UNODC), under the supervision of Jean-Luc Lemahieu, Director of the Division for Policy Analysis and Public Affairs, and Angela Me, Chief of the Research and Trend Analysis Branch.

The study is a joint activity funded and implemented through the UNODC Regional Programme for Afghanistan and Neighbouring Countries.

Analysis and drafting
Bjarne Toender Hansen
Luca Giommoni
Irmgard Zeiler

Data management and support
Diana Camerini
Francesca Massanello
Irina Tsoy

Cover design and production
Suzanne Kunnen
Kristina Kuttnig

Review and comments
This report benefited from the expertise of and invaluable contributions from colleagues in the Research and Trend Analysis Branch and from many other UNODC staff in divisions and the field offices.

The Research and Trend Analysis Branch is grateful for the support from the Central Asian Regional Information and Coordination Centre for Combating Illicit Trafficking of Narcotic Drugs, Psychotropic Substances and their Precursors (CARICC) in facilitating the data collection process.
CONTENTS

EXECUTIVE SUMMARY

Key findings and main issues

ILlicit financial flows

Introduction

Background

Trafficking in opiates along the northern route: market size, costs, and beneficiaries

The value of opiates consumed by users in the northern route countries amounted to some USD 10 billion annually

Residents of northern route countries may not profit greatly from opiates transiting the subregion

Individually, international traffickers may profit the most, farmers in Afghanistan the least

The profits of traffickers depend on the costs associated with opiate trafficking

The volume of the illicit financial flows in opiate trafficking to northern route countries

When drugs are paid for, illicit financial flows are linked to opiate trade flows

Illicit financial flows from income generation amount to between USD 1.1 and 2.1 billion

Illicit financial flows related to income management

Beneficiaries from opiate trafficking and the potential for generating illicit financial flows

Different types of drug trafficking networks and illicit financial flows

Payment modalities, money laundering and the use of the proceeds from drug trafficking

Payment modalities

Measures taken by drug traffickers to ensure they are paid

Money laundering and the use of illicit proceeds

ANNEX

Definitions, concepts, and methodology

Statistical definition and measurement approach of illicit financial flows

Money laundering

Market size, illicit income and expenditure

Price and purity data

Purity adjustment in prices and seizures

Consumption estimates

Estimating IFF from income generation

Guidance on estimating inwards and outwards IFF at the country level
EXECUTIVE SUMMARY

KEY FINDINGS AND MAIN ISSUES

USD 10 billion spent on opiates in Central Asia and the Russian Federation annually

Opiate users spent an estimated USD 9.5 (7.2–12.6) billion per year on consumption of the drug between 2016 and 2019. Of these, traffickers at the wholesale level earned an estimated USD 2.2 (1.5–3.2) billion annually. The estimated annual expenditure at the retail level would exceed the entire 2019 GDP of Tajikistan or Kyrgyzstan.¹

Opiate trafficking and consumption appear to be decreasing in Central Asia and the Russian Federation

Opiate users in the subregion consumed an estimated 33.2 tons² of opiates per year between 2016 and 2019, about 39% less than the previous five-year period. Heroin seizures decreased by some 60 per cent between the two time periods.

Data on opiate use are confined to the number of registered users, however. In absence of recent, population-based drug use survey data, the reduction in use had to be inferred from long-term declines in registered drug users, limiting the robustness of the estimates.

¹ The World Bank. World Bank Development Indicators.
² Pure heroin equivalent.
The opiate trade on the northern route generates an estimated USD 1.1 to 2.1 billion in illicit financial flows

Not all illicit income generates an illicit financial flow. Illicit financial flows (IFF) involve only transactions between different countries. Domestic transactions, not included in the statistical definition of IFF, reach significant volumes too.

Cross-border transactions directly related to the opiate trade generated IFF of USD 1.1 to 2.1 billion annually between 2016–2019.

Additional flows were generated when illicit opiate profits made in one country were moved, invested or laundered to third countries. These flows could be significant but large knowledge gaps prevent their estimation.

---

**Illicit financial flows in income generation**

**US$1.1 – 2.1 billion**

**IFFs cross borders**

**Illicit income from the illegal trade**

**US$9.5 billion**

(7.2 – 12.6 billion)

**Illicit gross income**

\[ \text{Illicit net income} = \text{Illicit gross income} - \text{Intermediate expenditure} \]

**Illicit financial flows from the income management**

**IFFs cross borders**

---

**Note:**

- **Illicit financial flows** are cross-border flows of illicitly generated, transferred or used income.
- **IFFs** emerge from the trade in heroin (income generation) and from the use of the generated net income for consumption or investment outside of the supply chain (income management).
- **Illicit income** is the money made from the illegal trade by all actors in the supply chain. It is the value of all goods traded and can be broken down in illicit net income and intermediate expenditure.
Illicit financial flows are not bound by geographic or physical transportation limitations

When opiates are traded between countries, illicit financial flows are generated when buyers pay the sellers. The study could identify major trade flows of opiates and corresponding IFF between Afghanistan and Tajikistan, and Tajikistan and the Russian Federation. There was no evidence for direct trade in opiates between Afghanistan and the Russian Federation, meaning that there is at least one partner in Central Asia that connects these two countries. Minor flows connect Central Asian countries with Afghanistan and each other.

Illicit financial flows related to drug payments, 2016-2019

Illicit financial flows from the use of income from drug trafficking are more difficult to quantify. The countries participating in this study identified other countries within the subregion as destination countries of illicit proceeds, but also mentioned countries in South-Eastern Europe, Near and Middle East and Western Europe.

Destinations of transfers of drug profits, 2016-2019

Illicit income from drugs is invested in real-estate, luxury goods and legal businesses

Illicit income from drug trafficking is being invested in third countries, but also used within the region for a wide range of purposes, such as construction (residential apartments, villas), purchase of property, purchase of luxury vehicles, investment in the health sector (private hospitals or clinics), and investment in the education sector (private universities).
**Overall, most drug profits are accrued in retail markets, but international drug traffickers may make the most individual profit**

From cultivation and production to local distribution and international trade, all activities related to drug supply chains yield financial benefits for those involved, but some make more than others. While a kilogramme of pure heroin at the retail level was sold in the Russian Federation for an average of USD 240,000 between 2016 and 2019, international drug traffickers sold it for some USD 52,100, and farmers in Afghanistan earned only some USD 2,300 for the opium needed to manufacture it.

The largest mark-up is made in the retail markets, where four to ten times as much is earned per kilogramme than at the international trade level. But, due to the volumes handled, international traffickers may make the most money on an individual basis.

**Electronic transactions are increasingly important in the drug trade along the northern route**

The information available points to a transformation in the way drug transactions are made. In the Russian Federation, the sale of drugs has increasingly moved into the virtual environment, including the use of cryptocurrencies.

Elsewhere, such technologies appear less widespread. In Kyrgyzstan, E-wallets and credit cards were used in trading synthetic drugs and new psychoactive substances; the use of hawala or bartering were more common otherwise. In Afghanistan and Tajikistan, traffickers appeared to continue to rely heavily on informal systems and trustees like hawaladars.
Possible responses and implications for policy and programming

> Strengthen monitoring systems to identify the flows of the illicit income and the channels through which they are invested and laundered nationally and internationally, to effectively design strategies that counteract them

> Intensify efforts to go beyond seizures, by tracing the ultimate beneficiaries of the trafficking through robust investigations, including parallel financial investigations

> Monitor cryptocurrency markets and electronic payments to make available data and to detect suspicious transactions and illicit financial flows from drug trafficking

> Intensify research efforts on the underlying drivers and motivations of people engaging in drug trafficking to design holistic counter-narcotics strategies

> Improve national mechanisms to collect drug use data, including regular drug use surveys, to allow for precise monitoring and robust estimates of drug use in Central Asia and the Russian Federation

> Strengthen inter-regional cooperation and responses to counter drug trafficking and illicit financial flows

> Further implement investigative techniques including controlled deliveries, judicial cooperation, mutual legal assistance and mutually coordinated intelligence-based operations

> Make best use of relevant international and regional law enforcement centres (such as JPC and CARICC), organizations and platforms for timely exchange of criminal intelligence and for coordination of multinational long-term operations targeting illicit drug trafficking and illicit financial flows

> Forge partnerships with internet service providers, providers of money value transfer systems, shipping and mailing companies to improve government responses to drug trafficking on the internet

> Encourage and support cooperation with offshore jurisdictions and national experts in those sectors that are considered particularly vulnerable to IFFs from opiate trafficking

> Increase mutual support of Member States and regional and international organizations to detect, investigate and disrupt abuse of money value transfer systems, including hawala and similar service providers
INTRODUCTION

The importance of the reduction of illicit financial flows (IFFs) as a priority area to build peaceful societies around the world has been recognized in the 2030 Agenda for Sustainable Development. Curbing illicit financial flows is important for countries to combat transnational organised crime, build productive capacity and create jobs outside the illegal sphere, and to mobilize capital to finance national development priorities.

Opiate trafficking consists of complex international and inter-regional dimensions. To disrupt the supply chains and criminal networks, there is a need to understand the profitability and the monies involved in drug trafficking in source, transit and destination countries, and the distribution of illicit financial flows associated with it. Understanding the size and dynamics of these economic flows helps to guide counter-narcotics strategies that target profits made by trafficking groups and, in turn, to examine the impact that such operations can have on criminal organizations. In the Vienna Declaration, adopted on 16 February 2012 during the Third Ministerial Conference of the Paris Pact Partners on Combating Illicit Traffic in Opiates Originating in Afghanistan, it was stressed that detecting and blocking financial flows linked to illicit traffic in opiates would be crucial to undermining organized crime networks.¹

The present research was conducted in the context of measuring progress towards Sustainable Development Goal 16.4. (“By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime”) of the 2030 Sustainable Development Agenda and within the framework of the Regional Programme of Afghanistan and Neighbouring countries, which is UNODC’s framework to support the countries of West and Central Asia to develop regional and international joint responses to counter the harmful impact of illicit narcotics trafficking and transnational organized crime on security, governance and social and economic development.

The aim of the research is to enhance the knowledge on the value of the opiates trafficked, the IFF emerging from drug trafficking and the management of the respective illicit income on the so-called opiate northern route from Afghanistan through Central Asia to the Russian Federation. It is based on previous work of UNODC and on an analysis of data available through official submissions of the Annual Report Questionnaire (ARQ).² To supplement these data, the research collected qualitative information in selected countries and international organisations and agencies, with the goal to better understand how the illicit proceeds of drug trafficking are managed by criminal organisations. The data collection was supported by the Central Asian Regional Information and Coordination Centre for Combating Illicit Trafficking of Narcotic Drugs, Psychotropic Substances and their Precursors (CARICC), and was conducted in close coordination with relevant UNODC programmes.

The approach to assess IFF follows the concepts and approaches described in the conceptual framework for the statistical measurement of illicit financial flows, that has been jointly developed by the custodian agencies of SDG indicator 16.4.1 “Total value of inward and outward IFFs in current United States dollars”, the United Nations Conference on Trade and Development (UNCTAD) and the UNODC.³

Background

Accounting for an estimated 85 per cent of global opium production in 2020, opium produced in Afghanistan supplies heroin to large consumption markets in neighbouring countries, Europe, the Near and Middle East, South Asia, and Africa. It reaches destinations as far as North America and Oceania. Opiates of Afghan origin supply roughly 25 million users around the globe, or about 80 per cent of all users in the world.

Opiates originating in Afghanistan are trafficked to markets around the globe via several trafficking routes. All opiates trafficked by land from Afghanistan enter either the Islamic Republic of Iran, Pakistan or Central Asia. These trafficking routes can be grouped into three main branches and numerous subbranches.

¹ Vienna Declaration of the Third Ministerial Conference of the Paris Pact Partners on Combating Illicit Traffic in Opiates Originating in Afghanistan, December 2012.
² See https://dataunodc.un.org/
³ UNODC and UNCTAD, 2020. “Conceptual framework for the statistical measurement of illicit financial flows”.
The main branches are the Balkan route, which supplies Western and Central Europe via South-Eastern Europe and runs through the Islamic Republic of Iran and Turkey and to a lesser degree through the Islamic Republic of Iran, the South Caucasus and the Black Sea; the northern route, which mainly supplies markets in the Russian Federation and Central Asia and runs through Central Asia and to a lesser degree through the South Caucasus to the Russian Federation; and the southern route, which supplies all other markets and runs through Pakistan and partially through the Islamic Republic of Iran, and then through the Gulf region, to Africa, Europe and South Asia.¹

Over the period 2011–2015, an estimated annual 42.5 to 74.5 tons of pure heroin entered the northern route from Afghanistan, to be either consumed or seized.⁶ More recent data pointed towards shifts away from opiate consumption and changing trafficking patterns in the Northern Route, for example indicated by a strong decline in opiate seizures in the subregion: While two decades ago, the heroin and morphine seized in countries along the northern route made up more than 10 tons and represented more than 10 per cent of global seizures of those opiates trafficked from Afghanistan, in the period 2011–2015 some 3.9 tons and in 2016–2019 only 1.5 tons of heroin and morphine were seized annually on average.⁷ Likewise, reports from Member States in the subregion indicated a strong decline in opiate consumption in the subregion.

This study revisits and updates the 2011–2015 consumption estimates and uses these to estimate the market value of opiates and the illicit financial flows derived from trafficking.

---


⁶ UNODC, 2018. Afghan opiate trafficking along the northern route.

⁷ See, e.g., UNODC, World Drug Report 2021, booklet 3, p 94; UNODC, responses to the annual report questionnaire.
The value of opiates consumed by users in the northern route countries amounted to some USD 10 billion annually.

Between 2016 and 2019, an estimated annual 33.2 (26.4–42.5) tons of heroin (pure heroin equivalent) were consumed in Central Asia and the Russian Federation. This is a reduction of some 39 per cent when compared to the latest available estimates pertaining to the period 2011–2015, when an annual consumption of 55 (42–72) tons of pure heroin equivalent was estimated. The 2016–2019 estimate followed the methodology of the 2011–2015 estimate and the change reflects trends in the number of registered drug users as reported by northern route countries to UNODC.

The value of opiate trafficking along the northern route equals the overall illicit gross income generated by resident traffickers from selling opiates to end-consumers in the northern route countries and from exporting opiates to outside of the region. It is calculated as quantities consumed and quantities exported to the outside of the region multiplied by the relevant prices (e.g., domestic retail prices for domestic consumption and export prices).

UNODC, responses to the annual report questionnaire.

A resident of a country has their centre of economic interest within that country, the residency is thus independent of nationality or residence permit. This approach is in line with the System of National Accounts, a standard used by all countries to construct the gross domestic product (GDP), which has been applied to illegal activities, too.
Table 1: Annual value of the opiate consumption market in Central Asia and the Russian Federation, wholesale and retail, 2016–2019

<table>
<thead>
<tr>
<th>Product</th>
<th>2016–2019 annual average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opiates – retail</td>
<td>USD 9.6 (7.2–12.6) billion</td>
</tr>
<tr>
<td>Heroin – retail</td>
<td>USD 9.5 (7.1–12.6) billion</td>
</tr>
<tr>
<td>Opium – retail (minimum)</td>
<td>USD 0.05 billion</td>
</tr>
<tr>
<td>Opiates – wholesale</td>
<td>USD 2.2 (1.5–3.2) billion</td>
</tr>
<tr>
<td>Heroin – wholesale</td>
<td>USD 2.2 (1.4–3.1) billion</td>
</tr>
<tr>
<td>Opium – wholesale (minimum)</td>
<td>USD 0.04 billion</td>
</tr>
</tbody>
</table>

Sources: UNODC.

FIG. 1: Average wholesale prices of heroin (pure heroin equivalent, USD/kg), Central Asia and Russian Federation, 2016–2019

Source: UNODC calculations, based on responses to the annual report questionnaire.

In Central Asia and the Russian Federation, demand and seizure data indicate a market for opium consumption and trafficking. Opium, being the less valuable drug and being less widely used and traded than heroin, has a smaller market value. Between 2016 and 2019, an estimated annual minimum of 1.5 tons of opium were for opiates exported). Export refers to selling drugs to a country outside the region and notably, drugs that are merely transported through the northern route countries without benefitting residents of the region do not accrue relevant income.11

By using available price data for the reference period,12 the annual overall income generated from heroin at the retail level was estimated at USD 9.6 (7.2–12.6) billion between 2016 and 2019. At the wholesale level, which is thought to be more indicative of the income generated by organised crime groups, the value of heroin consumption was estimated to be an annual 2.2 (1.4–3.1) billion.

11 See Annex of this report, “Market size, illicit income and expenditure”, for a detailed description of the concepts used.
12 UNODC, responses to the annual report questionnaire.

FIG. 2: Average retail prices of heroin (pure heroin equivalent, USD/kg), Central Asia and Russian Federation, 2016–2019

Source: UNODC calculations, based on responses to the annual report questionnaire.
consumed in northern route countries. The overall minimum retail value of opium was estimated at USD 54 million annually between 2016 to 2019. Its wholesale value was estimated at a minimum of USD 41 million.

Price data can vary substantively between and within countries. The price building process at the retail and wholesale level is driven by several factors, including local availability, risks associated with drug trafficking, and the cost structure for traffickers (e.g., transportation or bribes). The values presented here indicate an order of magnitude and need to be interpreted considering the variability and uncertainties around price and consumption data.

Residents of northern route countries may not profit greatly from opiates transiting the subregion

There are indications that Central Asia and the Russian Federation have been used as a corridor for trafficking opiates from Afghanistan to Europe in the reference period. The value of opiates trafficked through the subregion would only add to the gross income from opiate trafficking if residents of Central Asia and the Russian Federation gained income from the trade opiates to the outside. Income can be gained from purchasing and selling opiates, but as well from the provision of services such as transportation or acceptance of bribes.

In 2019, several seizures have documented that the northern route has been used by trafficking groups from outside the subregion to traffic heroin on trucks via the Islamic Republic of Iran and countries in Central Asia, but also via the Russian Federation and Belarus, to final destinations in Western and Central Europe. Examples of this trafficking pattern included: 670 kg of heroin originating in Afghanistan, which was seized in May 2019 in Frankfurt an der Oder, Germany, on a truck on the way from Kyrgyzstan to Berlin driven by a Turkish national living in Kyrgyzstan; 1.1 tons of heroin seized in Kazakhstan on a truck that had departed the Islamic Republic of Iran for a final destination in Germany, which involved nationals from Germany, Iran (Islamic Republic of), the Netherlands, Poland, Serbia and Turkey; and the seizure of 550 kg of heroin in Minsk, Belarus, in November 2019 that had been trafficked via the northern route for onward trafficking to the European Union, again involving a number of foreign nationals.

The overall quantities of opiates trafficked through Central Asia and the Russian Federation to countries outside the subregion remain unknown. The Russian Federation reported to UNODC in 2019 that 24.5 per cent of its heroin seizures were destined for the Netherlands. Seizure data recorded in UNODC’s Drugs Monitoring Platform revealed that between 2016 and 2019, 4 per cent of all heroin seized in European countries (without the Russian Federation) were reportedly passing through Central Asia and/or the Russian Federation.

The details known about the significant seizure cases did not provide sufficient evidence to conclude where major profits have been accrued, since the residency (in the economic sense) of those benefiting from the shipments was mostly not available. In the absence of further evidence, the potential income generated from exports to countries outside the subregion is not considered in the estimates presented in this report.

Individually, international traffickers may profit the most, farmers in Afghanistan the least

Each transaction made for trading opiates generates value added for the parties involved. The seller generates income by adding a mark-up to the sales price that covers costs and profits, and the buyer receives the product for onwards sale or consumption. The value of the products is thus increasing at each stage of the supply chain. This is reflected in prices that increase from origin country to destination country and from transaction to transaction.

The supply chain model used in this report distinguishes three levels: retail, wholesale and international trade. Opiates are produced in Afghanistan, then traded onwards through transit countries or directly to destination countries (international trade), where they are then distributed to local traders (domestic wholesale trade) who supply end-consumers (retail trade).

Price data can yield insights on the distribution of income across different trade levels by using three different prices for each country: retail, wholesale, and international trafficking. International trafficking prices differ depending on the two countries between a transaction takes place: a kilogramme heroin sold from Afghanistan to Tajikistan is valued differently than a kilogramme heroin sold from Tajikistan to the Russian Federation.

---

18 UNODC, responses to the annual report questionnaire.
19 This supply chain model is based on earlier work of UNODC. See UNODC, Drug Money: the illicit proceeds of opiates trafficked on the Balkan route, 2015.
20 Retail and wholesale prices were obtained from UNODC’s annual report questionnaires; international trafficking prices are an estimate based on price data of two countries connected by a trade flow.
As in many other markets, the largest shares of profits have been generated at the retail distribution, where heroin is adulterated with cutting agents and sold to end-consumers. Retail prices have been up to four to ten times higher than international trade level prices and have been significantly higher than domestic wholesale prices in all countries for which data have been available.

Overall, actors closer to the source make less per kilogramme of opiates than actors further down the supply chain. For example, between 2016–2019, Afghan farmers earned on average USD 2,300 for the opium needed to produce one kilogramme of pure heroin\(^{21}\) that sold for an estimated average USD 8,700 to traffickers in Tajikistan and sold onwards to the Russian Federation for some USD 52,100. In retail markets, the value of a kilogramme heroin further increases by a factor of up to 10 times the international trade level prices.

However, at the retail level, many more people are participating in the trade in opiates than at the wholesale or international trade level. Once the drugs enter a country, domestic supply chains organise the distribution of drugs to end-consumers at the subnational and local level where they reach a very large number of end-consumers. In largely localised retail drug markets, there are many traffickers who cut the heroin, prepare the doses and sell it – either directly or via street-level dealers – to end consumers. The aggregated value of opiates sold at retail does therefore not directly translate into large per-person incomes for the individuals involved, however, there may certainly be cases of retailers accruing substantive profits.

\[^{21}\] Based on average farm-gate prices in the reference period, see UNODC/Government of Afghanistan, Afghanistan opium survey reports.
Understanding the number of persons involved in opiate trafficking

While opiate production, consumption, and market indicators such as prices are well understood, one of the most persistent gaps in knowledge is the lack of information about the number of individuals involved and profiting from the trade in opiates at each stage of the supply chain.

A market that is large, diverse and driven by many persons making small profits will require a different response than a highly concentrated market that is driven by a few who accrue most of the profits. Likewise, market segments providing a little income to many have less potential for significant illicit financial flows, while market segments dominated by a few players making large profits can lead to major illicit financial flows and complex structures that enable money laundering.

It is understood that opiate production and trafficking is run by a large number of individuals who organise themselves in various forms. Recent research on Afghan drug traffickers revealed that drug trafficking organisations in Afghanistan (both large and small) are mainly based on family-structures, shared tribal connections and localised neighbourhoods. Opiate trafficking is characterized by a range of different sizes of organisations, from small – consisting of two or three family members operating in a single province or district – to much larger organisations consisting of many members of an extended family working together in Afghanistan and Europe.

At the source of opiate production, it is difficult to assess the number of households involved in opium poppy cultivation in Afghanistan. In a recent assessment, based on a methodology that combined data from remote sensing, socioeconomic surveys and agricultural censuses, UNODC estimated the global number of households cultivating opium poppy to be between 325,000 and 600,000, with the majority being in Afghanistan.

There are no estimates available on the number of persons involved in heroin manufacturing or trafficking in source, transit or destination countries. A model supply chain, first developed in the context of wildlife crime, describes the number of persons involved at different trade levels as an hour-glass structure. At the beginning and the end of the supply chain, that is at the production and retail distribution stages, many people are involved; at the centre however, at the international trafficking stage which connects actors across countries, fewer persons are involved. The model, however, is yet to be buttressed with data.

**FIG. 5** Distribution of gross income at the international trade, wholesale and retail levels, percentage, 2016–2019

Note: International trade prices are average estimated import prices weighted by estimated trade flows.
The economic impact of drug seizures

Intercepting illicit drugs reduces the amount of drugs available in the market and can act as a deterrent to criminals, as seized contraband is an economic loss for those trafficking it.

The economic impact of a seizure is reflected in the price mark-ups in the supply chain as traffickers adjust price also according to interception risk. With an increasing value and increasing mark-ups, the value of the products seized closer to the destination is much higher than the value of products seized at lower levels of the supply chain. The economic loss of organized crime groups due to seizures is much lower in source countries than in destination countries for same quantities seized.

By weight, most of drugs are typically seized in large quantities at the international trafficking level (such importers/exporters or wholesalers). Therefore, the economic loss caused to the supply chain is not as high as if the same quantities of drugs were largely seized at retail level where prices are much higher. The economic damage may be even further reduced when traffickers price in potential losses into their sales prices.


The profits of traffickers depend on the costs associated with opiate trafficking

Profits, or illicit net income, from drug trafficking and manufacture is the income left for a trafficker after accounting for the expenditures made to accrue the gross income. Illicit net income is the financial resource that can be used for consumption of goods and services, or for saving or investing domestically or abroad. If illicit net income is moved abroad (e.g., by applying money laundering techniques), the respective transaction constitutes an illicit financial flow according to the international definition for statistical purposes.

Organising crime can be costly. The trade in opiates comprises licit activities, such as the procurement, production, transportation, sales, and distribution of commodities, but as well illicit activities such as corruption. Illicit operations require additional precautions to evade arrest and prosecution, to mitigate the risk of interception, and to conceal or erase traces that may lead to the criminals themselves. All these activities have a cost and are associated with expenditures.

The cost components of drug trafficking can be grouped into four broad categories.22

- **Operational costs**, which are costs encountered in activities required to organize the drug trade. Examples are the drugs themselves (e.g., for importing drugs), transportation, labour, material, and other inputs. Costs of losses due to interception of products by law enforcement can also be considered under this category.

- **Concealment costs**, stemming from the activities related to concealing and disguising the drug trade. These costs comprise, for example, the costs for concealment in transportation (such as hiding products in legal shipments or cars), financing safe houses used for hiding products, or purchasing custom-made vehicles (or modifying existing vehicles) to transport illegal commodities.

- **Evasion costs** are those associated with evading arrest and prosecution by law enforcement and criminal justice. Large-scale traffickers employ intermediaries to distance themselves from the predicate offence and from the drugs trafficked. They use complex structures to launder the proceeds of crimes into legal businesses, use non-traceable methods for monetary transactions (including nominee accounts, shell companies) and pay other criminal organizations to protect their contraband (security payments).

- **Corruption costs** can be part of any of the above or be a separate category. Corruption costs are payments (bribes) to government officials and other corruptive acts that facilitate illegal trade at all levels.


Each actor in the supply chain faces different costs, which can vary significantly, depending on the business model, the size of the operation and the modus operandi of the organized crime group. Analysing the possible costs components at each stage of the supply chain yields insights into their finances.

In terms of operational costs, the interviewed authorities in Afghanistan estimated that a person could receive between USD 1,000 to USD 2,000 for transporting a kilogram of heroin of unspecified purity towards northern route countries. This included expenses related to the stay, visa processing and purchase of tickets.23

23 UNODC, interviews with national authorities.
Depending on the destination countries, transportation costs could thus make up between 11–16 per cent of the international trade level price.24

There is however a broad range of costs reported for transporting opiates outside of Afghanistan: in a recent research report, interviewed traffickers (mostly small to medium scale traffickers) estimated transportation costs from Afghanistan to unspecified countries in Europe to be between USD 4,000–6,000 per kilogram heroin (unspecified purity) for shipments of less than 10 kilograms.25 This would be some 10–20 per cent of the average wholesale price of heroin in the West and Central Europe between 2016–2019.26

The same report estimated inter-Afghan heroin transportation costs to be between USD 20–360 per kilogram, with the lowest costs for routes between Nangarhar and Kabul and the highest costs for the route between Nimroz and Hilmand.27 This corresponded to between 1 and 21 per cent of the wholesale value of a kilogram of heroin within Afghanistan (worth between USD 1,700–2,200 per kg, according to Afghan authorities).28

After gross expenditures are deducted from gross income, the remaining net income incurs further cost components including service charges for transactions, money laundering services, and others. Costs of making funds transfers between major international centres via the hawala system reportedly averaged between 2 to 5 per cent for transactions of less than USD 3,000 to 4,000 and smaller fees for larger amounts.29 The final fee paid for the transfer ultimately depends on the volume of the transaction, the financial relationship between the remitter and the Hawaladar, the currency of exchange, the destination of funds, and the negotiating skills of both parties and their understanding of how the market operates. Commercial money service providers may charge even more. Fees of up to 7.5 per cent of the transaction amount have been recorded.30

THE VOLUME OF THE ILLICIT FINANCIAL FLOWS IN OPIATE TRAFFICKING TO NORTHERN ROUTE COUNTRIES

In an illicit market, IFFs can emerge at various stages of illicit activities, relating to different actions and exchanges. A basic distinction in IFF transactions in drug trafficking can be made based on their purpose: generating income or managing income. A transaction can be made for purchasing drugs from a seller, where goods are exchanged for money – this type is referred to as income generating transactions.31 A drug trafficker can transfer its drug income abroad, for example for investing or purchasing goods and services – these transactions refer to the use or management of income.32

When drugs are paid for, illicit financial flows are linked to opiate trade flows

The overall volume of IFF generated by drug trafficking is driven by the complexity and geographic diversity of the trade flows. The financial flows associated with opiate trafficking can follow different routes than those used for the physical transportation of drugs as they are driven by the location of the persons and institutions sending and receiving the funds rather than by where the drugs are transported.

A trade flow between two countries is established when residents in one country purchase from residents of another country. Trade flows can differ substantially from the transportation routes of the opiates, as residents of two different countries can do business with each other, generate income and transfer funds, irrespective of the trafficking route. Indeed, the major seizure cases in 2019 in Central Asia show that the persons earning profits can be in third countries which are neither the origin nor destination of the heroin shipments (in the legal world this would be merchanting33). To understand and estimate the

---

24 Assuming heroin of export quality (50-70 per cent pure) and export to Tajikistan at estimated international trade level prices.
26 Unweighted average of all prices reported through the UNODC annual report questionnaires, not adjusted for purity.
28 UNODC, interview with national authorities.
31 Or other goods in the case of bartering.
32 A cross-border transaction is a transaction between a resident and a non-resident of a country (resident as defined in the Systems of National Accounts). In the context of measuring SDG 16.4.1, IFFs are defined as being cross-border flows and this report focuses on these. Drug trafficking involves, however, in most cases a large volume of domestic transactions, too, whenever drugs are traded within a country between residents of the same country. See UNODC/UNCTAD 2020. Conceptual Framework for the statistical measurement of illicit financial flows.
33 See, e.g., European system of accounts 2010, paragraph 3.164 d: “A good is purchased by a resident from a non-resident and subsequently resold to another non-resident, without the good entering the merchant’s economy.”
Illicit financial flows typology by the purpose of the transaction

For statistical purposes, IFFs are defined as “financial flows that are illicit in origin, transfer or use, that reflect an exchange of value and that cross country borders”. IFFs can be distinguished by their purpose: flows that emerge when income is generated and flows that emerge when profits are used.

*Income generation* refers to all transactions that are made in direct relation to drug trafficking; that is, payments made in return for drug shipments or to cover intermediate costs like precursor substances or transportation services.

*Income management* on the other hand, refers to the transferring abroad of the illicit income generated with the drug trade to for example purchase abroad property or luxury items or to launder proceeds abroad.

### Illicit financial flows in income generation

- **US$1.1 – 2.1 billion**

### Illicit income from the illegal trade

- **US$9.5 billion (7.2 – 12.6 billion)**

### Illicit financial flows from the income management

- Illicit net income = Illicit gross income – Intermediate expenditure

**Note:** Illicit financial flows are a cross-border flows of illicitly generated, transferred or used income.

IFFs emerge from the trade in heroin (income generation) and from the use of the generated net income for consumption or investment outside of the supply chain (income management).

*Illicit income* is the money made from the illegal trade by all actors in the supply chain. It is the value of all goods traded and can be broken down in illicit net income and intermediate expenditure.

---

**FIG. 6** While a consignment of opiates can take many routes when traded between countries, there is only one corresponding trade and illicit financial flow volume of transactions between residents of different northern route countries it is necessary to understand the nationality (more precisely the residence) of the traffickers involved.

Providing precise estimates of trade flows related to opiates is difficult as there is only limited, qualitative data available. The following summarizes the available information and condenses it into indicative, approximated trade flows.

The Russian Federation reported that in Central Asia, most wholesale drug trafficking was organized by residents of Tajikistan and, to a lesser extent, those of Kyrgyzstan and Uzbekistan. The Russian Federation did not mention any involvement of residents of Afghanistan and Kazakhstan.34 Kazakhstan is the only Central Asian country sharing a direct border with the Russian Federation.

---

Source: UNODC.

34 Response from the Russian Federation to UNODC.
THE VOLUME OF THE ILLICIT FINANCIAL FLOWS IN OPIATE TRAFFICKING TO NORTHERN ROUTE COUNTRIES

Case study: financial investigations that disrupted organised crime groups

In the Russian Federation, Rosfinmonitoring jointly with the Interior Ministry’s Chief Drug Control Directorate investigated a criminal network specializing in supplying large quantities of heroin along the “Northern Route”. This group operated across Russia, Tajikistan, Afghanistan, the UAE and other countries. Transactions carried out extended to a wide range of Central Asian countries, Europe, the Arab world and the United States. The investigation of the cartel's finances contributed to the disruption of its activities. The total amount of laundered funds was estimated at about 1 billion rubles (USD 13 million).


In another operation in the Russian Federation, operation “Opium Plume”, Rosfinmonitoring worked closely with law enforcement officials of the Tajikistan financial intelligence unit to disrupt the operations of a drug trafficking ring selling large quantities of heroin mainly to the residents of Tver, Moscow and the Moscow Region. Drugs for sale were put into secret stashes for subsequent pick-up by buyers. Payments were settled by wire transfers inside Russia. The annual criminal income was estimated at 100 million rubles (USD 1.3 million).


The absence of major, direct opiate trade flows between Afghanistan and the Russian Federation was confirmed by Afghanistan. According to reports from Afghan authorities, the main trade partners for Afghan opiates to be trafficked along the northern route were Tajik traffickers (an estimated 90 per cent), and to a much smaller degree, traffickers from other Central Asian countries (around 5 per cent). Direct sales from Afghan residents to European countries including the Russian Federation appeared to play a minor role, with reportedly less than 5 per cent of deals being arranged with residents from these countries.35

From Afghanistan, opiates reach the Russian Federation through two main routes: Central Asia and the Caucasus. The Russian Federation reported in 2018 that 40 per cent of the heroin found on the Russian market had transited Azerbaijan, up from 30 per cent in the year before.36 In 2019, however, the Russian Federation no longer identified Azerbaijan among the three main departure countries of heroin found on its territory.37 While it cannot be excluded that the Transcaucasian route involves residents of Central Asian countries, for the purpose of this analysis, it has been assumed that a sizeable proportion (up to 30–40 per cent) of the opiate demand38 of the Russian Federation has been met by traffickers from outside of Central Asia and the remainder by Central Asian residents. This pertains to the reference period 2016–2019.

Opiate trade that from Afghanistan to Central Asian countries is more scattered. The information obtained from authorities indicated the presence of direct trade flows between Afghan residents and its neighbouring countries, Kyrgyzstan, Tajikistan, and Uzbekistan. In addition, some of the opiates may be traded via an intermediary in a third country, as possible trade flows between Uzbek and Tajik residents, and Kyrgyz and Kazakh residents show.39

Sources: UNODC.

Note: Trade flows describe the volume of opiates traded from one country to another irrespective of the physical trafficking routes. Depicted, indicative volumes are based on quantitative and qualitative data collected from member states. The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

MAP. 2 Estimated opiate trade flows, 2016–2019

35 UNODC, interviews with authorities in Afghanistan.
37 Instead, those three countries were Afghanistan, Tajikistan and Kazakhstan.
38 Here, demand refers to consumption + seizures.
39 Interviewed authorities of Uzbekistan reported that the trafficking of wholesale batches of heroin was usually carried out by citizens of the Central Asian region and of Afghanistan; and reported an increase in seizures at the Kyrgyz-Uzbek and Tajik-Uzbek borders which may be
The number of times a consignment is sold and re-sold between its Afghan origin and its destination appear to be small. Authorities from Afghanistan reported that large-scale shipments were not re-sold along the route, and that large-scale consignments sold to Central Asian traffickers were mostly directed to the Russian Federation, while smaller consignments were predominantly destined for Central Asia countries.

**Illicit financial flows from income generation amount to between USD 1.1 and 2.1 billion**

Based on estimates of drug consumption in the region, prices at retail, wholesale, and international trade levels, and seizure information, a statistical simulation model estimated the different possible scenarios for the magnitude of IFF generated in the drug trafficking.

The resulting possible range of IFFs was between USD 1.1 and 2.1 billion. The largest share of these estimates relate to the opiates trafficked to the Russian Federation given that it has the largest consumer market in the sub-region. These IFFs do not include bribes or financial flows associated with the transfer of the drug profits abroad. If these were included, the resulting IFFs would be larger.

The models showed that the largest volumes of transactions happen domestically, between the wholesale and retail levels, without crossing borders and therefore not meeting the definition of IFFs. This is in line with the finding that most value added in opiate trafficking is generated domestically between wholesale and retail, at the stage where heroin is prepared and distributed to end-consumers. The more often opiates are sold and re-sold across countries, the more complex and diverse the resulting IFFs can be.

The very broad range of possible IFF volumes could be narrowed down with better information on the distribution networks (number of cross-border transactions) and by reducing uncertainty around the proportion of imported and exported drugs in each country. Such data would help to formulate more precise model assumptions, resulting in a smaller range of possible outcomes.

**Illicit financial flows related to income management**

IFF from income management depend on illicit net income generated by opiate trafficking and its share that is sent abroad for consumption of goods and services or for investment in licit or illicit activities.

The volume of illicit income moved across borders for income management depends on a variety of factors, all of which are more challenging to estimate and monitor than volumes of drugs illegally traded and their value. A few possible determinants can be listed without claiming to be comprehensive:

- The net income available to traffickers along the supply chain can be moved and invested abroad or can remain inside the country where it has been generated. Estimating the IFF related to income management requires an understanding of the distribution of the net illicit income between inside and outside the country.
- The structure of the illicit market is one of the factors determining this distribution. In a competitive market that involves a large number of small-scale players, the net income available may be small and not large enough to stimulate large transactions abroad. If, on the other hand, the international trade is in the hands of a few, highly successful organized crime groups, these groups may make substantial amounts of profits that could be more likely moved abroad.
- The proportion of net income moved abroad depends on the traffickers’ propensity to invest and consume internationally rather than investing and consuming domestically. This in turn may be determined by their
The volume of the illicit financial flows in opiate trafficking to northern route countries would translate into some USD 0.5–0.8 billion of opiate related IFF that went outside Afghanistan, accounting for between 3 and 5 per cent of the GDP of the country of that year.

For the other countries, no data was provided that would allow for an estimate of the volumes of IFFs from income management.

Among the countries analysed in this research, only Afghan authorities provided an estimate of the proportion of illicitly generated net income moved abroad: “Of the total proceeds from trafficking of opiates around 30-50% are reserved for the re-investment in the business and 80–85% of the remaining savings [50–70% of the proceeds] are transferred outside of Afghanistan.”

Based on the available data and assuming that all opiates purchased in northern route countries originated in Afghanistan, the total export value of Afghan opiates that concern the northern route countries, can be estimated at some annual USD 230–370 million between 2016–2019. Out of these, up to some USD 115 to 185 million would be reinvested in the drug trade inside the country (e.g., buying opiates, salaries, and others) and the remaining net income would be available to traffickers for consumption and investment. Out of this remaining net income, some USD 90 to 150 million would be transferred abroad.

These numbers pertain to the proceeds from trafficking of opiates to the northern route. If applied to the overall income generated by opiate production and exports in Afghanistan in 2019 (including opiates that go through the Balkan route and the Southern route), this personal characteristics/attitudes/preferences as well as structural characteristics of the country in which the illicit income is generated.

Fig. 7 Streams of illicit income management (IFF under SDG 16.4.1 and non-IFF)

Fig. 8 Distribution of gross and net income Afghan drug traffickers and resulting IFF from income management, according to authorities of Afghanistan

43 UNODC, interviews with national authorities. The interviewed authorities did not provide any data or background information on how the estimate was constructed.

44 During this study no officially reported evidence on heroin production in northern route countries outside of Afghanistan was recorded.

BENEFICIARIES FROM OPIATE TRAFFICKING AND THE POTENTIAL FOR GENERATING ILLICIT FINANCIAL FLOWS

All actors (with exception of end-consumers) involved in the heroin trade benefit from it financially, albeit to varying degrees. Each actor can be involved in generating an IFF (if the transaction crosses a border), but for some actors the potential for generating IFF is far higher than for others. Opium poppy farmers in Afghanistan are not likely to be involved in cross-border transactions while an international drug trafficker who organizes the trade through many countries is likely to be involved in frequent and large-scale cross-border financial flows. The proceeds or net income of some actors may remain (almost) exclusively within the local economy, while significant portions of the net income of others may be transferred abroad.

Opium poppy farmers produce opium in Afghanistan in agricultural settings. Opium poppy cultivation and the production of opium gum provides income to farming households and those involved in the harvesting of opium (so-called lancers). The income opium poppy cultivation generates for farmers and rural households constituted an estimated 2 per cent of GDP in 2020 and is an important source of income for Afghanistan’s rural population. Opium farmers and persons involved in the harvest reportedly use their illicit income to buy food, pay debts and settle medical bills. Some invest in property, education or other activities that could offer alternatives to poppy cultivation. There is no evidence for significant involvement of farmers or lancers in cross-border financial transactions, and they do not seem to generate IFFs.

Opium collection and distribution to processing facilities. Opium poppy is either sold by farmers at local, district or provincial markets or collected by first-level traffickers at the farm-gate. The price monitoring system of the Ministry of Interior of Afghanistan indicated that first level traffickers added some 5 per cent to the farm-gate opium price between 2016 and 2019 when selling onwards.

Financial transactions between first-level traffickers and farmers are thought to be largely domestic, however there remains a knowledge gap around the early stages of trafficking within Afghanistan. In border regions, direct transactions between low level traffickers and foreign residents may occur more frequently than within the country.

FIG. 9 Beneficiaries of the trade with opiates of Afghan origin

Sources: UNODC/Government of Afghanistan, Afghanistan opium survey report, various years; FATF, 2014. Financial flows linked to the production and trafficking of Afghan opiates; UNODC interviews with national authorities.

Note: The list of actors is not exhaustive. It is meant to provide an understanding of the beneficiaries of opiate trafficking and the potential for IFF at various stages of the trade.

46 UNODC. 2018. Afghanistan opium survey 2018, Challenges to sustainable development, peace, and security. P. 31
47 Average mark-up by traders between January 2016 to December 2019.
Individuals involved in processing opium into heroin are generally based in Afghanistan and border areas. Laboratory operators can be individuals who work alone or in small groups, or persons that control several steps of the drug trafficking processes possibly controlling a network that financially benefits from all stages of the supply chain, from the farm-gate to cross-border trafficking of opiates. These individuals generate IFF when being directly involved in cross border trafficking of opiates or precursor substances.

**Traffickers of precursor substances.** The most important and costly substance needed for heroin manufacture is acetic anhydride. This is an internationally controlled chemical that has many industrial applications. Since 2009, the Government of Afghanistan has prohibited the import of acetic anhydride and has not granted any exceptional import or transit licenses for this chemical. Acetic anhydride found in Afghanistan has been illicitly obtained from sources outside of the country, most frequently diverted from the legal market. The value of precursor substances imported to Afghanistan was estimated at USD 75–140 million in 2020. Funds used abroad for purchasing precursors are an important source for IFF leaving Afghanistan.

In a recent study, drug traffickers reported that they were able to source opiates and precursor substances from other drug trafficking organisations within Afghanistan. The degree to which operators of clandestine laboratories are directly involved in cross-border precursor trafficking has not been documented. There are indications that it may be limited, as it has been reported that precursor traffickers are often local businessmen who also smuggle other goods into Afghanistan or drug traffickers who operate legal front businesses.

**Facilitators of trafficking.** Transporters of drugs and people who pack (conceal) drugs for transportation are reportedly not directly involved in drug sales but manage or facilitate the process of moving drugs from one place to another. These individuals are hired by drug traffickers, some for a short period of time or a single shipment, others more frequently over a longer period. Some drug dealers may set up formed transportation networks in different countries, demonstrating a high degree of organisation. People who conceal drugs for minimizing the risk of detection are often highly specialized, while transporters (e.g., drivers) were found to operate opportunistically, too.

If transporters are hired by residents of different countries, their payments constitute IFFs. Transporters are in general, thought to spend their net income domestically and are only involved in drug-related cross border financial transactions to the degree to which they are being paid by residents of another country.

**Transnational drug traffickers and members of transnational drug trafficking organisations (DTO).** are involved in the trade of opiates across one or more borders. The Counter Narcotics Police of Afghanistan distinguishes DTOs by their ability to traffic small (e.g., 10 kilograms), medium (e.g., 50 kilograms) or large-scale shipments (e.g., 300 kilograms) across borders.

In Afghanistan, drug traffickers engaging primarily in small-scale drug trafficking use their income from opiate trafficking to meet their immediate living costs, build savings to cope with economic shocks, or to meet larger expenses like weddings or private schooling. Traffickers with larger operations invest their profits in several sectors including real-estate inside and outside of Afghanistan, licit businesses, or reinvesting drug profits into their drug businesses. The opiate income that they invest abroad constitutes IFF.

Individuals involved in the distribution of drugs to end-consumers can be grouped by their level of sale.

**Middle-sized salespersons** who handle up to 10 kilograms of heroin, organise the distribution of drugs at a subnational level. The addition of cutting agents to increase volumes mostly happens at this level. Cutting agents can significantly increase the volume of substances sold and therefore increase proceeds at this stage. This group is involved in drug-related cross border financial transactions if drugs are purchased from non-resident drug trafficking organisations and may move proceeds abroad, depending on the size of their operations and the segment of the market they control.

49 Ibid.
51 UNODC/Government of Afghanistan, Afghanistan opium survey reports, various years.
53 FATF, 2014. Financial flows linked to the production and trafficking of Afghan opiates.
55 FATF, 2014. Financial flows linked to the production and trafficking of Afghan opiates
56 UNODC, interview authorities in Afghanistan.
58 UNODC, interview authorities in Afghanistan.
59 Large-scale, specialist and highly organized drug traffickers have been documented who arranged the shipping of quantities sometimes amounting to several tons. See UNODC, 2020. “Voices of the Quchaqbar”– Understanding opiate trafficking in Afghanistan from the perspective of drug traffickers.
60 UNODC, interview authorities in Afghanistan.
62 FATF, 2014. Financial flows linked to the production and trafficking of Afghan opiates, p.12
The role of payment facilitators in managing finances of drug traffickers

The Counter Narcotics Police Afghanistan reported on a case where they received credible reports of drugs stored together with large amounts of cash in a basement and in the walls of a house of a trafficker.

During the operation, CNPA arrested a suspect with drugs, but could not locate any cash. CNPA traced his phone calls and determined that he was placing calls to a specific person to purchase commodities from general groceries to jewellery for a wedding on his behalf. This person seemed to act as his financial manager.

CNPA monitored the person’s phone for three months and learned that, through his financial manager, he spent around 300,000 to 400,000 Afghanis (USD 4,300 – 5,800) weekly. After six months, a raid of the person’s residence was organized during which large bags full of US dollars and Afghanis were retrieved.

CNPA further reported that in cases where traffickers are arrested, recovery of assets is rare since traffickers frequently avoid keeping money at home or on their person except for smaller amounts required to run their businesses and households.

Small salesmen or retailers are involved in retail sale of drugs to end-consumers and may also have additional sources of income. They may spend the proceeds on personal drug use, rent and other services and do not appear to be involved in drug-related cross border financial transactions.63

Trustees and payment facilitators are commonly used for large-scale drug deals between Afghanistan and other countries. Once buyer and seller agree on price, amount and quality of the product, the buyer leaves the money with a trustee (for example a hawaladar) who pays the money to the seller upon confirmed delivery.64 These trustees facilitate IFF if the financial transactions cross a border.

Providers of money laundering services are persons specialised in obfuscating the illicit origin of funds and funnelling those funds into the licit economy (e.g., using banking services). Financial experts may act as accountants for drug traffickers, and some may manage their funds such that drug traffickers do not need to keep large amounts of cash in their home or businesses.65

Lastly, corrupt public officials and law enforcement officers benefit from drug trafficking by facilitating it in exchange for bribes. If the bribes are cross border transactions at, for example, border crossings or if they are sufficiently large for investing abroad, they may generate IFFs.

Different types of drug trafficking networks and illicit financial flows

Individuals involved in drug trafficking connect with other individuals to conduct business. The degree to which these individuals are organized and how these organizations are formed, influences the way financial assets flow and has implications for designing policies to disrupt the networks. The more complex the networks, the more transactions take place, and the higher is the potential for large volumes of illicit financial flows.

The Financial Action Task Force made a basic distinction between a “multiple market” structure and a “cartel structure” to describe how drug trafficking organizations (DTOs) operate. In a multiple market structure, drugs are supplied from source to destination via a chain of independently operating groups. Opiates are purchased and sold more than once during the process and proceeds are generated locally and transferred through mark ups between different groups. In a cartel structure (or oligarchical structure), a single or very few DTOs control the supply chain from source to destination. In this case, the network starts generating profits close to the source (production) and profits can be traced throughout the network as far as to end-consumers markets. In such a setting, arguably less IFF occur than in a multiple market setting, because there are few financial transactions across borders.66

The trade in Afghan opiates is organised by both very large organisations that control a large portion of the supply chain and smaller, more locally operating organisations that may control a certain segment of the supply chain (e.g., manufacturing and domestic trafficking, but no international trade).67 In Afghan DTOs, family ties play an important role as well as a strong hierarchal structure and a clear division of labour (corporate structure).68 Interviewed experts found that family structures play an important role in Central Asia, too, and that cash smuggling to settle cross-border transactions, was often facilitated by family members.69

Responses received from participating countries point towards to some degree of international organisation:

63 Ibid.
64 UNODC, interview with authorities in Afghanistan
65 FATF, 2014. Financial flows linked to the production and trafficking of Afghan opiates
66 FATF, 2014. Financial flows linked to the production and trafficking of Afghan opiates
67 Ibid.
68 UNODC, Voices of the Quchaqbar” – Understanding opiate trafficking in Afghanistan from the perspective of drug traffickers. P.31
69 UNODC, interviews with AML/CFT experts in the subregion.
The Russian Federation reported that drug trafficking organizations handling large consignments of opiates are organized across many countries, with supporting members being present in source, transit and destination countries and that the opiate wholesale trade in the Russian Federation is coordinated by trafficking networks from other countries, with proceeds being funnelled back to the beneficiaries of these criminal activities.70

Beside this information, there remain knowledge gaps around the structure and size of the drug trafficking organisations in Afghanistan and the subregion and more research of the structure, size and organisation of drug trafficking organisation in the subregion, as well as of the underlying drivers and motivations of those engaging in drug trafficking is needed to provide a better picture of the level of IFFs generated by DTOs.

PAYMENT MODALITIES, MONEY LAUNDERING AND THE USE OF THE PROCEEDS FROM DRUG TRAFFICKING

Payment modalities

Interviews conducted with authorities in Afghanistan, Central Asia and the Russian Federation, showed commonalities and differences in payment methods and modalities. A common theme was the continued widespread use of cash, most often mentioned in connection with transactions for smaller amounts, for example up to one kilogram of heroin.71

There seems to be a marked difference between payment methods in Afghanistan and its neighbours and other countries further north. According to authorities in Afghanistan, payments in relation to drug trafficking were mostly made through the hawala system, less frequently through cash72 and, even less commonly, through bartering (e.g., the purchase of opiates in return of vehicles, property or small arms).73 Also, authorities from Afghanistan did not mention bank or electronic transfers of funds.74

Conversely, the Russian Federation noted that the financial operations that support drug trafficking (payments and laundering) are typically enabled by electronic payment instruments (such as electronic wallets) that fall under traditional types of credit and financial services, as well as virtual assets. Isolated cases involving the use of hawala-type money and value transfer systems in the Russian Federation have been confirmed.75

In Central Asia, Kyrgyzstan reported bartering in cars, informal systems such as hawala, and money and value transfer services. E-wallets and credit cards were reportedly mainly used in trading synthetic drugs and new psychoactive substances. Tajikistan reported the use of cash for smaller transactions; larger transactions in relation to the wholesale level, appeared to be settled via a trustee (possibly a hawaladar or other similar service provider).76

Financial centres, offshore accounts or other complex money laundering mechanisms were not mentioned in the context of settling payments for drug deals in the region.77

Authorities in several countries in the region reported the use of electronic payments by phone. The risk of the use of mobile payments and e-wallets for illicit transactions anonymously was recognized in anti-money laundering and combatting the financing of terrorism and proliferation (AML/CFT) guidance of the Financial Action Task Force (FATF).78 As with money or value transfer systems, the risk of money laundering through these financial tools is mitigated by putting upper limits and restrictions on the permitted transactions.79 While such tools may help to facilitate non-contact trafficking at the retail level, thresholds on the transaction amounts may make them less favourable for financial transactions for wholesale trafficking.

Measures taken by drug traffickers to ensure they are paid

Drug trafficking is based on trust. Drug traffickers prefer to trade with known and trusted partners to mitigate

---

70 According to the Russian Federation, this was based on the findings of Rosfinmonitoring in its reports of 2014 entitled “Detecting and blocking financial flows linked to illicit traffic in opiates” and “Financial flows linked to illicit traffic in Afghan opiates and related money-laundering and financing of terrorism”.

71 UNODC, interviews with authorities in Tajikistan.

72 According to the interviewed authorities, cash payments were most often seen in connection with small-scale operations.


74 UNODC interview with authorities in Afghanistan with reference to FinTRACA.

75 Response of the Russian Federation to UNODC.

76 UNODC, interviews with national authorities.

77 No countries mentioned offshore centers, while for Afghanistan it was directly expressed that involvement of the classical offshore centers have not been noted (UNODC, Interview AML/CFT advisor in Afghanistan). This pertains specifically to payments made in the direct context with drug deals. When income from drug trafficking is used, international financial centers do play a role (see findings of this report and e.g., Eurasian group, “Uncovering the financial component of the illegal drug trade”).

78 FATF, 2013, Guidance for a Risk-Based Approach to Prepaid Cards, Mobile Payments and Internet-Based Payment Services.

79 Easing restrictions and regulations on low value transactions is seen as a trade-off between financial inclusion and AML/CFT risk mitigation. See more FATF, 2017, “Anti-money laundering and terrorist financing measures and financial inclusion:”
The reports did not include information on how drug traffickers agree on the trade modalities. It can be hypothesized that the risk tends to lie with the weaker party, that is the drug trafficker that has less liquidity, is less reputable, or is less influential. According to interviewed Afghan authorities, trustees are more frequently used in dealings with traffickers from abroad (e.g., Tajikistan), which may be related to either the size of the transactions, or reduced trust across the border, or both.

According to interviewed Afghan authorities, there is a significant number of cases where the traffickers buying drugs received the drug, but the seller was not paid and vice versa. These episodes have triggered violent incidents between drug traffickers over deals that have not been fulfilled by either party. To ensure that payments are made, traffickers usually leave the money either with a trustee that both parties agree upon or (and this appears to be more frequently the case for smaller quantities), payments are made upon delivery, or deliveries are made only when upfront payments have been received. The hawala system plays a key role in the management of payments between drug traffickers, as hawaladars can act as trustee and facilitate payments that safeguard both buyer and seller.


“Drug trade is a business that you do with friends and people you know and trust. There are people from different tribes and also friends and relatives that I work with.”

“A friend of mine is a major drug trafficker. I used to work for his real estate agency [a front business] and as we developed trust, he told me his real business and told me if I am interested, he can teach me how to do the business.”

“With Iranian traders, based on trust and a financial guarantee from a Hawaladar, I deliver the heroin and they pay me immediately wherever I want.”

PAYMENT MODALITIES, MONEY LAUNDERING AND THE USE OF THE PROCEEDS FROM DRUG TRAFFICKING

Case study: Financial transactions in the drug trade using e-wallets

Authorities in Tajikistan reported on a case that involved the use of e-wallets in drug trafficking. After selling drugs in the Russian Federation and making profits, the suspects retrieved money from electronic wallets registered in the Russian Federation. The money was then sent to Tajikistan through money or value transfer systems.

The financial transactions were suspected of being money laundering from drug trafficking because of the following indications:

- Money was transferred through the money or value transfer system without opening a specific account
- Funds from the Russian Federation were transferred via an e-wallet
- The sizes of the transactions size did not surpass 15,000 Russian rubles (USD 210) – a threshold for requiring identification
- A large number of transactions were processed in which the recipient was the same person
- In total, a large amount of money was received by a single person
- Individuals who received the money were all citizens or residents of one specific district of the Republic of Tajikistan


Authorities of Uzbekistan documented the increased use of web technologies in drug trafficking sales. The authorities reported the “no-contact” method as the most frequently used method to conclude a transaction (presumably at the retail level). In this method, the buyer orders drugs from a trafficking and pays (e.g., electronically) and the trafficker places the drugs in a secure hiding place for the buyer to pick up. This method aims at reducing exposure of the drug trafficker to law enforcement. The risk of the transaction lies with the buyer. If the seller does not deliver, the financial burden is with the buyer.

The Russian Federation noted that the sale of drugs moved to the virtual environment, becoming a non-contact activity. According to its response, the related criminal infrastructure was provided by information technologies (Internet; darknet; communication software) and the market for electronic payment services, including virtual assets.82

In general, while arranging wholesale trafficking of opiates is technically possible via the darknet, it does not appear to happen frequently.81 The system might not be attractive for large-scale transactions between DTOs as the risk appears to be mostly with the buyer and the buyer faces challenges in safeguarding the fulfilment of the transaction from the side of the seller.84

Money laundering and the use of illicit proceeds

Afghan authorities reported that a large portion of the illicit net income from drugs is being invested abroad, but it is also used domestically for a wide range of purposes such as for financing licit businesses and construction. In greater detail, the authorities reported commercial construction (such as residential apartments, villas), gas stations within Afghanistan and outside, purchase of property outside of the country, purchase of vehicles, and private investments in the health sector (private hospitals or clinics), and education sectors (private universities).85

Afghan authorities named the United Arab Emirates, Turkey, and more recently Central Asian countries (Kazakhstan, Turkmenistan and Uzbekistan) as target countries for transferring illicitly generated funds. The

81 UNODC, interviews with national authorities.
82 Responses of the Russian Federation to UNODC.
84 E.g., given the strong level of anonymity between buyer and seller, the buyer (generally using upfront payments) may not trust that the seller will fulfil their order.
85 UNODC, interview with Counter Narcotics Police of Afghanistan and AML/CFT advisor in Afghanistan. Proceeds from drug trafficking need to cover costs such as for purchasing raw material or already refined opiates, transportation costs and bribes, daily needs, ‘taxes’ imposed by insurgency and anti-government groupings such as the Taliban.
ILLICIT FINANCIAL FLOWS

Case Summary: Afghanistan Anti-Corruption Justice Centre - Afghan Gold Case

Date of primary court trial: 22 October 2019
Charges: Money Laundering and document fabrication
Place of Incident: Bagram Airfield

Defendants’ particulars:
S., Shopkeeper at Military Area of Hamid Karzai International Airport (HKIA),
B., Shopkeeper at Military Area of Airport (HKIA)

Summary of apprehension: Intelligence from the United States Special Investigator General for Afghanistan Reconstruction (SIGAR) indicated that an Afghan citizen who also has British citizenship, was attempting to traffic 9 gold bars to the United Arab Emirates (UAE) through Bagram Airfield on 4 August 2017. He was intercepted and searched by US military officials whereupon two bags were discovered. Inside the two bags were 9 gold bars each folded inside newspapers. The total weight of the gold was 41.375 kgs; valued at around USD 1.6 million US dollars. It was understood that the individual intended to smuggle the gold through the Diplomatic Freight Services (DFS) flight (a civilian contracted service predominately used for Resolute Support and international diplomatic movements) to the UAE (Dubai). The gold was seized and deposited for safe keeping at Da Afghanistan Bank.

The SIGAR and ACJC Prosecution investigations ascertained the following:
1. On 4 August 2017, the individual S was arrested after trying to smuggle 41.375 kgs of gold from Bagram Airfield, Afghanistan, to Dubai, UAE, by SIGAR officials.
2. S admitted that he intended to traffic 41.375 kgs of gold through the DFS flight from Bagram Airfield to Dubai.
3. Further, S explained that the movement of gold through Bagram Airport to Dubai was facilitated by a “letter of authority” purportedly provided by G., a Turkish officer in charge of Social Facilities at Hamid Karzai International Airport (HKIA). S stated that he “believed” the gold transportation was lawful in view of the purported letter of authority.
4. B admitted that he was the partner of S and assisted in transporting gold outside of Afghanistan on a regular basis.
5. Enquiries undertaken by SIGAR indicated that there was no such “letter of authority” recorded in the files of Resolute Support at Bagram Airfield or HKIA from G to S or B.
6. There were no supportive documents, or other evidence, from S or B, to show the lawful source of the money to purchase the 41.375 kgs of gold. The information provided by the suspects, that the money for the purchase of the gold came from legitimate construction businesses, was not evidenced by the material that they provided. Moreover, there was no evidence to support the suspects’ assertions that the gold bars were merely reconstituted from smelted gold jewellery that had been purchased by family members in Kabul at the family’s jewellery market.
7. Information received from the Air Section of Bagram Airfield by SIGAR indicated that a round trip from Kabul-Dubai-Kabul via DFS cost USD 1,720, as opposed to circa USD 400 via the commercial, and more direct, Fly-Dubai flights from HKIA. When questioned, the suspects were unable to provide a cogent explanation as to why they took flights that were around USD 1,320 more expensive per trip.
8. When SIGAR initially asked S where he obtained the money to purchase such an amount of gold, he replied that his father was rich, and he left behind money and properties and that he currently he owns nine (9) houses that were leased and that he receives a large amount money through rent. However, later during the investigation he stated that he received one house from his mother and one shop, and one apartment were shared by the beneficiaries of his father’s legacy.
9. The Financial Transactions and Reports Analysis Centre Afghanistan (FinTRACA) reported that the Jewellery Store in B’s name had around USD 3,083,986 credited in bank accounts at Afghanistan International Bank (AIB) and Alfalah. However, B could not provide any supportive documents for the source of the money in the accounts during the investigation.
10. B also admitted to taking gold to Dubai through Bagram Airfield in conjunction with individuals T, S and A on many previous occasions. Over a two-year period, it was discovered that around 177 kgs was taken by B and S to Dubai through the DFS flights. Evidence also indicated that around another 150 flights were taken by individuals associated with this group, and that the amount of gold moved could be in the region of 1,000 kgs. On arrival in Dubai, the gold was checked by Dubai customs, a nominal duty was paid, and a certificate of duty payment and lawful entry to UAE provided. The gold was then conveyed to jewellery markets in Dubai also owned by family members for onward movement into the legitimate gold market. The suspects would then return to Bagram Airfield and provide the Dubai customs forms to their partners as evidence of the completion of their movement of the gold.

Court decision:
B and S were convicted of money laundering in relation to the 41.375 kgs of gold, pursuant to Article 52 of the Anti-Money Laundering and Proceeds of Crime Law 2014 and sentenced to 4 years’ imprisonment and a cash fine of one hundred thousand Afghani each. Regarding the accusation of using a fabricated document, due to the lack of evidence the defendants were acquitted. The 41.375 kgs of gold seized from S was ordered to be confiscated.

a Afghanistan’s Financial Intelligence Unit; an administrative financial intelligence unit within the Central Bank.
United Arab Emirates most recent mutual evaluation report,86 recognised the ML/TF risk posed by money value transfer service providers (including hawaladars) and dealers in precious materials and stones and a recent case of gold smuggling (see Box) illustrates the links between the United Arab Emirates and illicit funds generated in Afghanistan. While not specifically mentioning investments from inside Afghanistan, the mutual evaluation report of Turkey87 ranked drug trafficking as the key money laundering threat in the country.

Only limited information was provided by the interviewed authorities in Central Asian countries. Authorities of Kyrgyzstan reported that illicit proceeds may be moved to other countries in the subregion, but not to the outside (no reports on third countries); and authorities of Kazakhstan mentioned investments in the real estate sector in the country. Authorities of Tajikistan reported that when Tajik residents sell opiates abroad (e.g., to residents of the Russian Federation) the money is being sent back to Tajikistan. Authorities of Uzbekistan and Kazakhstan did not comment on inward illicit financial flows from Afghanistan.

The Russian Federation reported that proceeds from drug sales in Russia were often transferred overseas for laundering and investment, including to countries in the Middle East and Central Asia. Some of the proceeds were reportedly invested in foreign real estate, and some were placed in financial centres abroad using financial systems. However, legal entities, including shell companies, were rarely used.88

The primary method of laundering proceeds from drug trafficking in the Russian Federation was based on a combination of cryptosphere resources and the electronic payment sector. With regard to the financial framework for drug trafficking, schemes involving cryptocurrencies were used to settle accounts, to pay for the activities of the criminals concerned, to procure new drug consignments and to channel funds into the traditional credit and financial sector by means of electronic wallets for the purposes of laundering and conversion into cash through the use of bank cards.89

More generally, “lower-level” drug traffickers (e.g., with less than USD 100,000 net income per year), such as couriers and transporters, reportedly prefer to save proceeds within their home country (domestic consumption, luxury items, real estate), whereas organisers of DTOs who generate significant income, prefer to invest abroad (real estate) and also use foreign financial institutions for money laundering.90

Interviewed experts reported on links from the northern route to European countries. For example, proceeds may be used also to purchase luxury cars in Europe which are then exchanged for drugs in their home countries. Cases were mentioned where construction machinery was purchased in Europe and then sold in northern route countries. Kyrgyzstan reported links between drug trafficking and car theft, too. In addition to the use of informal and formal payment systems, large-scale cash smuggling was reported, with frequent involvement of family members and other trusted persons.91

In general, money launderers seem to achieve two goals, to hide their assets and to ensure that if those assets are found, they cannot be linked to the real beneficial owner. In heavily regulated environments, money launderers need to find ways to circumvent regulations, such as choosing banks with low compliance standards or moving funds to jurisdictions with more lax regulations.92

Depending on the amounts of funds that require laundering, methods as simple as using the cash funds for daily expenditures may suffice. In cash-based economies such as Afghanistan and some Central Asian countries, using cash for large purchases, including real estate, may still be the case, facilitating an easy use of illicitly generated funds. Using illicit funds together with funds generated in licit businesses may further reduce scrutiny and enable the owner of the funds to disguise their illicit origin.

The findings of this study indicate that a wide range of money laundering methods are employed, and that the choice of method is shaped by the nature of the legal economy (cash-based, size of the informal sector) and the opportunities drug traffickers may see most fit their needs.

86 FATF, 2020. Mutual Evaluation Report of United Arab Emirates, p.28. The report notes that while some hawaladars are regulated there remains a significant number of hawaladars continuing to operate outside of the regulatory regime.
88 Responses of the Russian Federation to UNODC.
89 Responses of the Russian Federation to UNODC.
90 UNODC, interviews with AML/CFT experts in the subregion and Afghanistan.
91 Ibid.
DEFINITIONS, CONCEPTS, AND METHODOLOGY

Statistical definition and measurement approach of illicit financial flows

In 2017, when the United Nations General Assembly adopted the indicator framework of the Sustainable Development Goals, there was no consensus on what precisely was meant by IFFs nor on how they could be measured. UNCTAD and UNODC, the two co-custodians of indicator 16.4.1, “Total value of inward and outward illicit financial flows (in current United States dollars)” started methodological work and broad consultations to develop statistical definitions and methods to measure IFFs.

For the purpose of statistical measurement, IFFs are defined as “financial flows that are illicit in origin, transfer or use, that reflect an exchange of value and that cross country borders”.

Thus, IFFs have the following features:

> Illicit in origin, transfer or use. A flow of value is considered illicit if it is illicitly generated (for example, originates from criminal activities), illicitly transferred (for example, violating currency controls) or illicitly used (for example, for financing terrorism). The flow can be legally generated, transferred or used, but it must be illicit in at least one of these aspects.

> Exchange of value, rather than purely financial transfers. Exchange of value includes exchange of goods and services, and financial and non-financial assets. For instance, illicit cross-border bartering, meaning the illicit exchange of goods and services for other goods and services, is a common practice in illicit markets and it is considered as IFF.

> IFF measure a flow of value over a given time - as opposed to a stock measure, which would be the accumulation of value.

> Flows that cross a border. This includes assets that cross borders and assets where the ownership changes from a resident of a country to a non-resident, even if the assets remain in the same jurisdiction. Here, resident follows an economic rather than a legal definition: a resident of a country has their centre of economic

---

**FIG. 10** Types of IFF by underlying activity

![Diagram of Types of IFF by underlying activity](https://example.com/diagram.png)

interest within that country, the residency is thus independent of nationality or residence permit.\textsuperscript{93}

IFFs can be classified from many angles: sources, channels, impacts, actors involved and motives. A useful typology prioritizes a perspective that enables effective policy action and thus a link to the activities from which the IFFs arise. The following figure, therefore, looks at the underlying activities that may generate IFFs rather than at IFFs themselves.

IFFs from drug trafficking fall under illegal markets. In illegal markets the focus is on criminal activities where income is generated through the exchange (trade) of illegal goods or services. Such processes often involve a degree of criminal organization aimed at creating profit. They include any type of trafficking in goods, such as drugs and firearms, or services, such as smuggling of migrants.

In illegal markets, two categories of illicit financial flows can be distinguished: IFF from the generation of illicit income and IFF from the management or use of illicit income.

\begin{itemize}
\item IFFs linked to income generation are cross-border transactions performed in the context of the production and trade of illicit goods and services that directly generate illicit income for an actor involved in the illicit activity. An example is a cross-border payment for a shipment of illicit drugs.
\item IFFs linked to income management are cross-border transactions finalized to use the (illicit) income for investment in (legal or illicit) financial and non-financial assets or for consuming (legal or illegal) goods and services, for example the purchase of real estate in a third country using the profits of drug trafficking.
\end{itemize}

\textbf{Money laundering}

Money laundering has been addressed in the UN Vienna 1988 Convention Article 3.1 describing Money Laundering as “the conversion or transfer of property, knowing that such property is derived from any offense(s), for the purpose of concealing or disguising the illicit origin of the property or of assisting any person who is involved in such offense(s) to evade the legal consequences of his actions”.

Money laundering is a process which typically follows three stages to finally release laundered funds into the legal financial system.

$\textbf{Market size, illicit income and expenditure}$

The market for a product involves all buyers and sellers of the product in a certain geographic region and can be measured along different dimensions, one of which being its monetary value or illicit gross income. Geographic regions can be single or multiple countries, or subnational areas.

Illicit gross income (market value or sales) is the value of opiates consumed within a country or region and exported by its residents\textsuperscript{94} to the outside. The value is determined as quantities consumed and quantities exported multiplied by the relevant prices: domestic

\textsuperscript{93} This definition follows the international Balance of Payments statistics, see International Monetary Fund (IMF), “Balance of Payments Manual, Fifth Edition, 2005”, para. 58.

\textsuperscript{94} Following the principles of the System of National Accounts and the Balance of Payments statistics.
retail prices for domestic consumption and export prices\textsuperscript{95} for goods exported.

Illicit gross income reflects the income made by all residents in a given country or region. In this context, “resident” does not follow a legal definition, but an economic one whereby a resident of a country/territory has their centre of economic interest within the country/territory. Illicit gross income can be broken down into intermediate expenditure and illicit net income.

**Imports and exports** are to be understood as drugs purchased from or sold to residents outside a country or region. Drugs transiting through a country without being purchased or sold do not generate any income for residents and are therefore not contributing to illicit income for residents of the country/region under consideration (except maybe for minor expenditures such as fees for transportation or bribes).

**Intermediate expenditure** is the value of inputs acquired to produce the illicit goods and services over a given period. The value of inputs is determined as quantity multiplied by price. Intermediate expenditure for traffickers includes the costs for purchasing raw or refined substances or expenditure for transportation or bribes.

At the country or regional level, net income (or value added) is the value of consumption and exports minus the intermediate costs for imports from the outside. Imports include the costs for drugs, but as well for other goods and services that are imported and used in the direct context of drug trafficking, for example precursor substances in the case of Afghanistan. When considering costs, seizures need to be accounted for as drugs seized have lost their value in the supply chain but have been paid for when being imported.

**Illicit net income** of an actor or a group of actors is the illicit gross income minus intermediate expenditure. Net income is the income that remains with the actors after accounting for their expenditures.\textsuperscript{96} Net income is considered to be the more suitable metric for comparing the amounts of money made by actors.

\[
\text{Net income} = \text{Gross income} - \text{Intermediate expenditure}
\]

**Price and purity data**

Price and purity data for opium and heroin were retrieved from UNODC’s annual report questionnaire data.\textsuperscript{97} Prices have been calculated by using a four-year average of the data that has been available (not all countries reported in all years). Minimum and maximum prices have been the averages of the respective annual minimum and maximum values reported by the Member States. In the reference period, price data was available for Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan, and Uzbekistan. For the remainders of the countries, a weighted regional average was used (weighted by estimated consumption).

In the reference period, data on purity was reported by Kazakhstan, Kyrgyzstan, and Tajikistan. Missing values were imputed by a simple average of purities, following the methodology of UNODC, 2018. *Afghan opiate trafficking along the northern route.*

**Purity adjustment in prices and seizures**

To compare amounts of substances seized and consumed in different purities comparable, a common metric need to be defined and substances need to be converted into this metric. Here, pure heroin equivalents are used, with this 1 kilogramme of heroin of 50 per cent purity corresponds to \(1 \times 0.5 = 0.5\) kilogrammes of pure heroin equivalent.

To compare prices across different qualities, prices are purity adjusted, too: If a kilogramme of heroin of 10 per cent purity costs USD 1,000, the purity adjusted price would be USD 10,000 per kilogramme of pure heroin equivalent.

Typical, minimum and maximum prices have been adjusted by the average reported typical purity of the reference period.

**Consumption estimates**

The heroin consumption estimates presented in this report follow the methodology developed in the UNODC (2018) report *Afghan opiate trafficking along the northern route.* In this report, estimates on numbers of opiate users are combined with estimates on annual consumption per opiate user (based on several, different studies), which yields an estimate of annual amounts of opiates consumed (tons in pure heroin equivalent).

In absence of any updated data on annual per capita consumption, the estimates have been updated by applying the trend in key indicators for drug use to the consumption estimates of the 2018 report (referring to the reference period 2011–2016). Data was available for Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan and Uzbekistan. The consumption estimate of Turkmenistan were updated by using an average regional trend (weighted by consumption). The key indicators used were trends in injecting drug users (heroin) of Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan, and trends in injecting drug users (opioid) of the region. The trend in injecting drug users (heroin) of Turkmenistan were imputed by a simple average of purities, following the methodology of UNODC, 2018. *Afghan opiate trafficking along the northern route.*
drug users (any drug) as reported by the Russian Federation. The trend was estimated by comparing the annual 2011–2015 averages of the respective measures with the annual 2016–2019 averages.

A similar approach was taken to estimate the minimum amounts of opium consumed in the reference period. Member states (Tajikistan, Turkmenistan and Uzbekistan) reported estimated numbers of opium users in each country. In absence of information on annual per capita consumption of opium, data from Afghanistan was used as proxy value, at 771g/user/year.98

Estimating consumption based on proxy indicators such as numbers of registered injecting drug users has limitations.99 First, the registers’ coverage is limited to users who come to the attention of the relevant institutions (law enforcement or health services). Therefore, they exclude those who have not been caught by the police or have not sought treatment in narcology centers. There remains thus a potentially very large ‘dark number’ of people who use drugs who have not come in contact with the police or treatment services. Secondly, registration may lead to negative consequences for those registered as drug users. If there are disincentives to participate in the registration system, it is likely that the number of registered drug users represents a large underestimation of the total number of drug users. Third, an accurate assessment of the number of drug users is hampered by the existence of anonymous treatment available to those who can afford such treatment. This implies a non-disclosure of patients’ information making it impossible to assess the number of drug users that resort to such services.

The consumption estimates presented in this report are therefore surrounded by great uncertainty, and would benefit greatly from being updated with population based drug use surveys.

**Estimating IFF from income generation**

This study uses a six steps methodology to estimate the IFFs from opiate trafficking:

1) identification of trade flows among the countries of the northern route
2) estimate of the relative weight of each connection
3) estimate of the quantity of opiates consumed and seized in each country in pure heroin equivalents (the amounts of opiates consumed and seized are referred to as a country’s demand)
4) estimate the total quantity of opiates imported by each country (imports refers to opiates purchased by residents of a country for selling on domestic markets for exporting them to other countries)
5) estimate the quantity of opiates passing between each pair of countries
6) estimate the monetary values of opiate trafficking between each pair of countries

The overall IFF are reported at the subregional level.

**Step 1** identifies the presence of opiate trafficking connections among countries belonging to the northern route. It draws upon qualitative information collected from northern route countries during the study.

**Step 2** attaches relative weights (%) to each inward connection of opiate trafficking with respect to all the other inward connections for the same country. For example, Country A is assumed to import 60% from country B, and 40% from country C. It is then assumed that country A imports 60% of it opiate demand from country B, and 40% from country C.

**Step 3** estimates the total quantity of opiates that a country needs to import to satisfy its domestic demand. This equals to the quantity of opiates that users consume, plus the opiates seized by law enforcement authorities in the country.

**Step 4** estimates the quantity of opiates imported by each country. This equals to the quantity of opiates consumed and seized in a country (see Step 3), plus the quantities of opiates exported by its residents. For example, Country C imports 50 Kg of opiates for its internal demand, plus 40% of Country A’s national demand. This is used to quantify the amounts of opiates passing through each connection.

Mathematically, each country of the northern route (except Afghanistan), imports from different countries a quantity of opiates to fulfill its own internal demand. In addition to this, country also imports the opiates that are exported from the country to other countries. The equation explains the method used for estimating import and export flows. Note, flows are specular: what is the export for one country, is the import for the country receiving the opiates and vice versa.

99 See for a detailed discussion UNODC, 2018. Afghan opiate trafficking along the northern route.
100 UNODC, “Drug Money: The Illicit Proceeds of Opiates Trafficked on the Balkan Route.”
DEFINITIONS, CONCEPTS, AND METHODOLOGY

Steps 6 estimates the monetary value derived from trafficking opiates. This equals to the quantity of opiates trafficked through each connection, times the average price at which the two countries trade illicit opiates (international trade level prices). Note that the direction of the IFF is the opposite of opiates trafficking: country A imports from Country C 20 Kg of opiates, and transfers to Country C $320 million. The sum of all IFFs related to the import of opiates (outward illicit financial flows) is the estimated value of all transactions made in context to opiate trafficking.

Guidance on estimating inwards and outwards IFF at the country level

SDG 16.4.1 asks countries to report on “Total value of inward and outward IFFs in current United States dollars.” The above laid out methodology can be applied to assess IFF from income generation from opiate trafficking at the country level.

The inward illicit financial flows for a country are the IFFs from exporting opiates, i.e., the money received for exporting opiates to other countries. In the following, fictional, example, inward IFFs for Country D equal to the money received for supplying opiates to Country B, Country C and Country A. Instead, the inward IFF for Country A is zero, as the country does not export opiates.

The outward illicit financial flows are the IFFs derived from importing opiates, namely the money that residents of a country pay to residents of other countries importing opiates. The outward IFFs for Country A equal to the amount of money necessary to pay the import of opiates from Country C and D, which is $800,000 ($320,000 going to Country C and $480,000 to Country D).

Finally, the total illicit financial flows are the sum of the inward and outward IFFs, i.e., total amount of money received or paid for moving opiates across borders.

The volumes of illicit income moved across borders for income management depend on a variety of factors, all of which are more challenging to estimate and monitor than volumes illegally traded and their value. While in theory all illicit net income could be available for income management IFF, in practice, some of the illicit net income will feed into the normal household expenditure of the actors: Depending on the annual needs for paying rent, transportation, et cetera, the discretionary net illicit income that is available for moving abroad may be much smaller than the overall illicit net income. In absence of robust data, this report did not provide estimates on income management.

FIG. 12 Example of inward, outward, and total illicit financial flows

<table>
<thead>
<tr>
<th>Country</th>
<th>Inward</th>
<th>Outward</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>$0</td>
<td>$320,000</td>
<td>$770,000</td>
</tr>
<tr>
<td>B</td>
<td>$1,000,000</td>
<td>$480,000</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>$480,000</td>
<td>$770,000</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>$320,000</td>
<td>$770,000</td>
<td></td>
</tr>
</tbody>
</table>

Source: UNODC.

102 Discretionary income is the income available for consumption and investment after deducting compelled payments such as for housing, transportation, food and education.