AFGHAN OPIATE TRAFFICKING ALONG THE NORTHERN ROUTE

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CONTENT

KEY FINDINGS.................................................................................................................................................. X

POLICY AND OPERATIONAL IMPLICATIONS........................................................................................ XII

INTRODUCTION................................................................................................................................................... 1
  Structure of the report .............................................................................................................................................2
  Sources and data ....................................................................................................................................................2

I. CULTIVATION AND PRODUCTION: OPIATE SUPPLY FROM AFGHANISTAN THROUGH
THE NORTHERN ROUTE.................................................................................................................................... 3
  Opium poppy cultivation and opiate production in Afghanistan ................................................................. 3
  Opium cultivation in northern Afghanistan and Badghis ........................................................................... 6
  Opium poppy eradication in Afghanistan .................................................................................................... 9
  Heroin and opium production in Afghanistan .......................................................................................... 11
    Heroin and opium production in northern Afghanistan ......................................................................... 11
  Opium poppy cultivation and opiate production along the northern route .............................................. 15
    Eradication of opium poppy fields is decreasing in northern route countries ........................................ 15
    Poppy plants seizures are declining along the northern route ............................................................... 16
    No evidence of heroin production along the northern route ............................................................... 19
  Acetic anhydride (AA) trafficking in Afghanistan and along the northern route ..................................... 20
    Acetic anhydride in heroin production in Afghanistan ........................................................................... 20
    Trafficking of acetic anhydride from Central Asia and the Russian Federation to Afghanistan ............ 23

II. SEIZURES, PRICES AND PURITY.......................................................................................................... 25
  Overview of all drug seizures affecting the northern route countries ...................................................... 25
  Opiate seizures in Afghanistan ..................................................................................................................... 29
    Opiate seizures in northern Afghanistan .................................................................................................... 31
      Opiate seizures in Badghis province .......................................................................................................... 32
    Opiate seizures along the northern route ................................................................................................. 33
  Heroin seizures along the northern route .................................................................................................... 38
  Opium seizures along the northern route .................................................................................................... 39
  Opiate seizures in Central Asian countries ............................................................................................... 40
    Kazakhstan ................................................................................................................................................ 43
    Kyrgyzstan ................................................................................................................................................ 45
    Tajikistan .................................................................................................................................................. 46
III. FLOW OF OPIATES THROUGH THE NORTHERN ROUTE .......................................................... 63

- Consumption of opiates along the northern route ................................................................. 63
- Seizures ..................................................................................................................................... 65
- Trafficking flows .................................................................................................................... 66

IV. OPIATE TRAFFICKING SUB-ROUTES ALONG THE NORTHERN ROUTE .......................... 67

- Northern Afghanistan: a heroin hub ...................................................................................... 67
- Overview of trafficking routes through Central Asia .............................................................. 70
  - Tajikistan: principal northern exit point for Afghan opiates ..................................................... 71
  - Trafficking through Kyrgyzstan ............................................................................................. 75
  - Trafficking through Uzbekistan ............................................................................................. 79
  - Turkmenistan and the north-western route .......................................................................... 82
  - Trafficking through Kazakhstan ............................................................................................ 84
    - Opiates trafficked from Kyrgyzstan to Kazakhstan ................................................................. 85
    - Main trafficking routes entering the Russian Federation from Kazakhstan ...................... 87
  - Trafficking within the Russian Federation .......................................................................... 88
    - The Moscow hub .................................................................................................................. 89
    - The Perm-Yekaterinburg hub ............................................................................................... 92
    - The Novosibirsk-Irkutsk hub ............................................................................................. 96
  - Trafficking through the Caucasus ......................................................................................... 97

V. MODUS OPERANDI OF ILLICIT OPIATE TRAFFICKING ALONG THE NORTHERN ROUTE .... 99

- Transport methods used in the trafficking of opiates along the northern route ...................... 99
  - Opiate interceptions and concealment along the northern route ........................................ 103
  - Opiate trafficking by individual couriers .............................................................................. 105
  - Opiate trafficking by motor vehicle .................................................................................... 106
    - Afghanistan ....................................................................................................................... 106
    - Central Asia ...................................................................................................................... 106
    - Russian Federation ......................................................................................................... 107
  - Opiate trafficking by rail ..................................................................................................... 108
VI. DRUG TRAFFICKING ORGANIZATIONS ALONG THE NORTHERN ROUTE .............................117

Structure of drug trafficking organizations along the northern route ...........................................117

Structure of drug trafficking organizations in Afghanistan ................................................................118
Structure of drug trafficking organizations in Central Asia ................................................................119
Structure of drug trafficking organizations in Tajikistan ................................................................120
Structure of drug trafficking organizations in Uzbekistan ...............................................................120
Structure of drug trafficking organizations in Kyrgyzstan .............................................................121
Structure of drug trafficking organizations in Kazakhstan ............................................................122
Structure of drug trafficking organizations in the Russian Federation ..........................................122

Arrests for drug offences along the northern route ........................................................................123

Overview ...........................................................................................................................................123
Kazakhstan .........................................................................................................................................124
Kyrgyzstan ..........................................................................................................................................125
Tajikistan ............................................................................................................................................126
Turkmenistan ......................................................................................................................................127
Russian Federation .............................................................................................................................128
Uzbekistan ..........................................................................................................................................129

Opieate distribution and retail sale along the northern route ..........................................................131

Central Asia .......................................................................................................................................131
Russian Federation ............................................................................................................................132

Financial flows and drug profits along the northern route ............................................................132

Violence, corruption and other criminal activity ..............................................................................135
Violence ...............................................................................................................................................135
Corruption ..........................................................................................................................................135
Links with other types of criminal activity .........................................................................................136
Annex 1: Methodology ................................................................................................................................... 137
Annex 2: Interview questions used in the northern route study ...............................................................138
Annex 3: Calculation of “Consumption Units” ..............................................................................................140
Annex 4: Data and methods for estimating the market size and flow out of Afghanistan ......................141
  Estimating the number of opiate users ........................................................................................................141
  Estimating per-capita consumption of opiates in the Russian Federation ...........................................144
  Purity-adjusted heroin seizures ................................................................................................................148
KEY FINDINGS

The northern route supplies opiates, mainly in the form of heroin to the Russian Federation while Central Asian countries constitute smaller markets and transit countries along the route. An estimated 42.5 to 74.5 tons of pure heroin annually entered the northern route from Afghanistan over the period 2011-2015; due to methodological differences, however, this estimate is not comparable with the previous estimate released by UNODC in 2012.

Seizure data suggests that the general trend in opiate trafficking along the northern route over the period 2011-2015 was stable to declining. Opiate seizures in Afghanistan saw a significant decline between 2011 and 2015 while those in Central Asia remained stable over the same period. In the Russian Federation, seizures of heroin grew from 2011 to 2014 before decreasing in 2015.

The main heroin trafficking route from Afghanistan to the Russian Federation seems to cross Tajikistan, Kyrgyzstan and Kazakhstan; this route is sometimes called the "north-eastern route". An important though less well used route is the Afghan-Tajik-Uzbek-Kazakh route, also called the "central route". There are a number of variations in these routes, for instance some go directly from Afghanistan to countries in Central Asia without passing through Tajikistan. A third route, the "north-western route" appears to cross from Afghanistan into Turkmenistan; although there is a lack of recent seizure data to support its existence, this route may still be active.

Map 1: Main opiate trafficking routes through Central Asia to the Russian Federation

Northern Afghanistan alone is unable to produce the estimated 42.5 to 74.5 tons of pure heroin that entered annually the northern route over the period 2011-2015. It is therefore likely that part of the northern route is supplied by opiates produced in the rest of the country. However, the lack of reliable information in relation to internal trafficking routes complicates the analysis of the trafficking picture within Afghanistan.
The increase in opium poppy cultivation in Afghanistan over the period 2011-2017, with a reported record high of 328,000 ha under cultivation in 2017, is a cause for concern. While cultivation in Afghanistan has increased, eradication of opium poppy in Afghanistan and seizures of poppy plants along the northern route have declined.

The heroin destined for the northern route appears to be wholly manufactured in Afghanistan. There is no evidence that heroin manufacture takes place along the northern route outside Afghanistan; however, cheaper heroin substitutes such as “Kompot” are produced in countries along the northern route.

There was no evidence of trafficking of heroin precursors, particularly acetic anhydride, along the northern route over the period 2011-2015. UNODC estimates that the heroin industry in Afghanistan requires between 313,000 and 783,000 litres of acetic anhydride (around 0.02 – 0.06 per cent of the annual global licit production) per year. Most acetic anhydride appears to enter Afghanistan through the southern and western provinces, rather than the northern provinces.

Wholesale and retail heroin prices show a significant mark-up between the start of the northern route in Afghanistan and the final markets in the Russian Federation. In 2015, the wholesale price of a kilogram of heroin was estimated at $21,343 in the Russian Federation, a 6.5-fold increase from the $3,294 in Afghanistan. At the retail level, the estimated cost of a gram of heroin was $4.9 in Afghanistan compared with $36.12 in the Russian Federation, a 7.4-fold increase.

At both wholesale and retail level, purity declines along the northern route the greater the distance from production areas and the smaller the distance to consumption markets. Purity data suggest that the cutting of heroin mostly occurs after transiting Tajikistan, and before reaching the Russian Federation, the main market supplied by Afghan opiates trafficked along the northern route.

Opiate trafficking along the northern route occurs predominantly over land by private vehicle, truck or train. The larger proportion of significant seizures of heroin made in baggage, vehicles and on the body of couriers in Central Asia is consistent it being a major opiate transit region along the northern route. The Russian Federation also reported an increase in the trafficking of opiates by mail 2014-2015, a trend that may continue given the expansion of online market places.

Concealment methods vary along the northern route, from basic in the early stages of the route from Afghanistan into Tajikistan, to increasingly sophisticated methods further along the route. Overall, increasingly professional concealment and trafficking methods have been reported.

Many drug trafficking organisations (DTOs) along the northern route are based on ethnic, clan or family ties, providing a degree of security in what is largely a trust-based business. DTOs along the northern route appear to have become smaller and more professional than in the 1990s and 2000s. DTOs now seem to have the ability to move opiate shipments over greater distances, including beyond national borders, and to do so in fewer stages than in the past.

The movement of funds related to opiate trafficking occurs through a combination of three methods: bank or money exchange transfer, using opiates to barter for goods (mainly cars); and informal money transfer systems such as hawala. Within the countries along the northern route, illicit profits are often laundered through real estate investments, front companies and licit businesses. Illicit profits also enter the international banking system, often via countries well outside the northern route.

Within northern Afghanistan, opiate trafficking is facilitated by the ongoing insurgency and ensuing insecurity; however outright violence between DTOs operating along the northern route is rare. There is some indication that DTOs involved in opiate smuggling are also involved in the trafficking of other commodities, including synthetic drugs, cannabis and weapons.

1 UNODC calculations based on production data for 2012-2016
POLICY AND OPERATIONAL IMPLICATIONS

The ongoing development of new transport corridors along the northern route, such as new rail and air connections within and beyond the West and Central Asia region, warrants attention as this development may further complicate the existing overland trajectories and subroutes that make up the route. An assessment of the evolution of both licit and illicit trade would enable a more comprehensive approach to preventing the misuse of transport corridors for trafficking and other types of crime.

The record levels of opium poppy cultivation and potential opiate production in Afghanistan in the past year calls for renewed commitment by Member States to joint actions, and in an inclusive manner, with Afghanistan at their centre, to address opiate production and trafficking as obstacles to peace, development and security.

There is an urgent need for baseline data to identify the extent and patterns of opiate use across Central Asia and the Russian Federation in order to provide a better understanding of the opiate market as well as an estimate of its size. Establishing a set of baseline data, to be routinely updated in the future, would enable UNODC and other organizations to accurately follow and respond to market dynamics and trends in the region. The current data gaps also preclude a complete understanding of the health and social impact of illicit drugs on the region.

Against this threat, especially to human development and health, current work on controlling demand by applying international policy standards needs to be upcaled in response to the increase in the availability of high purity, low price opiates. Drug prevention, treatment and reintegration, as well as HIV prevention should also be prioritized in order to address the problems caused by drug use in the form of evidence-based prevention strategies targeting schools, families, the workplace and the wider community through programmes such as the Family and Schools Together (FAST) and Strengthening Family Programme (SFP).

In relation to rule of law, support needs to be given to efforts on intelligence analysis, counter-narcotics investigations and multilateral operations, including controlled deliveries, precursor controls, border liaison and border management.

The importance of bilateral, regional and international cooperation to counter drug trafficking was further reiterated at the 60th Session on the Commission of Narcotic Drugs through resolution 60/9, adopted during the March 2017 Session. The resolution calls for "enhancing the capacity of law enforcement, border control and other relevant agencies to counter illicit drug trafficking through training" by Member States.

In this context, UNODC is currently implementing three main training projects for law enforcement in West and Central Asia, under the framework of the Regional Programme for Afghanistan and Neighbouring Countries, and the Programme for Central Asia. These training projects are implemented in partnership with Japan, the Russian Federation, the North Atlantic Treaty Organization (NATO) and the beneficiary countries.

In coordinating these regional efforts, the key role of the Central Asia Regional Information and Coordination Centre (CARICC) needs to be further strengthened so that its technical capacity leads to operational results. Linked increasingly to intra- and interregional networks, CARICC has the potential to assist Member States in addressing various elements associated with transnational crimes, especially through the exchange of financial data related to anti-money laundering, asset recovery and the strengthening of financial intelligence units. Given that the opiates trafficked within Central Asia originate in Afghanistan, it would be desirable to expand the cooperation between CARICC and Afghanistan so as to develop and build on intelligence related to drug trafficking, further connecting with the Joint Planning Cell of the Triangular Initiative between Afghanistan, the Islamic Republic of Iran and Pakistan.
Similarly, and in view of the continued significance of the "north-eastern" route, it is imperative to boost operation-
al cooperation within the Afghanistan-Kyrgyzstan-Tajikistan initiative, including but not limited to the exchange of
intelligence, joint operations and the placement of drug liaison officers.

UNODC also sees the benefit of strengthening inter-regional education facilities, sharing good practice and insti-
tutionalizing much of the current training portfolio of UNODC within national and inter-regional structures.

Given the evolving nature of DTOs and the increasing potential for inter-connectivity between drugs, crime and
terrorism as highlighted in several recent high-level policy fora (for example UNSC, UNGA, Counter Terrorism
Committee meetings), it is essential to upscale the strategy for integrated border management including regional
operational working groups. The focus on combatting modern forms of crime, such as cybercrime, and weapon and
people smuggling, should be promoted alongside a strong engagement with traditional forms of counter-narcotics
operations.

The One UNODC Concerted Approach, and its three-tier concept involving initiatives at the national, regional
and international levels, allows for more effective inter-connectivity among its global, regional and country pro-
grames, including through the Networking the Networks initiative, and increased impact in key thematic areas
involving concomitantly countries of origin, transit and destination as part of a common and shared responsibility
approach.
INTRODUCTION

The illicit trade in Afghan opiates represents a global challenge that affects every region of the world except Latin America. The trafficking of opiates from production centres in Afghanistan to consumer markets around the globe requires an infrastructure of routes and facilitation by domestic and international criminal groups. Drug trafficking routes result from a number of factors, including, but not limited to, geographic proximity, logistics, profit and risk margins. Three major trafficking routes have been identified in relation to opiate trafficking from Afghanistan: the Balkan route, which supplies Western and Central Europe through the Islamic Republic of Iran and Turkey via South-Eastern Europe; the southern route, through Pakistan and the Islamic Republic of Iran to the Gulf region, Africa, South Asia and, to a lesser extent, South-East Asia, Oceania and North America; and the northern route, through Central Asia to the Russian Federation. This report presents insights into the trafficking of opiates along the northern route over the period 2011-2015.2

Map 2: Main opiate trafficking flows 2011-2015

Of the three, the northern route is perhaps the least complex of the major routes used to traffic opiates out of Afghanistan. Bound by geography, the northern route is heavily dependent on overland trajectories, which themselves are based on road and rail infrastructure. Unlike the Balkan and southern routes, which supply many destination markets, and cross multiple different countries, the northern route primarily supplies the Russian Federation and, to a lesser extent, markets in Central Asia.

This report is intended to provide policymakers with an evidence base on which to develop policies and interventions relevant to the countries along the northern route. The focus of this report is primarily on the numerous sub-routes that make up the northern route, the criminal networks that operate along them and the modus operandi they employ to traffic opiates. In light of the dramatic increases in poppy cultivation and opium production in Afghanistan in 2016 and 2017, the evolution of opiate production in that country is also considered. Where relevant,

2 When deemed relevant to the analysis, post-2015 data have been included in this report. In particular, 2016 and 2017 data on opiate production in Afghanistan are presented.
this report also considers the effect that geopolitical and economic changes in Afghanistan and the northern route countries have on the illicit trade in opiates along the northern route.

**Structure of the report**

Following a thematic approach, this report examines the trafficking of opiates from Afghanistan through the five countries of Central Asia to the Russian Federation: chapter 1 examines the cultivation of opium poppy and opiate production in Afghanistan, particularly in the north of the country; chapter 2 presents the analysis of seizures, price and purity data; chapter 3 addresses opiate flows through the northern route; chapter 4 analyses the sub-routes that make up the northern route; chapter 5 presents the modus operandi employed on the route; and chapter 6 presents the drug trafficking organizations operating along the northern route.

**Sources and data**

This report draws upon a number of data and information sources. Member States submit official data to UNODC through a range of data collection tools, including the annual report questionnaire and significant individual drug seizures. The Drug Monitoring Platform database, a data visualisation tool, also includes data collected from media reports on individual drug seizures (duly referenced).

A direct indicator of drug law enforcement activity, drug seizures, are the result of those successful operations that end in drug interceptions and are thus influenced by law enforcement capacity and priorities. At the same time, if triangulated with other information drug seizures can contribute to an understanding of illicit drug market dynamics, drug availability and drug trafficking patterns and trends, particularly if broad geographical entities are considered and long periods are analysed.

The official data used in this report were supplemented by information shared with UNODC by United Nations Member States through presentations and reports. In addition, qualitative interviews were conducted with authorities in Member States and with international organizations with expertise relating to opiate trafficking along the northern route. Information and documents from open source materials, think tanks and academic publications were included in order to provide context to the data. Where such information and documents were used, they are duly referenced.

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3 The defined thresholds of “significant” quantities per drug, as used in the UNODC significant individual drug seizures database, are as follows: opium, cannabis herb, cannabis resin and cannabis plants: ≥ 1 kg; heroin, morphine, cocaine: ≥ 100 g; seizures referring to trafficking by mail: all quantities.

I. CULTIVATION AND PRODUCTION: OPIATE SUPPLY FROM AFGHANISTAN THROUGH THE NORTHERN ROUTE

Afghanistan continues to be the world’s largest cultivator of opium poppy and the world’s largest producer of opium. In 2017, the total area under opium poppy cultivation in Afghanistan was estimated at 328,000 ha, an increase of 63 per cent (127,000 ha) compared with the previous year.5 This is the highest recorded level of opium poppy cultivation in Afghanistan since the beginning of the systematic monitoring of opium poppy cultivation by UNODC. Opium production also increased (by 87 per cent), from 4,800 tons in 2016 to 9,000 tons in 2017.6

Afghanistan also continues to be the world’s largest producer of heroin, which is trafficked to global markets, including those that lie along the northern route. In 2017, potential heroin production of export quality (50-70 per cent purity) in Afghanistan was estimated at 320-530 tons (47-55 per cent of total produced opium was converted into heroin of export quality), while an additional 5,300 tons of opium was estimated to remain unprocessed.7 All heroin destined for the northern route appears to be produced in Afghanistan – there is no evidence of heroin production occurring in other countries along the route. The scale of opiate production in Afghanistan, combined with the country’s proximity to the northern route, poses a considerable socioeconomic and security threat to Central Asia and the Russian Federation, as well as to Afghanistan itself.

Opium poppy cultivation and opiate production in Afghanistan

Opium poppy cultivation levels across Afghanistan increased between 2011 and 2017, with the four highest levels of cultivation being recorded in 2013 (209,000 ha), 2014 (224,000 ha), 2016 (201,000 ha) and 2017 (328,000ha), and a slight decrease recorded in 2015. Historically, although less opium poppy was cultivated in northern Afghanistan than in other regions of the country, particularly the southern provinces, increases in cultivation were observed in northern Afghanistan from 2010 to 2017. The area cultivated in northern Afghanistan increased from 14,249 ha in 2016 to 51,310 ha in 2017, which represented an increase of over 690 per cent in Jawzjan, 480 per cent in Balkh, over 100 per cent in Sari-Pul and over 30 per cent in Badakhshan.8

5 Ministry of Counter Narcotics (MCN) and UNODC, Afghanistan Opium Survey 2017 (Vienna, 2017), p. 5.
7 Ibid, p.44
Map 3: Area under opium poppy cultivation in Afghanistan, by province, 2017

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Dashed lines represent undetermined boundaries. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.


Figure 1: Total area under opium poppy cultivation (hectares) in Afghanistan, 2005-2017

Source: MCN and UNODC, Afghanistan Opium Survey Report 2017 and previous years.
The decision to cultivate opium by individual farmers is based on a range of complex socioeconomic factors, which vary by province, district and village, and are dependent on the needs of individual farmer as well as external factors in any given year. Opium cultivation has long been part of a wider survival strategy for Afghan farming households, the majority of whom live below the poverty line, and who are subject to poverty, lack of access to markets, insecurity and unemployment.10

Opium poppy cultivation in Afghanistan has a long history of being used as a coping strategy in response to low wages and unemployment, a lack of agricultural assistance, a lack of access to basic services (including medical services: opium is often used as a pain killer in the absence of pharmaceutical pain relief) and high levels of insecurity. These factors could also reflect the challenges the Afghan Government faces in exerting its influence and authority across Afghanistan; a situation that has become even more demanding following the Transition (Inteqal) Process and the reduction in financial, logistical and mentor support from the international community.

The cultivation of opium is only one of the options an Afghan farming household has to support its livelihood, with non-farm employment, cultivation of other crops and the sending of family members to work abroad being other common sources of income. Although the decision to cultivate opium poppy in a given year is determined by a variety of factors, insecurity continues to be highly correlated with opium poppy cultivation. In surveys, farmers also cite economic reasons as the major influencing factor for cultivating opium poppy in 2015 and 2016.12

The dependence of Afghan farming households on opium poppy cultivation for economic benefit is not necessarily related to the income it generates per se – production costs of opium are often high, which reduces a farmer’s profit margin – but is more reflective of the inability of farmers to access markets to sell other products or find long term, off-farm employment. Therefore, opium as a cash crop is seen as a more reliable product than others for

mitigating the effects of poverty for many farming households, enabling farmers to purchase goods and services, gain access to housing or land and to absorb the cost of major household expenses, such as marriage and other significant economic shocks.\textsuperscript{13}

**Opium cultivation in northern Afghanistan and Badghis**

**Map 4:** Northern Afghanistan and Badghis province in western Afghanistan

For the purpose of this report, northern Afghanistan is defined as including the northern provinces of Faryab, Sar-i-pul, Jawzjan, Balkh, Samangan and Baghlan, as well as the north-eastern provinces of Badakhshan, Takhar and Kunduz. Northern Afghanistan saw a considerable decline in the cultivation of opium poppy between 2006 and 2009 following strong government eradication efforts\textsuperscript{14} and improved security and economic opportunities in the region. However, following a period of low and relatively stable cultivation over the period 2008-2012, poppy cultivation began to increase in northern Afghanistan over the period 2012-2017. This is probably a reflection of a change in the socioeconomic conditions facing farmers in northern Afghanistan as a result of the decline in the wider economic and security situation, affecting Afghanistan as a whole.\textsuperscript{15} As the security situation in northern Afghanistan deteriorated over the period 2011-2016 so did the economic situation, leading to increased unemployment and a lack of long-term urban work, which can in turn make households consider a return to opium cultivation as a coping strategy.\textsuperscript{16}


\textsuperscript{14} MCN and UNODC, Afghanistan Opium Survey 2009 (Vienna, 2009) and previous years.

\textsuperscript{15} Fishstein, P. Evolving Terrain: Opium poppy cultivation in Balkh and Badakhshan Provinces in 2013, AREU (February 2014), p. 1.

\textsuperscript{16} Ibid.
Within northern Afghanistan, Badakhshan province in particular has a history of cultivating opium poppy since the late 1960s at least,\(^{17}\) and the province remains the largest producer of opium poppy in the north-eastern region.\(^{18}\) As the only province not to fall under the Taliban regime in the period 1996-2001, Badakhshan was unaffected by the national ban on opium imposed by the Taliban in 2000-2001; as a result, the province accounted for 79 per cent of Afghanistan’s total opium production in that period, which was very low compared with the current level.\(^{19}\) Cultivation in Badakhshan has been centred around several of the poorer and most isolated districts, including Kishim, Tishkan, Darayim and Argo,\(^{20}\) which have a history of suffering from chronic food insecurity,\(^{21}\) poverty and opium consumption.\(^{22}\) Much of the heroin processing activity in the province also reportedly occurs in the same districts.\(^{23}\) Food insecurity has been cited as a major reason for opium poppy cultivation in Badakhshan, with poppy being used as a cash crop, enabling families to acquire food, services and to meet significant household expenses. In isolated and rural areas of northern Afghanistan, such as the Wakhan corridor in Badakhshan where health facilities are limited, women have traditionally used opium to treat common ailments in both children and adults.\(^{24}\) Income derived from opium production is also more broadly used for general living expenses (food, clothing, furniture, etc.), highlighting the role opium plays as part of a wider response to poverty in the province; poppy by-products are also used for cooking (oil from seeds, kitchen fuel from poppy straw) and soap production.\(^{25}\) Insecurity, limited development activity and government investment continued to affect Badakhshan over the period 2011-2016, which in part accounts for the continued and relatively high level of cultivation in the province. Although other provinces in northern Afghanistan do not have the same historical tradition of cultivation as Badakhshan, they are increasingly returning to opium poppy cultivation. Nine of the ten provinces in northern Afghani-

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18 MCN/UNODC Afghanistan Opium Survey 2015.
20 N30 Interview with foreign law enforcement organization, Kabul, 2016.
22 Macdonald, D., Drugs in Afghanistan: Opium, Outlaws and Scorpion Tales, p. 171.
23 N27 Interview with Afghan government department, Kabul, 2016.
24 N24 Interview with Afghan government department, Kabul, 2016.
Afghan Opiate Trafficking Along the Northern Route

Afghanistan were declared poppy free in 2009 and 2010, but that had fallen to just three by 2017, with Jawzjan returning to opium cultivation in 2016. In addition, poppy cultivation has increased in the northern provinces, from 2,011 ha in 2011 to 51,311 ha in 2017, which may be the result of deteriorating security conditions in those provinces. Perceived government toleration of poppy cultivation in southern and western Afghanistan, and a lack of alternative livelihood development may also be factors in increasing cultivation in the north.

Figure 3: Number of poppy-free provinces in northern Afghanistan, 2007-2017

Balkh province, which was a significant opium producer in the early 2000s, became poppy free in 2007, following a comprehensive government ban and improved economic conditions in the provincial capital, Mazar-e Sharif, a status the province held until 2013 when farmers in Balkh briefly returned to cultivation, before the province regained its poppy-free status in 2014. Balkh once again returned to poppy cultivation in 2015 and saw a significant increase in the area under cultivation in 2017 (12,116 ha) compared with 2016 (2,085 ha), probably in response to a number of factors, including less robust government eradication campaigns and a general decline in security. Faryab province also saw increases in cultivation over the period 2011-2017, with the exception of 2012 when the province regained its poppy-free status. In 2017, Faryab recorded a significant increase in cultivation to 22,797 ha from 2,923 ha in 2016.

Although located in western Afghanistan, as opposed to northern Afghanistan, Badghis province may be a major source of opiates for the northern route, specifically for neighbouring Turkmenistan. The province saw a steady increase in opium poppy cultivation over the period 2011-2014, then a more significant increase between 2014 and 2016 and a subsequent decrease in 2017 (from 35,234 ha in 2016 to 24,723 ha in 2017). As of 2016, Badghis was the second largest opium poppy-cultivating province in Afghanistan, after Helmand, surpassing other major poppy-cultivating provinces such as Farah and Kandahar. Long-standing tribal and familial links between the Pashtun

Source: MCN/UNODC, Afghanistan Opium Survey 2017 and previous years.

26 MCN and UNODC., Afghanistan Opium Survey 2016 (Vienna, 2016) and previous years.
29 Ibid.
30 Fishstein, P., “Briefing note on fieldwork in Balkh province May 2015: Opium Poppy and rural livelihoods”.
32 N22 Interview with Afghan government department, Kabul, 2016
33 MCN/UNODC, Afghanistan Opium Survey 2016.
34 “In 2017, the provincial boundaries of Badghis (western region) and Faryab (northern region) were changed. Ghormach district, formerly part of Badghis province and a major opium poppy cultivating district, came in 2017 under the administration of the Governor of Faryab province. The changes in opium poppy cultivation in these two regions are affected by this change.” (MCN/UNODC, Afghanistan Opium survey 2017).
populations of Badghis and Helmand and Kandahar, and the return of opium workers from Badghis, who had moved to the southern provinces following the drought in 2008 and returned to the west bringing knowledge of how to cultivate opium, may account in part for the increase in poppy cultivation in the province. Additional factors may also include an increase in the amount of land in the province set aside for agriculture (both licit and illicit).

**Figure 4:** Comparison of areas under opium poppy cultivation (hectares) in Badghis province (western Afghanistan) and in northern Afghanistan, 2005-2017

![Graph showing comparison of areas under opium poppy cultivation](chart)

Source: MCN/UNODC Afghanistan Opium Survey 2017 and previous years.

### Opium poppy eradication in Afghanistan

Eradication is carried out both to directly remove opium poppy from cultivation and to inject farmers’ individual cultivation decisions with a sense of risk so as to influence their willingness to cultivate opium poppy in future. However, while opium poppy cultivation increased in Afghanistan between 2011 and 2017, there was a decline in the size of the area eradicated over the same period, except in 2017, when the area of opium poppy eradicated was twice the size of the area eradicated in the previous year: the total area eradicated across Afghanistan in 2017 was 750 ha, compared with 355 ha in 2016. Northern Afghanistan accounted for the majority of the eradication in 2017, with 309 ha of opium poppy eradicated (269 ha were eradicated in Badakhshan only), while 48 ha were eradicated in the southern region and 106 ha in the western region.

In northern Afghanistan, major eradication efforts by the Government in Balkh province, and eradication supported with alternative livelihood development in Badakhshan over the period 2008 and 2010, were contributory factors in the decline in poppy cultivation in those provinces over that period, and in maintaining the low level of cultivation from 2009 to 2013. Yet while eradication continued in Badakhshan in 2015, albeit less extensively than in

36 Ibid.
38 MCN and UNODC, Report on Poppy Eradication Verification (Kabul, 2016), No. 5; Afghanistan Opium Survey 2017.
the past, there is currently little risk of a farmer facing eradication of his opium poppy crop in northern Afghanistan. A growing level of opium poppy cultivation in the north, combined with a reduction in eradication, may lead to greater opium production in northern Afghanistan, which could in turn supply the northern route.

In western Afghanistan, Badghis province also saw a decline in eradication over the period 2011-2016. With a decrease in cultivation in 2017, government led-efforts eradicated 55 ha of opium poppy in Badghis that year.40

Map 5: Eradication of areas under opium poppy cultivation (hectares) in Northern Afghanistan and Badghis 2011-2017

![Map 5: Eradication of areas under opium poppy cultivation (hectares) in Northern Afghanistan and Badghis 2011-2017](image)

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Dashed lines represent undetermined boundaries. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

Source: MCN/UNODC Afghanistan Opium Survey 2017 and previous years.

Heroin and opium production in Afghanistan

In 2017, 9,000 tons of opium were produced in Afghanistan. An increase of roughly 87 per cent on the estimated 4,800 tons produced in 2016, this can be partly explained by a 15 per cent increase in the opium yield over the same period. A more significant driver is the increase in the size of the area under opium poppy cultivation, which grew from 201,000 ha in 2016 to 328,000 ha in 2017. The southern region continued to produce the majority of the opium in Afghanistan, accounting for 57 per cent of national production. Accounting for 19 per cent of national production, northern Afghanistan was the country’s second most important opium-producing region in 2017, followed by the western region (13 per cent).

Heroin and opium production in northern Afghanistan

Standing at 51 tons in 2005, total opium production in northern Afghanistan reached 3,083 tons in 2013, before significantly decreasing in 2014 then increasing again to 1,703 tons in 2017.

Figure 5: Estimated opium production (tons) in northern Afghanistan 2005-2017

As with opium production, Badakhshan province is an important heroin-manufacturing centre in Afghanistan, with most processing occurring in the western and central districts of the province. Historically, smaller laboratories that produce less heroin have been reported in Takhar, Kunduz, Baghlan, Faryab and, to a lesser extent, Balkh.

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* Estimates are not comparable in 2016 and 2017 since Ghormach, a major opium-cultivating district that was formerly part of Badghis province (western Afghanistan), came under the administration of Faryab province in 2017. Source: MCN/UNODC Afghanistan Opium Survey 2017 and previous years.

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41 Ibid.
42 Estimates are not comparable in 2016 and 2017 since Ghormach, a major opium poppy-cultivating district that was formerly part of Badghis province (western Afghanistan), came under the administration of Faryab province in 2017.
43 MCN/UNODC Afghanistan Opium Survey 2016.
44 MCN/UNODC Afghanistan Opium Survey 2017 and previous years.
45 N30 Interview with foreign law enforcement organization, Kabul, 2016.
although it is not known if laboratories are currently present in those provinces. Laboratories in Badakhshan are not usually permanent fixtures and tend to be small and mobile, typically employing three or four workers, while many are located in districts only a few kilometres from the Tajik border.47

**Map 6: Districts historically associated with laboratory sites in Badakhshan province, 2013**

UNODC and local law enforcement sources have estimated that some 40 to 50 heroin laboratories were active in northern Afghanistan as of 2010, but there is currently no information available as to whether this is still the case.48 According to law enforcement sources,49 raids against laboratories continue to take place, suggesting that heroin processing still takes place in Badakhshan to some degree. Most heroin production in Badakhshan is of white heroin hydrochloride, which is typically associated with the type of heroin reportedly consumed in Central Asia and the Russian Federation. Once processed, this heroin is usually measured into 1 kg units, wrapped in paper or put into cloth bags and stamped with an identifying logo, before being shipped.

47 N30 Interview with foreign law enforcement organization, Kabul, 2016.
49 N30 Interview with foreign law enforcement organization, Kabul, 2016.
Although a number of laboratories in northern Afghanistan were dismantled by Afghan or international security forces over the period 2011-2015, these laboratories tend to be rebuilt quickly after a single raid and return to processing after a short break in production.\(^\text{50}\) The number of laboratories reportedly dismantled in Afghanistan rose between 2011 and 2012 but began to decrease in 2013, falling significantly in 2015. This was probably because of the deterioration of the security situation in the country, reduced logistical and other support to Afghan law enforcement from international forces, and the fact that most processing occurs in difficult-to-access areas that are frequently not under the control of the Government.\(^\text{51}\) A lack of sustained law enforcement activity against laboratory sites may make the risk to laboratory infrastructure an accepted cost of business, and one that does not lead to a long-term impact on trafficking organizations, nor on the production of heroin.

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\(^{51}\) N27 Interview with Afghan government department, Kabul, 2016.
To maximize profit, trafficking networks across Afghanistan reportedly use a number of cutting agents in order to bulk out opiates. Organic matter, including berries, has been known to be added to wet opium to increase its weight, and spices, or “masala”, are reportedly common cutting agents added to processed opiates. However, as the heroin produced in northern Afghanistan reportedly attracts a “premium” because of its perceived high quality, few adulterants are believed to be added to heroin hydrochloride produced in that part of the country, unlike heroin produced in other parts of Afghanistan.\(^52\)

\(^{52}\) N30 Interview with foreign law enforcement organization, Kabul, 2016.
Opium poppy cultivation and opiate production along the northern route

Although Afghanistan is the main producer of opium and heroin for markets along the northern route, data suggest that limited cultivation of opium poppy also takes place in some other countries along the route, most notably Uzbekistan and the Russian Federation. This cultivation is mainly intended for local production of home-made poppy products consumed in the domestic market or in neighbouring countries. However, seizures indicate a decrease in the cultivation and trafficking of opium poppy and poppy straw, suggesting that the market along the northern route for such products may be shrinking.

Eradication of opium poppy fields is decreasing in northern route countries

In the absence of estimates of the area under poppy cultivation in countries along the northern route, indirect indicators have been used in this analysis. Eradication data confirm the existence of limited cases of opium poppy cultivation in the Russian Federation, where the area eradicated has fluctuated between 1.44 and 0.58 hectares since 2011; figures are low so any fluctuation should be taken with caution, but may point to an overall decline. However, the Russian authorities have pointed to an increase in 2016.

Figure 9: Poppy field eradication in the Russian Federation (hectares) 2011-2015

Source: UNODC, responses to the annual report questionnaire.
Poppy plants seizures are declining along the northern route

The last decade saw an overall decrease in seizures of poppy plants in Central Asia. Kyrgyzstan reported a major decline in poppy plant seizures, from 1.8 tons in 2005, when it was the only country in the region that seized most plants, to 63 kg in 2014, with no poppy plants being intercepted in 2015.

**Figure 10:** Seizures of poppy plants in Central Asia (kilograms), 2005-2015

![Graph showing seizures of poppy plants in Central Asia (kilograms) from 2005 to 2015.](Graph.png)

Source: UNODC, responses to the annual report questionnaire.

The other country that seizes most poppy plants in Central Asia is Uzbekistan, especially since 2009 when it became the primary seizing country in the region. Despite the decline in seizures of poppy plants since the record highs of 2009 and 2010, at roughly 340 kg per year over the 2011-2015 period, quantities intercepted in Uzbekistan stand out as comparatively high in the region. Similar to the Russian Federation where law enforcement organizes an annual operation to destroy opium poppies, known as “Mak” (poppy), Uzbekistan also organizes an annual police operation, called “Black poppy”, to eradicate plantations of opium poppy and cannabis in the country.

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53 UNODC, responses to the annual report questionnaire, Uzbekistan, 2011-2015
**Figure 11:** Operation “Black poppy”: area under cultivation eradicated (square metres) in Uzbekistan, 2010-2015

![Bar chart showing area under cultivation eradicated in Uzbekistan, 2010-2015](chart.png)


**Map 7:** Seizures of poppy straw in the Russian Federation, 2011-2015

![Map showing seizures of poppy straw in the Russian Federation, 2011-2015](map.png)

Sources: UNODC, significant individual drug seizures; UNODC, Drugs Monitoring Programme.
Around 900 cases of significant seizures of poppy straw have been reported by the Russian Federation over the past five years. Over 12 tons of poppy plant material have been intercepted in the Russian Federation since 2011; a large amount compared with that seized in countries in Central Asia. Given the lack of evidence of heroin manufacturing in the country and the lack of a sizeable market for opium, it seems that at least a proportion of opiate users consume "kompot" (see box) in the Russian Federation.

Figure 12: Poppy plant seizures (kilograms) in the Russian Federation, 2005-2015

Source: UNODC, responses to the annual report questionnaire.

“Kompot”: a cheap substitute for users of opiates unable to source Afghan heroin.

This heroin substitute was first processed in 1976 by two Polish chemistry students in Gdansk, who gave it the name “kompot” because it is of a similar dark colour to a popular home-made drink in Poland. This cheaper version of heroin eventually became popular among drug users across Eastern Europe and was used whenever there was a shortage of heroin on the market.

“Kompot”, also known as “chemiashka”, “chernovye”, “Polish heroin” and “hanka” in the Russian Federation and Central Asia, is usually produced by combining pods of opium poppy, acid and boiling water and mixing them, although more sophisticated recipes are also available, which include the use of sulphuric acid. The resulting fluid, intended for intravenous injection, typically contains a mixture of diacetylmorphine (heroin), 6-monoacetylmorphine (an active metabolite of heroin), 3-monoacetylmorphine (an inactive metabolite of heroin), morphine and small amounts of codeine, as well as residual plant matter and all kinds of other impurities and contaminants contained in the chemicals used.

No evidence of heroin production along the northern route

There is no evidence that heroin production occurs outside Afghanistan along the northern route. The dismantlement of heroin laboratories was not reported over the period 2011-2015 by the Russian Federation and countries in Central Asia.\(^{55}\) The Russian Federation reported the dismantlement of other types of clandestine laboratory, mostly specialized in the production of synthetic drugs such as amphetamines, while 11 cases of illicit drug laboratories producing synthetics opioids such as desomorphine have been reported since 2011.\(^ {56}\)

**Figure 13:** Illicit drug laboratories dismantled in the Russian Federation, by drug type, 2011-2015

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-Methylfentanyl (3-MF, Mefentanyl)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Amphetamine (non-specified)</td>
<td>27</td>
<td>38</td>
<td>25</td>
<td>35</td>
<td>33</td>
</tr>
<tr>
<td>Cannabis oil, hashish</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Desomorphine</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Marijuana (herb)</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>MDMA</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Methadone</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methamphetamine (non-specified)</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A-PVP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Dextromethorphan</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>AM-2201</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Mephedrone</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Source: UNODC, responses to the annual report questionnaire.

Along the northern route, the lack of heroin laboratories being dismantled outside Afghanistan between 2011 and 2015 could have been the result of different strategies being employed by drug traffickers, including the presence of sophisticated heroin laboratories and good "chemists" within Afghanistan. Additionally, it is easier and more profitable to smuggle heroin out of Afghanistan than more bulky opium or poppy straw, which are harder to conceal and less valuable.

\(^{55}\) UNODC, responses to the annual report questionnaire; N12 interview with Kyrgyz law enforcement organization, Bishkek, 2016; N16 Interview with international organization, Moscow, 2016; N01 Interview with Kazakh law enforcement organization, Astana, 2016; N04 Interview with Tajik law enforcement organization, Dushanbe, 2016; N19 Interview with Uzbek law enforcement organization, Tashkent, 2016.

\(^{56}\) UNODC, responses to the annual report questionnaire.
Acetic anhydride (AA) trafficking in Afghanistan and along the northern route

There are two critical substances required for the manufacture of heroin: opium and acetic anhydride (AA). Opium is the primary raw material used in heroin manufacture, a process that involves a series of sequential operations and several chemicals, some widely available, others subject to international control. Of all the chemicals used, AA is the only one that cannot easily be replaced. AA is controlled under Table I of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, 1988.

Acetic anhydride in heroin production in Afghanistan

Although it has many legitimate licit applications around the world, AA is neither produced in Afghanistan nor legally imported into the country. Legal imports of AA have been prohibited in Afghanistan since 2009 and the Government has not granted any exceptional import or transit licences for this chemical since then. Thus, all AA found in Afghanistan is illegally sourced.

The estimated amount of AA needed for the manufacture of heroin in Afghanistan may vary substantially depending on the manufacturing method, the equipment used and the end product (heroin base versus heroin hydrochloride), as well as on the availability and price of AA.

**Figure 14:** Estimated amounts of acetic anhydride (litres) needed for the manufacture of 1 kg of heroin

<table>
<thead>
<tr>
<th>Source</th>
<th>Method</th>
<th>Heroin base</th>
<th>Heroin hydrochloride</th>
<th>Heroin (not specified)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEA 2008&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Informants</td>
<td></td>
<td>1.50 to 2.50 l</td>
<td></td>
</tr>
<tr>
<td>INCB 2012-2016&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Review</td>
<td></td>
<td>1.00 to 2.50 l</td>
<td></td>
</tr>
<tr>
<td>German Bundes-kriminalamt&lt;sup&gt;c&lt;/sup&gt;</td>
<td>Manufacture of heroin by two Afghan &quot;cooks&quot; from Nangarhar</td>
<td>1.00 l</td>
<td>2.10 l</td>
<td></td>
</tr>
<tr>
<td>UNODC 2010&lt;sup&gt;d&lt;/sup&gt;</td>
<td>Survey among informants in eastern Afghanistan</td>
<td>1.05 l</td>
<td>1.70 l</td>
<td>1.00 to 1.50 l</td>
</tr>
<tr>
<td>DEA 2017&lt;sup&gt;e&lt;/sup&gt;</td>
<td>Estimate</td>
<td></td>
<td></td>
<td>1 litre</td>
</tr>
</tbody>
</table>


---

<sup>57</sup> *Precursors and Chemicals Frequently Used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances 2016.*
Based on an estimated requirement of 1-2.5 litres of AA to produce 1 kg of heroin, between 313,000 and 783,000 litres of AA would have been needed every year to supply the Afghan heroin sector over the period 2012-2016.\textsuperscript{58}

The estimated requirements of AA for heroin manufacture in Afghanistan represent only a marginal proportion of the licit sector, accounting for 0.02-0.06 per cent of global production\textsuperscript{59} and 0.08-0.2 per cent of global imports of licit AA over the period 2012-2016.\textsuperscript{60} This suggests that only a tiny proportion of AA diverted from global production and licit trade flows is sufficient to guarantee the ongoing manufacture of heroin in Afghanistan, making it quite challenging to control licit flows of AA worldwide.

AA prices in Afghanistan are much higher than prices in the licit AA trade because all AA in the country is illicitly sourced. Overall, AA price changes in Afghanistan reflect both demand for heroin manufacturing and supply of AA, which depends on law enforcement successes in interdicting illegal shipments of AA in and around Afghanistan.

Opium and AA account for a substantial part of the overall production cost of heroin. A 2010 assessment in the province of Nangarhar in Afghanistan suggested opium accounted for 73 per cent of that cost; AA for 26 per cent and other chemicals for 1 per cent.\textsuperscript{61} The AA-related share of the cost appears to have decreased in subsequent years, in line with price reductions. Nonetheless, estimates for 2013 indicated that some 20 per cent of the total cost of manufacturing heroin was still related to AA.\textsuperscript{62}

\textsuperscript{58} UNODC calculations based on \textit{Afghanistan Opium Survey 2016} and previous years; \textit{Precursors and Chemicals Frequently Used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances 2016} and previous years.

\textsuperscript{59} 313,000 litres/1,389,000,000 litres (i.e., 1.5 tons*0.926) = 0.02 per cent and 783,000 litres/1,389,000 litres = 0.06 per cent (UNODC estimates based on \textit{Afghanistan Opium Survey 2016} and previous years); INCB, \textit{Precursors and Chemicals Frequently Used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances 2013} (New York, 2014) and other years. The factor for converting quantities of acetic anhydride measured in kilograms into litres amounts to 0.926, according to INCB (derived from the Merck Index (Rahway, New Jersey, Merck, 1989)).

\textsuperscript{60} 313,000 litres/395,119,747 litres (i.e. 426,695,192 kg* 0.926) = 0.08 per cent and 783,000 litres/395,119,747 litres = 0.2 per cent (UNODC estimates based on UN Comtrade; \textit{Afghanistan Opium Survey 2016}; \textit{Precursors and Chemicals Frequently Used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances 2016} and previous years).

\textsuperscript{61} Costs related to labour, equipment, security, etc. are not included in this calculation; \textit{The Global Afghan Opium Trade: A Threat Assessment}, p. 151.

**Figure 15:** Acetic anhydride prices in Afghanistan, 2002-2017

Overall, AA prices showed a strong increase in Afghanistan from the late 1990s to 2011, before falling in subsequent years. That decline did not reflect reductions in Afghanistan’s opium and heroin production, but it went in parallel with a marked decrease in seizures of both opiates and AA. This suggests that between 2011 and 2015 AA trafficking was less risky than previously.

Seizures of AA in Afghanistan have been fluctuating widely over the period 2011-2015, with a marked decline until 2015. Taking into account an average of 25,500 litres seized annually over the period 2012-2016, between 3 and 8 per cent of the estimated quantity of AA smuggled was seized in the country.\(^{63}\) This interception rate is relatively low when compared with an interception rate of 8 to 12 per cent\(^ {64}\) for illegally manufactured morphine and heroin over the period 2012-2016 in Afghanistan.

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\(^{63}\) Precursors and Chemicals Frequently Used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances 2016; information provided by the Counter Narcotics Police of Afghanistan to UNODC (September 2017).

\(^{64}\) Average Afghan heroin and morphine seizures amounted to 30 tons per year over the period 2012-2016. Average heroin production over the period 2012-2016 amounted to 313 tons (260-360 tons) (UNODC, annual report questionnaire data and MCN/UNODC Afghanistan Opium Survey 2016: Cultivation and Production, and previous years).
Based on data from 2011-2014, less than half of all AA seizures in Afghanistan occurred at the borders; most were made inland while the substance was being transported from temporary warehouses to illicit manufacturing sites, as well as when clandestine laboratories were being dismantled. It is not currently known if drug trafficking networks in northern Afghanistan are actively involved in the smuggling of precursors, or whether separate networks supply them. Information from the early 2010s suggested that northern Afghanistan was mainly supplied with AA transiting Pakistan and eastern Afghanistan.

Interviews with Afghan officials also suggested that AA flows along the northern route to Afghanistan are currently very limited. Up to 2009, precursors flowed along the northern route into Afghanistan in sizable quantities, but this changed after 2009. Between 2009 and 2011 acetic anhydride was reported as mainly entering Afghanistan through the eastern and southern provinces, before shifting to enter the country through its western and south-western provinces after 2011. While Afghan officials assessed that opiate precursor trafficking continued along the northern route, there was only limited seizure information on which to base such an assessment.

**Figure 16:** Seizures of acetic anhydride in Afghanistan (litres), 2011-2015

<table>
<thead>
<tr>
<th>Year</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
<td>68,245</td>
<td>31,451</td>
<td>14,212</td>
<td>7,751</td>
<td>3,761</td>
</tr>
</tbody>
</table>

Source: *Precursors and Chemicals Frequently Used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances 2016*, Annex VIII.

Trafficking of acetic anhydride from Central Asia and the Russian Federation to Afghanistan

Data on AA trafficking along the northern route are limited but seem to point to an absence of trafficking in AA along this route. The International Narcotics Control Board (INCB), based on data provided by the Government of Afghanistan, estimated that over 85 per cent of cross-border trafficking cases involving AA over the period 2011-2014 took place via the Islamic Republic of Iran, with most of the remainder smuggled into the country via Pakistan.

Central Asia played a significant role in the trafficking of AA into Afghanistan in the late 1990s, with reports of several large seizures of 10,000 litres over the period 1995-2000. However, trafficking along this route seems to have declined thereafter.

Over the period 2004-2007, accumulated annual AA seizures reported by the Russian Federation still accounted for approximately 40 per cent of global AA seizures at the time. That was three times the amount made by China (which currently reports the highest seizures of AA worldwide) and more than four times those reported by Turkey, then a key transit country for AA shipments to Afghanistan, over the same period. However, this has changed in recent years; aggregate AA seizures in the Russian Federation amounted to less than 1,000 litres over the period 2008-2015, a significant decrease from previous years.

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66 *The Global Afghan Opium Trade – A Threat Assessment*.
67 N25 Interview with Afghan government department, Kabul, 2016; N30 Interview with foreign law enforcement organization, Kabul, 2016.
69 INCB, *Precursors and Chemicals Frequently Used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances 2002*.
Figure 17: Seizures of acetic anhydride in Central Asia and the Russian Federation (litres), 2011-2015

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Kazakhstan</td>
<td>-</td>
<td>-</td>
<td>0.1*</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>-</td>
<td>792</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>820</td>
<td>5</td>
<td>8</td>
<td>17</td>
<td>47</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*Ministry of Interior, Kazakhstan.

Source: Precursors and Chemicals Frequently Used in the Illicit Manufacture of Narcotic Drugs and Psychotropic Substances 2016.

Licit trade and use of AA in countries along the northern route is limited. Over the period 2011-2015, the Russian Federation was the only country that reported exports of AA, and they amounted to less than 2 litres, while less than 8,000 litres in total were imported by three countries, namely Kazakhstan, Kyrgyzstan and the Russian Federation. The large-scale diversion of AA from international trade between countries along the northern route to the clandestine heroin sector in Afghanistan is therefore unlikely, as this quantity would not be sufficient to cover the needs of the clandestine heroin sector in Afghanistan.

71 United Nations, UN Comtrade database.
II. SEIZURES, PRICES AND PURITY

A direct indicator of counter-narcotics law enforcement activity, drug seizures are the result of those successful operations that end in drug interceptions, and are thus influenced by law enforcement resources and priorities. At the same time, seizures are one of the key elements that help to establish the size of drug markets, drug availability and trafficking patterns and trends, particularly if broad geographical entities are considered and long periods of time are analysed.

Seizure information can serve as a powerful market indicator, particularly if triangulated with other data such as drug prices and purity. Falling seizures in combination with rising drug prices and falling purity levels may suggest a decline in overall drug supply, while rising seizures in combination with falling drug prices and rising purity levels are usually considered a good indicator of an increase in drug supply. However, rising drug seizures in combination with rising drug prices and falling purity levels may suggest intensified law enforcement activity and thus a potential overall decline in drug supply.

It should be noted that reported seizures relate to events that took place in the past and in specific locations. In an environment where drug traffickers adapt quickly to changing risks and opportunities, drug trafficking patterns and flows derived from seizure data do not necessarily reflect the current modus operandi of traffickers in every detail. At the same time, experience has shown that some of the main drug-trafficking routes, once established, can prove rather resilient to change.\(^\text{72}\)

**Overview of all drug seizures affecting the northern route countries**

In Central Asia and the Russian Federation, as in the rest of the world, cannabis products remain, in weight terms, the main illicit drugs seized, with opiate seizures representing the second largest quantity by weight. Seizures of ATS and cocaine remain low in Central Asia, although the quantities of synthetic drugs intercepted have increased in recent years, in line with a global trend towards increased synthetic drug seizures.\(^\text{73}\) Comparatively, more synthetic drugs and cocaine are seized in the Russian Federation than in Central Asia.

Based on calculations of “consumption units” (see box), the northern route countries accounted for 1.8 per cent of global drug seizures over the period from 1998, the year of the United Nations General Assembly Special

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Session devoted to the drug problem, to 2015, the latest data available. This included 1.0 per cent of global drug seizures for the Russian Federation and 0.8 per cent of global drug seizures for Central Asia, or 0.7 per cent of global drug seizures over the period 2011-2015 (including 0.4 per cent for the Russian Federation and 0.2 per cent for Central Asia).

**Figure 18:** Percentage of global drug seizures (consumption units) made in countries along the northern route, 2011-2015

![Figure 18: Percentage of global drug seizures (consumption units) made in countries along the northern route, 2011-2015](image)

Sources: UNODC, responses to the annual report questionnaire; government reports; United Nations Department of Economic and Social Affairs, Population Division, World Population Prospects.

In the northern route countries, based on consumption units, the overall percentage distribution of drugs seized is, however, quite different from their percentage distribution at the global level. Excluding substances not under international control, more than half of all global seizures based on consumption units over the period 1998-2015 related to cannabis, followed by cocaine and opioids. By contrast, in the northern route countries, over half of seizures (expressed in consumption units) concerned opioids, followed by cannabis, which accounted for a third of seizures. This reflects the geographical proximity of those countries to the world’s main opium producer, Afghanistan, as well as the significant distance between Central Asia and the production centres of other drugs, such as cocaine and synthetic drugs.

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74 The 1998 Political Declaration, passed by the United Nations General Assembly Special Session, called for a global approach to eliminate illicit crops and for law enforcement measures to counter the manufacture and trafficking of illicit narcotic and synthetic drugs. Available at [http://www.un.org/ga/20special/poldecla.htm](http://www.un.org/ga/20special/poldecla.htm).
The concentration of seizures of opioids is even more pronounced in Central Asia than in the Russian Federation, reflecting the region’s position as an important transit region for opiate trafficking. Some 62 per cent of all seizures in Central Asia, expressed in consumption units, were related to opioids and more than a third were related to cannabis over the period 1998-2015, while seizures of other drugs were negligible. In the Russian Federation, opioid seizures accounted for roughly half of the total, followed by cannabis seizures.
Figure 21: Distribution of seizures* in the Russian Federation (consumption units), 1998-2015

<table>
<thead>
<tr>
<th>Substance Type</th>
<th>Seizures (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannabis-type</td>
<td>29%</td>
</tr>
<tr>
<td>Opioids</td>
<td>49%</td>
</tr>
<tr>
<td>Sedatives and tranquillizers</td>
<td>13%</td>
</tr>
<tr>
<td>ATS</td>
<td>6%</td>
</tr>
<tr>
<td>Hallucinogens</td>
<td>3%</td>
</tr>
<tr>
<td>Cocaine-type</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

* Excluding seizures of substances not under international control.
Sources: UNODC, responses to the annual report questionnaire; and government reports.

When comparing seizures of all drugs in the northern route countries to the global total over the 2011-2015 period (expressed in kilogram equivalents), the northern route countries only account to 0.6 per cent of the global total. However, this proportion rises to 2.4 per cent in the case of opiate seizures, demonstrating the link to large-scale opium production in Afghanistan and the use of the northern route to transport heroin to the consumer markets it supplies, notably the Russian Federation.
Opiate seizures in Afghanistan

Opium production in Afghanistan fluctuated between 2011 and 2015, both countrywide and in northern Afghanistan, with no clear overall trend during the period. Nonetheless, the total quantity of opiates seized at the national level dropped significantly between 2011 and 2015. Seizures of opiates began to fall across Afghanistan in 2013 and a more dramatic reduction occurred in 2015. Afghan government officials suggest that the gradual reduction in international support over the past five years and the corresponding deterioration in the security situation across Afghanistan has accounted for the decline in seizures, as law enforcement units have been diverted from counter-narcotics efforts to more general security issues.

Sources: UNODC, responses to the annual report questionnaire; and government reports.

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75 MCN and UNODC, Afghanistan Opium Survey 2015 (Vienna, 2015) and previous years.
76 N21 Interview with Afghan government official, Kabul, 2016; N25 Interview with Afghan government official, Kabul 2016; N27 Interview with Afghan government official, Kabul 2016; N28 Interview with Afghan government official, Kabul, 2016.
Figure 23: Annual aggregate opiate seizures in Afghanistan (kilograms), 2011-2015

Source: UNODC, responses to the annual report questionnaire.

Figure 24: Distribution of opiate seizures in Afghanistan, by drug (kilograms), 2011-2015

Source: UNODC, responses to the annual report questionnaire.
Opiate seizures in northern Afghanistan

Over the period 2011-2015, an average of 148 tons of opium per year were seized in Afghanistan, far exceeding heroin seizures, which amounted to an average of 14.4 tons per year. Based on significant individual seizures, on average, four times more opium (4 tons) than heroin (1 ton) was seized per year over the same period in northern Afghanistan. The majority of opium seizures in northern Afghanistan take place along major highways and in key urban centres. In particular, seizures in Baghlan are clustered along the main highway leading south to Kabul via the Salang tunnel, which indicates an opium flow between the northern provinces and central and southern Afghanistan. There are limited seizures of opium at the border crossings between northern Afghanistan and the countries of Central Asia. Some seizures of Afghan opium are reported by Central Asian countries, but much of the opium produced in northern Afghanistan remains in the country for consumption as opium or for manufacture into heroin, although some is trafficked to other regions of Afghanistan.

Map 8: Location of opium seizures in northern Afghanistan, 2011-2015

In contrast to the situation in many transit countries where heroin seizures take place primarily at border crossings, heroin seizures in northern Afghanistan, like opium seizures, mainly occur along major highways and/or in urban centres such as Mazar-e Sharif and Kunduz city. In both cases, this seems to reflect the greater presence and capacity of law enforcement units in the cities and along the main transit routes. Heroin seizures at border crossings between northern Afghanistan and the Central Asian countries are more limited, most occurring along the border between Afghanistan and Tajikistan rather than along the borders with Uzbekistan and Turkmenistan. The low level of seizures along the borders may be due to the remoteness of many border crossings and a general lack of law enforcement capacity, as well as corruption at some checkpoints.

Sources: UNODC, significant individual drug seizures; UNODC, Drugs Monitoring Platform.

77 UNODC, significant individual drug seizures.
78 UNODC, significant individual drug seizures.
Map 9: Location of heroin seizures in northern Afghanistan, 2011-2015

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Dashed lines represent undetermined boundaries. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

Sources: UNODC, significant individual drug seizures; UNODC, Drugs Monitoring Platform.

Opiate seizures in Badghis province

Located in western Afghanistan, Badghis province shares a border with Turkmenistan. Although the trafficking of opiates from Afghanistan to Turkmenistan has not been significant in recent years, that may change in the future given the emergence of Badghis as a major opium-producing province. Despite dramatic increases in opium cultivation in Badghis, seizures of opiates in the province have so far remained almost non-existent.
AFGHAN OPIATE TRAFFICKING ALONG THE NORTHERN ROUTE

Map 10: Opiate seizures in Badghis province, 2011-2015

Reported opiate seizures (expressed in heroin equivalents) in the Soviet Union were very limited in the 1980s and early 1990s, possibly indicating that opiate trafficking only increased in intensity after the break-up of the Soviet Union in 1991. Since 1998, more opiates have been seized, on average, in Central Asia than in the Russian Federation, although that difference has decreased since 2011, with seizures in the Russian Federation surpassing those in Central Asia in the period 2012-2015. In line with a decline in opium production in northern Afghanistan, opiate seizures (which had been decreasing since the peaks of 2003 and 2004) continued to fall until 2012, before increasing again, in line with a renewed rise in opium production in northern Afghanistan, until 2014. In 2015, there was a drop in overall opium production in Afghanistan, combined with a devaluation of the rouble in the Russian Federation, which might have had an impact on the currencies of Central Asia. This, in turn, might have contributed to a 14 per cent decline in opiate seizures (to roughly 4 tons) along the northern route, compared with the previous year (a return to the level reported in 2011). The decline in opiate seizures in 2015 mainly occurred in the Russian Federation, when Russian opiate seizures were at a similar level to those made in Central Asia. Based on more recent seizure data, the decrease seems to continue beyond 2015, suggesting a continuous decline in opiate trafficking from Central Asia to the Russian Federation. This trend would seem to go against the recent record increases in Afghan opiate cultivation and production, the full impact of which has yet to be assessed.

79 Schenkan, N., "Impact of the economic crisis in Russia on Central Asia", Russian Analytical Digest, No. 165, 17 (March 2015).
80 Communication from the Russian Federation, Note Verbale of 9 February 2018
The analysis of seizures by drug (expressed in heroin equivalents) shows that in both Central Asia and the Russian Federation, opiate seizures are dominated by heroin. Opium (expressed in heroin equivalents) only plays a relatively small and declining role in Central Asia and a limited role in the Russian Federation. On average, 13 per cent of opiate seizures in Central Asia (expressed in heroin equivalents) over the period 2011-2015 were related to opium;
the proportion was 0.3 per cent in the Russian Federation. By comparison, the corresponding proportion of opium seized in the Islamic Republic of Iran amounted to 62 per cent over the same period. Seizures of morphine were negligible in the northern route countries, accounting for just 0.1 per cent of the total in both Central Asia and the Russian Federation. This was again in stark contrast to the situation in the Islamic Republic of Iran, and in Pakistan where morphine seizures accounted for 14 per cent and 17 per cent, respectively, of the total seized over the period 2011-2015. The largest quantities of opiates seized (seizures of heroin, morphine and opium expressed in heroin equivalents) in countries along the northern route over the period 2011-2015 were reported by the Russian Federation, Tajikistan, Kazakhstan and Uzbekistan.

Figure 26: Average annual seizures of opiates (kilograms), made in northern route countries over the period 2011-2015, and distribution by drug category

(a) Seizures of opiates (expressed in heroin equivalents*)

*Opiate in heroin equivalents

Proportion heroin and morphine

Proportion opium (expressed in heroin equivalents*)

* 10 kg of opium is equivalent to 1 kg of morphine/heroin.
Sources: UNODC, responses to the annual report questionnaire; and government reports.
On average, heroin and morphine seizures (expressed in heroin equivalents) accounted for 99.7 per cent of all opiate seizures in the Russian Federation over the period 2011 and 2015, and for 87 per cent in Central Asia. Differences across the countries in the region were, however, significant. The situation in Kazakhstan was similar to that in the Russian Federation and Kyrgyzstan, with more than 97 per cent of all opiate seizures related to heroin and morphine, while, at the other end of the spectrum, only a quarter of all opiate seizures in Turkmenistan were related to heroin and morphine.
Figure 27: Opiate seizures in northern route countries (kilograms), by main category and as a percentage of global opiate seizures, 2005-2015

(a) Heroin, morphine and opium (expressed in heroin equivalents*)

* 10 kg of opium is equivalent to 1 kg of heroin/morphine.

Sources: UNODC, responses to the annual report questionnaire; and government reports.
(b) Heroin, morphine and opium

Sources: UNODC, responses to the annual report questionnaire; and government reports.

**Heroin seizures along the northern route**

The proportion of heroin seizures out of all opiate seizures along the northern route peaked in 2003 at almost 19 per cent. The largest quantities of heroin seized were reported by Tajikistan over the period 1999-2004 and by the Russian Federation over the period 2005-2015.
Opium seizures along the northern route

Opium seizures in the northern route countries showed an increase until 2000, followed by a strong decrease until 2010 and more constant levels thereafter. The decline in opium seizures was far more pronounced than the decline in heroin seizures, suggesting a decrease in the importance of local opium markets in those countries. Nonetheless, the largest opium seizures over the period 1998-2015 were reported by Tajikistan, followed by Turkmenistan and Uzbekistan, all of which directly neighbour Afghanistan.
**Figure 29:** Opium seizures in northern route countries (kilograms) and as a proportion of global opium seizures, 2005-2015

![Graph showing opium seizures in northern route countries](image)

Sources: UNODC, responses to the annual report questionnaire; and government reports.

**Opiate seizures in Central Asian countries**

Although fluctuating strongly, opiate seizures in Central Asia showed an overall declining trend over the first decade of the new millennium (with opium seizures peaking in 2000, heroin seizures in 2003 and poppy plant seizures in 2004), followed by a stabilization in recent years. The decline in heroin seizures in Central Asia could be explained by decreasing opium production in northern Afghanistan, which might have resulted in lower levels of opiate trafficking to and via Central Asia and to the Russian Federation towards the end of the first decade of the new millennium and a stable trend thereafter. This situation could also be explained by a stable-to-declining trend in opiate use in the region (based on opiate treatment data) in the past five years. The decline since 2005 and recent stabilization in opium and poppy plant seizures reflect the decreasing domestic production of opium in the countries of Central Asia.
AFGHAN OPIATE TRAFFICKING ALONG THE NORTHERN ROUTE

**Figure 30:** Opiate seizure trends in Central Asia (kilograms), by drug type, 2005-2015

![Opiate seizure trends in Central Asia](image)

Sources: UNODC, responses to the annual report questionnaire; and government reports.

**Figure 31:** Distribution of opiate seizures in Central Asia, by opiate product, 2005-2015

![Distribution of opiate seizures](image)

Sources: UNODC, responses to the annual report questionnaire; and government reports.

Over the period 2011-2015, with an average of 2.3 tons per year, reported seizures of opium in Central Asia surpassed reported heroin seizures, which amounted to 1.7 tons per year. The geographical distribution of heroin seizures across Central Asia shows concentrations close to the border between Tajikistan and Afghanistan, as well as in the Fergana Valley (Tajikistan, Kyrgyzstan, Uzbekistan) and in Kazakhstan, close to the southern border in the Almaty area. Moreover, some concentrations can also be seen in Uzbekistan, near the border with Tajikistan. Finally, heroin seizures can be seen along the border between Kazakhstan and the Russian Federation.

Sources: UNODC, significant individual drug seizures; UNODC, Drugs Monitoring Platform.

The geographical distribution of opium seizures in Central Asia shows largely similar patterns to those of heroin seizures, except for the absence of opium seizures in most of Kazakhstan, other than close to the country's borders with Kyrgyzstan and Uzbekistan.
Map 12: Opium seizures in Central Asia, 2011-2015

Kazakhstan

The quantity of opiates seized (reported in heroin equivalents) in Kazakhstan over the period 2011-2015 was the second largest in Central Asia, after Tajikistan, and accounted for 26 per cent of all opiate seizures in Central Asia. Heroin seizures in Kazakhstan between 2011 and 2015 were largely reported in areas close to Kyrgyzstan, as well as in some of the border areas with the Russian Federation. Heroin seizures followed a similar pattern as the one found in Central Asia as a whole: a decline over the period 2008-2011, followed by an upward trend thereafter. Accounting for more than half of all opiate seizures in weight terms, opium and poppy plant seizures still played an important role in 2005, but the proportion had fallen to marginal levels by 2015. Decreasing opium and poppy plant seizures over the period 2005-2015 suggest that domestic opium production and consumption might have been declining. In recent years, opium seizures have been reported in regions close to Kyrgyzstan.
**Figure 32:** Seizures of opiates in Kazakhstan (kilograms), 2005-2015

Sources: UNODC, responses to the annual report questionnaire; and government reports.

**Figure 33:** Distribution of opiate seizures in Kazakhstan, by drug, 2005-2015

Sources: UNODC, responses to the annual report questionnaire; and government reports.
**Kyrgyzstan**

Kyrgyzstan accounted for 17 per cent of all opiate seizures (expressed in heroin equivalents) in Central Asia over the period 2011-2015; the fourth largest proportion of all opiate seizures in the Central Asian countries. The quantity of heroin seized in Kyrgyzstan remained stable over the period 2005-2015, although it rose slightly between 2012 and 2015, while seizures of opium decreased markedly, as did seizures of opium plants, albeit to an even greater extent. This is a significant development since it may indicate a sharp decline in opium cultivation.

**Figure 34:** Seizures of opiates in Kyrgyzstan (kilograms), 2005-2015

![Graph showing seizures of opiates in Kyrgyzstan](image)

Sources: UNODC, responses to the annual report questionnaire; and government reports.

**Figure 35:** Distribution of opiate seizures in Kyrgyzstan, by product, 2005-2015

![Graph showing distribution of opiate seizures in Kyrgyzstan](image)

Sources: UNODC, responses to the annual report questionnaire; and government reports.
Opium cultivation in Kyrgyzstan has existed since the 19th century and the country was the main licit supplier of opium to the pharmaceutical industry of the Soviet Union, supplying up to 16 per cent of global licitly produced opium from the mid-1940s to the mid-1970s. Small-scale illegal opium production continued well after the break-up of the Soviet Union; however, illegal opium production, mostly found in the Issyk-Kul region of northern Kyrgyzstan (close to Kazakhstan), seems to have decreased in importance in recent years. In parallel, according to Kyrgyz law enforcement, the smuggling of opium in Kyrgyzstan has also declined in importance, because it is more difficult to conceal than heroin. As a consequence, the proportion of heroin, which only accounted for some 10 per cent of opiate seizures (expressed in kg) in Kyrgyzstan in 2005, rose to almost 80 per cent of total Kyrgyz opiate seizures by 2015. Most of the heroin that enters the country is ultimately destined for the Russian Federation (70 per cent) and Kazakhstan (20 per cent), but a small proportion may also be destined for China (10 per cent).

**Tajikistan**

Tajikistan accounted for 34 per cent of all opiate seizures (expressed in heroin equivalent) in Central Asia over the period 2011-2015, the largest proportion of opiate seizures in any country in Central Asia. The country saw significant increases in opiate seizures, particularly of heroin, up to 2003, which decreased following the withdrawal of Russian border control troops in 2005. A decreasing trend in the quantities of both heroin and opium intercepted in Tajikistan came to an end in 2011, with the former stabilizing and the latter starting to increase. Data also show that morphine seizures are almost non-existent in Tajikistan, unlike in other countries neighbouring Afghanistan, such as the Islamic Republic of Iran and Pakistan.

**Figure 36: Seizures of opiates in Tajikistan (kilograms), 2005-2015**

Sources: UNODC, significant individual drug seizures; UNODC, Drugs Monitoring Platform.

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82 UNODC, responses to the annual report questionnaire, 2015.

83 N15 Interview with Kyrgyz government department, Bishkek, 2016.

84 UNODC, responses to the annual report questionnaire, 2013.
In terms of quantity, more opium than heroin was seized in Tajikistan over the period 2011-2015. The increase in opiate seizures reported by Tajikistan in recent years is possibly linked to an increase in opium production in northern Afghanistan. This may indicate that the bulk of opiates trafficked along the northern route seems to enter Tajikistan before onward trafficking to other consumer markets in Central Asia and the Russian Federation. However, it may also result from an increased targeting of opiate trafficking by law enforcement agencies in Tajikistan.

Turkmenistan

The trafficking of opiates from Afghanistan via Turkmenistan to other Central Asian countries and the Russian Federation is currently limited. In 2015, for example, Turkmenistan was the only country in Central Asia not reported by the Russian Federation to be among the key transit countries for shipments of opiates trafficked from Afghanistan to the Russian Federation; a decade earlier, by contrast, Turkmenistan was regularly mentioned as a key transit country.

Turkmenistan accounted for just 3 per cent of average annual opiate seizures (expressed in heroin equivalents) in Central Asia over the period 2011-2015 — a very low proportion considering that Turkmenistan’s joint border with Afghanistan is 740 km in length. Accounting for more than 90 per cent of opiate seizures over the period 2011-2015, opiates seized in Turkmenistan are mostly in the form of opium. Both opium and heroin seizures have declined significantly over the past decade, with opium seizures demonstrating a significant decline over the period 2006-2015. Heroin seizures also experienced a significant decline between 2009 and 2015.

Sources: UNODC, responses to the annual report questionnaire; and government reports.
In contrast to patterns found in some other countries in Central Asia, the downward trend in both opium and heroin seizures over the period 2011-2015 was not reversed, despite significant increases in opium production in the Afghan provinces bordering Turkmenistan. In 2015, Badghis province emerged as Afghanistan’s fourth largest opium-producing province, and became the second largest in 2016 then the third largest in 2017. Yet the massive increase in cultivation in a province that borders Turkmenistan was not matched by opiate seizures in that country.

In the future, Turkmenistan may thus become particularly vulnerable to attempts by drug traffickers to smuggle Afghan opiates across its border, for onward trafficking to other countries in Central Asia, notably Uzbekistan (where heroin is already seized close to the Turkmenistan/Uzbekistan border), as well as via the Caspian Sea to the Russian Federation and/or Azerbaijan, for onward trafficking to Georgia and across the Black Sea to Europe. Heroin seizures in the Afghan provinces bordering Turkmenistan suggest that cross-border trafficking between Afghanistan and Turkmenistan may go undetected. Seizures in 2014 suggested that most of the heroin entering Turkmenistan is smuggled directly from Afghanistan (70 per cent), while the rest transits the Islamic Republic of Iran beforehand.86

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86 UNODC, responses to the annual report questionnaire, 2014.
Figure 39: Distribution of opiate seizures in Turkmenistan, by drug, 2005-2015

Sources: UNODC, responses to the annual report questionnaire; and government reports.

Uzbekistan

Opiate seizures made in Uzbekistan over the period 2011-2015 (expressed in heroin equivalents) accounted for 20 per cent of all opiate seizures made in Central Asia, the third highest proportion among the Central Asian countries. However, the quantity of opiates seized, particularly of heroin, decreased in Uzbekistan between 2008 and 2015; a decline that could have been caused either by changes in the priorities of law enforcement or a decrease in heroin trafficking through Uzbekistan.
"The declining trend in heroin seizures in Uzbekistan between 2008 and 2011 went in line with trends seen in Tajikistan and in Central Asia as a whole, and probably has a similar explanation (for example, a drop in opium production in northern Afghanistan from 2005 to 2010). The subsequent decrease in heroin seizures over the period 2011 to 2013, by contrast, was specific to Uzbekistan. Uzbek officials see this decrease largely as a consequence of better interdiction at the country's borders (particularly the border with Afghanistan) and within the country, which helped to reduce the flow of heroin trafficking via Uzbekistan."

The border between Uzbekistan and Afghanistan is not only much shorter than the border between Tajikistan and Afghanistan, it is also heavily guarded. Barbed wire and electrified barbed-wire fences, land mines and

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87 N19 Interview with Uzbek law enforcement organization, Tashkent, 2016.
regular patrols by Uzbek border guards dissuade drug trafficking from Afghanistan. Most of the opiates that enter Uzbekistan do not, therefore, enter the country directly from Afghanistan, but appear to transit Tajikistan before doing so. According to Tajik law enforcement, Uzbekistan is not, however, the primary target of traffickers operating on its territory, with traffickers focusing on either Kazakhstan or Kyrgyzstan as the next step for drug shipments that are ultimately destined for the Russian Federation; Tajik law enforcement reports only an “insignificant outflow” of heroin from Tajikistan towards Uzbekistan.\textsuperscript{88} Although heroin seizures have declined in Uzbekistan, opium seizures have remained relatively constant, reflecting a steady demand for opium, which is mostly consumed locally.

Seizures of opioids in the Russian Federation

In the Russian Federation, most opiates seized are in the form of heroin, followed by poppy straw and, in far smaller quantities, opium and “other opioids”. Seizures of poppy plants (poppy straw) have undergone a decline over the past decade, especially between 2011 and 2015, likely reflecting lower levels of illicit cultivation of opium poppy in the Russian Federation in recent years. Nevertheless, some poppy straw cultivated in the Russian Federation continues to be used in the production of local versions of “kompot” and “Polish heroin” (see chapter 1). Used as a less potent substitute for heroin, “kompot” is used in all the countries of the former Soviet Union,\textsuperscript{89} although its popularity tends to decline whenever sufficient quantities of heroin are available on the market.

![Figure 42: Quantities of opioids seized in the Russian Federation, (kilograms) 2005-2015](image)

Source: UNODC, responses to the annual report questionnaire.

Although seizures of heroin in the Russian Federation fluctuated over the period 2005-2015, they also showed a downward trend. Similar to patterns found in Central Asia, heroin seizures declined between 2008 and 2011 but increased significantly up to 2014, when they were clearly larger than in the countries of Central Asia, before decreasing in 2015 to the level reported in 2011 (less than half the level reported in 2005). The decline in opium seizures in the Russian Federation over the period 2005-2015 was even more pronounced, suggesting that the local market for opium shrank rapidly over that decade. Seizures of morphine also fell and remained at marginal

\textsuperscript{88} N09 Interview with Tajik government department, Dushanbe, 2016, N07 Interview with Tajik government department, Dushanbe, 2016.

levels between 2011 and 2015. The decrease in opiate trafficking to the Russian Federation could be explained by a stable-to-declining trend in opiate use (based on opiate treatment data) as well as the increasing demand for synthetic drugs.

**Figure 43**: Distribution of opioid seizures in the Russian Federation, by drug (2011-2015)

Data from the Russian Federation covering the period 2011-2015 show several concentrations of heroin seizures in the border areas with Kazakhstan, the border areas with the Caucasus countries, the areas in and around Moscow and, to a lesser extent, in and around St. Petersburg and other big cities in the European part of the Russian Federation. The border areas with Ukraine, Belarus and the Baltic States, as well as a number of towns in southern Siberia, across to the Pacific coast at Vladivostok, also had concentrations of heroin seizures.

Pharmaceutical opioids in the Russian Federation

The diversion of pharmaceutical opioids and the illicit manufacture of opioids such as desomorphine (also known as "krokodil") from licitly available pharmaceuticals has in the past led to increasing problems in the Russian Federation. In 2003, the Russian Federation reported that heroin users had started experimenting with the injecting use of "Krokodil", clandestinely manufactured from codeine pills. Injecting "Krokodil" resulted in the rapid deterioration in the health of already highly vulnerable heroin users. This situation lasted until 2012 when new legislation, restricting the sale of over-the-counter pharmaceutical products containing codeine, came into place, which helped to significantly reduce the problem.

In addition to desomorphine, there were also increases in seizures of methadone, tramadol and, potentially most alarmingly, of 3-methylfentanyl, a fentanyl analogue and opioid analgesic, and one of the most potent drugs to have re-emerged in recent years in several countries that were part of the former Soviet Union, including the Russian Federation in 2011. Originally discovered in the 1970s, 3-methylfentanyl is 10-15 times more potent than fentanyl and between 400 and 6,000 times more potent than heroin.

Desomorphine ("krokodil")

Produced out of locally available (over the counter) medicine, Desomorphine, also known as "krokodil", can have extremely problematic health consequences. Although first synthesized in the United States in 1952, initial reports of clandestine manufacture of desomorphine in the Russian Federation came from Siberia in 2003. Production and use of "krokodil" expanded from 2003, notably during a subsequent period of heroin shortage on the Russian market (2008-2011), which prompted a number of heroin users to experiment with alternatives. The sale of pharmaceutical products used for the preparation of "krokodil" was restricted in June 2012, which led to an estimated 30-fold decrease in desomorphine consumption in the Russian Federation. The quantity of desomorphine seized fell sharply from around 100 kg in 2011 and 2012 to 1.3 kg in 2014 and 0.6 kg in 2015.

times stronger than morphine (depending on the isomer used). One gram of 3-methylfentanyl can be sufficient to produce several thousand dosage units. However, given the difficulties in appropriately dosing such a powerful drug, its use is extremely dangerous and prone to result in drug-related overdose deaths.

Figure 44: Seizures of pharmaceutical opioids seized in the Russian Federation, by drug (kilograms), 2010-2015

Source: UNODC, responses to the annual report questionnaire.

Opiate prices and purity along the northern route

Some opiate trafficking does occur within Afghanistan, suggesting that not all of the opiates trafficked into Central Asia originate in northern Afghanistan. Nonetheless, given the generally higher price of opiates in the Islamic Republic of Iran than in Tajikistan, the purely financial incentives for drug traffickers to ship opiates from southern Afghanistan (where the bulk of opium is produced) to Central Asia may not be particularly strong. In 2015, a kilogram of opium was reported to cost, on average, $850 per kilogram (range: $530-$1,100) in the Islamic Republic of Iran, compared with $550 in Tajikistan (range: $400-$700). Similarly, within Afghanistan, opium prices tend to be lower in northern Afghanistan, bordering Tajikistan, and much higher in the western provinces, bordering the Islamic Republic of Iran. In December 2015, while the dry opium price in northern Afghanistan, as reported by traders, ranged from $112 per kilogram in Badakhshan to $144 per kilogram in Kunduz, the price in western

91 UNODC, responses to the annual report questionnaire.
Afghanistan, bordering the Islamic Republic of Iran, ranged from $249 per kilogram in Farah to $264 per kilogram in Herat, twice the price in northern Afghanistan. This pattern of a far lower price in northern Afghanistan than in western Afghanistan could be identified throughout the period 2005-2015.  

Additionally, the decline in the value of the Russian rouble from the second half of 2014 might also have had an impact on local currencies which affected opiate traffickers in Central Asia.

**Overview of heroin prices along the northern route**

The price of heroin at both the retail and wholesale level is lower in Afghanistan and nearby countries, such as Tajikistan and Kyrgyzstan, than further along the northern route in Kazakhstan and the Russian Federation. In 2015, the wholesale price of heroin increased by over 550 per cent (6.5-fold increase) between production in Afghanistan and the main destination market, the Russian Federation. However, once adjusted for purity (using Tajikistan retail purity in the absence of data on the purity of heroin in Afghanistan), the mark-up was nearly double that, with a 9.6-fold increase in the purity-adjusted price of heroin at the wholesale level in Afghanistan and the Russian Federation in 2015. Wholesale prices in different northern route countries may also be a function of a country's distance from Afghanistan, as well as the quantity of opiates smuggled (quantity discount) and the risk involved.

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Map 14: Price of heroin at the wholesale level (United States dollars per kilogram), 2015 (or latest year available)

Wholesale prices also vary within countries, depending on the smuggling route. For example, in Kyrgyzstan, there is some difference in the wholesale prices of heroin in the south and in the north of the country. According to interviews with Kyrgyz law enforcement, heroin smuggled by Kyrgyz traffickers on the Tajik side of the border, cost around $5,000 per kilogram in 2016, although this could have been as high as $6,000 in the south of the country (Osh, Batken and Jalal-Abad) and up to $10,000 in the capital, Bishkek.

Sources: UNODC, responses to the annual report questionnaire; and other officially reported data.

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Dashed lines represent undetermined boundaries. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

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In Kazakhstan, the wholesale heroin price more than doubled between 2011 and 2015, according to prices officially reported to UNODC. Interviews with Kazakh law enforcement noted that the wholesale price of heroin had increased 5-fold in seven years, from $3,000 per kilogram in the southern provinces of Kazakhstan in 2007-2008, to between $18,000 and $20,000 per kilogram in 2014. This increase in price may, in part, be explained by the devaluation of the rouble in mid-2014 and the subsequent impact that had on regional currencies.

Wholesale prices of heroin in Uzbekistan and Turkmenistan are difficult to analyse in relation to prices in neighbouring countries because of limited data. In 2015, the typical price of a kilogram of heroin at the wholesale level in Uzbekistan, although declining, stood at around $22,500 (range: $15,000-30,000) per kilogram, slightly higher than in the Russian Federation, the main destination market. According to Uzbek law enforcement, wholesale prices of heroin in Uzbekistan, which are higher than in Tajikistan, Kyrgyzstan and Kazakhstan, are explained by a decrease in the availability of the product resulting from the closed-border policy with Afghanistan and the increase in anti-narcotics controls on the Kyrgyz side of the border. Uzbek law enforcement explains that the decrease in seizures in recent years is the result of increasing law enforcement pressure on...

* The wholesale price in the Russian Federation in 2011 was calculated based on the price reported per 100 g and thus may not account for quantity discount.

Note: typical price or middle point between minimum and maximum reported prices.

Sources: UNODC, responses to the annual report questionnaire; and other officially reported data.

98 N02 Interview with Kazakh government department, Astana, 2016.
DTOs, making opiates on the market scarce and leading to an increase in prices.\textsuperscript{100} A potential increase in law enforcement pressure may encourage DTOs to avoid smuggling heroin through Uzbekistan, although with the price of heroin being so high in the country, the domestic Uzbek market is becoming a lucrative market in its own right.

The most recent data on heroin prices in Turkmenistan date from 2012 and show a typical price per kilogram of $188,400 (range: $122,800-254,000). This is over eight times the reported price of $23,000 (range: $14,000-32,000) in 2007. In the absence of more detailed data, it is difficult to assess the current price situation in Turkmenistan. The continuing increase in wholesale prices of opiates in Turkmenistan and their comparatively high level in Central Asia may be due to the impermeability of Turkmenistan’s borders, which makes trafficking particularly risky.

With an increase of 640 per cent (7.4-fold increase), the mark-up in the price of heroin at the retail level between its origin in Afghanistan and destination in the Russian Federation is slightly higher than at the wholesale level. However, once adjusted for purity (using Tajikistan retail purity in the absence of data on the purity of heroin in Afghanistan) the mark up becomes much higher, with a 17.8-fold increase in the price of heroin at the retail level between Afghanistan and the Russian Federation. However, the retail price of heroin along much of the northern route is broadly within the same order of magnitude, ranging from $20 to $36 per gram. Turkmenistan being, once again, the exception, with a retail value of $245.00 per gram.

**Map 15:** Price of heroin at the retail level (United States dollars per gram), 2015 (or latest year available)

\textsuperscript{100}N19 Interview with Uzbek law enforcement organization, Tashkent, 2016
Figure 46: Retail price of heroin (United States dollars gram), 2011-2015

Note: typical price or middle point between minimum and maximum reported prices.
Sources: UNODC, responses to the annual report questionnaire; and other officially reported data.
Heroin purity along the northern route

The limited data available on the purity of heroin seem to confirm that traffickers “cut” the product along the supply chain, in each segment of the northern route, in order to increase their profit. At both the wholesale and retail level, heroin purity seems to decrease the further from production and the closer to the consumption markets it gets. Purity data suggest that the cutting of heroin mostly occurs after transiting Tajikistan and before reaching the Russian Federation. Data on price and purity confirm the importance of the Russian market as a profitable market characterized by comparatively high prices and low purity of heroin. The Russian Federation is also the main market supplied by Afghan opiates trafficked along the northern route.
Figure 48: Wholesale purity of heroin trafficked along the northern route, 2015 or latest available year

Note: In Tajikistan, the typical price refers to the middle point between the lower and upper bounds of the typical range. Sources: UNODC, responses to the annual report questionnaire; and other officially reported data.

Figure 49: Wholesale purity of heroin in Tajikistan, 2011-2015

Note: The typical price refers to the middle point between the lower and upper bounds of the typical range. Sources: UNODC, responses to the annual report questionnaire; and other officially reported data.
Figure 50: Retail purity of heroin trafficked along the northern route, 2015 or latest available

Note: In Tajikistan, the typical price refers to the middle point between the lower and upper bounds of the typical range.
Sources: UNODC, responses to the annual report questionnaire; and other officially reported data.

Figure 51: Retail purity of heroin in Tajikistan, 2011-2015

Note: The typical price refers to the middle point between the lower and upper bounds of the typical range.
Sources: UNODC, responses to the annual report questionnaire; and other officially reported data.

III Flow of opiates through the northern route
III. FLOW OF OPIATES ALONG THE NORTHERN ROUTE

Part of the opium produced in Afghanistan each year is exported to supply markets along the Balkan, northern and southern routes, either in the form of opium or, once it has been processed, in the form of heroin (or morphine). Estimating the overall size of the flows of opiates that leave Afghanistan along each of those three trafficking routes is a considerable challenge. In the absence of good estimates of the estimated share of Afghan opiates trafficked along each route, the use of a supply-based approach is difficult. The alternative is to use a demand-based approach whereby the flow of opiates is assumed to be the sum of the total amount of opiates consumed along the route, including in destination markets, and of the total amount of opiates that do not find their way to the markets along the route during the period of reference. The latter is because they are seized, stocked in inventories or end up in other markets outside the trafficking route in question.

When estimating the overall flow of Afghan opiates along the northern route, it is assumed that while there may be some transit to/from other markets beyond those in Central Asia and the Russian Federation, these flows are minimal and are thus ignored in the calculations. It is also assumed that the quantities either stocked in inventories or consumed from inventories constituted in previous years, even out over time (i.e., over the five-year period of the calculation). Indeed, in order to discount for peaks and lows in seizures, this approach considers a five-year period of reference (i.e., estimates of the overall flow of opiates trafficked along the northern route are shown as an annual average over the period 2011-2015).

There is no evidence to suggest that substantial quantities of opium are trafficked out of Afghanistan and transformed into heroin along the northern route in Central Asian countries or in the Russian Federation (see chapter 1). There are seizures of opium and poppy straw along the northern route, some of which may originate in Afghanistan (though some also appear to come from small-scale domestic production within Central Asia), but there are no reliable data to estimate the consumption of opium along the northern route. Consequently, both consumption and seizures of opium along the route are excluded from the calculation of the flows of opiates out of Afghanistan, which ultimately only considers heroin (and morphine, although the latter is hardly noticeable in overall opiate seizures).

Consumption of opiates along the northern route

Estimating the number of opiate users in Central Asia and the Russian Federation relies on indirect methods. The prevalence data on opiate use presented in the World Drug Report are based on two studies: a UNODC assessment conducted in 2006 in four countries in Central Asia (Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan); and a study...
conducted in 2012 by the National Addiction Research Centre in the Russian Federation. These studies estimated
the number of problem drug users based on multipliers (the share of users having experienced an event) and their
application to benchmark data available on these events; the prevalence rate derived from that number of users
was used in the *World Drug Report* up until 2016. For the purposes of this report and the *World Drug Report 2017*,
a renewed attempt has been made to update the existing estimates. Assuming that, overall, the identified multipliers
established earlier have remained unchanged, and considering recent available data on benchmark indicators (per-
sons arrested for drug offences, persons treated and persons registered for drug abuse) UNODC has arrived at a new
set of estimates.\(^{101}\)

**Figure 52:** Estimated number of people with opiate use problems in Central Asia and in the
Russian Federation, 2011-2015

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Best estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Asia</td>
<td>357,899</td>
<td>448,305</td>
<td>405,682</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>1,416,639</td>
<td>1,416,639</td>
<td>1,416,639</td>
</tr>
</tbody>
</table>

(source: UNODC elaborations (see detailed methodology in Annex 4 of this report)).

Studies that produce information on per-capita consumption of drugs (i.e., the quantity of specific drugs used per user
on an annual basis) are rare. One study, conducted in 2008 in selected treatment centres in Central Asia by UNODC
Regional Office for Central Asia, produced such data.\(^{102}\) This study suggested an average consumption among opiate
users of between 1 and 1.5 g of heroin per day. Once purity was taken into account (assumed at 5.5-10.4% based
on 2011 data from Tajikistan) and the results adjusted for an estimated average consumption of 300 days per year,
the resulting per-capita consumption of pure heroin in Central Asia ranged between 16.5 g and 47.0 g, with a best
estimate of 31.8 g per year.

In the Russian Federation, two studies produced data on per-capita consumption of heroin. The first, implemented
jointly in 2009 by the National Research Centre on Drug Addiction (NRC) of the Federal Agency on Health and Social
Development of the Russian Federation, and UNODC country office in the Russian Federation, suggested an average
daily use of heroin of 1.87 g. Once, purity was taken into account and the results adjusted for an estimated average
consumption of 300 days per year, the resulting per-capita consumption of pure heroin in the Russian Federation
amounted to 28.05 g per year.

The second, a multi-city study conducted by the European Centre for Social Welfare Policy and Research, under the
supervision of UNODC, produced various estimates of per-capita consumption in two waves, the second of which,
over the period 2009-2011, included Moscow. Per-capita consumption of both brown and white heroin was estimated
separately, as well as from reported consumption and reported expenditure. Once a number of factors were taken into
account (for example, purity, over-reporting of monthly consumption) and an average between the different estimates
obtained, the estimated per-capita consumption of pure heroin in Moscow ranged between 25.7 g and 35.6 g, with a
best estimate of 30.8 g per year. The results from Moscow turned out to be lower than the European average derived
from the same study (overall average: 39 g; range: 30.5-48.2 g of pure heroin per year), although they were generally
in line with data from some other European cities that took part in this exercise.

For the purpose of this report, per-capita consumption of heroin in the Russian Federation has been estimated by av-
eraging the estimates from the 2009 study in Russian treatment centres and the 2009-2011 Moscow study, resulting
in an overall per-capita consumption of pure heroin of 29.4 g per year (range: 25.7-35.6 g).

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\(^{101}\) For details on the methodology used and data sources, see Annex 3 of this report.

**Figure 53:** Estimated consumption* of heroin (100 per cent pure equivalents) in Central Asia and the Russian Federation, annual average 2011-2015 (tons)

<table>
<thead>
<tr>
<th>Country</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Best estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Asia</td>
<td>5.9</td>
<td>21.1</td>
<td>12.9</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>36.4</td>
<td>50.4</td>
<td>41.7</td>
</tr>
</tbody>
</table>

* For countries in Central Asia, per-capita consumption was imputed as 31.8 g of pure heroin per year (range: 16.5-47.0 g); for the Russian Federation, per-capita consumption was imputed as 29.4 g of pure heroin per year (range: 25.7-35.6 g).


**Seizures**

The total quantities of heroin and morphine intercepted over the period 2011-2015 suggest an annual average of 1.5 tons seized in Central Asia over that five-year period and 2.4 tons seized in the Russian Federation (equivalent respectively to 401 kg and 594 kg in 100 per cent pure heroin equivalents); morphine seizures accounted for around 0.1 per cent of the total.

**Figure 54:** Seizures of heroin and morphine (kilograms), 2011-2015

<table>
<thead>
<tr>
<th>Country</th>
<th>Annual average 2011-2015</th>
<th>100 per cent pure equivalent estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Best</td>
<td>Min</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>517.06</td>
<td>519.14</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>306.70</td>
<td>306.73</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>622.20</td>
<td>261.50</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>332.32</td>
<td>241.95</td>
</tr>
<tr>
<td>Turkmenistan</td>
<td>39.19</td>
<td>14.88</td>
</tr>
<tr>
<td>Central Asia total</td>
<td>1,817.47</td>
<td>1,344.20</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>2,015.68</td>
<td>2,181.10</td>
</tr>
<tr>
<td>Total along the northern route</td>
<td>3,833.15</td>
<td>3,525.30</td>
</tr>
</tbody>
</table>

*Purity estimates are based on an average of the data available over the period 2011-2015 at the country level; where purity was not reported, (Turkmenistan, Uzbekistan), the unweighted sub-regional average was used as a proxy (see Annex 3 of this report for further details).

Sources: UNODC elaboration based on responses to the annual report questionnaire and government data. See Annex 3 of this report for further details.
Trafficking flows

Following the model outlined earlier (demand-based approach), the calculation of the annual flow of opiates is assumed to be the sum of the total quantity of opiates (excluding opium) consumed along the route and of the total quantity of opiates (excluding opium) seized. The estimates obtained suggest that 54.65 tons of heroin (expressed at 100 per cent purity) enter the northern route (range: 42.5-74.5 tons) annually. Some heroin is trafficked outside the northern route, and is lost in transit; however, there are no reliable data as to how much that may be, and such an estimation remains beyond the scope of this study.

Figure 55: Estimated flow of heroin (and morphine) trafficked along the northern route (annual average, 2011-2015)

<table>
<thead>
<tr>
<th></th>
<th>Russian Federation</th>
<th>Central Asia</th>
<th>Total along the northern route</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of users: best estimate</td>
<td>1,416,600</td>
<td>405700</td>
<td>-</td>
</tr>
<tr>
<td>- Minimum</td>
<td>1,416,600</td>
<td>357,900</td>
<td>-</td>
</tr>
<tr>
<td>- Maximum</td>
<td>1,416,600</td>
<td>448,300</td>
<td>-</td>
</tr>
<tr>
<td>Annual per-capita consumption (100 per cent pure heroin equivalents) in grams: best estimate</td>
<td>29.4</td>
<td>31.8</td>
<td>-</td>
</tr>
<tr>
<td>- Minimum</td>
<td>25.7</td>
<td>16.5</td>
<td>-</td>
</tr>
<tr>
<td>- Maximum</td>
<td>35.6</td>
<td>47.0</td>
<td>-</td>
</tr>
<tr>
<td>Consumption (100 per cent pure heroin equivalents) in tons: best estimate</td>
<td>41.7</td>
<td>12.9</td>
<td>54.6</td>
</tr>
<tr>
<td>- Minimum</td>
<td>36.4</td>
<td>5.9</td>
<td>42.3</td>
</tr>
<tr>
<td>- Maximum</td>
<td>50.4</td>
<td>21.1</td>
<td>71.5</td>
</tr>
<tr>
<td>Seizures (100 per cent pure heroin equivalents), annual average 2011-2015, in tons: best estimate</td>
<td>0.59</td>
<td>0.40</td>
<td>0.99</td>
</tr>
<tr>
<td>- Minimum</td>
<td>0.04</td>
<td>0.18</td>
<td>0.21</td>
</tr>
<tr>
<td>- Maximum</td>
<td>1.66</td>
<td>1.30</td>
<td>2.97</td>
</tr>
<tr>
<td>Total (100 per cent pure heroin equivalents): best estimate</td>
<td>42.3</td>
<td>13.3</td>
<td>55.6</td>
</tr>
<tr>
<td>- Minimum</td>
<td>36.4</td>
<td>6.1</td>
<td>42.5</td>
</tr>
<tr>
<td>- Maximum</td>
<td>52.1</td>
<td>22.4</td>
<td>74.5</td>
</tr>
</tbody>
</table>

Sources: UNODC elaborations based on responses to the annual report questionnaire; Addiction, Crime and Insurgency, the Transnational Threat of Afghan Opium; UNODC, World Drug Report 2016 (Vienna, 2016); European Centre for Social Welfare Policy and Research, “Second Multi-City Study on Quantities and Financing of Illicit Drug Consumption” (on behalf of UNODC), Vienna 2015.

Findings suggest that most of the Afghan heroin trafficked along the northern route are destined for the Russian Federation. Out of the total inflow of Afghan heroin along the northern route, estimated at 42.5-74.5 tons (expressed in 100 per cent pure equivalent), about three quarters transit Central Asia to end up in the Russian Federation, mostly to supply domestic demand, while the remainder remain in Central Asia. Most of the opiates trafficked along the northern route, whether to Central Asia or the Russian Federation, end up on domestic markets while comparatively very little are intercepted. The large ranges in the estimates mostly reflect the large variation in the per-capita consumption estimates.
IV. OPIATE TRAFFICKING SUB-ROUTES ALONG THE NORTHERN ROUTE

Northern Afghanistan: a heroin hub

Opiate trafficking is widespread throughout Afghanistan, with drug traffickers using prominent transport routes across all regions of the country.103 Within the country, interprovincial opiate flows to northern Afghanistan occur along multiple trajectories, making analysis of those routes difficult. This issue is compounded by a lack of reliable data to analyse changes in trafficking routes.

Map 16: Interprovincial opiate trafficking flows in Afghanistan

Opiate production in northern Afghanistan is not sufficient to meet the local demand for opiates in that part of the country as well as the demand from Central Asia and the Russian Federation. Opiates from southern, eastern and western Afghanistan must therefore flow north, although available data for determining the quantities that do so are limited. During field interviews conducted in 2016, Afghan officials and a foreign law enforcement organization suggested that some of the opium produced in Badghis province in western Afghanistan supplied the market in Turkmenistan.104 It is likely, however, that much of the opium produced in that province is trafficked within Afghanistan for consumption

104 N21 Interview with Afghan official, Kabul, 2016; N30 Interview with foreign law enforcement organization, Kabul, 2016.
or processing into heroin. Other sources have reported a general movement of opiates from the south to the north of the country,\textsuperscript{105} as well as from Nangarhar province in the east to Badakhshan province in the north.\textsuperscript{106} Afghan officials have also reported a major trafficking route from Badakhshan province along the Mazar-Shebergan-Maymana highway to Badghis province.\textsuperscript{107} Afghan officials interviewed in 2016 also reported that Badakhshan province is an important part of the supply chain for the Kabul opiate market, and gave the example of a public official who was arrested while trafficking 160 kg of heroin from Badakhshan to Kabul in a vehicle.\textsuperscript{108} Additional trafficking from the north to the south reportedly occurs along the National Ring Road, which transits Kabul before moving into southern Afghanistan.\textsuperscript{109}

Although Badakhshan, Faryab and Balkh are the major poppy-producing provinces in northern Afghanistan,\textsuperscript{110} other provinces in northern Afghanistan are key to wider trafficking activity. Takhar province is a known transit route for opiates leaving Badakhshan province, while Kunduz province is used as a transit and storage area due to its pivotal role as a major transport hub within northern Afghanistan.\textsuperscript{111} Road networks in Kunduz province link Kunduz city with Mazar-e Sharif in Balkh province and with Pol-e-Khumri in Baghlan province and are connected with neighbouring Tajikistan, including Dushanbe.\textsuperscript{112} Baghlan province is also a major transit hub, where opiates are reportedly trafficked to central, southern and eastern Afghanistan.\textsuperscript{113} The strategic Salang tunnel, a major transportation route connecting northern Afghanistan to Kabul, via the Salang Pass through the Hindu Kush mountain range, is also located between Baghlan and Parwan provinces.\textsuperscript{114}

**Map 17:** Location of heroin seizures in northern Afghanistan, 2011-2015

![Map of heroin seizures in northern Afghanistan](image)

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Dashed lines represent undetermined boundaries. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

Sources: UNODC, significant individual drug seizures; UNODC, Drugs Monitoring Platform (based on official and media sources).

\textsuperscript{105} N30 Interview with foreign law enforcement organization, Kabul, 2016.
\textsuperscript{106} Presentation by the Afghan Ministry of Public Health at AOTP Technical Meeting, Vienna, 10 June 2016.
\textsuperscript{107} Presentation by the Afghan Ministry of Public Health at AOTP Technical Meeting, Vienna, 10 June 2016; N21 Interview with Afghan official, Kabul, 2016.
\textsuperscript{108} N21 Interview with Afghan official, Kabul, 2016; N26 Interview with Afghan official in Kabul, 2016.
\textsuperscript{109} N30 Interview with foreign law enforcement organization, Kabul, 2016.
\textsuperscript{111} N30 Interview with foreign law enforcement organization, Kabul, 2016.
\textsuperscript{112} N30 Interview with foreign law enforcement organization, Kabul, 2016.
\textsuperscript{113} N30 Interview with foreign law enforcement organization, Kabul, 2016.
Heroin seizures in northern Afghanistan primarily occur along major highways and in significant urban centres such as Mazar-e Sharif and Kunduz city. This reflects the presence and greater capacity of law enforcement units and government authority in the cities and along the main transit routes. Only a limited number of seizures appear to take place at the border crossings between northern Afghanistan and Central Asia. In part, this is due to the remoteness of those border crossings, but may reflect possible corrupt activity that facilitates the trade at the border, enabling trafficking activity to remain undetected.

Likewise, the majority of opium seizures in northern Afghanistan also appear to take place along major highways and in urban centres. Seizures in Baghlan province are clustered along the main highway leading south to Kabul via the Salang tunnel, indicating opium flows between northern Afghanistan and central and southern Afghanistan. Opium produced in Afghanistan has been reported by Central Asian countries, particularly Tajikistan, as being trafficked into their territory, although as with heroin, there are limited numbers of seizures of opium at the border crossings between Afghanistan and Central Asia. Despite these cross-border opiate flows, some of the opium produced in northern Afghanistan remains in Afghanistan for consumption or processing into heroin, rather than being trafficked along the northern route.

Map 18: Location of opium seizures in northern Afghanistan, 2011-2015

2011 - 2015
Opium seizures (kg)
- < 1
- 2 - 10
- 11 - 50
- 51 - 100
- 101 - 500
- > 500

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Dashed lines represent undetermined boundaries. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

Sources UNODC, significant individual drug seizures; UNODC, Drugs Monitoring Platform (based on official and media sources).

The trafficking picture is, however, made less clear by reports of opiates produced in northern Afghanistan also being shipped to other parts of the country. Historically, southern-based traffickers sourced opium from Badakhshan and trafficked it from northern Afghanistan to southern Afghanistan. Well used transit routes through Ghor province, based on longstanding livestock trails, were used as far back as 1998 by Helmandi traffickers to move opium from northern Afghanistan to southern Afghanistan, at a time when Afghanistan’s regions were not as well-integrated as they are now.

115 MCN, Afghan Interprovincial Opiate Trafficking Dynamics, November 2013; N21 Interview with Afghan official, Kabul 2016; N22 Interview with Afghan official, Kabul, 2016; N28 Interview with Afghan official, Kabul, 2016; N30 Interview with foreign law enforcement organization, Kabul, 2016.
Overview of trafficking routes through Central Asia

The northern route refers to the network of roads, rail and other transport infrastructure connecting Afghanistan, via Central Asia, to the Russian Federation. Each Central Asian country along the northern route is both a consumer country and a transit country, but of all the countries on the route, the Russian Federation is the largest consumer market, where the majority of opiates are sold to final consumers.

Based on seizures, it would seem that opiates are primarily smuggled from Afghanistan into Tajikistan and, to a lesser extent, Uzbekistan and Turkmenistan, and then on to Kazakhstan. However, this may also result from law enforcement targeting. The largest quantities of opiates intercepted follow land transit routes from Tajikistan to Kyrgyzstan, Kazakhstan and into the Russian Federation. Occasionally heroin is also trafficked into the Russian Federation by air from various airports in Central Asia, although this is much less common than trafficking by land. Like licit goods, drug shipments require substantial infrastructure to reach markets in the form of road, rail, sea and air transportation facilities. This infrastructure broadly determines the nature of drug smuggling activity along the northern route. Drug flows along the northern route generally follow key road networks but specific routes are not constant. They are flexible and move in response to the pressure of law enforcement or major geo-political changes in a given country or region.

Map 19: Main opiate trafficking routes through Central Asia to the Russian Federation

Sources: UNODC, significant individual drug seizures; UNODC, Drugs Monitoring Platform (based on official and media sources); and interviews.

Based on seizure locations and interviews with law enforcement, it would seem that the main heroin trafficking route from Afghanistan to the Russian Federation crosses Tajikistan, Kyrgyzstan and Kazakhstan; this route is sometimes called the “north-eastern route”. An important though less well used route is the Afghan-Tajik-Uzbek-Kazakh route, also called the “central route”. There are a number of variations of these routes, some for instance going directly from Afghanistan to Central Asia without passing through Tajikistan. A third route, the “north-western route” appears to cross from Afghanistan into Turkmenistan; although there
is a lack of recent seizure data to support its existence, this route may still be active. Seizures in Azerbaijan also suggest that heroin and other opiate products may enter the Russian Federation from its southern border in the Caucasus, via Turkmenistan or Islamic Republic of Iran, but this is more likely to be a variation of the Balkan route than part of the northern route.\textsuperscript{117}

Within the Russian Federation, Afghan heroin is mainly trafficked to three drug trafficking hubs: the Moscow area, the area around Perm and Yekaterinburg and the area around Novosibirsk and Irkutsk. From those hubs, heroin shipments are repackaged and distributed to large consumer markets in the Russian Federation, including oil- and gas-rich Western Siberia, the Russian Far East and the European part of the Russian Federation. A very small proportion of heroin may be smuggled beyond the Russian Federation to the European Union.

Tajikistan: principal northern exit point for Afghan opiates

At 1,344 km in length,\textsuperscript{118} the Tajik-Afghan border mostly follows the Panj river, a tributary of one of the largest rivers in Central Asia, the Amu Darya, which is the only effective barrier between the two countries. The border is patrolled by mobile units of border guards and protected by checkpoints that monitor trans-border truck traffic. In its lower western part, the border follows a parallel road on the Tajik side that connects to other roads in the Khatlon Oblast. In its eastern part, the border crosses high mountains where movement is limited to valleys crossed by a few roads transiting the Gorno-Badakhshan Autonomous Region (GBAO) in the direction of Dushanbe and Kulob in the west, and of Osh in Kyrgyzstan, via Murghab.\textsuperscript{119}

Following the implementation of international aid programmes in Afghanistan and Tajikistan, road infrastructure between the two countries improved.\textsuperscript{120} Increasing legal transborder trade\textsuperscript{121} has been accompanied by a rise in illegal trade boosted by the establishment of new, thriving markets along the Panj river.\textsuperscript{122} One expert has described two border towns, Eshkashim and Shignan, located in Afghanistan’s Badakhshan province, bordering Tajikistan, as major trading locations for opiates and other illicit goods. A joint drug market has been established between the two towns,\textsuperscript{123} which likely supplies opiates to Tajikistan.

The ability of traffickers to diversify heroin trafficking routes from Afghanistan into Tajikistan remains limited. Traffickers depend on existing transport corridors and, more importantly, traditional border crossings. Trafficking routes are also constrained by the topography of the country: GBAO consists mostly of mountain ranges and narrow valleys, creating bottlenecks both for the legitimate traffic of goods and drug trafficking. Even in areas with good roads, bad weather, including snow, periodically blocks these routes, which can lead to the diversion of drug trafficking during the winter.

\textsuperscript{118} Paris Pact Fact sheet, Tajikistan. Available at (https://www.paris-pact.net/upload/c53d09f0be1e758ccff20d37599b265c.pdf).
\textsuperscript{120} As a result, a road network has been expanded and seven bridges have been built on the Panj river, including the Nizhny Panj Bridge, constructed in 2007, which channels the bulk of the Afghan-Tajik trade.
\textsuperscript{121} “Statistical annuary of the Republic of Tajikistan”, Dushanbe (2014), pp. 343-370.
\textsuperscript{122} Some border districts of Tajikistan have a good transport connection to Dushanbe, namely the Lower Panj border crossing has a well-developed road network; East West Institute, “Afghan narcotrafficking: the state of Afghanistan’s borders” (April 2015), p. 22.
\textsuperscript{123} Ibid, p. 34.
Analysis of opiate seizures in Tajikistan shows that Afghanistan is the only source of heroin and opium for that country. The configuration of the sub-routes within Tajikistan, which do not appear to have changed significantly in the past five years, has remained relatively stable.

According to media report, of the Drug Control Agency of Tajikistan, as of July 2013, the main entry points for opiates entering the country were Shuroabad, Hamadoni, Farkhor, Eshkashim and Rushan. This information is consistent with reports of significant seizures of opiates reported to UNODC between 2011 and 2015, suggesting at least four entry points into Tajikistan. Opiate shipments are seized either at border crossings or subsequently in cargo trucks that have already crossed the border, and when Afghan couriers are arrested illegally crossing the border. For example, in January and February 2016, media reported that Tajik border guards arrested 105 border violators and seized 61 kg of narcotics.

There is no consensus on the exact configuration of the Tajik branches of the northern route, but local law enforcement reports the existence of only two routes through the country, which get their name from two entry areas: the “Khatlon route” in the east of the country; and the “Badakhshan route”, via GBAO, in the west.

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126 Townsend, J., “The logistics of opiate trafficking in Tajikistan, Kyrgyzstan and Kazakhstan”.
128 The officially reported seizures were concentrated in these areas (UNODC, Drugs Monitoring Platform).
129 In “The logistics of opiate trafficking in Tajikistan, Kyrgyzstan and Kazakhstan” (p. 73), Townsend, J., reported that “traffickers using vehicles and legal crossings are more likely to continue further into Tajikistan before connecting with the next link in the smuggling chain. By contrast, incursions by foot, swimming or boat require the trafficker to make contact in settlements close to the border.”
131 N08 Interview with Tajik official, Dushanbe, 2016; N04 Interview with Tajik official, Dushanbe, 2016.
Drug shipments move through Tajikistan in two directions: either through Khatlon Oblast, which borders Afghanistan, to Dushanbe then to Khujand in the north and on to Kyrgyzstan, or west to Uzbekistan, or through GBAO via Murghab to the Kyrgyz border. Of these two routes, it seems that most trafficking occurs in Khatlon Oblast, a trend confirmed by Tajik law enforcement.\(^{132}\)\(^{133}\)


\(^{133}\) \(^{N07}\) Interview with Tajik official, Dushanbe, 2016.
The majority of opiates trafficked via western Tajikistan to Kyrgyzstan transit Dushanbe then Ayni and Khujand.\textsuperscript{134} Trafficking within the country overwhelmingly relies on car- and truck-based shipments.

From Tajikistan, a substantial portion of the opiates shipped along the Khatlon route are smuggled into Kyrgyzstan via several exit points between the Isfara District, Sughd Oblast in Tajikistan and Batken Oblast in Kyrgyzstan.\textsuperscript{135} The Tajik-Kyrgyz border consists of mountainous areas that are difficult to control, although a road network makes them relatively easy to traverse.

Opiates that cross GBAO are smuggled further to Osh Oblast in Kyrgyzstan.\textsuperscript{136} GBAO-based traffickers use the Pamir highway, built during the Soviet era, which connects this region directly to Kyrgyzstan without passing through the rest of Tajikistan. However, according to seizure data and testimonials by local law enforcement, this route appears to have been used less frequently in recent years than previously.\textsuperscript{137}

\textsuperscript{134} Townsend, J., "The logistics of opiate trafficking in Tajikistan, Kyrgyzstan and Kazakhstan".
\textsuperscript{135} N08 Interview with Tajik official, Dushanbe, 2016; N09 Interview with Tajik official, Dushanbe 2016.
\textsuperscript{136} N04 Interview with Tajik official, Dushanbe 2016.
\textsuperscript{137} N07 Interview with Tajik official, Dushanbe, 2016.
To a much lesser extent, opiate smuggling from Tajikistan into Uzbekistan is still present along the transportation axis west from Dushanbe, from Sughd Oblast\(^\text{138}\) and to the north of Khujand.\(^\text{139}\) Reports in recent years by Uzbek media of several significant seizures on cargo trains heading from Khujand confirm this trend.\(^\text{140}\) However, since 2011 the Uzbek Government has significantly increased controls on the Tajik-Uzbek border,\(^\text{141}\) which appears to have displaced opiate trafficking into neighbouring countries. Field interviews with law enforcement in the region suggest that Uzbekistan has been efficient in trying to monitor the transborder movements of both vehicles and persons.\(^\text{142}\)

### Trafficking through Kyrgyzstan

Running 870 km from the border with China in the east to the border with Uzbekistan in the west, the Kyrgyz-Tajik border\(^\text{143}\) is mountainous, with multiple small paths and tracks, and is difficult to control other than at checkpoints along major roads. Drug smuggling trajectories in Kyrgyzstan consist of three main elements: (1) various entry points on the Kyrgyz-Tajik border; (2) the Osh distribution hub; (3) the Bishkek distribution hub, which is connected to various exit points on the Kyrgyz-Kazakh border. Opiates mainly enter Kyrgyzstan via the southern part of the country. Kyrgyz law enforcement agencies indicate that the majority of opiates smuggled originate in Tajikistan.\(^\text{144}\)

**Figure 56:** Known provenance and destination of heroin seizures in Kyrgyzstan, by number of cases, 2011-2015

![Figure 56: Known provenance and destination of heroin seizures in Kyrgyzstan, by number of cases, 2011-2015](image)

Source: UNODC, significant individual drug seizures.

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\(^{138}\) The northern part of the Sughd Oblast belongs to the Fergana Valley, a densely populated area that includes parts of Uzbekistan, Tajikistan and Kyrgyzstan.

\(^{139}\) N04 Interview with Tajik official, Dushanbe, 2016; in a border zone with Uzbekistan to the North-West to Khujand, small shipments of opiates were seized the Uzbek-Tajik border in both directions. N08 Interview with Tajik official, Dushanbe, 2016.


\(^{141}\) According to UNODC field interviews, since 2011 Uzbekistan has considerably increased controls on the border with Tajikistan, periodically shutting down cross-border traffic; N09 Interview with Tajik official, Dushanbe, 2016

\(^{142}\) N09 Interview with Tajik official, Dushanbe, 2016; N07 Interview with Tajik official, Dushanbe, 2016, N11 Interview with Kyrgyz official, Bishkek, 2016.

\(^{143}\) Paris Pact Fact sheet, Kyrgyzstan. Available at [https://www.paris-pact.net/upload/1f1c29efa2dib-bd93f3532f15d69e1.pdf](https://www.paris-pact.net/upload/1f1c29efa2dib-bd93f3532f15d69e1.pdf).

\(^{144}\) N11 Interview with Kyrgyz official, Bishkek, 2016; N12 Interview with Kyrgyz official, Bishkek, 2016, N13 Interview with Kyrgyz official, Bishkek, 2016.
Historically, anti-narcotic operations have been difficult along the Kyrgyz-Tajik border. This border is not officially demarcated along its entire length, and the government presence in Tajik regions such as Garm and the GBAO, which are adjacent to Kyrgyzstan, has been limited. Additionally, the Islamic Movement of Uzbekistan insurgent group, which was involved in drug trafficking in the past, used Garm as a rear base. However, according to Kyrgyz law enforcement, the cross-border security situation in this region has become more stable and law enforcement was strengthened over the period 2011-2015.

The most active Kyrgyz drug smuggling routes are in Batken Oblast, along the following two axes: Khujand (Tajikistan) - Isfana (Kyrgyzstan); and Isfara (Tajikistan) - Batken (Kyrgyzstan). Once smuggled into Batken Oblast in Kyrgyzstan, opiates move from west to east by road, starting at Isfana then on to Osh, through villages and towns in Batken Oblast (Korgon, Batken, Kara-Tumshuk and Kyzyl-Kiya) and Nookat in Osh Oblast. Border patrolling in Kyrgyzstan's Batken Oblast is complicated by the fact that it contains four enclaves, three of which belong to Uzbekistan (Sokh, Chongara and Shakshimardan) and one to Tajikistan (Vorukh).

Bishkek and Osh, Kyrgyzstan's two largest cities, have become the main opiate trafficking hubs in the country, where local and foreign traffickers buy and sell opiates and organize transportation to final destination markets. Osh, in southern Kyrgyzstan, is a key element in Kyrgyzstan's licit domestic and international transportation network, and was previously one of the main hubs for opiate trafficking in the southern part of Kyrgyzstan. However, according to Kyrgyz police data, Osh has partially lost its importance as a trafficking hub, with the centre of drug trafficking moving south to rural areas in the Kara-Suu district (Osh Oblast). This evolution could be a result of both law enforcement activity and the reconfiguration of drug smuggling businesses in Kyrgyzstan. Bishkek, Kyrgyzstan's capital city, is the main northern hub for the trafficking of opiates in the country. The city and the surrounding Chuy Oblast are connected to railways and highways linking Kyrgyzstan to Kazakhstan and the Russian Federation, while Manas international airport, near Bishkek, operates domestic and international flights to and from several cities in the Russian Federation, Turkey, China, Kazakhstan, Uzbekistan and Tajikistan.

Prior to 2011, opiate trafficking through Kyrgyzstan was divided into three stages. First, drugs were trafficked to Osh for redistribution. From Osh, other trafficking groups moved drug shipments to Bishkek where they were stored for some time and repacked. Finally, other groups arranged the smuggling of shipments into Kazakhstan through several exit points, including Ak-Jol (Korday for Kazakhstan), Chon-Kapka and Chalabar. However, more recently trafficking groups appear to be carrying out the complete smuggling operation themselves, using one vehicle with increasingly sophisticated hidden compartments built in. As a result, Osh has partially lost its role as a trafficking stopover.

With or without a stopover in Osh, drug shipments move northwards along the following trafficking routes towards other countries in the Commonwealth of Independent States (CIS):
From the Batken, Osh and Jalal-Abad Oblasts of Kyrgyzstan along the Osh-Bishkek highway, passing through Kara-Suu, Jalal-Abad, Massy, Tash-Kumyr, Kara-Kul and Toktogul. In Chuy Oblast, the drug smuggling route branches off towards Talas to the west and Bishkek to the east.


Map 22: Main opiate trafficking routes in Kyrgyzstan

Sources: UNODC, significant individual drug seizures; UNODC, Drugs Monitoring Platform; interviews and State Drug Control Committee of Kyrgyzstan.152

152 “The Drug situation in Kyrgyzstan and counter-narcotics efforts”, presentation by State Drug Control Committee of Kyrgyzstan at AOTP Technical Meeting, Vienna, 10 June, 2016.
The two main routes for opiate smuggling from Kyrgyzstan into Kazakhstan transit Almaty and Taraz (Kazakhstan), towards which several main and secondary routes converge. According to police assessments, two thirds of the total quantity of opiates are smuggled to Almaty and one third to Taraz.\(^{153}\) However, Kazakh law enforcement suggest that Almaty has lost most of its importance in terms of opiate trafficking.\(^{154}\) There has only been limited reporting of opiate trafficking between Kyrgyzstan and Uzbekistan as increased border controls by Uzbek law enforcement may have reduced trafficking activity. Comparing transborder flows of opiates, there has been more drug smuggling from Tajikistan into Uzbekistan than from Kyrgyzstan into Uzbekistan.\(^{155}\)

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153 N12 Interview with Kyrgyz official, Bishkek, 2016.
154 N01 Interview with Kazakh official, Astana, 2016.
155 N12 Interview with Kyrgyz official, Bishkek, 2016.
Trafficking through Uzbekistan

Situated in the heart of Central Asia, Uzbekistan has an important geostrategic and geopolitical position in the region. With a border 7,089 km in length, Uzbekistan borders all the other Central Asian countries as well as Afghanistan. Uzbekistan is the most populous country in Central Asia and also has a significant population of migrant workers in the Russian Federation. Large Uzbek diasporas in countries that neighbour Uzbekistan may be used by Uzbek DTOs, creating favorable conditions for illicit transborder activity. These diasporas include 1.05 million Uzbeks in Tajikistan (14 per cent of the population in 2010), 879,000 in Kyrgyzstan (15 per cent of the population in 2013-2015) and 548,800 in Kazakhstan (3 per cent of the population in 2016).

The main entry points of drug smuggling routes into Uzbekistan are located on the Afghan-Uzbek border (143 km) and on the Tajik-Uzbek border (1,283 km). According to official Uzbek data, the majority of opiates are smuggled into the country from Tajikistan. Police officials mention three entry points from Tajikistan into Uzbekistan: (1) through the east-west axis: between Dushanbe-Hiso-Tursunzade on the Tajik side and Shar-gun-Uzun-Denov in Surxondaryo Oblast on the Uzbek side; (2) between Panjakent (Tajikistan) and Samarkand (Uzbekistan); and (3) between Khujand (Tajikistan) and Bekabad (Uzbekistan).

Sources:
Analysis of individual drug seizure data confirms the fact that the majority of Afghan-produced heroin transits Tajikistan before entering Uzbekistan. However, this view is not shared by experts from the Central Asian Regional Information and Coordination Centre (CARICC) who assess that the quantities of opiates smuggled into Uzbekistan from Afghanistan may be higher than those smuggled from Tajikistan into Uzbekistan.\textsuperscript{165} By contrast, Uzbek law enforcement suggests that only minor quantities of opiates are smuggled directly from Afghanistan, with opiates smuggled directly from Afghanistan into southern Uzbekistan across the Amu Darya river and into Uzbekistan's Surxondaryo Oblast.\textsuperscript{166}

Reinforced anti-drug controls and closed borders with Tajikistan and Afghanistan seem to have partially displaced the flows of opiates from Afghanistan to the north-eastern sub-route of the northern route. Drug smuggling from Afghanistan into Uzbekistan has never been easy: the Uzbek-Afghan border is considered to be “...the best equipped and protected border area ...”\textsuperscript{167} The Afghan-Uzbek segment of the border is more intensively protected than the rest of the borders of Uzbekistan because of the perceived danger of the insurgent threat from Afghanistan. The segment of the border with Afghanistan is a barrier composed of electrified barbed wire fence, watchtowers and minefields, which is heavily patrolled by several thousand border guards. The main crossing points are equipped with scanners. The Uzbek Army is also deployed along this segment of the border.\textsuperscript{168} There is a railway connection between Uzbekistan and Afghanistan: a 75-km link was opened in 2011 between Hairatan on the Uzbek-Afghan border and the city of Mazar-e-Sharif in Balkh province.\textsuperscript{169}

Unlike the border with Afghanistan, the Tajik-Uzbek border was, until 1991, a simple administrative line without any physical delimitation on the ground. Since then, and following the dissolution of the Soviet Union, border controls have improved and most of the border between Tajikistan and Uzbekistan has been closed. The trend towards the strengthening of border controls, with the construction of barbed wire segments, is countered by the presence on both sides of the border of ethnically close populations who maintain very close relations.\textsuperscript{170}

Most opiate shipments are trafficked through Uzbekistan along the south-east/north-west axis (along the M-37 Samarkand-Navoi-Bukhara highway, or along A-380 Karshi-Bukhara-Nukus highway) through western Kazakhstan into the Russian Federation.

\textsuperscript{165} N18 Interview with regional law enforcement organization, Almaty, 2016.
\textsuperscript{166} N19 Interview with Uzbek official, Tashkent, 2016.
\textsuperscript{169} Railway Technology available at https://www.railway-technology.com/projects/hairatanuzbekistan/
\textsuperscript{170} For example, there is a significant Uzbek community in Tajikistan, concentrated mainly along the border with Uzbekistan (State Agency for Statistics of Tajikistan, 2010. Available at http://oldstat.wtj.ru/img/526b8592e83dfe9accce26a229d55a2b_1355501132.pdf).
Map 24: Main opiate trafficking routes in Uzbekistan

Opiate trafficking also occurs from Tajikistan to Uzbekistan and then on to Kazakhstan along the M-39 Samar-kand-Tashkent-Shymkent (Kazakhstan) highway, as well as many other highways and smaller secondary roads that cross the Tashkent Oblast from Khujand (Tajikistan) to Shymkent (Kazakhstan).[^171]

[^171]: N19 Interview with Uzbek official Tashkent, 2016.
Map 25: Location of opiate seizures in Uzbekistan, 2011-2015

Two main exit points from Uzbekistan into Kazakhstan

Opiate shipments exit Uzbek territory and enter Kazakhstan from two main areas. First, from Tashkent Oblast into Shymkent Oblast in southern Kazakhstan, where a large Uzbek community maintains extensive cross-border trade with Uzbekistan. Second, from Karakalpakstan in north-west Uzbekistan into Mangistau Oblast in Kazakhstan. Uzbek seizure data reported to UNODC corroborate this mapping, suggesting that in addition to the local market, heroin seized in Uzbekistan has been destined for Kazakhstan and the Russian Federation.

Turkmenistan and the north-western route

Turkmenistan has a 744 km-long border with Afghanistan and a 1,621 km-long border with Uzbekistan. The Turkmen-Uzbek border consists mostly of remote, flat and sparsely populated desert areas, from the Afghan border to the Caspian Sea, which are rarely crossed by anyone other than nomadic tribes. There are a lack of data on drug

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172 N19 interview with Uzbek official Tashkent, 2016.
173 Based on data received from Kazakhstan, CARICC experts confirm the existence of this sub-route going from Uzbekistan into southern Kazakhstan, but suggest that this trafficking remains insignificant. The CARICC study focused on seizures made at the border while other seizures along this sub-route have also been reported by Kazakhstan and Uzbekistan, which would confirm its existence (N18 Interview with regional law enforcement organization Almaty 2016).
175 UNODC, responses to the annual report questionnaire, Uzbekistan, 2015.
176 Paris Pact Fact Sheet Turkmenistan, February 2015. Available at https://www.paris-pact.net/upload/81ca08b234a23d1b1b32b-984de76e7c72.pdf.
trafficking and drug seizures in Turkmenistan, with the most recent individual seizures reported to UNODC dating from 2011. However, heroin seizures reported on the Uzbek side of the Turkmen-Uzbek border suggest that shipments of heroin continue to enter (or transit) Turkmenistan.

Map 26: Main opiate trafficking routes in Turkmenistan

Turkmenistan’s main trafficking route crosses the country from east to west along the Mary-Turkmenbashi axis and then, probably, continues by sea to Azerbaijan. The main entry points are located on the Turkmen-Afghan border with some shipments possibly crossing Uzbekistan’s border with Turkmenistan. Around half of the total quantity of opiates seized in Turkmenistan in 2011 occurred in areas parallel to Uzbekistan’s Karshi-Nukus route, on the Turkmen side of the border suggesting that this axis may be connected to smuggling sub-routes into Uzbekistan and may be used by some Turkmen DTOs. However, Uzbek law enforcement considers such opiate trafficking to be insignificant because of reinforced security checks on the Uzbek-Turkmen border, and indicates that the bulk of trafficking into Turkmenistan probably comes from Afghanistan.\(^\text{177}\)

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\(^{177}\) N19 Interview with Uzbek Official, Tashkent 2016.
Seizures made on the Iran-Turkmenistan border suggest that some DTOs smuggle opiates from Afghanistan into Turkmenistan via the Islamic Republic of Iran. Such trafficking through the Islamic Republic of Iran, and into Turkmenistan via the Mary-Turkmenbashi axis, could be considered, however, part of the Balkan route, rather than part of the northern route, with opiates subsequently transiting the Caspian Sea to the Caucasus and further afield.

**Trafficking through Kazakhstan**

Kazakhstan is the second largest country by area and population in Central Asia. Globally, the ninth largest country in terms of area, it is the largest landlocked country. Kazakhstan has 13,393 km of land borders, of which 7,591 km are with the Russian Federation in the north and west.\(^{178}\) The country’s population is mostly concentrated in a few regions,\(^{179}\) each with a distinct cultural and ethnic background.\(^{180}\) Mostly concentrated in the west, Kazakhstan has significant oil and gas resources, both onshore and off the Caspian Sea coast, which have boosted the economic development of the country since the 1990s.\(^{181}\) Thanks to its natural resources, the country is the wealthiest in

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178 Paris Pact fact sheet. Available at [https://www.paris-pact.net/upload/2d85ce0fd051bd49c5c5712ebc4c1d6c.pdf](https://www.paris-pact.net/upload/2d85ce0fd051bd49c5c5712ebc4c1d6c.pdf).
179 The west (Aktau), the north-west (Atyrau-Kostanay), the north (Petropavlovsk), the north-east (Pavlodar-Semipalatinsk), the south-east (Almaty) and the south (Jambyl-Shymkent).
180 The northern Oblasts adjacent to the Russian Federation are mostly populated by Kazakhs of Russian origin and have a Russian-speaking population, the south-eastern, western and north-western Oblasts are dominated by ethnic Kazakhs while there is a significant Uzbek community (548,841 in 2016) in the south adjacent to Uzbekistan. Kazakhstan also comprises vast scarcely populated areas (State Agency for Statistics of Kazakhstan 2016. Available at [http://stat.gov.kz/getImg?id=ESTAT100232](http://stat.gov.kz/getImg?id=ESTAT100232)).
181 There are other economic branches such as mining, agriculture and light industry. Information available at [http://aboutkazakhstan.com/about-kazakhstan-economy](http://aboutkazakhstan.com/about-kazakhstan-economy).
Central Asia, based on GDP per capita, and attracts a large number of migrant workers from Tajikistan, Kyrgyzstan and Uzbekistan. Given its location, Kazakhstan constitutes an unavoidable route for all the land-based opiate smuggling from other Central Asian countries into the Russian Federation.\textsuperscript{182}

**Opiates trafficked from Kyrgyzstan to Kazakhstan**

The Kyrgyz-Kazakh border stretches for 1,242 km,\textsuperscript{183} mostly across plains that, apart from a river in its eastern segment, do not present any natural obstacles. Analysis of individual drug seizures suggests that most opiates enter Kazakhstan through the southern Oblasts, including Jambyl and Almaty. This trafficking crosses the border at the Ak-Zhol-Korday border crossing, which is one of the busiest on the Bishkek-Almaty highway.

**Figure 57:** Known provenance and destination of heroin seizures in Kazakhstan, by number of cases, 2011-2015

![Figure 57](https://example.com/figure57.png)

Source: UNODC, significant individual drug seizures.

Analysis of seizure cases also shows that most opiates are trafficked from Kazakhstan to the Russian Federation through Kostanay Oblast and North Kazakhstan Oblast. Internally, opiates are trafficked from the south of the country to the north, mostly following two routes: from Almaty and Jambyl Oblasts through Karaganda Oblast to either North Kazakhstan Oblast, Pavlodar Oblast or East Kazakhstan Oblast; and from South Kazakhstan Oblast to the north-western Oblasts.

\textsuperscript{182} Paris Pact fact sheet: [https://www.paris-pact.net/upload/2d85ee0fd051bd4c9ef01935efb4c1d6e.pdf](https://www.paris-pact.net/upload/2d85ee0fd051bd4c9ef01935efb4c1d6e.pdf)

\textsuperscript{183} Paris Pact Factsheet, Kazakhstan. Available at [https://www.paris-pact.net/upload/a2a69f92bced49f243fcedae956d0de.pdf](https://www.paris-pact.net/upload/a2a69f92bced49f243fcedae956d0de.pdf).
Map 28: Main opiate trafficking routes in Kazakhstan

From southern Kazakhstan the transport infrastructure offers a number of options for trafficking opiates further north and to the Russian Federation. The M-36 highway is the main transportation corridor for channelling opiates smuggled into the Jambyl and Almaty Oblasts and is considered to be the busiest transport axis connecting Almaty, Kazakhstan’s largest city and main economic centre, with the capital, Astana. The M-36 also crosses Karaganda Oblast, one of the largest markets for local distributors, before crossing the Kazakh-Russian border in the direction of Troitsk, Chelyabinsk and Yekaterinburg, which are all located within one of the major regional drug trafficking hubs in the Russian Federation.

A second major opiate trafficking route is the A-1 highway, which goes from Astana through Kokshetau to Petropavlovsk before joining the M-51 highway. This route links Chelyabinsk to Petropavlovsk and Novosibirsk in the Russian Federation.

Another drug smuggling route within Kazakhstan involves the A-3 highway, linking Almaty to Oskemen (Ust-Kamenogorsk), which later joins the M-38 highway, linking Semey to Pavlodar, before crossing the Russian border on the way to Omsk. The M-36 and M-38 highways intersect with the Astana-Pavlodar highway, where some seizures were also reported in the period 2011-2015.

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184 This road connects Almaty, Balkhash, Karaganda, Astana and Kostanay.
185 N16 Interview with Russian Federation official, Moscow, 2016.
186 N16 Interview with Russian Federation official, Moscow, 2016.
187 UNODC, significant individual drug seizures.
Map 29: Location of opiate seizures in Kazakhstan, 2011-2015

The exit points of Kazakhstan’s internal drug trafficking routes are concentrated along the northern and north-eastern segment of the border with the Russian Federation. In addition, two secondary internal routes seem to exist, along which very few seizures have been reported. The first is the M-32 highway from Shimkent to Uralsk (Oral), via Kyzylorda and Aktobe, then on to Samara in the Russian Federation. The second links Aktau to Astrakhan (Russian Federation), via Beyneu and Atyrau, then branches off to the north from Atyrau to Uralsk (Oral). Kazakh law enforcement has stressed that these two routes are much less used than in the past.  

Main trafficking routes entering the Russian Federation from Kazakhstan

The 7,591 km-long Kazakh-Russian border has 46 official border crossings for vehicles, 23 railway border crossings, 1 river crossing and 5 simple border crossings for local populations. With steppes and semi-deserts and few natural obstacles, the nature of this border makes it attractive for smugglers. Rivers along the border divide the two countries over a stretch of only 150 km and mountainous terrain covers the north-east of the border area, making cross-border communication more difficult than elsewhere along the border. However, in general, its geographical features make the border suitable for easy transit and it is crossed by multiple railways, roads, highways and dirt tracks.

188 N01 Interview with Kazakh official, Astana, 2016.
189 Paris Pact Fact sheet, Kazakhstan. Available at (https://www.paris-pact.net/upload/2d85ce01d051bd4e9cf01936fb-ic1d6e.pdf).
Kazakh law enforcement has identified three main exit points for opiate trafficking from Kazakhstan to the Russian Federation: Pavlodar, Petropavlovsk and Kostanay. Geographically, opiate trafficking through Pavlodar and Kostanay is directed to two Russian regional hubs, Novosibirsk and Yekaterinburg respectively, with Petropavlovsk being equidistant from them.

**Map 30:** Location of opiate seizures on the border between Kazakhstan and the Russian Federation, 2011-2015

Sources: UNODC, significant individual drug seizures; UNODC, Drugs Monitoring Platform (based on official and media reports).

**Trafficking within the Russian Federation**

Within the Russian Federation, Afghan heroin is mostly trafficked to three major regional hubs: the Moscow area, the area around Perm-Yekaterinburg and the area around Novosibirsk-Irkutsk. These three regional hubs serve as distribution centres for their respective zones. From Moscow, opiates are distributed to the Central Federal District, the South Federal District and to a lesser extent to the North-Western Federal District. From Perm and Yekaterinburg, drugs are distributed across the Volga and Ural Federal Districts. From Novosibirsk and Irkutsk, opiates are distributed to the Siberian and Far-East Federal Districts. These three distribution hubs are not isolated from each other.

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191  N01 Interview with Kazakh official, Astana, 2016,

Sources: UNODC, Drugs Monitoring Platform, based on significant individual drug seizures.

The Moscow hub

The main entry points into the area serviced by the Moscow hub are located along the following axes: Atyrau (Kazakhstan) to Astrakhan, Aktobe (Kazakhstan) to Orenburg, Uralsk (Kazakhstan) to Saratov, and Uralsk (Kazakhstan) to Samara.

From those four entry points, opiates are smuggled to Moscow along the following routes:

- Astrakhan – Volgograd – Voronez Oblast – Moscow
- Saratov – Tambov or Ryazan – Moscow
- Saratov – Penza – Saransk – Nizhny Novgorod – Moscow
- Orenburg – Samara – Ulyanovsk – Cheboksary – Nizhny Novgorod – Vladimir – Moscow
- Orenburg – Ufa – Cheboksary – Nizhny Novgorod – Moscow
Map 32: Main heroin trafficking routes in the European part of the Russian Federation (Moscow hub)

Sources: UNODC, significant individual drug seizures (heroin); UNODC, Drugs Monitoring Platform (based on official and media reports); and interviews.
Map 33: Location of heroin seizures in the European part of the Russian Federation, 2011-2015

Sources: UNODC, significant individual drug seizures (heroin); UNODC, Drugs Monitoring Platform (based on official and media reports).
Twenty Oblasts in the Russian Federation account for almost three quarters of the significant seizures reported to UNODC. These Oblasts contain most of the Russian Federation’s largest cities, including Moscow and St. Petersburg.

With a population of some 19 million, the Moscow area (city and Oblast) constitutes a large potential market for opiates, but it also acts as a hub for trafficking to other regions within the Russian Federation. Heroin not consumed in the Moscow hub is moved either to areas adjacent to the Moscow Oblast, or more distant destinations such as St. Petersburg (5.2 million), Krasnodar or to Kaliningrad. Very small quantities of opiates are also shipped to Murmansk and Arkhangelsk from the Moscow hub. The European part of the Russian Federation has a well-developed and relatively dense transport network, with both railways and highways, which facilitates trafficking activity.

The Perm-Yekaterinburg hub

Seizure data suggest two main entry points into the Perm-Yekaterinburg area (Ural region) from Kazakhstan. The first is located along the axis Kostanay (Kazakhstan) – Chelyabinsk (Russian Federation) – Yekaterinburg (Russian Federation). The second route goes along the axis Kokshetau (Kazakhstan) – Petropavlovsk (Kazakhstan) – Kurgan (Russian Federation) – Tyumen (Russian Federation). It would seem that from Tyumen, heroin shipments are delivered to the rest of the Oblast to oil-producing centres along the railway Tyumen – Tobolsk – Nefteyugansk – Surgut – Noyabrsk – Novy Urengoy. From Surgut, there are two smaller trafficking routes to Khanty-Mansiysk and Nizhnevartovsk.

Large opiate seizures in the Moscow hub, 2011-2015

2011
September 2011: 15.8 kg of heroin seized in Elektrostal, Moscow Oblast in cooperation with the Kyrgyz counter narcotics agency

2012
June 2012: 30 kg of heroin seized in the Moscow Oblast
July 2012: 185 tons of poppy plant seized in Pushkino, Moscow Oblast of which 100 tons contained narcotic opioid substances
August 2012: 200 kg of heroin seized in Bronnitsy, Moscow Oblast

2013
January 2013: 90 kg of heroin seized in Moscow Oblast
February 2013: 187 kg heroin seized in Moscow Oblast
July 2013: 150 kg heroin (of 50 per cent purity) seized in Moscow Oblast
November 2013: 145 kg heroin seized in Moscow (city)

2014
January 2014: 30 kg heroin seized in Moscow (city)
March 2014: 330 kg of heroin seized in Moscow Oblast
July 2014: 81.5 kg heroin seized in Moscow Oblast

2015
February 2015: 40 kg of heroin seized in Moscow (city)
May 2015: 12 kg heroin seized in Moscow Oblast
July 2015: 105.5 kg of heroin seized in Moscow Oblast

August 2015: 30 kg of heroin seized in Zvenigorod, Moscow Oblast

Source: Media reports.

192 This number includes Moscow and the Moscow Oblast, and St. Petersburg and Leningrad Oblast.
193 UNODC, significant individual drug seizures.
194 UNODC, significant individual drug seizures.
Large opiate seizures in the Perm-Yekaterinburg hub, 2011-2016

2011
January 2011: 60 kg of heroin seized in Chelyabinsk Oblast

2013
April 2013: 27 kg of heroin, destined for Moscow, seized in Perm

2016
January 2016: 100 kg of heroin seized in Perm
January 2016: 30 kg of heroin seized in Yuzhnouralsk (Chelyabinsk Oblast), shipped by a female Kyrgyz drug trafficker
June 2016: 17.5 kg of heroin seized in Yekaterinburg in a truck containing blankets, originating in Kyrgyzstan
June 2016: 25 kg of heroin seized in Yekaterinburg in a truck containing onions from Kyrgyzstan
June 2016: 15 kg of heroin seized in Chelyabinsk Oblast

Source: Media reports.
The Ural region, mostly comprising the Ural Federal District and some adjacent administrative divisions, has a population of 15 million, or approximately 10 per cent of the population of the Russian Federation. However, the quantities smuggled from northern Kazakhstan seem to be greater than local demand, suggesting that a significant portion of the opiates entering the region is then shipped to Moscow and other areas in the European part of the Russian Federation.\(^{195}\)

\(^{195}\) N16 Interview with Russian Federation official, Moscow, 2016.
Map 35: Location of heroin seizures around the Perm-Yekaterinburg hub, 2011-2015

Sources: UNODC, significant individual drug seizures (heroin); UNODC, Drugs Monitoring Platform (based on official and media reports).
The Novosibirsk-Irkutsk hub

There are several entry points and sub-routes that supply the Novosibirsk-Irkutsk hub. The first sub-route starts in Petropavlovsk in Kazakhstan, before transiting Omsk, Novosibirsk and Kemerovo in the Russian Federation. The second sub-route starts in Pavlodar in Kazakhstan, transits Barnaul in the Russian Federation, from where it joins either Novosibirsk or Kemerovo via Novokuznetsk. From Novosibirsk and Kemerovo, opiates are smuggled to Tomsk in the north or to Krasnoyarsk in the east. From Krasnoyarsk, drug shipments are moved along the Trans-Siberian Railway to Irkutsk, Ulan-Ude, Chita, Blagoveschensk and Vladivostok. The third sub-route begins in Semey in Kazakhstan, then transits Barnaul where it joins the second sub-route.

Map 36: Main heroin trafficking routes through the Novosibirsk-Irkutsk hub

Large opiate seizures in the Novosibirsk-Irkutsk hub, 2011-2015

2011
March 2011: 82 kg seized in Novosibirsk Oblast
June 2011: 22 kg heroin seized in Kemerovo Oblast, shipped from Novosibirsk.
October 2011: 15.8 kg seized in Novokuznetsk (Kemerovo Oblast) in cooperation with Kyrgyzstan

2012
March 2012: 13.6 kg of heroin seized in Irkutsk Oblast in cooperation with Kyrgyzstan

2014
February 2014: 30 kg of heroin seized in Irkutsk.
July 2014: 36 kg of heroin seized in Novosibirsk Oblast, smuggled from Kazakhstan

2015
December 2015: 19 kg of heroin seized in Irkutsk

Source: Media reports.
Novosibirsk and Irkutsk are often considered to be the two main drug trafficking hubs in Siberia. However, other cities such as Kemerovo, Krasnoyarsk and Vladivostok also report large quantities of heroin intercepted over the past five years, suggesting that those cities are also drug trafficking hubs in Siberia and the Russian Far East.

**Map 37:** Location of heroin seizures made around the Novosibirsk-Irkutsk hub

*Sources: UNODC, significant individual drug seizures (heroin); UNODC, Drugs Monitoring Platform (based on official and media reports).*

**Trafficking through the Caucasus**

Some of the heroin intercepted in the Russian Federation seems to be trafficked through the Caucasus along the Russian-Azerbaijan border. From Afghanistan, this sub-route transits the Islamic Republic of Iran, the Caucasus, notably Azerbaijan, from where it goes northwards into the Russian Federation, or from Georgia the sub-route goes across the Black Sea to the Ukraine and the European Union. After the countries of Central Asia, Azerbaijan was reported in 2015 by the Russian authorities to be among

**Large opiate seizures in the Caucasus region, 2014-2015**

- **2014**
  - **January 2014:** over 900 kg of heroin transported by a truck, coming from the Islamic Republic of Iran, seized in Armenia
  - **July 2014:** around 2 tons of heroin seized in Georgia.
  - **August 2014:** 70 kg of heroin seized on the Azerbaijani-Georgian border on a truck on the way from Turkey to Georgia via the Islamic Republic of Iran.

- **2015**
  - **May 2015:** 146 kg of heroin were seized in the Odessa Oblast in the Ukraine. The shipment was smuggled out of Turkey via Azerbaijan and Georgia.

*Source: Media reports.*

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196 N16 Interview with Russian Federation official, Moscow, 2016.
the key transit countries for heroin seized in the Russian Federation.\textsuperscript{198} The existence of this sub-route has been confirmed by law enforcement agencies in the region, although it is probably a sub-route of the Balkan route rather than part of the northern route.\textsuperscript{199} This does demonstrate, however, that the Balkan and northern routes may branch into each other in certain areas.

\textbf{Case study: Heroin trafficking from the Islamic Republic of Iran into Tajikistan via Moscow}

As reported by media, in June 2014, a transnational DTO was dismantled in Moscow following cooperation between the Ministry of National Security of Azerbaijan and security services of the Russian Federation. Some 135 kg of heroin were seized and three traffickers from Tajikistan, Kyrgyzstan and the Russian Federation were arrested. The DTO had been smuggling narcotics from the Islamic Republic of Iran into Tajikistan for some time. This case is exceptional because the heroin shipment was supposed to go in the opposite direction along the northern route (i.e., from the Russian Federation to Tajikistan). Another peculiarity is that the heroin (allegedly of Afghan origin) was first smuggled into the Islamic Republic of Iran then shipped to the Russian Federation through Azerbaijan, via the “Caucasus route”. It is not clear, however, if this unusual and much longer route is used by traffickers on a regular basis or whether this case represents a one-off event.

\textsuperscript{198} UNODC, responses to the annual report questionnaire, 2015.
\textsuperscript{199} N16 Interview with Russian Federation official, Moscow, 2016.
V. MODUS OPERANDI OF ILLICIT OPIATE TRAFFICKING ALONG THE NORTHERN ROUTE

Transport methods used in the trafficking of opiates along the northern route

The vast majority of opiate trafficking activity along the northern route occurs by land, both from Afghanistan into Central Asia, then from Central Asia into the Russian Federation. Well developed transportation networks composed of thousands of kilometres of railways and highways connect Central Asia to the Russian Federation. All the Central Asian countries maintain close trade relationships with the Russian Federation, which has traditionally been either the final destination for a wide range of licit commodities, such as agricultural produce, or the main transit country to the ports of the Black Sea and the Baltic Sea. The same infrastructure used for the transport of licit goods is co-opted for use in the trafficking of illicit opiates by trafficking networks.200

In recent years, road connections have improved between Turkmenistan and the Islamic Republic of Iran, Tajikistan and Afghanistan, and Kazakhstan, Kyrgyzstan and China, making Central Asia better connected to Asia and the Middle East. As a result, over 85 per cent of the heroin shipments intercepted in Central Asia over the period 2011-2015 were trafficked by land, mostly by road in private vehicles, while trafficking by air, mail and sea appears to have been marginal.201 The majority of the population of the Russian Federation lives in the western part of the country, which is characterized by dense road and rail networks, whereas the non-European part of the Russian Federation is still sparsely populated, particularly Siberia, where the majority of the population is concentrated along railways and rivers.

Map 38: Location of seizures of heroin in Central Asia, by transportation mode, 2011-2015

Sources: UNODC, significant individual drug seizures; UNODC, Drugs Monitoring Platform.

201 UNODC, significant individual drug seizures.
Figure 58: Reports of significant seizures of heroin in Central Asia, by transportation mode and number of cases, 2011-2015

Source: UNODC, significant individual drug seizures.

Over the period 2011-2015, the vast majority of seizure cases (86 per cent) in Central Asia reported to UNODC took place on land, either by road or by rail. Mail and air trafficking seizures accounted for a tiny proportion of total seizures over that period.202

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202 UNODC, significant individual drug seizures, Central Asia 2011-2015.
Map 39: Location of seizures of opium and poppy straw in Central Asia, by transportation mode, 2011-2015

Sources: UNODC, significant individual drug seizures; UNODC, Drugs Monitoring Platform.

Map 40: Location of seizures of heroin in the Russian Federation, by transportation mode, 2011-2015

Sources: UNODC, significant individual drug seizures; UNODC, Drugs Monitoring Platform.

As in Central Asia, land transportation is the main method used by DTOs in the Russian Federation to smuggle heroin into and through the country, while trafficking by air and by mail are less common.
Figure 59: Reports of significant seizures of heroin in the Russian Federation, by transportation mode and number of cases, 2011-2015

![Diagram showing the number of heroin seizures by transportation mode in the Russian Federation, 2011-2015. The modes of transport are Air, Road, Mail, Rail, and Sea, with Road being the most common, followed by Air and Mail.]

Source: UNODC, significant individual drug seizures.

The main methods used for transporting opiates by land in the Russian Federation include individual couriers, private vehicles, commercial trucks, and trains. Cars and trucks are estimated to account for half of all opiates trafficked, a proportion that has remained steady since 2011. Poppy straw is almost always transported by land in the Russian Federation, following the trend seen in the Central Asian countries. Thirty-three poppy straw seizures in the Russian Federation, totalling 1.2 tons, were reported as having been trafficked by road in private vehicles in the period 2011-2015, whereas only two cases of poppy straw, totalling less than 3 kg, were reportedly trafficked by rail.

204 N16 Interview with Russian law enforcement organization, Moscow, 2016.
Map 41: Location of seizures of opium and poppy straw in the Russian Federation, by transportation mode, 2011-2015

Source: UNODC, significant individual drug seizures; UNODC, Drugs Monitoring Platform.

**Opiate interceptions and concealment along the northern route**

Although most interceptions of opiates along the northern route involve trafficking by land, specific locations of seizures and the places used to conceal drugs vary. In Central Asia, almost half of the opiates seized over the period 2011-2015 were seized in residences, buildings and vehicles. In the Russian Federation, during the same period, more than half of the seizures occurred in residences, buildings and the open air. The Russian Federation also reported that a small percentage of seizures occurred at post offices.207

**Figure 60:** Distribution (percentage) of seizure locations of significant seizures of heroin, number of cases, 2011-2015

Source: UNODC, significant individual drug seizures.

The large proportion of significant seizures of heroin reported as smuggled in baggage, vehicles and on the body of couriers is consistent with Central Asia being a major opiate transit region on the northern route. In the Russian Federation, on the other hand, a much higher proportion of seizures of heroin smuggled in packages and postal deliveries took place.
**Figure 61**: Distribution (percentage) of types of concealment of significant seizures of heroin, number of cases, 2011-2015

<table>
<thead>
<tr>
<th></th>
<th>Russian Federation (n = 4,367)</th>
<th>Central Asian countries (n = 385)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body &amp; clothes</td>
<td>703</td>
<td>110</td>
</tr>
<tr>
<td>Package</td>
<td>1,085</td>
<td>67</td>
</tr>
<tr>
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<td>4</td>
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<tr>
<td>Building</td>
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<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>678</td>
<td>36</td>
</tr>
</tbody>
</table>

Source: UNODC, significant individual drug seizures.

**Opiate trafficking by individual couriers**

The use of individual couriers is a common method of smuggling opiates along the northern route. The use of couriers is particularly common in the trafficking of opiates in the initial stages of the northern route, across the border between Afghanistan and Tajikistan. Opiates are frequently smuggled by couriers in the mountainous areas between Afghanistan and Tajikistan, along narrow paths that are impassable to vehicles. Less frequently, Afghan opiates are smuggled by courier into Kyrgyzstan, mostly from Tajikistan, and far less frequently from Uzbekistan on foot and horseback. Couriers are usually paid per kilogram of opiates carried. The trafficking of opiates hidden in personal belongings or by couriers “swallowing” opiate packages are common and, according to media reports, appear to be important concealment methods along the northern route. A significant proportion of the heroin seized along the northern route is hidden in bags and luggage, or on/in the body; these two categories together accounting for around 45 per cent of seizure cases in Central Asia and around 23 per cent in the Russian Federation over the period 2011-2015.

Most concealment methods used by couriers along the northern route appear to be basic and unsophisticated. They include concealment in luggage, objects (for example, books, clothes, toys, packaging, etc.) and vehicles, concealment...
inside the body (in corpore), or in the property of another person. The results of a study published in 2008 on various concealment methods used by drug traffickers in the Russian Federation also suggested that drugs are frequently smuggled in the personal belongings of vehicle passengers and in the belongings of pedestrians, sometimes without their knowledge; a method that still appears to be in use. While much of the initial trafficking of opiates from Afghanistan into Central Asia is rudimentary, further along the northern route some DTOs demonstrate a degree of sophistication in trafficking heroin: in one historical seizure case, heroin in a chemically dissolved form was found to have impregnated clothes and shoes; such a process would have entailed sophisticated chemical extraction.

**Opiate trafficking by motor vehicle**

**Afghanistan**

The vast majority of trafficking activity within Afghanistan and from Afghanistan to Central Asia is carried out by road. Within Afghanistan, buses, taxis and cars are frequently used to smuggle opiates, which are carried either by passengers or as small loads hidden in vehicle gas tanks and luggage. According to a foreign law enforcement organization based in Kabul, facilitation networks, supported by high-level government figures, militia commanders and security forces, have consolidated, ensuring that there is less risk to networks moving narcotics by road than in the past. Onward trafficking from Afghanistan into Central Asia commonly occurs by (freight) truck, using well-established transit routes for licit goods.

**Central Asia**

Representing 62 per cent of trafficking by road, the private vehicle is the most common means of transport used by opiate traffickers in Central Asia, the remainder being smuggled in commercial vehicles, based on significant heroin seizures reported to the UNODC. More specifically, private cars are used to smuggle opiates destined for the Russian Federation from Kyrgyzstan into Kazakhstan. Kyrgyz law enforcement in particular estimates that road-based smuggling methods have been used more frequently than railway transportation in the past two to three years.

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**Concealment methods identified in Kazakhstan**

**Spare tyre:** Officers of the Kazakh Ministry of Interior stopped a car, driven by a Kyrgyz citizen, at the Kyzyl Zhar border checkpoint in the north of the country, on 1 April 2013. An inspection of the car led to the detection and seizure of 10.1 kg of heroin, concealed in the car’s spare tire.

**Personal belongings:** Officers of Kazakhstan’s Ministry of Interior and Kyrgyzstan’s State Drug Control Service who were conducting a controlled delivery operation stopped a car on 31 March 2015 on the Korday-Shu highway. Inspection of the personal belongings of a Kyrgyz citizen travelling as a passenger in the car led to the seizure of 6.2 kg of heroin and 1.6 kg of cannabis resin.

**Hidden compartment in car:** Officers of Kazakhstan’s Ministry of Interior and Kyrgyzstan’s State Drug Control Service, who were conducting a controlled delivery operation, stopped a car driven by a Kyrgyz citizen on 31 March 2015 on the Korday-Shu highway, on the Bishkek (Kyrgyzstan) - Taraz (Kazakhstan) route. Inspection of the car led to a seizure of 15.5 kg of heroin concealed in a specially prepared hiding place under the sideboards of the back doors.

Source: N01 Interview with Kazakh law enforcement organization, Astana, 2016.

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216 N30 Interview with foreign law enforcement organization, Kabul, 2016.
217 N30 Interview with foreign law enforcement organization, Kabul, 2016.
218 N30 Interview with foreign law enforcement organization, Kabul, 2016.
219 The misuse of Licit Trade for Opiate Trafficking in West and Central Asia: A Threat Assessment.
221 N15 Interview with Kyrgyz authorities, Bishkek, 2016; N13 Interview with Kyrgyz authorities, Bishkek, 2016; UNODC, responses to the annual report questionnaire, Kyrgyzstan, 2011 and 2013.
In Kyrgyzstan, some public officials estimate that over half of the cars involved in opiate smuggling originate in Tajikistan, the rest being of local origin. Cars carrying shipments of opiates enter Batken Oblast in Kyrgyzstan from the Sughd Oblast in Tajikistan. In some cases, drug trafficking has been carried out under the cover of legal businesses; for example, car and truck drivers were asked to drive a vehicle without being aware of the fact that they were smuggling hidden opiates.

Involving a wide range of methods, concealment in cars has become more sophisticated in Central Asia. These range from relatively basic techniques to the use of expensive cars with customized hidden compartments built in, which are extremely difficult for law enforcement officers to uncover. The use of cars for drug trafficking has evolved in Kazakhstan in particular. Previously, smugglers only used relatively large empty spaces such as gas tanks and car frames to conceal bulk loads, but they now conceal smaller loads of opiates in smaller spaces created in hidden compartments inside cars. The combination of highly sophisticated hidden compartments and “criminal intelligence”, such as the use of secondary roads and the diversion of anti-narcotics controls, by traffickers is a trend described as the “professionalization of concealment”, which has also been observed in Uzbekistan and Kyrgyzstan. For example, in 2012, Uzbek police seized large shipments of opium and heroin concealed in car fuel tanks and hidden compartments. In 2014, 16 kg of heroin concealed in the thresholds under the doors of a car was uncovered at Ak-Jol on the Kyrgyz-Kazakh border.

**Russian Federation**

In the Russian Federation, the proportion of opiates trafficked by private car increased to 96 per cent of seizures of heroin shipped by road over the period 2011-2015. However, seizures of heroin reported as smuggled by road have sharply decreased in volume since 2012 along the northern route, a fall that could be partly explained by increasingly innovative concealment methods. According to a study made by the Russian Ministry of Internal Affairs, in private cars drugs are concealed in the hand luggage of passengers and in regular luggage storage areas in the vehicle, in hollow spaces behind heating panels, under seat covers, in interior light fixtures and on the eaves of windows and doors.

The use of private cars with built-in hidden compartments also appears to be common in the Russian Federation. According to police data, some DTOs acquire such cars in European Union member states for smuggling heroin from Central Asia. A police operation in the Russian Federation and Kazakhstan in August 2013 led to three heroin seizures on the Moscow–St. Petersburg highway (70 kg), on the Kazakh-Russian border (48 kg) and in Almaty (232 kg). All the heroin seized was smuggled in private cars with sophisticated hidden compartments. As DTOs become more sophisticated they invest money to mobilize a range of specialists to help facilitate trafficking, including specialists in building and customizing cars.
professional mechanics who know how to incorporate hidden compartments in vehicles that are largely undetectable during border security checks. Even modern scanners at border crossings are often incapable of detecting such hidden compartments.

Although cars are the main means of trafficking by road, trucks are also reportedly used to carry both licit and illicit cargo between the Russian Federation and Central Asia. More specifically, trucks used to ship agricultural produce to the Russian Federation during the summer and autumn are often used by traffickers to conceal opiates destined for the Russian market.

**Opiate trafficking by rail**

**Central Asia**

Seizure data suggest that the use of railways in Central Asia for the trafficking of opiates is relatively minor compared with the use of roads, although it is more common than air trafficking. Despite limited seizures of opiates on the rail network, law enforcement officials in the region indicate that rail transportation has developed into an important means of opiate trafficking over the past five years and now ranks second after trafficking by car. According to law enforcement sources, some of the largest opiate seizures made in Uzbekistan are made on transit trains operating between Tajikistan and the Russian Federation.\(^{233}\) Other research also suggests that opiates from Tajikistan are trafficked on freight and passenger trains to other Central Asian countries and the Russian Federation.\(^{234}\) However, despite the apparent utility of the Central Asian rail network for drug trafficking, trafficking by rail is still not as common as trafficking by road. In part, this is because elements of the rail network are often suspended, including segments where opiate traffickers operate. For example, since 2010 Uzbekistan has frequently suspended rail freight traffic in the Fergana Valley.\(^{235}\) Two other countries in the region, Tajikistan and Kyrgyzstan, have a relatively limited rail network, which makes trafficking by rail less effective than by road in those countries.

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233 N19 Interview with Uzbek law enforcement organization, Tashkent, 2016.
235 The suspension of traffic on this segment rendered the southernmost segment of the Kyrgyz railway (Jalal-abad and Osh) non-operational. This section of the Kyrgyz railway is connected to the Uzbek railway in the Fergana valley. Gazeta.uz, 23.06.2016, Available at https://www.gazeta.uz/ru/2016/06/23/kamchik.
Map 42: Location of seizures of heroin transported by rail in Central Asia, by weight, 2011-2015

Sources: UNODC, significant individual drug seizures; UNODC, Drugs Monitoring Platform.

Uzbek law enforcement has reported cases of “impersonal trafficking” by rail whereby DTOs hide heroin in built-in compartments on trains or attach it using magnets above railcar axles underneath wagons. In November 2015, 22 kg of heroin concealed in this way were seized at the Bekabad railway crossing on the Tajik-Uzbek border on two freight trains destined for the Russian Federation and Latvia. In October 2015, 16 kg of hashish and 7 kg of heroin were discovered aboard two other freight trains at the same border crossing. In 2015, 50 cases of “impersonal trafficking” were reported by Uzbek law enforcement, accounting for 194 kg of drugs seized, including 101 kg of opium and 27.3 kg of heroin.

According to law enforcement agencies in Central Asia, opiates trafficked by train are placed inside sacks and nets with agricultural produce or hidden in the hollow spaces of small, relatively heavy objects (such as gate valves for pipes and iron parts for various devices). In June 2012, 8 kg of heroin were uncovered in Tashkent in a tank wagon carrying liquefied natural gas on a freight train in transit from Dushanbe to Moscow.

Russian Federation

European Russia, situated to the west of the Ural mountains, has a relatively dense railway and motorway network, although the latter is still in a process of reconstruction and its quality varies considerably. As a result, large quantities of freight are shipped by rail rather than by road. East of the Urals, the Trans-Siberian Railway is often the only secure conduit for commodities and passenger traffic to many large cities. Seizures of opiates have been re-

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238 Responses to the annual report questionnaire, Uzbekistan, 2016.
239 Ibid.
ported aboard the Dushanbe-Moscow train; for instance, 200 kg of heroin were seized in August 2012 and 80 kg were seized in May 2013. Previous studies also report opiate seizures on the Almaty-Moscow train. Opiates transported into the Russian Federation from Central Asia in freight and passenger trains have also been reported. Shipments involving the use of agricultural produce to conceal opiates smuggled into the Russian Federation frequently originate in Tajikistan and Kyrgyzstan, both of which are traditional suppliers of agricultural products to the Russian market. The use of shipments of agricultural produce introduces a degree of seasonality to smuggling methods, which correspond to the late spring, summer and early autumn periods.

Map 43: Location of seizures of heroin transported by rail in the Russian Federation, by size, 2011-2015

Sources: UNODC, significant individual drug seizures; UNODC, Drugs Monitoring Platform.

242 Merkuriev, V.V., (Меркурьев В.В., Борьба с криминальными рынками в России, Москва, Проспект, 2015).
244 N16 Interview with Russian law enforcement organization, Moscow, 2016; Merkuriev VV., (Меркурьев В.В., Борьба с криминальными рынками в России, Москва, Проспект, 2015).
245 N16 Interview with Russian law enforcement organization, Moscow, 2016; Merkuriev VV., (Меркурьев В.В., Борьба с криминальными рынками в России, Москва, Проспект, 2015).
Opiate trafficking by air

Afghanistan and Central Asia

There is very little indication that airports in Afghanistan are used to traffic opiates to Central Asia or the Russian Federation. Although Kabul International Airport is connected to some international destinations such as the United Arab Emirates and India, air links between Afghanistan and Central Asia are limited, with only infrequent flights from Afghanistan to Dushanbe in Tajikistan.

Additionally, with only a few seizures of heroin reported at Central Asian airports in the period 2011-2015, trafficking by air is apparently rare in this part of the northern route. Between 2011 and 2015, less than 1 in 20 heroin seizure cases, and 10 per cent of the total quantity of heroin seized in Central Asia between 2011 and 2015 occurred at airports. However, three significant seizures reported by Kazakhstan suggest that when trafficking by air does take place, relatively large quantities (multi-kg) of opiates are trafficked. There are 20 airports with international connections in Central Asia, most of which are relatively well connected to international air hubs such as Dubai, Moscow and Istanbul. Some Central Asian capitals also have direct, though less frequent, flights to Western European hubs. In the 1990s, economic crises led to a sharp decline in air passenger traffic in Central Asia (from approximately 9.2 million passengers in 1992 to 3.7 million passengers in 1998). As a result, railways and motorways became the main conduits for travel both within Central Asia and out the region. Air passenger traffic has recently recovered to pre-crisis levels (from 7.0 million passengers in 2010 to 10.0 million in 2016), which may attract drug traffickers hoping to benefit from increased passenger turnover. However, the growing threat of terrorism in the region has led to increased security checks in Russian and Central Asian airports, further discouraging traffickers from opting for air trafficking methods over relatively more secure land-based methods.

Specifically, within Central Asia, air traffic between Tajikistan and Kyrgyzstan is closely monitored by Kyrgyz police, which may have led to a reduction in drug trafficking by air between the two countries. Some drug shipments, which in the past might have arrived in Osh by land, were reportedly trafficked by air to Bishkek and to destinations abroad, because of poor security at Osh airport. However, the situation improved with the installation of modern scanning equipment at Osh airport, forcing traffickers to smuggle opiates by car to Bishkek. Improved security checks have also been reported for regular flights from Kyrgyzstan (Osh and Bishkek) to major Russian cities and other international hub airports such as Istanbul (Turkey), Kiev (Ukraine), Urumqi (China), Baku (Azerbaijan), Dubai (United Arab Emirates) and London (United Kingdom). However, despite improved security at national airports, there are cases when smugglers trafficking opiates by air try to conceal them in luggage, clothes and shoes, or even swallow the narcotics. Kyrgyz law enforcement confirms that air transport has also been used to smuggle synthetic drugs into Kyrgyzstan.

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246 UNODC, significant individual drug seizures, Central Asian countries, 2011-2015.
247 UNODC, significant individual drug seizures, Central Asian countries, 2011-2015.
248 Seven in Kazakhstan, two in Kyrgyzstan, two in Tajikistan, three in Turkmenistan and six in Uzbekistan.
251 N16 Interview with Russian law enforcement organization, Moscow, 2016.
252 N13 Interview with Kyrgyz authorities, Bishkek, 2016.
253 N13 Interview with Kyrgyz authorities, Bishkek, 2016.
254 N13 Interview with Kyrgyz authorities, Bishkek, 2016.
**Russian Federation**

Between 2011 and 2015 there was a decrease in reported interceptions of opiates by air in the Russian Federation. Air transportation within the Russian Federation is highly centralized around the three airports in Moscow (Sheremetyevo, Domodedovo and Vnukovo), which accounted for roughly 75 million passenger movements in 2016. The three Moscow airports function as a major transport hub, since the bulk of Russian air passenger traffic is between the capital and provincial cities. Many Russian regions are poorly connected to the national road network, and the most effective means of reaching areas such as northern Siberia is by air, via the Moscow air hub. As a result, drug traffickers using air transportation to smuggle opiates to the rest of the country are often required to pass through Moscow in order to reach other destinations within the Russian Federation. Following an increase in air passenger traffic, boosted by large inflows of passengers from the Eurasian Economic Union (EAEU), the transportation of heroin by air in the Russian Federation may see an increase in the future. However, the installation of new scanning equipment at airports within the EAEU, which started at the Moscow air hub, combined with increased surveillance of flights arriving from Central Asia, suggests that large-scale drug trafficking by air remains limited and may account for the decrease in the interception of shipments trafficked by air.

**Figure 62:** Seizures of heroin trafficked by air in the Russian Federation, number of cases, 2011-2015

![Graph showing seizures of heroin trafficked by air in the Russian Federation, 2011-2015](image)

Source: UNODC, significant individual drug seizures.

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**Opiate trafficking by sea and by river**

The trafficking of opiates by sea and by river is very uncommon along the northern route. Northern Afghanistan is separated from Uzbekistan and parts of Turkmenistan by the Amu Darya river, and from Tajikistan by one of its tributaries, the Panj Darya river, which traffickers moving opiates from Afghanistan to Tajikistan need to cross. Although a number of bridges cross those rivers, there is some evidence that trafficking by boat occurs.

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256 The treaty establishing the EAEU was signed on 29 May 2014 by the Heads of State of Belarus, Kazakhstan and the Russian Federation, and came into force on 1 January 2015. Treaties aiming for the accession of Armenia and Kyrgyzstan to the EAEU were signed on 9 October and 23 December 2014, respectively. They came into force on 2 January 2015 for Armenia and on 6 August 2015 for Kyrgyzstan.
curs between Afghanistan and its northern neighbours, with “Tupa” 257 boats being used to cross the waterways and to traffic opiates northwards. 258 One report, describing illegal trafficking along the Afghanistan-GBAO segment of the border, suggests that: “[The] main goods smuggled are opium, heroin and cigarettes shipped from Afghanistan to Tajikistan [...] Much of the smuggling takes place at night and involves local people smuggling goods across the river via small boats and inner tubes. It is reported that [a] small boat can take as much as 100 kg of drugs, those transporting goods by inner tube (from a truck) up to 10 kg.” 259 This modus operandi is consistent with a description provided in a 2016 interview with a foreign law enforcement organization in Kabul. 260 A 2006 study described drug trafficking between Afghanistan and Tajikistan in the following manner: “A successful crossing for individual traffickers can be made by swimming and wading across the Panj river. This is the simplest form of trafficking whereby one, sometimes two to three men, typically carry a few kilograms each across the border”. 261 This suggests that current methods for crossing the Afghan-Tajik border remain largely unchanged from a decade ago.

Both Kazakhstan and Turkmenistan have long coastlines on the Caspian Sea, with three ports, Atyrau and Aktau in Kazakhstan, and Turkmenbashi in Turkmenistan, connected to Russian and Iranian ports. The lack of seizures reported suggests that the use of commercial sea transport is rarely used by DTOs in the region, probably because of high levels of security at the main ports due to the large quantities of controlled goods such as oil that pass through them. It is possible, however, that passenger ferries in the Caspian Sea, which connect Turkmenistan and Kazakhstan to Azerbaijan and the Russian Federation, are used for opiate smuggling. One case of trafficking by sea was reported by Kazakhstan in October 2015 when 123 kg of heroin were seized at Aktau seaport in a truck originating in Turkey that had been transported by ferry from the Islamic Republic of Iran. The final destination of the heroin cargo was the European Union. 262 This case demonstrates that the Balkan and northern routes occasionally overlap (as discussed in chapter 4), although this cannot be seen as a regular trafficking pattern.

**Opiate trafficking by mail**

Seizures of opiates trafficked by mail appear to have increased sharply in the Russian Federation since 2014. Individual drug seizure data between 2011 and 2014 indicate that less than 3 kg of heroin trafficked by mail were seized in the Russian Federation; however, this increased dramatically to 775 kg in 2015. 263 Postal parcel seizures have also been reported in Central Asia, but to a much lesser extent.

In 2015, around 33 per cent of seizure cases of opiates intercepted in transit by mail in the Russian Federation contained less than 2 g of heroin, around 28 per cent contained between 100 g and 1 kg of heroin and around 22 per cent contained more than 1 kg of heroin, including a single case of 50 kg. 264

According to some studies, opiates sent in postal parcels are often concealed inside packets of coffee and bott-

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257 Tupa boats are small boats or rafts made from the inner tubes of tyres.

258 N30 Interview with foreign law enforcement organization, Kabul, 2016.


260 N30 Interview with foreign law enforcement organization, Kabul, 2016; N31 Interview with foreign law enforcement organization, Kabul, 2016.


264 UNODC, significant individual drug seizures, Russian Federation 2011-2015.
tles of shampoo and detergent. At the same time, traffickers may benefit from the expansion of new online marketplaces that serve as delivery conduits; online marketplaces have shaped consumer markets in recent years. Improved logistical development of mail delivery in the Russian Federation and Central Asia suggests that, in future, mail may be used more actively as a means of drug trafficking in the Russian Federation, where the infrastructure is more developed, and eventually in Central Asia.

**Figure 63:** Trends in the mode of transportation of heroin shipments seized in the Russian Federation, number of cases, 2011-2015

Source: UNODC, significant individual drug seizures.

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The professionalization of trafficking methods along the northern route

The modus operandi of drug trafficking along the northern route appears to have evolved over the period 2011-2015, reflecting the increasing sophistication of opiate trafficking organizations and the pressure they face from law enforcement agencies. Concealment methods have become increasingly more sophisticated (see box) and DTOs prepare their smuggling operations in more detail, using sophisticated methods such as misinformation campaigns and surveillance of the activities of border guards and local law enforcement. DTOs often use “spotters” who travel ahead of convoys of opiate shipments and use satellite, mobile phones and other IT devices to monitor and report back on law enforcement activity.266

DTOs have demonstrated significant adaptability when smuggling opiates, “as they use both established routes repeatedly, and switch quickly among available options, as dictated by destination, geography, law enforcement, and the flexibility of their transport links.”267 Russian transnational DTOs, in particular, continuously change drug trafficking routes in order to seek new opportunities in areas with less law enforcement control.268 Russian opiate traffickers also demonstrate strong security protocols, segmenting different elements of their network at various levels, decreasing the risk of failure of the entire organization if one of its links is removed by law enforcement.269

Reducing the number of stages required to move opiate shipments along the northern route appears to be a further development. Historically, DTOs only moved opiates along a small and specific part of the overall route, but law enforcement organizations in the region increasingly report that DTOs transport opiates through several countries, often under the cover of a legitimate business such as the international transportation of private cars within a trade scheme.

Previous research270 suggests that Russian DTOs use “stopovers” and “intermediary points” when shipping opiates along the northern route. “Stopovers” are reportedly heroin stockpile spots along the northern route, usually of a temporary nature, and have been reported in Tajikistan and Kyrgyzstan, as well as in the parts of Kazakhstan that border the Russian Federation. “Intermediary points” are used to orientate couriers travelling by car: couriers are informed in advance which routes to follow and how to find “stopovers”. The use of scout vehicles preceding vehicles transporting opiates, which are used to check the situation at border crossings

Case study: Heroin concealed in wooden furniture panels and diesel fuel

In July 2014, a heroin shipment was seized in Moscow in a truck transporting furniture from Tajikistan. The heroin was concealed in wooden panels in the furniture. In a separate incident, heroin was also discovered after having been dissolved in diesel fuel. According to a counter narcotics officer who was in charge of the seizure, this was the first case seen in the Russian Federation to use this type of concealment method.


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266 Doctoral Dissertation (Худжамкулов, А.Х. (2015), Деятельность органов безопасности в процессе противодействия незаконному обороту наркотиков, Диссертация на соискание ученой степени кандидата политических наук, Душанбе, Таджикский Национальный Университет).
270 Report Пупцева А.В. Основные элементы структуры организованной преступности в сфере незаконного оборота наркотиков, 2014).
and checkpoints, has been observed by law enforcement organizations in the region; these vehicles are also used to distract law enforcement units from cars containing opiates.

When smuggling opiates through frequently used channels, DTOs often employ a “non-contact method”, which consists of one trafficking group storing opiates at a particular location. When money has been transferred to a specific account, a representative from the first group then informs the second group of the location where the drugs are hidden. The financial transfer may take place in a third country, sometimes well beyond the northern route, so the two groups never actually meet in person. The “non-contact method” has been specifically identified on the Shuroabad and Khamadon segments of the Afghan-Tajik border and has also been reported in Kyrgyzstan.
VI. DRUG TRAFFICKING ORGANIZATIONS ALONG THE NORTHERN ROUTE

Various political and economic factors have had an impact on the establishment of trafficking routes through Central Asia. The collapse of the Soviet Union has played a direct and indirect role as the newly independent states faced new economic challenges and at times lacked the resources to enforce their borders. Following an initial period of chaotic and relatively unorganized drug trafficking in the 1990s, DTOs in Central Asia and the Russian Federation started rapidly “gaining skills and experience in all the phases of drug trafficking”, establishing “solid relations with business partners” and expanding “activities to legal and semi-legal sectors of the economy”. A large number of DTOs have been active on various segments of the northern route, gradually improving their organizational structure and logistics in order to run well-established networks.

As the source country for opiates entering the northern route, Afghanistan has a number of DTOs operating within its northern provinces and throughout the country as a whole. In the 1990s and early 2000s, drug trafficking in northern Afghanistan was characterized by relatively amateur smugglers and traders, often with ties to local warlords, militia groups and powerbrokers. The number of DTOs currently operating in Afghanistan is difficult to quantify; however, interviews with law enforcement suggest that there has been a degree of consolidation amongst DTOs, which has led to better organization than that seen in trafficking organizations during the 1990s.

In Central Asia, dozens of small and medium-sized criminal organizations are involved in opiate trafficking in each country along the northern route, though it is also difficult to estimate their number. The Russian media have reported an estimate by the Federal Drug Control Service of some 150 large DTOs based in Central Asia involved in drug smuggling into the Russian Federation. In the past five years, 26 000 DTOs have been dismantled and 1.2 million individuals given prison sentences or fined for drug trafficking in the Russian Federation.

Structure of drug trafficking organizations along the northern route

The majority of DTOs operating along the northern route are based on ethnic, clan and/or family ties, and rely on the strength of the cross-border solidarity between their members. These groups usually maintain stable transnational ties and have close relationships not only with their home countries, but also with diasporas established abroad. Creating closed organizations, often communicating in ethnic dialects to enhance security, transnational criminal groups organized along such lines are effective in trafficking opiates transnationally.

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276  N30 Interview with foreign law enforcement organization, Kabul, 2016.
277  N30 Interview with foreign law enforcement organization, Kabul, 2016.
278  De Danieli, F., “Beyond the drug-terror nexus: drug trafficking and state-crime relations in Central Asia”.
281  N15 Interview with Kyrgyz government department, Bishkek, 2016.
The structure of DTOs and their relations, both internally and with each other, are often based on four criteria:

- **Geographical ties**: members of DTOs come from the same village, town or region.283
- **Family or kinship ties**: members of an organization belong to the same family, which is often an extended family comprising several dozen members, including cousins, uncles, nephews, etc. (almost all DTOs operating along the northern route are male-dominated). Family or kinship ties often overlap with geographical criteria because families are usually located in the same village, town or neighborhood.
- **Common business relationships**
- **Ethnic-based ties**284

A combination of these four factors is usually present among DTOs along the northern route, with no single driving force behind the links between group members. UNODC interviews with experts in Central Asia285 and law enforcement sources in Afghanistan286 confirm that criminal groups along the northern route are structured around these four criteria.

**Structure of drug trafficking organizations in Afghanistan**

The Afghan-Tajik border seems to be the main entry point for Afghan opiates smuggled along the northern route. The Afghan-Tajik border is reportedly a known area of operation for a number of relatively sophisticated criminal groups involved in drug smuggling.287 The largest Afghan criminal organizations are widespread, both within Afghanistan and internationally, and are vertically integrated across all levels of the trade, with involvement in cultivation, processing and trafficking both within the country and beyond.288 Some Tajik DTOs have gone through a similar process of vertical integration.289

In Afghanistan, the amateur smugglers and traders, who were relatively isolated from each other and who characterised the trade in the 1990s and early 2000s, may now be evolving towards a more formalized structure, controlled by a smaller number of "hard-core" drug lords.290 The larger Afghan DTOs have either absorbed smaller criminal groups or have pushed them out of the trade entirely, retaining only those small groups that provide a particular niche service, as a network of external service providers.291 These larger trafficking organizations reportedly follow a hierarchical structure,292 with a single head of the organization who is usually a powerful tribal elder or local powerbroker.293 The rest of the organization is structured around 10-15 high-level members, usually from the same family, each of whom has a specific role (for example, one member would be responsible for arranging trafficking to Pakistan, another to Tajikistan, a third member may be responsible for finances, etc.). The senior members of these organizations work together to make joint decisions on how to conduct trafficking activities.294 The DTO would also use the services of a number of smaller, independent "niche" networks that provide a particular service; for example, processing at a particular laboratory, or providing transport along a particular stretch of road.

283 N07 Interview with Tajik government department, Dushanbe, 2016.
284 N09 Interview with Tajik government department, Dushanbe, 2016.
286 N30 Interview with foreign law enforcement organization, Kabul, 2016.
287 N04 Interview with Tajik government department, Dushanbe, 2016.
288 N26 Interview with Afghan government department, Kabul, 2016.
289 N30 Interview with foreign law enforcement organization, Kabul, 2016.
290 N30 Interview with foreign law enforcement organization, Kabul, 2016.
291 N30 Interview with foreign law enforcement organization, Kabul, 2016.
292 N30 Interview with foreign law enforcement organization, Kabul, 2016.
293 N30 Interview with foreign law enforcement organization, Kabul, 2016.
294 N30 Interview with foreign law enforcement organization, Kabul, 2016.
Afghan DTOs are based on ethnic, tribal and family ties, giving them some degree of security in what is largely a trust-based business. These ties cut across the regions of Afghanistan; for example, Pashtun traffickers in key opium-producing districts in Balkh province, such as the Chahar Bolak, Balkh and Chimtal districts, reportedly have contacts with Pashtun traffickers in southern Afghanistan, and there are family and tribal connections between traffickers in Helmand and Kandahar, and tribes based in Badghis province. Afghan DTOs based in northern Afghanistan are also reported to have trusted representatives distributed throughout the major opiate processing centres in Afghanistan, including in Helmand province in southern Afghanistan, and in Nangarhar province in eastern Afghanistan.

The opiate trade in northern Afghanistan, and within the country more generally, is heavily linked to the ongoing insurgency. Unlike southern Afghanistan, where the insurgency is dominated by the Taliban, in northern Afghanistan opposition to the Government comes from a variety of local powerbrokers and warlords, many of whom have historical and long-standing connections to the drug trade. For example, DTOs in eastern Badakhshan province tend to be linked to local non-governmental powerbrokers, while DTOs in western Badakhshan province seem to resort more to corrupt patronage.

As a result of the arrests of the heads of a number of DTOs in the past 10 years, many of the heads of DTOs in Afghanistan either no longer live in the country or, if they do, are removed from any connection to trafficking by several layers of subordinates in order to protect themselves from law enforcement activity. In northern Afghanistan, DTOs mainly specialize in the production, transportation and export of heroin to Tajikistan.

There is some indication that the price of heroin produced in laboratories in Afghanistan is determined by the major trafficking groups in the country, which keeps prices artificially stable. As major networks have representatives in most of the processing centres in Afghanistan, they can source processed opiates from different regions depending on their price and quality.

**Structure of drug trafficking organizations in Central Asia**

DTOs operating in Central Asia appear to be based on either one of the following two models: a loose decentralized network or a hierarchical pyramidal organization. Opiate trafficking along the northern route appears to be dominated by small criminal organizations, largely based around decentralized networks. These networks comprise small, localized, organizations, which usually transport drug shipments through one or two countries. Typically, these types of DTOs purchase a shipment of opiates in one country then smuggle it to a neighbouring country where they resell it to another DTO. In this type of drug trafficking, DTOs make their profit on only one or two segments of the northern route. However, in some parts of Central Asia, hierarchically structured DTOs similar to those found in Afghanistan also exist; they are usually led by a well-known, influential leader and tend to control a number of elements of the illicit trade across multiple areas, from the Afghan border to the Russian Federation, including the supply from producers and cross-border trafficking activity. They also use their own financial experts to launder drug profits.

295 N30 Interview with foreign law enforcement organization, Kabul, 2016.
296 N30 Interview with foreign law enforcement organization, Kabul, 2016.
297 N29 Interview with foreign law enforcement organization, Kabul, 2016; N30 Interview with foreign law enforcement organization, Kabul, 2016; N28 Interview with Afghan government department, Kabul, 2016; N26 Interview with Afghan government department, Kabul, 2016; N22 Interview with Afghan government department, Kabul, 2016.
299 N30 Interview with foreign law enforcement organization, Kabul, 2016.
300 N30 Interview with foreign law enforcement organization, Kabul, 2016.
301 N30 Interview with foreign law enforcement organization, Kabul, 2016.
Although DTOs based in Central Asia are specialized in the shipment, storage and distribution of opiates,\textsuperscript{303} there is no evidence that they are currently processing opium into heroin, which remains the monopoly of Afghan DTOs. It is possible that the larger, more hierarchical DTOs trafficking heroin along the northern route outsource some of their activities to smaller, more localized DTOs, partly to enhance security by compartmentalizing some elements of trafficking activity from the rest of the organization. Even though some large DTOs have been dismantled in recent years, (see case study on the "First swallow") DTOs in Central Asia seem to have become relatively more compact criminal groups than before, with less than 10 members on average. Law enforcement estimates in the region suggest that traffickers now prefer to operate in smaller and more compact organizations than in the early 2000s.\textsuperscript{304}

**Structure of drug trafficking organizations in Tajikistan**

It is possible, however, that large DTOs are still operating along the northern route. For example, an interview in Tajikistan mentioned the dismantlement by law enforcement in January 2014 of the largest DTO dismantled in recent years. The DTO consisted of 11 Tajik members who were directly involved in trafficking from Afghanistan, sourcing opiates from Afghan suppliers, often using several intermediaries to manage other members of the DTO.\textsuperscript{305} It has also been suggested that Tajik DTOs are now smaller than 15 years ago, with DTOs based in Khatlon Oblast consisting of between 10 and 30 members, while DTOs in GBAO consist of between 15 and 25 members.\textsuperscript{306} After having transformed their organizations into vertically-integrated, though smaller, structures, Badakhshani traffickers have established durable relations based on trust with Afghan DTOs, while “further along the supply chain, the connections between Tajik criminal syndicates and Russian mafias are also now more structured.”\textsuperscript{307} Interviews with Tajik officials suggest that most of the DTOs dismantled in recent years were small, each consisting of less than 10 members and composed of 3 or 4 importers, 2 to 3 people in charge of stocks, and 1 to 3 people in charge of finding wholesale purchasers.\textsuperscript{308} A similar trend towards smaller DTOs had already been identified in the GBAO in 2006, with trafficking groups “becoming smaller, more cohesive and more professional, specializing more strongly in trafficking and becoming less concerned with selling to local consumers.”\textsuperscript{309}

**Structure of drug trafficking organizations in Uzbekistan**

In Uzbekistan, DTOs involved in cross-border trafficking are generally divided into organized criminal groups based around communities such as ethnic groups and clans.\textsuperscript{310} These social groups can be exploited by criminal organizations.\textsuperscript{311} Reports have also suggested that in the past, the Islamic Movement of Uzbekistan used narcotic trafficking as a source of funding. In 2000, INTERPOL described the Islamic Movement of Uzbekistan as a terrorist organization where criminal interest took on an increasingly important role.\textsuperscript{312}

\textsuperscript{303} N09 Interview with Tajik government department, Dushanbe, 2016; N08 Interview with Tajik government department, Dushanbe, 2016.
\textsuperscript{304} N08 Interview with Tajik government department, Dushanbe, 2016.
\textsuperscript{305} N08 Interview with Tajik government department, Dushanbe, 2016.
\textsuperscript{306} N08 Interview with Tajik government department, Dushanbe, 2016.
\textsuperscript{307} De Danieli, F., “Silk Road mafias: the political economy of drugs and state-building in post-Soviet Tajikistan”.
\textsuperscript{308} N08 Interview with Tajik government department, Dushanbe, 2016.
\textsuperscript{310} Телляков, О.В. и Чупин, А.В. (Тепляков, О.В., Чупин, А.В., «Организация антинаркотической деятельности правоохранительных органов Республики Узбекистан», Антинаркотическая Безопасность, №1 (4), 2015, с. 53-58).
Structure of drug trafficking organizations in Kyrgyzstan

Based on law enforcement interviews, Kyrgyz opiate trafficking organizations appear to be small, consisting of, on average, five members, or between four and seven members, depending on estimates. There seems to be a clear separation between the heads and lower-level members of Kyrgyz DTOs, with two or three "tiers" of intermediaries between the DTO head and the lowest level members; it is usually these lower-level members who are more frequently arrested. There is also a clear separation between external cells or branches — those who transport drugs rarely engage in selling them. According to interviews with the Counter Narcotics Department of the Interior Ministry of Kyrgyzstan, DTOs dismantled in Kyrgyzstan are often "compartmentalized" into several isolated groups whose members do not know the members of other groups. Members use specific coded terms to communicate with each other.

Major Kyrgyz DTOs are primarily involved in the transportation and trade of drugs, and avoid other, non-drug-related criminal activities. Kyrgyz DTOs appear to be more specialized than others, focusing on a limited market segment of the opiate economy, mainly transportation or distribution. Some Kyrgyz DTOs smuggle drugs from Afghanistan, via Tajikistan, into Kyrgyzstan, while others are in charge of trafficking drugs from Kyrgyzstan to other CIS countries, including the major industrial centres of the Russian Federation. Other criminal groups, which are not involved in the drug trade specifically, provide services to DTOs involved in heroin trafficking, including protection by influential criminal leaders, logistics, money laundering, intelligence and other services.

There is, however a north-south divide in this specialization. In northern Kyrgyzstan, specifically the Talas region, DTOs specialize in smuggling locally produced cannabis into Kazakhstan (and probably further north), while in the three southern regions of Batken, Jalal-abad and Osh, DTOs specialize more in heroin and opium trafficking, as well as the trafficking of cannabis produced in Afghanistan. Ten years ago, traffickers crossing Kyrgyzstan reportedly used

Case Study: The “First swallow” case: a transnational DTO in Kazakhstan

As a result of a 2016 joint police investigation conducted between law enforcement organizations in Kazakhstan and Kyrgyzstan, drug traffickers operating in four places in Kazakhstan (Kostanay, Rudny, Lisakovsk, and Karaganda) were arrested and 3 kg of heroin were seized. Media reports revealed that this DTO was run by a Kyrgyz citizen, who is the son-in-law of a drug baron known by his alias the "First swallow", based in Osh, located in the Fergana Valley in Kyrgyzstan. The "First swallow" was the supplier and main partner of the DTO and one of the first traffickers to organize heroin smuggling from Afghanistan into Kyrgyzstan. The "First swallow" served several sentences for drug trafficking when he was young. In prison he built up networks with other drug traffickers and established smuggling channels for high-quality Afghan heroin. This was the largest DTO to be dismantled in Kazakhstan since 2011; it comprised 15 members, including citizens of Kazakhstan, Kyrgyzstan, Ukraine and the Russian Federation. In addition to supplying the Kostanay Oblast, the DTO had been trying to supply heroin to the North-Kazakhstan Oblast.

Sources:

313 N15 Interview with Kyrgyz government department, Bishkek, 2016.
314 N12 Interview with Kyrgyz government department, Bishkek, 2016.
315 N13 Interview with Kyrgyz government department, Bishkek, 2016.
316 N11 Interview with Kyrgyz government department, Bishkek, 2016.
317 N15 Interview with Kyrgyz government department, Bishkek, 2016; N12 Interview with Kyrgyz government department, Bishkek, 2016.
320 N15 Interview with Kyrgyz government department, Bishkek, 2016.
to break the journey up into several legs, with separate organizations moving opiates during each leg of the journey across Kyrgyzstan. However, at present most shipments appear to be moved by the same group from point A (for example, Tajikistan) to point B (for example, Kazakhstan or the Russian Federation) via Kyrgyzstan, which may explain why DTOs along the northern route are now smaller than in the past.

**Structure of drug trafficking organizations in Kazakhstan**

In Kazakhstan, DTOs appear to be relatively small, comprising, on average, three to four members, with the largest DTO dismantled by the police in recent years consisting of 10 members. This contrasts with the situation in the 1990s and 2000s when DTOs were more organized criminal groups with several levels between the leader and rank-and-file members, and usually comprised more than 50 members. Unlike in the rest of Central Asia, DTOs based on ethnic ties are quite rare in Kazakhstan. In the mid-2000s, a number of large and medium-sized DTOs in Kazakhstan expanded their activities beyond opiate trafficking to less risky activities such as racketeering and the smuggling of fuel and food products from China and other neighboring countries. According to local law enforcement, the remaining large and medium organized crime groups were dismantled in 2011-2012, leaving only the smaller DTOs in operation.

**Structure of drug trafficking organizations in the Russian Federation**

DTOs in the Russian Federation mainly consist of Russian nationals and citizens from Tajikistan, Kyrgyzstan, Uzbekistan and Kazakhstan. In addition to relatively large transnational DTOs in charge of smuggling opiates into the Russian Federation, a plethora of locally based organizations are responsible for the interregional transportation of smaller volumes of opiates as well as retail distribution. Russian DTOs are a mix of both hierarchical pyramid structures and looser network structures, with those in charge of wholesale smuggling being pyramidal while those in charge of distribution in the Russian Federation appear to be more based on networks. Previous studies have suggested that the wholesale level is run largely by organized crime groups that have become more structured and are now built around complex hierarchical structures governed by sophisticated managerial models.

DTOs within the Russian Federation are frequently based on closely-knit communities built around local, family, clan and linguistic ties. These DTOs can be divided into three categories:

1) based around ethnicities found within the Russian Federation itself, such as Chechens, which have large diasporas both in major Russian cities and in transit countries along the northern route (predominantly Kazakhstan, Kyrgyzstan and Uzbekistan);

2) based around ethnic groups from outside the Russian Federation, such as Tajiks and Uzbeks, originating in transit countries along the northern route, which also have large, more recent diasporas in the Russian Federation as a result of labour migrations during the early 1990s.

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321 This scheme was described by Townsend, J. in “The logistics of opiate trafficking in Tajikistan, Kyrgyzstan and Kazakhstan”.

322 N01 Interview with Kazakh government department, Astana, 2016.

323 N01 Interview with Kazakh government department, Astana, 2016.

324 N01 Interview with Kazakh government department, Astana, 2016.

325 N01 Interview with Kazakh government department, Astana, 2016.

326 Bolshakov, A.P. (Большаков, А.П. (2014), Организованная преступность в сфере наркобизнеса – российская проблема ХХI века, Наука и современность, сборник статей Международной научно-практической конференции (8 ноября 2014, Уфа), Уфа,РИО МЦИИ Омега Сайнс,).

327 N16 Interview with international organization, Moscow, 2016.


329 N16 Interview with international organization, Moscow, 2016.

3) based around ethnic groups based outside the Russian Federation, such as Georgian, Armenian and Azerbaijani groups, which have been present in the Russian Federation since the Soviet era, as well as in other former Soviet Republics, including transit countries along the northern route.

Russian law enforcement suggests that DTOs tend to be structured around a stable core of two to three members, while the rest of the organization generally consists of about 50 members, which evolves according to context and depending on each specific operation. This makes DTOs in the Russian Federation less formally structured than the DTOs seen in Afghanistan and parts of Central Asia.\textsuperscript{331} Russian DTOs appear to have expanded their spheres of influence both within the Russian Federation and abroad. According to UNODC field interviews, the major Russian DTOs are dominated by the leaders of DTOs that control distribution, incorporating all the drug trafficking steps, from importation in Central Asia to local distribution within the Russian Federation.\textsuperscript{332}

A previous study identified four categories of participants in DTOs in the Russian Federation:

First are the “executors”, comprising lower level manufacturers, carriers and retail distributors, who act either under threat or in exchange for financial reward.

Second are the “instigators”, comprising members of organized criminal groups such as “vorovskoy obshchak” as well as ethnic criminal organized groups, who instigate the production of drugs, their transportation and distribution.

Third are the “organizers”, comprising suppliers who manage the activities of drug couriers and retail distributors; they are also the heads of drug enterprises and their branches who “license” the activity of drug suppliers (leaders of criminal groups).

Finally, there are “helpers”, comprising specialist advisers on agricultural, technological, transport, trade, financial and law issues, as well as corrupt officials from state administration and law enforcement. Without the contribution of these participants, who provide necessary information for running illegal business, removing obstacles, covering criminals or the traces of their crimes, DTOs in the Russian Federation could not operate as effectively.\textsuperscript{333}

**Arrests for drug offences along the northern route**

**Overview**

The majority of people arrested for trafficking offences in the countries along the northern route are citizens of those countries, while foreign citizens suspected of, or cautioned/charged for, trafficking offences represent only a fraction of the total number of arrests for drug offences. This suggests that trafficking activity along the northern route is largely the preserve of national DTOs based in their country of origin. Of the foreign citizens arrested in countries along the northern route, the majority appear to be from countries adjacent to the country in which they were arrested, which suggests that most national DTOs operating along the northern route have connections to DTOs in neighbouring countries, rather than to large multinational networks.

DTOs operating in transit countries along the northern route have established close transborder cooperation mainly based on ethnic diasporas. The importance of ethnic ties in the structure of DTOs along the northern route gives more consistency to the analysis of drug-related crime by nationality. The number of foreign nationals arrest-
ed for drug-related crimes could be used as an indicator of the degree of involvement of foreign DTOs operating in a given country or the degree of internationalization of locally based transnational DTOs. However, this approach should be treated with caution for several reasons. First, the official data on arrestees do not distinguish between different types of drugs, so a proportion of arrestees from these countries will have been involved in other types of drug smuggling. Second, drug-related crime data also include the possession of small quantities destined for local distribution or even for personal consumption, rather than wholesale trafficking. Third, the data on the citizenship of arrestees do not exactly reflect the origin of the criminal organization, which may be made up of members of several different countries. Fourth, the data do not include dual nationality and other naturalizations, as has been highlighted by the field data; for example, a notorious heroin trafficker from St. Petersburg, who had been suspected of smuggling hundreds of kilograms of heroin from Tajikistan into the Russian Federation, was a Tajik citizen who had arrived in the Russian Federation as a labour migrant and later obtained Russian citizenship by marriage. Third, the number of foreign citizens represents a minor proportion (less than 5 per cent) of the total number of arrestees for drug-related crime. Even if the vast majority of arrestees for drug-related crime are citizens of each reporting country, the analysis of foreign citizens arrested for drug-related crime in Central Asia suggests that the foreign citizens most active in transnational trafficking along the northern route are of Russian, Afghan, Kyrgyz and Tajik citizenship. This reflects ongoing relationships along the northern route between DTOs in Central Asia and the Russian Federation.

**Kazakhstan**

Data on foreign arrestees for drug trafficking in Kazakhstan are limited, with only 2014 data available. Almost half the foreign citizens arrested for drug trafficking offences in Kazakhstan in 2014 were Russian citizens. This situation may be explained by the presence of a large Russian/ethnic Slavic community in Kazakhstan, which has maintained close ties with the neighbouring Russian Federation, as well as the fact that the Russian Federation, the largest consumer market for opiates in the region, borders Kazakhstan.

The second largest group of foreigners arrested for drug offences in Kazakhstan in 2014 comprised Kyrgyz citizens (40 arrestees), followed by Uzbek citizens (15 arrestees). The respective size of these two groups likely reflects the importance of opiate smuggling routes through Kyrgyzstan and Uzbekistan en route to Kazakhstan. Based on available data, the presence of Tajik traffickers in Kazakhstan seems to be marginal. The fact that a small number of Turkmen citizens were arrested for drug offences in Kazakhstan in 2014 may point to the existence of a minor drug smuggling route from Turkmenistan through Kazakhstan. Law enforcement agencies in other Central Asian countries and the Russian Federation confirm that Kazakh criminal groups participate in transnational DTOs operating at the regional level. This has been highlighted by a recent case of several seizures made in Kazakhstan’s Kostanay and Karaganda Oblasts. Arrests made in April 2016 revealed the existence of a relatively large transnational DTO involved in smuggling heroin from Kyrgyzstan into Kazakhstan and then into the Russian Federation, which was also supplying heroin to the northern Oblasts of Kazakhstan (see the “First swallow” case study). Previous research from 2006 suggested that some opiate shipments change ownership in Kazakhstan, with Russian DTOs purchasing drugs there in order to smuggle them onwards, using their own logistical chain, to final consumer markets via their own distribution networks. Other shipments would be smuggled by their original owners, mainly Tajik or Kyrgyz drug traffickers, with the logistical help of local Kazakh organized crime groups.

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335 N16 Interview with international organization, Moscow, 2016; N07 Interview with Tajik government department, Dushanbe, 2016; N12 Interview with Kyrgyz department, Bishkek, 2016; N15 Interview with Kyrgyz department, Bishkek, 2016; N13 Interview with Kyrgyz department, Bishkek, 2016

336 Townsend, J., “The logistics of opiate trafficking in Tajikistan, Kyrgyzstan and Kazakhstan”.

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Figure 64: Number of persons arrested, by nationality, for drug trafficking in Kazakhstan, 2014

Source: UNODC, responses to the annual report questionnaire.

**Kyrgyzstan**

In Kyrgyzstan, accounting for 57 arrests over the period 2011-2015, Tajik citizens constitute the largest group of foreigners arrested for drug trafficking offences; a trend that dates back to the 2000s. Citizens from two neighboring countries, Uzbekistan (36) and Kazakhstan (20), make up the next-largest groups of foreign traffickers arrested in Kyrgyzstan. Kyrgyz Law Enforcement confirms the involvement of these groups as well as others, such as Meskh-Turkish, Kurdish and Caucasian DTOs, in opiate trafficking, suggesting that DTOs from outside the northern route also source opiates from Kyrgyzstan. As an example, the female head of a Chechen DTO based in Kyrgyzstan, the sister of a famous Russian Vor v Zakone ("thief-in-law"), had been operating a network of drug-selling points and organizing her own supply channel through Osh when she was arrested in possession of 30 kg of heroin in January 2016 in Yuzhnouralsk (Chelyabinsk Oblast), Russian Federation. Small numbers of citizens of the United Arab Emirates (one), China (one) and Lithuania (one) have also been arrested in Kyrgyzstan.

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337 Data for 2013 for Kyrgyzstan were not available prior to publication.
338 Townsend, J., "The logistics of opiate trafficking in Tajikistan, Kyrgyzstan and Kazakhstan
339 N11 Interview with Kyrgyz government department, Bishkek, 2016; N15 Interview with Kyrgyz government department, Bishkek, 2016.
340 Kupatadze, A., "Kyrgyzstan — A virtual narco-state?".
**Figure 65:** Number of persons, by nationality, arrested for drug trafficking in Kyrgyzstan, 2011-2015

![Graph showing the number of persons arrested by nationality from 2011 to 2015.](image)

- **Kyrgyzstan**: 5,072 (98%)
- **Foreign citizens**: 133 (2%)
  - **Tajikistan**: 57
  - **Uzbekistan**: 36
  - **Russian Federation**: 12
  - **Kazakhstan**: 20
  - **Other countries**: 8

Source: UNODC, responses to the annual report questionnaire, 2011-2015. Data for 2013 were not available prior to publication.

**Tajikistan**

Afghan citizens constitute the largest group of arrested drug offenders of foreign citizenship in Tajikistan, totalling 137 arrestees over the period 2011-2015, more than all other foreign citizens together (41 arrestees of various nationalities). Tajik law enforcement officials also confirmed the importance of Afghan citizens in the DTOs operating in Tajikistan. In the period 2011-2015, the number of foreigners arrested for drug-related crimes steadily decreased from 50 of various nationalities in 2011 to only 25 in 2015. A small number of Uzbek citizens (six) were arrested over a limited period, 2011-2012, indicating the occasional involvement of Uzbek DTOs or individual Uzbek traffickers smuggling opiates from Tajikistan into Uzbekistan. The presence of Iranian citizens among arrestees in Tajikistan was equally limited (six) over the period 2012-2013.

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342 N04 Interview with Tajik government department, Dushanbe, 2016; N09 Interview with Tajik government department, Dushanbe, 2016; N07 Interview with Tajik government department, Dushanbe, 2016.
Turkmenistan

Information on drug trafficking offences in Turkmenistan is limited. Turkmen citizens represent the largest number of people arrested in the country, with 5,115 arrestees over the period 2011-2014.\textsuperscript{343} Iranian citizens constitute the next-largest group, at 125 arrestees. DTOs may be benefitting from the development of trade relations between Turkmenistan and the Islamic Republic of Iran in recent years.\textsuperscript{344} Afghan citizens accounted for 36 arrestees, which is consistent with Afghan DTOs smuggling opiates into the Islamic Republic of Iran from Badghis province via Turkmenistan. Turkish citizens were also arrested in Turkmenistan during the period in question, possibly indicating that Balkan route DTOs are sourcing opiates via the northern route, or that the Balkan and northern routes overlap in Turkmenistan.

\textsuperscript{343} 2015 data for Turkmenistan were not available prior to publication.

Figure 67: Number of persons, by nationality, arrested for drug trafficking in Turkmenistan, 2011-2014


Russian Federation

According to data provided to UNODC, over 16,000 foreign citizens were arrested for drug trafficking in the Russian Federation over the period 2011-2015, with Tajik citizens forming the largest single group of foreign arrestees. The involvement of Tajik citizens in opiate smuggling into the Russian Federation is confirmed by both Russian law enforcement and a previous study, lending weight to the argument that Tajik DTOs can operate, in some cases, across the whole northern route. Large numbers of Uzbek citizens were also arrested over the period in question, suggesting that Uzbek DTOs, like Tajik DTOs, are also well established in the Russian Federation. Labour migration from transit countries along the northern route to the Russian Federation may sometimes be used for drug trafficking, whereby migrants are paid to smuggle small volumes of opiates into the Russian Federation.

345 N16 interview with international organization, Moscow, 2016.
As with the pattern seen with Tajik citizens, large flows of Uzbek labour migrants in the Russian Federation create continuous cross-border movement of persons between the two countries, which may facilitate trafficking activity,\textsuperscript{348} for example, members of an Uzbek DTO were detained for smuggling heroin into the Russian Federation from Uzbekistan.\textsuperscript{349}

Large numbers of Ukrainian citizens (3,607 arrestees) and Azeri citizens (1,502 arrestees), were also arrested for drug trafficking offences over the period 2011-2015 in the Russian Federation. Within the drug trade, Azeri DTOs appear to act as wholesalers and intermediaries between drug importers and retailers.\textsuperscript{350} The large number of Azeri citizens arrested for drug trafficking adds weight to the suggestion that a sub-route into the Russian Federation via the Caucasus developed during the period 2011-2015, something that may be supported by the number of arrestees from other Caucasus countries, including Georgia (358 arrestees) and Armenia (573 arrestees).

**Figure 68:** Number of persons arrested, by nationality, for drug trafficking in the Russian Federation, 2011-2015

![Figure 68](image)

Source: responses to the annual report questionnaire.

### Uzbekistan

In Uzbekistan, Tajik and Afghan citizens constitute the main foreign drug trafficking arrestees over the period 2011-2015, at 151 and 117 arrestees, respectively. Russian and Kazakh citizens were also well represented among foreign arrestees over that period, at 110 and 61 arrestees, respectively. The nationalities of drug trafficking arrestees in Uzbekistan are more diverse than in other countries in Central Asia and include Iranian and European citizens. These data suggest that in addition to national trafficking organizations operating within Uzbekistan, the country appears to be the place where opiate importers from Kazakhstan and the Russian Federation meet with


exporters from Afghanistan and Tajikistan. Drug smuggling operations are frequently conducted by a wide range of transnational DTOs, who organize trans-shipment through the country, or by locally based organizations with contacts abroad. Kyrgyz law enforcement confirm the participation of Uzbek criminal elements in Kyrgyz and Russian transnational DTOs.

**Figure 69:** Number of persons, by nationality, arrested for drug trafficking in Uzbekistan, 2011-2015

- **Uzbekistan** 24,213 (98%)
- **Foreign citizens** 986 (2%)
- **Afghanistan** 117
- **Kazakhstan** 61
- **Kyrgyzstan** 61
- **Tajikistan** 151
- **Russian Federation** 110
- **Turkmenistan** 110
- **Other countries** 8

Source: UNODC, responses to the annual report questionnaire.

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351 N19 Interview with Uzbek government department, Tashkent, 2016.
352 N16 Interview with international organization, Moscow, 2016.
353 N15 Interview with Kyrgyz government department, Bishkek, 2016.
Opiate distribution and retail sale along the northern route

Central Asia

Retail distribution in Tajikistan is made up of a network of drug dealers (known in Russian as "barygi") who connect wholesalers of opiates with final consumers. Distribution networks operate in places where there is a concentration of drug consumers, such as Dushanbe, Khatlon and Khorog. Low-level drug trade in Kyrgyzstan can be described as "highly decentralized" and requiring "the functional cooperation of various district-based groups." At the local level, the distribution of opiates has often been under the control of ethnicity-based criminal groups. There is evidence pointing to a strong penetration of professional criminals (Vor v Zakone or "thieves-in-law") in the distribution of opiates in Kyrgyzstan. Organizations in charge of opiate distribution are concentrated in two regions: the Chuy Region (including the capital Bishkek) and the Osh Oblast (including Osh city), where most opiate users are located in Kyrgyzstan. These clusters of opiate users correspond precisely to two drug trafficking hubs in Kyrgyzstan.

Uzbek law-enforcement reports that Uzbek DTOs are not usually connected to larger transnational DTOs involved in the transit of opiates through Uzbekistan. Academic sources suggest, however, that local criminal groups may occasionally take part in transnational drug trafficking, as auxiliary forces (for shipping or storing drugs), on the request of clan-based criminal groups. In Kazakhstan, at the retail level there is a plethora of rather small organizations specializing mostly in the smuggling of goods and materials in and out of the country, which only have infrequent direct involvement in the large-scale transit of opiates destined for the Russian Federation. Kazakh law enforcement suggests that locally based DTOs are rather small organizations with a short life span. Information on the DTOs dismantled by the police in 2014 indicate that these are mainly small units characterized by loose horizontal ties between their members and an absence of clearly established leaders or a pyramidal structure. These groups are often created on an ad hoc basis by local petty criminals, or other individuals involved in opiate smuggling, who seek to obtain short-term profits. Kazakh DTOs have a relatively short life span (usually around several months) and disappear depending on changing circumstances.

Case Study: A DTO involved in the distribution of heroin in Samara, Russian Federation

In March 2015, the local branch of a Russian Federation counter-narcotics law enforcement agency based in Samara uncovered a locally based DTO. The DTO had actively used a non-contact method of distribution, making around 100 deliveries across the city of Samara (population approximately 1.1 million), selling an average of 500 g of heroin per day. Eleven members of the DTO were arrested, including the organizer, an "accountant" and several heads of groups in charge of the distribution. The preliminary investigation proved the participation of members of the DTO in 82 cases of heroin trafficking and the laundering of 278 million roubles (approximately $4.5 million).

This case illustrates the functioning of a typical regionally based distribution DTO in the Russian Federation with a relatively sophisticated modus operandi and a multi-level structure comprising various members with well-defined work division. According to Russian law enforcement, most locally based DTOs have evolved towards this business model.


354 Kupatadze, A., "Kyrgyzstan — A virtual narco-state?".
355 Ibid.
356 N19 Interview with Uzbek government department, Tashkent, 2016.
359 N01 Interview with Kazakh government department, Astana, 2016.
360 N01 Interview with Kazakh government department, Astana, 2016.
local distribution has been run following the same model as the rest of the region, with wholesalers connecting local dealers. It would seem that there is an interaction between local DTOs involved mostly in street-level distribution of heroin and transnational DTOs that organise the transit destined for the Russian Federation. Kazakh law enforcement suggests that a small proportion of heroin shipments in transit is sold to local distributors along the route, particularly in Karaganda, Kostanay and Pavlodar, and to a much lesser extent in Almaty and Astana.361

**Russian Federation**

In the Russian Federation, a significant portion of drug users appear to be directly participating in drug retail distribution. They are involved in street-level dealing, keeping drug dens and providing other small services to wholesalers, and are usually paid in heroin, which they either use personally or resell to other drug users. Drug users involved in drug trafficking are the most exposed segment of local DTO; they are often arrested and continue their illicit activity in prison from where they organize drug distribution.362 The Russian *barygi* tend to avoid supplying opiates to street dealers in person, instead using cell phones and e-mail, with payment being executed via instant online payment systems.363

**Financial flows and drug profits along the northern route**

Based on UNODC field interviews, three main methods of moving funds in the context of opioid trafficking through the northern route have been identified. The first involves traditional bank or money exchange transfers, the second is based on the basic barter of opiates for goods (mainly cars) and the third involves informal money transfer systems such as *hawala*. DTOs frequently use a combination of all three to process drug trafficking profits. Bank transfers are usually made when members of a DTO reside in two or more countries. Electronic money transfer agencies, such as Western Union, Migom and Zolotaya Korona, are used by traffickers as they do not require bank accounts. The latter is accessible via mobile-phone shops and electronic self-service kiosks.364

Although much of the illicit opioid trade along the northern route could be paid for in a range of regional and international currencies, United States dollars appear to be the main foreign currency used by DTOs in the region, particularly in Afghanistan and Tajikistan.365 United States dollars are easier to launder through the international banking network and are less susceptible to devaluations that affect other currencies. For example, the rouble saw a significant devaluation in 2014, which may have had an impact on the ability of DTOs to engage in drug transactions.

DTOs along the northern route also use barter, exchanging heroin shipments against other merchandise and goods,366 which may also play a role in avoiding the potential impact of currency fluctuations. High-value cars delivered from the Russian Federation and the United Arab Emirates are often exchanged between Tajik and Kyrgyz DTOs and their Afghan counterparts.367 These cars can also be used as a means of trafficking (with compartments for concealing drugs added at extra cost), as a means of exchange in lieu of money with Afghan traffickers, or as private vehicles for use by local opiate kingpins and their networks. Opiates are sometimes exchanged for alcohol, the use of which is prohibited in Afghanistan,368 and which attracts a high price there, while synthetic drugs were reported as being bartered at the Kyrgyz-Chinese border in exchange for opiates.369

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361 N01 Interview with Kazakh government department, Astana, 2016.
364 “ZolotayaKorona” money transfers, website. Available at: [http://www.perevod-korona.com/Pages/About.aspx](http://www.perevod-korona.com/Pages/About.aspx).
365 N15 Interview with Kyrgyz government department, Bishkek, 2016.
366 Kupatadze, A., “Kyrgyzstan — A virtual narco-state?,”.
367 N09 Interview with Tajik government department, Dushanbe, 2016.
368 East West Institute, “Afghan-narcotrafficking: The state of Afghanistan’s borders” (Brussels, 2015).
369 N16 Interview with international organization, Moscow, 2016.
Case Study: Financial flows associated with northern route opiate trafficking

A major transnational DTO, which had smuggled or tried to smuggle hundreds of kilograms of heroin into the Russian Federation, was disrupted in 2012–2013. The DTO had a sophisticated money laundering scheme centred on Dubai, where illicit drug profits were invested.

The head of the DTO was a dual Russian-Tajik citizen, born in Tajikistan, who migrated to St. Petersburg in the Russian Federation where he started to conceal heroin in fruit shipments carried by his import-export trucking company. The company operated throughout Central Asia and the Russian Federation from 2006 onwards. Between 2008 and 2012, Russian law enforcement identified at least three smuggling operations belonging to the DTO, which accounted for more than a ton of heroin being smuggled into the Russian Federation. The first involved the movement of 37 kg of heroin into the Russian Federation, followed by 400 kg and then 900 kg, the last of the three being seized by Russian police. In November 2012, the Federal Drug Control Service of the Russian Federation announced the completion of the counter-narcotics police operation against the DTO under the operational name, “Cartel”. Operation “Cartel” lasted for four years, leading to the arrest of 25 drug dealers, and was followed in December 2012 by a second operation against the DTO, which led to the seizure of 250 kg of heroin in both the Russian Federation’s Kemerov Oblast and in Kazakhstan.

Following this operation, the head of the DTO fled to the United Arab Emirates, where he invested his drug profits in real estate and continued to organize his criminal activity from Dubai, working through a front company as a car importer. He was arrested in Dubai at the end of 2012, based on an international arrest warrant issued by Interpol, and was extradited to the Russian Federation in 2013. The arrest and extradition was the result of a joint police operation conducted by the Federal Drug Control Service of the Russian Federation, the Interior Ministry of the United Arab Emirates, the United States Drug Enforcement Administration, Kazakhstan’s Committee for National Security and the Belarusian Interior Ministry, with the coordination of Interpol. This case study is illustrative in highlighting the transnational nature of not only trafficking activity, but also of the associated illicit financial flows and the international law enforcement cooperation required to dismantle major trafficking networks.

Sources:

There is limited information available on the use of informal money transfer systems, such as hawala, for licit and illicit transactions in Central Asian countries. Within Afghanistan, the use of hawala as a means of payment for drug shipments is common, partly because of the limited use of the formal banking system for all financial transactions.
transactions.\textsuperscript{372} In northern Afghanistan, the city of Mazar-e Sharif, in Balkh province, is a major financial centre and home to a number of \textit{hawalas} that are able to make financial transactions, both licit and illicit, within Afghanistan and to international destinations. Because of the general stability of Mazar-e Sharif, its role as a financial centre, and large-scale attacks by the Taliban in Kunduz province, which was previously a major centre of illicit activity, the city is reportedly becoming a more important business location for opiate traffickers.\textsuperscript{375} In addition, payments in cash are also used, predominantly for member-to-member payments inside individual countries.

Drug profits obtained along the northern route are frequently laundered through the purchase of real estate, through casinos and local businesses. For example, the construction boom that occurred in Kyrgyzstan in 2011-2012, might have led to cases of local money laundering by DTOs, with the development of several new construction companies making it impossible to properly vet the legal origin of their funding.\textsuperscript{374} Research conducted in 2014, using interviews with Kyrgyz law enforcement officers, noted that "one of the southern criminal leaders involved in the drug trade runs a micro-credit organization (...) and another one in Bishkek has a record of participation in public bids through dummy companies".\textsuperscript{375} Payment for opiate shipments is often made via bank transfer through dummy companies using international payment systems.\textsuperscript{376} These cases reveal the extensive penetration of DTOs into the legal business world and show the possibility of using trade-related companies for drug trafficking purposes.\textsuperscript{377} In Kyrgyzstan, drug money laundering has been described as "fake trade operations [where] money is sent to Chinese banks for the delivery of goods that do not exist in reality and certainly are never delivered".\textsuperscript{378}

The internationalization of money flows from opiate traffickers based along the northern route may be important in Central Asia, where DTOs invest their illicit profits through the international banking system, with the help of corrupt banks, notaries and law firms. In Kyrgyzstan, for example, "there is a trend of drug money being transferred abroad due to domestic political instability" while "only a small part of the proceeds from drug trafficking is invested locally, with the majority laundered in the Russian Federation, Turkey, China and the United Arab Emirates".\textsuperscript{379} The Kyrgyz Financial Intelligence Service indicates that such money laundering operations are often made with Turkey, the United Arab Emirates and Kazakhstan through front companies with a one-day life span.\textsuperscript{380} One study indicated that Kyrgyz DTOs have been laundering money through sophisticated banking operations, sometimes involving bank accounts in Europe\textsuperscript{381} while another suggests that \textit{hawala} transfers are often used in financial operations in the Gulf countries.\textsuperscript{382} At the same time, "some of the drug money is going back to Kyrgyzstan through legal investment funds".\textsuperscript{383} With a relatively sophisticated banking sector, Kazakhstan could be at risk for money laundering.\textsuperscript{384}

\textsuperscript{373} N30 Interview with foreign law enforcement organization, Kabul, 2016.
\textsuperscript{374} N11 Interview with Kyrgyz government department, Bishkek, 2016-
\textsuperscript{375} Kupatadze, A., "Kyrgyzstan — A virtual narco-state?:".
\textsuperscript{376} Merkuriev, V.V. (Меркурьев В.В., Борьба с криминальными рынками в России, Москва, Проспект.)
\textsuperscript{377} Kupatadze, A., "Kyrgyzstan — A virtual narco-state?:".
\textsuperscript{378} Ibid.
\textsuperscript{379} Ibid.
\textsuperscript{380} Ibid.
\textsuperscript{381} Khujamkulov, A., (Худжамкулов, А.Х. (2015), Деятельность органов безопасности в процессе противодействия незаконному обороту наркотиков, Диссертация на соискание ученой степени кандидата политических наук, Душанбе, Таджикский Национальный Университет).
\textsuperscript{382} Kupatadze, A., "Kyrgyzstan — A virtual narco-state?:".
\textsuperscript{383} Ibid.
Violence, corruption and other criminal activity

Violence

Outright violence between DTOs operating along the northern route is infrequent but does occasionally take place, particularly on the border between Afghanistan and Tajikistan. Very few cases of violence targeting law enforcement have been reported. One Tajik law enforcement officer interviewed in 2016 mentioned that he had seen violence by DTOs against police officers just three times over the period 2011-2015. However, violence against local populations seems to be less infrequent. Along the Afghan-Tajik border, there have been cases of armed robberies, violence and abduction of persons by Afghan smugglers on the Tajik side. If Afghan traffickers fail to recover pending debts from Tajik DTOs in the form of cash, they take cattle, valuables and other possessions from Tajik smugglers. Historically, Tajik citizens have been abducted and held in Afghanistan, some over disputes between drug traffickers. An exchange of “hostages” between courier networks operating along the Afghan-Tajik border is a key method of operation, whereby members of the family of a courier are held hostage, only being released when the opiate shipment reaches the final destination. A similar trend has been noted in Kyrgyzstan, with drug traffickers using violence to force people to ship drugs after abducting their relatives.

In northern Afghanistan, criminal organizations operating in Balkh and Badakhshan province are believed to be in competition and violent conflict with each other. In some cases rival organizations will inform law enforcement about the activities of rivals in order to disrupt their business activity. However, DTOs can also work together when mutually beneficial and there is an economic benefit to doing so. In general, DTOs try to avoid violent engagement with law enforcement agencies, preferring to corrupt or co-opt law enforcement where possible.

Corruption

There is some indication that major trafficking organizations benefit from corrupt connections in order to facilitate trafficking activity and effectively dominate the trade along particularly lucrative transit routes. Some authors have pointed to a degree of collusion between some law enforcement officials and DTOs, although law enforcement agencies suggest that this is rare and small scale in nature. Afghan officials reported a case of a Badakhshan police officer who was arrested while smuggling heroin, while Afghanistan’s Criminal Justice Task Force reportedly convicted 130 public officials on drug-related charges over the period 2011-2016. Drug traffickers in Kazakhstan have been known to use corrupt officials to facilitate the transfer of heroin and money through distributors: in addition to heroin in exchange for protection, some law enforcement officers received monthly or occasional income from DTOs.

385 N09 Interview with Tajik government department, Dushanbe, 2016.
386 Khujamkulov, A. (Xуджамкулов, А.Х. (2015), Деятельность органов безопасности в процессе противодействия незаконному обороту наркотиков, Диссертация на соискание ученой степени кандидата политических наук, Душанбе, Таджикский Национальный Университет).
389 N30 Interview with foreign law enforcement organization, Kabul, 2016.
390 N26 Interview with Afghan government department, Kabul, 2016.
391 N30 Interview with foreign law enforcement organization, Kabul, 2016.
393 N13 Interview with Kyrgyz government department, Bishkek, 2016
394 N21 Interview with Afghan official, Kabul, 2016; N26 Interview with Afghan official, Kabul, 2016
payments from drug dealers.\footnote{396} In January 2014, 16 people in Kazakhstan, including 10 former police detectives, received prison sentences of between 2 and 16 years as well as confiscation of property and deprivation of rank, while in December 2015, the head of a city anti-narcotics police department and a senior detective were prosecuted.\footnote{397} In September 2013, two police officers were arrested trying to sell 25 kg of heroin in Bishkek, according to media reports.\footnote{398}

**Links with other types of criminal activity**

Field interviews indicate that DTOs operating along the northern route smuggle a variety of illicit products, including opiates, cannabis and weapons.\footnote{399} While there is no reason why opiate trafficking organizations could not also traffic cannabis and synthetic drugs, apart from a lack of ability to source such products, no significant seizure data to estimate the links between opiate trafficking groups and those trafficking other drug types are available. In two cases, DTOs were identified as having started out illicitly trading opiates and cannabis-type drugs before expanding into trafficking MDMA and cocaine. In both cases, the source countries of the cocaine and MDMA were unknown, but the products were destined for sale in the Russian Federation.\footnote{400} During field interviews in 2016, Afghan authorities also noted a rise in the consumption of synthetic drugs in Afghanistan.\footnote{401} Afghan officials indicated that methamphetamine use is increasing in Sari-Pul province\footnote{402} while other synthetic drugs consumed in northern Afghanistan include MDMA, methamphetamines and “Tablet K”.\footnote{403} However, it is not currently known whether opiate trafficking networks are also responsible for the trafficking of synthetic drugs along the northern route.

Weapons are smuggled from Tajikistan to Afghanistan and exchanged for drug loads, although the source of those weapons is unknown. This has been particularly true over the past two to three years, following the progress of the Transition period in 2014 and the subsequent deterioration in the security situation and the reduction in government authority in the northern provinces.\footnote{404}

In addition to drug trafficking, several Kyrgyz DTOs are also involved in other criminal activities, sometimes as a primary source of profit, and are responsible for numerous robberies, holdups, abductions of businessmen and extortion, as well as the smuggling of illicit goods. Kyrgyz law enforcement has also reported the seizure of supplies of weapons during counter-narcotics operations, which is unusual.\footnote{405} Kazakh organized crime groups reportedly carry out many different criminal activities, among which drug trafficking does not appear to be predominant. Kazakh DTOs also often combine drug trafficking with a legal business activity, such as the trading of consumer goods at local markets, which requires frequent trips across the country during which small volumes of heroin can be purchased for their specific market.\footnote{406} This approach is also consistent with the narrative of “growing criminalization”, according to which petty criminals running a variety of smuggling operations (for example, cigarettes or fuel) start using their already operational cross-border channels to smuggle opiates.\footnote{407}
ANNEX 1: METHODOLOGY

The study provides a snapshot analysis of the illicit opiate distribution system along the northern route. The information used to map trafficking routes was derived mainly from information from drug seizure cases. While seizures may be an indirect indicator of drug flows and availability, they are first and foremost a direct indicator of drug law enforcement activity, thus reflecting their priorities and resources.

The sources of data used include the UNODC Annual Report Questionnaires (ARQ), national drug reports, UNODC World Drug Reports, the Individual Seizures Database (IDS) and the UNODC Drug Monitoring Platform (DMP). Only official seizure data have been used, with the exception of cases where there was a paucity of official information, in which case media-reported seizures data have also been considered. This is indicated in all cases. An interview guide is included in Annex 2 of this report.

It is important to note that the seizure data available through the DMP and IDS databases were often, in terms of aggregated quantity, lower than the overall reported seizure total (the specific size of seizures data used for analysis is indicated in each chapter), since they did not include all seizures made in a given country. Moreover, the timeframe for the individual drug seizures that were analysed in the report was 2011-2015, except in cases where data was not available.

In addition, information was gathered through interviews with national and international stakeholders in the countries along the northern route. Thirty semi-structured interviews were conducted over July – September 2016. The interviews have been anonymized for the purpose of this report.
ANNEX 2: INTERVIEW QUESTIONS USED IN THE NORTHERN ROUTE STUDY

1. Situation and trends of opiate consumption

Q1. From your personal experience, could you estimate the overall drug consumption in your country, its evolution and trends since 2011?

- Number of users.
- Describe which kind of opiates are used (white heroin, brown heroin, morphine, opium)
- Describe the consumption usages (injected, snorted, smoked or inhaled)
- Describe who the users are, and where they may purchase the opiates.
- Frequency and pattern of opiate use (quantity consumed per day/price, quality)
- Evolution and trends of national opiate consumption and other drugs consumption (including synthetics) in the country since 2011

2. Situation and trends of opiate production, in particular:

Q2. Could you describe the drug production in your country, its evolution and trends since 2011?

- Cultivation of poppy (Amount by ha, numbers of area, location, and trends)
- Opium laboratories (description, location, and trends)
- Heroin laboratories (description, location, and trends)
- Stockpiles (description, location, and trends)
- Other drugs production
- Types of persons/organization involved in production (local, national, transnational)
- Evolution of national opiate production since 2011 (type of products)

3. Situation and trends of opiates and other drug-related seizures, price and purity, including precursors

Q3. Could you describe the drug seizures trends in your country since 2011?

- Types of opiates seized (white heroin, brown heroin, morphine, opium)
- Main origins and destination of opiates
- Price level (retail, wholesale) and trends
- Purity level (retail, wholesale) and trends
- Cutting agents/adulterant practices
- Explain how Forensic lab analyses purity (kind of opiate products, number of samples)
- Description of significant opiate seizures (location, modus operandi, quantity)
- Type of other drugs seized (including cannabis and synthetics drugs)
- Evolution and trends of seizures, prices and purity since 2011
Q4. Could you describe the precursor seizures trends in your country since 2011?

- Acetic anhydride seizures
- Main origins and destination of acetic anhydride seizure
- Other chemicals seizure (acetone, ammonium chloride, ammonia solution, charcoal, hydrochloric acid and sodium carbonate and ephedrine/pseudoephedrine synthetics408)
- Description of significant seizures (location, modus operandi, quantity, etc.)
- Evolution and trends of seizures, prices and purity since 2011

4. Situation and trends of opiate trafficking, in particular:

Q5. Could you describe the opiate traffic and its evolution since 2011?

- Local, wholesale and international traffic
- Relationship to other drug traffic
- Relation with other criminal sectors (such as human trafficking, etc.)
- Evolution and trends since 2011

Q6. Could you describe the main routes and methods of transportation used by opiate trafficking networks and its evolution since 2011?

- Main routes, entry and exit points
- Roads/rail/air (specify for each)
- Concealment methods
- Evolution and trends since 2011

5. Description of opiate trafficking organizations

Q7. Could you describe the major opiate trafficking groups operating in your country?

- At the local, wholesale and international levels
- Type of opiate activity in the country (production, processing, storage, transportation, trading) for major DTO's
- Geographical area of operation of opiate trafficking networks
- Trafficking network organization/types: pyramidal vs network/ small specialized group vs. large groups controlling geographical territories / integrated vs atomized
- Competition between groups (violence)
- Social dynamics of trafficking networks (nationality, ethnic, geographic, etc.)
- Connections to foreign criminal groups
- Links to other criminal activities (other drug trafficking, trafficking in persons, corruption, money laundering and local investment, weapons and precursor trafficking, etc.)
- Evolution of trafficking organizations and networks since 2011

408 For SMART study.
ANNEX 3: CALCULATION OF “CONSUMPTION UNITS”

Member States report drug seizures in various units to UNODC, such as kilograms, litres, tablets, injections etc. One possibility to make such seizures of different units comparable is to express them in common “consumption units”, i.e. in the doses “typically” used by drug users to get “high”. Such conversions differ according to the kind of drug used. The conversion factors used are those frequently found in the literature or used by various law enforcement agencies across the world.

The conversion ratios used for this report are shown in the table below. A practical example may clarify how this table is to be used. If in a sub-region e.g. 3 tons of heroin were seized in a year, the table below suggests that with a typical dose of around 0.03 grams per dose (i.e. 30 mg per injection) around 100 million doses of heroin expressed in common consumption units (3,000,000 grams / 0.03 grams = 100,000,000 doses) may have been seized.

It goes without saying that any such conversion has to be treated with a high degree of caution as a number of factors will influence the actual amounts needed for a person to experience a “high”, including differences in gender, weight, height, age, the time a person has used drugs before, etc. as well as differences in the purity or the potency of drugs consumed. The conversion ratios used are thus only rough approximations of the actual amounts needed of a drug by a person to experience a “high”.

**Figure 70:** Conversion factors used to convert kilogram (or litre) values into unit values

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>grams per unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other illicit opioids</td>
<td>0.025</td>
</tr>
<tr>
<td>Pharmaceutical opioids</td>
<td>0.050</td>
</tr>
<tr>
<td>Barbiturates</td>
<td>0.010</td>
</tr>
<tr>
<td>LSD</td>
<td>0.000005</td>
</tr>
<tr>
<td>Depressants (excluding Methaqualone)</td>
<td>0.010</td>
</tr>
<tr>
<td>Other substances not under int. control</td>
<td>0.010</td>
</tr>
<tr>
<td>Marijuana (herb)</td>
<td>0.500</td>
</tr>
<tr>
<td>Hashish (resin)</td>
<td>0.135</td>
</tr>
<tr>
<td>Cannabis oil</td>
<td>0.300</td>
</tr>
<tr>
<td>Heroin</td>
<td>0.030</td>
</tr>
<tr>
<td>Opium</td>
<td>0.300</td>
</tr>
<tr>
<td>Illicit morphine</td>
<td>0.100</td>
</tr>
<tr>
<td>Poppy plants</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Cocaine salts</td>
<td>0.100</td>
</tr>
<tr>
<td>Amphetamine</td>
<td>0.030</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>0.030</td>
</tr>
<tr>
<td>Ecstasy-type substances</td>
<td>0.100</td>
</tr>
<tr>
<td>Non-specified ATS</td>
<td>0.030</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>0.010</td>
</tr>
</tbody>
</table>
ANNEX 4: DATA AND METHODS FOR ESTIMATING THE MARKET SIZE AND FLOW OUT OF AFGHANISTAN

Estimating the number of opiate users

In 2006, UNODC conducted an assessment of problem drug use in Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan. In each country, different multipliers and benchmark data were collected. The multipliers were obtained by directly asking the problem drug users in the community if they had experienced (the event) in the past 12 months, etc. Based on the responses from problem drug users a number of multipliers were established. Since the quality of benchmark data varied in each country different multipliers and data were used in the final calculations.

For each country the estimates were produced first at each region (oblast) level using the different benchmarks and corresponding multipliers. The mean value of the different estimates was used as the region’s estimate. An overall mean of all the regions, weighted by the population, was used then to extrapolate and derive at the national level estimates of both the prevalence rate of opiate use and the number of opiate users.

Depending on the country, a combination of the following multipliers and their corresponding data was used for the estimates:

- Proportion of drug users who reported being ever registered in drug treatment
- Proportion of drug users who reported being treated for opioid use in the last 12 months
- Proportion of drug users who reported that they were tested for HIV
- Proportion of drug users who reported being registered by police in the last 12 months

In the Russian Federation, the National Addiction Research Centre of the Ministry of Health conducted a number of studies in 2010 in different regions of the country. They estimated the “latency coefficient” of the people in treatment, i.e., for each person in treatment how many opiate users could be in the community (treatment multiplier). Based on these studies an average national treatment multiplier was calculated and applied to the number of registered opioid and opiate users in the country.

For the purposes of this exercise, a renewed attempt was made to update the existing estimates, based on the assumption that the overall identified multipliers, established earlier, remained unchanged. Based on this assumption and recent available data on benchmark indicators, UNODC arrived at a new set of estimates. However, in some cases (Kazakhstan, Turkmenistan), in the absence of recent data previously elaborated estimates were kept.

For the current exercise, the following data were thus used:

- Benchmark/multiplier method

Kyrgyzstan:
- Multipliers: proportion of opiate users reported as registered; proportion of opiate users that reported they were arrested for drug related offences.
The estimates for each year are taken as the average of the estimates using the different benchmark data and corresponding multipliers.

<table>
<thead>
<tr>
<th>Benchmark data</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug users registered</td>
<td>10705</td>
<td>9799</td>
<td>9024</td>
<td>9077</td>
<td>8853</td>
</tr>
<tr>
<td>Share of opiate users in drug users registered</td>
<td>0.69</td>
<td>0.7</td>
<td>0.66</td>
<td>0.65</td>
<td>0.66</td>
</tr>
<tr>
<td>Calculated number of opiate users registered</td>
<td>7386</td>
<td>6859</td>
<td>5956</td>
<td>5900</td>
<td>5843</td>
</tr>
<tr>
<td>Drug related crime recorded</td>
<td>1933</td>
<td>1933</td>
<td>1913</td>
<td>1955</td>
<td>1864</td>
</tr>
</tbody>
</table>

Source: Paris Pact Country Factsheets for Kyrgyzstan for 'drug users registered,' 'share of opiate users registered' and 'drug related crime recorded.'

<table>
<thead>
<tr>
<th>Opiate users</th>
<th>Percentage of all opiate users</th>
<th>Corresponding multiplier for extrapolation</th>
</tr>
</thead>
<tbody>
<tr>
<td>registered</td>
<td>11.92%</td>
<td>8.389</td>
</tr>
<tr>
<td>arrested for drug related crime</td>
<td>13.1%</td>
<td>7.634</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimated number of opiate users</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>5-years mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on drug users registered</td>
<td>61967</td>
<td>57544</td>
<td>49965</td>
<td>49497</td>
<td>49018</td>
<td>53598</td>
</tr>
<tr>
<td>Based on drug related crime</td>
<td>14756</td>
<td>14756</td>
<td>14603</td>
<td>14924</td>
<td>14229</td>
<td>14653</td>
</tr>
<tr>
<td>Average</td>
<td>38361</td>
<td>36150</td>
<td>32284</td>
<td>31210</td>
<td>31624</td>
<td>34126</td>
</tr>
</tbody>
</table>

The simple mean (34126) over 2011-2015 was taken as best estimate and the minimum (31210) and maximum (38361) values of the average used to calculate minimum and maximum estimates.

**Tajikistan:**
Benchmark: number of opiate users registered over 2011-2015.
Multiplier: proportion of opiate users who reported being registered.

<table>
<thead>
<tr>
<th>Benchmark data</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug users registered</td>
<td>7117</td>
<td>7231</td>
<td>7176</td>
<td>7279</td>
<td>7313</td>
</tr>
<tr>
<td>Share of opiate users in drug users</td>
<td>0.92</td>
<td>0.91</td>
<td>0.9</td>
<td>0.91</td>
<td>0.91</td>
</tr>
<tr>
<td>Calculated number of opiate users registered</td>
<td>6548</td>
<td>6580</td>
<td>6458</td>
<td>6624</td>
<td>6655</td>
</tr>
</tbody>
</table>

Source: Paris Pact Country Factsheet for Tajikistan for 'drug users registered' and 'share of opiate users in drug users.'

<table>
<thead>
<tr>
<th>Opiate users</th>
<th>Percentage of all opiate users</th>
<th>Corresponding drug registry multiplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>registered</td>
<td>24%</td>
<td>4.167</td>
</tr>
</tbody>
</table>
Estimated number of opiate users*  

<table>
<thead>
<tr>
<th>Year</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>5-years mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>27282</td>
<td>27418</td>
<td>26910</td>
<td>27600</td>
<td>27728</td>
<td>27387</td>
</tr>
</tbody>
</table>

* Based on calculated number of opiate users registered and drug registry multiplier

The simple mean (27387) over 2011-2015 was taken as best estimate and the minimum (26910) and maximum (27728) values of the average used to calculate minimum and maximum estimates.

**Uzbekistan:**


The estimates for each year are taken as the average of the estimates using the different benchmark data and corresponding multipliers.

**Benchmark data**

<table>
<thead>
<tr>
<th>Benchmark data</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug users registered in dispensaries*</td>
<td>18197</td>
<td>17235</td>
<td>16045</td>
<td>14692</td>
<td>13218</td>
</tr>
<tr>
<td>Share of opiate users in drug users registered in dispensaries*</td>
<td>0.77</td>
<td>0.75</td>
<td>0.72</td>
<td>0.68</td>
<td>0.60</td>
</tr>
<tr>
<td>Calculated number of opiate users registered in treatment</td>
<td>14012</td>
<td>12926</td>
<td>11552</td>
<td>9991</td>
<td>7977</td>
</tr>
<tr>
<td>Drug related crime*</td>
<td>6391</td>
<td>6391</td>
<td>6179</td>
<td>5611</td>
<td>4309</td>
</tr>
</tbody>
</table>

* Source: PPI Country Factsheet for Uzbekistan

**Opiate users**

<table>
<thead>
<tr>
<th>Opiate users</th>
<th>Percentage of all opiate users (from 2006 study)</th>
<th>Corresponding multiplier for extrapolation</th>
</tr>
</thead>
<tbody>
<tr>
<td>registered in dispensaries</td>
<td>5.9%</td>
<td>16.95</td>
</tr>
<tr>
<td>arrested for drug related crime</td>
<td>3.2%</td>
<td>31.25</td>
</tr>
</tbody>
</table>

**Estimated number of opiate users**

<table>
<thead>
<tr>
<th>Year</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>5-years mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on opiate users registered</td>
<td>238881</td>
<td>218881</td>
<td>194898</td>
<td>169559</td>
<td>135203</td>
<td>191485</td>
</tr>
<tr>
<td>Based on drug related crime</td>
<td>255344</td>
<td>254844</td>
<td>240000</td>
<td>209313</td>
<td>207750</td>
<td>233450</td>
</tr>
<tr>
<td>Average</td>
<td>247113</td>
<td>236863</td>
<td>217449</td>
<td>189436</td>
<td>171477</td>
<td>212467</td>
</tr>
</tbody>
</table>

The simple mean (212467) over 2011-2015 was taken as best estimate and the minimum (171477) and maximum (247113) values of the average used to calculate minimum and maximum estimates.

Though Uzbekistan expressed concerns about the methodology used to estimate the number of opiate users. The lack of data on opiate use from surveys prevented UNODC to develop another methodology.

**Russian Federation:**

Multiplier: proportion of drug users in drug treatment (established at 5 in 2012; confirmed as unchanged by the Ministry of Health in September 2016).

Result: 1,416,639 (2010 estimate based on number of heroin users only among opioid users registered and multiplier of 5).

- Other methods:
Kazakhstan:
In the absence of reliable data to replicate the benchmark/multiplier method applied in 2006, the number of people who inject opiates which most recent estimates refer to 2011 and 2012 (Source: National AIDS Centre) was taken as a proxy of the number of opiate users in the country.

Figure 71: Number of people who inject opiates 2011-2015

<table>
<thead>
<tr>
<th>Year</th>
<th>Estimated number of people who inject opiates</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>123640</td>
</tr>
<tr>
<td>2012</td>
<td>116840</td>
</tr>
</tbody>
</table>

Source: National AIDS Centre Kazakhstan

The simple mean between 2011 and 2012 (120240) was taken as best estimate and the two values used to calculate minimum and maximum estimates.

Turkmenistan:
In the absence of other data, the last reported number of registered drug users – 11,462 registered drug users in 2006 (Source: Annual Report Questionnaire 2007) – has been taken as best estimate of the number of opiate users in the country. Minimum and maximum estimates could therefore not be computed.

Estimating per-capita consumption of opiates

In Central Asia

The calculation of per capita use in Central Asia is based on a study conducted in selected treatment centres in Central Asia by UNODC’s Regional Office for Central Asia in 2008. The results of this survey were reported in the 2009 UNODC’s report on the transnational threat of Afghan opium.\(^{409}\) The study revealed that opiate users in Central Asia consumed, on average, 1 to 1.5 grams of heroin per day. Based on this daily consumption (1–1.5 grams per day) it was then calculated that 365 – 550 grams (1*365 to 1.5*365) of street level heroin was consumed per heroin user per year. Expressed in 100 per cent pure heroin (assuming a retail purity of 5.5-10.4%, based on 2011 data in Tajikistan), this would give a range of some 20.1 grams (365 grams *7%) to 57.2 grams (550 grams *10%) per users per year, equivalent to a mid-point estimate of some 38.6 grams of 100% pure heroin for Central Asia.

There are, of course, potential problems with this estimate: Is it correct to assume that drug users consume 365 days a year heroin? There are – most likely – some periods of abstinence during the year. Assuming that heroin users would consume only some 300 out of 365 days a year (in line with results found among chronic heroin users in the USA)\(^{410}\), the per capita use figures would decline to some 31.8 grams of pure heroin per user per year; applying the same logic to the lowest and highest estimates. Thus, based on these assumptions, per capita consumption in Central Asia may range from 16.5 grams to 47.0 grams with a best estimate of around 31.8 grams of pure heroin per year.

In the Russian Federation

The estimate of per capita use of heroin is based on two studies: one study implemented jointly by the National Research Center on Drug Addiction (NRC) of the Federal Agency on Health and Social Development of the Russian

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Federation and UNODC's country office in the Russian Federation in 2009 and one study conducted by the European Centre of Social Welfare Policy, on behalf of UNODC, in a number of European cities, including Moscow.

**2009 study by the National Research Center on Drug Addiction (NRC) of the Federal Agency on Health and Social Development of the Russian Federation and UNODC**

The survey done jointly by the National Research Center on Drug Addiction (NRC) of the Federal Agency on Health and Social Development of the Russian Federation and UNODC's country office in the Russian Federation in 2009 was undertaken to get a better understanding of average consumption of heroin among heroin users in the Russian Federation. According to this survey - the results of which were reported in the UNODC report on the transnational threat of Afghan opium - average heroin consumption per user per day amounted to around 1.87 grams of heroin in the Russian Federation. With retail purity estimated at around 5 per cent at the time, annual per capita consumption of heroin users amounted to 34.1 grams of 100 per cent pure heroin per user per year (1.87 grams *5% *365) in the Russian Federation, or, assuming that only 300 out of 365 days the heroin was used, 28.05 grams.

**2009-2011 study by the European Centre for Social Welfare Policy and Research and UNODC**

UNODC also tasked the European Centre for Social Welfare Policy and Research to conduct a multi-city study in various European cities to arrive at per capita use estimates of various drugs, including heroin. A first wave of studies was conducted in the second half of the first decade of the new millenium (2005-2008) and a second wave of studies, including Moscow, was conducted over the period 2009-2011. For the purpose of this study some 100 marginalized drug users were selected in the various European cities, including Moscow, and asked how much heroin (and other drugs) they had used the last time they were consuming the drug and how much heroin (and other drugs) they had used over the last month. The marginalized drug users were recruited with the help of drug services who assisted in their identification. Their average age was 28 years in Moscow (range: 17 to 51 years); the proportion of females in the sample amounted to 19 per cent. Almost of the sample (46 per cent) was unemployed and overall, 22 per cent of the marginalized drug users in Moscow reported to live- at least partly – on ‘deviant income’ (i.e. income from non-licit sources). This allowed them to continue living with their partners/family (61 per cent) or to have a flat of their own (30 per cent) while only 8 per cent were homeless of lived in a public shelter.

The survey instruments helped the drug users to systematically identify consumption over the last day he or she used drug and then over the last month. Moreover, drug users were asked to report on how much money they spent on heroin purchases over the last month (indirect method). Based on this information and information on prices (from consumers and/or law enforcement agencies) and the purity of the drugs at the retail level (obtained from forensic laboratories) per capita consumption could be calculated as well.

The monthly results were then multiplied by 12 to arrive at annual estimates. This may be considered problematic as it is known that there are some drug users, including heroin users, who are abstinent for some periods during the year and thus do not consume heroin for 12 months during a year. However, the analysis of the data revealed that several of the marginalized heroin users reported close to zero consumption of heroin over the last month (0.01-0.2 grams) in various European cities, suggesting that they actually were on a period of abstinence at the time the survey took place. Thus – in theory – the calculated past month average already included temporarily abstinent heroin users and a further adjustment of abstinence thus would not be warranted. Of course, it is difficult to evaluate to what extent the sample of heroin users – which was not randomly selected - accurately reflected the abstinent or largely abstinent heroin users in the general population. Thus, one cannot exclude the possibility that the abstinent users are still under-represented in the sample. There has been one piece of additional information in the report – number of days the marginalized heroin user consumed brown heroin in Moscow (28.2 days over the last month) as compared to the number of days heroin users, on average, used their drug over the

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previous 12 months (25.3 days per month). This could indicate some over-reporting. The calculated annual figures could be some 10 per cent less than arrived at from a simple multiplication of monthly figures by a factor of 12. Alternatively, the data could, however, simply reflect the fact that heroin is highly addictive and that heroin users may currently consume their drug more frequently than they used to do it over the previous twelve months.

The calculation was also complicated as users reported the use of both brown heroin and white heroin in the Russian capital. Thus overall four estimates were obtained; two estimates for brown heroin (one direct and one indirect) and two estimates for white heroin (one direct and one indirect). The estimates, however, turned out to be surprisingly close to one another, ranging from 28.6 grams to 35.6 grams for 100 per cent pure heroin per year, thus reconfirming their validity. Looking at the results from the point of view of replies to the ‘direct’ questions versus the ‘indirect’ questions (amounts spent) gave a range from 29.7 grams (direct) to 32.0 grams (indirect) of 100 per cent pure heroin per year. The overall average of all persons participating in this study in Moscow results in a per capita use figure of 30.8 grams of heroin at 100 per cent purity, with an upper limit of 35.6 grams and a lower limit of 25.7 grams (lowest estimate of 28.6 grams less 10 per cent to account for a potential over-reporting (based on the average number of days heroin was consumed in the last month as compared to, on average, over the last 12 months)).

**Figure 72:** Per capita heroin consumption among marginalized drug users in Moscow, 2009-2011

<table>
<thead>
<tr>
<th>Direct Average amount</th>
<th>brown heroin (based on 31 interviews)</th>
<th>white heroin (56 interviews)</th>
</tr>
</thead>
<tbody>
<tr>
<td>On last occasion</td>
<td>1.5 grams</td>
<td>0.8 grams</td>
</tr>
<tr>
<td>in last month</td>
<td>44.2 grams</td>
<td>13.6 grams</td>
</tr>
<tr>
<td>per year</td>
<td>530.4 grams</td>
<td>163.2 grams</td>
</tr>
<tr>
<td>Retail purity</td>
<td>6%</td>
<td>17.5%</td>
</tr>
<tr>
<td><strong>Pure heroin per year</strong></td>
<td><strong>31.8 grams</strong></td>
<td><strong>28.6 grams</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indirect Expenditure</th>
<th>(based on 31 interviews)</th>
<th>(42 interviews)</th>
</tr>
</thead>
<tbody>
<tr>
<td>per month</td>
<td>1.854 euro</td>
<td>515.9 euro</td>
</tr>
<tr>
<td>per year</td>
<td>22.246 euro</td>
<td>6.191 euro</td>
</tr>
<tr>
<td>Price (retail)</td>
<td>41.9 euro</td>
<td>30.4 euro</td>
</tr>
<tr>
<td>Amounts used</td>
<td>698 grams</td>
<td>203.6 euro</td>
</tr>
<tr>
<td>Purity</td>
<td>6%</td>
<td>17.5%</td>
</tr>
<tr>
<td><strong>Pure heroin per year</strong></td>
<td><strong>31.9 grams</strong></td>
<td><strong>35.6 grams</strong></td>
</tr>
<tr>
<td><strong>Overall average (pure heroin per year)</strong></td>
<td><strong>31.8 grams</strong></td>
<td><strong>32.1 grams</strong></td>
</tr>
<tr>
<td><strong>Overall average (all interviews)</strong></td>
<td><strong>30.8 grams</strong> (direct: 29.7 grams, indirect: 32.0 grams)</td>
<td></td>
</tr>
</tbody>
</table>

Source: European Centre for Social Welfare Policy and Research, "Second Multi-City Study on Quantities and Financing of Illicit Drug Consumption" (on behalf of UNODC, data 2009-2011; draft: 2015), Vienna
The results from Moscow (overall: 30.8 grams; range: 25.7-35.6 grams) turned out to be lower than the European average, though they were basically in line with the data found in other European cities that took part in this exercise (overall average 39 grams; confidence interval: 30.5 to 48.2 grams of pure heroin per year). Data for Moscow were lower than the results reported from surveys done in London, Warsaw, Belgrade, Bucharest, Prague and Amsterdam though higher than the per capita use figures found in Turin, Vienna, Sarajevo and Stockholm.

**Figure 73:** Per capita heroin consumption among marginalized drug users in selected European cities pure heroin grams per year, 2005-2011

These results, reflecting per capita heroin consumption in Moscow, seem to be internally rather robust as the four sub-results arrived at very similar numbers. It may be also interesting to note that heroin users in Moscow perceived the quality of 'white heroin' far better than the quality 'brown heroin' – and this perception was also reconfirmed in the analysis of forensic laboratories of brown and white heroin found at the retail level. But this does not automatically mean that the results obtained from the European Centre on Social Welfare policy for Moscow are necessarily the best proxy for overall heroin consumption in the Russian Federation. Large cities tend to have a more entrenched drug using population, thus potentially showing above average consumption patterns if compared to other areas where drug use is just starting. On the other hand, purity adjusted heroin prices in Moscow are rather high compared to several other parts of the Russian Federation. This may prompt heroin users in Moscow – out of mere financial considerations - to be rather careful with their heroin consumption. There are thus two opposing trends affecting heroin consumption in the Russian capital, which may offset each other. Thus, it may not come as a major surprise that combining the Moscow results (collected over the period 2009-2011) with those obtained from data collected in Russian treatment centres in 2009 leads to almost identical results. Calculating the overall average of the results from the survey in 2009 in Russian treatment centres (28.05 grams) and the Moscow results over the 2009-2011 period (30.8 grams; range: 25.7-35.6 grams) gives an overall average of around 29.4 grams of pure heroin per heroin user per year, with an overall range from 25.7 grams to 35.6 grams.
**Purity-adjusted heroin seizures**

As most of the seizures – in terms of quantity - are made at wholesale level, wholesale purity is used for the purity adjustment of the reported quantities seized.

**Figure 74:** Tajikistan – wholesale purity in %

<table>
<thead>
<tr>
<th>Year</th>
<th>min</th>
<th>max</th>
<th>mid-point</th>
<th>min</th>
<th>max</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>36.4</td>
<td>46.8</td>
<td>41.6</td>
<td>7.1</td>
<td>81.0</td>
</tr>
<tr>
<td>2012</td>
<td>20.6</td>
<td>34.0</td>
<td>27.3</td>
<td>8.2</td>
<td>65.0</td>
</tr>
<tr>
<td>2013</td>
<td>20.4</td>
<td>40.0</td>
<td>30.2</td>
<td>8.7</td>
<td>79.0</td>
</tr>
<tr>
<td>2014</td>
<td>29.0</td>
<td>35.0</td>
<td>32.0</td>
<td>14.0</td>
<td>45.0</td>
</tr>
<tr>
<td>2015</td>
<td>34.0</td>
<td>40.0</td>
<td>37.0</td>
<td>19.9</td>
<td>42.5</td>
</tr>
<tr>
<td>Min/max 2011-2015</td>
<td>20.4</td>
<td>46.8</td>
<td>7.1</td>
<td>81.0</td>
<td></td>
</tr>
<tr>
<td>Average 2011-2015</td>
<td>28.1</td>
<td>39.2</td>
<td>33.6</td>
<td>11.6</td>
<td>62.5</td>
</tr>
</tbody>
</table>

Source: DCA

**Figure 75:** Kazakhstan – wholesale purity in %

<table>
<thead>
<tr>
<th>Year</th>
<th>min</th>
<th>max</th>
<th>Best estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>1.5</td>
<td>70</td>
<td>25</td>
</tr>
<tr>
<td>2013</td>
<td>1.5</td>
<td>70</td>
<td>25</td>
</tr>
</tbody>
</table>

Source: UNODC, ARQ

**Figure 76:** Kyrgyzstan

<table>
<thead>
<tr>
<th>Year</th>
<th>min</th>
<th>max</th>
<th>Best estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014*</td>
<td>15</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>2015**</td>
<td>15</td>
<td>90</td>
<td>30</td>
</tr>
<tr>
<td>Min/Max 2014-2015</td>
<td>15</td>
<td>90</td>
<td>25</td>
</tr>
<tr>
<td>Average 2014-2015</td>
<td>15</td>
<td>65</td>
<td>25</td>
</tr>
</tbody>
</table>

Sources: *UNODC, ARQ; **Reply to UNODC Note-Verbale.
**Figure 76:** Russian Federation – wholesale purity in %

<table>
<thead>
<tr>
<th>Year</th>
<th>min</th>
<th>max</th>
<th>Best estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>1.5</td>
<td>70</td>
<td>25</td>
</tr>
<tr>
<td>2013</td>
<td>1.5</td>
<td>70</td>
<td>25</td>
</tr>
</tbody>
</table>

Source: UNODC, ARQ.

**Figure 77:** Purity-adjusted heroin seizures, 2011-2015

<table>
<thead>
<tr>
<th>Country</th>
<th>Seizures (kg) annual average over 2011-2015</th>
<th>Wholesale purity in %</th>
<th>Purity adjusted seizures</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Year</td>
<td>Best estimate</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>505.3</td>
<td>2011-2015</td>
<td>33.6</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>444.9</td>
<td>2014-2015</td>
<td>20</td>
</tr>
<tr>
<td>Uzbekistan*</td>
<td>251.9</td>
<td>2014-2015</td>
<td>26.2</td>
</tr>
<tr>
<td>Kyrgyzstan</td>
<td>290.3</td>
<td>2014-2015</td>
<td>25</td>
</tr>
<tr>
<td>Turkmenistan*</td>
<td>13.8</td>
<td>2014-2015</td>
<td>26.2</td>
</tr>
<tr>
<td>Central Asia</td>
<td>1506.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Russian Federation</td>
<td>2375.7</td>
<td>2012-2013</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total seizures along the northern route</strong></td>
<td><strong>3881.9</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: UNODC, based on responses to the annual report questionnaire and government reports

*Purity estimates are based on an average of data available over 2011-2015 at country level; where purity was not reported, the unweighted sub-regional average was used as a proxy.
AFGHAN OPIATE TRAFFICKING ALONG THE NORTHERN ROUTE