



UNODC

United Nations Office on Drugs and Crime



THE GLOBAL AFGHAN OPIUM TRADE

A Threat Assessment

July 2011

UNITED NATIONS OFFICE ON DRUGS AND CRIME
Vienna

THE GLOBAL AFGHAN OPIUM TRADE
A Threat Assessment, 2011

Copyright © United Nations Office on Drugs and Crime (UNODC), July 2011

Sales No.: E.11.XI.11

ISBN: 978-92-1-148263-8

e-ISBN: 978-92-1-055022-2

Acknowledgements

This report was prepared by UNODC Studies and Threat Analysis Section (STAS), Division for Policy Analysis and Public Affairs (DPA), in the framework of UNODC Trends Monitoring and Analysis Programme/Afghan Opiate Trade Project, with the collaboration of the UNODC Country Office in Afghanistan and the UNODC Regional Office for Central Asia. UNODC field offices for East Asia and the Pacific, the Middle East and North Africa, Pakistan, Islamic Republic of Iran, the Russian Federation, Southern Africa, Nigeria, South Asia and South Eastern Europe also provided feedback and support.

UNODC is grateful to the national and international institutions which shared their knowledge and data with the report team, including, in particular, the World Customs Organization, the Anti Narcotics Force of Pakistan, the Afghan Border Police, the Counter Narcotics Police of Afghanistan, Turkish National Police Department of Anti-Smuggling and Organized Crime, Republic of Turkey Ministry of Customs and Trade, the United States Drug Enforcement Administration, Drug Control Headquarters of the Islamic Republic of Iran, Central Asian Regional Information and Coordination Centre, Narcotics Bureau of Hong Kong, China, National Narcotics Control Commission of China, and the Governments of Bangladesh, Bosnia and Herzegovina, Bulgaria, Georgia, Germany, India, Nepal, Nigeria, Republic of Moldova, Romania, Serbia, Slovakia, Slovenia, South Africa, Sri Lanka, Thailand, the former Yugoslav Republic of Macedonia, Ukraine and Viet Nam.

Thanks also go to the staff of the United Nations Assistance Mission in Afghanistan and the United Nations Department of Safety and Security, Afghanistan.

Report Team

Research and report preparation:

Hakan Demirbüken (Programme management officer, Afghan Opiate Trade Project, STAS)

Hayder Mili (Afghan Opiate Trade Project, STAS)

Renée Le Cussan (Consultant)

Mapping support:

Deniz Mermerci (STAS)

Odil Kurbanov (UNODC Regional Office for Central Asia)

Rakhima Mansurova (UNODC Regional Office for Central Asia)

Desktop publishing and mapping support:

Suzanne Kunnen (STAS)

Kristina Kuttinig (STAS)

Supervision:

Thibault Le Pichon (Chief, STAS), Sandeep Chawla (Director, DPA)

The preparation of this report benefited from the financial contributions of the United States of America, Germany and Turkey.

Disclaimers

This report has not been formally edited. The contents of this publication do not necessarily reflect the views or policies of UNODC or contributory organizations and neither do they imply any endorsement. The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of UNODC concerning the legal status of any country, territory or city or its authorities, or concerning the delimitation of its frontiers or boundaries.

Photos: © UNODC, Alessandro Scotti



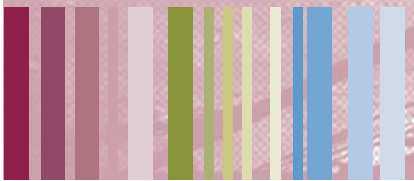
TABLE OF CONTENTS

Preface	3
Key facts	5
Executive summary	7
1. AFGHAN OPIATE TRAFFICKING	
1.1 Current state of the global opiate market	13
Developments in the global opiate market	13
Global market volume	15
Global market shape	17
Global opiate interdiction	22
1.2 Afghanistan: the origin of opiates	26
Opiate production	26
Trafficking routes	28
Value and beneficiaries	30
Law enforcement and seizures	31
Health and socio-economic impact	33
1.3 Major transnational flows of Afghan opiates	34
Pakistan	34
Islamic Republic of Iran	39
Central Asia	44
Eastern Europe	50
Northern Europe	53
South-East Europe	54
Western and Central Europe	57
South Asia	63
East and South-East Asia	66
Oceania	70
Africa	71
The Americas	73
1.4 Case study: opiate trafficking through Baluchistan and FATA	75
Baluchistan	75
Federally Administrated Tribal Areas (FATA)	82
1.5 Policy implications	89
2. ACETIC ANHYDRIDE TRAFFICKING	
2.1 The current state of the illicit acetic anhydride market	91
2.2 Acetic anhydride trafficking to Afghanistan	103
The Southern route	105
The Balkan route	114
The Northern route	128
2.3 Getting to market in Afghanistan	133
Smuggling routes into and through Afghanistan	133
Laboratories, capacity and the price of processing	143
Annex 1: Methodology	156
Annex 2: Substances controlled under the 1988 convention	158



ABBREVIATIONS AND ACRONYMS

AA	Acetic anhydride
AGE	Anti-government elements
ANA	Afghan National Army
ANF	Anti-Narcotics Force
ARQ	Annual report questionnaire
ATTA	Afghan Transit Trade Agreement
BKA	German Federal Police
BLO	Border liaison office
CARICC	Central Asian Regional Information and Coordination Centre
CNPA	Counter Narcotics Police of Afghanistan
CIS	Commonwealth of Independent States
DCA	Drug control agency
EMCDDA	European Monitoring Centre for Drugs and Drug Addiction
EU	European Union
FATA	Federally Administered Tribal Areas
FC	Frontier Corp
FCR	Frontier Crimes Regulation
FIA	Federal Investigation Agency
GDP	Gross domestic product
IMU	Islamic Movement of Uzbekistan
ISAF	International Security Assistance Force
KKH	Karakoram highway
OC	Organized crime
PA	Political agent
PICT	Pacific island countries and territories
PKK	Kurdish Workers' Party
TI	Triangular Initiative
TTP	Tehreek-e-Taliban-e-Pakistan
UNHCR	United Nations High Commission for Refugees
WDR	World Drug Report (UNODC)
WCO	World Customs Organization



PREFACE

Opiates originating in Afghanistan threaten the health and well-being of people in many regions of the world. Their illicit trade also adversely impacts governance, security, stability and development—in Afghanistan, in its neighbours, in the broader region and beyond.

The Global Afghan Opium Trade: A Threat Assessment, the second such report of the United Nations Office on Drugs and Crime research project on the topic, covers worldwide flows of Afghan opiates, as well as trafficking in precursor chemicals used to turn opium into heroin. By providing a better understanding of the global impact of Afghan opiates, this report can help the international community identify vulnerabilities and possible counter-measures.

Heroin is the most dangerous drug worldwide. This report presents data on the distribution of trafficking flows for Afghan opiates and their health impact throughout the world. Trafficking in Afghan opiates is also very lucrative, generating some US\$ 61 billion in illicit funds in 2009 (out of US\$68 billion for the global illicit opiate trade, including other production sources). Most of this money went into the pockets of traffickers all along the transnational heroin distribution routes, and some went to insurgents.

A worrying development that requires international attention is the increasing use of Africa as a way station for Afghan heroin shipments to Europe, North America and Oceania. This is fuelling heroin consumption in Africa, a region generally ill-equipped to provide treatment to drug users and to fight off the corrupting effects of drug money.

Another new trend is the growing use of sea and air transport to move Afghan heroin around the world, as well as to smuggle chemicals used in heroin production into Afghanistan. Traffickers in Afghan heroin have traditionally relied on overland routes, and law enforcement services will need to respond to this new threat.

The response to the global threat from Afghan opiates requires increased international cooperation within the context of an integrated, comprehensive and cost-effective strategy that is based on the principles of shared responsibility, a balanced approach between demand and supply reduction, and respect for national sovereignty and human rights.

The Paris Pact unites more than 50 States and international organizations in the fight against Afghan opiates. At the regional level, this translates into counternarcotics information-sharing and joint cooperation initiatives like the Triangular Initiative (involving Afghanistan, Iran and Pakistan), the Central Asian Regional Information and Coordination Centre (CARICC) and Operation TARCET. With the support of these multi-lateral initiatives, national authorities have intercepted and seized tons of illicit drugs and precursor chemicals.

The findings of this report identify areas that need more attention. Strengthening border controls at the most vulnerable points, such as along Afghanistan's border with Pakistan's Baluchistan province, could help stem the largest flows of heroin, opium and precursor chemicals. Increasing the capacity to monitor and search shipping containers in airports, seaports and dry ports at key transit points and in destination countries could improve

interdiction rates. Building capacity and fostering intelligence sharing between ports and law enforcement authorities in key countries and regions would help step up interdiction of both opiates and precursor chemicals.

Addressing Afghan opium and insecurity will help the entire region, with ripple effects that spread much farther. Enhancing security, the rule of law and rural development are all necessary to achieve sustainable results in reducing poppy cultivation and poverty in Afghanistan. This will benefit the Afghan people, the wider region and the international community as a whole.

But addressing the supply side and trafficking is not enough. We need a balanced approach that gives equal weight to counteracting demand for opiates. This is also part of the international community's shared responsibility for the global drug problem; heroin-consuming countries need to do more to provide treatment, care and support for drug users to help them kick the habit, and also to prevent drug use.

Reports like this make an important contribution to understanding the global opiate problem and identifying where interventions are most likely to be successful. The United Nations Office on Drugs and Crime will continue to contribute to the research effort by collecting and analyzing data, and helping to build the research capacity in national institutions and Governments, including in Afghanistan and Pakistan.

In closing, I would like to thank our dedicated team of skilled field research staff in Afghanistan, Pakistan and Central Asia who collect data on the Afghan opiate trade in often challenging and even dangerous circumstances. Thanks to them, this report is a unique and reliable source of information about the global Afghan opiate trade.

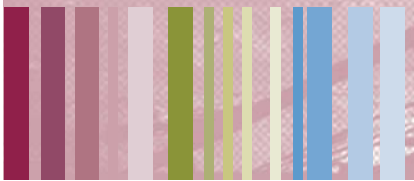


Yury Fedotov
Executive Director
United Nations Office on Drugs and Crime



KEY FACTS

- Globally, around 16.5 million people use illicit opiates annually (opium, heroin and morphine), generating a US\$68 billion global opiate market in 2009.
- In Afghanistan and elsewhere, transnational organized crime groups were the main beneficiaries of this extremely profitable trade. UNODC estimates that the Afghan Taliban earned around US\$155 million in 2009, Afghan drug traffickers US\$2.2 billion, and Afghan farmers US\$440 million.
- Heroin is the most abused opiate worldwide, with 12-13 million users consuming an estimated 375 tons of pure heroin per year (equal to 2,800 tons of opium). Opium abuse is also significant with users consuming an estimated 1,300 tons of raw opium in 2009. In total, over 4,000 tons of opium production were needed to meet global heroin and opium consumption in 2009.
- Afghan production has largely exceeded estimated global demand for the past several years, resulting in the creation of large stocks (including 2,600 tons in 2009). Stocks, in opium or morphine form (and to a lesser extent, pure brown heroin), accumulated in Afghanistan and along major trafficking routes over the period 2005-2009, would amount to 10,000-12,000 (opium equivalent) tons.
- Although Afghan heroin is only directly trafficked to the Islamic Republic of Iran, Pakistan and Central Asia, it flows from there to the rest of the world; in 2009, UNODC estimates that 150 tons of Afghan heroin reached Europe, 120 tons Asia and 45 tons Africa.
- Africa has received increasing Afghan heroin flows, re-emerging as a heroin trafficking route to Europe, and to a lesser extent, North America and Oceania in 2009. Increasing flows of heroin to Africa are also apparently generating some increase in heroin abuse in parts of the continent.
- In 2009, law enforcement bodies continued to stem the flow of heroin, seizing almost 76 tons of heroin worldwide. Depending on the purity of the heroin seized, the interdiction rate would amount to between 2 and 16 per cent of the global heroin flow that year.
- Traditional emphasis on land border control to stem the flow of opiates into destination markets needs to be complemented with increased attention to trafficking by sea and through seaports, which appears to play a growing but still insufficiently noticed role.
- Opiates have continued to cause severe health problems for drug abusers in 2009. More than 60 per cent of the drug treatment demand in Asia and Europe was related to heroin.
- In Afghanistan and its neighbouring countries, the level of opiate consumption has risen sharply in the last decade.
- Afghanistan, the centre of global heroin manufacture, has approximately 300-500 laboratories in operation with an output of approximately 380-400 tons of heroin per year. Heroin labs are mainly located where there is limited law enforcement capacity.
- Acetic anhydride is the main chemical precursor used for manufacturing heroin. A tiny fraction (0.02 per cent, or some 475 tons) of the legitimate global trade (2 million tons a year) needs to be diverted to satisfy the needs of Afghanistan's heroin processors. Europe and East Asia are the main regions of origin of the acetic anhydride trafficked into Afghanistan.
- The patterns of acetic anhydride seizures that have developed around Afghanistan in recent years also strongly suggest that a focus on seaports is warranted.
- Despite a sharp decrease in opium production in Afghanistan in 2010, and scattered reports of shortages of good quality heroin from some European countries, there were no major heroin shortages reported from consumer markets.
- Stopping the operations of the global Afghan opiate market will require further efforts to eliminate production of, demand for and trafficking in Afghan opium and heroin. Increasing the effectiveness of interventions in these three interrelated areas also requires guidance from threat monitoring and analysis efforts.



EXECUTIVE SUMMARY

Over the last decade, the global trade in illicit Afghan opiates has been one of the world's greatest transnational drug and crime threats – with severe consequences for health, governance and security at national, regional and international levels.

UNODC has undertaken numerous surveys and studies on aspects of the trade with a view to supporting countermeasures and initiatives at the national and international levels. These include the Paris Pact Initiative and its Rainbow Strategy. To complement these efforts and to help monitor and better understand the global impact of Afghan opiates, UNODC launched a research project dedicated to the threat of Afghan opiates in September 2008. The Project released its first report, *Addiction, crime and insurgency: the transnational threat of Afghan opium* in November 2009. The report mapped and measured global heroin and opium flows to main opiate markets, analysing market values and beneficiaries. The report also discussed the links security and the opium economy in Afghanistan and some of the neighbouring areas.

This report is the second from the Afghan Opiate Threat Assessment Project. In this report, the analysis is both deeper and broader in scope. Opiate market estimates and flows have been updated. The report also pays particular attention to the reverse flows of acetic anhydride trafficked into Afghanistan.

Opiate trafficking

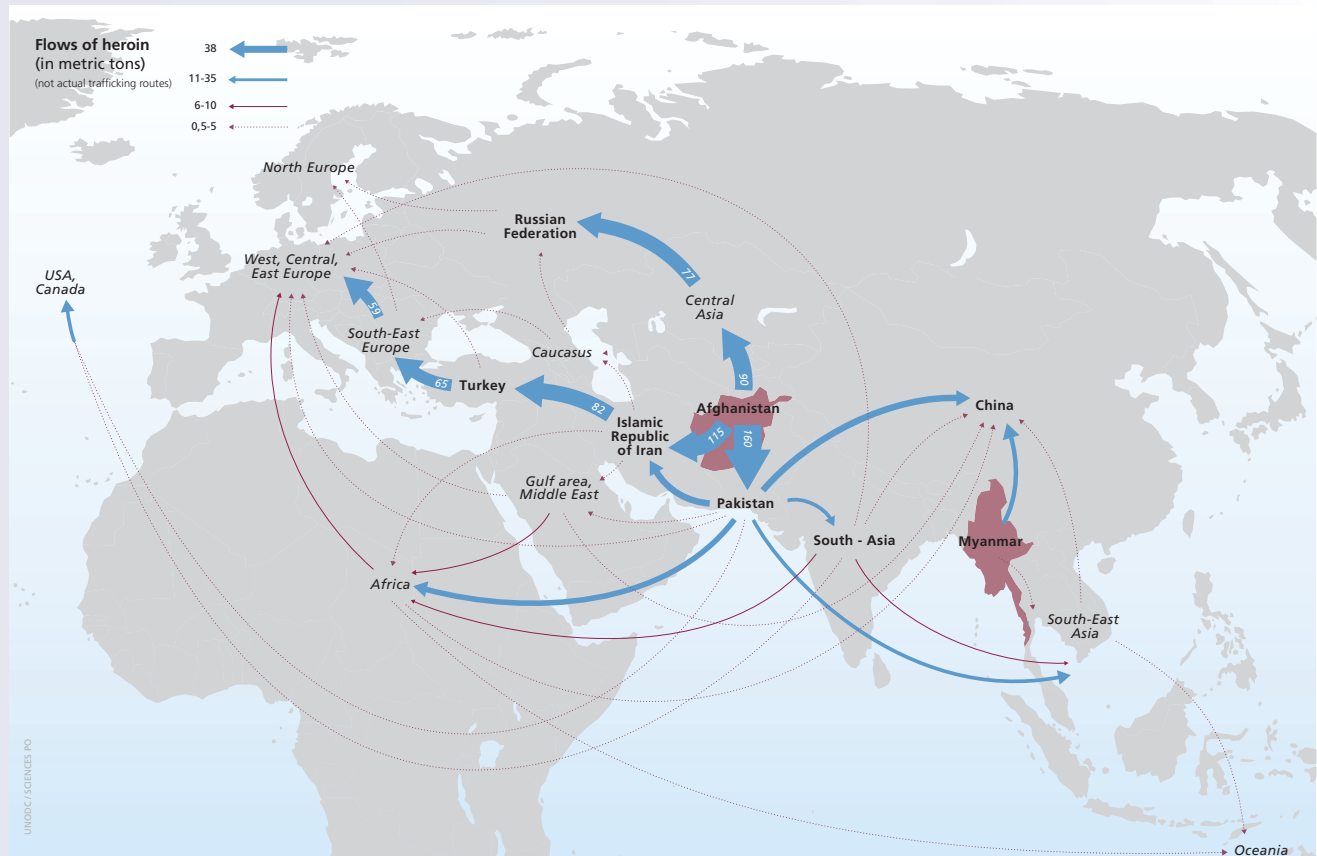
Globally, some 16.5 million people use opiates annually, generating a US\$68 billion global opiate market in 2009. Heroin is the most abused opiate, with 12-13 million users globally consuming an estimated 375 tons of pure heroin

per year. Opium abuse is also significant, with 3-4 million users consuming some 1,300 tons of raw opium. In addition to global consumption, an additional 2,600 tons of opium (or an equivalent amount of heroin or morphine) are estimated to have been stocked in Afghanistan and along trafficking routes in 2009. UNODC currently estimates that there are between 10,000 and 12,000 tons of opium held in stockpiles – which may be sufficient for at least three years of heroin and opium abuse worldwide.

In 2009, Afghan heroin was trafficked to numerous destinations worldwide, with the exception of South and Central America. Europe is the largest market for Afghan heroin. In 2009, 150 tons of pure Afghan heroin were estimated to have been consumed in Europe. According to the European Monitoring Centre for Drugs and Drug Addiction, heroin is present in the majority of drug-induced deaths reported in Europe, making heroin a significant public health threat.

East and South-East Asia have also become significant destinations for Afghan heroin due to the decrease in opium production in Myanmar during the last decade. Almost 50 per cent of the Chinese market and most of the East Asian market may have been supplied by Afghan heroin in 2009.

Africa has also received increasing Afghan heroin flows, emerging as a cost-effective heroin trafficking route to Europe, North America and Oceania in 2009. Trafficking through this new route is likely facilitated by relatively high levels of corruption, widespread poverty and limited law enforcement capacity in many countries. Increased pressure on traditional heroin trafficking routes may be providing an incentive to traffickers to diversify itineraries and reopen the African route to Europe that had been very

Map 1: Heroin trafficking flows from Asia, 2009

Source: UNODC.

active in the 1980s and early 1990s. Increasing flows of heroin to Africa are also apparently leading to increases in drug abuse in parts of the continent.

The multiple threats engendered by Afghan opiates are not limited to distant destination markets. In Afghanistan and its neighbouring countries, the level of opiate consumption has risen sharply in the last decade. Some 35,000 hectares of opium poppy cultivation (out of a total of 123,000 ha in 2009) are currently needed to produce the opiates consumed in Afghanistan, Pakistan, the Islamic Republic of Iran, Turkmenistan, Uzbekistan and Tajikistan. Afghan opium now presents significant public health and internal security challenges for the population of Afghanistan and its immediate neighbours; however, unlike in downstream markets, treatment facilities are very limited in these countries.

In Afghanistan and elsewhere, transnational organized crime groups were the main beneficiaries of the US\$68 billion trade in 2009, which they supplemented with other forms of crime such as arms trafficking and human smuggling. In 2009, the Afghan Taliban was estimated to have earned around \$150 million from the opiate trade, Afghan drug traffickers \$2.2 billion, and Afghan farmers \$440 million. While the findings suggest that most insurgent elements content themselves with taxing the trade rather than attempting to become active participants, it now appears that some insurgents involve themselves directly in the

heroin supply chain, including in the procurement of acetic anhydride. Anti-government elements based in Afghanistan and Pakistan may gain access to only a fraction of the value of Afghan opiate exports, but this is nonetheless enough to support logistics, operations and recruitment.

Areas under insurgent influence, such as the border between Iraq and Turkey and the border between Pakistan and Afghanistan, also provide a key competitive advantage for organized crime groups as those areas lie beyond the reach of law enforcement. If global organized crime groups managing the opiate trade pocketed only 10 per cent of the profit, they would have earned at least \$7 billion in 2009. All these illicit profits are laundered in one way or another, a process that undermines the vulnerable economies of areas such as the Balkans and Central Asia.

In 2009, law enforcement bodies continued to stem the flow of heroin, seizing almost 76 tons of heroin worldwide. The interdiction rate was between 2 and 16 per cent, depending on the purity of the heroin seized. Dropping of trade barriers across many parts of the globe has not only facilitated the movement of illicit goods, but also closer interaction between organized criminal groups from different locations and cultures. Drug traffickers will almost certainly exploit this situation and make connections with other criminal networks to facilitate the smooth movement of heroin.

Traffickers tend to shift routes and change their modus operandi as law enforcement pressure increases. Traditional methods of land border control may not be sufficient to stem the flow of opiates into destination markets. With traditional emphasis on land border and airport control, the use of maritime transportation and seaports by opiate traffickers appears to have received too little attention. In 2009, just 6 per cent of global heroin seizures made by customs departments occurred at seaports, although there are indications that heroin traffickers are utilizing maritime transportation much more than currently estimated.

Acetic anhydride trafficking

Acetic anhydride is a precursor chemical essential to the production of heroin. Global manufacture of acetic anhydride reaches 2 million tons annually, but only a fraction – some 475 tons (or 0.02 per cent) – is needed to satisfy the demand of Afghanistan's heroin processors. The European market was heavily targeted by traffickers in 2008-2009 and remains an area vulnerable to diversion. Afghan organized crime groups have also penetrated several regions in Asia and cooperate with indigenous groups to traffic heroin processing chemicals into Afghanistan. In Afghanistan itself, traffickers managed a domestic acetic anhydride market estimated at \$130-\$200 million in 2009. In the same year, some 38 tons of acetic anhydride were seized in Afghanistan, most of which was seized at heroin production sites in the south, with the help of coalition forces.

Acetic anhydride trafficking for Afghan heroin production is multi-directional, but Central and South-Eastern Europe appear to straddle a major artery, which mostly pumps diverted acetic anhydride out of the trade within the European Union. In 2008, Slovenia and Hungary alone seized 156 tons, equivalent to nearly two thirds of global seizures and more than a third of the illicit requirements of Afghanistan that year. On the other side of the globe, diversion from domestic trade is also important; diversions from the Republic of Korea and other South-East Asian countries appear to supply a significant proportion of the acetic anhydride transiting Pakistan and the Islamic Republic of Iran. In diverting from domestic trade, traffickers still face a low level of risk with the potential for rich rewards.

With Pakistan and the Islamic Republic of Iran positioned between acetic anhydride-producing regions and an acetic anhydride-consuming country (Afghanistan), the transit of acetic anhydride through their borders is inevitable. The Islamic Republic of Iran receives heroin chemicals across its border with Turkey, but also from northern Iraq and through its southern seaports. Pakistan receives smuggled acetic anhydride from multiple directions and accounted for 70 per cent of acetic anhydride seizures in countries bordering Afghanistan (excluding China). Afghanistan's southern frontier with Pakistan appears to receive the lion's share of acetic anhydride due to porous borders and limited

capacity for detection and enforcement.

Central Asia witnessed seizures of 260 tons of acetic anhydride from 1995-2000, but from 2001-2010 it seized less than half a ton. The role of the so-called 'Northern route' through Central Asia appears secondary. However, there remains a question as to whether trafficking routes have quickly shifted or modus operandi has changed through Central Asia to avoid detection.

Afghanistan, the centre of global heroin manufacture, has approximately 300-500 laboratories in operation with an output of approximately 380 tons of heroin per year. At the 'centre of the centre', southern Afghanistan was responsible for 50 per cent of national manufacture in 2009 and 2010. The patterns of acetic anhydride seizures that have developed around Afghanistan in recent years strongly suggest that a focus on seaports is warranted. In the high-seizure countries of Pakistan and the Islamic Republic of Iran, 80 per cent of the acetic anhydride seized in 2008-2010 was interdicted in seaports.

Based on arrests resulting from seizures, it appears that networks of Afghan and Pakistani nationals play an important role in diverting acetic anhydride, even in distant producing countries where respective diasporas are relatively small, namely the Republic of Korea and Japan. By contrast, most groups involved in trafficking acetic anhydride through Europe and the Balkan route seem to be loose multi-national networks usually composed of local nationalities working jointly with Turkish citizens. Heroin is often used as a barter currency to purchase acetic anhydride on the Balkan route, notably in Turkey.

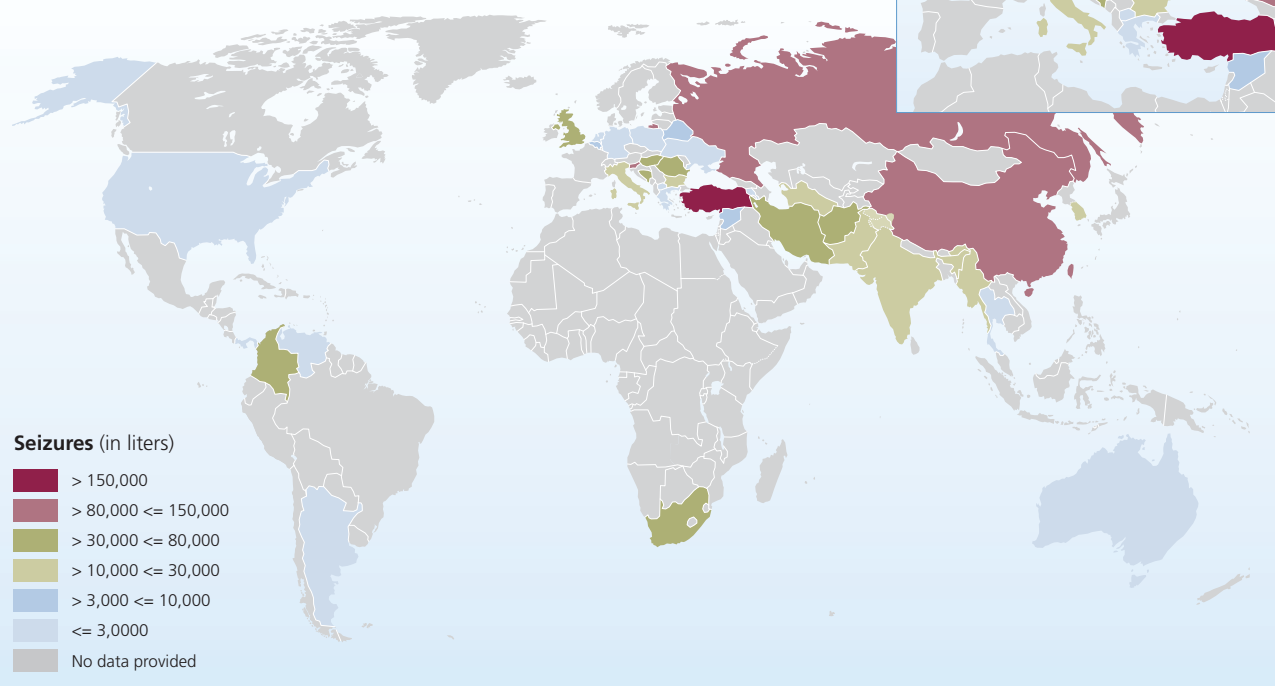
Policy implications

Stopping the operations of the deadly and globalizing Afghan opiate market that has exploded over the last 20 years will require further efforts to gradually eliminate production of, demand for and trafficking in Afghan opium and heroin. Increasing the effectiveness of interventions in these three inter-related areas requires guidance from accurate information and assessments of the problem and of the ways in which the performance of counter-measures can be increased.

There is a strong link between insecurity and opium poppy cultivation and trafficking in Afghanistan. Anti-government elements are partly funding their operations from the opiate trade. In most of the Afghan provinces where security is better, there is either no or very limited opium poppy cultivation. Conversely, the main poppy cultivation areas of the country are found in the insecure southern provinces. Further improving security in Afghanistan appears therefore as a critical precondition for controlling opium poppy cultivation in the country.

Heroin trafficking occurs mainly through Afghan border

Map 2: Global acetic anhydride seizures by country, 1999-2010 (100 litres or more)



Source: UNODC country reports; United States of America Drug Enforcement Agency; reports of the International Narcotics Control Board on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 (1999-2009). Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. 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.

provinces with weak law enforcement and border control. Although considerable improvements have been brought to a number of border control points, there are still many areas along Afghanistan's borders that are not well protected or monitored, such as the borders between the southern provinces of Afghanistan (Hilmand, Kandahar and Nimroz) and the Baluchistan province of Pakistan. Drug traffickers take advantage of this situation and heavily use these borders for trafficking opium, heroin and acetic anhydride from one country to the other. The capacity to control these border crossings should be further increased.

In addition to land borders, the sea- and airports of Afghanistan's immediate neighbors have become increasingly used for heroin and acetic anhydride trafficking. Maritime transportation, in particular, appears to have gained in importance for traffickers, be it for exporting heroin to the re-emerging African route, or for importing acetic anhydride destined to heroin processing labs in Afghanistan. Consequently, interdiction capacity at vulnerable seaports, including dry ports, should be improved, notably in Pakistan and the Islamic Republic of Iran, but also in other transit and destination countries.

Only some 2 per cent of the millions of containers shipped every year across the globe can be physically searched. More generally, the further drugs move away from their source,

the more fragmented, diverse and widespread drug shipments become, making it extremely difficult for law enforcement agencies to detect and intercept them in the legitimate and ever growing flows of goods and people. Particular attention needs to be paid, therefore, to stepping up interdiction efforts and capacity as close as possible to the Afghan opiate source, as well as to increasing intelligence sharing among concerned law enforcement agencies.

In addition to increased law enforcement capacity, social and economic conditions need to be improved in Afghanistan and the poorest areas in the region. Although there is no direct causal link between poverty and drug production and trafficking, where security and the rule of law is weak, drug traffickers and anti-government elements find in disadvantaged areas more fertile ground to promote illicit drug production and to recruit young males in the ranks of armed and drug trafficking groups.

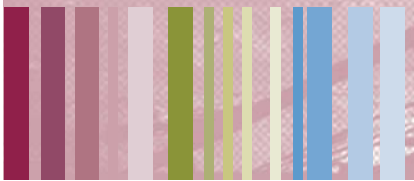
The vast majority of heroin produced in Afghanistan is consumed outside of Afghanistan and its immediate region. Although heroin demand has stabilized worldwide, there are no signs of a decrease at present. Afghanistan and its neighbours cannot bear alone the burden of stopping the operation of the global opiate market. In line with the principles of shared responsibility and a balanced approach to reducing supply and demand, consuming countries, particularly in the regions that create the strongest demand

pull, need to strengthen their own efforts to reduce opiate consumption within their borders and the outflow of drug money it generates. Strategic considerations, public health needs and humanitarian concerns all point to the need to increase, in line with international standards and guidelines, treatment efforts directed at core opiate users, who are both consuming the bulk of illicit opiates and suffering the most severe health and social consequences as a result of their use.

Increases in Afghanistan's opiate production and trafficking in recent years have also caused an increase in opiate addiction in Afghanistan and its neighbors. Sadly, facilities to provide treatment for drug addicts in the region are far from sufficient. As drug abuse, and its associated health impact (such as HIV/AIDS among injecting drug users) worsens in the region, the development of local treatment capacities needs to be given greater priority.

UNODC research project on the Afghan Opiate Trade

The Afghan opiate trade continues to represent a severe global threat to public health, governance and security. Timely and accurate threat and risk analysis is essential to help shape the international response to this evolving problem and, with the support of the Member States, UNODC will continue to play its role in this research effort. The Afghan Opiate Trade Project will strive to continue providing timely and accurate analysis to UNODC and the Member States in 2012. However, timely analysis requires timely data. In that view, the project now relies on a network of 16 dedicated staff located in 11 countries and has established strong links with key international organizations, Member States and other UNODC programmes and field offices. The project is also helping to build research capacity in national institutions and local governments, including in Afghanistan and Pakistan.



1. AFGHAN OPIATE TRAFFICKING

1.1 CURRENT STATE OF THE GLOBAL OPIATE MARKET

Developments in the global opiate market

Emergence of Africa

In 2009, Africa emerged as a cost-effective heroin trafficking route to Europe, North America and Oceania. Drug seizures and the arrest of traffickers indicated that African drug traffickers – particularly West African networks – are increasingly transporting Afghan heroin from Pakistan into East Africa for onward shipment to Europe and elsewhere. During the first quarter of 2011, there were two major heroin seizures (each was above 100 kg) reported by Kenya and the United Republic of Tanzania. The emergence of Africa as a heroin trafficking hub is almost certainly due to ongoing corruption, widespread poverty and limited law enforcement capacity – as well as increased pressure on traditional drug trafficking routes.

The most fragile African states are particularly vulnerable, as drug trafficking organizations are able to exploit the low capacity at seaports and airports. Indeed, East Africa's minimal law enforcement at ports of entry has encouraged drug traffickers to transit heroin from Pakistan or Gulf countries through East Africa. Once in East Africa, Afghan heroin flows to Europe, North America, South-East Asia and Oceania – either directly or via other African countries.

Increasing flows of heroin to Africa have also led to increases in drug abuse across the continent. Indeed, African authorities have reported increases in both drug trafficking and heroin abuse. However, drug abuse estimates are likely to be unrealistically low due to a lack of comprehensive data.

Removal of trade barriers

Removal of trade barriers in many parts of the globe has not only facilitated the movement of illicit goods, but also closer interaction between organized criminal groups from different locations and cultures. In 2009, international trade agreements – both regional and bilateral – had a significant impact on opiate trafficking routes and criminal networks, especially in Europe. Recently, several countries lifted visa requirements bilaterally or at the regional level. Drug traffickers may exploit this situation and make connections with other criminal networks to facilitate the smooth movement of heroin. For example, Afghan opiate traffickers may take advantage of the recently signed trade agreement between the Russian Federation, Kazakhstan and Belarus. Heroin trafficking is likely to increase through Central Asia in the coming years, further fuelling health, economic and security problems in the region.¹ Therefore, information and intelligence sharing between the countries will become increasingly important to stop heroin trafficking.

Use of maritime transport

Given the ongoing removal of trade barriers globally, traditional methods of border control may become increasingly unable to stem the flow of opiates into destination markets. In particular, traffickers' use of maritime transportation and seaports has been identified as a key emerging threat – one which is largely overlooked by international law enforcement. Traffickers are already capitalising on increased global trade along sea routes. In 2009, more than 400 million containers were shipped worldwide, yet only 2 per cent of these containers were inspected. It is impossible to control

¹ Balkan Info Report 2010, Zollkriminalamt.

every container transiting sea ports. In addition, narcotics control capacity is often lacking. Therefore, it is necessary to increase the law enforcement capacity at sea ports and information or intelligence exchange between countries to stop heroin trafficking via maritime transportation.

In 2009, just 6 per cent of global heroin seizures made by customs departments occurred at seaports. Such limited seizures are likely the result of high levels of global container transportation, limited law enforcement capacity at most seaports and a general lack of awareness. Yet indications suggest that drug traffickers are utilizing maritime transportation much more intensively than currently estimated. For example, in 2009, all heroin seized in South Asian seaports originated in Pakistan, yet no heroin seizures were made at Pakistani seaports. Drug trafficking through international seaports must be further studied and monitoring mechanisms enacted.

Decline in Myanmar's heroin production affecting South-East Asia

Although opium production in Myanmar has been in decline since the 1990s – when Afghanistan emerged as the key global opium producer – production had been sufficient to fill local and even some regional demand. However, current seizure data and drug abuse estimates suggest that Myanmar's heroin production has further declined and was insufficient to meet regional demand in 2009. Larger quantities of Afghan heroin are now trafficked into the region to fill the void – there are even unconfirmed reports that Afghan heroin might be available in Myanmar itself.

Given Myanmar's decline, it is not surprising that Afghan heroin is increasingly trafficked into China and other South-East Asian countries to meet domestic consumption needs. Although small amounts are trafficked overland into China, it is likely that the majority of Afghan heroin reaches China via maritime transport from Pakistan, or via other South-East Asian countries. The level of Afghan heroin trafficking into China is dependent on the level of opium production in Myanmar. For example, in 2010, opium production in Myanmar increased by 76 per cent, resulting in less Afghan heroin reaching China compared to 2009.

Emergence of opiate production in new locations

While Afghanistan and Myanmar have been the traditional producers of opiates, the extent of opiate production in other regions of the world is now emerging.

India has been the leading licit producer of opium for decades, although the estimated quantity converted from licit to illicit form is very limited, or possibly non-existent. However, seizures, drug consumption estimates and the Annual Report Questionnaire provided by the Indian Government may suggest that some 15 tons of heroin – or 3 per cent of global supply – are illicitly produced in India.

According to Indian Government estimates,² half of India's heroin consumption and all of India's opium consumption (70 tons) was met by domestic supply. In order to produce these amounts of heroin and opium in 2009, India was estimated to have at least 7,500 hectares of illegal opium cultivation. Although an estimated 6 tons of Indian heroin is exported regionally, Indian drug traffickers prefer to export Afghan heroin due to its higher purity and greater profits when trafficking to other destinations. For further clarity on local production, the Indian Government is planning to launch an opium poppy survey in 2011, in cooperation with UNODC.

The *Americas* are also increasing heroin production areas. In 2009, Mexico produced 426 tons of opium³ which could yield 40 tons of 'black tar' heroin – a type of heroin consumed exclusively in the Americas. Despite being better known for its cocaine, Colombia also produced 10 tons of opium in 2009 – which could yield 1 ton of heroin. Surprisingly, in 2009 the Guatemalan Government also reported producing 15 per cent of the country's total opium consumption. Given that only 13 out of 42 countries in the Americas provided drug consumption data in 2009, it is likely that opium production and consumption are higher than currently estimated.

Although few countries actually process opium into heroin, many countries that consume raw opium have a limited local production. In 2009, *Egypt* was the only country in Africa that reported opium abuse; with a local demand estimated at 44 tons, it is likely that the country hosts between 1,500-2,500 hectares of illegal opium poppy cultivation. *Eastern European* countries commonly use a form of opium called *kompot* or *cherniashka* – a mixture of opium poppy straw and other chemicals. Given the difficulty of trafficking poppy straws (due to its strong odour) and negligible seizures into Eastern Europe, it is likely that demand is met by local production. Further research is needed to determine the extent of Eastern European opium cultivation.

Trends of opium production in Afghanistan

Opium cultivation remained consistent in 2009 and 2010; however opium production decreased by 48% in 2010 – from 6,900 tons to 3,600 tons – due to a disease in the opium plants. Disease often plagues opium plants in Afghanistan, last affecting production in 2004.

Due to the decrease in opium production, fresh opium prices (per kg) increased from US\$48 in 2009 to US\$128 in 2010 at the opium poppy harvest time (May – June). By December 2010, opium prices had reached US\$240 per kg. However, since farmers sold most of their opium production right after harvest time, only traders benefited from the increased prices. Opium traders are the main beneficiaries and manipulators of the opium market in Afghanistan.

² Annual Report Questionnaire, India.

³ World Drug Report 2011, UNODC.

Table 1: Opiate consumption in Afghanistan and the region, (tons) 2009

	Opiate users	Heroin consumption	Opium consumption
Afghanistan	350,000	5	230
Pakistan	727,500	20	132
Islamic Republic of Iran	1,200,000	16	476
Central Asia	358,000	11	36
Total (rounded)	2,635,000	53	874

Source: UNODC, 2009, *Drug Use in Afghanistan: 2009 Survey* and *World Drug Report*, 2010.

In 2010, 53 per cent of Afghanistan's total opium poppy cultivation was in Hilmand province – enough to satisfy global opiate consumption, if disease did not reduce outputs.

According to UNODC's *Afghanistan Opium Winter Rapid Assessment 2011*,⁴ a further slight decrease in opium poppy cultivation is expected in 2011. However, even if cultivation remains stable or decreases slightly, opium production may increase in Afghanistan in 2011 due to the increase in opium production yield per hectare – assuming no further disease occurs. Moreover, opium cultivation is likely to slightly increase in eastern and northern Afghanistan due to the increasing opium prices.

Exposed scale of drug abuse in Afghanistan, Pakistan, Islamic Republic of Iran and Central Asia

Although Afghanistan is well known as the dominant global producer of opium, and its neighbours as key drug trafficking transit countries, drug addiction within these countries is much less known. Indeed, drug abuse surveys have been historically difficult to conduct in these countries, with the extent of drug abuse only recently emerging.

The results of Afghanistan's Drug Abuse Survey, conducted in 2009, identified a major problem. From 2005-2009 the number of regular opium users had jumped 53 per cent to 230,000 people, while the number of heroin users had increased to 120,000, a leap of 140 per cent.⁵ Indeed, at 2.65 per cent, Afghanistan's opiate prevalence rate is currently the highest worldwide. The Islamic Republic of Iran also has one of the highest global opiate prevalence rates, estimated at 2.26 per cent,⁶ or 1.2 million users in 2009. Pakistan is also affected, with an opiate prevalence rate estimated at 0.7% or 727,500 people. As a key transit route from Afghanistan to the Russian Federation, it is not surprising that Central Asia has a significant opiate abuse problem, with an estimated 358,000 opiate users.

In 2009, at least 35,000 hectares of opium poppy cultivation was necessary to produce enough opium to satisfy demand in Afghanistan, Pakistan, the Islamic Republic of

Iran and Central Asia. Increasing domestic and regional demand is making it difficult for Afghanistan and its neighbours to eliminate opium poppy crops. Given the high levels of estimated opiate abuse, both the Islamic Republic of Iran and Pakistan have planned to undertake new drug abuse surveys, with results due in 2011.

Lack of global drug consumption information

Global statistics on the number of opiate users and per capita consumption are only estimates, as UNODC figures are limited by the availability of information. In 2009, only one third of the countries in the Americas provided drug consumption data; Oceania data was limited to Australia and New Zealand; and from Asia – a continent that is estimated to contain 48 per cent of global heroin users – just 16 out of 47 countries provided drug consumption data. However, some regions responded well in 2009, including Europe with 16 out of 21 countries providing data. As more holistic regional data is provided, UNODC can make more accurate estimates and those countries involved can design better and more effective measures to cope with drug abuse in their region.

Drug consumption data is critical not only for developing social interventions, but also for estimating the volume of flows, organized crime profits and even amounts of global poppy fields. Significant information gaps remain for many countries. In addition, very limited data is available on the *purity of heroin* processed in Afghanistan, the purity of heroin seized by each country or the purity of heroin used by consumers. Purity levels are also critical in predicting volumes of heroin trafficked, dilution points and criminal profits. Despite a decade of considerable international funding to fight opium cultivation in Afghanistan, there is no reliable scientific data on the *morphine content* of Afghan opium. Morphine content is fundamental for estimating the amount of opium used to manufacture 1 kg of heroin – enabling estimates of poppy fields and annual opium yields.

Global market volume

In 2009, 460-480 tons of pure heroin and 1,300 tons of opium were trafficked to consumers worldwide. Afghanistan remains dominant as global supplier, with Afghan

⁴ UNODC, January 2011, *Afghanistan Opium Winter Rapid Assessment 2011 (Phase I)*.

⁵ UNODC, 2009, *Drug Use in Afghanistan: 2009 Survey*.

⁶ World Drug Report, 2011.

heroin trafficked all over the world. Demand and consumption of other opiates, however, is concentrated in specific countries or regions.

Opiate supply

Although heroin was produced in six countries in 2009 – Afghanistan, Myanmar, Mexico, India, Colombia and the Lao People's Democratic Republic – Afghanistan dominated the market, supplying 84% of the world's consumed heroin. The remaining countries produced much smaller quantities that mainly served local or regional markets. Indeed, Afghanistan has developed a monopoly over the opiate market since the 1990s, when South-East Asian production – especially in Myanmar – began steadily declining. In 2009, global opium supplies were also dominated by Afghanistan; although opium was also produced in Myanmar, the Lao People's Democratic Republic, Mexico, India, Egypt and in some Eastern European countries for local and regional consumption. Afghan heroin is trafficked globally – with the exception of Central and South America.

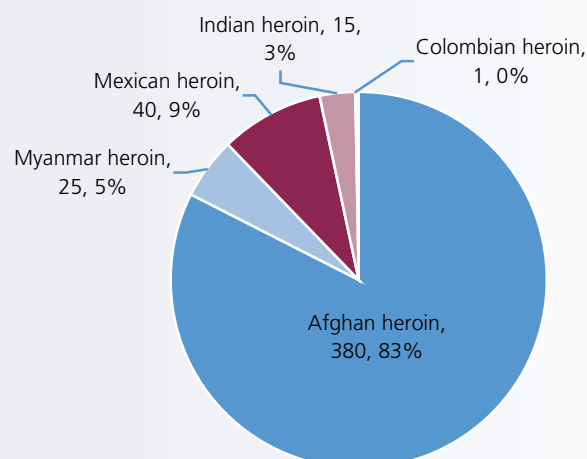
Heroin produced in Afghanistan is estimated to have a purity of 70 per cent and is known as 'pure heroin.'⁷ However, purity levels decline rapidly along trafficking routes, as criminal networks dilute heroin with other chemicals to increase profits. By the time heroin reaches the consumption market it is usually between 5-15 per cent purity. The other supplying countries produce much smaller quantities of heroin. Although Colombian heroin is of very high purity – sometimes reaching the upper 90th percentile range – it is insufficient to meet demand in the Americas and has a very limited reach. Mexican heroin mainly takes the form of black tar heroin and is used almost exclusively within the Americas.

With significant amounts of heroin and opium produced every year – where does it go and who consumes it?

Opiate demand

Opiate consumption and drug abuse are global problems, with consumers in every country, regardless of race, religion, politics or economics. Globally, some 16.5 million people are considered opiate abusers. Heroin is the most commonly abused opiate, chosen by 75-85% of global users. However a range of opiates are consumed worldwide – not just heroin – including raw opium, morphine and local types of opiates, such as *kompot* or *cherniashka*.⁸ Although heroin has a global consumer base, raw opium consumption is largely restricted to areas of Asia, *kompot* or *cherniashka* are consumed almost exclusively in Eastern Europe, and morphine has an extremely limited consumer base.

Fig. 1: Global heroin producers (tons and per cent share), 2009



Source: UNODC.

Heroin

In 2009, an estimated 12-13 million global heroin users consumed 375 tons of pure heroin.⁹ Table 2 contains numbers of heroin users and consumption figures broken down by region and subregion.

The global distribution of heroin users and consumption levels become even starker when displayed graphically. Importantly, countries with high numbers of users do not necessarily consume corresponding high levels of heroin; consumption per capita varies significantly between countries. For example, although Europe has fewer heroin users than Asia, its consumption per capita is higher.

Certain regions or countries stand out as key heroin consumption markets within each continent. In Europe, West, Central and East Europe contained significant numbers of users, while in Africa, the belt across East, Central and West Africa dominated the continent. North America accounted for 83 per cent of consumption in the Americas; Australia dominated Oceania with 80 per cent of the region's consumption; and China accounted for one third of Asian consumption.

At the country-level, the top five heroin consuming nations in 2009¹⁰ were the Russian Federation, China, the United States of America, Pakistan and the United Kingdom. Also, Afghanistan – the world's largest opiate producer – and many of its immediate neighbours were among the top 15 heroin consuming countries.

Opium

As mentioned previously, raw opium consumption is much more limited than heroin consumption – both in terms of number of users and geographic reach. In 2009, there were an estimated 3-4 million opium abusers worldwide consuming 1.3 tons of opium. Of the total number of global

⁷ Further research needs to be done on purity levels of heroin in Afghanistan, especially morphine content.

⁸ Produced by mixing locally grown poppy with acetic anhydride.

⁹ Pure heroin refers to heroin of 70 per cent purity, which is roughly equivalent to 2,600 tons of heroin of 10 per cent purity.

¹⁰ Based on the current data available to UNODC.

Table 2: Estimated number of heroin users and consumption (tons) worldwide, 2009

Region/ Subregion	Heroin users		Heroin consumption	
	Number of users	Percentage of total users	Quantity (tons)	Percentage of total consumption
AFRICA				
Eastern Africa	533,000	4.3%	13	4%
Northern Africa	168,000	1.4%	5	1%
Southern Africa	242,000	2.0%	3	1%
Western and Central Africa	793,000	6.4%	13	4%
AFRICA Total	1,736,000	14.0%	34	9%
AMERICAS				
Central America	20,000	0.2%	0	0%
North America	1,380,000	11.2%	22	6%
South America	208,000	1.7%	2	1%
The Caribbean	64,000	0.5%	1	0%
AMERICAS Total	1,672,000	13.5%	25	7%
ASIA				
Central Asia and Transcaucasia	322,000	2.6%	13	3%
East and South-East Asia	3,243,000	26.2%	82	22%
South Asia	1,156,000	9.3%	23	6%
Near and Middle East Asia	484,000	3.9%	18	5%
South-West Asia	712,000	5.8%	25	7%
ASIA Total	5,917,000	47.8%	160	43%
EUROPE				
Eastern Europe	1,581,000	12.8%	73	20%
Northern Europe	57,000	0.5%	3	1%
South-Eastern Europe	150,000	1.2%	5	1%
Western and Central Europe	1,194,000	9.6%	70	19%
EUROPE Total	2,982,000	24.1%	151	40%
OCEANIA	69,000	0.6%	4	1%
OCEANIA Total	69,000	0.6%	4	1%
Total (rounded)	12,376,000		375	

Source: UNODC.

users, 2.1 million users – accounting for 84 per cent of consumption – were in Asia. Cultural practices and tradition are the main underlying reasons for the concentration of opium abuse in Asia. Smoking of opium is a traditional practice in South-West Asian and South Asian countries, especially in the Islamic Republic of Iran, Pakistan, Afghanistan and India.

Having understood global opiate supply and demand trends, how do the opiates get from the supplier to the consumer? And who benefits?

Global market shape

Opiate trafficking from production countries to consumer markets requires a global network of routes and facilitation by domestic and international criminal groups. Although exact routes are constantly changing, the global movement

of opiates from Afghanistan to consumers follows well-established geopolitical paths. Although farmers in Afghanistan supply much of the world's opiates, it is the international criminal networks along trafficking routes that earn billions of dollars every year.

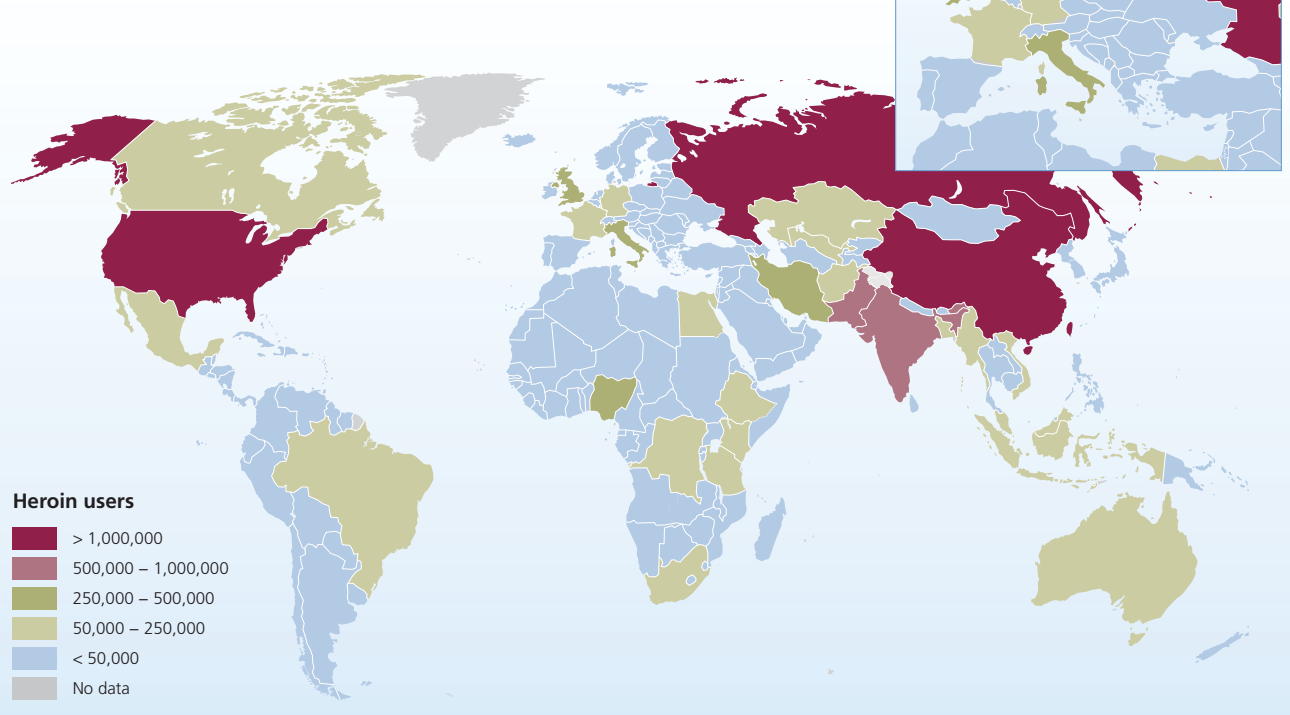
Key opiate trafficking routes

As the key global producer, almost all international opiate flows originate in Afghanistan. From Afghanistan, exact heroin trafficking routes to consumer markets are not fixed and can change depending on the risk perception of drug traffickers.

Global routes

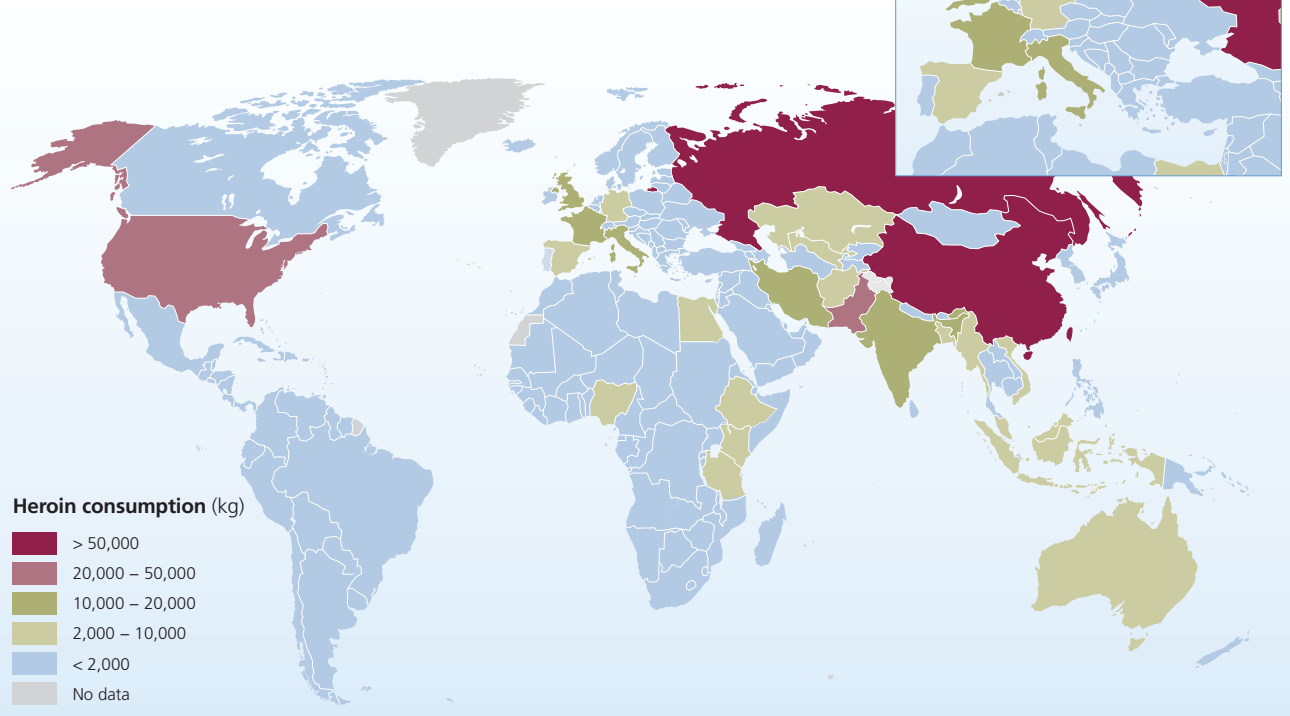
Heroin flows from Afghanistan in three main directions – to Pakistan, to the Islamic Republic of Iran and to Central Asia. From these border countries, Afghan heroin is

Map 3: Geographic distribution of heroin users, by country, 2009

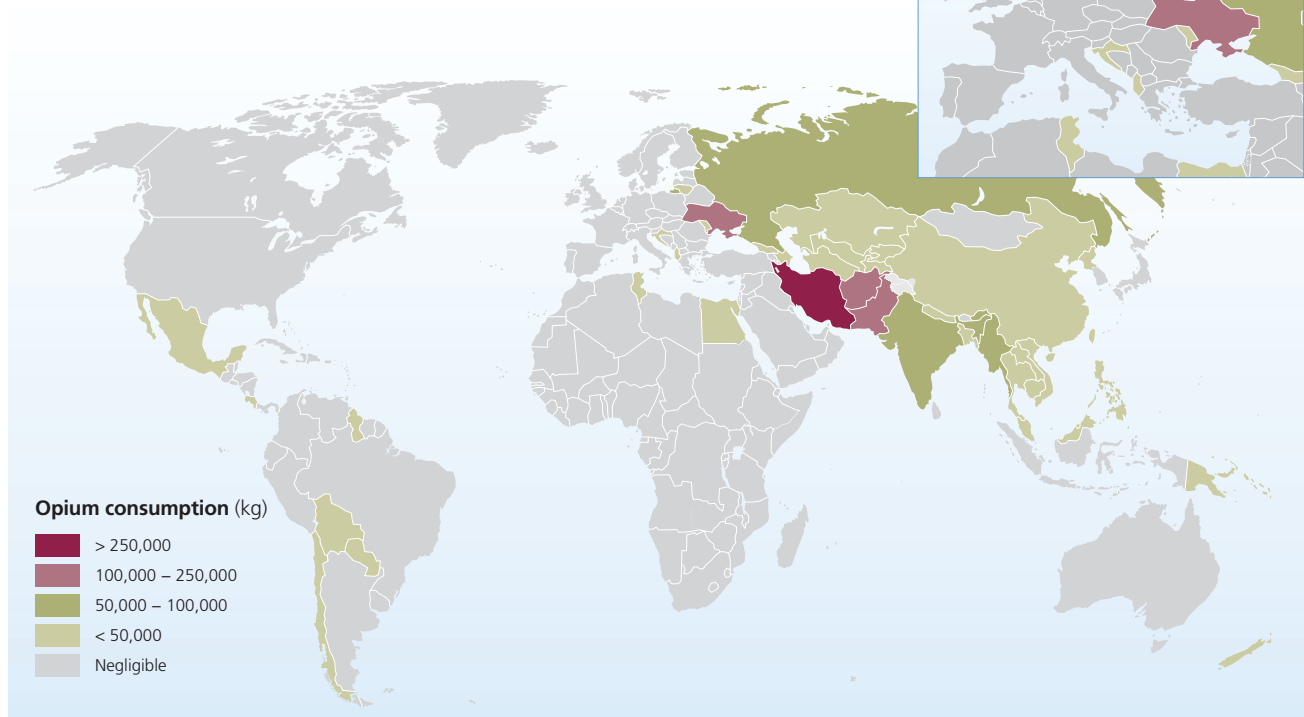


Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and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

Map 4: Global heroin consumption, by country, 2009



Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. 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.

Map 5: Global opium consumption, by country, 2009

Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. 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.

trafficked to every region in the world, with the only exception of South and Central America. Despite the complexity of heroin trafficking routes, some global movements can be generalized.

From Pakistan, heroin is trafficked to the Islamic Republic of Iran, China, South-East Asia, North America and Africa. Once in Asia, Afghan heroin combines with locally produced heroin to meet regional demand, as well as being trafficked onward to Oceania, particularly Australia.

From the Islamic Republic of Iran, heroin is trafficked to Europe, North America, the Middle East and Africa. However, the majority of heroin trafficked from the Islamic Republic of Iran enters Turkey and travels along the ‘Balkan Route’ into Western and Central Europe.

From Central Asia, heroin is trafficked into China and the Russian Federation before moving along the ‘Northern Route’ across Eastern Europe, Northern Europe and into Western and Central Europe.

As mentioned previously, heroin trafficked to *Africa* is not just for use on the continent. Africa is emerging as a new transit point for heroin destined for Europe and to a lesser extent, North America and Oceania.

Calculating volumes and routes

Heroin trafficking routes are extremely complex. Estimating the scope of the global flow of Afghan opiates requires

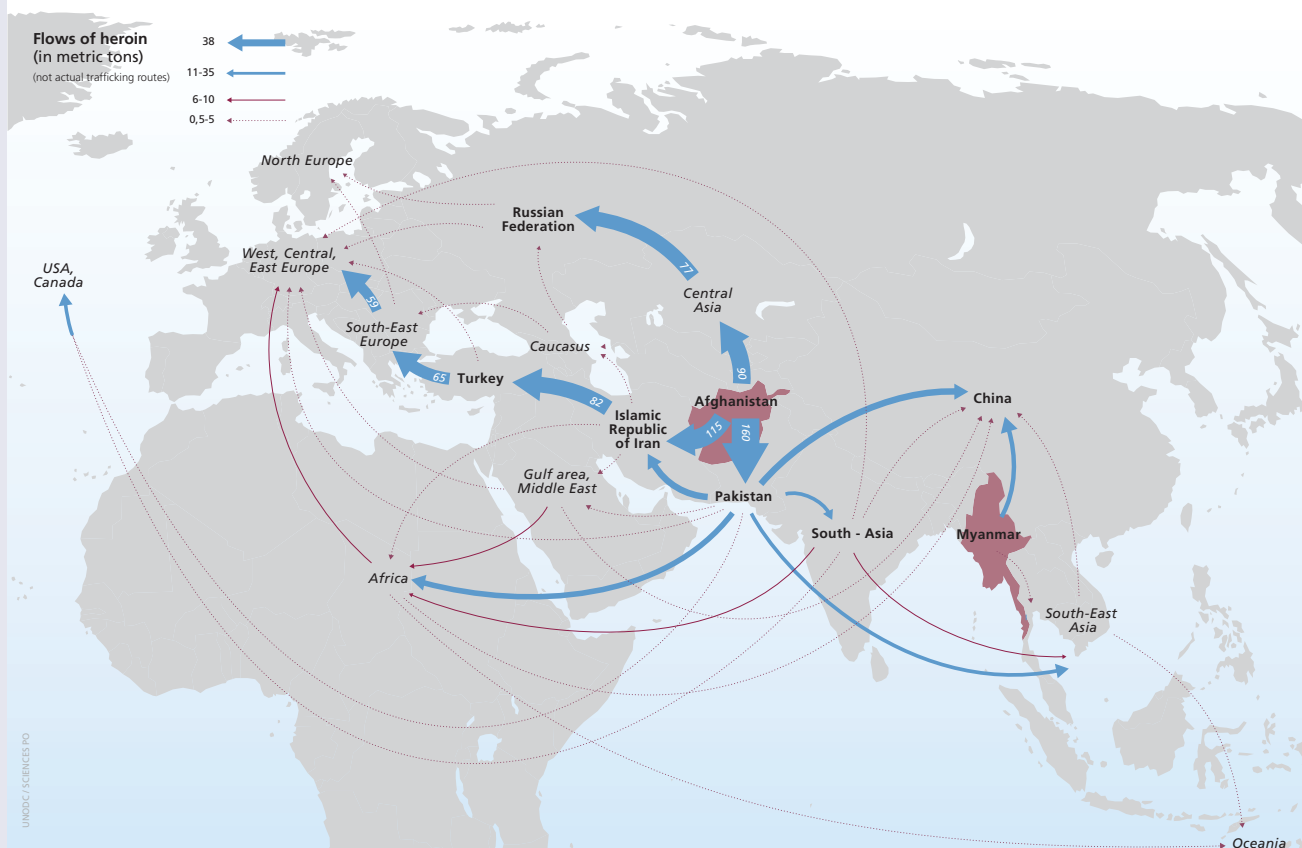
data on global opium/heroin demand as discussed in the previous section. Global heroin and opium seizures were used to identify heroin/opium trafficking routes, and to help estimate the size of the heroin/opium flows in each country. In addition to the seizure data, information was drawn from official country reports such as ARQ (Annual Report Questionnaire) responses provided to UNODC.

Available demand data was used as the key variable to estimate the size of the heroin/opium flows in the world. The robustness of demand data varies from region to region and country to country and is subject to revisions and changes. Most countries still lack structured or organized data collection systems capable of producing scientifically sound demand, supply and seizure statistics.

Accordingly, the statistics and estimates provided on heroin/opium demand and opiate flows should be viewed as work in progress and the best current approximations, given the available data. These figures are calculated to assist Member States and international organizations in preparing global policies to combat heroin trafficking worldwide. A more detailed explanation of this methodology is contained in Annex 1.

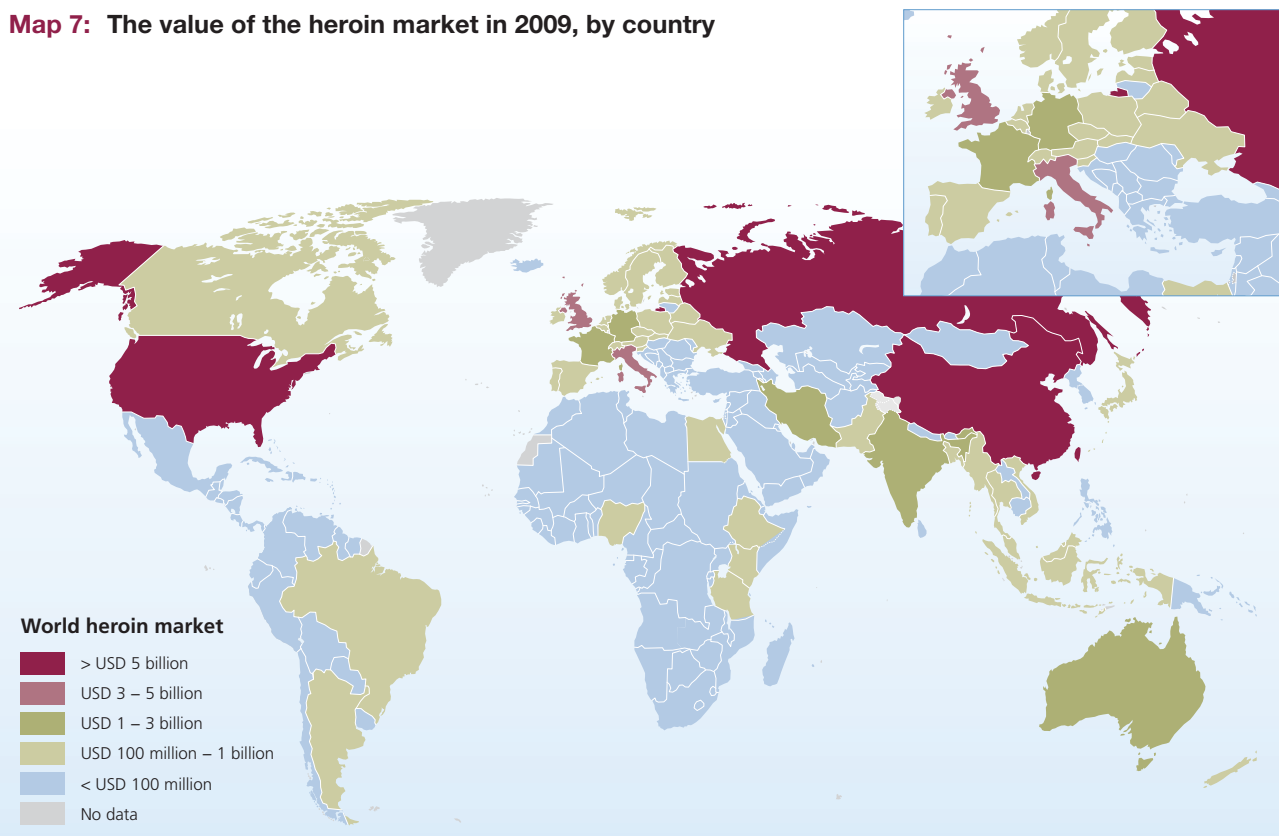
Map 4 indicates the volume of heroin trafficked internationally during 2009 – which combined gives an overview of the global drug trafficking ‘pattern’. Although Afghan heroin is only directly trafficked to the Islamic Republic of

Map 6: Heroin trafficking flows from Asia, 2009



Source: UNODC.

Map 7: The value of the heroin market in 2009, by country



Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. 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.

Iran, Pakistan and Central Asia, it flows from these countries all over the world; 77 tons of Afghan heroin reached Western and Central Europe, 40 tons entered China, 44 tons made it to Africa and 25 tons entered South-East Asia.

In 2010, there were reports that heroin trafficking had increased along certain routes, especially via Africa to Europe. In addition, various international organizations reported changes along well-known routes, such as the Balkan and Northern routes to Europe. For instance, Turkey and the Islamic Republic of Iran reported that traffickers were smuggling small quantities of heroin rather than large hauls via the Balkan route¹¹ - an indication that law enforcement efforts may be making an impact.

Using the figures and routes shown in Map 4, the remainder of this report will seek to explain the mechanisms, finances, criminal networks and social and political factors that surround each of these flows.

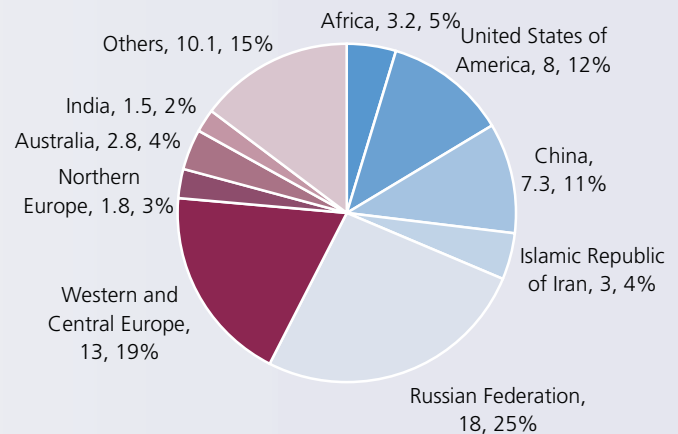
Global value and beneficiaries

In 2009, the global opiate market was worth US\$68 billion, with heroin consumers paying \$61 billion and opium consumers paying \$7 billion. Heroin and opium prices are dependent on a number of factors, including purity, supply and demand, distance from the source and risk of interception.

Given the global spread of heroin users and consumption outlined in the previous section, it is not surprising that the financial value of the world heroin market follows a similar geographic pattern. This global pattern can be deceiving however, as heroin prices vary significantly across countries and regions.

Figure 2 illustrates the global financial breakdown of the opiate market. Given that the Islamic Republic of Iran is estimated to have 1.2 million opiate users, yet contributes just 4 per cent of the value of the global market, it is clear that prices fluctuate significantly across the globe. Australia is the starkest example of global price variation – although Australian users represent just 0.85 per cent of total global heroin consumption, they contribute 4 per cent of global market value. Indeed, Australia is the most lucrative heroin market in the world, with a heroin street price of \$230-370 per gram. By comparison, one gram of heroin was worth around \$170-200 in the United States of America and in Northern Europe, while consumers in Western and Central Europe paid \$40-100 per gram. Overall, the Russian Federation and Western and Central Europe contributed almost half of the total global market value – with users paying \$31 billion combined in 2009.

Fig. 2: Global opiate market value (amount in US\$ billion and share in per cent) in 2009 (\$68 billion)



Source: UNODC.

Beneficiaries

Given the geographic spread of heroin users and the fact that heroin prices increase roughly with distance from the source, it is not surprising that criminal networks in Europe, Russia and South-East Asia pocketed most of the profits in 2009. Indeed, beneficiaries in Afghanistan – including poppy farmers, the Taliban and other anti-government elements – earned significantly less than international criminal networks.

Although international organised crime groups dominate transnational trafficking, local sales in each country are conducted almost entirely by indigenous groups – including domestic insurgent and separatist movements. A more specific, geographic break-down of beneficiaries and values highlights the most prominent global organised crime groups along the key heroin trafficking routes.

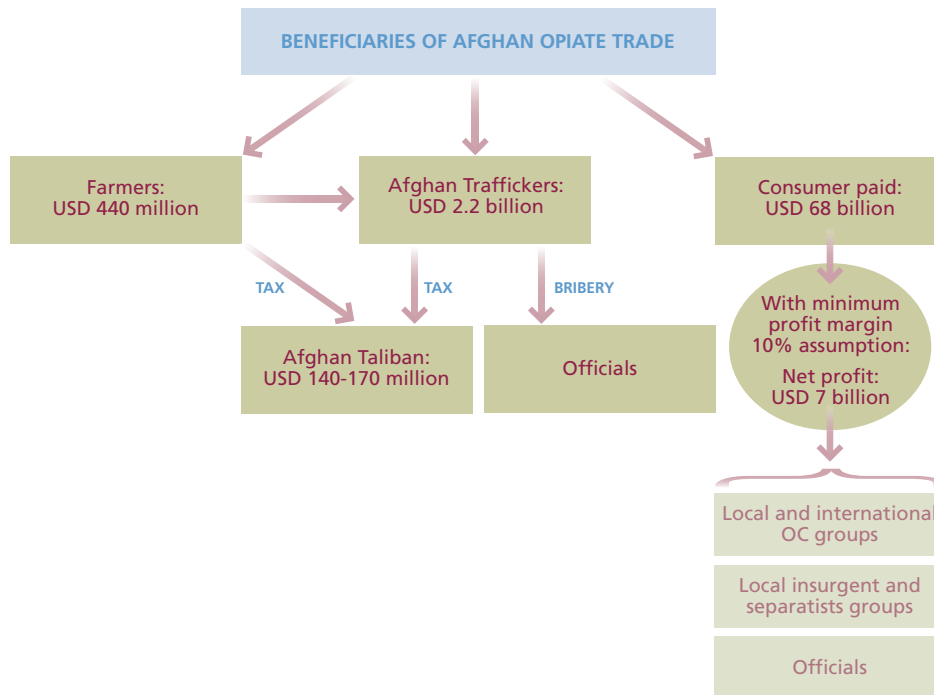
Profits from heroin trafficking increase rapidly as heroin is moved along the trafficking route. Criminal networks benefit by diluting heroin purity, enabling maximum benefit from increasing street prices. Indeed, the total farm-gate value of Afghan opium was just US\$440 million in 2009, with elements of the Afghan insurgency likely to have made US\$155 million. By comparison, in 2009 international (non-Afghan) organized crime groups made at least US\$7 billion in profits.¹²

Indigenous groups – facilitating street-level heroin dealing – probably earned even more than international drug trafficking networks. Indeed, with numerous individual domestic markets worth billions of dollars each in 2009, criminal groups are highly unlikely to cease their activities – on the contrary, other groups will be enticed. If Afghanistan were to cease manufacturing heroin, these groups would

¹¹ Meetings with Turkish Narcotics Police and Drug Control Headquarter of the Islamic Republic of Iran, 2010.

¹² Assuming a 10 per cent profit margin.

Fig. 3: Overview of the beneficiaries of Afghan opiate trafficking, 2009



Source: UNODC.

undoubtedly ensure that manufacturing simply shifted elsewhere in order to satisfy global demand and secure their profits. Indeed, with operating budgets larger than many national governments, international organized crime groups pose a serious global threat. Moreover, exceptionally high profits from the heroin trade fuel corruption; as long as corruption exists, traffickers will always find a way to smuggle heroin to consumer markets.

Global opiate interdiction

Although much is known about drug trafficking suppliers, consumers, traffickers and even routes, interdiction remains difficult. Law enforcement efforts are frustrated by the fact that international traffickers constantly change their methods and routes, high profits fuel high-level corruption, and international cooperation initiatives take time to become

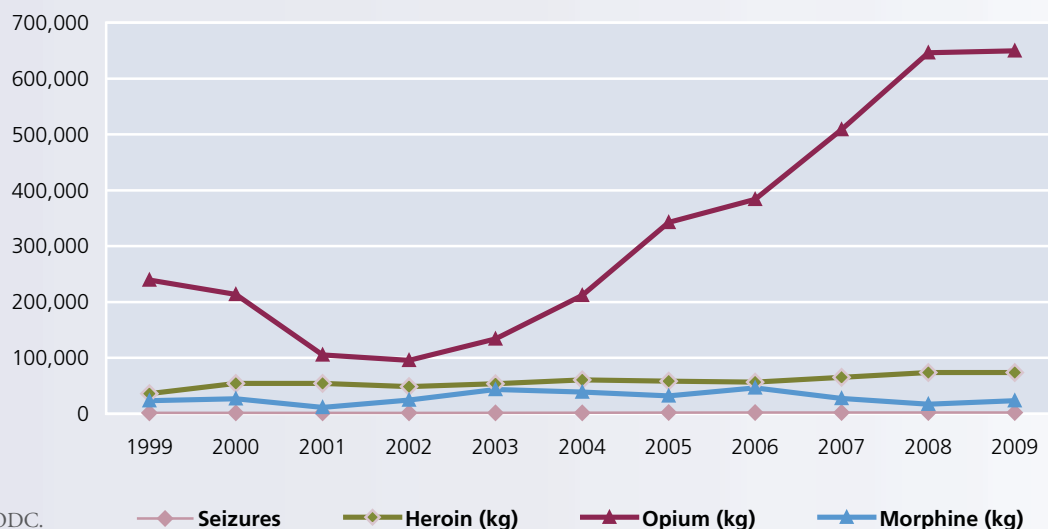
effective. In 2009, 650 tons of opium, 76 tons of heroin and 24 tons of morphine were seized worldwide. These seizures were the highest annual seizures in the last decade, with a combined total equivalent to 1,500 tons of opium.

Over the past 10 years there has been a 100 per cent increase in heroin seizures and a 171 per cent increase in opium seizures. To a certain extent, increasing seizures can be attributed to continual improvements in global law enforcement capacity. However, since 2005 opium production reported in Afghanistan has also increased.

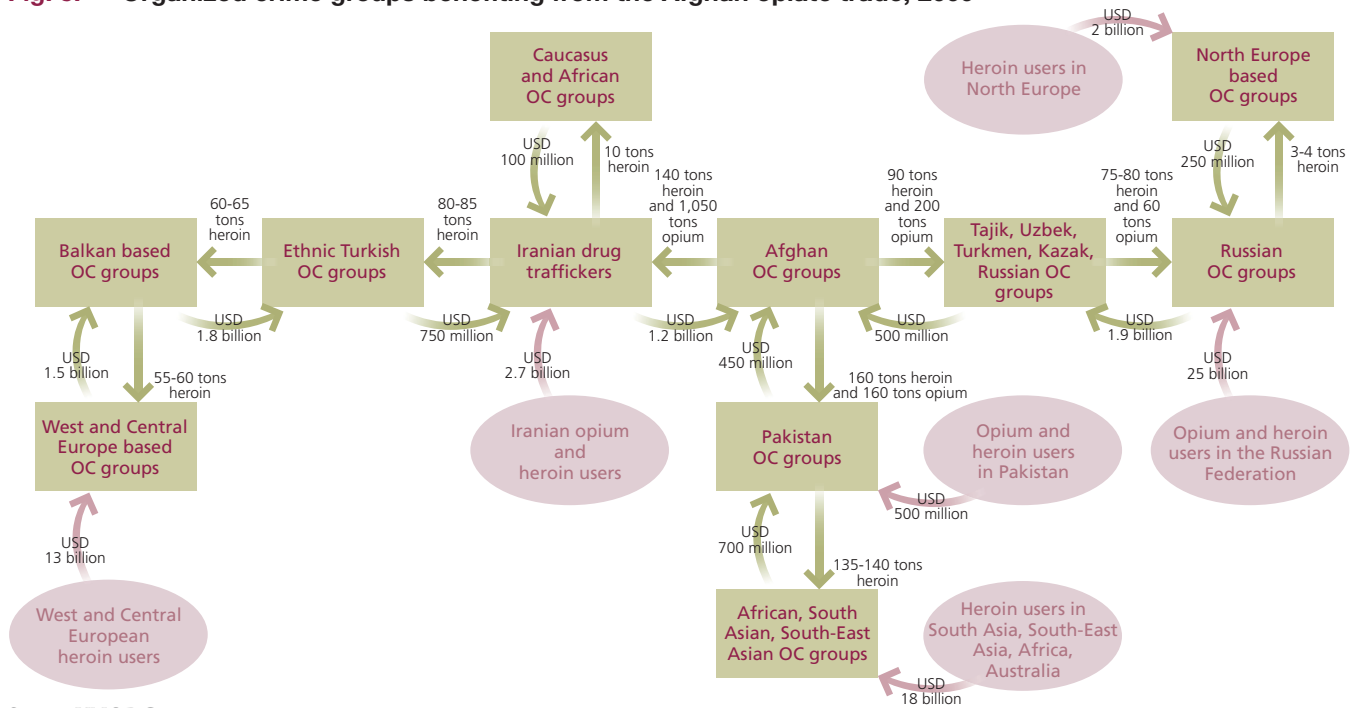
Heroin seizures

In 2009, 460-480 tons of pure heroin was trafficked worldwide. Of this amount, 76 tons were seized. Unfortunately it is not possible to estimate the exact interdiction rate, as there is no data available on the purity of the seizures. The

Fig. 4: Global opiate seizures, 1999-2009



Source: UNODC.

Fig. 5: Organized crime groups benefiting from the Afghan opiate trade, 2009

Source: UNODC.

Table 3: Distribution of heroin seizures in the world, 2009

Country	Heroin seizures (kg)	Cumulative percentage
Islamic Republic of Iran	24,926	32%
Turkey	16,059	53%
China	5,838	61%
Russian Federation	3,152	66%
Afghanistan	2,188	69%
United States of America	2,100	71%
Pakistan	2,061	74%
Bulgaria	1,183	76%
Italy	1,149	77%
Tajikistan	1,133	79%
United Kingdom	1,100	80%
Myanmar	1,076	82%
India	1,045	83%
Rest of the world	12,389	100%

Source: UNODC, WCO.

global interdiction rate could, therefore, be anywhere between 2 and 16 per cent.¹³ In 2009, 13 countries made seizures above 1 ton, jointly accounting for 83 per cent of all heroin seizures (see table).

Heroin seizures are not just dependent on law enforcement capability. National seizure levels can change significantly

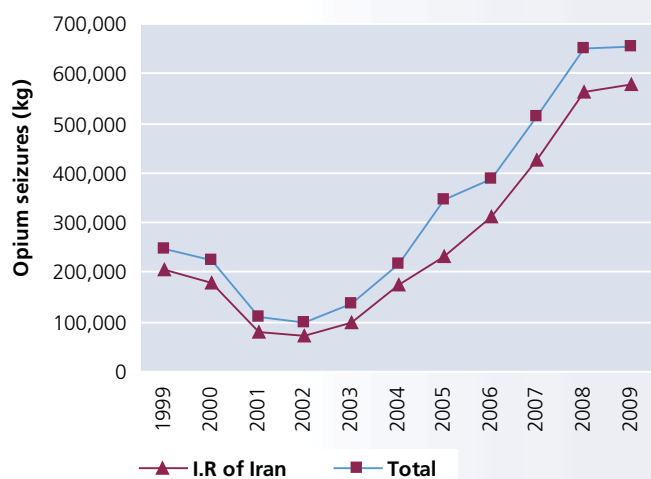
¹³ Assuming that all seizures were of high-purity Afghan heroin (70%) the interception rate would be 16 per cent. However, as street-level heroin purity is significantly lower (10% average); the interdiction rate could be as little as 2 per cent worldwide.

over time due to changes in global production, domestic demand and transit volume, trafficking routes, corruption or political will. Indeed, in 2009 the Islamic Republic of Iran and Turkey together made 53 per cent of all global heroin seizures. As both countries are key heroin transit countries, increased seizures are possibly due to the increase in law enforcement in those countries. On the other hand, the producing countries Afghanistan and Myanmar seized just 0.5 per cent and 4 per cent respectively of their estimated domestic production in 2009.

Table 4: Global heroin seizures by region/subregion (Kg), 1999-2009

Region/ Subregion	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Change (1999- 2009) %	Variation (kg)
AFRICA													
East Africa	55	59	63	95	62	88	78	121	35	19	22	-60%	-33
North Africa	29	49	55	66	36	57	57	77	90	217	896	2937%	866
Southern Africa	9	17	30	15	35	20	49	30	35	55	204	2187%	195
Western and Central Africa	138	79	77	115	106	238	140	108	167	20	105	-24%	-33
Africa Total	231	204	226	291	240	402	325	335	328	311	1,227	431%	995
AMERICAS													
Caribbean	27	136	220	181	123	137	210	294	54	155	39	43%	12
Central Amer- ica	104	65	150	229	452	231	169	237	293	185	5	-95%	-99
North America	1,548	2,013	2,327	3,052	2,675	2,222	2,172	2,153	2,754	2,268	2,596	68%	1,048
South America	714	942	1,406	1,818	1,633	1,794	1,484	1,154	865	994	893	25%	178
Americas Total	2,393	3,157	4,103	5,280	4,883	4,385	4,036	3,838	3,965	3,602	3,533	48%	1,139
ASIA													
Central Asia and Transcaucasian countries	1,361	3,251	5,154	4,708	6,828	6,311	3,883	3,688	3,337	5,341	3,382	148%	2,021
East and South-East Asia	6,793	7,716	14,557	11,505	11,473	13,699	11,619	6,830	5,603	5,375	7,966	17%	1,173
Near and Middle East/South-West Asia	11,381	16,242	11,308	11,450	10,760	10,948	15,292	18,632	24,491	28,642	28,706	152%	17,325
South Asia	951	1,389	1,101	1,007	1,106	1,254	1,056	1,291	1,266	1,109	1,079	13%	128
Asia Total	20,486	28,598	32,120	28,670	30,166	32,211	31,849	30,442	34,696	40,468	41,133	101%	20,647
EUROPE													
East Europe	719	1,010	1,299	1,055	3,256	3,908	4,706	2,494	3,453	3,957	3,152	339%	2,433
Southeast Europe	4,227	8,603	5,791	3,513	6,349	10,739	9,537	12,102	15,286	17,602	17,737	320%	13,510
West & Central Europe	7,920	11,619	10,571	9,477	8,419	9,198	7,922	7,575	7,656	7,647	6,913	-13%	-1,007
Europe Total	12,866	21,233	17,661	14,045	18,024	23,845	22,165	22,171	26,394	29,206	27,802	116%	14,936
OCEANIA													
Oceania Total	361	941	88	460	530	73	152	67	65	80	170	-53%	-191
Grand Total	36,337	54,133	54,199	48,746	53,843	60,916	58,527	56,854	65,448	73,667	75,995	109%	39,658

Source: UNODC.

Fig. 6: Global opium seizures, 1999-2009

Source: UNODC.

Opium seizures

In 2009, roughly 650 tons of opium were seized globally – 89% of which was seized by the Islamic Republic of Iran. Interestingly, although Afghanistan is a key producer of opium, only 5% of seizures occurred in the country. Given that only minimal quantities of opium were reportedly abused or seized in countries bordering the Islamic Republic of Iran, it is highly likely that most of the opium smuggled into the country was for domestic consumption and not onward trafficking. Opium seizures in Myanmar and India were from illicit domestic crops.

Over the last decade, the Islamic Republic of Iran has made the majority of global opium seizures. Between 1999 and 2009, there was a 162 per cent increase in the quantity of opium seized worldwide. Although opium seizures increased by 52 per cent in Pakistan and 9 per cent in India during this period, the Islamic Republic of Iran's 183 per cent increase in opium seizures was the primary driver behind this global increase.

Table 5: Global opium seizures, 2009

Country	Opium seizures (kg)	Percent of total
Islamic Republic of Iran	579,400	89%
Pakistan	24,820	4%
Afghanistan	35,687	5%
Central Asia	3,474	1%
Myanmar	752	0%
India	1,732	0%
Rest of the world	3,833	1%
Total	653,172	100%

Source: UNODC.

Morphine seizures

In 2009, 24 tons of morphine were seized globally – almost all of which was intercepted in just four countries: the Islamic Republic of Iran, Afghanistan, Pakistan and Turkey. With an almost negligible global consumer base, seizures of morphine have remained consistent over the last decade, both in terms of quantity and seizure location.

Although morphine consumption is limited, it is also used to process opium into heroin. Interestingly, while seizures declined in both Turkey and Pakistan in 2009, they increased sharply in the Islamic Republic of Iran – accounting for almost 70 per cent of all global morphine seizures. Given the small number of morphine users in the Islamic Republic of Iran, the reasons for trafficking large shipments of morphine into the country remain unclear.

Table 6: Global morphine seizures (kg), 1999-2009

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Afghanistan					85	85	1,967	938	5,019	479	5,167
Islamic Republic of Iran	22,764	20,764	8,668	9,521	13,063	12,878	6,939	10,607	9,681	8,977	16,139
Pakistan		3,061	1,825	6,839	27,778	21,256	22,197	32,658	10,989	7,325	1,961
Turkey	441	2,500	797	7,890	1,010	4,730	529	529	169	87	16
Subtotal	23,205	26,325	11,290	24,250	41,935	38,949	31,631	44,732	25,858	16,868	23,283
Total morphine seizures (worldwide)	23,623	26,791	11,416	24,702	43,723	39,177	32,009	46,392	27,439	17,265	23,687

Source: UNODC.

1.2 AFGHANISTAN: THE ORIGIN OF OPIATES

Afghanistan continues to dominate global opiate supply. In 2009, an estimated 6,900 tons of opium was cultivated across Afghanistan – some of this was consumed locally, some was stockpiled, some was seized, but most was processed into heroin. An estimated 365 tons of Afghan heroin was trafficked into the international market.

Opiate production

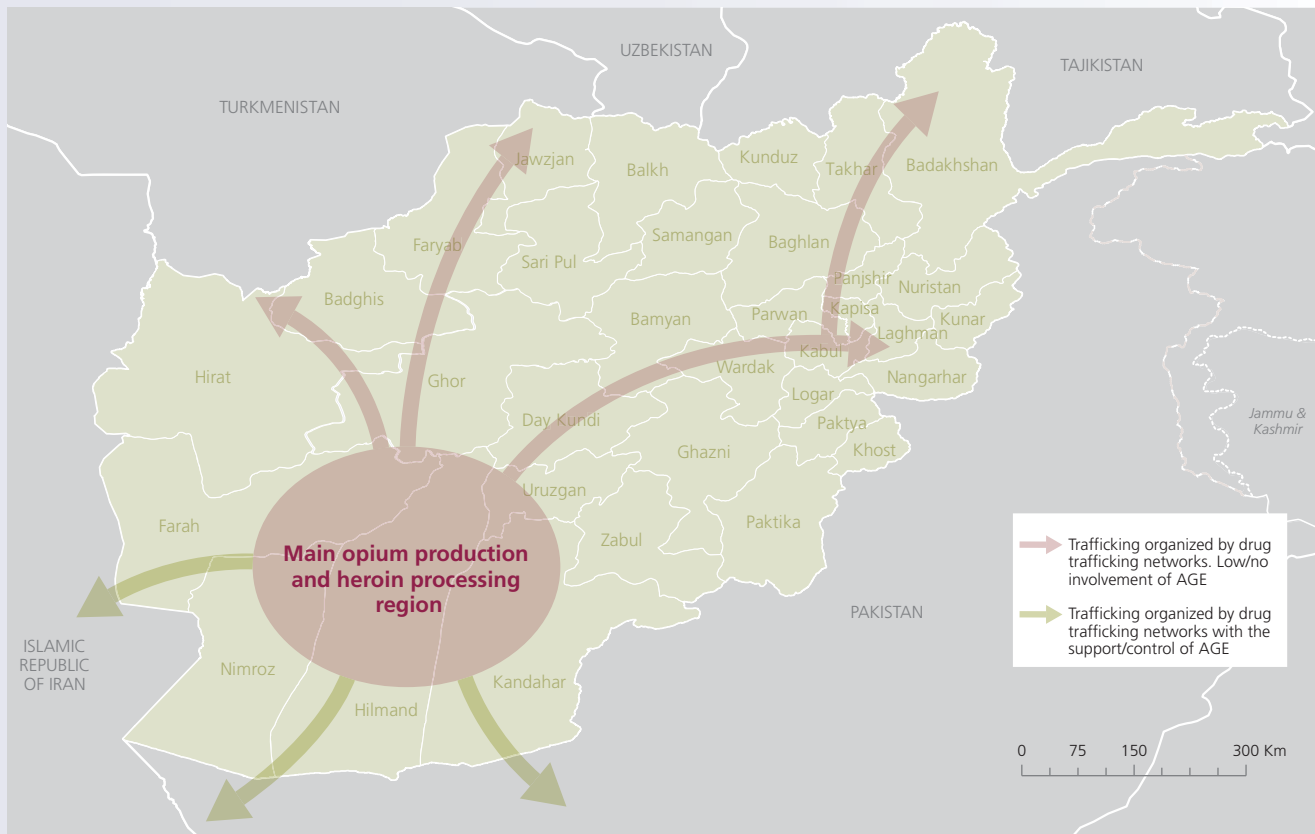
Almost 95 per cent of the opium produced in Afghanistan is grown in the provinces of southern Afghanistan, including Hilmand, Kandahar, Farah, Nimroz and Uruzgan. Heroin processing laboratories are also concentrated in these southern provinces.

Opium cultivation in Afghanistan varies from year to year due to weather conditions, crop yield, law enforcement efforts and farmer re-training programmes.¹⁴ Yet, despite opium production decreasing sharply in 2010 – to just 3,600 tons – due to a disease affecting the opium poppy plants, there was no major shortage of heroin or opium on the consumer markets. In addition, although opium prices

more than doubled in Afghanistan between January and November 2010, recalling a similar occurrence in 2004, the increase in heroin prices in Afghanistan was minimal. This is possibly due to the presence of heroin stocks. Opioid prices should correct in 2011, however, if opium prices continue to rise in Afghanistan and if heroin prices increase in the main consumer markets, it will be necessary to reassess the level of heroin demand in those markets, opium production estimates and the estimated size of opiate stocks.

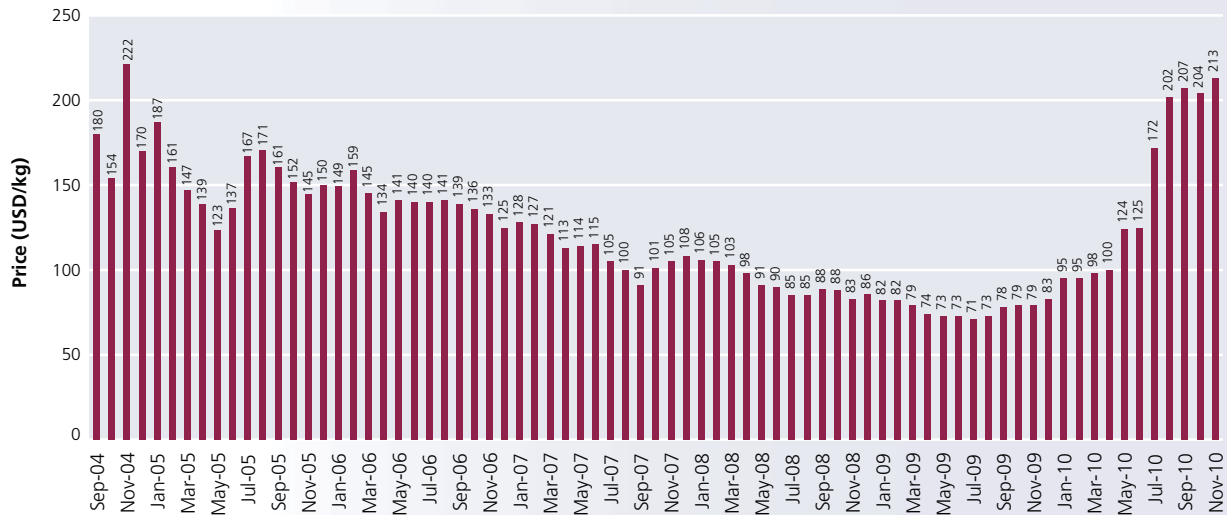
In 2009, the majority of global heroin processing also occurred in Afghanistan; an estimated 2,700 of the 6,900 tons of raw opium produced in Afghanistan was used to manufacture heroin. Indeed, according to the head of Counter Narcotics Police of Afghanistan (CNPA) in Hilmand province, dozens of laboratories are concentrated in that province alone and, to a lesser extent, in Kandahar. Yet, the high volume of morphine seizures in neighbouring countries strongly suggests that heroin processing also occurs outside of Afghanistan. Drug traffickers and lab owners interviewed in Afghanistan reported that heroin of very high purity is manufactured outside of Afghanistan; however, no solid evidence has been found to prove the existence of large-scale heroin processing suspected to occur outside of Afghanistan.

Map 8: Involvement of A.G.E in the opiate trade in Afghanistan, 2009



Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. 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.

¹⁴ For more information on opium cultivation trends see the UNODC annual Afghan Opium Survey.

Fig. 7: Dry opium prices in Afghanistan, 2004-2010

Source: UNODC.

Table 7: Heroin prices in Afghanistan (US\$), September 2009-September 2010

Afghanistan	Sep-2009	Oct-2009	Nov-2009	Dec-2009	Jan-2010	Feb-2010	Mar-2010	Apr-2010	May-2010	Jun-2010	Jul-2010	Aug-2010	Sep-2010
Badakhshan	2,526	2,536	2,539	2,539	2,633	2,610	2,595	2,664	2,736	2,743	2,715	2,816	2,813
Balkh	2,650	2,700	2,750	2,800	3,000	3,100	3,150	3,300	3,900	4,000	4,169	4,322	4,540
Hirat	1,509	1,505	1,508	1,509	1,514	1,539	1,535	1,505	1,602	1,650	1,905	2,115	2,184
Nangarhar	1,866	1,857	1,853	1,769	1,847	2,510	2,541	2,186	2,517	2,955	3,194	3,278	3,456
Kandahar	2,270	2,275	2,280	2,320	2,640	3,200	2,990	2,280	2,310	2,350	3,023	3,020	3,700
Takhar	2,223	2,232	2,234	2,234	2,317	2,296	2,226	2,326	2,586	2,592	2,602	2,707	2,658
Average	2,174	2,184	2,194	2,195	2,325	2,543	2,506	2,377	2,609	2,715	2,935	3,043	3,225

Source: UNODC.

Opiate stocks

After heroin processing, the majority of the remaining 4,200 tons of raw opium – an estimated 2,600 tons – was stocked by traders and to some extent, by farmers. However, the identity of those involved remains unclear, as does the exact locations of Afghanistan's opium stocks. In any case, insurgents will benefit from the future sale of existing stocks.

Traditionally, Afghan opium poppy farmers stock around 10-20 per cent of their harvest to sell at a later date, with the majority being sold right after harvest time. Opium traders also stockpile their opium in case poppy cultivation declines or law enforcement pressures affect their supply. There are several hundred traders across Afghanistan. However, the size of the stocks depends on the traders' importance. For example, some traders in Hilmand have up to 3 tons of stock, whereas small-scale traders have at most around 500 kg in opium stocks. Some farmers in Nangarhar province reportedly still have stocks from the opium harvested between 2005 and 2009.¹⁵ As mentioned above, opium production in Afghanistan decreased in 2010, yet there were

no major opium or heroin shortages in markets in or outside Afghanistan. This also occurred in 2001, where despite the sharp decrease in opium production in Afghanistan,¹⁶ there was no shortage of heroin in the main consumer markets. These events, coupled with anecdotal evidence, confirm the existence of opium stockpiles in Afghanistan.

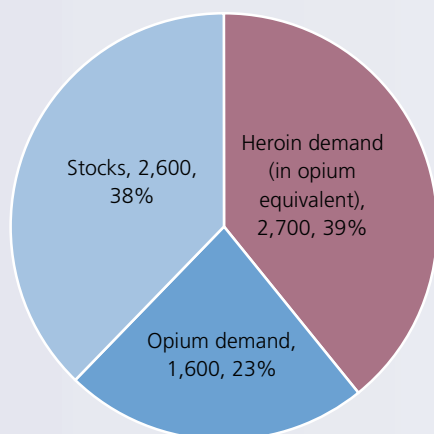
However, there is no evidence to suggest that heroin lab owners keep stocks. Since anti-government elements like the Afghan Taliban are not usually directly involved in the opium trade, it is generally believed that they do not keep any stocks either. This makes large opium farmers and opiate traders the main actors involved in stockpiling opium in Afghanistan.

Given that heroin processing labs are mainly located in southern Afghanistan, opiate stocks are likely kept in the same region – as it is difficult to carry thousands of tons of opium. Opium is usually stocked in remote villages or poorer areas within the main towns. Opium traders and traffickers do not generally stock opium in their own houses or in houses of relatives, but rather, pay poor households a rental fee to hide opium on their property, often these

¹⁵ Interviews with farmers in Nangarhar (Afghanistan), 2010.

¹⁶ The total opium poppy cultivation in 2001 was only 8,000 hectares, Afghanistan Opium Survey 2001, UNODC.

Fig. 8: Distribution of opium production in Afghanistan, 2009 (6,900 tons)



Source: UNODC.

stocks are buried. It is estimated that a considerable amount of opium is stocked in the Nimroz province of Afghanistan,¹⁷ one of the most isolated and poorly controlled areas of the country.

Opium can be stocked in plastic bags for a long time, whereas pure brown heroin's shelf life is limited to around 2 years. It is important to note that the size of stocks, estimated at 2,600 tons in 2009, depends on demand estimates worldwide; if actual demand is higher than currently estimated by UNODC, it is likely that the size of opium stocks is much lower. However, it is more likely that there are high levels of opium stocks in Afghanistan, as there is no evidence of a sharp increase in opiate consumption worldwide.

The pictures above show some of the labels used by heroin manufacturers in Afghanistan in 2010. On some heroin and morphine bags, the production year is 2009, indicating that pure brown heroin and morphine can also be stocked, at least for 1-2 years. Therefore, in addition to opium, heroin and morphine are likely also stocked in Afghanistan and/or along the trafficking routes exiting the country, especially close to the main heroin markets.

Trafficking routes

All opiates trafficked from Afghanistan enter the Islamic Republic of Iran, Pakistan or Central Asia. In 2009, some 365 tons of heroin was exported from Afghanistan. Of this amount, 160 tons was trafficked to Pakistan, 115 tons to the Islamic Republic of Iran and 90 tons to Central Asian countries (Tajikistan, Uzbekistan and Turkmenistan). In addition to heroin, 1,200-1,400 tons of opium was trafficked from Afghanistan, the majority of which – 1,050 tons – was smuggled to the Islamic Republic of Iran. Opium trafficking routes, traffickers and methods are almost exactly the same as those used for heroin trafficking to the Islamic Republic of Iran, Pakistan and Central Asia.

As the majority of opium produced in Afghanistan is grown

Selected logos/labels used on heroin and morphine bags in Afghanistan, 2010



Heroin seizure, Hirat province, Afghanistan, 2010 (with 2009 stamp)



Morphine seizure (with 2010 stamp), Hirat province, Afghanistan, 2011

Source: Counter Narcotics Police of Afghanistan (CNPA) in Hirat.

and processed in southern Afghanistan, heroin trafficking also begins here. Heroin is trafficked in three main directions from Hilmand and other southern provinces:

- i) *To Nimroz, Farah and Hirat provinces (Afghanistan) along the border with the Islamic Republic of Iran.*

Drug traffickers transport heroin overland to Farah and Hirat provinces, where it is stored for a defined time (usually no longer than a few days) in small villages close to unprotected areas of the Islamic Republic of Iran border. Villagers living along the border are then recruited as couriers and carry approximately 20 kg of heroin each into the Islamic Republic of Iran for a reported US\$400 per trip. These couriers travel only at night and the journey usually takes two nights. Traffickers pay US\$2,000-2,500 for armed groups to protect each heroin or opium convoy; generally, these consist of 8-10 heavily armed guards.

Traffickers also use the Islam Qala official border crossing (Hirat province) with the Islamic Republic of Iran, as it is very busy and difficult to police with at least 300-400 vehicles and hundreds of people crossing the border each day.

¹⁷ Interview with CNPA Nimroz, March 2010.

ii) *To eastern and northern Afghanistan.*

Due to the limited opium production in eastern and northern Afghanistan in 2009, both opium and heroin were trafficked to those areas from Hilmand and Kandahar provinces –mainly into Nangarhar, Badakhshan and Takhar provinces– for processing and/or onward trafficking. Drugs were transported to eastern and northern Afghanistan along the main highway using transporters, at a cost of US\$35–40 per kg of heroin. Transporters and traffickers are well linked to corrupt government officials, who facilitate illicit flows as drug shipments go through multiple checkpoints along this route to the northern provinces. Indeed, the highway from southern to northern and eastern Afghanistan could be called the ‘corruption corridor’.

Once heroin reaches the Badakhshan, Takhar and Kunduz provinces (Afghanistan), it is almost impossible to stop it from being trafficked into Tajikistan partly because these provinces are populated by ethnic Tajiks and Uzbeks with trade, tribal, familial and linguistic connections across the border. Difficult geographic conditions also hinder law enforcement and favour traffickers.

Exact data on heroin volumes smuggled from Nangarhar into the FATA region of Pakistan are not available, but given the lack of law enforcement capacity on both sides of the border this amount is likely to be large. Hundreds of unofficial border crossings are spread across the area and are heavily used on a daily basis for both vehicles and persons. Moreover, the same tribal groups are settled on both sides of the border (such as the Shinwaris, Khogiani and Mohmand tribes) and most cross the border without any documentation. Criminal elements within these tribes control heroin trafficking from eastern Afghanistan into FATA, many maintaining permanent residences on both sides of the border.

The Nangarhar province district boundaries with FATA are heavily used by drug traffickers, especially the Lalpura, Gostha, Door Baba and Mohmand Dara districts. Drug traffickers use trucks, camels and mules to traffic heroin through both official and unofficial borders, sometimes paying couriers US\$20–25 per kg of heroin carried into Pakistan. Since the drug trafficking tribes straddle the border, heroin is not handed over at the border areas, but rather stocked in FATA until it is sold onward to other Pakistani groups.

iii) *To the Baluchistan borders (Nimroz, Hilmand, Zabul).*

The Taliban and other anti-government elements active in southern Afghanistan (including Hilmand, Kandahar, Nimroz, Farah, Uruzgan and Zabul provinces) provide protection and oversee heroin trafficking into Pakistan. Traffickers use both the official border crossing at Chaman and hundreds of unofficial crossings. As in eastern Afghan-

Map 9: Heroin trafficking flows from Afghanistan, 2009



Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. 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.

istan, ethnic, tribal and familial links facilitate heroin smuggling into the Baluchistan province of Pakistan. In southern Afghanistan two main ethnic groups organize heroin trafficking across the border: the Baluch and the Pashtoons. Although relations between the two groups are not always cordial, they are pragmatic and cooperate for financial benefit. Heroin is smuggled under heavily armed Taliban escort to the Hilmand, Nimroz and Kandahar borders. Afghan traffickers generally deliver or store heroin at border towns of Pakistan, although there are a few towns on the border itself that are also used, such as Baramcha in Hilmand province. Key drug traffickers never physically deliver the heroin, but rather their couriers finalize the deal and arrange the delivery.

Traffickers take advantage of the open borders Afghanistan has with neighbouring countries. For instance, between Baluchistan province in Pakistan and Afghanistan there is only one official border crossing point at Chaman (Kandahar province), but there is no official crossing along the border of the Hilmand (the main opium and heroin producing region) and Nimruz provinces of Afghanistan with Pakistan. Thus, huge amounts of opiates are being trafficked through these borders with very little resistance. Many heroin labs are active in these two provinces and it is estimated that significant opium stocks are kept in the area. Although the Governments of both Afghanistan and Pakistan have considered opening a border crossing point in the

area,¹⁸ the strong presence of the Taliban and criminal groups mean that this would be almost impossible to secure. Ultimately, unless this border is jointly controlled, it will continue to facilitate heroin trafficking from Afghanistan into Pakistan.

The situation is very similar along the border with neighbouring countries like the Islamic Republic of Iran, Tajikistan, Uzbekistan and Turkmenistan. Therefore, unless the country's borders are better controlled, it is almost impossible to stop any form of trafficking to and from Afghanistan. It is important to mention that both the Government of the Islamic Republic of Iran and Pakistan have strengthened their police forces in the fight against drug traffickers and extremist groups; as a result, many drug traffickers were either arrested or killed.

Value and beneficiaries

There is a strong link between insecurity and the opiate trade in Afghanistan, as opiate constitutes the main income source for anti-government elements like the Afghan Taliban. Indeed, almost all of the opium produced in Afghanistan was grown in the provinces of southern Afghanistan where anti-government elements are active and able to project force into other areas of the country.

Afghan Taliban

Although the Afghan Taliban's role in drug trafficking is not clear, drug traffickers paid the group up to 10 per cent of the value of their opiate shipments as tax or protection fees. As mentioned previously, 160 out of the 365 tons of heroin exported from Afghanistan were trafficked to Pakistan and 115 tons to the Islamic Republic of Iran. Most of the heroin trafficked to both Pakistan and the Islamic Republic of Iran passed through Taliban strongholds; perhaps as much as 275 tons of heroin were trafficked under the protection and involvement of the Taliban in 2009.

The Taliban's 10 per cent tax was paid either directly as cash, or indirectly through the requisition of food, guns, vehicles or other items. The total market value of the 275 tons of heroin trafficked to Pakistan and the Islamic Republic of Iran was US\$700 million, of which approximately \$70 million was paid to the Taliban as tax and protection fees. Although there was no evidence to suggest that the Taliban levied taxes on drug traffickers in Nangarhar or other eastern Afghan provinces (as drug traffickers in Nangarhar are heavily armed and provide their own protection) some drug traffickers reportedly provided guns, food, shelter and vehicles to the Taliban when these items were requested. As such, heroin finances indirectly supported insurgent groups.

In addition to drug traffickers, heroin laboratory owners paid an estimated US\$600-1,200 per month to the Taliban.

Although the exact number of heroin laboratories in Hilmand, Nimroz and Kandahar is not very clear, there are likely to be some 150-250 main processing laboratories spread across these provinces. Indeed, based on production estimates¹⁹ Afghanistan is estimated to have between 300-500 heroin laboratories in total, with the Taliban collecting \$2-7 million²⁰ from these laboratories in 2009. In total, the combined direct and indirect benefit of the Taliban from the heroin trade was estimated at \$72-77 million in 2009.

In addition to heroin traffickers, the Taliban also collected taxes from opium farmers and traders. Indeed, 95 per cent of the 6,900 tons of opium produced in Afghanistan in 2009 was produced in the southern provinces. In 2009, the farm-gate income of farmers was around US\$438 million; of this, the Taliban and other anti-government elements collected 5-10 per cent, or \$22-44 million, as *ushr* tax, at times withholding the entire amount and other times sharing it equally with the local mullah. The total value of the 1,200 tons of raw opium trafficked from Afghanistan to the Islamic Republic of Iran and Pakistan was \$450 million in 2009; Afghan opium traffickers likely paid the Taliban and other anti-government elements \$45 million for protection.

In total, the Taliban's total income from the opiate trade in 2009 was around US\$155 million (ranging from \$140 to \$170 million). These calculations are just estimations; in fact, the Taliban may have benefited even more from the Afghan opiate trade, given that the total value was \$2.2 billion. Moreover, Taliban commanders are often directly involved in heroin or opium wholesale, in which case they would have earned much more than the 10 per cent tax. The Taliban are also increasingly taxing the non-opium economy, collecting taxes from almost every truck transiting through areas under their control.

Other beneficiaries

In 2009, 395 drug cases were recorded in Afghanistan and 499 people were arrested; among these, 23 were Afghan public servants and 21 were foreigners – with 16 Africans, six Iranians, one Canadian, and one Pakistani arrested.²¹ The high number of African nationals arrested in Afghanistan might be an indication of the increasing level of Afghan heroin trafficking to Africa. Overall, the limited number of international arrests in Afghanistan suggests that Afghan traffickers likely deliver the drugs to other traffickers at the border areas. For example, drug traffickers commonly use couriers to smuggle heroin into Tajikistan at US\$150-200 per kg of heroin. In 2009, the average price of high-purity heroin at the Afghanistan-Tajikistan and the Afghanistan-

¹⁹ On average, each heroin laboratory is estimated to manufacture 1,000-1,500 kg of heroin per year in southern and eastern Afghanistan, 1,000 kg in northern Afghanistan and 300 kg in western Afghanistan.

²⁰ \$600 per month, over 12 months, per 300 heroin labs equals to a minimum of \$2 million per year.

²¹ CNPA, Afghanistan.

¹⁸ Interviews with Afghan and Pakistani officials in 2008-2010.

Uzbekistan borders was \$4,500 per kg. However, Afghan traffickers only paid \$2,500 for 1 kg of heroin. After selling 90 tons of heroin to Tajik and Uzbek groups at the border, Afghan traffickers likely made a \$220 million net profit in 2009.

The arrest of Afghan public servants is indicative of broader corruption in the Afghan opiate trade. According to the traffickers and couriers interviewed, in Afghanistan it is common practice to bribe government officials; it appears that traffickers usually pay officials around 5 per cent²² of the value of heroin or opium trafficked. Thus, considerable amount of money in bribes might have been paid to government officials, including local commanders.

Aside from the Afghan Taliban, elements of other militants groups, such as Hezb-i-Islam, are known to have had both a direct and indirect role in opiate trafficking for many years and this may still be the case in north-eastern Afghanistan. Thus high levels of income appear to have been made by these groups from the heroin trade in northern Afghanistan.

Law enforcement and seizures

As the place of origin for much of the world's opiates, seizures in Afghanistan occur not only along drug trafficking routes and ports of entry and exit, but also in production and processing areas, or where stocks are held. However, Afghanistan's opiate seizure data is only available from 2002 onwards.

Between 2002 and 2009 heroin seizures increased by almost 70 per cent, yet this was still less than 1 per cent of the total estimated amount manufactured in Afghanistan during this period. By comparison, Myanmar – another heroin producing country – seized the equivalent of 4 per cent of its estimated heroin production in 2009. In 2006-2007, heroin seizures peaked in Afghanistan, but since then they have decreased – by more than half in 2009.

Considering that Afghanistan is a major heroin manufacturer, the amount of heroin seized in the country should be higher than levels currently reported. Most of the heroin was seized along the exit routes used to transport heroin out of Afghanistan, such as Hilmand, Kandahar and Nimroz provinces in the south, Nangarhar in the east, Hirat in the west and Badakhshan and Takhar in the north.

Some key observations can be made from the map showing heroin seizures by province:

- i. In 2009 the amount of opium produced in eastern and northern Afghanistan was very limited; however, heroin was still manufactured and trafficked from these regions. This indicates that opiates were trafficked from the main producing areas in southern Afghanistan to eastern and northern Afghanistan through central Afghanistan. Yet, despite the large number of checkpoints, seizures in central Afghanistan were very limited – almost non-existent – with the exception of Kabul and Baghlan.
- ii. In 2009, the largest volumes of heroin and opium were seized in Hirat province; this might indicate that traffickers prefer to use the Islam Qala official border crossing point between Afghanistan and the Islamic Republic of Iran. According to customs officials at this border, the capacity of customs is limited on both sides of the border. Moreover, the volume of cross border trade here is very high, making it more vulnerable to smuggling, as drug traffickers may prefer to use busy border crossings.
- iii. No heroin or opium seizures were reported from Paktika, Khost, Paktya or Logar provinces, which are situated along the heroin trafficking route from southern to eastern Afghanistan. Given the strong presence of anti-government elements in these provinces (and on the other side of the border) and the limited law enforcement control, it is not surprising that no seizures were made. Indeed, drug trafficking activities are almost certainly taking place in these provinces.

In 2009, almost 65 per cent of Afghanistan's total opium seizures were made in Hilmand province. Surprisingly, opium and heroin seizures were low in Kandahar province, despite the area's high level of opium production in 2009; the province did, however, have the highest level of cannabis seizures in the country.

A total of 48 heroin²³ laboratories were destroyed in Afghanistan in 2009; of this, 11 were situated in Hilmand province, 6 were seized in central provinces and 4 in Badakhshan province; the location of the remaining laboratories was not made known to UNODC. No reports were made of heroin laboratories being dismantled in Nangarhar or in any other eastern province bordering Pakistan, despite the

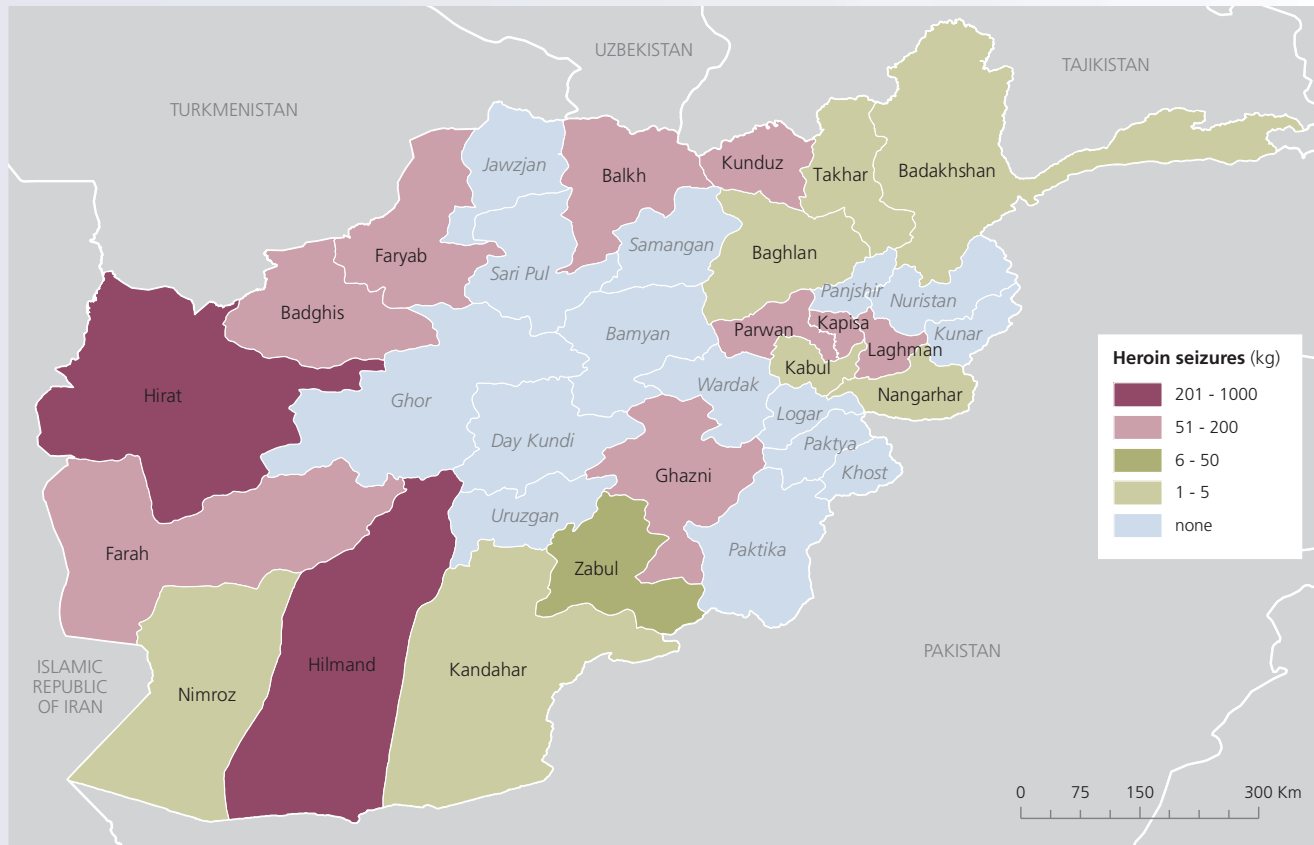
Table 8: Opiate seizures in Afghanistan (kg), 2002-2009

Seizures	2002	2003	2004	2005	2006	2007	2008	2009
Heroin	1292	815	2388	7112	4053	5038	2782	2,188
Opium	5,582	8,412	21,446	90,990	40,959	52,457	42,807	35,687
Morphine		85	85	1,967	938	5,019	479	5,167

Source: UNODC.

²² Interview with drug traffickers in Afghanistan, 2009.

²³ CNPA, Afghanistan.

Map 10: Heroin seizures in Afghanistan, by province, 2009

Source: Counter Narcotics Police of Afghanistan. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

presence of heroin manufacturing in these provinces, especially in Nangarhar. Currently, between 300 and 500 heroin laboratories are estimated to be active in Afghanistan.

As anti-government elements in Afghanistan are directly linked with the production of and trafficking in drugs, the fight against drug trafficking in the country is becoming increasingly violent. In 2007-2008, a total of 1,412 national police were killed by anti-government elements; this number was 639 in 2009 and around 300 as of June 2010. These incidents were not always drug-related.²⁴ This amount of casualties is very high by Afghan National Police standards. As repeatedly mentioned in various interviews with senior Afghan officials, the Afghan police do not have the necessary resources to combat drug trafficking.

International Security Assistance Force and Afghan National Army seizures

In addition to the Counter Narcotics Police of Afghanistan (CNPA), the International Security Assistance Force (ISAF) and Afghan National Army (ANA) also carried out drug trafficking operations in 2009. During these operations, a total of 102 tons of opium, 10 tons of morphine, 1.3 tons of heroin, and 33,000 litres of acetic anhydride were seized.

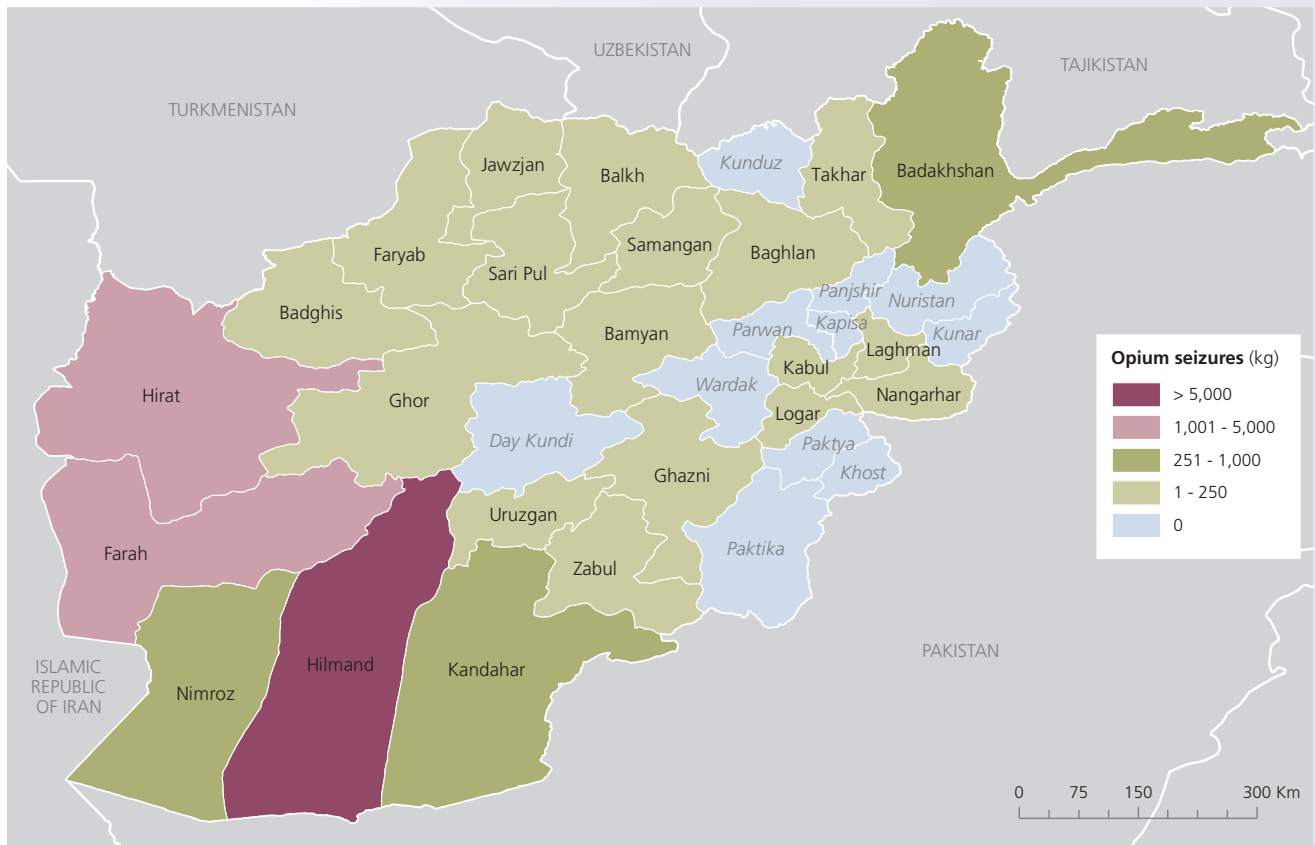
In 2009, most of the opium, heroin and acetic anhydride

seizures were made in Hilmand province. Indeed, on average the ISAF/ANA seized 1.8 tons of opium per case and 3,000 litres of acetic anhydride per case in Hilmand province. Although Balkh is not an opium-producing province, 10,000 litres of acetic anhydride were reported seized there in a single case in 2009; it remains unclear whether the chemical was intended to be used in the province or dispatched to another location.

The large quantities seized per case on average might be an indication of possible opiate and acetic anhydride stocks in the country. In 2009, counting both ISAF, ANA and CNPA seizures, a total of 138 tons of opium, 3.5 tons of heroin and 15 tons of morphine were seized in Afghanistan. The total opium equivalent of all these opiate seizures was around 270 tons, that is, 4 per cent of the total opium production in 2009.

In July 2010, the ANA and ISAF together seized a total of 17 tons of opium (together with acetic anhydride and other chemicals) in just two operations in southern Hilmand. During the first operation, 11.6 tons of opium was seized in the Dishu district of Hilmand. In the same month, an additional 5.5 tons of heroin was seized. These two seizures support the assumed presence of opium stocks and heroin labs in the Afghanistan-Pakistan border area, bearing in mind that the largest networks are likely able to protect their stocks even from coalition forces.

²⁴ Afghanistan Casualties: Military Forces and Civilians, Susan G. Chesser, Congressional Research Service, USA

Map 11: Opium seizures in Afghanistan, by province, 2009

Source: Counter Narcotics Police of Afghanistan. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Table 9: Seizures made by ISAF and ANA, 2009

Province	Opium (kg)	Heroin (kg)	AA (litres)	Morphine (kg)
Badakhshan				
Balkh		3	10,000	
Farah	2,333			
Hilmand	82,845	1,016	20,369	522
Hirat	361			
Kandahar	6,443		950	
Nangarhar	3,512	225	2,326	9,502
Nimroz	6,000	80		
No data	202			
Uruzgan	731			
Total	102,427	1,324	33,645	10,024

Source: International Security Assistance Force.

By September 2010, ISAF and ANA forces had seized 43 tons of opium, 7 tons of heroin, 300 kg of morphine and 580 litres of acetic anhydride in Afghanistan. In several instances, the amount of opium and heroin seized exceeded 1,000 kg, which clearly indicates the stockpiling of opium and heroin.

Health and socio-economic impact

In addition to the multiple security threats it engenders, opium poppy cultivation has become a health hazard for Afghanistan. In 2009, Afghanistan had 230,000 opium abusers²⁵ – a 53 per cent increase from 2005. In particular, the heroin-abusing population in Afghanistan almost tripled, reaching 120,000 in 2009 and consuming an estimated 5 tons of pure heroin. Overall, nearly 8 per cent of the adult population are estimated to be drug users. Further research is needed to better understand the heroin abuse situation in Afghanistan, including total consumption per capita and related heroin purity levels.

Despite significant increases in domestic drug abuse, just 3-4 per cent of the opium produced in Afghanistan is abused in Afghanistan. This is an indication of the threat posed by Afghan opiates worldwide.

Corruption

As highlighted by a report issued by UNODC in 2010,²⁶ one of the major issues facing Afghanistan is corruption among government officials or the police. At least 30 per cent of heroin laboratory owners interviewed in Afghanistan in 2009 reported bribing Government security forces,

²⁵ Drug use in Afghanistan: 2009 Survey, UNODC.

²⁶ Corruption in Afghanistan, January 2010, UNODC.

to protect their heroin production. In addition to laboratory owners, traffickers smuggling acetic anhydride and opiates also reported bribing Government officials.

However, corruption is not seen only in Afghanistan but observed all along the drug trafficking routes from Afghanistan to the final destination; without corruption, it would be almost impossible to transport hundreds of tons of heroin across thousands of miles to international markets. Therefore, given that drug traffickers are international criminal networks and that corruption is a global concern, these issues should be handled at the regional or global level.

1.3 MAJOR TRANSNATIONAL FLOWS OF AFGHAN OPIATES

The flow of Afghan opiates to Pakistan

In 2009, an estimated 160 tons of heroin were trafficked from Afghanistan to Pakistan. Of this, 20 tons were consumed in Pakistan and 2 tons were reportedly seized. The remaining 138 tons were trafficked internationally. In previous years, UNODC had estimated that 104 tons were trafficked via Pakistan. However, declining opium production in Myanmar has increased heroin trafficking via Pakistan to South-East Asia in 2009.

In addition to heroin, some 350-400 tons of opium were trafficked from Afghanistan to Pakistan. Out of this

amount, some 200 tons were trafficked further to the Islamic Republic of Iran, 132 tons were consumed in the country and 25 tons were seized.

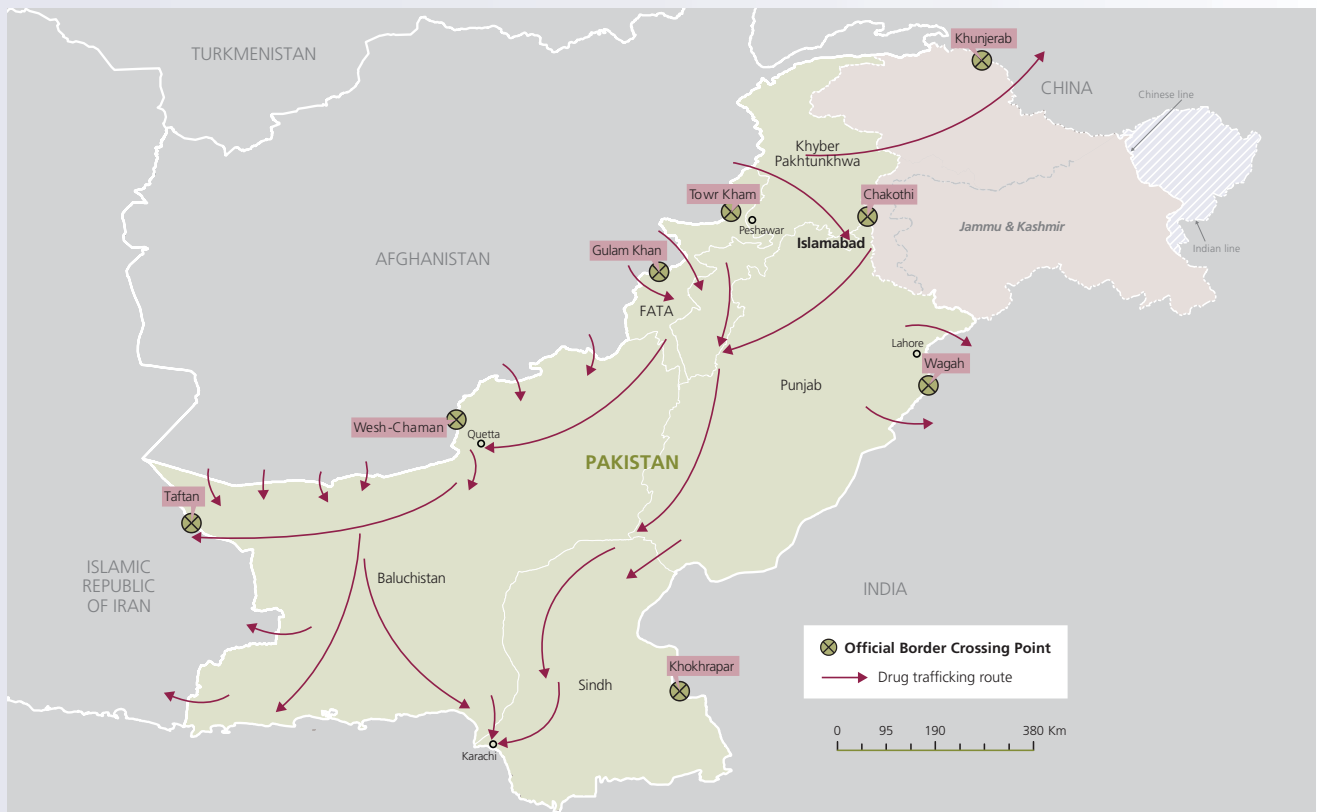
Opiate supply from Afghanistan

It is estimated that the majority of heroin reaching Pakistan is trafficked through the Hilmand and Kandahar provincial borders in Afghanistan to Baluchistan Province due to limited law enforcement capacity on both sides of the border and the strong presence of the Taliban and other anti-government elements (AGE). The borders of Afghanistan's Nangarhar and Kunar provinces with Pakistan's FATA region also figure as prominent heroin crossing areas, although to a lesser extent. In 2009, very few Afghans were arrested on drug trafficking charges in Pakistan. This might suggest that Afghan drug traffickers hand heroin over to Pakistani groups at the border.

Despite being the main entry point and transit route, there is no strong evidence that heroin processing occurs in Baluchistan. Heroin labs have been identified on the border between Afghanistan and Pakistan, however, it has not been confirmed whether any of the laboratories are located on Pakistani territory, as the exact border between the two countries is not always clear. For example, the border between Pakistan and Afghanistan divides the Baramcha town (famous for its drug bazaars and production) into two.

It is also likely that opium stockpiling occurs in Baluchistan

Map 12: Reported opiate trafficking routes in Pakistan, 2009



Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. 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.

Drug addiction among the Afghan refugees in Pakistan

According to a drug treatment centre in Quetta, at least 20 per cent of their clients were Afghan refugees likely travelling from refugee settlements for treatment. In fact, a study by the Office of the United Nations High Commissioner for Refugees (UNHCR) found that Afghans were travelling from Afghanistan to Quetta and Peshawar for drug treatment, particularly antiretroviral treatment. Drug treatment centres reported treating Afghan refugee drug abusers, although UNHCR noted that there were no reported cases of HIV within the refugee camps, as drugs were taken orally. Injecting drug abuse – and consequently the risk of contracting HIV/AIDS – is much more prevalent in refugee settlements than in organized refugee camps.

Moreover, treatment services are not evenly distributed across Baluchistan. In addition, there are no treatment centres servicing street children, women, adolescents, probationers and parolees, nor clients with dual diagnosis in the case of co-infections or mental and emotional problems.

The DOST Foundation Drug Treatment Centre in Peshawar estimates that approximately 20 per cent of its clients are Afghan refugees. In 2007, drug abuse within Afghan refugee settlements was estimated at 2.6 per cent and rising. Several drug trade sources in FATA acknowledged that drugs are used on a large scale within refugee camps, especially in the main camps of Kacha Garhi and Jalozi (near Peshawar).

There are currently no drug treatment facilities in FATA. In 2009 there were only 32 registered hospitals with a total bed capacity of 1,660 across the entire territory of FATA. The closest drug treatment facilities are located in Peshawar (KP) and Quetta (Baluchistan). Drug related problems within FATA are likely to be significant, including drug abuse among vulnerable groups and the spread of HIV/AIDS. Unfortunately, due to a lack of drug treatment facilities, data specific to drug abuse in FATA is unavailable.

and FATA, as there are strong family and tribal links between the people living in the provinces along the border between Afghanistan and Pakistan. Indeed, drug trafficking networks in FATA maintain a number of opiate stockpiles, primarily in Khyber Agency.

An in-depth analysis about the drug trafficking routes, beneficiaries and operations within Baluchistan and FATA has been included in this report. Please see *Case study: opiate trafficking through Baluchistan and FATA*.

Value and beneficiaries

Pakistani criminal groups paid an estimated US\$400 million to Afghan drug traffickers for the 160 tons of heroin that entered the country; they then sold 138 tons onward to international drug traffickers for \$700 million, making a \$300 million profit. In addition to international trafficking, Pakistani heroin abusers consumed 20 tons of heroin at a street price of \$400 million.²⁷ Additionally, for consumption of some 132 tons of raw opium, users paid some \$95 million to drug traffickers. In total, Pakistan's opiate market was worth \$1.2 billion in 2009 – counting both transnational trafficking and domestic consumption – with Pakistani drug traffickers making a net profit of \$650 million. The exact beneficiaries of the opiate trade through Pakistan are difficult to specify, although it appears that extremist groups in FATA and criminal groups in Baluchistan are key recipients.

Extremist groups

Numerous extremist groups, such as the Pakistan Taliban (Tehreek-e-Taliban-e-Pakistan, TTP), Al-Qaida and the

Haqqani network, are located in FATA along one of the main trafficking routes from Afghanistan to Pakistan. Being outside the full reach of the Government of Pakistan, the Anti Narcotics Force (ANF) does not have a presence in the region and almost no heroin seizures were made between 2000 and 2009. Indeed, the Government's primary presence in FATA is the Pakistani Armed Forces, which conducts ongoing military operations in the region. Although exact amounts are difficult, if not impossible, to determine, extremist groups in FATA are likely to have benefited, at least indirectly, from the \$1.2 billion opiate trade in 2009.

Indeed, the Pakistan Taliban, for example, has few income options, namely illegal trade and taxation, donations from the public and state sponsorship. Given the local poverty situation, public donations are likely to be small and there is no evidence that the Pakistan Taliban is supported by any particular state worldwide. The only remaining sources of income are illegal trade, criminal activities (such as kidnapping for ransom) and taxation. A similar conclusion was reached by the United Nations Al-Qaida/Taliban Analytical Support and Sanctions Monitoring Team, which noted that the effect of the global financial crisis may lead to a reduction in donations and an increase in crime as a means for Al-Qaida and the Taliban to raise money.²⁸ However, according to the Government of Pakistan, no connection can be identified between terrorist groups and the heroin trade (or wider drug trade) in Pakistan.²⁹

Many of the drug trafficking networks may have close links with key militant commanders of the Haqqani network,

²⁷ Although the wholesale price was a more modest \$50 million.

²⁸ Ninth report of the Monitoring Team, May 2009, www.un.org/sc/committees/1267/monitoringteam.shtml.

²⁹ Interview with ANF and Ministry of Narcotics, May 2009.

either through business dealings or as a result of tribal affiliations with the Tanai tribe of Khost, which is the Haqqanis' hometown.³⁰ The Haqqani network has strong cross-border ties and is not only involved in drug trafficking, but particularly deeply dependent on smuggling heroin.³¹ The Haqqani network, focused on the conflict in Afghanistan rather than domestically, are more heavily involved in drug trafficking. Other terrorist groups in Pakistan are driven ideologically and are not systematically involved in the drug trafficking business. Dependent on revenue from drug trafficking, the Haqqani network gains these funds through taxation, coercion or facilitation rather than through direct operational involvement.

According to interviews in FATA, another militant group, Lashkar-e-Islam, gains significant revenue from the majority of drug trafficking routes passing through territory under its control. In fact, drug traffickers pay significant amounts to Lashkar-e-Islam for freedom of movement and the ability to operate in the area.³² The deteriorating security situation in North and South Waziristan Agencies has meant that drug trafficking routes have become increasingly concentrated in Khyber Agency. Subsequently, this has boosted the taxation and revenue of militant groups in the area. Although other militant groups operate in Khyber, Lashkar-e-Islam is by far the most prominent.³³

Al-Qaida and allied groups are reportedly active in FATA, particularly in North Waziristan, and have established ties to both the Haqqani network and the Tehreek-e-Taliban-e-Pakistan. Al-Qaida uses FATA as a training ground and safe haven, while actively assisting other militant groups in the area, for instance by providing suicide bombers to the Haqqani network. Al-Qaida has reportedly avoided establishing new structures and supports local extremist networks instead. Al-Qaida is unlikely to be directly taxing drug trafficking flows or actively involved in the drug trade in FATA. Moreover, Al-Qaida's base in North and South Waziristan indicates that it is not well established along the drug trafficking routes in FATA.

In Baluchistan, however, given that the Baluch control the majority of Baluchistan's drug trafficking routes and are more organized and professional than their Pashtun counterparts, the Taliban's involvement in and revenue from drug trafficking is likely to be minimal.

There are four main illegal armed groups in Baluchistan: Baluch Republic Army, Baluch Liberation Army, Baluchistan Liberation Front and the Baluch Liberation United Front. There is little or no evidence to suggest a connection between these resistance groups and drug trafficking, except

that many drug trafficking routes pass through their stronghold areas. Indeed, locals reported that these groups in the areas of Mand and Turbat have continuously issued warning notices to drugs traffickers to abandon their activities, going as far as attacking the shops of alleged traffickers in these areas.³⁴

Another extremist group with a presence in the region is Jund Ullah. Jund Ullah is an extremist Sunni Baluch minority group based in the Sistan-Baluchistan province of the Islamic Republic of Iran. Jund Ullah's founder, Abdul Malik Reeki, belonged to the Sunni Baluch tribe Reeki, which is settled on both sides of the border between the Islamic Republic of Iran and Pakistan. There is no strong evidence that Jund Ullah is directly involved in drug trafficking.

Opiate demand and social issues in Pakistan

In 2009, Pakistan was estimated to have 727,500 opiate abusers – or 0.7 per cent of the adult population.³⁵ Of these, 571,600 were heroin abusers. In 2009, Pakistan's heroin abusers (the third largest community of heroin abusers in Asia) abused 20 tons of pure heroin. Pakistan's opium abusers, on average, consume 850 grams each per year; this translates into 132 tons of opium estimated to have been consumed in Pakistan in 2009.

The rising number of opiate abusers, especially heroin abusers, is facilitating the spread of HIV in Pakistan owing to the practice of needle sharing.³⁶ Nearly 23 per cent of injecting drug abusers in urban settings are HIV-positive.³⁷ Moreover, two thirds of injecting drug abusers in Pakistan reported having shared needles during the week before they were surveyed. However, Pakistan's drug abuse estimates are unclear, as the latest survey was carried out in 2005 in collaboration with UNODC. Pakistan's Ministry of Narcotics Control is scheduled to repeat a drug abuse survey in 2011.³⁸

Onward trafficking routes

In 2009, 138 tons of heroin was trafficked internationally from Pakistan. At least 30 tons of heroin was trafficked from Baluchistan to the Islamic Republic of Iran. The remaining 108 tons was moved internally to Pakistan's industrial capitals, namely Karachi and Lahore and other locations like Gwadar for onward trafficking to Europe, South-East Asia, South Asia and Africa by sea and air transportation. Despite the fact that no seizures were made at seaports in Pakistan in 2009, large heroin seizures (1.4 tons³⁹) made in China were traced back to Pakistan sea

³⁰ Interviews in Peshawar, 2010.

³¹ Peters, Gretchen, 2009, *Seeds of Terror: How Heroin is Bankrolling the Taliban and al Qaeda*, Thomas Dunne Books, p. 37.

³² Interviews in Peshawar, August 2010.

³³ 5,36,37 Fishman, Brian, April 2010, *The battle for Pakistan: Militancy and Conflict across the FATA and NWFP*, New American Foundation

³⁴ Interview with law enforcement official, October 2010.

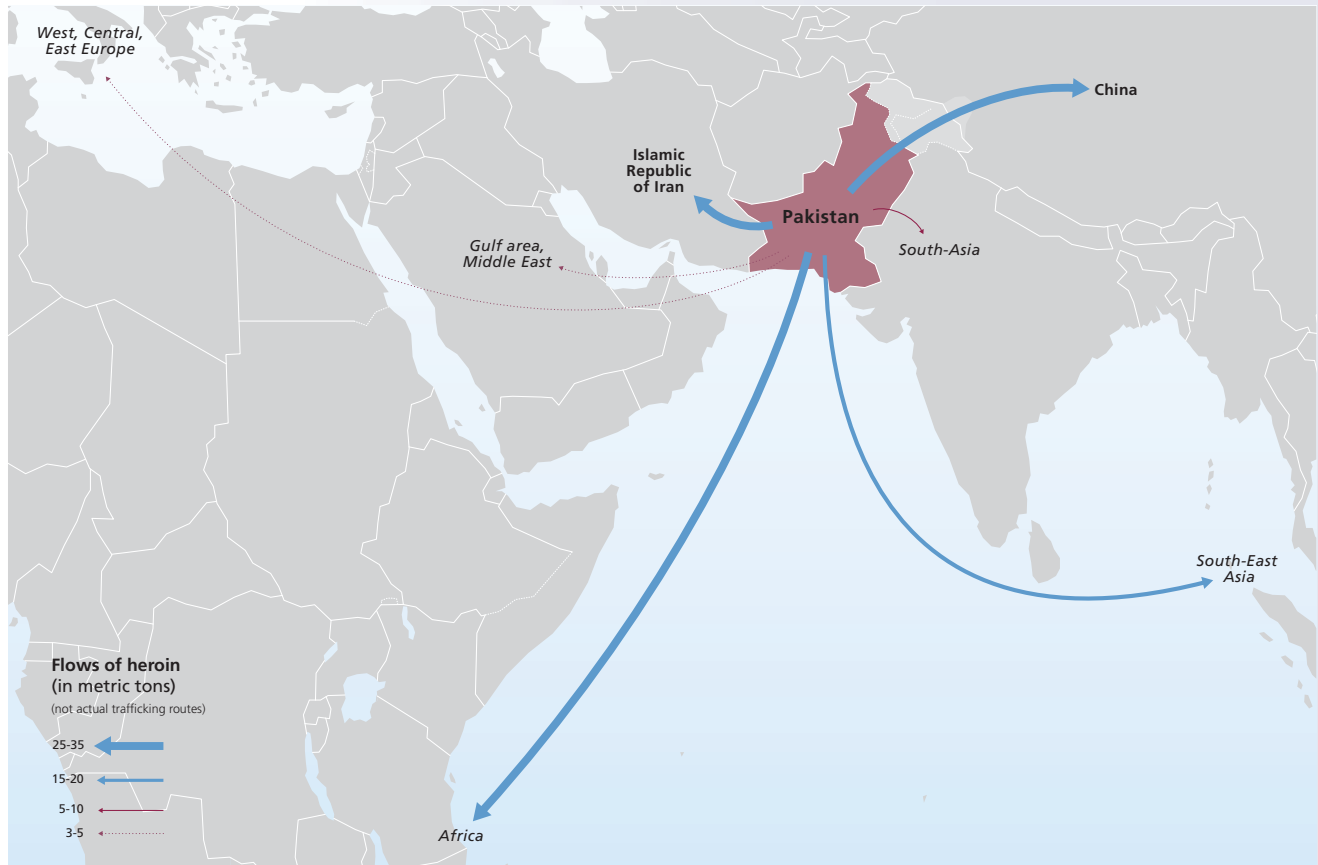
³⁵ World Drug Report 2010, UNODC.

³⁶ ARQ of Pakistan, 2009.

³⁷ UNAIDS epidemic update 2009, Bokhari et al., 2007).

³⁸ Interview with Pakistan Government officials April 2010

³⁹ Meetings with National Narcotics Control Commissions of China, March 2011.

Map 13: Heroin trafficking flows from Pakistan, 2009

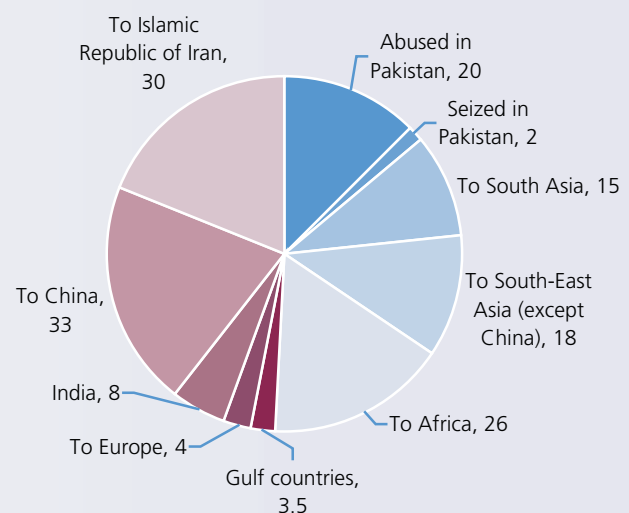
Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and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

routes – indeed, heroin trafficking via maritime transport is likely to be much higher than currently estimated.

Although the Pakistan-India border is well controlled, seizures on both sides indicate that drug traffickers are still using this route. Aside from some arrests in India, very few Pakistani drug traffickers were arrested outside of Pakistan between 2000 and 2008,⁴⁰ indicating that Pakistani groups are likely to distribute heroin to international drug traffickers in Pakistan, mainly West Africans.

Near and Middle East Asia

Heroin trafficked from Pakistan met the majority of demand in Near and Middle East Asia. In 2009, 17-18 tons of heroin was consumed in Near and Middle East Asia. The majority – 16 tons (91 per cent) – was consumed in the Islamic Republic of Iran and the remaining 1-2 tons in Israel, Saudi Arabia, Jordan, Lebanon and Kuwait. Heroin was brought into these countries mainly across the coastline of Pakistan – especially via the United Arab Emirates – using speedboats and other marine transport.⁴¹ To a lesser extent, heroin is also trafficked from the Islamic Republic of Iran using other means of transportation.

Fig. 9: Distribution of heroin consumption, seizures and trafficking from Pakistan, (tons), 2009

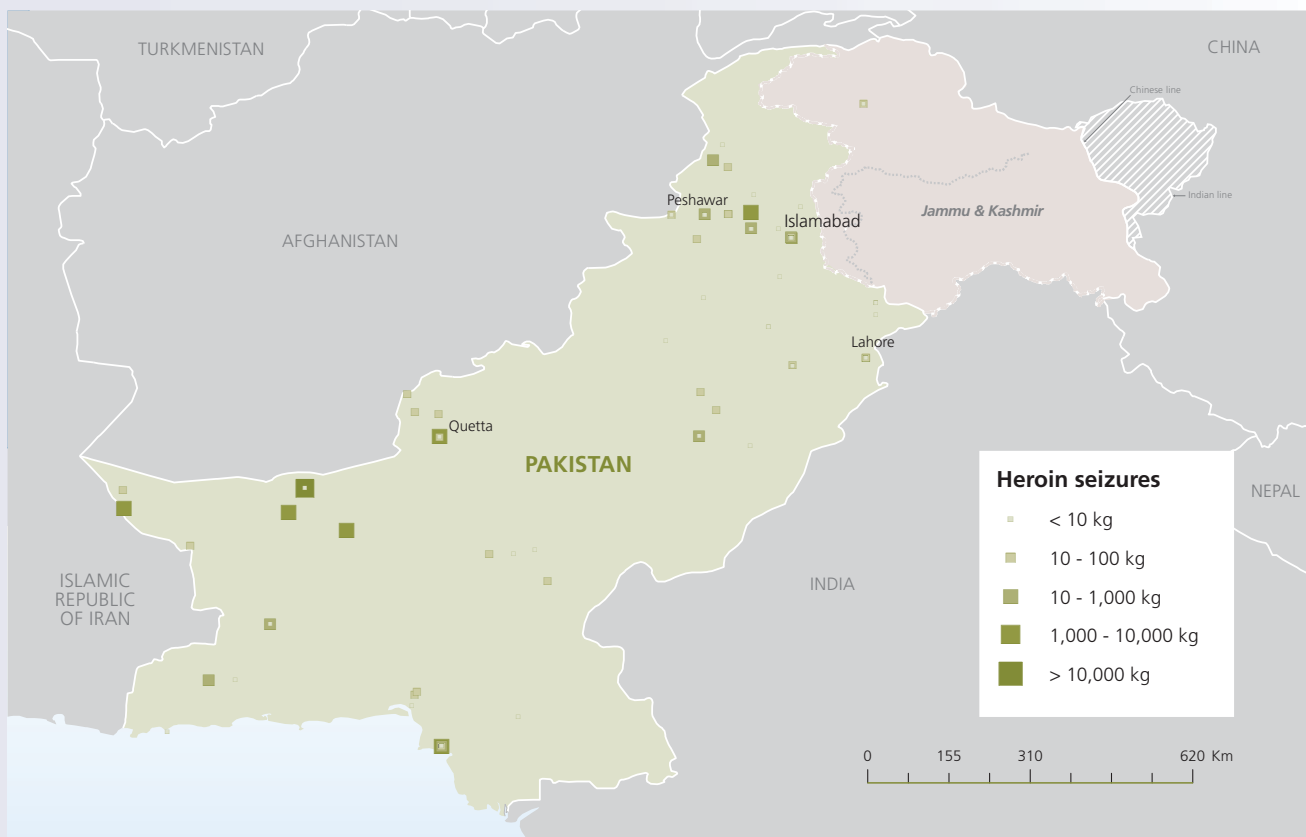
Source: UNODC.

Apart from the Islamic Republic of Iran, onward heroin trafficking from Near and Middle East Asia was limited, with only small amounts of heroin trafficked to China (0.5 tons) and Europe (3 tons) from the United Arab Emirates. No heroin seizures were reported in Africa from countries in Near and Middle East Asia in 2009.

⁴⁰ According to the statistics provided from World Customs Office.

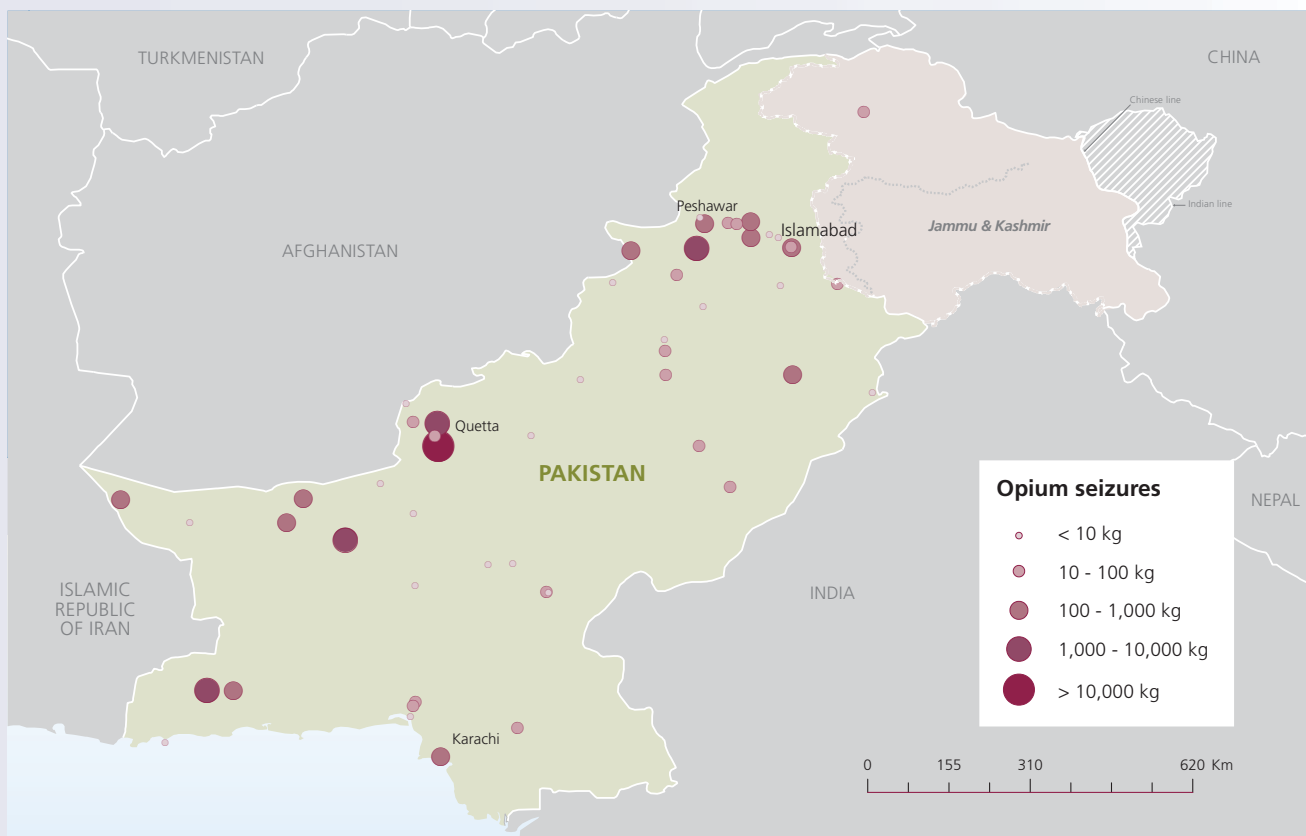
⁴¹ Interview with sea border guards, Karachi, Pakistan, May 2009.

Map 14: Heroin seizures in Pakistan, 2000-2009



Source: UNODC and World Customs Office seizure database. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. 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.

Map 15: Opium seizures in Pakistan, 2000-2009



Source: UNODC seizure database. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. 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.

As a global finance and trade hub, the United Arab Emirates has very busy airports and seaports. Such busy locations are preferred by drug traffickers due to the reduced risk of detection. In addition, there are large Afghan, Iranian and Pakistani expatriate populations living in the United Arab Emirates. These ethnic and familial links are likely to be used for heroin trafficking, as is common along other routes.

Law enforcement and seizures

In 2009, law enforcement agencies in Pakistan seized 2 tons of heroin, 2 tons of morphine and 25 tons of opium. The majority of Pakistan's seizures were at entry and exit points, including near the border to Afghanistan and the Islamic Republic of Iran, as well as at ports – especially inland dry ports.

Heroin seizures

Over the last decade, law enforcement agencies have made significant seizures close to Afghanistan's Hilmand province border, despite the fact that there is no official border crossing from Hilmand. Although drug traffickers do use Chaman, the official crossing, to traffic heroin (favoured by the high volume of vehicles crossing everyday) the entire border can be crossed freely and many are unsure of the exact location of the border. Afghanistan's Nimroz province border area is also used, especially to traffic heroin to the Islamic Republic of Iran via Pakistan. Recently, Pakistani drug traffickers have increased usage of the country's south-western border with the Islamic Republic of Iran, according to the Anti Narcotic Forces (ANF).⁴²

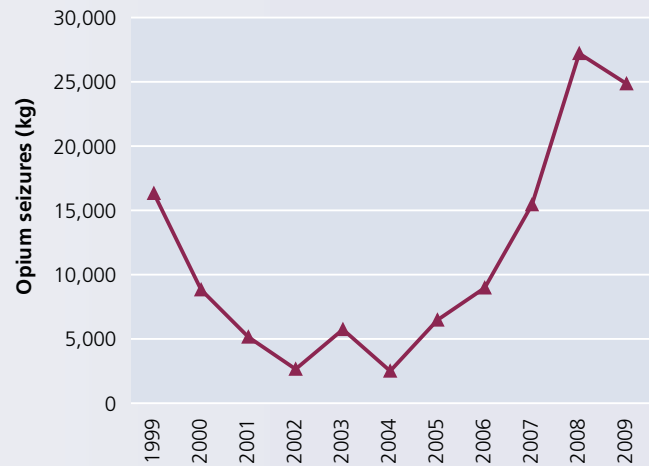
Opium seizures

In 2009, 25 tons of Afghan opium was seized in Pakistan. Given that a total of 350-400 tons of opium was estimated to have been trafficked from Afghanistan to Pakistan in 2009, the interdiction ratio for opium was higher than heroin interdiction. Opium trafficking appears to be generally organized by the same Afghan and Pakistani groups, who use the same routes as those used for heroin trafficking. Aside from domestic consumption, opium is almost exclusively trafficked to the Islamic Republic of Iran, although small quantities of opium are also trafficked by sea to Gulf countries, where they are abused locally.

Between 1999 and 2006, Pakistan's opium seizures decreased by 50 per cent. Later in 2006, this number began to rise again – in parallel with the increase in opium poppy cultivation in Afghanistan – and amounted to almost 25,000 kg in 2009. As previously indicated, in recent years more seizures were reported close to the Islamic Republic of Iran-Pakistan border, as drug trafficking has increased via Pakistan to the Islamic Republic of Iran.

There is an urgent need for improved law enforcement and border control capacity in Pakistan, including at all the sea

Fig. 10: Opium seizures in Pakistan, 1999-2009



Source: UNODC.

ports, dry ports, air ports and land borders. Currently, law enforcement capacity at sea ports (including the dry sea ports) is extremely low. Technical equipment and trained personnel remain insufficient, especially at dry sea ports and sea borders. Therefore, any container arriving or departing from dry ports of Pakistan are vulnerable to drug and acetic anhydride trafficking.

Control of the Afghan-Pakistan land border is very difficult given that it is not clearly delineated and people move freely between the two countries. In addition, there is still a serious lack of equipment at border control points. The vast majority of opium produced in Afghanistan is located in the provinces bordering Pakistan's Baluchistan Province. However, there is only one official border control point between Baluchistan and Southern Afghanistan. Unless this border area is controlled better, it is almost impossible to stop opiate trafficking from Afghanistan to Pakistan. In addition to border control, it is also essential to enhance the intelligence and information exchange between the Islamic Republic of Iran, Pakistan and Afghanistan.

The flow of Afghan opiates to the Islamic Republic of Iran

In 2009, an estimated 145 tons of heroin was trafficked into the Islamic Republic of Iran. Of this amount, 16 tons was consumed and 23 tons was seized. The majority of heroin that enters the Islamic Republic of Iran is trafficked onwards along the 'Balkan Route' to Western and Central Europe.

Opiate supply

According to the ARQ provided by the Islamic Republic of Iran, 80 per cent (the equivalent of 115 tons, according to UNODC estimates) of heroin trafficked to the Islamic Republic of Iran entered via its borders with Afghanistan and 20 per cent (30 tons) via Pakistan. However, increased security along the Afghan border is likely to cause an

⁴² Interview with ANF, 2009.

of drug traffickers arrested were Iranian. Iranian organized crime groups are likely to monopolize heroin trafficking within the Islamic Republic of Iran; however, given the limited number of Iranians arrested in Turkey, heroin is probably handed over to Turkish criminal groups at the border. In 2009, more than 1,900 drug trafficking groups were dismantled and more than 170,000 persons arrested in Iran.⁴³ This suggests that either heroin is trafficked by a few small groups or individuals rather than cartels, or that traffickers prefer to use several persons as couriers rather than large shipments— a practice known as ‘ant trafficking’.

Opiate demand and social issues

The Islamic Republic of Iran has the highest prevalence rate of opiate abuse in the world, at 2.26 per cent of the adult population (1.2 million users).⁴⁴ However, according to the 2009 ARQ provided by the Islamic Republic of Iran, there are 430,000 heroin users in the country.⁴⁵

In the Islamic Republic of Iran, the annual average heroin consumption per capita is 384 grams;⁴⁶ this figure does not pertain to pure heroin. Average purity at street level is estimated to be around 7 per cent according to the price information available and interviews with drug users in the Islamic Republic of Iran. Hence, at 7 per cent purity, 384 grams would be equivalent to an annual consumption of 38 grams of pure heroin per user. Based on this data, 16 tons of heroin was consumed in 2009.

In addition to heroin, the Islamic Republic of Iran’s estimated 560,000 opium abusers consumed an average of 850 grams per user in 2009.⁴⁷ Total annual opium abuse in the country was estimated at 476 tons, which is 48 per cent of global consumption.

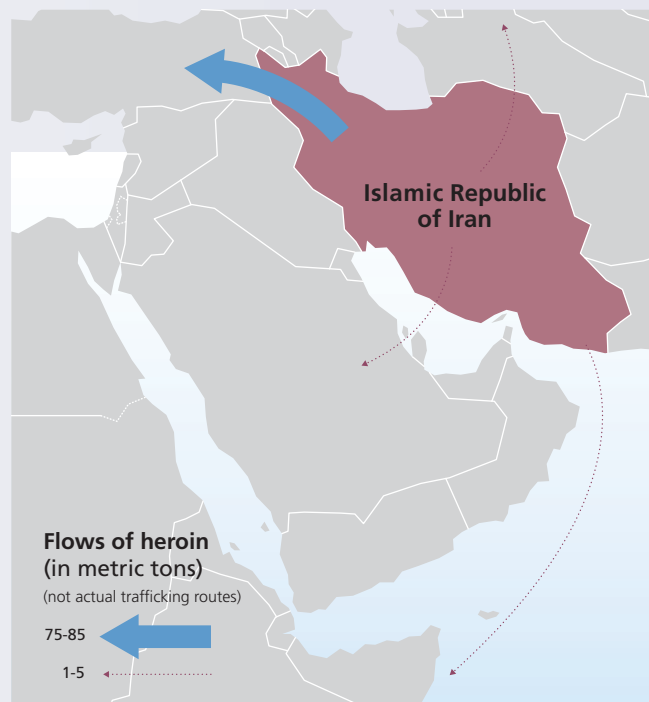
Opiate abuse causes serious public health problems in the Islamic Republic of Iran. According to the Iranian National Centre for Addiction Studies, injecting drug abuse accounts for more than two thirds of reported HIV cases. In 2010, the Islamic Republic of Iran launched a new drug abuse survey to try and gain a better understanding of domestic drug abuse and consumption patterns.

Onward trafficking routes

Of the 145 tons of heroin trafficked into the Islamic Republic of Iran, 16 tons were consumed domestically and the majority was trafficked internationally: 82 tons to Turkey, 6 tons to African countries, 3 tons to Caucasus countries and small quantities to Europe.

Turkey receives the vast majority of heroin trafficked through the Islamic Republic of Iran, facilitated by the

Map 17: Heroin trafficking flows from the Islamic Republic of Iran, 2009



Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

presence of criminal elements among the cross-border ethnic Kurdish population and the abundance of official and unofficial borders crossings (see *The Flow of Afghan Opiates to Eastern Europe*).

Iraq has also emerged as a transit country for heroin destined for Turkey. Iranian authorities have confirmed that heroin trafficking occurs through the border between the Islamic Republic of Iran and Iraq;⁴⁸ however, no data on this could be obtained from Iraqi authorities. Given that the population of northern Iraq is mainly Kurdish and given the large number of heroin seizures along the border between Turkey and Iraq, it is highly likely that heroin trafficking occurs via Iraq to Turkey. In addition, the nation’s situation of instability has made it easier for criminal organizations, such as the PKK in northern Iraq, to develop and use Iraq as a transshipment point for Afghan heroin. In addition, the PKK – which is based in northern Iraq – is well known for its direct and indirect involvement in the heroin trade. Heroin trafficking through Iraq will be studied in further detail in upcoming reports.

Although Pakistan supplies many of the Gulf countries, heroin seizures on the coast of the United Arab Emirates and Kuwait indicate small amounts of heroin trafficking from the Islamic Republic of Iran’s seaports and coastal areas. Similarly, Africa has emerged as a recipient of heroin trafficked from the Islamic Republic of Iran, although Pakistan also remains dominant as the African supplier.

⁴³ According to the Annual Drug Control report of the Islamic Republic of Iran.

⁴⁴ 2011 World Drug Report by UNODC.

⁴⁵ Drug Control in 2008, the Islamic Republic of Iran.

⁴⁶ Ibid.

⁴⁷ Drug Control in 2008, the Islamic Republic of Iran

⁴⁸ Meetings with officials at Drug Control Headquarters, Tehran, 2009.

A section of the Islamic Republic of Iran-Afghanistan border



Source: Drug Control Headquarter of Islamic Republic of Iran.

In 2009, drug traffickers utilized the border between the Islamic Republic of Iran and Azerbaijan to traffic heroin to the Russian Federation and Caucasus countries. Cross-border ethnic and language connections and weak law enforcement almost certainly helped to facilitate this trafficking activity. According to information provided by the Central Asian Regional Information and Coordination Centre (CARICC), the number of Iranians arrested on drug charges in Azerbaijan has more than doubled in 2009 (14 persons in 2008 and 32 in 2009), which may be an

indication of increased trafficking from the Islamic Republic of Iran.⁴⁹

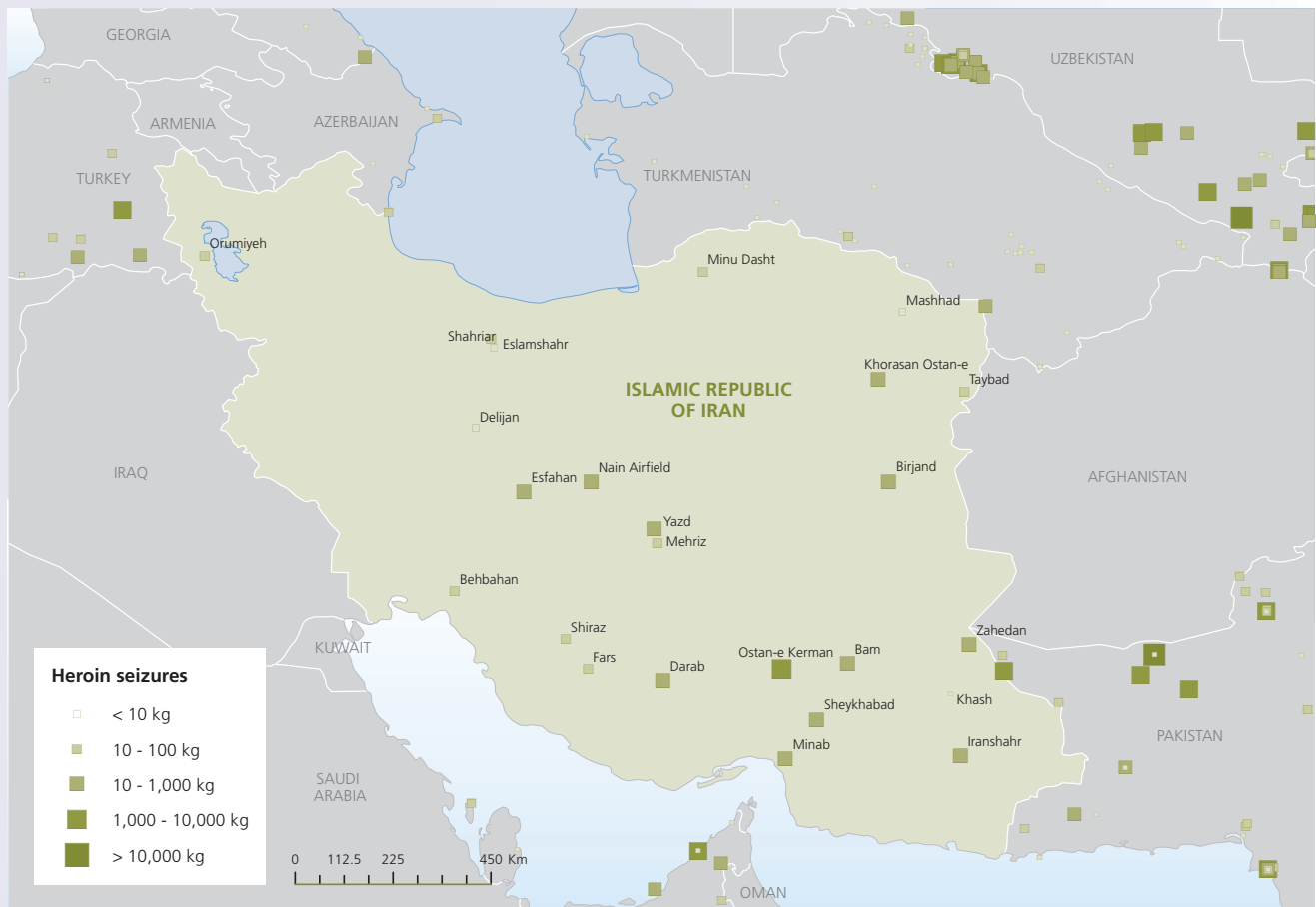
Law enforcement and seizures

In 2009, Iranian law enforcement officials seized 580 tons of opium, 23 tons of heroin and 16 tons of morphine. The 580 tons of opium seized was more than the estimated domestic consumption of 476 tons, making it the only country where seizures have exceeded the estimated consumption. Given that it is severely punished by law and that on average 55 per cent of drugs are seized, drug trafficking appears to be an extremely risky venture to undertake in the Islamic Republic of Iran. This may suggest that either the number of opium users in the Islamic Republic of Iran is higher than currently estimated, or that traffickers are willing to absorb significant losses.

Law enforcement initiatives

In recent years the Islamic Republic of Iran has undertaken several infrastructure projects along its border with Afghanistan, including constructing a 688 km canal, building 477 km of embankments, erecting an 85 km concrete wall and setting 120 km of barbed wire. These projects were mainly undertaken between the Islam Qala border (Hirat province of Afghanistan) and the Zaranj border (Nimroz province of

Map 18: Heroin seizures in and around the Islamic Republic of Iran, 2000-2009



Source: UNODC and World Customs Office seizure database. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

⁴⁹ CARICC Distribution Message N° 68, March 2010.

Afghanistan). The number of heroin seizures has decreased following the implementation of these security measures, suggesting that traffickers have either shifted their routes through Pakistan, or are utilizing parts of the border with Nimroz province that are not closely monitored by authorities. Heroin can also be trafficked from Pakistan to the Islamic Republic of Iran using speedboats.

Although the Islamic Republic of Iran has made significant enhancements at its borders in recent years to prevent drug trafficking, there is still room for further development. For example, the number of scanners, sniff dogs and drug and precursor test kits should be increased at the borders and especially sea ports. Bandar Abbas is one of the biggest sea ports in the region and with high volumes of containers arriving daily, is vulnerable to heroin trafficking. The Afghan Opiate Trade Project and Iranian officials organized a visit to Iran/Afghanistan customs at Dogharoon and Bandar Abbas sea port in February 2011. During this visit, Iranian officials underlined the need for both regional and global cooperation, including technical support and information sharing.

Heroin seizures

In 2009, the Islamic Republic of Iran seized almost 25 tons of heroin – almost 16 per cent of heroin that entered the country. Between 2000 and 2009, the majority of seizures occurred in the south and east – along the trafficking routes

from Pakistan and Afghanistan. Interestingly, almost no seizures were made in the north of the country near Turkey; however, Turkey made significant seizures on the other side of the border.

Morphine seizures

In 2009, 23 tons of morphine were seized worldwide, of which 16 tons (70 per cent) were seized in the Islamic Republic of Iran. That said, according to the latest Drug Users Survey issued by the Islamic Republic of Iran, the morphine addict population in the country is insignificant. In addition, although Iranian morphine seizures were made close to its borders with Turkey, its neighbours have made only negligible seizures. While morphine is usually used to manufacture heroin, there is currently no solid evidence that heroin is manufactured anywhere in the Islamic Republic of Iran, including at its border with Turkey; therefore, the intended use and trajectory of these morphine shipments remain unknown.

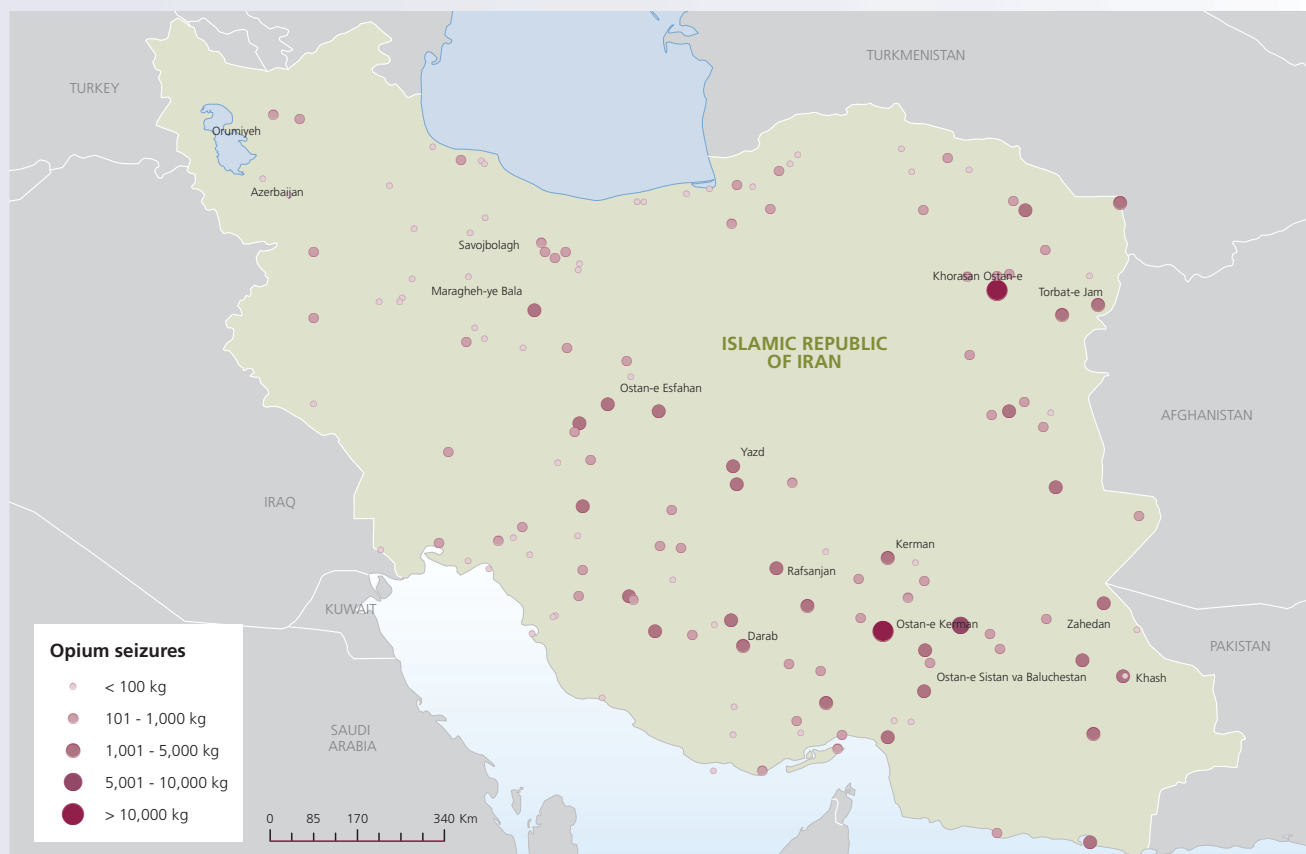
Opium seizures

In 2009, 580 tons of opium were seized in the Islamic Republic of Iran, making it the only country in which the quantity of drugs seized exceeded consumption. With negligible amounts of onward trafficking, the majority of opium trafficked to the Islamic Republic of Iran is intended for domestic abuse.

Map 19: Morphine seizures in the Islamic Republic of Iran, 2000-2009



Source: UNODC seizure database. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Map 20: Opium seizures in the Islamic Republic of Iran, 2000-2008

Source: UNODC seizure database. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Opium trafficking routes were the same used to traffic heroin to the Islamic Republic of Iran. The most common crossings used by opium traffickers are: the Iranian border with Nimroz province (Afghanistan), the Baluchistan province (Pakistan), less monitored areas of Farah province (Afghanistan) and, to a lesser extent, the Islam–Qala official border crossing with Afghanistan. Opium was sold to Iranian drug traffickers at these border areas.

However, opium seizures were made across the Islamic Republic of Iran, indicating that opium is likely to be abused throughout the country. Although the Iranian Government strengthened its borders with Afghanistan and drug trafficking is punishable by death in the country, demand has ensured the continued smuggling of drugs.

The flow of Afghan opiates to Central Asia

In 2009, approximately 90 tons of Afghan heroin were trafficked into Central Asia – Tajikistan, Uzbekistan, Turkmenistan, Kyrgyzstan and Kazakhstan. Of these 90 tons, the majority – between 75-80 tons – was trafficked onwards to the Russian Federation, 11 tons were consumed domestically, and 3.4 tons were seized. Central Asia forms the gateway for heroin destined for the Russian Federation and onwards to Eastern Europe, a route known as the ‘Northern Route’.

Opiate supply from Afghanistan

Afghan heroin enters Central Asia mainly via the porous Tajikistan-Afghanistan border, delineated by the Pianj River.⁵⁰ Despite the presence of several customs controls and border guards, opiate trafficking from Afghanistan to Tajikistan is relatively uninterrupted due to favourable geography. In addition, the rise of corruption and criminal organizations in Tajikistan has led to an increase in drug trafficking activity through this country.

Afghan heroin also enters via Uzbekistan, although in smaller quantities than enter Tajikistan. Indeed, Uzbekistan’s border with Afghanistan, consisting of a river, is quite small. The single border crossing point at Hayraton is relatively well controlled and only light vehicles are allowed to cross. There is, however, a rail link at this border and traffickers would likely prefer the train transportation, as it is difficult to check each of the approximately 1,000 containers that cross the Uzbekistan-Afghanistan border every day.⁵¹ During the hours of darkness, drug traffickers are also likely to cross the river.

Turkmenistan is not a preferred transit country within Central Asia due to the flat terrain of the Turkmenistan-Afghan-

⁵⁰ Drug Control Agency (DCA) of Tajikistan.

⁵¹ http://uzbekistan.usembassy.gov/incsr_2009.html.

istan border areas, which makes it easy for the police to monitor trafficking activities. Preference is given to the Tajikistan-Afghanistan border, which is mountainous. Moreover, as few as 20 vehicles per day cross at the two official crossings along the Turkmenistan-Afghanistan border (Sherhetabad and Imam-Nazar) and the Sherhetabad rail connection is largely inactive. While the green borders between Afghanistan and Turkmenistan are more vulnerable to trafficking than the official border crossings, regular patrolling on the Turkmenistan side and a strong government intelligence network increase the risk of detection.

Internal trafficking

Once in Tajikistan, opiates generally move through Uzbekistan and Kyrgyzstan before transiting Kazakhstan into the Russian Federation. Some opiates are transferred directly from the Tajikistan-Afghanistan border to Tajikistan's northern Sugd region by car, horse or mule; the Sugd region is one of the most developed regions of Tajikistan with better road, rail and air connections to export opiates. Indeed, from the capital Dushanbe there are direct flights to five cities in the Russian Federation, as well as Kazakhstan, the Islamic Republic of Iran, Dubai, China and Turkey.

From Tajikistan heroin is also trafficked into Uzbekistan as

the green border between these two countries is extremely vulnerable to drug trafficking. Moreover, vehicle traffic at the border crossings between the two countries is also very busy. It is possible that traffickers prefer to move heroin from Tajikistan into Uzbekistan rather than directly from Afghanistan, due to geography and law enforcement.

Heroin enters Uzbekistan and the Kyrgyzstan through both official and unofficial border crossings. However, Kyrgyzstan is probably the preferred route given the current instability situation and ease of operation for drug traffickers. As Kyrgyzstan does not have a land border with Afghanistan, heroin reaches Kyrgyzstan via Tajikistan and Uzbekistan. According to 2008 estimates by the Drug Control Agency (DCA) of Kyrgyzstan, most opiates are transported by car or railway to neighbouring Kazakhstan. It is also believed that smaller quantities of opiates are transported to Uzbekistan or directly to the Russian Federation by air. Given the increasing demand for Afghan heroin in China, Central Asian borders with China will likely be increasingly targeted.

In 2009, an estimated between 70-75 tons of heroin reached Kazakhstan, mainly from Kyrgyzstan and to a lesser extent from Uzbekistan, while very limited amounts of heroin were likely trafficked from Turkmenistan.

Map 21: Heroin trafficking routes through Central Asia



Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. 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.

Opium flows to Central Asia

In 2009, the estimated quantity of opium abused in Central Asia was 35-40 tons and an additional 3.5 tons were seized. Since the level of raw opium abuse in the Russian Federation is unknown, it remains unclear how much opium was trafficked via Central Asia to the Russian Federation. Therefore, at least 40 tons of opium is thought to have been trafficked from Afghanistan through the borders of Turkmenistan, Uzbekistan and Tajikistan.

Value and beneficiaries

Although each Central Asian country has domestic criminal groups, it is possible that Tajik and Russian criminal groups organize heroin trafficking all the way from Afghanistan to the Russian Federation. Indeed, Russian is the common language along this route. Currently, there is no strong evidence that any terrorist group is benefiting from the heroin trade in Central Asia.

Within a drug trafficking network there are three types of roles, namely organizers, implementers, and supporters or partners.⁵² Most of the members are drawn from Central Asia, enabling control of the whole opiate trafficking route from Afghanistan to the Russian Federation. Clan or family-based associations are the most important organizational feature, even more relevant than ethnicity or citizenship; the Central Asia region is characterized by a large number of small groups as opposed to a few large cartels. According to the Anti-Drug Smuggling Department of the Ministry of Interior, organized groups make use of ethnic connections through diaspora communities. Accordingly, ethnic Afghans and Chinese living in Tajikistan form their own mafia-like networks, as they are often recruited as acquaintances of family members.

Heroin trafficking is often organized through couriers; however, opiates do not usually leave the hands of the traffickers, who prefer to control the drugs all the way from Afghanistan to the Russian Federation. Indeed, an estimated 80 per cent of opiate trafficking is controlled by organized groups using established channels.⁵³ Most groups only export to one country and generally specialize in trafficking opiates to the Russian Federation.

Tajikistan

In 2009, there were 20 known drug trafficking groups operating in Tajikistan.⁵⁴ Drug trafficking is mainly conducted by small groups of 3-15 persons along the Afghan borders; these groups might hold opiate stockpiles just inside the Tajikistan border according to the DCA. Many of the villages along both the Tajik and Afghan sides of the

border – especially near Kalai Khumb and Moskovskiy – are closely interconnected through familial relations. Moreover, Tajiks and Afghans speak a variant of the same language, facilitating the flow of heroin supply from Afghanistan to Tajikistan.

The Tajik DCA believes that each of these groups has one leader, a clearly defined hierarchy and a strong disciplinary system in place. These groups are believed to be closely affiliated with the persons involved in the transportation, packaging, repackaging, storing, selling to other traffickers and street retailing, as well as working with traffickers exporting to various areas including Central Asia, the Russian Federation and other Commonwealth of Independent States (CIS) countries. However, opium and heroin are believed to be trafficked by different individuals and groups. Given the limited number of Afghan citizens arrested, Afghan drug traffickers are likely selling heroin to Tajik organized crime groups in the border area.

Kyrgyzstan

In 2008, 8-12 large organized crime groups were identified in Kyrgyzstan, according to the Ministry of Interior. These groups were located in Chuy Oblast, Osh city (south of Kyrgyzstan, close to the border with Uzbekistan), in the Osh region and in the Djalalabad region (both south of Kyrgyzstan). While in the 1990s drug traffickers were mostly individuals or associations of 2-3 people acting together, opiate trafficking is now almost exclusively controlled by organized groups.⁵⁵ Indeed, according to the DCA, criminal groups are well organized and well connected, hindering the ability of law enforcement agencies to investigate and prosecute members.

Competition between groups is not tolerated and police are engaged in stopping these groups from fighting. Conspiracy and secrecy are paramount and the groups are based on a hierarchical system, which may include 'cell structures' at the lower levels. These groups use mules to carry drugs, often recruiting the unemployed youth or mothers with several children. Ethnicity is an important feature for group inclusion, as are relational ties, such as being from the same area – in particular Chui Oblast. Some groups are particularly hard to infiltrate on account of their strong family-based structure. This is the case for ethnic Dungans,⁵⁶ a minority ethnic group with strong linguistic and cultural affinity with China. Kyrgyz networks also include other minority groups such as ethnic Chechens and Uyghurs.⁵⁷ Although groups are highly distrustful of outsiders, various ethnical groups will work closely together by reselling and handing over drugs to one another or by forming a single group. In 2009 for example, officers of the DCA of Kyr-

⁵² Information provided by the Drug Control Agency of Tajikistan.

⁵³ Interview with Tajik DCA, 2008.

⁵⁴ Interview with the head of the Tajik DCA, Dushanbe, Tajikistan, November 2009. This figure only includes groups known to the DCA. Each law enforcement agency maintains its own files on organized groups.

⁵⁵ Information provided by the Kyrgyz DCA, 2008.

⁵⁶ Interview with CARICC analysts, Almaty, April 2010.

⁵⁷ Saltanat Berdikeeva, Kyrgyzstan's world of organised crime, Jane's Intelligence Digest, March 23, 2007.

gyzstan dismantled one such group organizing opiate smuggling from Afghanistan via Kyrgyzstan to Russia and Western Europe. The criminal group consisted of Kyrgyz, Chechen and Tajik nationals.⁵⁸

According to Interpol, drug trafficking operations in Kyrgyzstan are carried out primarily by Kyrgyz citizens of various ethnic groups (mainly Uzbek, Tajik and Russian), although more than 80 per cent of the drugs transiting the Osh region are trafficked through connections within the same ethnic groups. Most Kyrgyz citizens arrested abroad on drug trafficking charges were apprehended in Kazakhstan and the Russian Federation and were primarily from the poorer areas in the southern part of the country.

Uzbekistan

According to the ARQ provided by Uzbekistan, Uzbek nationals dominate heroin trafficking in Uzbekistan, followed by Tajik citizens. Interestingly, the number of Afghans arrested on heroin charges was very small. These statistics indicate that Afghans do not travel into Uzbekistan, but rather sell the heroin to Uzbek criminal groups at the border; moreover, this indicates that a considerable amount of heroin is trafficked from Tajikistan to Uzbekistan.

Turkmenistan

Predictably, very little information - official or otherwise - exists on organized crime groups in Turkmenistan. Available data indicates that heroin is mainly trafficked from Afghanistan to Turkmenistan for local abuse. Opiates are usually smuggled in quantities between 5 and 20 kg mostly by foot across illegal border crossing points with Afghanistan, Uzbekistan and the Islamic Republic of Iran. Small Turkmen networks with organizational links to both Afghanistan and the Islamic Republic of Iran handle the bulk of the traffic through the country,⁵⁹ but few citizens of Turkmenistan are ever arrested on opiate trafficking charges outside Turkmenistan. The Turkmen route is facilitated by the presence of approximately one million ethnic Turkmens in the Hirat, Badghis and Faryab provinces of Afghanistan, and an equal number in the Islamic Republic of Iran, mainly in the Mazanderan and Khorassan provinces, close to the Turkmen border. While the green border is of concern, Turkmenistan also has a blue border and Afghan analysts have reported extensive smuggling along the Amu Darya River.

Kazakhstan

Although almost all heroin destined for the Russian Federation transits Kazakhstan, drug trafficking groups operating in the country are largely from other parts of the region or international. Law enforcement officials often mention

Caucasian ethnicities⁶⁰ such as Chechens as active in heroin trafficking through Kazakhstan.⁶¹ West Africans, particularly ethnic Nigerians are also frequently reported including in organized trafficking of Afghan heroin to China from Kazakhstan. Nigerians can also act as simple couriers, as demonstrated by the attempt of a Nigerian group to have one of their own smuggling heroin across the Kazakhstan border with China.⁶²

Value

In 2009, criminal groups that purchased the heroin at the Afghan borders (mainly Tajik and Russians and to a lesser extent Kyrgyz and Uzbeks) and transported it to the Russian Federation for onward wholesale made a potential net profit of US\$19,000 per kg. In 2009, the trafficking of 75-80 tons of heroin to the Russian Federation would have earned these groups some \$1.4 billion. In addition to heroin, Central Asian drug traffickers smuggled opium into the Russian Federation. Opium trafficked from the Afghan border to the Russian Federation made a profit of approximately \$12,750 per kg.

With a net profit of US\$1.4 billion only from heroin trade, drug traffickers earned almost 31 per cent of the GDP of Tajikistan (\$4.58 billion⁶³), 33 per cent of the GDP of Kyrgyzstan, 5 per cent of that of Uzbekistan (\$28 billion), and 1 per cent in the case of Kazakhstan. The economies of Kyrgyzstan and Tajikistan appear to be the most vulnerable in Central Asia.

In addition to these wholesale drug traffickers, small groups sell heroin at the street level in Central Asia. The region's estimated 290,000 heroin consumers paid some \$1.4 billion to these dealers and an additional \$160-170 million was paid for an estimated 37 tons of opium. Such high amounts of illicit income can create economic instability and fuel high levels of corruption.

Opiate demand and social issues in Central Asia

As part of the main opiate trafficking route from Afghanistan to the Russian Federation, Central Asian heroin abuse has significantly increased over the last decade. In Uzbekistan there are an estimated 120,000 heroin users, 85,000 in Kazakhstan, 31,000 in Turkmenistan, 26,000 in Kyrgyzstan and 20,000 in Tajikistan. Combined, these users are estimated to consume 11-12 tons of pure heroin annually. In addition, an estimated 62,500 opium abusers in Central Asia abused 36 tons of opium in 2009; the highest volume was in Kazakhstan (18 tons).

⁵⁸ UNODC, *An assessment of transnational organized crime in Central Asia*, New York, 2007, p. 32.

⁶¹ Interview with CARICC analysts, Almaty, November 2009; CARICC Information Bulletin No 14, March 3, 2008.

⁶² CARICC Information Bulletin No 45, May 2009.

⁶³ <http://www.state.gov/r/pa/ei/bgn/5775.htm>.

⁵⁸ CARICC Information Bulletin No 58, October 2009.

⁵⁹ Interview DCA Turkmenistan, October 22 2009.

In 2009, an estimated 44 per cent of Uzbekistan's drug users were injecting heroin abusers. In Kazakhstan, drug abuse is becoming an increasing public health threat, with an estimated 50,000 injecting drug abusers and 1,244 drug-related deaths in 2009.⁶⁴ The number of new HIV cases registered in the Central Asian countries has risen sharply, from 514 in 2000 to 7,200 in 2009.⁶⁵ Among the HIV-positive population in those countries, around 55 per cent are injecting drug abusers.

Aside from drug abuse problems, the prominence of organized crime – both financially and politically – in Central Asia is becoming an increasing problem.

According to the DCA of Tajikistan, drug trafficking groups may also be involved in other criminal activities, most commonly money-laundering, but also arms smuggling or terrorism. Investment in property is the easiest way to launder money, although traffickers also invest in the licit economy, especially in industries that facilitate their operations, such as transportation. Moreover, Tajikistan's Anti-Drug Smuggling Department noted that over the past few years these organized groups have become more sophisticated and technically equipped, making increasing use of pressuring techniques, such as hostage-taking. In addition, traffickers use informants in law enforcement and border services to avoid detection. These groups have very good means of communication and transportation; they use modified cars and may even attempt to use shipping companies for their operations. These groups are also believed to be well-armed, especially those crossing the border. Several instances of shootings at the borders have been recorded, particularly aimed at border guards.

Kyrgyzstan in particular is facing serious domestic problem. Domestic political instability in Kyrgyzstan is likely being exploited by traffickers and perhaps even extremist groups. The leadership of the Islamic Movement of Uzbekistan (IMU) may still be based in the border areas of Pakistan, but the number of operatives in Tajikistan and Kyrgyzstan seems to be increasing. This is undoubtedly partly linked to violence in the Kunduz province of Afghanistan (bordering Tajikistan) in late 2009. IMU operatives from Chechnya, Uzbekistan and Tajikistan were using the town of Ghowr-Teppa⁶⁶ as a short-term sanctuary to infiltrate into southern Tajikistan. The instability in northern Afghanistan is also beneficial to drug trafficking, as law enforcement on both sides of the border focus their attention on fighting insurgents. This is a cause for concern, given evidence that military operations in the south may be shifting trafficking patterns northward. This is likely to put an additional burden on law the enforcement authorities of Central Asia in their efforts to prevent the trafficking of Afghan opiates to and through their countries.

As in neighbouring Tajikistan, drugs in Kyrgyzstan are inseparably entangled with corruption and insecurity. Currently, the efforts by Kyrgyzstan to fight the trafficking in Afghan opiates are constrained by major political and ethnic instability and the threat of violent extremism, which has monopolized the attention of law enforcement agencies. An example of this is the anti-Uzbek riots that engulfed the restive Osh region, bordering the Fergana valley. This instability also serves to delegitimize the state and makes it more vulnerable to penetration by criminal elements. Kyrgyz law enforcement agencies are also noting some disturbing convergences between terrorist groups and the drug trade.⁶⁷

In fact, rather than trying to work against the State, members of criminal groups try to enter the State structure via legitimate means to gain power and leverage. State power allows persons involved in criminal activities to protect themselves and their associates while also extending their influence and eliminating competitors. As an example, during the 1995-2005 period, known drug barons occupied seats in Parliament, making them immune to prosecution.

Onward trafficking routes

In 2009, an estimated 75-80 tons of heroin was trafficked through Central Asia to the Russian Federation. Based on seizure data, almost 89 per cent of heroin trafficked to the Russian Federation was transported by land, 7 per cent by train and almost 4 per cent by air.⁶⁸ Extrapolation of these figures suggests that around 69 tons of heroin moved by land transportation (both by vehicles and train) and 3 tons was dispatched by air transportation. Of the 3 tons of heroin trafficked by air, 80 per cent (2.4 tons) was dispatched from Tajikistan, 11 per cent (330 kg) from Uzbekistan and 9 per cent (270 kg) from Kyrgyzstan.⁶⁹

Given that the only land border between the Russian Federation and Central Asia is Kazakhstan, nearly the entire amount of heroin trafficked by land to the Russian Federation passed through it. The recently signed trade agreement between the Russian Federation, Kazakhstan and the Republic of Belarus might unfortunately further facilitate the trafficking of Afghan opiates. According to this agreement, customs between the countries were removed much like in countries of the Schengen Area in Europe. Therefore, once heroin enters Kazakhstan it is very difficult to seize it, unless regional intelligence networks boost their cooperation. Indeed, a 2008 report from the Central Asian Regional Information and Coordination Center (CARIIC) starkly concluded that if drugs reached the territory of Kazakhstan then the probability of safe shipping to the Russian Federation can be around 95 per cent.⁷⁰ Although historically heroin trafficking via the Kazakhstan-Russian

64 ARQ Kazakhstan, 2009.

65 Compendium of Statistics, UNODC Regional office for Central Asia, 2009.

66 Afghanistan: kunduz may become launching pad for international attacks, Eurasianet, January 25, 2010.

67 CARIIC Information Bulletin No 47, June 2009.

68 ARQ, Russian Federation, 2009.

69 ARQ, Russian Federation, 2009.

70 CARIIC Information Bulletin No 14, March 3, 2008.

Federation-Eastern Europe route to Western and Central Europe was limited due to high transportation costs, the signing of the trade agreement is likely to make this route more viable.

Interestingly, virtually no heroin trafficking was reported from Turkmenistan to Kazakhstan, and very limited heroin trafficking was recorded from Turkmenistan to Azerbaijan in 2009. According to the Tajik DCA, there is also low-level heroin trafficking from Tajikistan to China across land borders – although there have been limited seizures made along these borders in the last decade.

Law enforcement and seizures

In 2009, just 3.4 tons of heroin was seized in all of Central Asia – less than 4 per cent of the 90 tons that entered the region. Law enforcement efforts are exacerbated in Central Asia due to the mountainous terrain, lack of road infrastructure and inhospitable climate. Tajikistan made the

majority of regional seizures over the last decade. Interestingly, between 1999 and 2004, Tajikistan's seizures increased from 700 kg to 5,600 kg; however they have since decreased to just 1,132 kg in 2009.

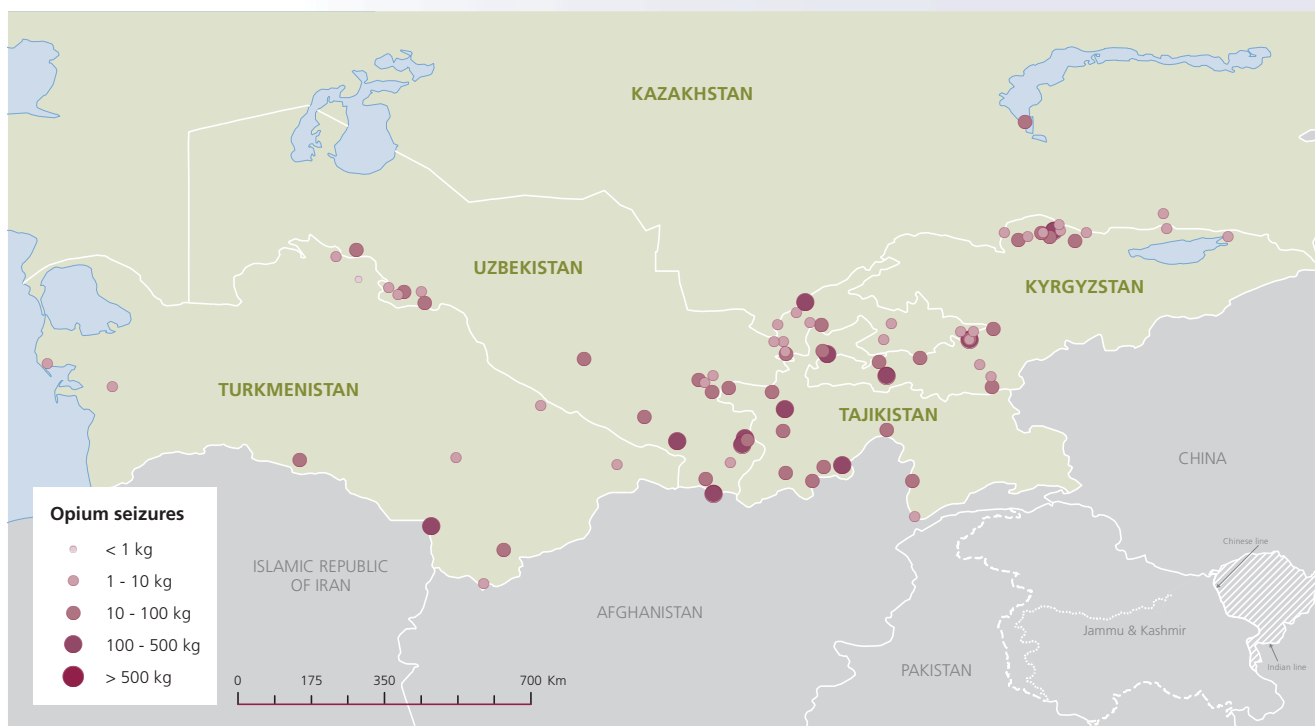
Kyrgyzstan in particular faces an extremely difficult climate. Border stations located on mountain passes on the Chinese and Tajik borders are covered in snow and remain unused for up to four months each year. Government outposts and interdiction forces rarely have electricity, running water or modern amenities to support their counter-narcotics efforts. These isolated passes are some of the most heavily used routes for opiate trafficking. The Government estimates that smugglers use over 100 different paths to move opiates and contraband across the border.⁷¹ Green border areas are even more vulnerable and likely witness a higher volume of illegal crossings during the summer, especially involving carriers travelling by horse or on foot to avoid checkpoints. The Kyrgyzstan Border Services expect help from citizens;

Table 10: Heroin seizures in Central Asia (kg), 1999-2009

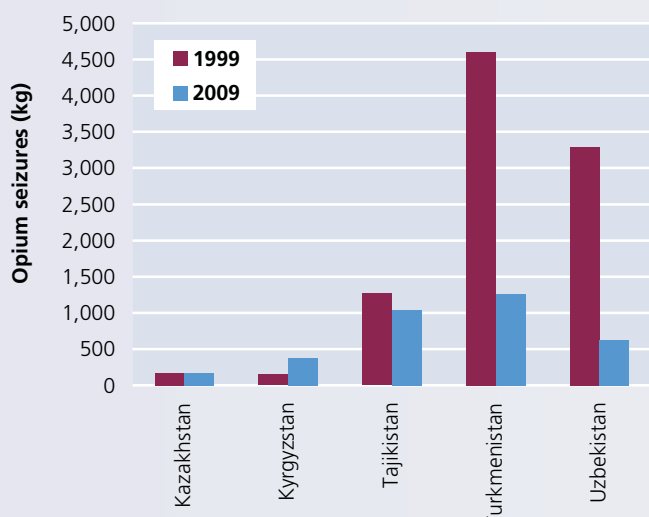
Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Tajikistan	709	1,883	4,239	3,958	5,600	4,794	2,345	2,097	1,550	1,636	1,132.7
Uzbekistan	325	675	467	256	336	592	467	537	480	1,472	754.7
Kazakhstan	54	262	137	168	707	458	626	555	522	1,639	731.6
Turkmenistan	240	200	131	54	76	258	173	201	326	245	419.7
Kyrgyzstan	27	217	171	271	105	207	260	261	431	299	341.2
Total	1,355	3,237	5,144	4,707	6,825	6,309	3,870	3,651	3,309	5,291	3,380

Source: UNODC.

Map 22: Opium seizures in Central Asia, 2002-2009



Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. 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.

Fig. 11: Opium seizures in Central Asia, 1999-2009

Source: UNODC.

as a result, locals form volunteer teams largely comprised of nomads and provide information to law enforcement agencies. Compounding matters, in 2009, the Kyrgyz DCA was closed, a decision that will almost certainly have a negative impact on the fight against drug trafficking in Kyrgyzstan.

Border control in Central Asia is further complicated by ongoing disputes on the demarcation of regional borders. Kyrgyzstan has unresolved border disputes with Tajikistan (in the Isfara Valley to the south-west) and with Uzbekistan (on the status of Uzbek enclaves in Kyrgyzstan and elsewhere along the common border). Furthermore, Kyrgyzstan has yet to ratify the 2001 border delimitation with Kazakhstan. Due to the ongoing negotiation process with neighbouring states, as much as 30 per cent of the border line in Kyrgyzstan has not been delimited and remains almost uncontrolled.⁷²

Opium seizures have generally decreased across Central Asia over the last decade. As the map above depicts, certain border areas between countries are preferred – likely due to accessibility, however, successful seizures will encourage traffickers to alter their routes. Some limited opium seizures were made around the Caspian Sea, which might indicate that opium is trafficked from Turkmenistan to its Caspian neighbour Azerbaijan and the Russian Federation.

Although the number of opium seizures made in the last decade has decreased by 63 per cent across Central Asian countries, there is no indication of a decrease in demand for opium; rather an increase has been observed. A major decrease in the amount of opium seizures was observed in Turkmenistan and Uzbekistan and, to a lesser extent, Tajikistan.

The flow of Afghan opiates to Eastern Europe

In 2009, an estimated 75-80 tons of heroin was trafficked into the Russian Federation, some of which travelled onward as part of the 2-3 tons that entered Eastern Europe. The route through Central Asia, the Russian Federation and into Eastern Europe is known as the 'Northern Route'.

Opiate supply

The majority of the 75-80 tons of heroin trafficked to the Russian Federation came from Central Asia, and to a lesser extent Azerbaijan.⁷³ Eastern Europe received an estimated 2-3 tons of heroin, the majority onward from the Russian Federation, as well as from Turkey and the Caucasus.

Indeed, the 2000-2009 seizure data from the World Customs Organization shows that nearly 97 per cent of the heroin seized in the Russian Federation was trafficked from Central Asia. The remainder, approximately 2 tons, was estimated to have been trafficked from Azerbaijan. Almost 90 per cent of heroin trafficked to the Russian Federation appears to enter in private and commercial vehicles from Central Asian highways. The remainder is trafficked via air and rail; see Afghan Opiate Flows to Central Asia.

Opium flows to the Russian Federation

In 2009, it is unclear how much raw opium was trafficked to the Russian Federation, as it is difficult to estimate the number of opium abusers in the country. Most of the country's opium is shipped from Afghanistan through Central Asia. Opium is usually mixed with acetic anhydride to produce a local injectable drug called *cherniashka*. In order to find the estimated amount of raw opium flows to Russian Federation, it is essential to find the number of *cherniashka* users and identify average consumption per capita.

In 2009, an estimated 2-3 tons of heroin was trafficked into Eastern Europe. Between 1-2 tons was estimated to have come from the Russian Federation, with less than one ton each coming from Turkey and the Caucasus. Ukraine and Belarus appear to be important heroin consumption markets in Eastern Europe. Although data for 2009 is insufficient to accurately estimate routes and volumes trafficked into Ukraine, between 2000 and 2008 heroin was mainly trafficked to Ukraine via the Black Sea route (Iran-Azerbaijan-Georgia) from the Russian Federation and Turkey. In 2009, it is estimated these three routes were used to traffic between 1-2 tons of heroin to Ukraine.

Value and beneficiaries

In 2009, Russian heroin users consumed 70 tons of pure heroin, with these Russian criminal networks making an estimated US\$18 billion. Based on drug related arrests, the Russian drug market is dominated by Russian citizens, fol-

⁷² Organized crime threat assessment survey, 2007. Interviews with DCA officials Kyrgyzstan, 2007

⁷³ According to the ARQ provided by the Russian Federation.

Map 23: Heroin flows to the Russian Federation and Eastern Europe, 2009

Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. 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.

lowed by Tajiks as the most active foreign nationals. It is possible that Tajik and Russian criminal groups organize heroin trafficking all the way from Afghanistan to the Russian Federation. At the street-level in the Russian Federation, heroin purity is about 5 per cent and sells for an average of \$24 per gram.⁷⁴

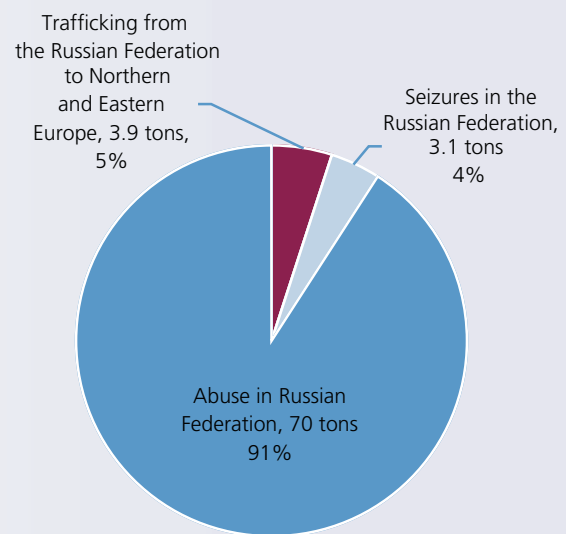
Drug trafficking in Eastern Europe is most likely conducted by indigenous groups, however UNODC does not have a clear picture criminal activity in this region. Further research is required to determine the exact beneficiaries and value of opiate trafficking in Eastern Europe.

Opiate demand and social issues in Eastern Europe

In 2009, an estimated 1.6 million heroin users in the Russian Federation and Eastern Europe consumed 73 tons of pure heroin – 70 tons and 3 tons respectively – making up almost half of total European consumption. Within Eastern Europe, Ukraine consumed 1.5 tons, Belarus almost 1 ton, and the Republic of Moldova less than 100 kg. European opium abuse is also confined mostly to Eastern Europe, particularly the Russian Federation and Ukraine.

The 2008 *World Drug Report* estimates that there are 17,000 opiate users in Georgia. This contradicts the Health Department of Georgia estimate that there are 200,000 drug abusers nationwide, of which 70,000 are heroin abusers. As heroin trafficking has reportedly increased through the Caucasus, Georgia would benefit from an updated drug addiction survey to understand current consumption levels.

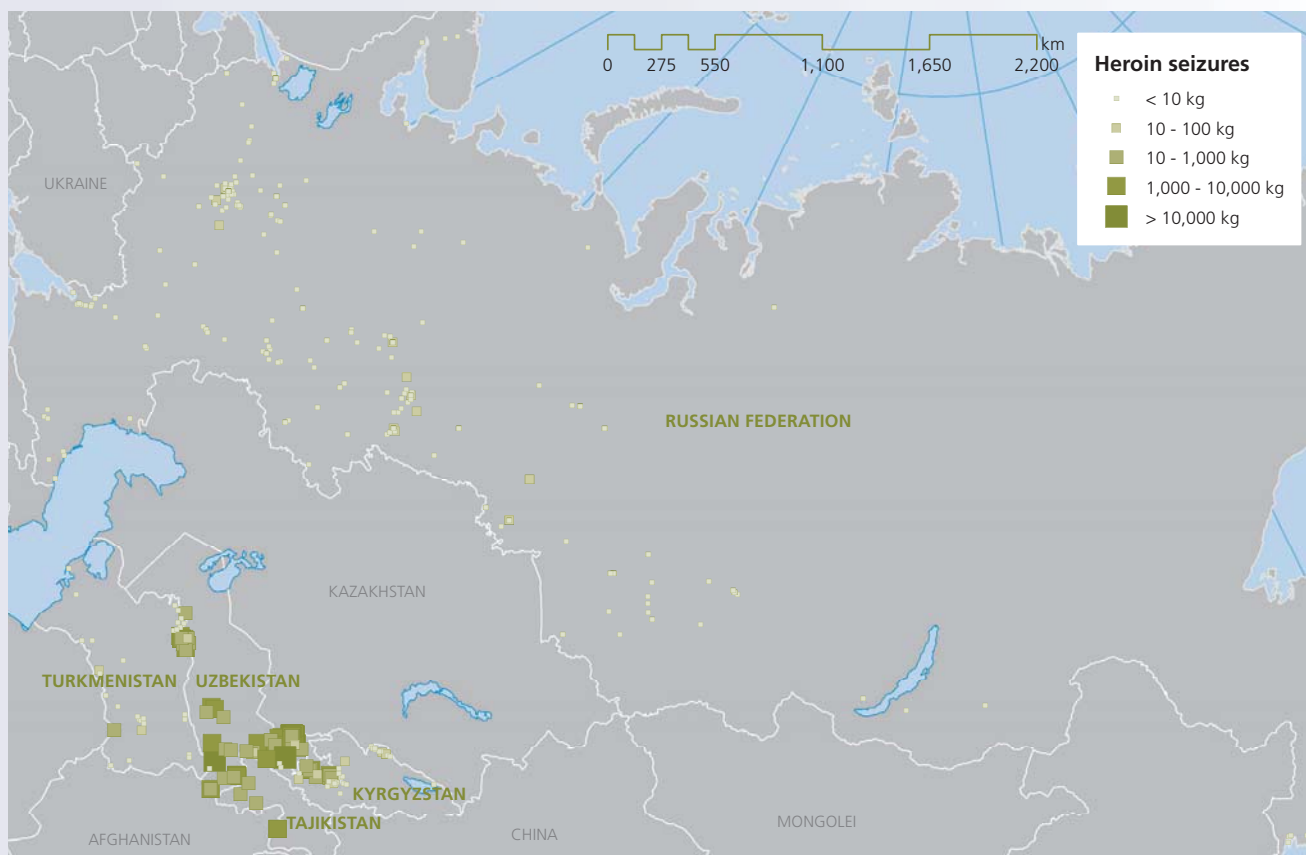
74 ARQ, Russian Federation, 2009.

Fig. 12: Heroin consumption and outward flows from the Russian Federation, 2009

Source: UNODC.

Russian Federation

According to the 2011 *World Drug Report*, the opiate prevalence rate for the adult population in the Russian Federation was 1.64 per cent. This translates to a total of 1.7 million opiate abusers in the country. The vast majority are estimated to be heroin users. Indeed, the Annual Report Questionnaire provided by the Russian Federation in 2009 showed that opiate prevalence is rather high (0.9 per cent) in Arkhangelsk, Ivanov and Samara regions.

Map 24: Heroin seizures in the Russian Federation and Central Asia between 2000-2009

Source: UNODC, Annual Report Questionnaire (ARQ) database. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

In 2009, UNODC estimated that these 1.7 million opiate abusers consumed 70 tons of pure heroin.⁷⁵ Although annual pure heroin consumption per user is 55-60 grams in Western and Central European countries, it is estimated to be 45-50 grams in the Russian Federation. However, in order to gain a better understanding of the level of heroin consumption in the Russian Federation, more in-depth research is required.

In 2009, treatment was administered to 358,120 drug abusers in the Russian Federation, almost all of who were opiate abusers. A further 7,464 drug-related deaths were reported in the same year. According to the 2009 AIDS Epidemic Update report, an estimated 37 per cent of injecting drug abusers in the Russian Federation are HIV-positive. A survey of street youth (aged 15-19) in St. Petersburg found that 37.4 per cent of those surveyed were HIV-positive; positive HIV status was found to be closely linked to drug abuse by injection and the sharing of needles⁷⁶.

In the Russian Federation, heroin purity levels are around 5-10 per cent at street level. However, it remains unclear whether heroin is diluted at the manufacturing level (in Afghanistan), in Central Asian countries en route to the Russian Federation, or once it reaches that destination.

⁷⁵ UNODC Russian Federation office and National Research Centre on Drug Addiction (NRC, Russian Federation) study in 2009.

⁷⁶ UNAIDS, AIDS epidemic update, 2009.

Unfortunately, no heroin purity information (on the heroin either seized or consumed) could be obtained from Afghanistan or Central Asia, which greatly limits the scope of this analysis.

Opium

European opium abuse is confined mostly to Eastern Europe, particularly the Russian Federation and Ukraine. Unlike drug users in Central Asia or Afghanistan, those in Eastern Europe do not smoke opium, but rather mix opium and acetic anhydride to make a local concoction called *kompot* or *cherniashka*, which is usually then injected. Although not proven, the majority of opium abusers in Ukraine and the Russian Federation most likely abuse *kompot* and/or *cherniashka*.

The opium used to produce poppy straw concoctions is most likely produced locally, as poppy straw seizures reported along drug trafficking routes to Ukraine are negligible; furthermore, it is difficult to traffic poppy straw due to its distinct odour that can be easily detected by drug and border control officials. As for the Russian Federation, the opium volumes required to produce *cherniashka* are most likely trafficked from Afghanistan. A detailed study is needed to understand the level of *kompot* (*cherniashka*) abuse and the extent of illegal opium poppy cultivation in Eastern European countries.

Given the high levels of heroin and kompot abuse in Ukraine, it is not surprising that the country is experiencing a severe and growing national HIV/AIDS epidemic. With adult HIV prevalence higher than 1.6 per cent, the country has the highest infection level reported in Europe.⁷⁷ Between 38.5 and 50.3 per cent of injecting drug abusers in Ukraine are believed to be living with HIV.

Onward trafficking routes

In 2009, an estimated some 4 tons of heroin was trafficked from the Russian Federation. As discussed above, 1-2 tons entered into Eastern Europe. The remaining 2-3 tons was trafficked directly from the Russian Federation to Northern Europe.

Law enforcement and seizures

In 2009, 3 tons of heroin was seized in Eastern Europe, opium seizures also occurred, however these were small compared to global seizure levels. Seizures in the Russian Federation accounted for the majority of Eastern Europe's seizures.

The majority of heroin seizures in the Russian Federation are made along – or in the vicinity of – the border with Kazakhstan. This is not surprising given that the majority of heroin trafficked to the Russian Federation comes through Central Asia. Traffickers make use of nearly the entire length of Kazakhstan-Russian Federation border (6,846 km). This indicates that there is no fixed route for the traffickers, who choose the least risky route at the time of trafficking.

Between 2000 and 2009, around 2 per cent of heroin seized in the Russian Federation was intercepted at the border between Azerbaijan and the Russian Federation. While heroin seizures were made around the Caspian Sea (see map) in the Russian Federation, it is unclear whether these were linked to seaborne trafficking. No heroin seizures were reported from any Caspian seaports in 2009. Interestingly, in 2009 Russian customs also seized 95 kg coming from Ukraine. This might indicate that traffickers also use the Black Sea-Ukraine-Russian Federation route as the Georgia-Russian Federation border was closed due to the conflict situation.

Opium seizures are also recorded in the Russian Federation, although the level of seizures has decreased sharply in recent years.

The flow of Afghan opiates to Northern Europe

In 2009, an estimated 3 tons of pure heroin was trafficked to Northern Europe, purely for domestic consumption – there is no evidence of onward trafficking. Of this amount, just 126 kg was seized.

Opiate supply

Almost 75 per cent of heroin reaching Northern Europe is estimated to be trafficked from the Russian Federation – 2-3 tons – through Latvia, Lithuania, Finland and Estonia.

The remaining limited amounts of heroin come from the Balkan route, an estimated 800kg. Indeed, in 2009 reports indicated that the Balkan route was used to traffic heroin to Norway and Sweden⁷⁸. The country report for Norway issued by the European Monitoring Centre for Drugs and Drug Addiction (EMCCDA) indicated that heroin trafficking via the Balkan route is still a key threat for Norway.

Value and beneficiaries

In 2009, heroin users in Northern Europe paid around US\$1.7 billion to heroin distributors.

According to the 2008 Europol Organized Crime Threat Assessment, Nigerian organizations purchased large quantities of heroin from Turkish ringleaders and arranged for the

Map 25: Heroin flows to Northern Europe, 2009



Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

77 UNAIDS, AIDS epidemic update 2009, Kruglov et al., 2008.

78 According to the EMCCDA country report for Norway.

heroin to be transported from Turkey to other European countries, including Nordic countries. These groups have arrangements with Nigerian networks established across Europe and in the Nordic countries, creating an effective system for the distribution of heroin. Transport is often carried out using female couriers.

However, in Norway, the heroin trade appears to be organized by ethnic Turkish groups living in Norway.⁷⁹ In Finland, Finnish citizens dominated drug trafficking activities,⁸⁰ although Estonians, Nigerians and Russians were also active. Further south, according to the ARQ provided by Estonia, most drug traffickers arrested were Estonian citizens, followed closely by Russian citizens.

Opiate demand and social issues in Northern Europe

In 2009, an estimated 60,000 heroin users in Northern Europe consumed 3 tons of pure heroin. Northern European countries,⁸¹ each with 10,000-15,000 heroin abusers, have an annual heroin consumption of between 500-800 kg. Indeed, heroin abuse is not widespread in Northern Europe and the region has traditionally been characterized by limited organized criminal activity. There is little data indicating onward trafficking from Northern Europe.

Law enforcement and seizures

In 2009, although 3 tons of heroin was trafficked into Northern Europe, just 126 kg of heroin was seized in the entire region.

The flow of Afghan opiates to South-East Europe

In 2009, 80-85 tons of heroin was trafficked to South-Eastern Europe. As heroin consumption in the region was just 5 tons, the vast majority of this heroin was then trafficked onward. Indeed, heroin trafficking through South-Eastern Europe – a route known as the ‘Balkan Route’ is still considered to be the most important supply route to Western and Central Europe. In 2009, an estimated 65 tons of heroin reached the Balkans, and some 60 tons was trafficked onwards from South-Eastern Europe.

Opiate supply

The Balkan route originates in Afghanistan, passes through the Islamic Republic of Iran, then Turkey and reaches the Balkans via Bulgaria, with a smaller flow through Greece.

In 2009, an estimated 80-85 tons of heroin was trafficked into Turkey via its border with the Islamic Republic of Iran at both official border crossings and green borders. Interestingly, a 20% decrease in heroin trafficking from the Islamic Republic of Iran to Turkey was observed in 2009 compared

to previous years. This might be due to the increase in law enforcement in both Turkey and Islamic Republic of Iran; traffickers may now prefer air cargo and maritime transportation.

Almost no heroin seizures were reported at Turkey’s borders with Iraq, the Syrian Arab Republic or Georgia, although this does not necessarily indicate an absence of heroin trafficking activity. Ongoing military operations along the borders between Iraq and Turkey are most likely the reason that traffickers currently use the Islamic Republic of Iranian border. Although visas are not required to travel from Turkey to Georgia, encouraging high vehicle traffic, heroin seizures along the border are very limited; Georgian customs officials argue that most drug consignments are small, consisting mainly of Georgian heroin users bringing heroin from Turkey for personal abuse.

Once heroin enters Turkey, most of it is trafficked to Istanbul and then onwards to the borders with Bulgaria and Greece. Trade across these borders is high, with an average of 2,500-3,500 vehicle crossings per day at the Bulgarian border and 500 at the Greek border. In addition, most of these vehicles carry food items that must be transported quickly, making it virtually impossible to scan every vehicle. Moreover, the scanning capacity of Bulgarian customs is limited,⁸² taking more than 10 hours to scan one truck or container.⁸³

Traffickers are able to take advantage of the lack of visa requirements between Balkan countries. For example, while Turkish citizens require a visa in most of the Balkan countries (except the former Yugoslav Republic of Macedonia, Kosovo⁸⁴, Albania and Bosnia), Bulgarian citizens do not need a visa for Serbia or for countries of the Schengen Area. Therefore, traffickers can import heroin to Bulgaria, unload it onto a different vehicle and carry it onwards to Serbia or Romania. In 2009, at least 25 per cent of the heroin seized at Bulgarian customs was concealed in Turkish imports. Kosovo appears to act as a storage site for heroin smuggled from the former Yugoslav Republic of Macedonia or Albania.⁸⁵ Heroin is often stretched and cut with adulterants and then re-packaged and sent westward through Serbia or Montenegro.

Value and beneficiaries

In 2009, the domestic heroin market in South-Eastern Europe was worth about \$500 million, most of which went to local criminal groups. However, this figure is very small compared to the heroin trade transiting the region. One kg

⁷⁹ EMCCDA country report for Norway, 2009.

⁸⁰ ARQ Finland, 2009.

⁸¹ Estonia, Finland, Latvia, Norway and Sweden – excluding Lithuania.

⁸² Interview with customs officials in Bulgaria.

⁸³ Interview with customs officials at Bulgarian borders.

⁸⁴ All references to Kosovo in this report should be understood to be in the context of United Nations Security Council resolution 1244 (1999).

⁸⁵ Kosovo shares borders with the former Yugoslav Republic of Macedonia, Albania, Montenegro and Serbia. The border with Serbia is known as the Administrative Boundary Line by the UN, OSCE, EU and nations that do not recognize Kosovo’s independence.

of heroin at the border between Turkey and the Islamic Republic of Iran is worth US\$9,000, yet in the Balkans the price increases to \$25,000 per kg. Given that 65 tons of heroin was transported along this route in 2009, Turkish and Kurdish drug trafficking groups could have made upwards of \$1 billion net profit and Balkan based organized crime groups were likely to have made some \$2 billion.

However, it should be noted that above mentioned groups also partially organize drug trafficking operations to the Netherlands, translating into potentially much higher profits, as the wholesale price of high-purity heroin is around \$45,000 in Germany and the Netherlands. Indeed, ethnic Turkish groups organize the wholesale of heroin to groups in Germany and the Netherlands, but are not involved in street level selling; this explains why in Western and Central Europe the number of Turks on heroin trafficking charges is always smaller than the number of locals.

Clan and familial networks facilitate heroin trafficking through Turkey. Indeed, heroin seizure patterns from the year 2000 onwards show that the majority of heroin is smuggled through Kurdish populated areas in south-east Turkey to seaports in southern Turkey (for example, Mersin and Antalya) and Istanbul through Central Anatolia. Although no heroin seizures were reported from Turkish seaports in 2009, this is not conclusive particularly given that the Turkish Narcotics Police made seizures in towns close to the seaports. Of the 16 tons of heroin seized in Turkey, 35 per cent (5.6 tons) was seized in south-east and eastern cities, 2.7 per cent in Central Anatolia, almost 10 per cent (1.6 tons) in southern Turkey and 48 per cent (7.7 tons) in Istanbul.⁸⁶ In order to reach Bulgaria or Greece, traffickers must transport heroin from eastern and south-eastern Turkey to these borders via Central Anatolia, yet seizures in Central Anatolia were much lower than at entry and exit points. It is possible that Turkish police track shipments until they reach their final destination, in order to seize the key traffickers rather than the carriers; it is also possible that traffickers use different routes from south-east or east Turkey to Istanbul.

According to the Turkish Trafficking and Organized Crime Police, the PKK is involved in heroin trafficking from the Turkey-Islamic Republic of Iran border to Western and Central Europe, either directly or indirectly by taxing traffickers. The Turkish Addiction Monitoring Centre has also confirmed that most drug trafficking routes overlap with areas where PKK has intensified its activities in Turkey.⁸⁷ The PKK is also reported to collect taxes per kilogram of heroin trafficked to Turkey from the Islamic Republic of Iran and Iraq borders,⁸⁸ with potential profits reaching

US\$200 million annually. More direct involvement in heroin trafficking operations has been reported, such as a 2007 case involving 4 tons of seized heroin that were directly linked to PKK elements. Both Turkish organized crime groups and the PKK benefited from the \$1 billion heroin trade profit in 2009.

Although heroin trafficking from Turkey is mainly organized by Turks, the number of foreigners arrested in 2008 and 2009 exceeded the number of Turks apprehended; 311 Turkish citizens were arrested in 2009, compared to 409 foreign citizens.⁸⁹ Interestingly, the average amount of heroin seized from citizens of Albania, Bulgaria, the former Yugoslav Republic of Macedonia and the Islamic Republic of Iran was more than 10 kg per case, while it was only 10 grams or less in the case of other nationals. Indeed, in 2009, 25 Georgian citizens were arrested with a total of 100 grams of heroin, while in the same year 19 Albanian citizens were arrested with 1,000 kg of heroin smuggled during eight operations. Seizure amounts are similar in operations involving citizens of Bulgaria and the former Yugoslav Republic of Macedonia. These seizure volumes suggest that ethnic Albanians and Bulgarian organized crime groups have started collaborating with Turkish drug trafficking networks, especially in Istanbul.

Heroin is shipped to the Balkans mainly via Bulgaria and to a lesser extent Greece. As mentioned previously, at least 25 per cent of the heroin seized in Bulgaria was concealed in Turkish imports. This indicates that heroin is first smuggled into Bulgaria as imported goods and then trafficked onwards. Moreover, heroin is commonly altered in the Balkans, as most of the heroin trafficked from Turkey is of high purity (55-65 per cent); this indicates the involvement of local organized crime groups. Heroin is also reportedly stocked by drug trafficking networks in Bosnia and Herzegovina,⁹⁰ especially around Sarajevo,⁹¹ which is situated along the heroin trafficking route to Italy and Germany (via Croatia-Slovenia-Austria).

Ethnic Albanian criminal groups purchase heroin in the Balkans for \$25,000 and reportedly sell it for \$55,000 (wholesale price) in Italy, profiting at least \$500 million from the heroin trade alone. Albanian criminal groups are also well connected with Turkish and Italian criminal groups. Other Balkan-based criminal groups trafficking heroin to Germany or the Netherlands earn at least \$20,000 per kg, making an estimated \$900 million for trafficking 45 tons of pure heroin to Western and Central Europe in 2009. Thus, altogether, Balkan based organized crime groups made some \$2 billion from the heroin trade in 2009.

⁸⁶ KOM, Annual Report 2010, The Department of Anti-Smuggling and Organized Crime, Ankara/Turkey, 2011.

⁸⁷ Turkey's gangs branch out, Jane's Intelligence and Insight, August 2008.

⁸⁸ KOM, Annual Report 2010, The Department of Anti-Smuggling and Organized Crime, Ankara/Turkey, 2011.

⁸⁹ KOM, Annual Report 2010, The Department of Anti-Smuggling and Organized Crime, Ankara/Turkey, 2011.

⁹⁰ Statement by the Head of the Narcotics Division of the Federation of Bosnian Police.

⁹¹ Criminal groups expands across the Balkans, Jane's Intelligence and Insight, December 2009.

In many cases, profit from the heroin trade from the Balkans to Western and Central Europe exceeded the Gross Domestic Product (GDP) of transit countries such as Albania and the former Yugoslav Republic of Macedonia, posing a serious threat to the licit economy. Given the low GDP per capita across most of the Balkan countries, the heroin trade can significantly exacerbate corruption. Kosovo⁹² is especially threatened, due to its location along the main heroin trafficking route from Bulgaria to Italy. Albanian criminal groups use family or clan links in Kosovo to facilitate heroin trafficking to Albania. In most Balkan countries, the limited capacity of customs is a serious problem, with insufficient scanners, sniffer dogs and precursor test kits. In 2009, heroin seizures across all Balkan countries combined were equivalent to only a tenth of the quantity seized in Turkey.

While heroin is smuggled from Turkey to Europe, heroin precursors such as acetic anhydride and synthetic drugs (like ecstasy) are transported in the opposite direction, towards Turkey. Human trafficking and arms trafficking rings are also active throughout the Balkan. Indeed, organized crime is a serious threat to both the economic development and security of the region. However, strong ethnic, familial and clan ties across the region make organized crime networks difficult to target and disband.

Opiate demand and social issues in South East Europe

In 2009, the estimated 150,000 heroin abusers in South-Eastern Europe consumed 5 tons of pure heroin. Bulgaria, Greece, Romania and Turkey, each with 20,000-30,000 heroin abusers, consume 600-800 kg annually.

Onward trafficking routes

In 2009, 65 tons of heroin reached the Balkans. Of this amount 59 tons was trafficked onwards – 14 tons towards Italy and the remaining 45 tons to Western and Central Europe, mainly to the United Kingdom, Netherlands, France and Belgium by:

- iv. Air
- v. Sea
- vi. Road via
 - a. Bulgaria-Serbia or Romania-Slovenia or Hungary-Czech Republic
 - b. Bulgaria-Serbia-Bosnia-Croatia-Slovenia-Austria
 - c. Bulgaria- Romania-Hungary-Austria

Limited heroin trafficking also occurred via air from Turkey directly to Western and Central European countries.

According to drug control experts in Bulgaria, the former Yugoslav Republic of Macedonia and Serbia, most of the heroin trafficked to the Balkans was of high purity on entry

into the region, but was then adulterated, reducing its purity to 20-30 per cent before being trafficked to Western and Central Europe.

Law enforcement and seizures

In 2009, Turkish law enforcement seized 16 tons of heroin and Balkan countries seized a further 2 tons. Almost all seizures in South-Eastern Europe were made at land borders.

In the past decade two critical countries along the Balkan route – Turkey and the Islamic Republic of Iran – both increased their capacity to combat drug trafficking. In 2003, Turkey began to install scanners at its border crossings; by the end of 2008, almost all land border customs in Turkey had scanners. In addition, each land border custom office now has a sniffer dog available for their operations. As a result, the total amount of heroin seized by these two countries has increased from 9.8 tons in 1999 to 39.3 tons in 2009 – a 300 per cent increase. However, the increase in heroin seizures does not necessarily indicate the increased use of the Balkan route on the part of drug traffickers. Turkish and Iranian law enforcement bodies seized a total of 130 tons of heroin between 2006 and 2009, which would have cost the traffickers at least US\$1 billion in lost profits.

The Balkan countries have also increased their law enforcement capacity in recent years. This raises the question as to whether traffickers will continue to use the Balkan route or attempt to find alternative routes so as to minimize their risks and losses. Traffickers might have started to use more maritime and air transportation for heroin trafficking. This needs to be further monitored.

Given that heroin is trafficked from Turkey to the Balkan countries mainly through land borders, the number of heroin seizures in Balkan countries is very low compared to

Batumi seaport, Georgia, 2010

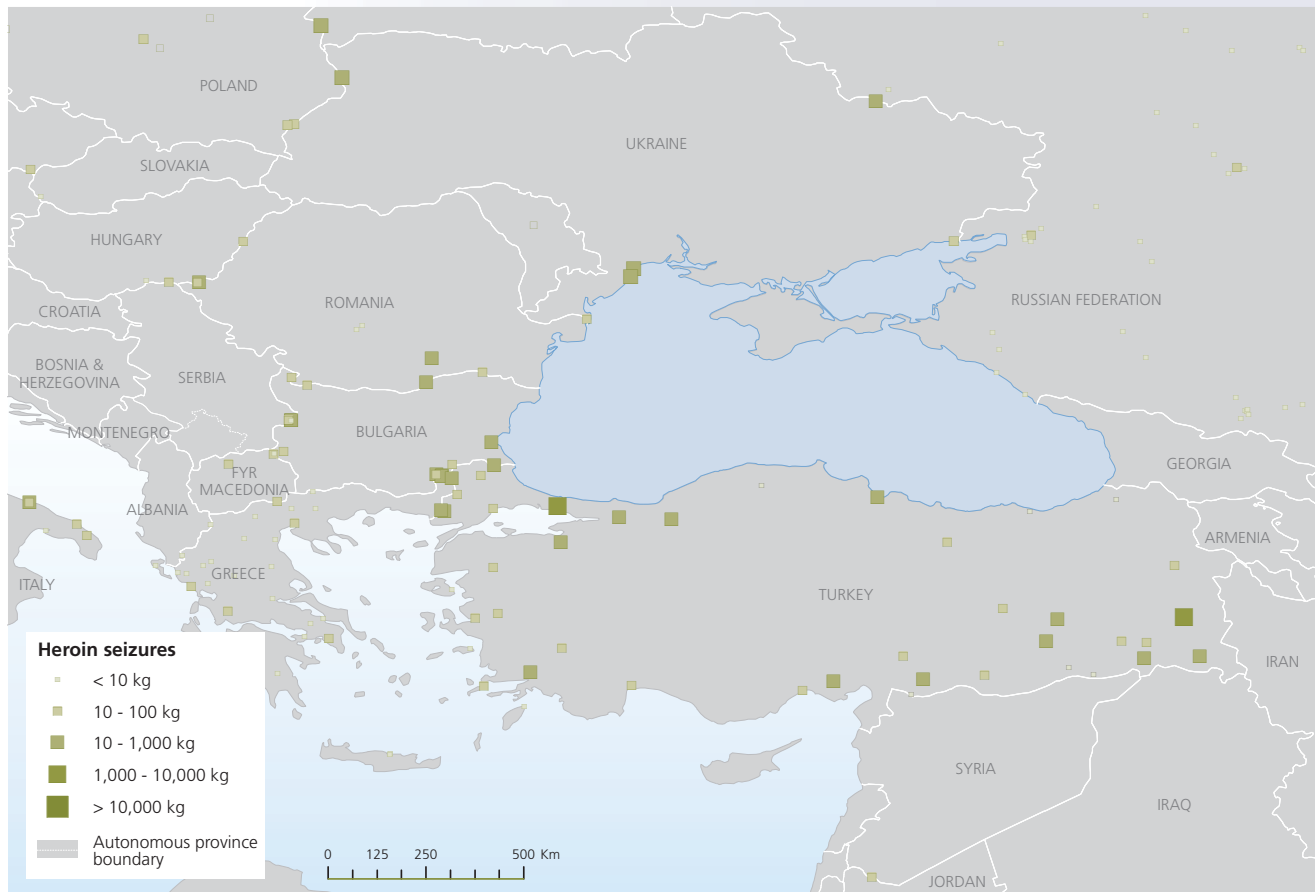


Container park at Customs of Batumi seaport, Georgia



Mobile scanner at Batumi seaport, Georgia

⁹² All references to Kosovo in this report should be understood to be in the context of United Nations Security Council resolution 1244 (1999).

Map 26: Heroin seizures in Southern Europe and neighbouring countries, 2000-2009

Source: UNODC and World Customs Office seizure database. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

that reported by Turkey. Bulgaria saw the most significant increase in heroin seizures between 1999 and 2009 at 316 per cent. However, the former Yugoslav Republic of Macedonia reported the highest increase in heroin seizures from 2008 to 2009, at 788 per cent.

In 2009, 32 kg of heroin was seized in seaports of the Greek islands (mainly in Rhodes), suggesting possible heroin trafficking by sea from Turkey to these islands. However, despite small seizures in towns close to Turkish seaports, no heroin seizures were actually made at any Turkish seaport in 2009.

In 2007 and 2008, several major heroin seizures were made by Ukraine and Bulgaria coming from Georgia via the Black Sea; however, in 2009 no heroin seizures were reported by any countries bordering the Black Sea. Indeed, sea transportation from Georgia to Eastern European and Balkan countries was limited. Heroin trafficking from Georgia to the Balkans and Eastern Europe was estimated to be very low in 2009, due to the good inspection capacity of Georgian customs at its seaports,⁹³ as well as the fact that all trucks coming from Georgia (by ship) to Ukraine are now checked very carefully.⁹⁴

The flow of Afghan opiates to Western and Central Europe

In 2009, 75-80 tons of heroin were trafficked to Western and Central Europe. Of this amount, some 70 tons were consumed and 7.5 tons were seized. Western and Central Europe remains one of the most lucrative drug markets, worth an estimated US\$13 billion in 2009.

Opiate supply

Of the 75-80 tons of heroin trafficked to Western and Central Europe in 2009, some 60 tons were estimated to have been trafficked from countries of South-Eastern Europe (via the Balkan route), 7 tons from Africa, 4 tons from Pakistan, 3 tons from the Middle East and the Gulf area (mainly the Islamic Republic of Iran, Qatar and Jordan) and 1 ton from South Asia (mainly India, Bangladesh and Nepal); the source and route of the remaining 3 tons are undetermined.

Heroin is trafficked into Western and Central Europe by land, sea and air. The Balkan route dominates land and sea shipments, while Africa is emerging as the leading origin of air shipments.

Balkan Route

The majority of Afghan heroin trafficked into Western and Central Europe comes through the Balkan route. Once

93 UNODC mission to Georgia in 2010.

94 In an interview with Ukrainian customs authorities in 2009.

Map 27: Heroin flows to Western and Central Europe, 2009



Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. 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.

moved through the Balkan countries, heroin is brought to Western and Central Europe via border countries such as Italy, Hungary, Slovakia and Austria and is transported through Germany, the Netherlands and France, concluding its journey in the United Kingdom.

In 2009, heroin was trafficked to Italy from Albania and Greece via sea routes and to a lesser extent through the land border with Slovenia. With just 10 per cent of seizures made at airports (on flights departing from Turkey, Pakistan and African countries), almost 90 per cent of the heroin abused in Italy entered the country via:

- i. Bulgaria, the former Yugoslav Republic of Macedonia, Kosovo⁹⁵ or the Albania route;
- ii. Greece route;
- iii. Greece- Albania route; and
- iv. Bulgaria-Serbia-Bosnia-Croatia-Slovenia route (less used).

In 2009, an estimated 4 tons of heroin were trafficked by sea to Western and Central Europe, the key departure locations being Balkan countries. One exception was the United Kingdom, where the majority of drugs seized at ports in 2009 were dispatched from the Netherlands. No seaport heroin seizures were reported in Western and Central Europe from any other regions. Additionally, no data was found on heroin being transported from Western and Central Europe onwards by sea.

Table 11: Estimated heroin flows to Western and Central Europe, 2009

Place of origin	Tons of heroin trafficked
Africa	7
Central Asia	Negligible
Eastern Europe	Negligible
Middle East and Gulf area	3
Pakistan	4
South-East Asia	Negligible
South-East Europe	59
South America	Negligible
South Asia	1
Unknown	3
Total	77

Source : UNODC.

Considering that in 2009 more than 400 million containers were transported worldwide using sea routes, the lack of seizures at seaports does not necessarily entail a lack of drug trafficking activity via sea. Indeed, Germany, Italy, the Netherlands, Spain, the United Kingdom and Belgium are home to some of the busiest seaports in the world,⁹⁶ where it is not unusual for a full inspection of one container to

⁹⁵ All references to Kosovo in this report should be understood to be in the context of United Nations Security Council resolution 1244 (1999).

⁹⁶ World Development indicators database.

take hours.⁹⁷ As a result, heroin traffickers might be using seaports more and more for their activities. This topic will be studied in more detail in a separate report.

Netherlands hub

Interestingly, a significant proportion of heroin trafficked to the United Kingdom, France, Germany and Belgium was dispatched from the Netherlands. In 2009, an estimated 30 tons of heroin was first trafficked into, or through, the Netherlands. According to the WCO seizure database, almost 30 per cent of the heroin seized in Germany in 2009 was trafficked from the Netherlands. According to ARQ provided by the United Kingdom, 15 per cent of heroin was trafficked by sea (mainly from the Netherlands) to the United Kingdom and 70 per cent overland (across the channel between the United Kingdom and France).

The Netherlands is also reported to have heroin stockpiles, which are destined for France and the United Kingdom.⁹⁸ Undoubtedly, the Netherlands constitutes an important heroin hub for Europe;⁹⁹ however, this is in stark contrast with the country's seizures in 2009, totalling less than 1 ton of heroin. It remains unclear how heroin reached the Netherlands in the first place. In 2009, no heroin seizures were made at seaports in the Netherlands nor was heroin destined for the Netherlands seized at any seaport worldwide. According to the 2009 Netherlands country report by the EMCCDA, heroin is trafficked to the Netherlands via Southern Europe (Balkan route), via the Islamic Republic of Iran and Caucasus (the Black Sea route) and via the Northern route. Therefore, current data still suggests that heroin is transported to the Netherlands overland mainly through the Balkan route (via Turkey-Balkans-Austria-Germany). However, it remains unclear why a portion of the heroin trafficked through Germany to the Netherlands is then transported back to Germany.

The Netherlands has one of the busiest seaports in the world, handling at least 30,000 containers every day. As it is almost impossible to control every single container, customs use risk-profiling methods to assist them in identifying potential drug trafficking activities. However, it should be noted that most of these containers are not transported directly from risk areas and, as such, they do not necessarily fit the risk profile. The routes and dynamics of heroin trafficked to Western Europe by sea, especially to the Netherlands, will be analysed in more detail in a separate report.

African hub

Beyond the traditional Balkan route, a new trafficking hub appears to be emerging in Africa. One reason for this development is that law enforcement capacity in Eastern Africa is scarce and trafficking heroin by sea from Pakistan poses

few challenges to experienced traffickers. Several countries, like Italy, the United Kingdom and the Netherlands also reported to UNODC increases in heroin trafficking via Africa in 2009.

Due to the high value of even very small quantities of heroin, traffickers use couriers to carry small shipments on their person inter alia through intra-cavity concealment. Of the 450 kg of heroin seized at airports in Western and Central Europe in 2009, 34 per cent (171 kg) originated from African countries. The main countries of origin were Zambia, Nigeria, Kenya and Ghana and the primary destination countries were the United Kingdom and the Netherlands.

The second largest point of departure for heroin trafficked by air was Pakistan, accounting for 103 kg of heroin seizures (23 per cent of airport seizures). Destination countries included the United Kingdom, Spain, Germany and Italy. In 2009, an estimated 4-5 tons of heroin was air trafficked from Pakistan to the above-mentioned countries, primarily the United Kingdom.

Other important departure points for Afghan heroin export were Turkey, South-East Europe (mainly Bulgaria), the Middle East and Gulf area (Qatar, Jordan and the Islamic Republic of Iran) and South Asia (mainly India, Bangladesh and Nepal). In 2009, 1-2 tons of heroin were trafficked by air to Western and Central Europe from each of these regions.

Heroin dilution

Europe abuses both brown and white heroin. Brown heroin purity in Europe is 15-30 per cent and white heroin 30-50 per cent.¹⁰⁰ Given that white heroin purity in Turkey is around 65 per cent,¹⁰¹ it is likely that heroin is diluted by drug traffickers en route to the final destination. In Italy, for example, heroin purity is between 17-21 per cent.¹⁰² Data suggest that two thirds of the heroin entering the United Kingdom is unadulterated, but that almost all of it is adulterated prior to reaching users¹⁰³. Interestingly, in 2008 German wholesale heroin purity was 51 per cent and heroin sold at street level was 18 per cent. By contrast, in 1999, wholesale purity was 29 per cent, while street-level purity was 9 per cent.¹⁰⁴

As heroin manufacturing has become concentrated in Afghanistan, heroin purity levels appear to have concomitantly increased across Europe. In 2003, heroin purity in the United Kingdom was at 32 per cent, but reached 49.8 per cent in 2008; some seizure cases even reported heroin

⁹⁷ Interview with the customs officials in Odessa seaport in Ukraine, 2009.

⁹⁸ The United Kingdom Threat Assessment of Organized Crime, 2009.

⁹⁹ EMCCDA, country report for the Netherlands, 2009.

¹⁰⁰ Annual Report 2009, European Monitoring Centre for Drugs and Drug Addiction (EMCDDA).

¹⁰¹ Annual Report Questionnaire 2009.

¹⁰² 2009 National Report to the EMCDDA, Dipartimento Politiche Antidroga.

¹⁰³ United Kingdom Drug Situation, 2010.

¹⁰⁴ 2009 National Report to the EMCDDA, DBDD (Deutch Beobachtungsstelle für Drogen und Drogensucht).

Table 12: Heroin seizure distribution in Western and Central Europe in 2009

Departure-region	Airport (kg)	Land boundary (kg)	Mail center (kg)	Seaport (kg)	Total (kg)	Percentage of total
Africa	171	1	0		172	9%
Central Asia	1	0			1	0%
Eastern Europe		0			0	0%
Middle East and Gulf area	31	31			62	3%
Pakistan	103	0	1		104	5%
South-East Asia	1	0			1	0%
South-East Europe	70	1,283	4	95	1,452	76%
South America	3	0			3	0%
South Asia	34	0	2		36	2%
Unknown	37		39		76	4%
Total	450	1,315	47	95	1,907	100%

Source: World Customs Office.

purity higher than 60 per cent.¹⁰⁵ However, street-level brown heroin purity is more uniformed and remains consistently around 15-25 per cent in other European countries. Brown heroin is probably manufactured at lower purity levels in Afghanistan or diluted before it reaches the main markets in Europe. Data on the purity levels of heroin seizures (for both brown and white heroin) should be obtained from Afghanistan, Pakistan and the Islamic Republic of Iran for further clarity on this crucial indicator.

Value and beneficiaries

In 2009, the total heroin market of Western and Central Europe was estimated at US\$13 billion. However this value is distributed differently among member countries.

The heroin market in the *United Kingdom of Great Britain and Northern Ireland* was estimated at \$3 billion in 2009. British organized crime groups based in the Spain and the Netherlands dominate the supply of heroin jointly with Dutch and ethnic Turkish criminal groups that are also based in the Netherlands. London-based ethnic Turkish criminal groups control much of the heroin trade in the United Kingdom, working closely with criminal elements from Pakistan and other South Asian countries.¹⁰⁶ Some of the ethnic Turkish criminal groups have links with the PKK,¹⁰⁷ which has a vast network in Europe.¹⁰⁸ This was the case of an ethnic Turkish drug lord who was convicted of drug-related charges in the United Kingdom in 2006. At his trial, he admitted controlling up to 90 per cent of the

heroin trade in the United Kingdom, thanks to his close ties with the PKK network of followers in Turkey and Europe.¹⁰⁹

In 2009, the heroin market in *Italy* was worth US\$3 billion, which mainly went to Italian and Albanian organized crime. Although Albanian drug traffickers remain very active in the Italy, many North Africans from the Tunisia, Algeria, Morocco and to a lesser extent Egypt were arrested on heroin trafficking charges in 2009.¹¹⁰ According to the ARQ released by Italy, there is a possible heroin trafficking route from East Africa to Italy via Northern Africa. However, in 2009 no heroin seizures were made at Italian seaports. In addition to the foreign groups, domestic groups such as Camorra, Cosa Nostra and Apulian criminal groups were also identified as active in heroin trafficking in Italy.¹¹¹ These local syndicates engage in a broad array of crimes including trafficking in cocaine and cannabis. Italian groups also have well-established international links, including with Albanian, Colombian, Turkish, Balkan, Asian and Russian criminal groups. Italian criminal organizations have traditionally procured heroin from Turkish and Albanian traffickers; however, the large number of African citizens arrested in Italy in 2009 may suggest that these groups have extended their presence into Africa as well. The average purity of heroin consumed in Italy in 2009 was around 20 per cent, due to heavy cutting in Balkan countries before reaching Italy.

In 2009, the value of the *French* heroin market was estimated at US\$2 billion, which was pocketed almost entirely by France-based distributors. According to the Annual Reports Questionnaire (ARQ) provided from France to

¹⁰⁵ Annual Report 2010, European Monitoring Centre for Drugs and Drug Addiction (EMCDDA).

¹⁰⁶ The United Kingdom Threat Assessment of Organized Crime, 2009.

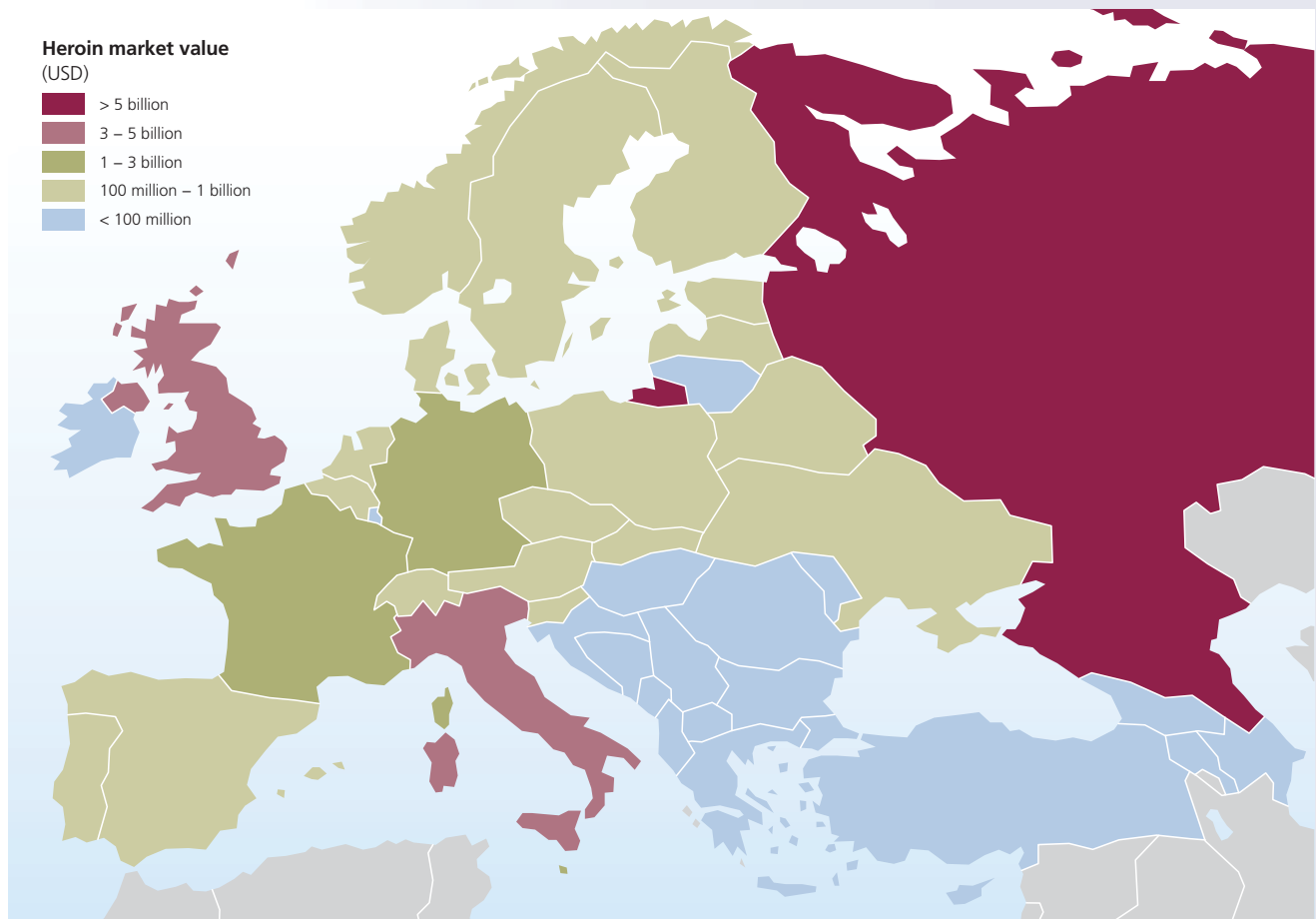
¹⁰⁷ An armed group based in south-eastern Turkey, fighting against the Turkish Government. It is defined as a terrorist group according to Turkey, the United States of America and some European countries.

¹⁰⁸ PKK criminal networks and Fronts in Europe, Policy Watch #134, 2008.

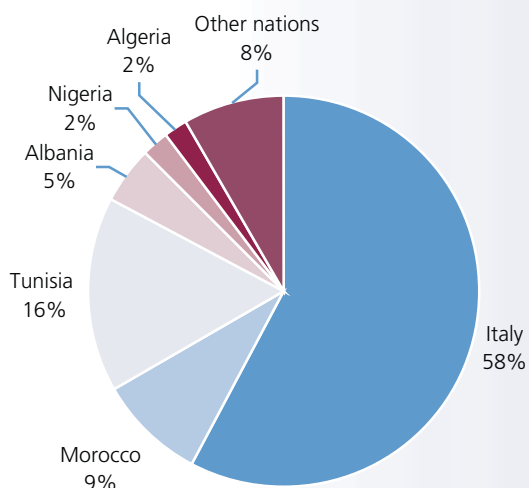
¹⁰⁹ PKK Survives EU Arrests, The Jamestown Foundation, 2007.

¹¹⁰ Moroccan and Tunisian drug traffickers were also active in cannabis and cocaine trafficking to Italy.

¹¹¹ ARQ 2009, Italy.

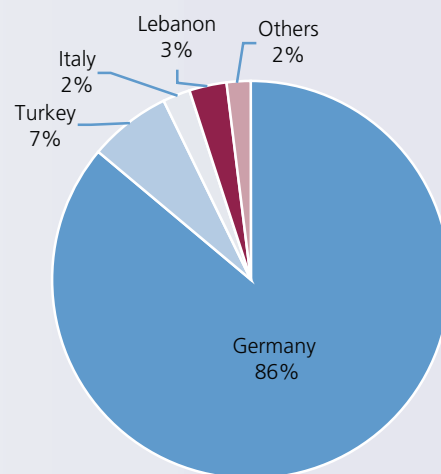
Map 28: Heroin market value in Europe, by country, 2009

Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Fig. 13: Country of origin of heroin traffickers arrested in Italy, 2009

Source: UNODC, Annual Report Questionnaire (ARQ) database.

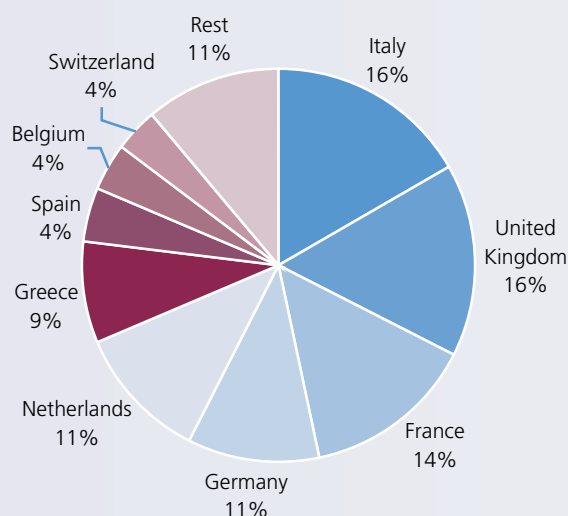
UNODC in 2009, 93 per cent of heroin-related trafficking arrests in France involved French citizens; the rest were French-speaking Moroccan, Algerian and Tunisian citizens. This may suggest that French criminal groups organize heroin trafficking operations from the Netherlands to France. In France, brown heroin is the most commonly abused form of heroin.

Fig. 14: Country of origin of heroin traffickers arrested in Germany in 2009

Source: UNODC, Annual Report Questionnaire (ARQ) database.

The heroin market in *Germany* yielded approximately US\$1.3 billion for criminal groups in 2009. Including consumption (7 tons), at least 30 tons of heroin was likely trafficked via Germany in 2009. This figure is in stark contrast with the total quantity of heroin seized in Germany, which reached only 700 kg in 2009. 86 per cent of the persons arrested in Germany on drug-related charges in 2009 were German citizens; the rest were ethnic Turkish,

Fig. 15: Distribution of heroin seizures in Western and Central Europe, by country, 2009



Source: UNODC.

Lebanese and Italian citizens, among other nationalities. However, heroin was mainly trafficked by ethnic Turkish and Balkan groups, whose ethnic and familial links to Germany facilitate heroin trafficking from South-East Europe to Germany.

Opiate demand and social issues in Western and Central Europe

In Western and Central Europe there are an estimated 1.2 million heroin abusers, consuming 69 tons of pure heroin – almost half of total European consumption.

The United Kingdom and Italy each have between 200,000 and 300,000 heroin users, consuming 16-17 tons of pure heroin in each country in 2009. In 2008, the United Kingdom reported 400,469 problematic drug abusers and 3,356 drug-related deaths.¹¹² Of the 128,208 drug abusers that received treatment in the United Kingdom in 2008, 53 per cent were heroin abusers. Italy reported 385,000 problematic drug abusers in 2008;¹¹³ of these, 102,914 received treatment, 67 per cent of which were heroin abusers.

In 2009, France’s estimated 130,000–160,000 heroin abusers consumed 10-12 tons of pure heroin. Overall, problem-

atic drug abusers were estimated to number 230,000 in 2008. In 2009, 5,542 drug abusers received treatment, 37 per cent of which were heroin abusers.¹¹⁴

UNODC estimates that 115,000 German heroin abusers consumed 6-7 tons of pure heroin in 2009. Of the 43,058 drug abusers that received treatment, 47 per cent were heroin abusers. In 2009, 949 heroin-related deaths were reported.

Switzerland, Spain, Portugal and the Netherlands have an estimated 20,000-40,000 heroin abusers each, with around 2 tons of pure heroin abused in each of these countries in 2009. In Austria, Belgium, the Czech Republic, Denmark and Poland, the number of heroin abusers ranged between 20,000 and 30,000, with 1.5 tons of pure heroin consumed in each of these countries in 2009.

Law enforcement and seizures

In 2009, 32 countries in Western and Central Europe seized a total of just 7.5 tons of heroin. The elimination of most border controls and internal borders within the European Union means that heroin trafficking is difficult to stop once the heroin reaches Western and Central European borders.

The main European markets, namely the United Kingdom, Italy and France, seized 1-1.5 tons, while other countries seized much smaller amounts, including 14 kg in Slovakia, 190 kg in Austria, 31 kg in the Czech Republic, 42 kg in Slovenia and 124 kg in Hungary. Generally, the highest seizures occur in the main consumption countries such as in Italy, UK, France and Germany.

Undoubtedly, the Netherlands constitutes an important heroin hub for Europe;¹¹⁵ however, this is in stark contrast with the country’s seizures in 2009, totalling less than 1 ton of heroin.

Of the 7.5 tons of heroin seized in the region, only 1.9 tons (25 per cent) were seized by customs. Land border seizures accounted for 69 per cent, followed by 24 per cent at airports, 5 per cent at seaports and 2 per cent at mail centres.¹¹⁶ Although there is no direct correlation between

Table 13: Estimated heroin flows to Western Central Europe by mode of importation, 2009

Location	Estimated amount of heroin trafficked to Western and Central Europe (tons)
Airports	18
Land borders	53
Mail centres	2
Seaports	4
Total	77

Source: World Customs Office.

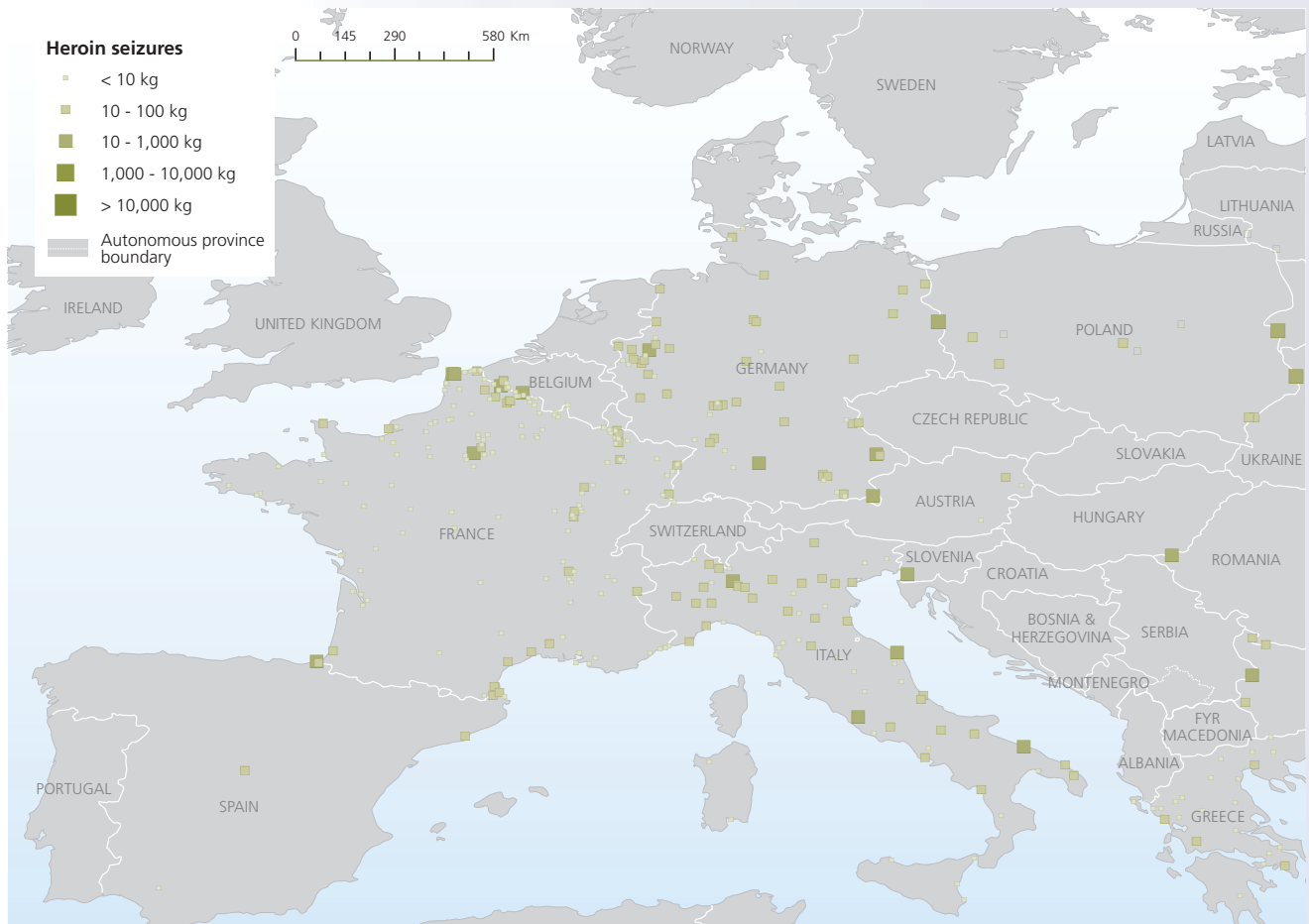
¹¹² ARQ United Kingdom, 2008. At the time of preparation of this report, ARQ for 2009 was not available.

¹¹³ ARQ Italy, 2008. At the time of preparation of this report, ARQ for 2009 was not available.

¹¹⁴ ARQ France, 2009.

¹¹⁵ EMCCDA, country report for the Netherlands, 2009.

¹¹⁶ These statistics are in line with the figures provided in Annual Report Questionnaires (ARQ) by the Western and Central European countries to UNODC in 2009.

Map 29: Heroin seizure locations in Western and Central Europe, 2002- 2009

Source: UNODC and World Customs Office seizure database. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

seizures and trafficking routes, extrapolating from the seizure data may suggest that an estimated 53 tons reached Western and Central Europe via land borders, 18 tons of heroin via airports, 4 tons via seaports and 2 tons via mail. Constant shifts in smuggling routes and the varying degrees of law enforcement capacity at each entry point mean that these estimates can serve only as a guide. This said, they clearly illustrate that the majority of heroin is likely to be transported overland. Seizures of heroin originating from South-Eastern Europe and travelling through the Balkan route accounted for 97 per cent of all land seizures into Western and Central Europe.

Heroin trafficking across Europe is likely to become more difficult to police. Recently, the EU lifted visa requirements with some countries of South-Eastern Europe like Bulgaria and is planning to do the same with other countries in 2011. In addition, bilateral border crossing agreements are in place between some South-East European countries such as Bulgaria, Albania and the former Yugoslav Republic of Macedonia, as well as Serbia and Hungary. For example, Bulgarian citizens do not require a visa to enter Serbia, Serbians do not need one to enter Hungary, nor do Hungarians for Austria. Drug traffickers will most likely attempt to exploit this situation. Information and intelligence sharing will become increasingly important to stop heroin trafficking in the region, especially with Turkey situated at the

external border of the EU and being the first gateway of heroin to South-Eastern Europe.

Over the last decade, heroin seizures decreased in most of Northern and Western and Central Europe – especially in Switzerland (by 37 per cent), the United Kingdom (53 per cent) and Spain (74 per cent). Only France, Austria, Belgium, Ireland, Malta, Portugal, Slovenia, Slovakia, Luxembourg, Estonia and Latvia saw an increase in the number of seizures, although in most of those countries the quantity seized was less than 100 kg.

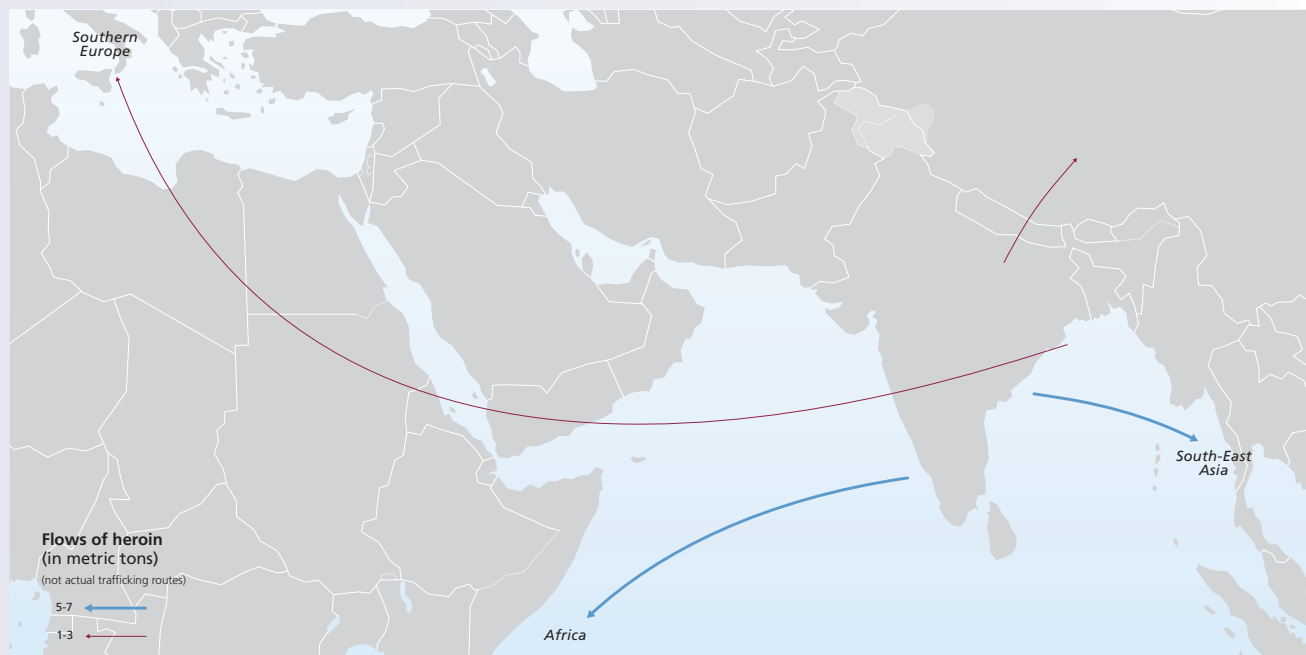
The flow of Afghan opiates to South Asia

In 2009, an estimated 25 tons of heroin was trafficked from Afghanistan to South Asia, and a further 15 tons was manufactured domestically. Of this total of 40 tons, 15 tons was trafficked onwards from South Asia.

Opiate supply

Of the estimated 23 tons of heroin consumed in South Asia, 14-15 tons (65 per cent) was likely Indian heroin and 8-9 tons (35 per cent) was Afghan heroin.

In order for Indian producers to manufacture 15 tons of heroin domestically, and meet the local raw opium demand

Map 30: Heroin trafficking flows from South Asia, 2009

Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. 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.

of approximately 70 tons, a total of 220 tons of opium would be required. Therefore, it is likely that at least 7,500 hectares of illegal opium poppy was cultivated in India in 2009.¹¹⁷ Indian heroin is also used to supply regional markets. In 2009, almost all heroin seized in Bangladesh had originated from India.¹¹⁸ India-sourced heroin also accounted for the vast majority of supply to Nepal.¹¹⁹

Sri Lanka, however, reported both Indian and Afghan heroin. As did India itself – of the 17 tons of heroin consumed in India, 8 tons was Afghan heroin and the remaining 9 tons was local heroin.¹²⁰ Nonetheless, it is possible that Indian opium production and heroin manufacturing levels are still underestimated and that less Afghan heroin is required to fill the gap. In order to clarify this, an in-depth heroin abuse and trafficking study should be carried out in India.

Value and beneficiaries

In 2009, the total value of the South Asia heroin economy – estimated at US\$1.9 billion – mostly went to Indian indigenous criminal groups. With a value of \$1.4 billion, the biggest market was in India. The remaining \$500 million was contributed by users in Bangladesh, Nepal, Maldives and Sri Lanka. Although the majority of users in India abuse Indian heroin, drug traffickers prefer to export Afghan heroin due to its higher purity.

Most drug traffickers arrested in India in 2009 were Indian citizens. Foreigners arrested were primarily Nepalese, West African and Afghan nationals. Most seizures made in largely

populated areas, like Mumbai and New Delhi, involved West African traffickers.¹²¹ A large number of Sri Lankan citizens were also arrested in India for trafficking heroin into Sri Lanka. Despite the reported high level of heroin trafficking across the India-Bangladesh border, the number of Bangladeshi citizens arrested in India between 2000 and 2009 was minimal.

Much of the heroin trafficked in South Asia transits areas where Maoist separatist groups are active. The same areas are reportedly also opium producing. However, no clear evidence has emerged on these groups' direct or indirect involvement in the opiate trade.

Family and tribal links across the India-Pakistan border are likely to facilitate heroin trafficking from Pakistan into India. South Asian trafficking groups that purchased heroin from Pakistan paid almost US\$125 million to Pakistani drug traffickers and then managed to sell the same heroin wholesale at \$600 million to international drug traffickers in South Asia.

Opiate demand and social issues in South Asia

In 2009, an estimated 23 tons of pure heroin were consumed in South Asia. The vast majority, 17 tons, was consumed in India, 4.5 tons in Bangladesh, 0.8 tons in Nepal and less than 1 ton in Sri Lanka, Bhutan and the Maldives combined.

In 2009, the opiate prevalence in India was 0.43 per cent¹²² – or 3.1 million people – of which at least half are estimated

¹¹⁷ With average yield 30kg / hectares.

¹¹⁸ Interviews with officials of Bangladesh in March 2009.

¹¹⁹ Interviews with Nepalese officials in March 2009.

¹²⁰ According to the ARQ provided by India.

¹²¹ According to the 2010 International Narcotics Control Strategy Report (INCSR) issued by the United States Department of State.

¹²² World Drug Report 2009, UNODC.

to be synthetic opiate abusers (for example abusing buprenorphine). India's 2003 drug abuse survey put the number of heroin users at 900,000, however there are plans to carry out a new drug abuse survey in 2010 or 2011.¹²³ Indian users abuse both Afghan and locally produced heroin, known as 'brown sugar'. Moreover, in 2009, an estimated 70 tons of opium was abused in India; as opium is not imported to India, this entire amount was produced illegally in the country. As illegal opium is likely cultivated in remote, often infertile areas, the yield is likely to be very low. The increasing use of synthetic opiates like buprenorphine is an emerging threat for South Asian countries (mainly India, Nepal, Bangladesh and Sri Lanka).

Nepal has between 30,000 and 50,000 heroin abusers who abuse an estimated 0.5-1 ton of pure heroin per year. In Bangladesh, HIV prevalence is increasing and has transitioned from a low-level epidemic to a concentrated epidemic, with particularly elevated rates among injecting drug users.¹²⁴

Onward trafficking routes

In 2009, an estimated 15 tons of heroin was trafficked onward from South Asia, mainly via India. Of these 15 tons, 6 tons went to South-East Asia, 6 tons went to Africa,

1-2 tons went to North America, and 1 ton went each to China and Europe. As mentioned above, drug traffickers prefer to export Afghan heroin, rather than local heroin, due to its higher purity. Indian heroin is used purely for local abuse in South Asia.

Law enforcement and seizures

In 2009, just 1.2 tons of heroin was seized across South Asia. India made the vast majority of these seizures. 90 per cent of seizures made in South Asia occurred inland – many in the vicinity of the India-Pakistan border. Seizures at seaports accounted for 6 per cent and airports just 4 per cent.

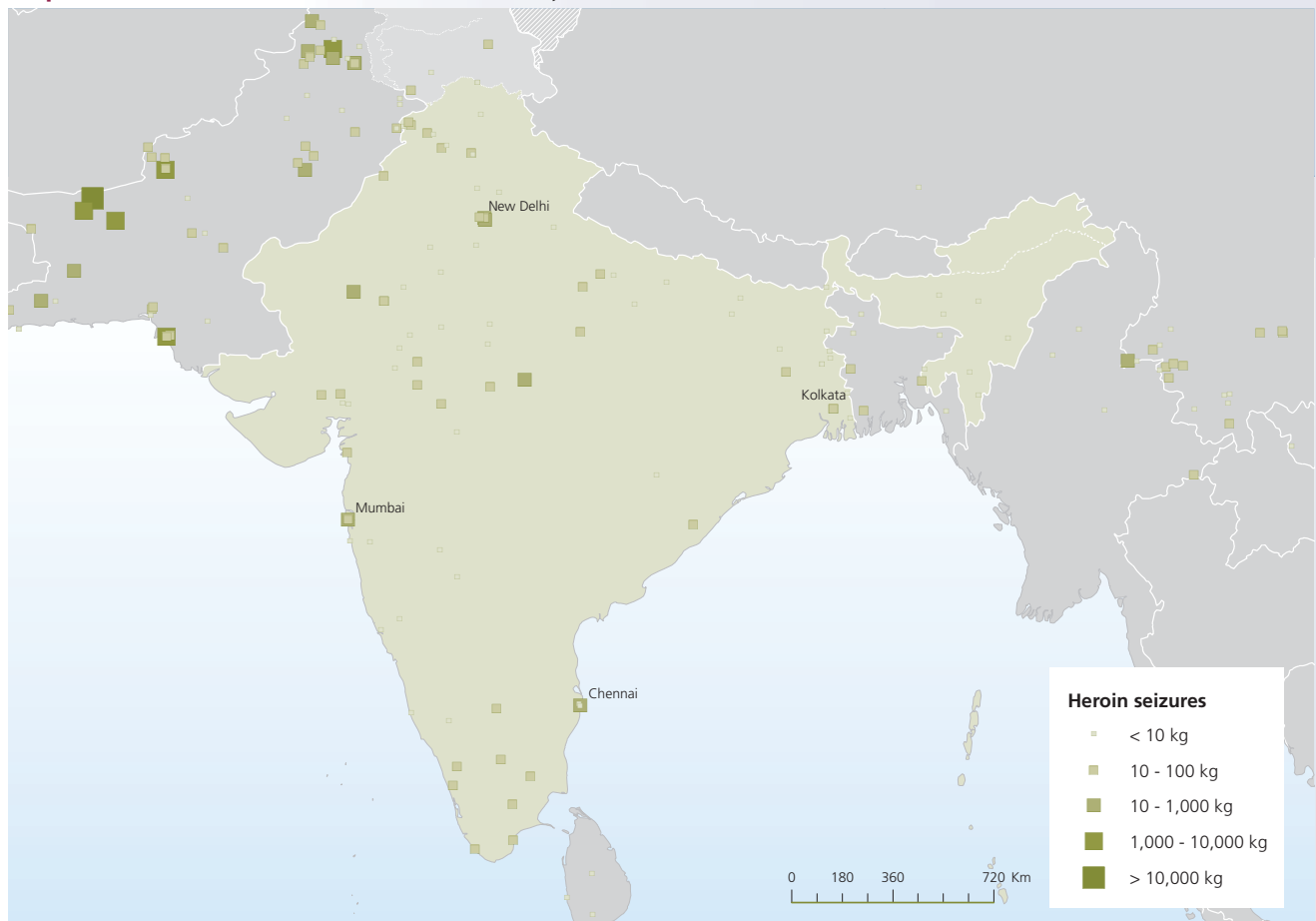
Bangladesh law enforcement seized just 20 kg of the esti-

Table 14: Heroin seizures in South Asia, 2009

Location	Amount (kg)	Percentage of total
Airport	4	4%
Inland	94	90%
Seaport	6	6%
Total	104	100%

Source: World Customs Office.

Map 31: Heroin seizures in and around India, 2000-2009



Source: UNODC and World Customs Office seizure database. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. 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.

¹²³ Interview with Indian Government officials, March 2010.

¹²⁴ UNAIDS, AIDS epidemic update, 2009.

mated 4.5 tons of heroin trafficked to Bangladesh, virtually all of which was manufactured in India.¹²⁵ Airport seizures in the region occurred mainly in the Maldives and Sri Lanka on flights originating from India and Pakistan.

Heroin is undoubtedly being trafficked overland from Pakistan into India, but the volume of heroin flows remains unknown. Further study of both the India-Pakistan border and global seaports is necessary to better understand these dynamics.

In 2009, 10 per cent of the seizures made at customs in Pakistan were destined for India. Interesting, all heroin seized in South Asian seaports originated from Pakistan, yet in 2009 no heroin seizures were made at seaports in Pakistan. Heroin trafficking through seaports in Pakistan is likely to be much higher than currently estimated. Indeed, law enforcement capacity at South Asian seaports is limited; as a result, the vast majority of containers arriving in Bangladesh are not checked.¹²⁶ China reported several heroin seizures cases which were trafficked via Bangladesh sea ports.

Over the last decade, India has experienced only a 9 per cent increase in seizures. According to the Indian Government, opium is not trafficked into India, thus indicating that the country's entire raw opium consumption was met by domestic illicit opium poppy cultivation. India has been the leading licit producer of opium for decades, although the estimated quantity converted from licit to illicit form is very limited, or possibly non-existent. The Indian Government is planning to launch an opium poppy survey in 2011, in cooperation with UNODC to better understand domestic supply and demand.

The flow of Afghan opiates to East and South-East Asia

In 2009, opiate demand in East and South-East Asia was met by both local production and Afghan supply. Myanmar and the Lao People's Democratic Republic are the main producing countries, exporting an estimated 25 tons of heroin in 2009. An additional 65 tons of Afghan heroin was trafficked to fill the gap in East and South-East Asia.

Opiate supply

Regional supply

In 2009, local opium production totalled 330 tons in Myanmar and 11 tons in the Lao People's Democratic Republic. After domestic consumption and seizures, 240 tons of opium were available for export from Myanmar and 4 tons from the Lao People's Democratic Republic – once converted to heroin, this is equivalent to 25 tons and 400 kg respectively. In 2009, a total of 81 tons of heroin were abused and 8 tons were seized in South-East Asia; a maxi-

mum of 24 tons likely came from Myanmar and the remaining 65 tons¹²⁷ were likely trafficked from Afghanistan to meet the demands of this market. Despite declining opium production in Myanmar over the last decade, an estimated 580 tons were produced in 2010 – a 76 per cent increase. In addition, a 58 per cent increase in production was seen in the Lao People's Democratic Republic in 2010. Since 2010 seizure and abuse figures were not provided to UNODC, estimated amounts of heroin flows from Afghanistan to China for 2010 will be studied in the next report issued by the Afghan Opiate Trade Project.

Data from Viet Nam challenges these regional estimates. Total heroin abuse in Viet Nam is estimated at 4 tons, with seizure data indicating that the majority is trafficked from the Lao People's Democratic Republic. However, the Lao People's Democratic Republic was only capable of exporting 4 tons of opium in 2009 (yielding 400 kg of heroin) – so either more Myanmar heroin and/or more Afghan heroin are flowing into Viet Nam. However, if Myanmar heroin is flowing into Viet Nam, then less Myanmar heroin is available for the market in China. The source of heroin consumed in Viet Nam – and also consumption levels – remain unclear and require further study.

Therefore, either abuse figures for Viet Nam are over-estimated, or more Afghan heroin was trafficked to Viet Nam (some 3.5 tons). Alternatively, it is possible that regional opium production is higher than predicted, especially in the Lao People's Democratic Republic.

From Afghanistan

In 2009, an estimated 65 tons of pure Afghan heroin were trafficked to the region – 25 tons to South-East Asia and 40 tons to China. Given that the majority of heroin from Myanmar is trafficked to China, most of the heroin reaching South-East Asia was likely transported from Afghanistan via Pakistan. However, exact drug trafficking routes and sources are difficult to determine due to a lack of seizures in 2009; of the 1 ton of total regional seizures a mere 72 kg were seized at customs posts.

In 2009, an estimated 63-64 tons of heroin were trafficked into China. The vast majority of the 25 tons of heroin manufactured in Myanmar was trafficked to China.¹²⁸ Unless the opium production of Myanmar is underestimated or additional heroin comes from another source, some 40 tons of Afghan heroin was trafficked from Afghanistan to China in 2009. It should be noted that Chinese heroin abuse statistics remain vague and current estimates are based on information available to UNODC.

Thailand also appears to be an important heroin trafficking hub, linking Pakistan to other countries in South-East Asia such as Indonesia and Viet Nam. Indeed, based on seizure

¹²⁵ Interviews with officials of Bangladesh in March 2009.

¹²⁶ Interviews with officials of Bangladesh in March 2009.

¹²⁷ Including seizures.

¹²⁸ 1 ton of heroin was trafficked to Thailand for local abuse.

data, 18 tons of heroin reached South-East Asia directly from Pakistan, while the remaining 6 tons came from Pakistan through South Asia (mainly India, Sri Lanka and Bangladesh).

Value and beneficiaries

In 2009, China's heroin market was alone worth US\$7.3 billion and other South-East Asian countries were worth \$2.4 billion. Chinese and other local organized crime groups control the South-East Asian heroin market at both retail and wholesale levels and therefore benefit entirely from this trade. Interestingly, the heroin trade in Indonesia is predominantly controlled and directed by West Africans, particularly Nigerians.¹²⁹

In 2009, 1,559 drug traffickers from 50 different countries were arrested in China.¹³⁰ Of the foreign drug traffickers arrested in 2008, people from Myanmar, Pakistan, Nigeria, China's Hong Kong Special Administrative Region and Malaysia were among the most active.¹³¹ Yet, that same year very few Chinese drug traffickers were arrested outside of China, with the exception of neighbouring Myanmar. This indicates that Chinese drug traffickers probably do not become involved in the heroin trade until the heroin reaches China.

In 2009, the wholesale price of 1 kg of high-purity heroin in Myanmar and the Lao People's Democratic Republic was \$12,000. Therefore, for 20–25 tons of heroin, Chinese traffickers paid at least \$300 million to Myanmar drug traffickers based in the Shan State region - not including cross-border transport fees, which can be as much as \$5,000 per kg.¹³² With an average government official salary of \$10–20 per month, corruption temptations are very likely in Myanmar. Moreover, the country's entire heroin export is reportedly processed domestically in the Shan State region, necessitating dozens of heroin laboratories close to the Myanmar-China border. The same heroin is sold wholesale for \$90,000 per kg once it reaches the Chinese market, indicating that Chinese drug traffickers would make \$2.2 billion for the heroin trafficked from Myanmar.

Afghan heroin is also available at the Afghanistan-Pakistan border for a wholesale price of \$3,500 and for just \$5,000 in Karachi, Pakistan. At this price, it may be cheaper for drug trafficking networks to transport Afghan heroin to China and South-East Asia rather than use heroin from Myanmar.

Opiate demand and social issues in East and South-East Asia

In 2009, there were an estimated 3.2 million heroin users in East and South-East Asia. Although just 16 Asian coun-

tries provided drug consumption data in 2009, this data suggests that heroin users individually abuse between 20 and 40 grams of pure heroin annually, although further research is required. Thus, a total of 80–85 tons of heroin were estimated to have been consumed in East and South-East Asia in 2009.

South-East Asia

In 2009, Myanmar's estimated 230,000–300,000¹³³ opiate users consumed 2 tons of pure heroin. Only 9 per cent of Myanmar's opium production was consumed in the country, the rest was exported to neighbouring countries, mainly China. Myanmar's opium users are mostly located in the Shan State region – the main opium poppy cultivation area.

Indonesia, Malaysia and Viet Nam have a large number of heroin abusers, who abused 15 tons of pure heroin in 2009, worth an estimated \$1.5 billion. Indonesia and Malaysia are estimated to each have between 150,000 and 250,000 heroin abusers, with abusers in each country consuming 4–6 tons of pure heroin in 2009. Indonesia has reported 1.4 million problematic drug abusers and 52,000 HIV infected persons;¹³⁴ however, in 2009 just 2,350 drug abusers received treatment. In Malaysia, 7,135 drug abusers received treatment in 2009. Indeed, injecting drug abuse is one of the greatest threats to public health in South-East Asia. In Indonesia, for example, more than half of injecting drug abusers are HIV-positive.¹³⁵

In 2009, Viet Nam's estimated some 150,000 heroin abusers¹³⁶ – of which 66,000 are considered to be drug injectors – consumed 3 tons of heroin. In the same year 2,184 people died of drug-related deaths¹³⁷ in Viet Nam.

Thailand, Taiwan, Province of China and Japan each have between 30,000 and 50,000 heroin abusers who consume 0.5–1 ton of pure heroin per year. In 2009, 84,190 drug abusers received treatment in Thailand, of which only 1 per cent were heroin abusers. Of the heroin consumed in Thailand in 2009, 90 per cent was from Myanmar and the remainder from Afghanistan via Pakistan.¹³⁸

China

In 2009, UNODC estimated that China had between 1.8 and 3 million opiate users, who consumed 55–60 tons of heroin. However, the 2009 ARQ provided by the Chinese Government indicated the presence of 1.33 million registered drug abusers, of which 74 per cent were heroin abusers. The actual number of heroin abusers normally greatly exceeds the number of registered users. According to the

¹²⁹ International Narcotics Control Strategy report of INL (USA), 2009.

¹³⁰ Annual Report on Drug Control in China, 2009.

¹³¹ 2008 World Customs data.

¹³² Re-engineering the Drug Business, Matthew Brzezinski.

¹³³ World Drug Report, 2011, UNODC.

¹³⁴ ARQ Indonesia, 2009.

¹³⁵ National AIDS commission, 2008.

¹³⁶ WDR 2010, UNODC.

¹³⁷ ARQ Vietnam, 2009.

¹³⁸ According to ARQ provided by the Government of Thailand.

2009 epidemic update report issued by the Joint United Nations Programme on HIV/AIDS (UNAIDS), China hosts the world's largest population of injecting drug abusers, at 2.4 million. Surveys carried out in China have found high rates of risk behaviour among injecting drug abusers, including the sharing of needles by an estimated 40 per cent of those abusers.¹³⁹

Each Chinese heroin user abuses, on average, 25 grams of pure heroin annually – this would be 850-900 kg of heroin daily. Deeper insight into Chinese drug consumption would require a national drug abuse survey.

Onward trafficking routes

Heroin trafficking from East and South-East Asia is limited. In 2009, 3-4 tons of heroin was trafficked from South-East Asia to Australia and to a lesser extent New Zealand. There are no reports of onward heroin trafficking from China.

Law enforcement and seizures

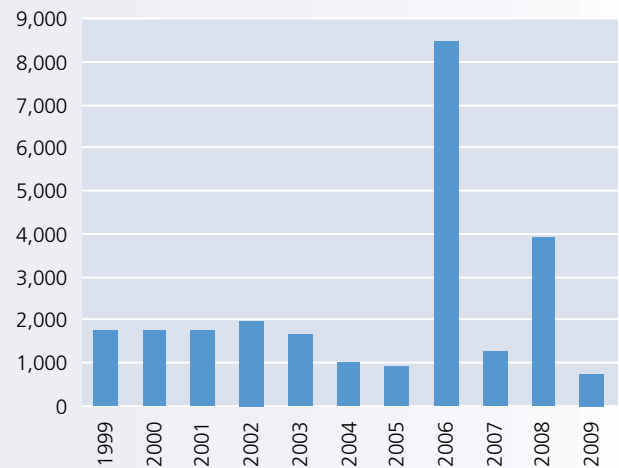
In 2009, 2 tons of heroin was seized in South-East Asia, and 5.8 tons was seized in China. Overall, compared to consumption levels, the quantity of heroin seized in South-East Asia is very low.

South-East Asia

In 2009, heroin seizures were particularly low in Indonesia, Cambodia, the Lao People's Democratic Republic and Singapore. Indeed, Indonesian, Malaysian and Vietnamese heroin users abused 15 tons of pure heroin in 2009, yet law enforcement seized just 600 kg. Malaysia receives a greater number of direct shipments due to the presence of busy seaports yet only 28 kg of heroin were seized along this route in 2009. Although Vietnamese customs did not seize any heroin travelling from Pakistan, Pakistani authorities seized 11 kg destined for Viet Nam in 2009. Despite high consumption, heroin seizure levels in Indonesia are low. The majority of Afghan heroin destined for Indonesia first transits Pakistan, then India or Thailand.¹⁴⁰ Indonesia has significant amounts of sea traffic with 5-6 million containers transiting annually (180,000 daily); however, no seizures were made at seaports in 2009.

As a production country, heroin seizures in Myanmar vary significantly from year to year. For example, in 2008 a total of 88 kg were reportedly seized, whereas in 2009 police confiscated 1,076 kg. Opium seizures in Myanmar remained generally stable between 1999 and 2003. However, since 2004 seizures have decreased sharply, with the exception of 2006 and 2008 – which coincided with the decrease in opium poppy cultivation in Myanmar. In 2009, Myanmar recorded its lowest opium seizures in the last decade – just 752 kg.

Fig. 17: Opium seizures in Myanmar, 1999-2009



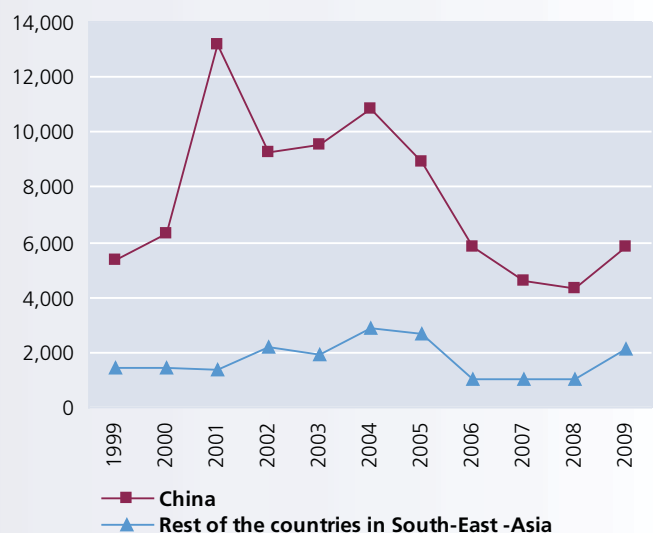
Source: UNODC.

China

Heroin seizures in China have varied significantly over the last decade. In 2001, the country seized 13,200 kg of heroin; since then, heroin seizures have steadily decreased in conjunction with the decline in opium production in Myanmar. However, heroin abuse in China has not decreased since 2001. Therefore, Afghan heroin is likely to be increasingly trafficked into the Chinese market, yet is not seized as effectively as Myanmar's heroin has been in the past. Opium seizures are also recorded in China, with seizures consistently ranging between 1,000 kg and 1,500 kg every year.

Of the 5.8 tons of heroin seized in China in 2009, 81 per cent was seized at seaports and originated entirely from Pakistan. Therefore, it is likely that 33 of the 40 tons of Afghan heroin trafficked to China came via Pakistan by sea, even though in 2009 no heroin seizures were made in seaports in Pakistan. China has the busiest seaports in the world, handling at least twice as many containers as the

Fig. 16: Heroin seizures in China, 1999-2009



Source: UNODC.

139 UNAIDS, AIDS epidemic update 2009, Wang et al., 2009.

140 International Narcotics Control Strategy report of INL (USA), 2009.

Table 15: Chinese heroin seizures based on location, 2009

Seizure location	Amount (kg)	Percentage of total	Estimated amount of heroin trafficked to China (tons)
Airport	156.7	11%	4
Land border	59.8	4%	2
Mail centre	34.7	2%	1
River	2.0	0%	0
Seaport	1,197.1	83%	33
Total	1,450.3	100%	40

Source: World Customs Office and UNODC.

United States of America and six times more than Germany; an estimated 250,000 containers transit Chinese seaports every day.¹⁴¹

A further 11 per cent of seizures were made at airports, 4 per cent at land borders and 2 per cent at mail centres. According to Chinese customs, 70 per cent of heroin seized at airports originated from other South-East Asian countries, including Malaysia, Viet Nam, Thailand and the Philippines. The remaining heroin seized at airports originated from Africa (15 per cent), Gulf countries (9 per cent) and Turkey (6 per cent). The 0.5 tons seized from Africa came from East Africa and Nigeria, while the 0.5 tons from

Gulf countries came mainly from the United Arab Emirates. Seizures of heroin originating from Pakistan via air were almost negligible in 2009.

Most heroin seizures made on land in China occurred close to the Myanmar border; however, the country's 2,000 km border with Myanmar is generally very difficult to police due to geography, the abundance of crossings and a lack of law enforcement capacity. Despite several heroin seizures reported from both Pakistan and India close to their borders with China, very few seizures were reported from Chinese customs between 2000 and 2009. Few seizures were made near the borders between China and Central Asia and little

Map 32: Heroin seizures in China, 2000-2009

Source: UNODC and World Customs Office seizure database. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. 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.

¹⁴¹ World development indicators database, World Bank.

is known about trafficking along this route. Finally, significant information gaps remain as regards trafficking between the Russian Federation and China, although several heroin seizures were made at the border in 2009.

Seizures alone are unlikely to uncover all possible trafficking routes. For example, no heroin seizures were reported at the border between China and Nepal, although the open border between India and Nepal, limited law enforcement capacity in Nepal and weak controls at the border with China all create conditions conducive to trafficking. In addition, opium poppy cultivation has recently started to increase in Nepal while India has both opium poppy cultivation and heroin manufacturing sites. Although the Chinese border with Nepal and India is mostly very mountainous, making heroin trafficking difficult, the number of Nepalese arrested in Pakistan on drug trafficking charges has increased since 2008, possibly indicating Afghan heroin trafficking to Nepal. Nepalese officials argue that Afghan heroin is trafficked through Nepal to China, but that it is not abused locally. Interestingly, almost all heroin seized at Chinese mail centres (estimated at 1 ton) in 2009 originated in India.

The flow of Afghan opiates to Oceania

In 2009, almost 4 tons of heroin were trafficked to Oceania, mainly to Australia. Oceania is comprised of 24 countries, encompassing an estimated 7,500 to 10,000 islands, including Australia, New Zealand and the numerous Pacific Island Countries and Territories (PICT) of Polynesia, Micronesia and Melanesia. The region seized just 171 kg of heroin in 2009.

Opiate supply

Of the 4 tons of heroin trafficked to Oceania in 2009, 3.2 tons were abused in Australia and 0.6 tons in New Zealand. Heroin abuse was almost negligible in other countries of the region. Afghan heroin formed the overwhelming majority of heroin abused in Australia and New Zealand, likely trafficked via Pakistan and South-East Asian countries, mainly Thailand, Viet Nam, Cambodia and Malaysia.¹⁴² According to the World Customs Office seizure statistics, more than 90 per cent of heroin seizures made at Australian customs were trafficked from South-East Asian countries. Although heroin trafficking from South and East Africa to Australia was limited in 2009, shipments from Africa are emerging as a new trend, according to the Australian Government.

Value and beneficiaries

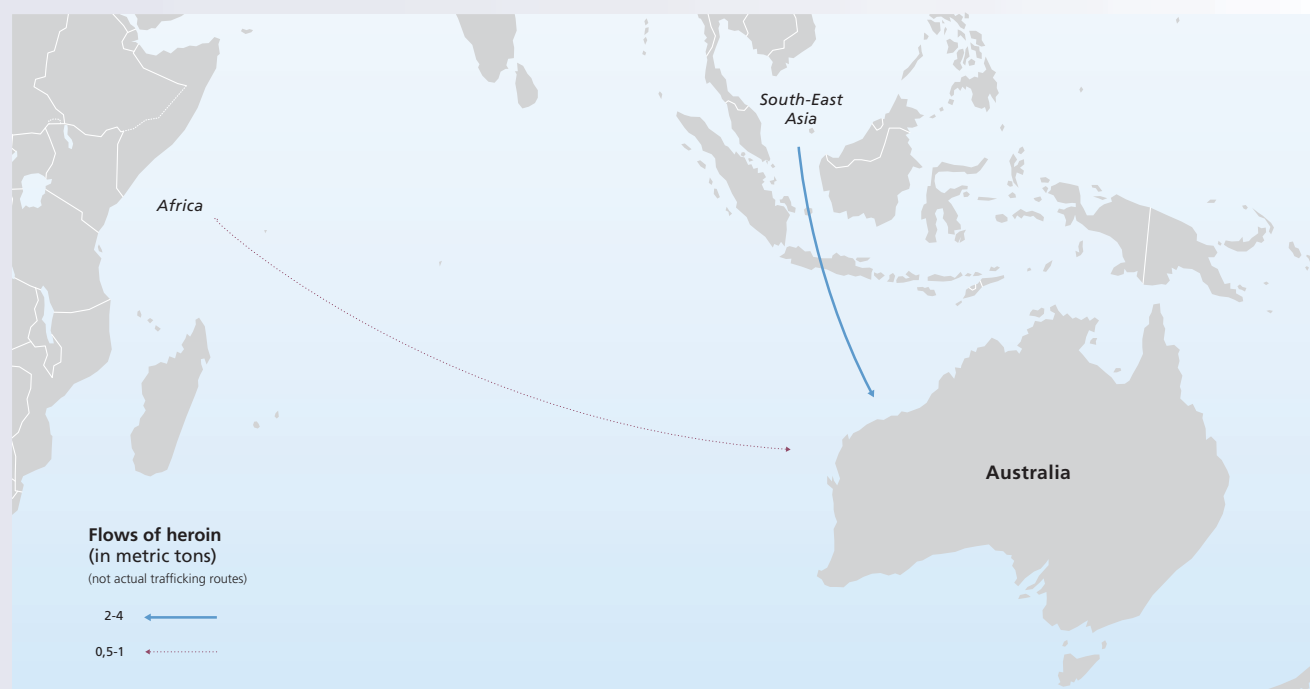
In 2009, Oceania's heroin market was worth an estimated US\$3.5 billion. Indeed, Australia and New Zealand had the highest heroin prices in the world; heroin of just 30 per cent purity cost \$380 per gram. The almost 4 tons of heroin consumed in the region cost Australian users \$3 billion and users from New Zealand \$500 million.

In 2009, both South-East Asian and African – mainly Nigerian – drug traffickers were involved in shipping heroin to Australia. Although information is limited, domestic sales were likely conducted by indigenous groups.

Opiate demand and social issues in Oceania

In 2009, 3.8 tons of heroin was consumed by 69,000 heroin abusers. Australia dominated with an estimated

Map 33: Heroin trafficking flows to Australia, 2009



Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

142 ARQ Australia, 2009.

Fig. 18: Heroin seizures in Australia, 1999-2009

Source: UNODC.

55,000 heroin abusers, followed by New Zealand with an estimated 12,000 abusers. The remaining countries in Oceania are small islands with no drug abuse data available.

Law enforcement and seizures

Heroin seizures in Oceania are mainly limited to Australia. In 2009, Australia seized 170 kg of heroin and New Zealand seized 1 kg. Between 1999 and 2009, heroin seizures in Australia decreased by 53 per cent despite stable heroin consumption in the country. In New Zealand, heroin seizures have remained at around 1 kg between 1999 and 2009.

The flow of Afghan opiates to Africa

In 2009, an estimated 40-45 tons of Afghan heroin were trafficked to Africa. The majority of this amount was consumed in Africa; however Africa is now emerging as a heroin trafficking hub for onward movement to Europe, China and Australia. Across Africa, 1.2 tons of heroin were seized in 2009.

Opiate supply

Of the 40-45 tons trafficked to Africa, some 25-30 tons were likely trafficked from Pakistan, 5 tons from the Islamic Republic of Iran, 5-6 tons from the United Arab Emirates and 5-6 tons from India. Indeed, the majority of heroin is still smuggled into South Africa mainly from South-West Asia and, to a lesser extent, South-East Asia. Major hubs in Africa include Nigeria and South Africa.

Based on seizure data, it appears that the majority of heroin trafficked from Pakistan to Africa is conducted by African couriers rather than Pakistanis. Heroin is most likely exchanged in industrial cities such as Karachi or Lahore, before being shipped by air. Trafficking from Pakistan to East Africa also occurs by sea, given the limited capacity of law enforcement at seaports across East Africa.

Most heroin enters Africa through its eastern countries. Heroin reaches Nigeria via East African countries (Ethiopia, Somalia, Kenya, the United Republic of Tanzania and

Mozambique) by air or overland; however, it is also transported by couriers on direct flights or shipped directly to Nigeria from the countries of origin. Heroin is smuggled into South Africa mainly using couriers and parcel post. Other routes involve entry through Kenya, the United Republic of Tanzania and Mozambique and the use of road networks. Exact volumes and routes are difficult to determine given that East African countries provided UNODC with very limited drug trafficking data in 2009.

Value and beneficiaries

In 2009, Africa's drug trafficking market was worth an estimated US\$3.2 billion – most of which went to Nigerian criminal groups. Nigerian organized criminal groups likely dominate the African drug trade and are active in many countries around the world, including destination countries in Europe. However, drug trafficking in Africa involves both African networks, including Nigerians and Tanzanians, as well as foreign networks, including Chinese and Pakistanis. Indeed, the Pakistan-Africa route appears critical; in 2009, the overwhelming majority of foreigners arrested on drug charges in Pakistan were Nigerians.¹⁴³ Although African drug traffickers are clearly very active in Pakistan, few Pakistanis are likely to be active in Africa.

West African and Chinese criminal organizations are reported to be major players in hubs like South Africa, busying themselves in the local distribution and developing the heroin and methamphetamine markets.¹⁴⁴

Opiate demand and social issues in Africa

In 2009, an estimated 34 tons of heroin were consumed in Africa. However numbers and distribution of drug users are difficult to determine as official drug consumption figures were provided by just 9 per cent of African countries in 2009. African data collection capacity must be developed as a matter of urgency, since the absence of data makes it almost impossible to accurately estimate the number of opiate abusers in Africa.

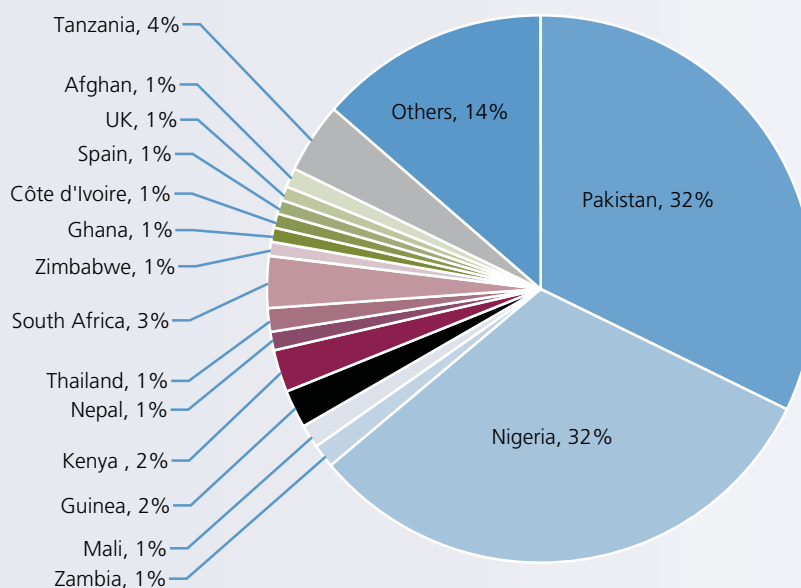
Available data suggests that there are more heroin users in East, West and Central Africa than in Northern and Southern Africa.¹⁴⁵ This is not surprising given that East Africa is the main entry point for Afghan heroin and West Africa is an important exit point. Estimated number of African users may also be skewed by heroin purity levels. Given the economic profile of consumers, heroin purity at street level may be even lower than 10 per cent. Low quality heroin is often mixed with cannabis; intravenous abuse of heroin is not very common, as most heroin abusers smoke the drug.¹⁴⁶

¹⁴³ ARQ 2009, Pakistan.

¹⁴⁴ HONLAF September 2009.

¹⁴⁵ National estimates or regional averages were used to analyse distribution of users.

¹⁴⁶ HONLAF September 2009.

Fig. 19: Distribution of drug trafficking arrests in Pakistan, by country of nationality, 2000-2008

Source: World Customs Office.

Africa's high level of HIV/AIDS, coupled with current trends of increased heroin trafficking to the continent may result in increased heroin abuse and further HIV/AIDS infection in the coming years. The spread of HIV/AIDS by injecting drug abuse has already been reported in East Africa. A study of 336 heroin abusers in Nairobi found that 44.9 per cent used, or had previously used, heroin by injection; of the 101 persons who abused heroin by injection at the time of the study, 52 per cent were HIV-positive.¹⁴⁷ Heroin abuse by injection is also reported to be spreading at an alarming rate in the United Republic of Tanzania. Injecting drug users are particularly vulnerable to HIV infection, since many share syringes and engage in unprotected sex, thus contributing to the spread of HIV to the general population. Indeed, Africa has 22.4 million of the estimated 33.4 million HIV-positive persons identified worldwide in 2010 – an alarming 67 per cent.¹⁴⁸ The level of HIV infection is higher in Nigeria and South Africa than in other African countries.

In 2009, Egypt was the only African country to report opium abuse. An estimated 207,000 people are opiate abusers, of which 126,000 are opium abusers. Consuming 44 tons of opium in 2009, Egypt would require 1,500-2,500 hectares of illegal opium poppy cultivation. More data is needed to better estimate consumption and opium poppy cultivation in Egypt.

Onward trafficking routes

Although the majority of heroin trafficked to Africa is consumed on the continent, Africa is also emerging as a key

trans-shipment point for heroin destined for other markets. In 2009, an estimated 7 tons of heroin was trafficked from Africa to Europe, almost 1 ton to China and a small amount to Australia.

The high number of Nigerian arrests for heroin trafficking internationally suggests that Nigeria is a hub for heroin distribution from Africa to Europe. Like other West African groups, Nigerian networks abroad are not highly structured and they often overlap with other networks. From Nigeria, heroin is shipped to Europe by sea and air. Nigerian criminal groups have already established a large cocaine network in Europe and most likely use the same network for heroin trafficking. According to the ARQ provided by the Italian Government, heroin is also trafficked from Pakistan via East and North Africa to Italy. Detailed routes of heroin trafficking to and from Africa will be covered in a separate report, as more data is needed.

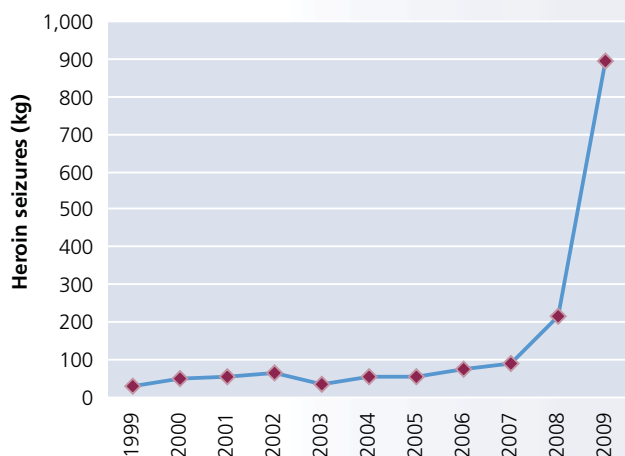
Law enforcement and seizures

In 2009, African law enforcement seized 1.2 tons of heroin; just 70 kg of this was seized by customs. As mentioned above, heroin trafficking via East Africa through North Africa has increased sharply in recent years, although the number of heroin seizures made in East African countries was very limited in 2009 – less than 10 kg in each country.

North Africa, however, reported a significant increase in seizures. Between 1999 and 2008, the amount of heroin seized in Africa was between 200 kg and 350 kg; in 2009, the total amount of heroin seized in the region nearly quadrupled to 1,227 kg. Increased seizures were mainly reported in North Africa, particularly Algeria. Given the emergence of Africa as a heroin trafficking hub, in-depth research is required as a matter of urgency.

¹⁴⁷ *The rise of injecting drug use in East Africa: a case study from Kenya*. Susan Beckerleg et al., 2005.

¹⁴⁸ UNAIDS outlook report, 2010.

Fig. 20: Heroin seizures in North Africa, 1999-2009

Source: UNODC.

The flow of Afghan opiates to the Americas

In 2009, an estimated some 40 tons of heroin was available in the Americas – of this 25 tons were consumed and 3.5 tons were seized. This heroin supply was met by both regional and, to a limited extent, Afghan supply. It is not clear why heroin supply was higher than demand – either consumption statistics are incorrect, production is lower, or stockpiles exist in the region.

Opiate supply

There are three primary sources for the heroin abused in the Americas: South America (mainly Colombia), Mexico and Afghanistan.

In 2009, Colombia produced 9 tons of opium, with the potential to yield 900-1,000 kg of heroin. Columbian heroin is of very high purity, sometimes reaching the upper 90th percentile range. This amount was, however, insufficient to meet South American consumption demand (2 tons) and seizures (1 tons) in 2009. In addition, 58 per cent of the heroin seized in the United States of America is reportedly Colombian heroin¹⁴⁹ - this would mean that 12 tons of Colombian heroin was trafficked to the United States of America in 2009. In total, Colombia would have had to manufacture 15 tons of heroin in order to meet the heroin demand in both South America and the United States of America; 150 tons of opium would have been necessary to manufacture that much heroin, resulting in an obvious discrepancy between the supply and demand for Colombian opium. Further research on this topic is needed.

In 2009, 426 tons of opium was produced in Mexico, with the potential to manufacture some 40 tons of heroin – mostly black tar heroin. As 39 per cent of heroin seizures in the United States of America were Mexican black tar

heroin,¹⁵⁰ it is likely that 9 tons of black tar heroin was trafficked to the United States of America from Mexico in 2009. The long Mexico-United States of America land border appears to be the main entry point. Mexican heroin is smuggled in cars, trucks and buses and may also be hidden on or in the body of the smuggler.

The Canadian heroin market however, is dominated by Afghan heroin,¹⁵¹ with only a limited amount of heroin coming from Mexico. Based on previous seizure patterns, it is likely that around 78 per cent of the heroin abused in Canada is Afghan heroin trafficked from India, Pakistan and to a lesser extent from Africa.

If the total demand for Mexican heroin in 2009 was at most 10 tons, it remains unclear where the remaining 30 tons was abused. Although seizures indicate that some Afghan heroin was trafficked to the United States of America, the level of trafficking for 2009 remains unclear, firstly because heroin manufacture in Mexico was much higher than the demand in the United States of America, eliminating the need to import Afghan heroin into the United States of America; and secondly, seizure data from the United States of America in 2009 was insufficient to draw any solid conclusions.

The above analysis is based on limited available supply and demand statistics. Therefore, the manufacture of heroin specifically in South America and Mexico should be further analysed in future reports, in order to accurately estimate the amount of Afghan heroin trafficked to the United States of America and Canada.

Opiate demand and social issues in the Americas

In 2009, an estimated 25 tons of pure heroin were abused by 1.67 million heroin users in the Americas. The majority, 22 tons, was abused in North America, 2 tons are estimated to have been used in South America, 850-900 kg in the Caribbean and 500 kg in Central America. The United States of America dominated heroin abuse in the Americas, with users consuming 21 tons in 2009. Canadians consumed 1.3 tons in 2009. Despite being a key production country, just 100-150 kg of heroin were abused in Mexico

Exact numbers of heroin users are difficult to determine, as just 13 out of 42 countries in the Americas provided drug consumption data in 2009. Of a total estimated 1.67 million heroin abusers in the Americas, 1.2 million were in the United States of America and 114,000 were in Canada. In 2009, the number of heroin abusers in Mexico and Brazil was estimated to be between 50,000 and 60,000 in each country and between 30,000 and 40,000 each in Argentina, Colombia, Peru and Puerto Rico. The highest preva-

¹⁴⁹ According to the DEA (USA) heroin signature programme.

¹⁵⁰ According to the Drug Enforcement Administration (DEA) Heroin Signature Programme (HSP).

¹⁵¹ Report on the Illicit Drug Situation in Canada – 2007, 2008.

Table 16: Heroin consumption in the Americas, 2009

Region	Consumption (tons) - purity: 70% (kg)	Percentage of total
Central America	494	2%
North America	21,985	88%
South America	2,076	8%
Caribbean	870	3%
Total (rounded)	25,000	100%

Source: UNODC.

lence rates among adults in the Americas were reported in Costa Rica (2.8 per cent), Puerto Rico (1.25 per cent) and the United States of America (0.58 per cent).

In 2009, an estimated 2 tons of heroin were consumed in South America, yet only 1 ton was manufactured in the subregion that year. Given the absence of evidence to suggest that Afghan or Mexican heroin was trafficked to South America, it can be inferred that either the level of heroin abuse was overestimated or the level of heroin manufacture in the subregion was actually significantly higher than 1 ton.

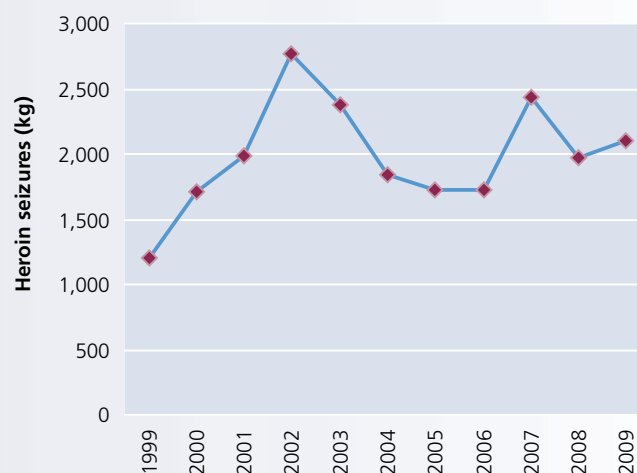
A large number of countries in the Americas have yet to provide data on opium consumption, posing significant data constraints. Costa Rica and Guatemala were among the very few countries to provide this data. According to the 2009 ARQ from Costa Rica, 2.8 per cent of the country's adult population are opium abusers. This would translate into some 80,000 persons potentially abusing around 28 tons of opium. In addition, in the ARQ it provided in 2009, Guatemala reported producing 15 per cent of the country's total opium consumption. This might suggest a high level of illicit opium poppy cultivation in Central America.

In addition to heroin production in the Americas, some Afghan heroin was trafficked to Canada and the United States of America in 2009. Overall, the amount of heroin available in the Americas (almost 40 tons) is much higher than the amount consumed (25 tons); suggesting that either consumption is higher than estimated or opium production is lower than estimated. However, if both demand and supply statistics are correct, there are likely to be heroin and opium stocks in the region.

Law enforcement and seizures

In 2009, an estimated 3.5 tons of heroin was seized in the Americas – the majority, around 2 tons, was seized in the United States of America.¹⁵²

Over the last decade, heroin seizures have increased in North America, particularly in the United States of America. An increase was also seen in Canada, from 88 kg of heroin seized in 1999 to 213 kg in 2009 – the majority of

Fig. 21: Heroin seizures in the USA, 1999-2009

Source: UNODC.

heroin seized in Canada originates from Afghanistan. In 2009, 32 kg of heroin was seized en route to the United States of America: 21 kg in the Islamic Republic of Iran, 5.6 kg in India, 5.6 kg in Turkey, 4.5 kg in Germany (in transit from India) and 0.16 kg in Pakistan. Although no heroin seizures were reported in African countries or South-East Asia to the United States of America in 2009, some seizures were reported between 2000 and 2008, especially from Nigeria and Thailand.

Despite increases in both the United States of America and Canada over the last decade, Mexican seizures remained stable despite the significant increase in opium production in the country during this period. Indeed, although Mexico produced some 40 tons of heroin in 2008, only 174 kg were seized.

In 2009, most countries in Central America seized less than 100 kg of heroin – data indicates that heroin abuse levels were also low. Heroin abuse and seizures were also limited in most South American countries – Colombia seized the most heroin in 2009 at 650 kg. Given that Colombia manufactured around 1 ton of heroin, this represents a heroin interdiction rate of around 65 per cent. Such a rate has never been observed in any other country or region of the world. In addition, total heroin abuse in all of South America was around 2 tons (of pure heroin) in 2009, indicating that South American abusers outside of Colombia were left with only 350 kg of heroin. The combined manufacture, seizure and consumption figures suggest that either the quantity abused is less than estimated or that production is higher in Colombia and the rest of South America. The level of heroin seized was less than 5 per cent in Brazil, Argentina and the Bolivarian Republic of Venezuela, compared to reported abuse levels.

¹⁵² At the time of publication official 2009 seizure data was unavailable for both the United States of America and Canada – 2008 estimates were used.

1.4 CASE STUDY: OPIATE TRAFFICKING THROUGH BALUCHISTAN AND FATA

The majority of the 160 tons of heroin trafficked into Pakistan in 2009 transited Baluchistan province in Pakistan. Significant amounts also transited the FATA region. Prior to this report, very little was known about the drug trafficking routes, beneficiaries and operations within Baluchistan and FATA. This case study provides a comprehensive study of these areas, including economic and social factors and law enforcement capability.

Baluchistan

Baluchistan has an extremely poor economic record, despite being the largest province in Pakistan and well endowed with natural resources. Baluchistan is the least developed province of Pakistan and also the largest, covering some 42 per cent of the country's total land area. Baluchistan's population is scattered across the province's 26 districts and is dominated by four major ethnic groups: Baluch, Brahui, Pashtun and Hazara. At 45 per cent, the Baluch form the overwhelming majority of the population, followed by the Pashtuns with 38 per cent and the remaining 17 per cent including a range of minority groups belonging to other

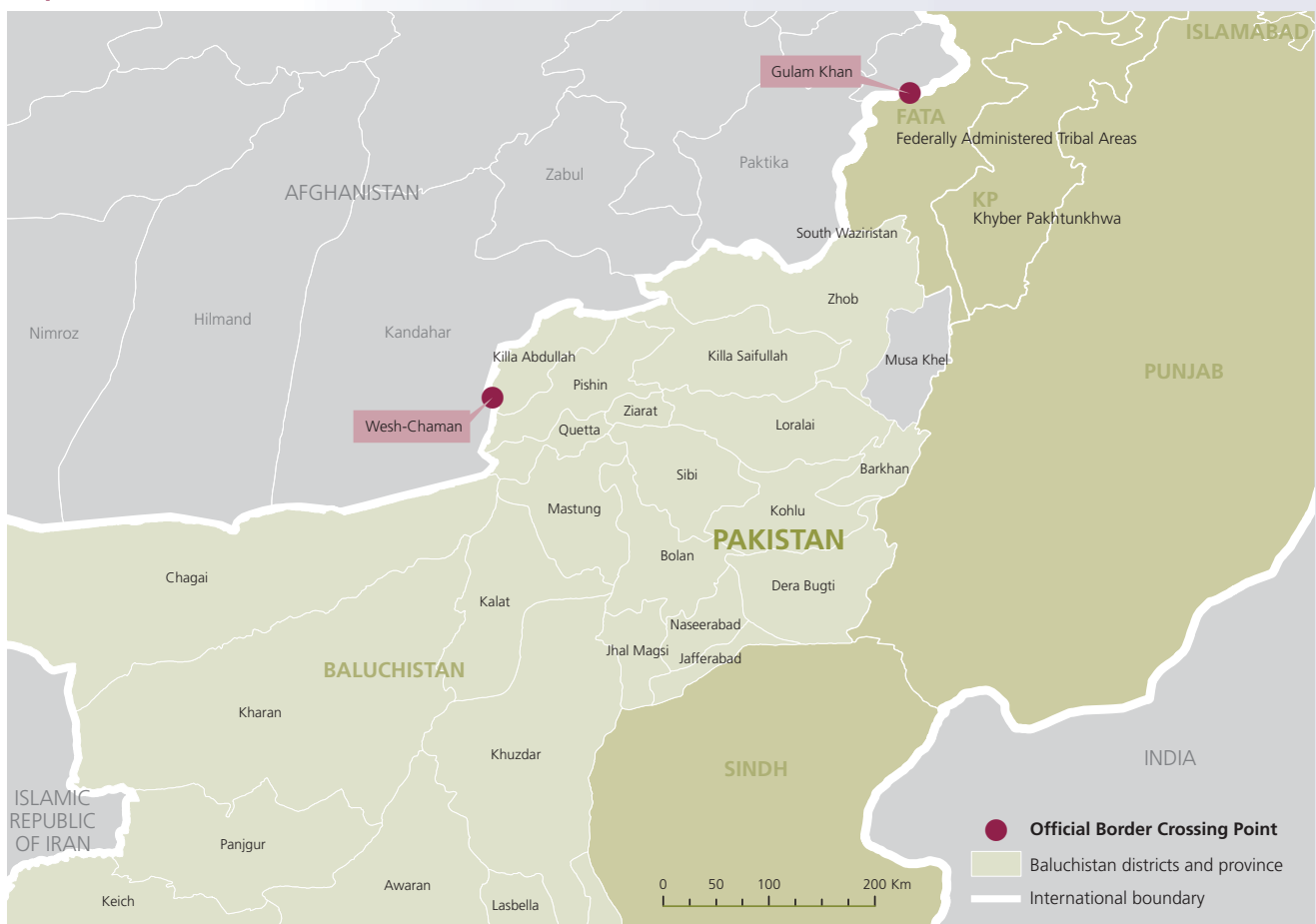
provinces of Pakistan.¹⁵³ Baluchistan's ethnic groups are regionally segregated across the province.

The Sunni Muslim Baluch ethnic group largely dominates the province, but is especially prevalent in areas bordering the Islamic Republic of Iran to the west and parts of the border with Afghanistan, as the tribe extends across both of these borders. Compared to other tribes, the Baluch are extremely hierarchical and have a very strong ethnic identity that permeates all aspects of society, including religion. Traditionally, a clan chief known as a *Sardar* or *Nawab* heads each clan. Among the Baluch and the Brahui tribes, these chiefs hold dominating and influential positions that permeate the social, economic and political realms.

Thanks to the strong tribal ties, cross-border smuggling and illicit activities between Afghanistan, Baluchistan and the Islamic Republic of Iran are smooth and relatively easy to run. The Baluch tribes almost completely monopolize Baluchistan's drug trafficking networks, while drug flows between Afghanistan and the Pashtun areas of Baluchistan are much smaller and less systematic.

Pashtuns, although fewer in number than the Baluch, dominate the areas bordering Afghanistan to the north, especially the Achakzai, Noor Zai, Kakar, Syeds and Tareen

Map 34: Districts of Baluchistan



Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

¹⁵³ Report of the Parliamentary Committee on Baluchistan, November 2005, Report 7.

tribes. Pashtun tribes are not as strictly hierarchical as their Baluch or Brahui counterparts, especially in northern Baluchistan where the role of chief is more symbolic and less influential.

Baluchistan's Pashtuns have strong tribal connections across the border into southern Afghanistan and into neighboring Federally Administered Tribal Areas (FATA). In 2005 an estimated 600,000 Afghan Pashtuns lived in Baluchistan, most of which had settled in the northern areas.¹⁵⁴ Smuggling and illicit activities between Afghanistan, Pashtun Baluchistan and FATA are widespread and tribal elders have little or no power to intervene. Some Pashtun areas in Baluchistan are also reported to host elements of the Taliban, Al-Qaida and other powerful militant groups.

Brahuis are mainly concentrated in the centre of Baluchistan with a population estimated at just 100,000. Brahui speaking tribes include Raisani, Shahwani, Sumulani, Bangulzai, Mohammad Shahi, Lehri, Bezenjo, Mohammad Hasni, Zarakzai (Zehri), Mengal and Lango, although most of these tribes are bilingual, in addition to being fluent in the Baluchi language.¹⁵⁵ Although Brahui and Baluchi are distinct languages, the culture, social organization and history of the two groups are rather similar. In fact, many of the Brahui and Baluch feel a sense of belonging to a wider Baluch society and tradition. The 1998 national census, for example, did not differentiate between the two. Although Brahuis also have ethnic connections across the border in Afghanistan, they are rarely mentioned specifically in relation to drug trafficking.

Hazaras are a minority ethnic group in Baluchistan. Originally from Afghanistan, a large number of them migrated or fled to Baluchistan due to violence and ethnic persecu-

tion. Many have since emigrated internationally although a significant number remain in Baluchistan, particularly in the city of Quetta.

The majority of the population of Quetta is Pashtun, Baluch and Hazara, followed by other ethnic groups, including Tajik refugees from Afghanistan. These ethnic groups are geographically segregated within the city. The Hazara population is reportedly gaining power in Quetta due to financial support from relatives living abroad, mostly in Australia. As a result, religious and ethnic clashes between the Baluch and the Hazara have been increasing and represent a serious social and security problem that regularly occupies law enforcement agencies.

Baluchistan has consistently scored the lowest in education, literacy, health, water and sanitation development indicators of any province in Pakistan. An estimated 700,000 of 1,100,000 school-aged children do not attend school.¹⁵⁶ Where schools are available, students often need to travel prohibitively long distances to attend. As in the case of FATA, entrenched tribal and religious traditions have given rise to a clear gender disparity in education levels. The education standard is very low and enrolments are equally low. This situation is worse in the border areas where young children are actively recruited for smuggling activities.

Law enforcement in Baluchistan

Baluchistan's law and order situation is widely perceived to be deteriorating, with intermittent separatist and sectarian clashes and the provincial crime rate increasing. The province's borders with Afghanistan and the Islamic Republic of Iran are long and porous, making it extremely difficult to properly control the area. Despite the presence of many law enforcement agencies, including both federal and provin-

Table 17: Law enforcement strength in Baluchistan*, number of staff, 2010

Administration	Agency name	Baluchistan provincial strength	Total national strength
Provincially administered	Police	35,870	362,778
	Levies	5,000	12,000
	Frontier Constabulary	10,500	33,500
Federally administered	Frontier Corp	43,000	116,000
	Frontier Constabulary	5,200	33,500
	Coast Guard	1,600	3,000
	Federal Investigation Agency (FIA)	45	3,000
	Anti Narcotics Force	463	3,000
	Customs	300	12,000

* Not all figures were officially available at the time of printing and, as a result, some figures are estimates.

¹⁵⁴ Gazdar, Haris. 2007, *Balochistan Economic Report: Background Paper on Social Structures and Migration*, Collective for Social Science Research, Karachi.

¹⁵⁵ Baluchistan Government website, <http://www.balochistan.gov.pk/>, accessed October 2010.

¹⁵⁶ World Bank, May 2008, *Pakistan, Balochistan Economic Report: From Periphery to Core*, No. 40345-PK.

cial agencies, information sharing between agencies is ad hoc and their relationships are often competitive rather than cooperative. Resources available to these agencies are insufficient and low personnel numbers make it impossible to properly secure the largest province in Pakistan.

Prevailing insecurity in Baluchistan has impacted the ability of law enforcement agencies to deal with local criminal justice issues. Criminal activity is on the rise in Baluchistan, with an overall 25 per cent increase in the number of crimes reported between 2006 and 2009. During the same period, murder, kidnapping and car theft all more than doubled. The most startling increase was the number of cases of kidnapping for ransom in Baluchistan, which rose by 867 per cent between 2006 and 2009.

Federal law enforcement agencies operating in Baluchistan include the Anti Narcotics Force, Customs, Frontier Corp, Federal Investigation Agency, Coast Guard and the Directorate of Intelligence and Investigations (Customs and Excise).

The Anti Narcotics Force (ANF) is the premier law enforcement agency of Pakistan in the area of drug control. The ANF has the primary responsibility of interdicting the production, smuggling, trafficking and abuse of narcotics and illicit psychotropic substances. It collects intelligence and is responsible for arrests, drug seizures and the investigation and prosecution of offenders. The ANF has a presence in strategic areas across Baluchistan, including in and around Quetta, Chaman, Dalbandin, Panjgur, Turbat, Hub and Gwadar, although their staff shortage and limited drug and precursor detection equipment makes effective operations outside of these areas difficult. In 2009, almost half of all ANF seizures in Baluchistan occurred in and around Quetta.¹⁵⁷

Pakistan Coast Guard (PCG) is headquartered in Karachi. The main responsibilities of the PCG are to counter narcotics, prevent illegal immigration and enemy agents, saboteurs or terrorists from infiltrating into or out of the country within the area of responsibility of the PCG. They also monitor weapon smuggling, counter terrorism and carry out internal security and flood relief operations, in addition to supplementing coastal defence during war. The ANF delegated powers to carry out seizures, arrests and investigations to various law enforcement agencies including the PCG.

Recruitment remains a significant problem across law enforcement agencies, particularly for customs, since their officers tend to maintain their position until old age. In fact, there have reportedly been no new recruits to the service since 1994.¹⁵⁸

In addition to the national law enforcement forces, there are provincial law enforcement agencies operating in Balu-

chistan, which include the provincial police and Levies. Provincial police forces do not have a presence along the borders or in tribal areas where other law enforcement agencies have been delegated police mandates. For instance, Levies are responsible for policing in tribal areas and carrying out other functions under their respective political agents. The tribal chiefs handpick the Levies and their loyalty is to the tribe. Hence, tribal chiefs prefer the levy structure and are pushing for the restriction of police control.

Border control in Baluchistan

Islamic Republic of Iran

The border between Baluchistan and the Islamic Republic of Iran is 730 km long, stretching from Jiwani in Gwadar district to Qilla Rabat in Chaghi district. Taftan is the main official border crossing between the Islamic Republic of Iran and Baluchistan, although there are also numerous unofficial crossings in this hilly desert terrain. Baluchistan's hostile border terrain makes movement and interdiction difficult for law enforcement, thus making the area favourable to drug traffickers.

Licit cross-border trade between Baluchistan and the Islamic Republic of Iran is significant and concentrated mainly in Taftan, although other official border crossing points are also used. In some cases, drug traffickers use official crossings for shipments, even though the largely unprotected border makes crossing easy in most locations.

Pakistani law enforcement present at the Taftan border includes ANF, FIA, Customs and the Frontier Corp. None of these agencies have technical equipment, aside from one mobile scanner. A Border Liaison Office is scheduled to open at Taftan in 2011, with the aim of improving communication and interaction between Pakistani and Iranian law enforcement. Although the border is extremely difficult to patrol, the Iranian side of the border is perceived to be the more secure of the two.

Border with Afghanistan

The 930 km long Baluchistan-Afghanistan border begins at Qilla Rabat (Chaghi district) and ends at GulKach (Zhub district). Manned by Customs, the ANF, the Frontier Corp and the FIA, Chaman is the only official crossing point along this long border. However, with a mountainous and hilly terrain along the rest of the border, there are numerous routes aside from the official crossing through which drug traffickers can easily pass undetected.

At the Chaman border, the equipment, manpower and training of law enforcement agencies are insufficient to properly execute their mandated task. One customs officer from Baluchistan noted that they do not even have scanners available at the border crossing and have to rely on informants and tip-offs.¹⁵⁹ Another officer reported that scanning machines have been installed at Chaman and Quetta,

¹⁵⁷ ANF, March 2010, *Drug Situation in Pakistan and Counter Narcotics Achievements: 2009*.

¹⁵⁸ Interview with Customs Official, Quetta, August 2010.

¹⁵⁹ Interview with Customs Officer, Quetta, August 2010.

Taftan official crossing, Pakistan – Islamic Republic of Iran border



Source: UNODC.

Chaman pedestrian crossing



Source: UNODC.

Table 18: Containers entering Baluchistan annually from the Islamic Republic of Iran, 2005-2010

	2005	2006	2007	2008	2009	2010
Number of containers	14,250	17,800	14,700	19,950	21,750	18,000

Source: Baluchistan Customs Department.

but due to the high level of vehicle crossing it is not possible to use them regularly.¹⁶⁰ Without even the basic drug and precursor detection equipment, drug traffickers pass through Chaman with a moderate risk of interdiction and those caught are often low-level drug mules rather than key members of the drug trafficking network. This said, only drug traffickers wanting to transport large volumes of drugs or precursors would risk transiting through Chaman. In most cases, these types of big shipments rely heavily on contacts and bribes to secure smooth passage.

In 2008, the Chaman border crossing was fitted with a biometrics capability, although this is not currently operational reportedly due to political issues with Afghanistan. Trucks are meant to be thoroughly searched, but in reality searching is ad hoc and it can range from checking one box to fully unloading a truck. Unlike at the border between Pakistan and China, trucks coming from Afghanistan are not required to fully unload onto trucks in Pakistan, making full searches difficult.

Coastline

Baluchistan's coastline with the Arabian Sea is 640 km long, stretching from Jiwani (Gwadar district) to Hub/Gaddani (Lasbella district). Along the coast there are five official ports, namely Gwadar, Gaddani, Ormara, Pasni and Jiwani, and numerous unofficial, natural small jetties commonly exploited by smugglers and drug traffickers. The Coast Guard of Pakistan is the prominent law enforcement agency operating along the Makran coast, with jurisdiction from 30 km out to sea to 120 km inland. Although relatively small in number, the Coast Guard have secured a number

of seizure successes including the 2009 seizure of the highest volume of heroin of any law enforcement agency in Pakistan.

Opiate trafficking to/from Baluchistan

Although drugs enter Pakistan through numerous unofficial tracks across the Afghan border, once in Pakistan they are usually moved along established trade routes and enter key transport networks, with the notable exception of Baluchistan. In Baluchistan, drugs are mainly trafficked on smaller, unmonitored routes between the border and the Makran coast, making detection and interception difficult for law enforcement agencies. Moreover, coercive power in the drug trade is significant and frequently deployed, including the use of heavily armed convoys to transit across Baluchistan province. Drug trafficking networks in Baluchistan are considerably more organized than in FATA.

Baluchistan's long and porous border with Afghanistan has one official crossing, located in Chaman, although it is punctured by hundreds of natural passes and unofficial crossings. Difficult terrain, inadequate equipment and limited training of law enforcement, as well as strong tribal connections, make the border extremely vulnerable to drug trafficking. Even with increased numbers of law enforcement personnel, drug trafficking from southern Afghanistan into Baluchistan would be almost impossible to prevent. Heroin manufacturing labs in the Hilmand, Nimroz and Kandahar provinces of Afghanistan are concentrated close to the Afghanistan-Pakistan border due to both favourable security conditions and ease of transportation into Pakistan. Drugs trafficked into Baluchistan most commonly cross at unofficial passes, although the Chaman border crossing is also used.

¹⁶⁰ Interview with Customs Officer, Quetta, August 2010.

A significant proportion of Afghan opiates are trafficked from Hilmand and Nimroz into Baluchistan utilizing unofficial crossings. Drugs are trafficked via three main unofficial border points in Baluchistan's Chaghi district: Girdi jungle, Baram Cha and Rabat. These routes are regarded as golden passages for drug traffickers, as they have minimal law enforcement presence and optimal transport distances to the Islamic Republic of Iran and the Makran coast. Drugs are also reportedly stored in these border areas temporarily until they can be transported through Baluchistan.

Unofficial crossings and mountain passes require flexible transportation arrangements. Drugs trafficked through these crossings are usually transported on camels, horses and other livestock, or on foot. Whenever possible, cars are used to transport drugs, although these are limited to flat terrain and low altitude areas.

Drugs trafficked into the northern Pashtun areas of Baluchistan are most commonly concealed in fruit boxes, bags and in specially designed vehicle cavities. These drugs are then transported to Quetta, where they join other drug flows. Indeed, opiates trafficked across numerous routes from Afghanistan are often gathered in the cities of Quetta and Dalbandin before continuing along routes through Baluchistan, including to the ports along the coast of Pakistan, such as Karachi and Gwadar, or to the eastern part of the Islamic Republic of Iran, by road or rail. Due to the porous nature of the border, Afghan drug traffickers usually deliver the drugs to their Pakistani counterparts in Baluchistan, particularly at Girdi Jungle, Quetta and Dalbandin.¹⁶¹ Alternatively, Pakistani drug traffickers can travel to Afghanistan to collect the drugs, although this is less common. In practice, the dual nationality and cross-border ties of many tribes make this distinction difficult. Drug networks also maintain a number of safehouses containing drug stockpiles in northern Baluchistan, which serve as distribution points for drugs sold onward to networks in Pakistan. While some small shipments may be exchanged for cash on the spot, the majority of large deals are settled through hawala dealers in Quetta or Dalbandin.

Once across the border, the majority of drugs from Afghanistan are transported through Baluchistan to export points, namely the Islamic Republic of Iran and the Makran coast or they are shipped via air. Tribal groups manage the movement of drugs in their area of jurisdiction and pass them onto other tribes in a drug trafficking chain (see 'Opiate Trafficking Networks in Baluchistan'). While drugs are often trafficked into Baluchistan using livestock or container trucks, they most commonly transit Baluchistan in convoys of cars or trucks. Drug trafficking groups in Baluchistan are highly organized, professional and well armed. These groups possess fleets of vehicles, an abundance of light weaponry such as AK-47s and grenades, as well as heavy weaponry including machine guns and even an anti-

Girdi Jungle landscape



Source: UNODC.

aircraft capability. Drug convoys are fast, heavily armed and range in number from three to more than twenty vehicles per convoy. Larger convoys are mostly used in northern Baluchistan and smaller convoys are utilized to travel towards the Makran coast.¹⁶²

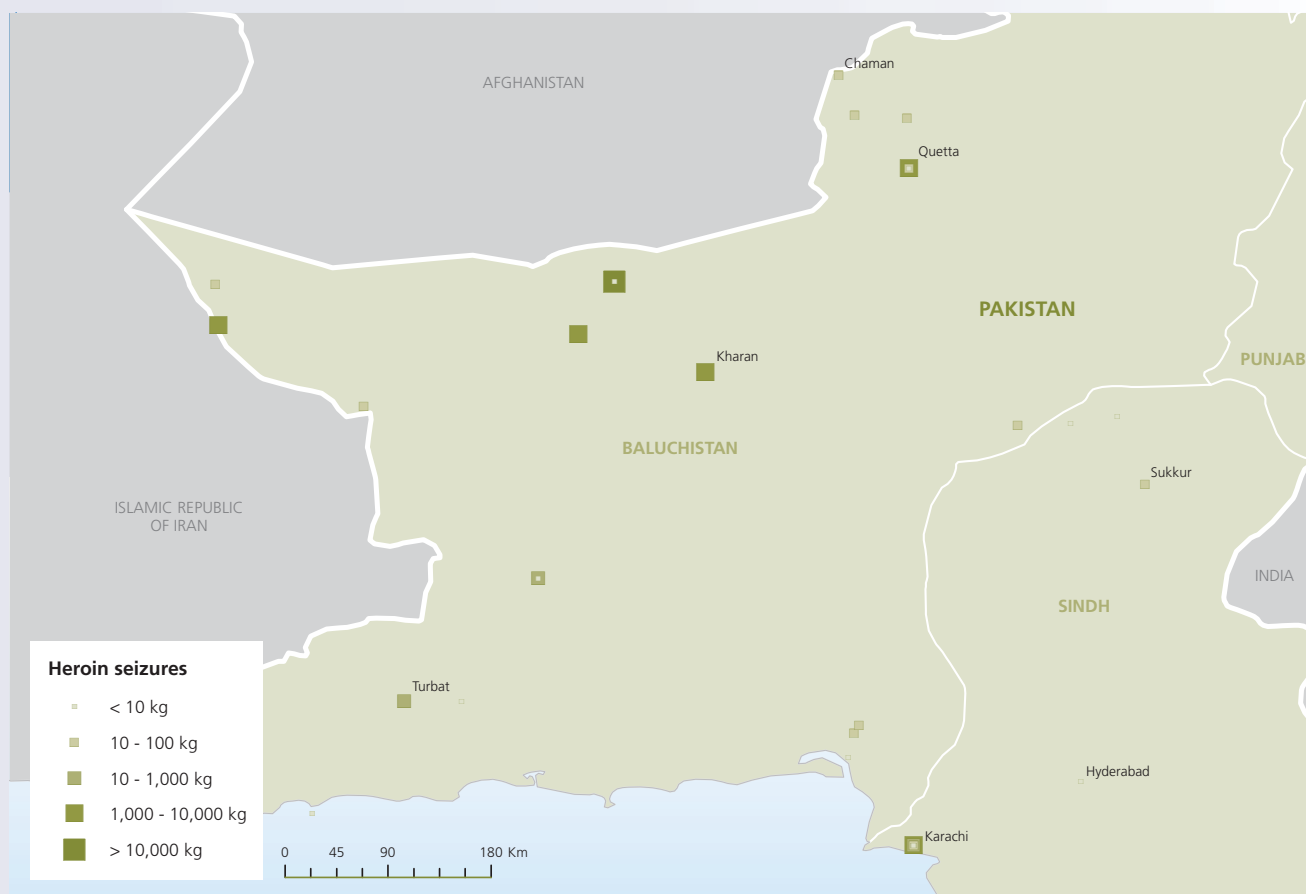
It has been reported that smaller convoys' perceptions of vulnerability to law enforcement interdiction has prompted them to be more heavily armed than larger convoys. Smaller convoys are more likely to engage law enforcement and thus more likely to inflict casualties. Large convoys of twenty or more trucks are intimidating, powerful and unlikely to be confronted by law enforcement if encountered on a routine patrol. The threat of violent interception is most pronounced in Chagai district and the northern border areas with the Islamic Republic of Iran and Afghanistan. However, as the convoys move towards the coastline they become smaller and blend in with local trade and traffic flows.

Baluchistan is the most direct gateway connecting Afghanistan with international markets via sea and, to a lesser extent, via air transport. As mentioned previously, opiates trafficked through Baluchistan are mainly gathered in the cities of Quetta and Dalbandin before being sent off on separate routes, including to Gwadar and Karachi ports. Proposed transport networks to link the expanding Gwadar port with the Afghan border may also facilitate the consolidation of Baluchistan's trafficking routes and turn Gwadar into a major drug trafficking export hub. Heroin and opium seizures at Gwadar were very small compared to other entry and exit points in Pakistan in 2002-2008, but this may change as its share of cargo increases.

Although currently used only for bulk cargo, Gwadar port has a foreseeable role as one of the main entry points for Afghan transit goods, thanks to its proximity to the Afghanistan border. The area is currently lacking the necessary infrastructure links between Gwadar and the Afghanistan-

¹⁶¹ Interviews in Quetta, September 2010.

¹⁶² Interviews in Quetta, September 2010.

Map 35: Heroin seizures in Baluchistan province, 2000-2009

Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Pakistan border, but the ongoing development of this route will likely see Gwadar becoming an increasing transit point for drugs and precursors entering and exiting Afghanistan. The location of Gwadar port also provides the opportunity to subvert trade sanctions placed on the Islamic Republic of Iran. The rapid increase in trade volume transiting the region, which is likely overwhelming Customs and law enforcement agencies, and the port's vicinity to regional trade centres will most likely see Gwadar targeted by illicit traffickers. According to available data, Gwadar is already the most common port area used for illegal migration from Pakistan, including human trafficking.¹⁶³

Karachi is currently the main port in Pakistan, handling the majority of cargo for imports, exports and the Afghan Transit Trade Agreement (ATTA). The high volume of goods transiting through Karachi means that law enforcement is focused heavily at the port, although it also limits the chances of detection. Karachi's port control unit has successfully seized a number of drugs and precursors, but these are likely to represent only a small portion of the total illicit trade transiting through Karachi.

Aside from official ports, a significant volume of drugs is also trafficked by sea from Baluchistan at various unofficial

points along the Makran Coast. Key exit points along the coast include Ormara, Talar, Hingole, Sur Bander, Peshukan and Jiwani, although Kund Malir in Lasbella district and Jirwani in Gwadar district are reportedly the most vital unofficial natural jetties used for drug trafficking.¹⁶⁴

Drugs, including flows coming from both Baluchistan and FATA, are delivered to safehouses along the Makran coast, before being prepared for export. Drugs trafficked by sea from various parts of Baluchistan's coastline are usually first loaded onto small boats before being taken out to international waters, where the drugs are then unloaded onto larger cargo ships. The small boat transport system and broader drug trade along the coast are dominated by the powerful clans of Baluchistan's Awaran and Lasbella districts and particularly by the Baluch Bizanjo, Kalmati and Dashti tribes. These groups also work in conjunction with the Buledi tribes of Makran division.¹⁶⁵ Although the cargo ships are operated by large international drug trafficking networks, some Pakistani networks reportedly operate their own drug trafficking boats along the smaller distances, especially between Pakistan, Oman and Yemen.¹⁶⁶

¹⁶³ Baseline Study on Illegal Migration, Human Smuggling and Trafficking in Pakistan, EBDM, 2009.

¹⁶⁴ Interviews in Quetta, October 2010.

¹⁶⁵ Interviews in Quetta October 2010.

¹⁶⁶ Interviews in Quetta October 2010.

Saindak, near the border with the Islamic Republic of Iran, Chagai District



Source: UNODC.

Given the presence of law enforcement agencies at airports and the increased risk of interdiction, compared to the total lack of law enforcement on the road network for example, drug traffickers tend not to use Baluchistan's airports for trafficking. Indeed, the risk calculation for air trafficking is much higher than for land or sea routes throughout the province and the quantities that can be shipped are significantly lower. The three international airports of Baluchistan, situated in Quetta, Gwadar and Turbat, have a number of international flights. There are currently two flights from Quetta to Dubai, two flights from Gwadar to Muscat and two flights from Turbat to Sharja per week.

According to seizure data, Karachi airport is used much more frequently for drug trafficking than the airports in Baluchistan. However, this data might be misleading. Law enforcement capability at Karachi international airport is far more advanced than in Baluchistan and thus more likely to yield seizures. Overall, in 2009 airport seizures accounted for just 14.17 per cent of all heroin seizures.¹⁶⁷

Drug trafficking from Baluchistan into the Islamic Republic of Iran is streamlined in that, depending on the route, the same tribes control the entire area from the Afghan border to the Iranian border. The main tribes to have widespread control are three Baluch tribes: the Notezai, Gorgage and Sanjrani. Unauthorized exit points at Talab, Mashkel and Chidgee are used along the north-western border, while Mand, Buleda and Kalato are most utilized along the south-western border. The Iranian border in Chagai district is the trafficking route most commonly used, being the shortest distance from Afghanistan via Pakistan and also having a good road network.

The traditional system, known as *rahdari*, allowing unrestricted cross-border movement of border tribes, is accepted by both the Islamic Republic of Iran and Pakistan. This

freedom of movement, intended to facilitate familial and economic ties, is exploited by drug traffickers belonging to border tribes. Despite the ease for both nationalities to travel across the border, it is reportedly much more common for Pakistanis to transport drugs into the Islamic Republic of Iran than for Iranians to enter Baluchistan to collect them.¹⁶⁸

Drugs and precursor chemicals are transported across the Pakistan-Islamic Republic of Iran border on motorbikes, camels, donkeys and in small caravans consisting of two or three vehicles. Drugs and precursor chemicals are also concealed in specially designed vehicle cavities or in bags and cartons of items meant for legal import. Exchange of drugs for payment is uncommon at the border itself and the majority of drug deliveries occur in safe houses in the Islamic Republic of Iran. Moreover, payments are mostly made via hawala dealers rather than in cash at the time of exchange. In most cases, the north-western border town of Zaidan in the Islamic Republic of Iran is used as a base from which drugs are delivered to Iranian groups.¹⁶⁹

Opiate trafficking networks in Baluchistan

Drug trafficking networks in Baluchistan are arranged according to geographic tribal areas of control. These tribal areas interlink with one another in a drug trafficking chain, moving the drugs through each tribal area until they reach the border of Baluchistan. Northern Baluch tribes operate far more organized and entrenched drug trafficking networks than their Pashtun counterparts. Opiate trafficking through the northern Pashtun areas is smaller and more ad hoc than through the Baluch dominated border areas. Although not consistent across the province, tribal leaders generally have knowledge of drug trafficking activities in their tribal area and derive financial benefits in return for protection and freedom of movement for the drug traffickers. Unlike Afghanistan, drug trafficking networks in Baluchistan are almost entirely criminal in nature and have only minor links to militant groups. Powerful drug trafficking groups are well organized and well armed, reportedly possessing weaponry ranging from small arms to anti-aircraft weaponry.¹⁷⁰

The large drug trafficking networks of Baluchistan do not fully monopolize the market. In fact, smaller drug trafficking groups are emerging to capitalize on the perceived easy money. However, these small groups are not well connected and are more likely to be of a criminal nature; ultimately, these groups are more frequently intercepted by law enforcement agencies. There are no reported links between drug trafficking networks and arms trafficking networks.

Three Baluch tribes – the Notezai, Gorgage and Sanjrani tribes – dominate the border area, where drugs are traf-

¹⁶⁷ ANF, March 2010, *Drug Situation in Pakistan and Counter Narcotics Achievements: 2009*.

¹⁶⁸ Customs officer, Islamabad, October 2010.

¹⁶⁹ Interviews in Quetta, October 2010.

¹⁷⁰ Interviews in Quetta, October 2010.

ficked from Hilmand and Nimroz into Baluchistan. As a result of geography, economic opportunity and familial ties, these tribes are more heavily involved in the drug trade than tribes based further inland. In fact, influential members and families of these tribes are reportedly directly involved in drug trafficking, providing logistic support and recruits to the traffickers. Tribal chiefs utilize their influence and authority to protect and safe guard the traffickers passing through their respective jurisdictions.

These tribes also have close ties and working relationships with Afghan refugees based in Pakistan. Indeed, many of the Afghan refugees have both tribal and familial links to the Baluchistan border tribes. The long-standing presence of Afghan refugees in Baluchistan has contributed to developing cross-border smuggling ties and building the trust needed to facilitate drug trafficking networks between Afghanistan and Baluchistan. Pashtun tribes in the northern parts of Baluchistan do not enjoy the same level of social cohesion as the Baluch, although they also have cross-border tribal and familial ties. Among Pashtuns, the Achakzai and Noorzai tribes are mostly involved in the drug smuggling along the border from the south of Afghanistan to Baluchistan. Indeed, the majority of the population in Chaman forms part of the Achakzai and Noorzai tribes.

Although the Baluch tribes of Notezai, Gorgage and Sanjrani control large swathes of land from the Afghan border up to the Iranian border, there are some exit points to the Islamic Republic of Iran that cross into other tribal areas. Specifically, at Mand, Dasht and Chedgee on the Iranian border the Baluch tribes Muhammad Hasni, Bezenjoo and Rinds and Beels are dominant. However, these tribes – all of them Baluch – have solid working relationships and cooperate on drug trafficking movements.

Federally Administrated Tribal Areas (FATA)

The economy of FATA, and even that of neighbouring Khyber Pakhtunkhwa (KP), is based almost solely on agriculture and livestock. Most of the population are farmers, earning a meagre income and remaining vulnerable to the economic allure of the illegal economy. Unemployment across FATA is estimated to exceed 50 per cent.¹⁷¹

The lack of employment opportunities and licit livelihood options in FATA has created a conducive environment for opportunistic militant groups whose economic incentives for potential recruits greatly outweigh any other available opportunity. Young men are particularly vulnerable to economic incentives provided by militant groups. For instance, the Taliban stipend is reportedly more than double the amount of a well-paying unskilled job in FATA.¹⁷²

Economic stress is boosting the participation in illicit livelihoods, including drug smuggling, arms smuggling and other criminal activity, further degrading the security environment. The illicit economy of FATA is a product of, and contributor to, its insecurity.

Education in FATA is heavily prioritized towards men and is generally of a low standard. One of the main constraints is the difficulty of attracting and retaining teachers, especially in areas tightly controlled by militant groups. Given the agriculture and livestock economy, many children are expected to help on the farms rather than attend school – this is especially true for girls. Moreover, schools are often located long distances from the areas where the population resides, discouraging attendance.

Adult literacy is a serious problem, with an illiteracy rate of 82.6 per cent in FATA.¹⁷³ Despite the number of schools, school buildings are often inadequate, have no teachers, or students are refused admission due to classroom overcrowding. In 2008, FATA had 1,000 vacant teaching positions. Schools also lack appropriate facilities, teaching materials and have high levels of absenteeism of both students and teachers. These challenges, coupled with distance and the cost of attending formal schooling, have meant that informal and religious education has become widespread in FATA, especially the use of madrasahs.

Most people living in the Federally Administered Tribal Areas are Pashtun (also called Paktun and Pathan). Across the seven FATA agencies (Bajaur, Mohmand, Khyber, Kurram, Orakzai, North Waziristan and South Waziristan) reside at least seventeen major tribes, which then further break down into clans and sub-clans. Tribal identity is strong and fundamentally permeates all aspects of FATA society. Although each agency is largely dominated by one or two distinct tribal groups, clans often extend across borders, as do familial ties. With the exception of a few small minority groups, FATA is populated almost entirely by Sunni Muslims although there is a minority Shia population in Kurram Agency, which represents approximately 40 per cent of the 500,000 residents.

Bajaur Agency

Despite being the smallest FATA agency, Bajaur Agency hosts a population estimated at 942,140. The Tarkani and Uthman Khel tribes dominate Bajaur Agency, with the Tarkani sub-tribes in particular having close kin across the border in the Kunar province of Afghanistan. Due to its extremely mountainous and largely inaccessible territory, the economy of Bajaur Agency is dependent upon agriculture and livestock rather than industry. Indeed, between 2008 and 2009 Bajaur produced 27 per cent of the total vegetable produce and 33 per cent of the total maize supply

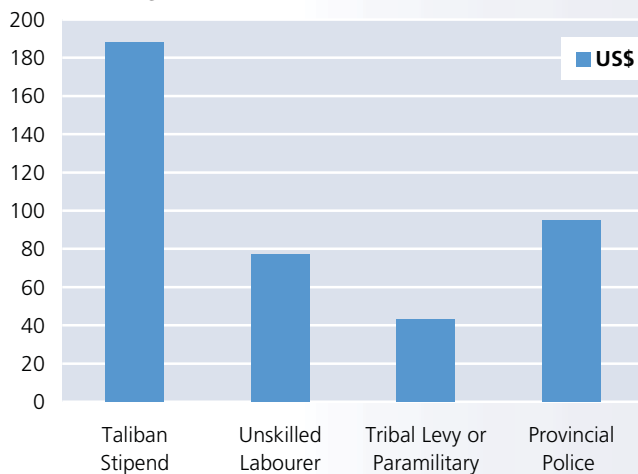
¹⁷¹ World Bank, 2010, *Pakistan Crisis Analysis Framework: KP and FATA*.

¹⁷² World Bank, 2010, *Pakistan Crisis Analysis Framework: KP and FATA*.

¹⁷³ Post Crisis Needs Assessment, September 2010.

Map 36: Districts of FATA, Pakistan

Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Fig. 22: Annual income comparisons for young men in FATA

Source: World Bank, 2010, *Pakistan Crisis Analysis Framework: KP and FATA*.

for all FATA agencies.¹⁷⁴ The remote location of the Agency has contributed to its lack of development, with one of the lowest levels of literacy – at just 13 per cent – and the lowest number of educational institutions of any FATA agency.¹⁷⁵ Although not a key drug trafficking route, Bajaur Agency is Kunar's main trade link with Pakistan and small amounts of trade pass through the mountainous Nawa Pass into

Bajaur. Drugs are also trafficked through the Nawa Pass, primarily carried on mules and generally only in small quantities, possibly for domestic consumption.

Mohmand Agency

Mohmand Agency is dominated by the Mohmand tribe and has a total population estimated at 526,638.¹⁷⁶ Safi and Uthman Khel tribes are also present in Mohmand Agency, but the relatively unified cross-border tribal structure of the Mohmand tribe ensures that it actively controls a number of trade and smuggling routes throughout the agency. At 11 per cent, Mohmand Agency has the second lowest level of literacy of any FATA agency.¹⁷⁷ It should be noted that, despite the low level of school attendance and overall literacy, Mohmand has the highest primary school completion rate at 55 per cent, among those that do attend school.¹⁷⁸ This agency also employs a third of all FATA industrial employees. Mohmand Agency borders Kunar and Nangarhar provinces in Afghanistan. In these provinces, several districts along the border are dominated by the Mohmand tribe. Cross-border smuggling is facilitated by these tribal ties and bolstered by the heavy involvement of Mohmand tribesmen in Nangarhar's transport industry. Drugs smuggled through Mohmand can easily be connected to the

¹⁷⁴ Directorate of Agriculture (FATA), North-West Frontier Province (NWFP), Peshawar.

¹⁷⁵ Directorate of Education (FATA), NWFP, Peshawar.

¹⁷⁶ Bureau of Statistics, 2009, FATA Cell, Peshawar.

¹⁷⁷ FATA Census Report, 1998.

¹⁷⁸ Directorate of Education (FATA), NWFP, Peshawar.

Table 19: Educational institutions and enrolment in FATA, 2008-2009

Type of institution	Number of educational institutions			Enrolment		
	Total	Male	Female	Total	Male	Female
All primary schools	4,187	2,402	1,785	354,717	207,745	146,972
Middle schools	403	274	129	71,540	52,554	18,986
High schools	232	196	36	88,413	74,679	13,734
Higher secondary schools	13	8	5	8,072	5,900	2,172
Degree colleges	35	23	12	11,107	9,576	1,531
Govt: technical institutes	11	11	0	584	584	0
Govt: colleges of management sciences	5	5	0	1,576	1,576	0

Source: Bureau of Statistics, 2009, FATA Cell, Peshawar, Pakistan.

main drug trafficking routes along the national trade corridor to Karachi, Pakistan, or transported overland into China or India.

Khyber Agency

The population of Khyber Agency is estimated at 829,210,179 comprising primarily Alfridis, followed by Shinwari and other smaller tribal groups. The economic development of Khyber Agency is comparatively higher than that of other FATA agencies, accounting for 55 per cent of the total industry of FATA. In addition, Khyber Agency has a 23 per cent adult literacy rate and the highest enrolment rate in educational institutions.¹⁸⁰ The development of Khyber Agency is largely due to its key geographic position between Pakistan and Afghanistan. The bulk of the transit trade of Afghanistan, as well as NATO supplies, passes through the agency's border crossing at Torkham. In addition to the official crossing, there are hundreds of natural passages through which the cross-border Alfridi and Shinwari tribes traffic drugs and heroin precursor chemicals. Both tribes are renowned smugglers of illicit goods. Given the high level of tribal involvement in drug trafficking and the agency's geographical proximity to Afghanistan, it is not surprising that Khyber is famous for its bazaars stocking smuggled and illicit goods, especially in Landi Kotal and Ali Masjeed, with Landi Kotal at only 6 km from the Torkham border crossing. Drug traffickers and abusers alike come to Khyber Agency from across FATA, or further, to purchase and collect drug supplies. Some sources also identified Landi Kotal as hosting an arms market.¹⁸¹

Kurram Agency

Kurram Agency is home to two major Pashtun tribes, the Turi and the Bangash, with a total population estimated at 585,805.¹⁸² Unlike other FATA agencies, the Bangash and Mangal tribes of Kurram form a minority Shia population of approximately 40 per cent. Sectarian clashes between the

Shia and Sunni groups are common and significantly contribute to the situation of instability in the agency. The sectarian clashes are exacerbated by the role of the Sunni Taliban, which has historically been anti-Shia and known to support the Bangash tribe.¹⁸³ Long-standing sectarian clashes and violence have seriously impeded the agency's development, with almost no industrial base and limited economic opportunities. Nonetheless, Kurram follows closely behind Khyber with a 20 per cent literacy rate, which is above the FATA average of 17 per cent.¹⁸⁴ Kurram borders three districts of Nangarhar province in Afghanistan, namely Sherzad, Khogiani and Pachir Wa Agam. While the majority of drugs produced in these areas are likely to join more substantial trade flows through Khyber Agency, some drugs are also smuggled through Kurram.

Orakzai Agency

Orakzai Agency is populated almost entirely by the Orakzai tribe, with a total population estimated at 285,073.¹⁸⁵ Importantly, Orakzai is the only agency in FATA not bordering Afghanistan. Despite being tribally homogenous, the Orakzai tribe is plagued by sectarian clashes between Shia and Sunni followers. Ongoing sectarian clashes have diminished the influence and power of the Orakzai tribe and allowed extremist groups to gain influence over the agency. Several extremist organizations are based in Orakzai, including Lashkar-e-Jhangvi (LeJ) and elements of TTP.¹⁸⁶ Orakzai is economically underdeveloped, with minimal agricultural production outputs, the highest level of primary school dropouts – at 66 per cent – and the lowest levels of literacy within FATA.¹⁸⁷ The agency's small industrial efforts and investment are not sufficient to support economic development. Given the poor economic situation and the agency's position bordering Khyber and Kurram Agencies, it is not surprising that drugs are readily available and major drug markets have emerged.

¹⁷⁹ Bureau of Statistics, 2009, FATA Cell, Peshawar.

¹⁸⁰ Directorate of Education (FATA), NWFP, Peshawar.

¹⁸¹ Drug trafficker interviews, Peshawar, August 2010.

¹⁸² Bureau of Statistics, 2009, FATA Cell, Peshawar.

¹⁸³ The Nation, August 24, 2009.

¹⁸⁴ FATA Census, 1998.

¹⁸⁵ Bureau of Statistics, 2009, FATA Cell, Peshawar.

¹⁸⁶ Fishman, April 2010, *The Battle for Pakistan*, New America Foundation.

¹⁸⁷ Directorate of Education (FATA), NWFP, Peshawar.

North Waziristan

North and South Waziristan are the most isolated and remote agencies within FATA. The population of North Waziristan is estimated at 470,048,¹⁸⁸ although violence has displaced many people and exact population estimates are unavailable. Geographically, North Waziristan is the second largest agency of FATA and is dominated by the Utmanzai Wazir tribe. Other tribal groups include the Dauris, mainly in the mountains, and the Gurbuz. Cross-border tribal connections are strong, with the Wazirs linked to the Paktika province in Afghanistan and the Gurbuz linked to Khost. North Waziristan hosts the second official FATA border crossing with Afghanistan at Ghulam Khan, although ongoing conflict and the presence of extremist groups has significantly reduced licit trade and traffic. The agency's industrial base is almost non-existent and agricultural productivity is low, maize being the most productive crop. In 2009, North Waziristan produced 9,700 tons of maize, equivalent to 15 per cent of the total maize production of FATA.¹⁸⁹ Given the lack of employment opportunities, the population of North Waziristan is vulnerable to the economic incentives offered by extremist groups. Extremist groups are well established in North Waziristan. In fact, many of the Afghan Taliban operations in southern Afghanistan have been organized from the town of Miram Shah. Foreign fighters are also present in the agency, along with Al-Qaida, Tehreek-e-Taliban-e-Pakistan (TTP) and the Haqqani Network. Factors such as the size of the agency, its inaccessibility and its connections to Afghanistan make it a favourable operating environment for militants and other criminal networks. Despite the lack of law enforcement reach in the area, tribal connections and proximity to Afghan heroin production labs, the unstable security situation and lack of trade flows prevents the establishment of significant drug trafficking routes through North Waziristan.

South Waziristan

South Waziristan is geographically the largest FATA agency with a population estimated at 529,871.¹⁹⁰ The Mehsud and Ahmadzai Wazir tribes dominate South Waziristan, with the Wazirs having close tribal connections across the border. The Mehsud tribe has long been involved in conflicts and has a reputation for being fierce fighters. They are especially well represented among the ranks of the TTP. Insecurity and military offensives in South Waziristan have seriously hindered economic growth; industry is almost non-existent and agricultural production has dramatically declined. While data shows that in 2008-2009 South Waziristan produced 71 per cent of the total production of fruit in FATA, a spike in military offensives since 2009 is likely to have significantly reduced agricultural outputs across the agency. North and South Waziristan are home to

the largest number of local and foreign jihadists. This phenomenon is likely to have originated with the major Pakistani military operations in South Waziristan in late 2009 and early 2010. In fact, during the military offensive many extremist groups moved into North Waziristan, giving rise to tribal clashes and social unrest.

Law enforcement agencies in FATA

Few federal law enforcement agencies operate in FATA. The ones that do are largely based along the border at official crossings rather than within the tribal areas. Although the responsibilities of the military, Frontier Corp (FC) and Frontier Constabulary are clearly delineated, the ongoing insurgency in FATA has blurred these responsibilities. With the effective absence of the State from FATA, the military is leading the counter-insurgency effort to re-establish State authority.

In addition to the national forces (FC, Anti Narcotics Force, Federal Investigation Agency (FIA) and Customs), tribal law enforcement mechanisms are also in place. In FATA, policing is mainly conducted by irregular forces operating under the Political Agent (PA), including Levies and Khassadars. FATA does not have a formal police force and is governed by the Frontier Crimes Regulation 1901 (FCR), which provides for local systems of governance and justice. In accordance with FCR, disputes are largely resolved through a community-based dispute resolution mechanism known as a Jirga on the basis of customary or Islamic law. Depending on the location of the Jirga, these decisions are enforced by Levies and Khassadars or Lashkars.

Levies are the most formal police force found in FATA, numbering approximately 6,779. They are financed, equipped and administratively attached to the Ministry of Interior. They are recruited on merit from the tribes and appointed by the PA, who is their commanding officer. Although responsible for policing in tribal areas where the provincial police do not have a presence, Levies are not equipped or trained to effectively fulfill this role. For example, most levy forces are required to provide their own weapons and ammunition and often receive little or no training. Tribal levies earn less than a quarter of the Taliban stipend.¹⁹¹ In addition to being poorly trained, these forces are disorganized and lack authority. The expanded role of Khassadars and Levies to deal with the insurgency in the area has raised concerns among FATA communities that these groups are simply another actor in search of power rather than a formal security institution. With no formal police in FATA, accurate crime statistics are difficult to obtain, as much of the criminal activity is dealt with at the tribal level, or by militant groups. PAs have some insight through their overview of Levies and Khassadars operations, but this data is likely to represent only a small fraction of total crime and justice incidents that occur in FATA.

¹⁸⁸ Bureau of Statistics, 2009, FATA Cell, Peshawar.

¹⁸⁹ Directorate of Agriculture (FATA), NWFP, Peshawar.

¹⁹⁰ Bureau of Statistics, 2009, FATA Cell, Peshawar.

¹⁹¹ World Bank, 2010, *Pakistan Crisis Analysis Framework: KP and FATA*.

Khassadars were established in 1921 by the British Government to reduce its military commitment by formalizing tribal and territorial responsibility. Locally recruited, tribal Levies and Khassadars together number around 23,500. In a given agency, each tribe raises a Khassadar force according to a quota system. Khassadars are nominated by the local Malik and their salary is paid by the federal government that also provides them with a uniform and a pair of shoes every year. Khassadars are required to supply their own weapons. Salaries are low and Khassadars are not provided a pension, training or service structure. Khassadars have become a hereditary office. Although formally reporting to the PA, it has been pointed out that the Khassadar owes his allegiance to the Malik who offered him employment and also to the tribe.¹⁹²

Lashkars are a traditional tribal militia, often formed on an ad hoc basis for the accomplishment of a specific purpose. They are typically assembled for the resolution of a particular tribal issue, such as hunting down an outlaw or addressing a family feud that has grown out of control, and after that they are disbanded. Each tribal Lashkar is required to provide his own weapon, food and supplies. Generally, the Government does not assist Lashkars either financially or logistically, but in recent years they have been provided limited supplies in order to counter the Taliban in the tribal areas. Ultimately, Lashkars are tribal militias, fiercely independent and answerable only to their tribal elders. Reliance on and support of this untrained, tribal militia is likely to inflame the militant situation of FATA rather than assist in resolving it.

Border control in FATA

The border between FATA and Afghanistan is virtually impossible to monitor and police. There are two official border crossings with Afghanistan, namely Torkham and Ghulam Khan. Aside from these official crossings, most people are unaware of the exact border line location. Numerous people live and work in both Afghanistan and Pakistan, regularly crossing the border without any identification documents. Limited law enforcement capacity, the porous nature of the border and corruption make movements of drugs, precursors and other contraband items relatively easy.

Torkham border crossing receives the majority of trade and human traffic entering FATA from Afghanistan, mainly due to its geographic position linking Kabul to Islamabad and onto the national trade corridor of Pakistan. As a result, Torkham is also staffed by more law enforcement personnel and was selected as the pilot border crossing for the establishment of a Border Liaison Office. Despite some seizure successes, law enforcement agencies in Torkham are generally overwhelmed by the large volume of trade and traffic

and are unable to thoroughly monitor these flows.

Customs, the FC and the FIA all operate in Torkham. Although the most effective of these bodies, the Frontier Corp does not search goods transiting the border, but rather checks for irregularities in paperwork. Customs officials are responsible for confirming the contents of the containers. Across the board, equipment among the agencies is insufficient; for example, customs does not possess scanners. The border crossing process at Torkham requires pedestrians regularly crossing the border for work or family reasons to show their national identification card. These persons do not undergo an immigration control nor is their passport stamped. In theory, travellers from further afield are required to undergo an immigration control, but this is not always the case as the two are difficult to distinguish. In some cases, pedestrians are able to cross the border with no identification at all.

It is important to note that the ANF does not operate at the border crossing point itself, but rather operates from mobile posts situated about 8 km from the border. Major roads leading to and from the border are monitored by ANF mobile posts, although these could be easily bypassed by donkey carts and other agile means of transport. Technical limitations aside, the entrenched and ongoing corruption among border law enforcement officers enables Torkham to be used for movement of contraband items. Jobs at border crossings are highly valued and equally competitive, as money earned from corruption significantly supplements and even exceeds actual salary. These posts are commonly awarded along familial, tribal or friendship lines. As a result of corruption and inefficiency on both sides of the border, drug traffickers consider law enforcement at Torkham border crossing ineffective and subsequently not threatening to their movements.¹⁹³

The border crossing at Ghulam Khan is less used than other FATA crossings; it is staffed by fewer law enforcement officers and has been excluded from the Border Liaison Offices plan.¹⁹⁴ Ongoing military operations in North Waziristan Agency have reduced bilateral trade through Ghulam Khan to a near standstill, while local trade has continued, albeit at a lower volume. Drug traffickers in FATA have reported that Khassadars based at both Torkham and Ghulam Khan crossings often accept bribes to let drug shipments through; this said, the security situation has reduced drug trafficking and shifted routes through Khyber Agency instead.

A number of cross-border initiatives have been instigated to improve border control, of which the most comprehensive is the Triangular Initiative (TI). Pakistan, Islamic Republic of Iran and Afghanistan formed the TI to increase cross-

¹⁹² <http://waziristanhills.com/FATA/FATAAdministration/LawEnforcement-Forces/tabid/127/1>.

¹⁹³ Drug trafficker interviews, Peshawar, August 2010.

¹⁹⁴ BLOs have been planned at three locations in Pakistan: Torkham and Chaman on the Afghan border and at Taftan on the Iranian border. In August 2010, the first BLO was opened at Torkham. The two remaining BLOs in Balochistan are scheduled to be opened in 2011.

border information sharing, conduct joint operations and develop real-time communications. It is considered that cooperation will be facilitated by the establishment of Border Liaison Offices (BLOs) and the development of a communications network between the three countries. Implementation has been slow, but the first BLO is now operational. Border management is particularly important in FATA as the Government has little or no capacity to police inside the tribal areas.

Opiate trafficking to/from FATA

FATA is a key opiate trafficking route linking Afghan production with consumption markets in China, India and other international destinations via sea and air. Large international shipments are more easily transported through Baluchistan to the Makran coast. However, the permissive security situation of FATA and its direct links to the Pakistani national trade corridor network ensure that shipments will continue to transit through the tribal areas. Although all types of heroin are available in FATA, white heroin is the most common form trafficked through the area and brown heroin is the most commonly abused.

Drugs trafficked from Afghanistan into FATA mainly enter through Khyber, Mohmand or Bajaur Agencies,¹⁹⁵ with Khyber as the most dominant route by far. Drugs are mostly trafficked via the numerous unofficial mountain passes that puncture the border, although the official Khyber Agency crossing at Torkham is also used. Drugs smuggled through Torkham and onto main roads use trucks, donkey carts or other vehicles, while those utilizing unofficial crossings necessitate the use of mules and camels. Smaller quantities smuggled across mountain passes are often consolidated once in Pakistan, before onward movement. The ongoing development of arterial roads to remote villages, which aims to increase the rural population's access to trade centres may also reduce travel time for traffickers utilizing unofficial crossings.

Moreover, drug trafficking networks in FATA maintain a number of opiate stockpiles, primarily in Khyber Agency. Known locations of stockpiles include Bara Tehsil, Jamrud Bazaar, Tedi Bazaar of Jamrud Tehsil, Landi Kotal, Ali Masjid and the Shakas and Wazir Dand areas behind Karkhano market. Stockpiles are kept in FATA for two main reasons; firstly, as a safe storage location before onward sale and secondly for financial reasons. In most cases, opium is stored in shopping bags, known locally as *Khaltay*. Temporary drug stockpiles are reportedly located in the Chaghi district of Baluchistan, specifically in Girdi jungle, Brab Chah and Rabt, as well as Dalbandin, Shahr Khar Bakhsh and Gulistan. These stocks are only temporarily held until they can be transported through Baluchistan to their final destinations. Some trafficking groups also stockpile excess drugs, which are not produced to fill a specific order, but

rather to wait for optimal sale prices. These stockpiles are temporary, only held for weeks or months rather than years until drug prices increase.

Most drug traders receive orders for opiates over the telephone, almost entirely utilizing mobile communication, or via direct contact on both sides of the border, although there is rarely any hand-over at the border itself. The trafficker generally smuggles the drug himself or by giving it to the local freight carriers, which charge approximately \$24 to smuggle 1 kg of heroin into FATA.¹⁹⁶ According to sources in Khyber Agency, Afghan drug traffickers can bring the drugs across the border, store them in their safe-houses in Khyber Agency and sell them from there.¹⁹⁷ Alternatively, Pakistani traffickers can travel into Afghanistan and collect the drugs personally. Ease of crossing the border makes both of these delivery methods viable and eliminates the need to exchange drugs and make payments at the border itself.

Border controls between Afghanistan and FATA are overstretched and insufficiently equipped, thus allowing drug traffickers to easily pass through unofficial crossings and enter FATA undetected and unsearched. In fact, it is virtually impossible to police the Afghanistan-Pakistan border, especially the border with FATA. Once in FATA, drug trafficking networks often stockpile the drugs before onward shipment to China, India or onto the trade corridor network of Pakistan.

The Afghan Transit Trade Agreement (ATTA) also works in the reverse direction, from Afghanistan through to Karachi for onward export. Drugs can be brought into Pakistan from Afghanistan in containers under the ATTA. According to the interviews, many containers are fitted with hidden compartments that can be opened from the outside without unsealing or opening the whole container.¹⁹⁸ This way, a container might be used as a mule often without the knowledge of the owner.

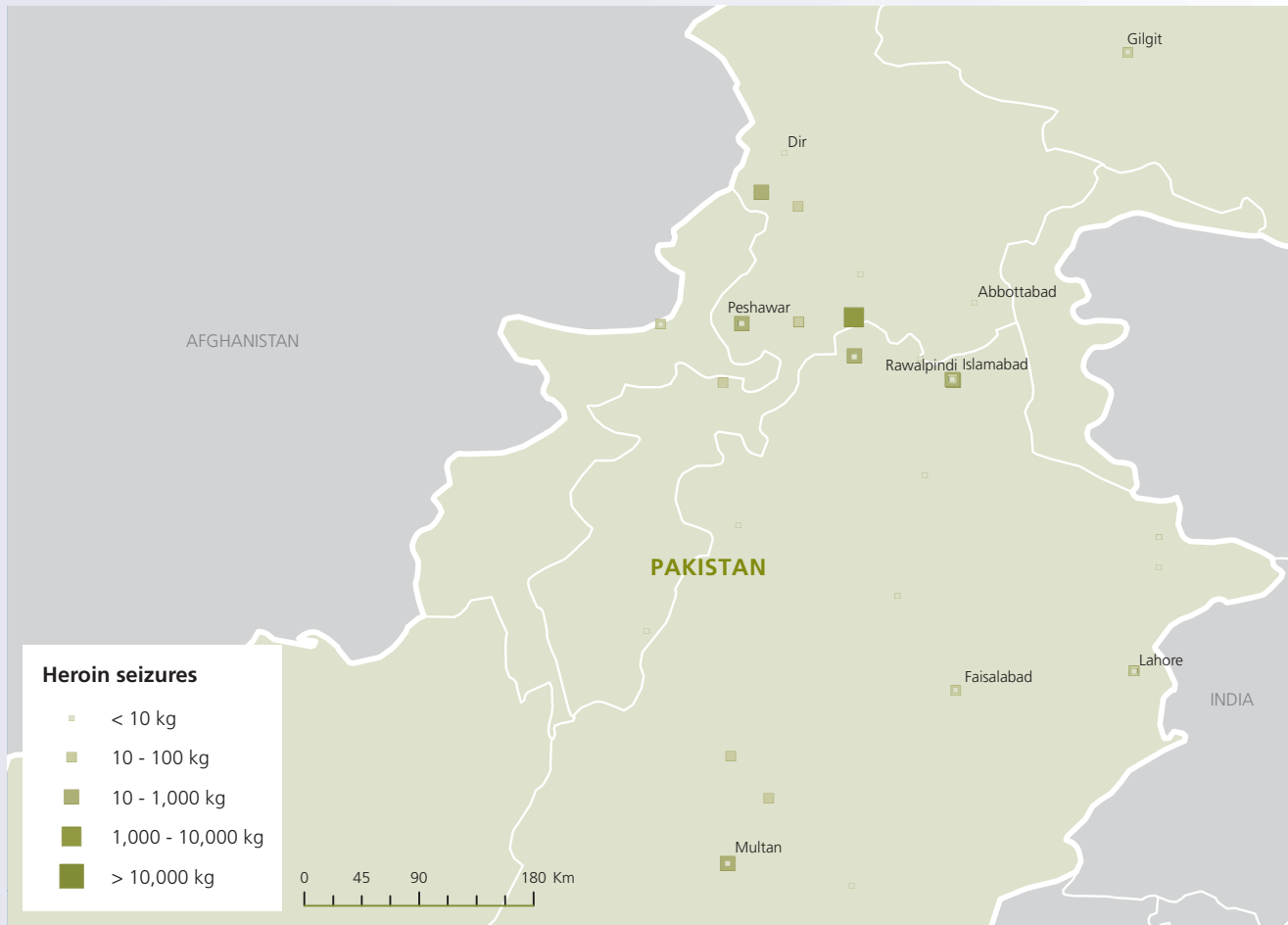
Afghan opiates destined for the Chinese border are trafficked through FATA and then Khyber Pakhtunkhwa, both directly onto the road network and through the north-western areas of Gilgit-Baltistan. Aside from the Karakoram Highway (KKH), there are no official roads puncturing the Pakistan-China border and the terrain is extremely rugged. The Pakistan-China border trade route is particularly difficult for the trucking industry and currently more expensive than using ocean transport. Trucking services to the border are very expensive due to the poor conditions of the roads and high costs of vehicle maintenance. Taxes and duties, both official and unofficial, are also high. The upgrade of sections of the KKH route will help to reduce travel times, triple transport capacity and reduce mainte-

¹⁹⁶ Interview in Peshawar, March, 2010.

¹⁹⁷ Interviews in Peshawar, October 2010.

¹⁹⁸ Interviews in Peshawar, August 2010.

¹⁹⁵ Interview with CNPA and ABP intelligence heads May, 2010.

Map 37: Heroin seizures in Northern Pakistan, 2000-2009

Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

nance costs for freight trucks. These improvements will likely also shift an increasing proportion of opiate exports and precursor imports onto the KKH.

The majority of drugs trafficked to China from Pakistan likely enter the border through irregular pathways in order to avoid any interaction with authorities. However, if the KKH upgrade were to triple the volume of traffic, diminish the reach of customs and reduce travel time, then criminal groups may consider using the KKH as a cost-effective alternative route into China. Trafficking across the border occurs in passenger buses, trucks and private vehicles. Alternatively, drug consignments can also be hidden in the border zone and later taken across the border in smaller quantities.¹⁹⁹

Drug trafficking from FATA to India is reduced compared to China or Karachi's international routes, entering India mainly via Sialkot and across the Pakistan-India border at the Wagha border crossing in Punjab. Drugs can be smuggled into India utilizing train, bus or car connections via Wagha, but any of these options are limited to small passenger consignments. Cargo trucks transporting goods

from Pakistan into India are required to be fully unloaded and re-loaded onto Indian trucks and the same applies to Indian goods entering Pakistan. As such, traffickers are at a greater risk of detection than at the Afghan border, for example, where trucks can directly cross the border.

In recent years, opiate seizures along the Pakistan-India border have been small with just nine seizures at the Wagha border crossing between 2008 and 2010, all of which were passenger consignments. Although the lack of drug and precursor detection equipment clearly impacts seizures, the fact that no large cargo seizures have been made suggests that the border area is most likely only used by small players, with larger shipments arriving by air or sea.

The national trade corridor of Pakistan, stretching from Torkham to the Makran coast, makes the international shipment of drugs through FATA a viable transport option. The numerous proposals to upgrade this corridor are likely to consolidate the use of this route and reduce transport time for traffickers. According to interviews in Khyber Agency, drugs are shipped from FATA to the coast by different means depending on the type of drug transported. Heroin is reportedly transported in concealed compartments in small vehicles, such as jeeps or cars, while hash is more likely to be transported in large trucks or oil and

¹⁹⁹ "Enhancing Border Management: An Assessment of the Pakistan-China Frontier", UNODC, 2009.

water tankers. These vehicles are driven from the safehouse in FATA to the destination by a courier who has no knowledge of the wider network. Often the drivers are requested to abandon the vehicle at a specified location and do not even meet the recipients. The vehicles are then collected by drug traffickers and the drugs are transported to safehouses in Karachi or along the Makran coast to prepare for export. Based on the destination of the shipment, drugs are generally concealed according to the most common trade between Pakistan and that particular country.

Infrastructure development along the national trade corridor from Torkham to Karachi will increase the freight, traffic and trade capacity of border crossings and other entry points. It is unlikely that the capacity of border control posts and customs will develop as quickly as trade flows, considering that this capacity is already stretched. An increase in volume of trade coming into, and transiting through, FATA without simultaneous boosting of customs and border control units will reduce the traffickers' chances of being detected.

Aside from established ports, a significant volume of drugs is also trafficked by sea from various unofficial points along the Makran Coast. In addition to seaports and coast, the dry seaports of Afghanistan are likely to be used for heroin trafficking as the capacity in these ports is limited. Pakistani officials have drawn the attention of UNODC to the insufficient capacity to check every container entering or exiting key dry ports. Traffickers likely exploit these inland export points, particularly in Lahore and Multan. Many heroin seizures occur near these cities.

Opiate trafficking networks in FATA are closely linked to tribal and familial ties in Afghanistan. Overall, these networks are less established and less professional than those in Baluchistan and many smaller players are likely to have entered the trade. Despite perceptions of ties to militants, the drug trafficking networks in FATA are more criminal than militant in nature, although the requisition of taxes for protection is common.

Drug trafficking groups from both Afghanistan and Pakistan operate in FATA. The main groups involved are Afghan tribesmen from the Kochi, Shinwari, Khugiani and Mohmand tribes, or FATA drug traffickers from the Afridi, Shinwari and Mohmand tribes.²⁰⁰ In particular, the Afridi and Shinwari tribes, which span both sides of the border, are the most powerful, influential and heavily involved. Despite being officially Afghani, many of the Afghan opiate traffickers maintain permanent residences in FATA and are active on both sides of the border. Many of these drug traffickers are also based in Peshawar, in the KP province.

1.5 POLICY IMPLICATIONS

Stopping the operations of the deadly and globalizing Afghan opiate market that has exploded over the last 20 years, will require further efforts to gradually eliminate production of, demand for and trafficking in Afghan opium and heroin. Increasing the effectiveness of interventions in these three inter-related areas requires guidance from accurate information and assessments of the problem and of the ways in which the performance of counter-measures can be increased.

There is a strong link between insecurity and opium poppy cultivation and trafficking in Afghanistan. Anti-government elements are partly funding their operations from the opiate trade. In most of the Afghan provinces where security is better, there is either no or very limited opium poppy cultivation. Conversely, the main poppy cultivation areas of the country are found in the insecure southern provinces. Further improving security in Afghanistan appears therefore as a critical precondition for controlling opium poppy cultivation in the country.

Heroin trafficking occurs mainly through Afghan border provinces with weak law enforcement and border control. Although considerable improvements have been brought to a number of border control points, there are still many areas along Afghanistan's borders that are not well protected or monitored, such as the borders between the southern provinces of Afghanistan (Hilmand, Kandahar and Nimroz) and the Baluchistan province of Pakistan. Drug traffickers take advantage of this situation and heavily use these borders for trafficking opium, heroin and acetic anhydride from one country to the other. The capacity to control these border crossings should be further increased.

In addition to land borders, the sea- and airports of Afghanistan's immediate neighbors have become increasingly used for heroin and acetic anhydride trafficking. Maritime transportation, in particular, appears to have gained in importance for traffickers, be it for exporting heroin to the re-emerging African route, or for importing acetic anhydride destined to heroin processing labs in Afghanistan. Consequently, interdiction capacity at vulnerable seaports, including dry ports, should be improved, notably in Pakistan and the Islamic Republic of Iran, but also in other transit and destination countries.

Only some 2 per cent of the millions of containers shipped every year across the globe can be physically searched. More generally, the further drugs move away from their source, the more fragmented, diverse and widespread drug shipments become, making it extremely difficult for law enforcement agencies to detect and intercept them in the legitimate and ever growing flows of goods and people. Particular attention needs to be paid, therefore, to stepping up interdiction efforts and capacity as close as possible to the Afghan opiate source, as well as to increasing intelli-

²⁰⁰ Interview with Nangarhar CNPA head, December, 2010.

gence sharing among concerned law enforcement agencies.

In addition to increased law enforcement capacity, social and economic conditions need to be improved in Afghanistan and the poorest areas in the region. Although there is no direct causal link between poverty and drug production and trafficking, where security and the rule of law is weak, drug traffickers and anti-government elements find in disadvantaged areas a more fertile ground to promote illicit drug production and to recruit young males in the ranks of armed and drug trafficking groups.

The vast majority of heroin produced in Afghanistan is consumed outside of Afghanistan and its immediate region. Although heroin demand has stabilized worldwide, there are no signs of a decrease at present. Afghanistan and its neighbors cannot bear alone the burden of stopping the operation of the global opiate market. In line with the principles of shared responsibility and a balanced approach to reducing supply and demand, consuming countries, particularly in the regions that create the strongest demand pull, need to strengthen their own efforts to reduce opiate consumption within their borders and the outflow of drug money it generates. Strategic considerations, public health needs and humanitarian concerns all point to the need to increase, in line with international standards and guidelines, treatment efforts directed at core opiate users, who are both consuming the bulk of illicit opiates and suffering the most severe health and social consequences as a result of their use.

Increases in Afghanistan's opiate production and trafficking in recent years have also caused an increase in opiate addiction in Afghanistan and its neighbors. Sadly, facilities to provide treatment for drug addicts in the region are far from sufficient. As drug abuse, and its associated health impact (such as HIV/AIDS among injecting drug users) worsens in the region, the development of local treatment capacities needs to be given greater priority.

Key information gaps

Effective opiate trade interventions require an accurate picture of global supply, demand, trafficking routes and beneficiaries. Many information gaps remain. With further study, data collection and analysis, the international community can better combat the global opiate trade.

Key information gaps that have emerged during the preparation of this report include:

- Reliable opiate consumption per user per year
- Detailed seizure data – including origin, destination and purity
- Morphine content of Afghan opium
- Volume and methods of drug trafficking via maritime transport

- Drug trafficking through East Africa, routes and beneficiaries

Key interdiction gaps:

- Forensic capacity in Afghanistan remains insufficient
- Many global customs offices have insufficient acetic anhydride test kits
- Maritime transport – only minimal numbers of containers are scanned

Local research and data collection capacity in opiate producing and transit countries is essential. For that purpose, the Afghan Opiate Trade Project is working very closely with the Member States who request assistance to increase their capacity. Currently, the Programme is working with the relevant ministries and institutions in Afghanistan and Pakistan to establish and enhance their research, data collection and processing capacity on drug related topics. In due course, this assistance is planned to be extended to other countries along the main transit routes of Afghan opiates, depending on availability of resources.

With accurate information, strong commitment and greater international cooperation, the impacts of the Afghan opiate trade can be effectively targeted and mitigated – both within Afghanistan and across the globe.



2. ACETIC ANHYDRIDE TRAFFICKING

2.1 THE CURRENT STATE OF THE ILLICIT ACETIC ANHYDRIDE MARKET

Heroin is derived from chemically processed opium as almost all illicit drugs require chemical intervention for production. These chemicals are generally referred to as precursor chemicals or simply “precursors”.²⁰³ Although various solvents, acids and bases can be used in heroin processing, the precursor acetic anhydride is of crucial importance for the synthesis of opium into diacetylmorphine, or heroin. The entire illicit heroin industry,²⁰⁴ mainly confined to Afghanistan, Myanmar and Latin America, relies heavily on the availability of the substance, particularly Afghanistan which is currently the base for nearly 85 per cent of global heroin. UNODC estimates that approximately 475 tons of acetic anhydride may be required each year for manufacturing Afghan heroin.

Acetic anhydride has numerous legitimate industrial applications and is manufactured legally worldwide in Asia, Europe and the Americas and traded internationally. Most of this trade is tightly monitored and international diversion is prevented through the international precursor control system. An increasing number of manufacturing, exporting, importing and trans-shipment countries are taking necessary actions to prevent the diversion of acetic anhydride from licit international trade into illicit traffic. Specifically, Governments are now systematically checking

the legitimacy of individual transactions, involving precursor chemicals like acetic anhydride.

As a result of tightened systematic checks and tracking of individual shipments in international trade, there are indications that traffickers are being forced to turn more often to domestic distribution channels to obtain the chemicals they require. However, domestic regulatory controls have limitations, as, unlike monitoring shipments in international trade it is often not feasible to monitor every single sale of controlled chemicals which may be taking place widely in a country. Indeed, organized crime groups are still able to divert and smuggle hundreds of tons of acetic anhydride annually. Once diverted, the substance is smuggled through various routes to final destinations where illicit heroin manufacture takes place. Often, this involves blending with licit trade flows, making detection a costly and difficult process. The organized crime groups managing this trade are fluid networks of diverse nationalities opportunistically joined together for profit.

Diverted acetic anhydride reaches laboratories in Afghanistan through numerous smuggling routes; some overlapping exists with well-worn corridors trafficking heroin out of Afghanistan. It is perhaps more accurate to speak of a convergence of routes into countries bordering Afghanistan, namely Pakistan and the Islamic Republic of Iran, two states with vast coastlines. In licit trade, acetic anhydride costs no more than US\$1 per litre; however, in Afghanistan the same litre costs on average \$350 for a retail market of \$165 million annually. With such mark-ups, the incentives for criminal groups are obvious, but there are also disturbing signs of armed anti-government groups entering the acetic anhydride supply chain in Afghanistan.

²⁰³ For the purpose of this report, the term precursor (or precursor chemical) may be used as a short-hand expression for all the substances listed in Table I and Table II of the 1988 Convention.

²⁰⁴ It should be emphasized that “industry” is used in this report as a value-neutral economic term which describes a range of activities related to opiates from the production of raw materials, to processing, distribution through wholesale and retail markets, consumption and export.

The capital, crime and drugs associated with the illicit trafficking of acetic anhydride indicate that it contributes directly to organized criminality; as a constituent to the drug trade, it is also linked to numerous national and regional security issues arising from drug trading. Despite this, significant gaps remain in the understanding of the acetic anhydride issue and the criminal networks that animate the heroin chemical trade. In turn, there is little dedicated research to address these critical knowledge gaps. In order to better understand the importance of precursor chemicals in the illicit drug supply chain, the 2009 action plan of the Commission on Narcotic Drugs (CND) recommended to conduct further research on precursors to understand emerging trends and share the results of such research.²⁰⁵ A more comprehensive understanding of acetic anhydride trafficking may help to identify vulnerabilities in the heroin industry. Moreover, preventing heroin chemical supply would have the benefit of affecting the drug trade at a stage prior to heroin processing. In line with the recommendations of the CND, this chapter seeks to contribute to a more informed approach to targeting illicit heroin precursor trafficking towards Afghanistan.

Acetic anhydride is not only used in heroin manufacture; it can also be illegally employed in the manufacture of amphetamine, methaqualone and in some areas as a reagent to produce coca paste and cocaine. In general, however, the size of the illicit acetic anhydride market is primarily driven by the demand for heroin. In 2009, between 460-480 tons of pure heroin were trafficked worldwide.²⁰⁶ Afghanistan provides enough opium to manufacture approximately 380 tons of heroin annually, while Myanmar and Latin America (primarily Mexico and Colombia) are second-tier suppliers with a combined annual estimated production of 60-65 tons of heroin. India comes next with approximately 15 tons. While a focus on Afghanistan is justified by its dominance of the illicit acetic anhydride market, the caveat is that small niches and eddies of illicit acetic anhydride around the world may be influenced by the corner of the market that services production in Mexico, Colombia, India and Myanmar.

The heroin manufacturing process

Heroin is the final, finished product that depends on two primary input chains: opium and acetic anhydride. In most processing regions, the basic process is generally the same, involving morphine being extracted from opium and chemically converted to morphine base and then mixed with acetic anhydride and other chemicals to make heroin. The two most commonly produced heroin varieties in the world are brown heroin base (also known as No. 3 heroin, or smoking heroin), and white heroin hydrochloride (also known as No. 4 heroin, or injectable heroin).

²⁰⁵ Political Declaration, par. 2, March 2009.

²⁰⁶ This estimate was made while also taking into account average global seizures and other losses incurred en route, which totaled approximately 90 tons.

Before delving deeper into the illicit supply chain, it is useful to explain the basic steps in the heroin manufacturing process. In Afghanistan, UNODC generally uses a 7:1 conversion rate for dried opium to morphine extraction, which yields approximately the same amount of brown heroin base. More opium is required if heroin hydrochloride (white heroin) is the final product. UNODC previously used a rough estimate of 2 litres of acetic anhydride to heroin hydrochloride, but less is needed to produce brown heroin (1 litre). In addition to acetic anhydride, a range of chemicals is also required to extract the morphine from opium and to purify the intermediate and final product. The quantity needed for these chemicals is sometimes much more substantial than acetic anhydride and measurements can vary considerably. Moreover, many chemicals can easily be substituted with analogues to produce the same effect.

At the onset, it is important to note that the following description of heroin processing is a simplified, generic version of the one used in Afghanistan. It should therefore be viewed as notional and not as providing detailed documentation of the process in other regions. That said, the typical heroin manufacturing process involves diluting opium in water and adding a base, such as calcium oxide, to the solution. Ammonium chloride is then used to extract the morphine from the solution. The result is morphine base and acetone, or another organic solvent, is sometimes used to further purify the product.

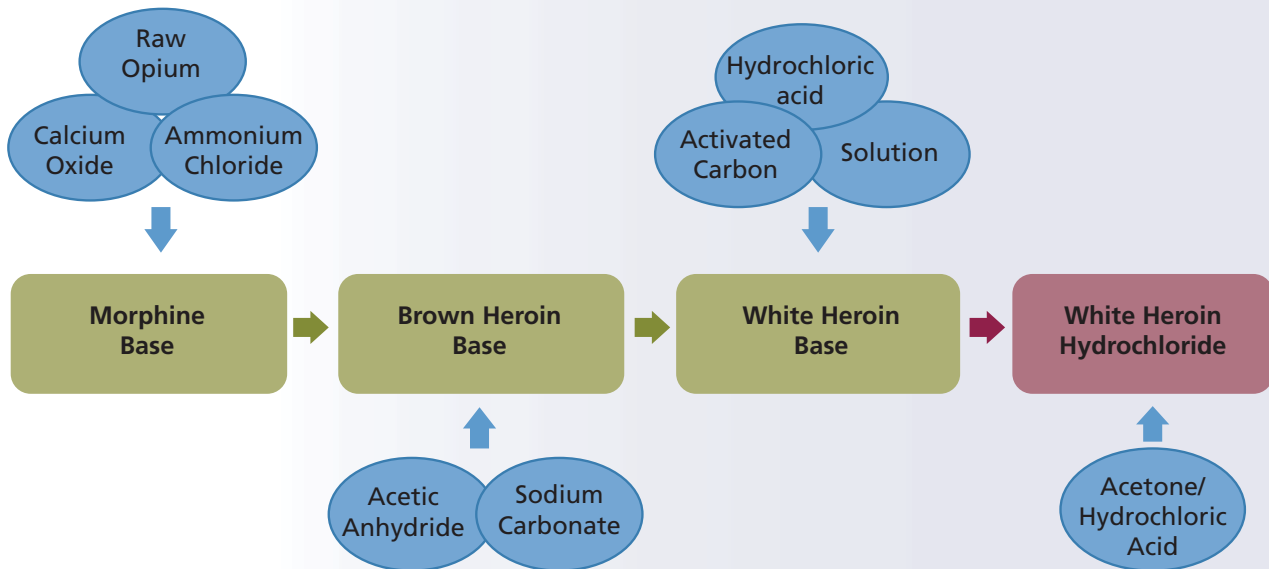
The next step involves boiling the morphine base with acetic anhydride, which bonds with it to form a crude heroin base. An alkaline material –usually sodium carbonate– precipitates the heroin base, which is filtered, dried and packaged. The product at this point is brown heroin of 50-70 per cent purity. As for morphine base, in some cases heroin base can undergo additional processing to enhance its purity with a solvent (such as acetone, methanol, chloroform and ethanol) that removes further impurities consisting of other alkaloids and processing by-products.²⁰⁷ An acid, such as hydrochloric acid, produces a salt, heroin hydrochloride (white heroin), which has reported purity levels of up to 90 per cent.²⁰⁸ At this point, or at the heroin base stage, some processors may also cut their product with adulterants²⁰⁹ to increase profits, consequently reducing purity levels.

Some adulterants, such as caffeine, cause heroin to vaporize

²⁰⁷ Including monoacetylmorphines, morphine, codeine, acetylcodeine, papaverine, noscapine, thebain meconine, thebaol, acetylthebaol, norlaudanosine, reticuline, and codamine. By way of comparison, pharmaceutical grade heroin produced in controlled conditions has a purity greater than 99.5 per cent.

²⁰⁸ SOCA, 2009 annual report, p. 24.

²⁰⁹ Adulterants include quinine, mannitol, lactose, caffeine, inositol, lidocaine, starches, methapyrilene, sucrose, acetylprocaine and dextrose. In addition to these, other substances are used to adulterate or enhance the appearance of the heroin. In a minority of cases, these substances are added to enhance the effect of the drug (a local anesthetic for example).

Fig. 23: Opium to heroin processing in Afghanistan

Source: UNODC.

at a lower temperature²¹⁰ and are used to enhance the bio-availability of heroin produced for smoking, thus making for a ‘better mix’;²¹¹ another common adulterant is crushed paracetamol. These substances are usually cheap and readily available on the licit market; in many cases, they also resemble heroin in appearance and can easily blend in or in some cases provide the coveted white color wrongfully synonymous with high quality heroin.²¹²

Indeed, the practice of grading heroin according to color and appearance is not a definitive measure of purity or a reliable indicator of origin.²¹³ For example, so-called white heroin may have a beige or even brown appearance while brown heroin may have a lighter tone, depending on the chemicals used in the process and the adulterants used to cut the substance. Considering the process previously described, brown heroin base is easier and cheaper to produce. Apart from this, the main difference between Afghan white heroin hydrochloride (HCL) and Afghan brown heroin appears to be solubility (lower for brown heroin)²¹⁴ and to a lesser extent the related mode of administration (heroin HCL is usually injected, while brown heroin is smoked).²¹⁵

In areas of Eastern Europe and the Russian Federation, a form of heroin known under various local names such as

Afghanistan white heroin hydrochloride



Source: UNODC.

kompot or Chernioshka is produced by directly acetylating poppy straw or opium. The end product, which is injected and requires heating to put into solution, contains more impurities (such as contaminants and plant by-products) than Asian heroin. Given that processing skips chemical treatment and filtering steps, acetylated opium is cheaper, quicker and easier to manufacture than heroin manufactured in Myanmar or Afghanistan.²¹⁶ A form of acetylated opium is produced in Mexico and is appropriately named black tar heroin on account of its appearance. The texture ranges from unmanageable, black-brown, sticky goo, to a light brown powder, which comes from cutting it with lactose. Elsewhere in Latin America, Colombian heroin is a high-purity powdered substance, light to medium brown and easily soluble in water.

It is commonly thought that white heroin is of higher purity than brown heroin, but this can be deceptive since

²¹⁰ UNODC *World Drug Report 2009*.

²¹¹ David Macdonal, *Drugs in Afghanistan: opium, outlaws and scorpion tales*, Pluto press, London, 2007, p.100.

²¹² Kind Saud University, *Qualitative and quantitative analysis of heroine and other adulterants*, <http://faculty.ksu.edu.sa/18856/454/Detection%20of%20Heroine.pdf>.

²¹³ Australian Crime Commission, *Illicit Drug Data Report, 2007-08*, www.crimecommission.gov.au/publications/iddr/_files/2007_08/04heroin200708.pdf.

²¹⁴ “The political economy of heroin: regional markets, practices and consequences, *International Journal of Drug Policy* 16 (2005), 289–290.

²¹⁵ Injecting brown heroin requires the addition of an acid to improve water solubility, turning it into a salt.

²¹⁶ United States of America Department of Justice, National Drug Intelligence Center, National Drug Threat Assessment 2010, February 2010.

there are innumerable variations in the quality and purity of heroin produced around the world. Therefore, it can be confusing to distinguish between types such as brown heroin base and white heroin hydrochloride (HCL) on the basis of purity alone. This study is based on the 2010 World Drug Report, which reported that typical purities found in seized heroin base in Afghanistan range from 50 to 80 per cent. This is in line with previous results reported by the German Federal Criminal Police (Bundeskriminalamt or BKA) from Afghanistan and is consistent with UNODC accounts from key informants in Afghanistan, reporting an average heroin purity range of 50-90 per cent.

As suggested by the United States Drug Enforcement Administration (DEA) tests in Afghanistan,²¹⁷ the market is complex, but for the purposes of this study a reasonable working assumption made is that the output from Afghan facilities prior to dry cutting is heroin of approximately 70 per cent purity (given the uncertainty of measurements, a range of 50-90 per cent is used with a midpoint of 70 per cent).

The heroin value added chain

Heroin purity is linked to a number of overlapping factors such as chemical availability and processing know-how, but essentially depends on two key variables. The first is the profit margin decision of traffickers and processors. While purity decreases during processing and with distance from the source, prices increase as traffickers use adulterants and diluents to cut or bulk up shipments. By the time heroin reaches the intended consumer it could have lost 50-95 per cent of its purity, as retailers mix wholesale supply with at least an equal amount of adulterants (such as lactose or powdered sugar). Other important factors to consider are distance and risk, which add to prices to the point that buyers are willing to pay more along a route even though the purity is declining. The inverse relationship between price and purity along the trafficking route is striking: as purity goes down, price goes up, pointing to the high risk involved and the fragmentation of the trafficking chain. As an example, one gram of heroin (40-45 per cent purity) in the United Kingdom costs around US\$100 while one gram of similar purity costs US\$2 in Afghanistan.

²¹⁷ In Afghanistan, although heroin HCL is reported as having the highest purity, DEA tests of the substance in 2007-2008 showed average purities of 37 per cent and 32 per cent. Drawing conclusions from the DEA tests is difficult, however, since they are based on seizures in Afghanistan and purities in major destination markets such as Europe are consistently higher - around 35 per cent for heroin HCL and 22 per cent for heroin base (brown heroin). According to EMCDDA data, based on limited country data, the average purity of white heroin (HCL) in 2007 ranged between 31 per cent (Denmark) and 42 per cent (France). For brown heroin the range is lower with an average EU purity at the street level between 15 per cent and 30 per cent; See: www.emcdda.europa.eu/publications/drug-profiles/heroin.

Global heroin production

Heroin processing is not static – chemical availability and the quality of opium used can vary considerably; for example, the opium volumes required may differ based on each region's level of morphine content per kilogram of opium.²¹⁸ Some stages of the process may also change over time or be completely omitted in some processing regions. Additionally, even within Afghanistan, the written recipes that have been examined show widely varying ingredients, quantities and instructions. It bears repeating that collecting information on heroin processing in the field means a lack of controlled conditions especially in Afghanistan, where the dangerous environment contributes to the difficulty of collecting reliable data.

Faced with the diversity of recipes, this analysis begins by privileging a 2005 study conducted by the German Federal Police (BKA) in Afghanistan, which was performed with the most strongly verified quantities (see table 1). However, that process focused on heroin HCL and requires some calibration against 2010 UNODC sources, which estimate that at least 1 litre of acetic anhydride is required for 1 kg of brown heroin. Additionally, a breakdown of volumes based on the observations of the BKA also shows that brown heroin requires approximately 1 litre of acetic anhydride.

Based on regular reporting of the products emerging from Afghan facilities, our first reasonable assumption is that the bulk of production is heroin base (so-called brown heroin).²¹⁹ There is certainly a proportion of heroin hydrochloride (white heroin) being manufactured in Afghanistan and other regions, but the market for this product appears to be smaller.²²⁰ Taking into account this assumption along with the inherent uncertainty of the measurements, for the purposes of this report it is assumed that producers use 1-1.5 litres of acetic anhydride for every kilogram of Afghan heroin. Finally, in line with the 2010 *World Drug Report*, the assumptions that 7 kg of opium are needed to produce 1 kg of morphine and that 1 kg of morphine base is equal to 1 kg of brown heroin base will remain fixed.²²¹

²¹⁸ Much of the following description of heroin processing relies on observations made in Afghanistan during fieldwork and, to a lesser extent, open source reports on similar processes in Myanmar and South-East Asia. See: United States Drug Enforcement Administration, *Opium poppy cultivation and heroin processing in Southeast Asia*, 2001.

²¹⁹ UNODC field research in 2009-2010 indicates that heroin for the local market (Afghanistan, Pakistan, Islamic Republic of Iran, Tajikistan) is mostly at 50 per cent purity, while heroin destined for western countries (including the Russian Federation) has a purity of 70-90 per cent.

²²⁰ As explained by lab owners in Hilmand province, the availability of solvents and reagents may also influence processors to forego the additional steps to purification; Interview with Hilmand lab owner, Kabul, Afghanistan, June 2010.

²²¹ UNODC, *World Drug Report 2010: Methodology*, p.11.

Table 20: Chemical and opium volumes used to manufacture 1 kg of brown heroin base and 1 kg of white heroin hydrochloride from 112 kg of raw opium (in kg and litres as appropriate)

Recipe I. BKA observations 2005				
	Original recipe (BKA observations 2005)	Volumes per kg of opium	Volumes per kg of heroin base (brown heroin)	Volumes per kg of heroin hydrochloride (white heroin)
Opium volumes	70 kg	1kg	8.97 kg	17.50 kg
Quick Lime	7 kg	0.1	0.90 kg	1.75 kg
Ammonium chloride	20 kg	0.29	2.56 kg	5 kg
Acetic anhydride	8 litres	0.11	1.03 litres	2 litres
Sodium carbonate	20 kg	0.29	2.56 kg	5kg
Heroin base (brown heroin) output	7.80 kg		1 kg	1.95 kg
Activated carbon (charcoal)	6 kg	0.09		1.50kg
Ammonia	1 litres	0.01		0.25 litres
Acetone	0.15 litres	0.002		0.04 litres
Hydrochloric acid	1.5 litres	0.02		0.38 litres
Heroin HCL (white heroin)	4 kg			1 kg

Source: Adapted from BKA observations (Documentation of heroin manufacturing process in Afghanistan, 2005, pp. 28-30).

Table 21: Chemical and opium volumes used to manufacture 1 kg of brown heroin/white heroin hydrochloride from 112 kg of raw opium (in kg and litres as appropriate)

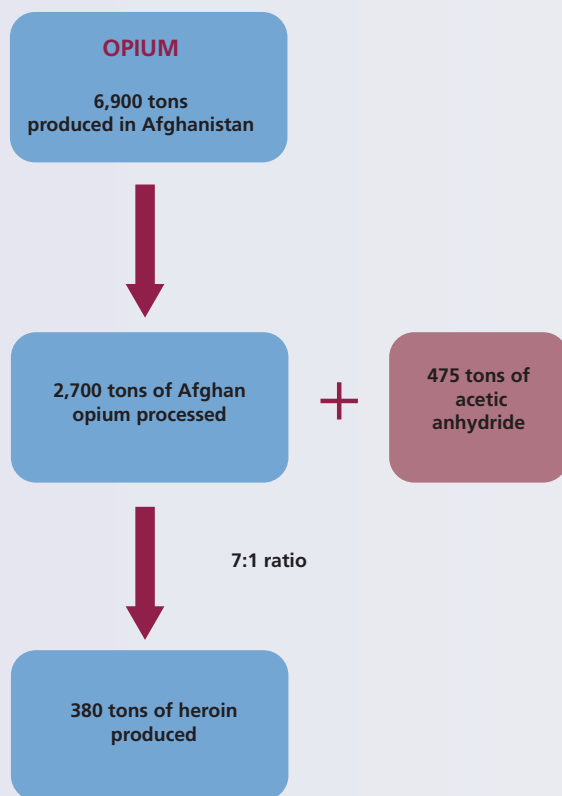
Recipe II. UNODC/ICMP observations 2010				
	Original recipe (UNODC/ICMP observations)	Volumes per kg of opium	Volumes per kg of heroin base (brown heroin)	Volumes per kg of heroin hydrochloride (white heroin)
Opium volumes	112 kg	1	6	9.5
Lime	28 kg	0.25 kg	15	2.5
Ammonium chloride	24 kg	0.21 kg	1.3	2
Acetic anhydride	20 litres	0.18 litres	1.05	1.7
Sodium carbonate	16 kg	0.14 kg	0.85	1.3
Heroin base (brown heroin) output	19 kg		1 kg	1.58 kg
Carbon powder	5 kg	0.04		0.4
Ammonia	2 litres	0.02		0.17
Acetone	N/A	N/A		N/A
Hydrochloric acid	5 litres	0.04		0.4
Heroin HCL (white heroin) output	12 kg			1 kg

Source: Adapted from "Opium processing and general information about the heroin labs and drugs trafficking in the eastern zone of Afghanistan", 2010 (UNODC/ICMP)

Afghanistan

Acetic anhydride has no legal uses in Afghanistan and its importation is prohibited; the substance needs to be smuggled into the country. In 2009, Afghanistan produced 6,900 tons of opium, of which it is estimated that approximately 2,700 tons were transformed into about 380 tons of heroin, in line with estimated global demand. According to the above estimates, heroin processors required between 380 and 570 tons of acetic anhydride to be smuggled into the country in 2009. For the purposes of this study, a midpoint of 475 tons will be assumed. Given that Afghanistan has been a processing centre for over a decade, thousands of tons of acetic anhydride have been smuggled and used in Afghanistan during that period.

Fig. 24: Heroin production in Afghanistan, 2009



Source: UNODC.

Myanmar

Myanmar does not manufacture acetic anhydride and only imports very small amounts for licit purposes.²²² In 2009, an estimated 25 tons of brown heroin were manufactured²²³ in Myanmar, requiring an estimated 25-40 tons of acetic anhydride; approximately 5 per cent of global heroin requirements. Similarly to Afghanistan, most of the heroin produced in Myanmar is brown heroin; however, the mor-

phine content of Myanmar opium is reportedly lower, translating into higher opium volume requirements for Myanmar processors.²²⁴ Laboratories refining Myanmar opium, therefore, face somewhat higher processing costs in the initial phases of heroin manufacture.

Latin America (primarily Mexico and Colombia)

Latin America has the capacity to produce up to 40 tons of heroin annually; most of this heroin originates in Mexico. However, the amount of acetic anhydride used in the manufacturing process remains unclear since the conversion process has not been documented. In the absence of direct evidence and for the purposes of this report, a working assumption is that an acetic anhydride to opium ratio roughly similar to that of Afghan brown heroin is used in processing. Approximately 40 tons of Mexican heroin were manufactured in 2009, which would require around 40 tons of acetic anhydride. In 2009-2010, there were several seizures of acetic anhydride destined for heroin processing in Mexico. It is unclear however how much of this was linked to heroin production since other acetic anhydride seizures were also linked to methamphetamine production.²²⁵ Unlike Myanmar and Afghanistan, Mexico is both a producer and legitimate user of acetic anhydride which may increase the risk of diversion within the country.

Elsewhere in Latin America, approximately 1 ton of high quality heroin was manufactured in Colombia in 2009, requiring only 1-1.5 tons of acetic anhydride to be smuggled, or imported and then diverted, to the country.²²⁶

Other countries

Some illicit heroin manufacturing has been reported in India, an acetic anhydride manufacturer, consisting mostly of low purity brown heroin, the production of which is estimated at 15 tons for 2009. In Eastern Europe (particularly Ukraine, Poland and the Republic of Moldova) and the Russian Federation, some addicts boil poppy straw with organic solvents and acetylate with acetic anhydride.²²⁷ This is also reflected in the number of interdicted small 'kitchen labs' dedicated to acetylating opium. For example, the Russian Federation interdicted 347 of these laboratories in 2007 while the Republic of Moldova reported a total of 473 'acetylated opium' labs destroyed in 2004-2005.²²⁸

The acetic anhydride pipeline

Heroin is manufactured illicitly in relatively concentrated areas, while acetic anhydride industrial production is spread throughout the world (see map 1). The largest global man-

²²² Report of the International Narcotics Control Board for 2001 on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, p.22, www.incb.org/pdf/e/tr/pre/2002/precursors_2002_3b_2.pdf.

²²³ For Afghan opium, a conversion ratio of 7:1 is used, while for Myanmar and the Lao People's Democratic Republic, the ratio increases to 10:1.

²²⁴ Approximately 10 kg of opium for each kg of heroin processed.

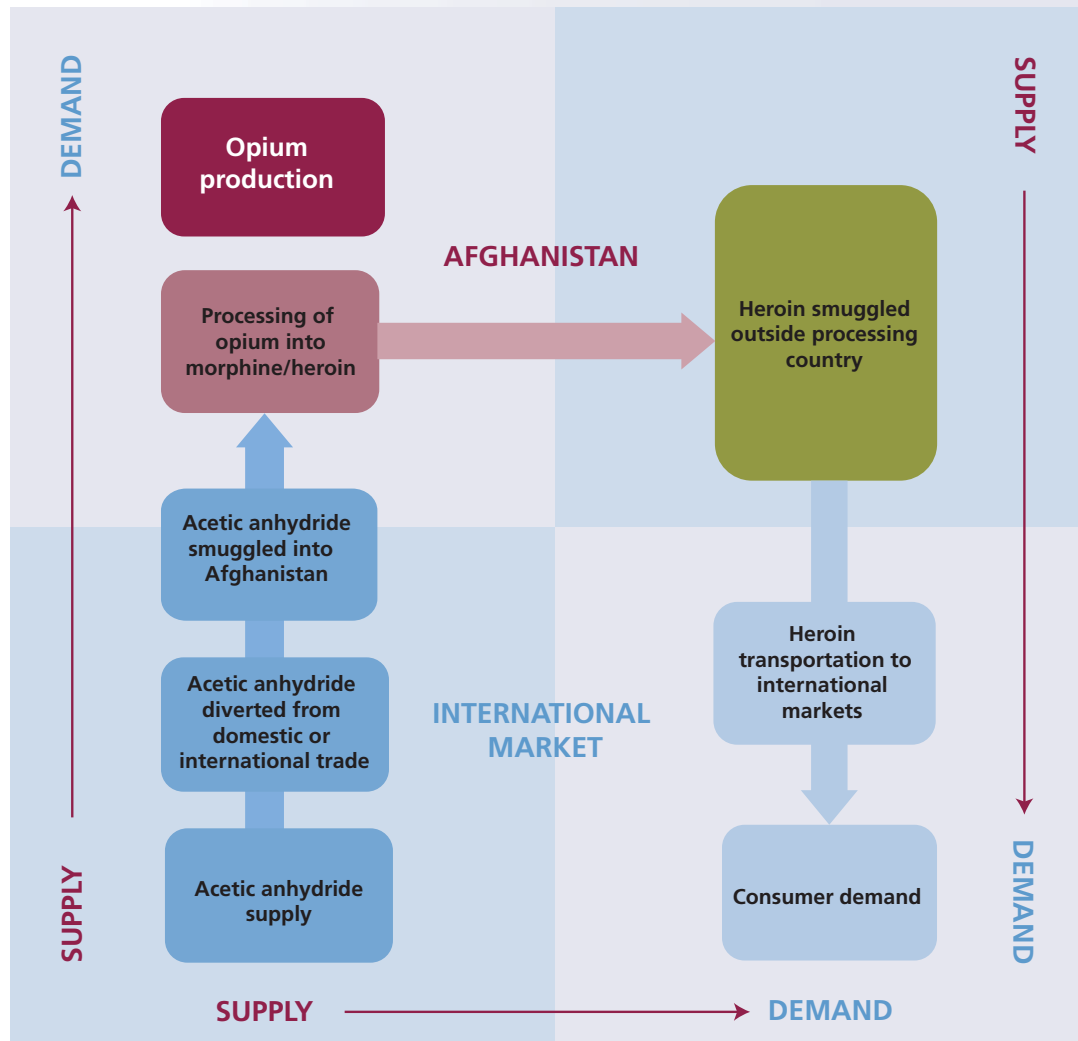
²²⁵ UNODC, Global SMART update Volume 4, www.unodc.org/documents/scientific/GSU4_FINAL_Web.pdf.

²²⁶ A DEA study on heroin laboratory efficiency in Colombia estimated that 8 kg of oven-dry opium were needed to manufacture 1 kg of 100 per cent pure heroin HCl; *World Drug Report* 2010, p. 138.

²²⁷ UNODC *World Drug Report*, 2009.

²²⁸ UNODC *World Drug Report*, 2010.

Fig. 25: The heroin supply chain



Source: UNODC.

ufacturers appear to be the United States of America and China. Many countries (including producing countries) import such chemicals for their own manufacturing and other industries. At the onset, it is important to note that acetic anhydride licit manufacturers or acetic anhydride distributors do not function as suppliers to the illicit market per se; rather it is the traffickers who perform the service of siphoning a fraction from the licit market and making it available on the illicit market.

Upwards of 2 million tons of acetic anhydride are estimated produced annually.²²⁹ Estimating that illicit acetic anhydride demand in Afghanistan is 380-570 tons per annum, only a tiny percentage (0.02%) of global production would need to be diverted and trafficked to heroin laboratories. These figures, while useful to illustrate the challenges of precursor control, can be narrowed further for more accurate risk analysis, since as much as two thirds of global acetic anhydride production is utilized for domestic indus-

trial use.²³⁰ It is the remainder, (estimated at 320,000 tons in 2009),²³¹ which is traded internationally and presents a potential target for diversion by traffickers. However, this is also not representative of the amount of acetic anhydride potentially vulnerable to diversion, since traffickers target only a limited number of countries/distributors and generally divert the substance from domestic distribution channels. Additionally, traffickers do not operate strictly based on demand and may organize for one or multiple large orders of the substance in anticipation of some shipments being intercepted.²³² Whatever the exact volumes, it remains that only a fraction of global acetic anhydride production is required to meet demand in the illicit heroin processing

²²⁹ In 2009, SRI consulting estimated that 1,645 million metric tons of acetic anhydride were produced globally but most observers put the average production at two million tons per year; see "Acetic anhydride", CEH Marketing Research Report, SRI Consulting, January 2010.

²³⁰ Once produced, many chemicals including acetic anhydride are used uniquely for the production of other chemicals and thus, are never really sold or traded.

²³¹ "Trends and prospects in international trade of Acetic Anhydride", *Business Analytic Center* (BAC), 2010.

²³² For example, in 2001 the Russian Federation stopped the export of 1,000 tons of acetic anhydride (a quantity well above Afghan or even global illicit demand) to Ukraine, when Ukrainian authorities determined that the company allegedly placing the order did not exist and that the acetic anhydride was in fact destined for Afghanistan; Information provided by the security services of Ukraine, 22 March 2010.

Map 38: Countries licitly manufacturing acetic anhydride, 2009

Sources: UNODC Country reports, reports of the International Narcotics Control Board on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 (1999-2009).

sector. Traffickers therefore have flexibility to seek that fraction from the least-protected corners of the market, increasingly by diverting from domestic distribution channels.

The point of diversion to illicit trade may come at any step of the licit supply chain. At the manufacture stage, methods can range from inaccurate reporting of over-consumption to outright siphoning by unscrupulous employees. Some companies may order greater quantities of acetic anhydride than required for their related outputs.²³³ Most basically, this involves dividing a shipment within the factory, using a proportion for genuine production needs and diverting the rest.²³⁴ It can also include tampering with recipes – such as for pharmaceuticals – in order to reduce the total required. For a thorough operation, these methods then require adjustments to production reporting in order to balance the books.²³⁵ Another procurement strategy could involve the establishment of a front company²³⁶ that would report acetic anhydride as a requirement to carry out its normal business activity (for example, textile or leather manufacture).²³⁷ In principle, these should be easy to detect by systematic checks on importing facilities. In practice

however it can be difficult to find the resources to follow up and seek information from licensees. Diversion can also occur during the storage or transportation stage, in the form of theft and pilferage.

Preventing the diversion of acetic anhydride and other precursor chemicals from legitimate trade is one of the key goals of the 1988 United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (the 1998 Convention). Article 12 of the Convention relates to precursors and requires parties to monitor their manufacture and distribution. The Convention also identifies those precursors most crucial to the illicit manufacture of drugs and places them under a special control regime. These are listed in Table-I and Table-II of the 1988 convention (see Annex 1). The international rescheduling of acetic anhydride from a Table-II to a Table-I substance in 2001 further tightened international control on the substance. Member States are now obliged to supply, upon request to the Secretary-General by the interested Party, pre-export notifications from the competent authorities of the exporting country when the chemical is traded. There is a working mechanism, which the International Narcotics Control Board (INCB) facilitates, for governments to share information on suspicious cases, particularly on stopped shipments, in order to prevent traffickers from going elsewhere to obtain the necessary chemicals. Also, various international co-operations efforts assisted by INCB, such as Project Cohesion,²³⁸ may have raised awareness in the com-

233 “Precursor trafficking and diversion: March 2010” UNODC Country Office Pakistan, March 2010.

234 These are not front companies since they have a genuine commercial purpose and concerns that are derivative of this.

235 Information provided by UNODC Country Office Pakistan; see also “Precursor trafficking and diversion: March 2010” UNODC Country Office Pakistan, March 2010.

236 In some cases, legitimate forms of trade are carried out by front entities, sometimes related to the chemical trade.

237 NCIS, United Kingdom Threat Assessment report, 2002.

238 A global initiative led by INCB aimed at assisting countries in addressing

mercial sector, reducing the readiness of companies to provide huge quantities of acetic anhydride to unknown and suspicious customers.²³⁹ Such initiatives have also led to a significant increase in the identification and prevention of diversion from international trade. As a result of this kind of collective action, precursor chemicals like acetic anhydride are now increasingly diverted from domestic distribution channels of the countries which manufacture, or import, such chemicals. Nonetheless, while the system to prevent diversion from international trade is functioning, vigilance is still needed and there are still attempt at diverting the substance internationally.

In most recent domestic diversion cases linked to Afghan heroin production, intermediaries or brokers²⁴⁰ are approached by front companies posing as distributors for other front companies in neighboring countries posing as end users. Once the chemical is procured, it may be placed in a warehouse or stored for an extended period before smuggling. This is effective since traffickers know that law enforcement resources are limited.

Once diverted, acetic anhydride is smuggled through various routes to final destinations where illicit drug manufacture takes place. This involves a variety of methods, including misdeclaration or mislabeling of consignments and the removal of goods during or after loading. Criminal groups may take advantage of free trade zones,²⁴¹ which also provide the ideal setting for repackaging and relabeling shipments. The use of circuitous routes is also noted, with chemicals routed through numerous destinations listing an intermediate port as the end destination.²⁴² A container arriving at port may thus be re-routed to a port in a second country en route to a final destination in a third country. Container ports in Europe and Asia are particularly targeted, due to high trade volumes, which make detection more difficult. Countries with light monitoring systems that double as major trade hubs offer optimal circumstances for traffickers. Intelligence-led investigations and checks are thus crucial if law enforcement is to detect illicit shipments without hindering the free flow of legitimate trade.

In and of itself, the illicit supply chain is made of a vast and complex network of networks providing access to acetic anhydride through multiple sales transactions, front com-

panies and intermediaries which serves to insulate the criminal groups managing the trade. Traffickers also thrive on weak controls and easily exploited loopholes in transit or domestic trade. This is combined with the underhand methods of the smugglers, such as mislabeling and misdeclaring acetic anhydride and smuggling the substance through multiple countries. All these and other methods reduce the risk of detection while collusion by government officials provides an added security buffer along the trafficking chain.

Interdiction

Seizures are a commonly used indicator of trends in illicit markets but interpreting acetic anhydride seizure data is challenging since, in any given year, seizures are such a small percentage of what is estimated to be traded. Small variations in the number of seizures – for example, from 2 to 6 seizures – can yield seemingly large swings in the amount of seizure activity. For instance, one relatively large seizure can have quite a marked effect on data series. At the same time, such seizures are not expected to significantly impact the supply of illicit acetic anhydride, for example when compared to heroin seizures and their impact on the opiate trade. In fact, despite major seizures in some years and the lack of seizures in others, the availability of acetic anhydride appears to have remained constant in Afghanistan.

Between 1999 and 2008, a total of around 1.03 million tons of acetic anhydride were seized worldwide. Of this amount, 95 per cent, (975,000 tons) was seized in a total of 14 countries. Turkey seized the highest volumes of acetic anhydride followed by China, Slovenia and the Russian Federation. Turkey is a transit country for acetic anhydride diverted mainly in European internal trade and trafficked to Afghanistan. According to the limited individual seizure statistics, acetic anhydride enters Turkey via its land borders with Bulgaria and to a lesser extent Greece. The smuggled chemical exits Turkey via its borders with the Islamic Republic of Iran and continues onward. A comparison of volumes of acetic anhydride seized by Turkish authorities with the volumes seized by regional neighbors appears to indicate the need for increased regional cooperation.

From 2000 to 2010, an annual average of approximately 110 tons of acetic anhydride were seized worldwide. Although global seizures fluctuated between 1999 and 2003, overall they remained stable, with the exception of a sizeable increase in 2001 – partly on account of large confiscations in the United Kingdom and Turkey. A slight decline was noted in 2004, which was followed by a sharp drop to historical lows. There is a wide range of hypotheses regarding this lapse in seizures, including the use of unsupervised routes or a change in modus operandi by trafficking networks.²⁴³ During that period, China, the Russian

the diversion of acetic anhydride and potassium permanganate by providing a platform from which time-bound regional operations can be launched, investigations into seizures and stopped shipments can be coordinated and licit trade monitored.

239 UNODC *World Drug Report*, 2008.

240 Those acting as intermediaries are not necessarily chemical brokers per se, as non-specialized commodity brokers can and have also been targeted.

241 The title 'free trade zones' encompasses the broader category of special economic zones, including free ports, export processing zones, special economic zones et cetera.

242 This means that once the ship arrives at this location, the illicit cargo is transferred surreptitiously to another ship for transport to a third country, for which it has not been approved.

243 A partial explanation can be found in recent investigations that revealed that

Table 22: Reported global acetic anhydride seizures, by country, 1999-2008

Country	Acetic anhydride seizures (Litres)	Cumulative percentage
Turkey	187,675	18%
China	139,956	32%
Slovenia	117,899	43%
Russian Federation	104,482	53%
Turkmenistan	96,946	63%
Bosnia and Herzegovina	73,000	70%
Hungary	63,000	76%
Romania	48,323	81%
Islamic Republic of Iran	41,118	85%
Afghanistan	31,507	88%
Myanmar	27,049	90%
India	20,156	92%
Bulgaria	20,156	94%
Pakistan	15,704	96%
Republic of Korea	14,800	97%
Rest of the world	29,049	100%
Total	1,030,820	

Federation and Turkey accounted for more than 70 per cent of all global seizures. In analyzing acetic anhydride trafficking trends, stopped shipments – shipments in licit trade that were not allowed to be exported either from the source countries or transit points because of suspicion – can also provide important pieces of information.²⁴⁴ It is noteworthy for example that during the seizure lapse period of 2005-2007, a very low number of stopped shipments were reported.²⁴⁵

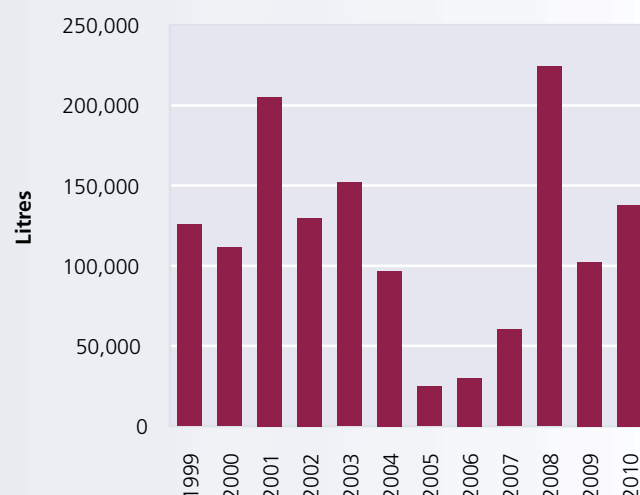
A slight increase was noted in global seizures in 2007, followed by a 250 per cent increase in 2008, mostly thanks to the strength of seizures in Slovenia and Hungary. The more than 220 tons of acetic anhydride seized in 2008 would have been enough to produce nearly half of world's heroin output. Based on the preliminary data shown below, global seizures in 2009-2010 are back down to levels observed earlier in the decade.

Early in the decade most acetic anhydride was seized in Europe and Asia. Seizures shifted slightly to the Russian Federation in 2004-2007. Over the last few years, global seizures are once again dominated by Asia and Europe. Afghanistan obtains acetic anhydride from multiple sources and, unless shipped by air, precursors must transit the neighbouring countries in Central Asia (Uzbekistan, Tajikistan and Turkmenistan), the Islamic Republic of Iran and

hundreds of tons of acetic anhydride had been successfully smuggled out of Central Europe (and to a lesser extent the Republic of Korea) during that period.

244 A shipment is stopped in case of doubts about the licit purposes of the transaction.

245 According to the INCB, “between November 2006 and October 2007, only one shipment of the substance (4.3 tons), which was to be sent from the United Kingdom to India and it was suspended for administrative reasons”; see Report of the International Narcotics Control Board for 2007 on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, p.15.

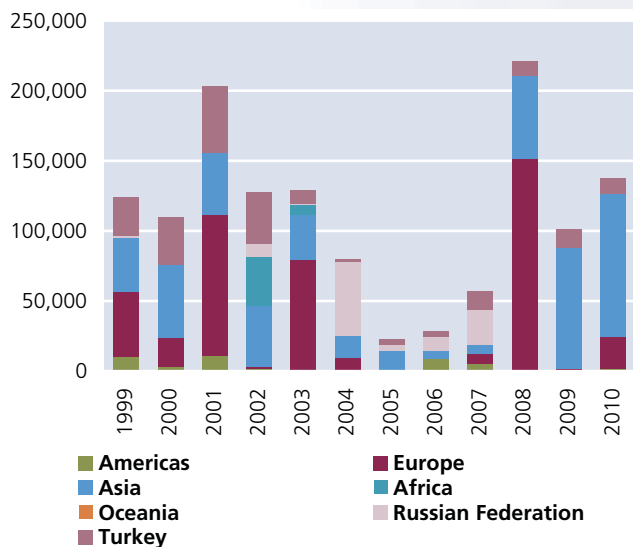
Fig. 26: Reported global acetic anhydride seizures, 1999-2010*

Source: Collated from UNODC Country reports, reports of the International Narcotics Control Board on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 (1999-2009).

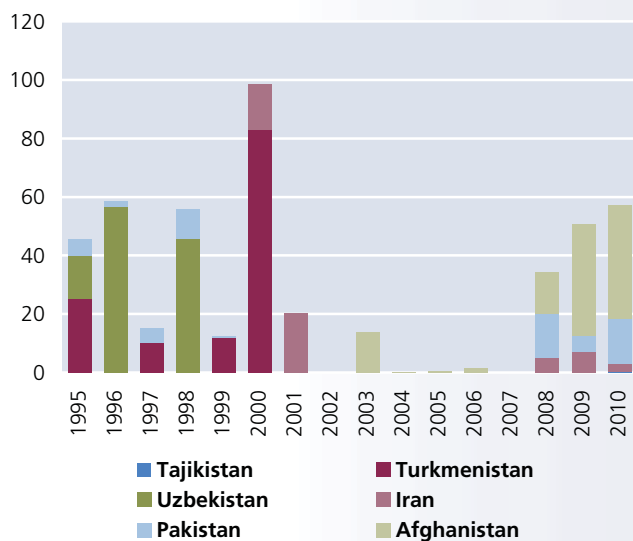
*Figures are preliminary and may be revised when updated information becomes available.

Pakistan. Therefore, it is striking that, despite the increased concentration of processing activity in Afghanistan, little acetic anhydride was seized in countries neighbouring Afghanistan (excluding China) during the 2002-2007 period. It bears repeating that there is no evidence of diversion of licit production of acetic anhydride in Uzbekistan or in the Islamic Republic of Iran, two of the three producers bordering Afghanistan. Such a prolonged region-wide absence likely denotes operational adjustments by traffickers, which may also include corrupting officials.

The lack of major seizures of acetic anhydride in and around Afghanistan since 2001 prompted UNODC to

Fig. 27: Reported global acetic anhydride seizures, by region, 1999-2010 (litres)

Source: Collated from UNODC Country reports, reports of the International Narcotics Control Board on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 (1999-2009).

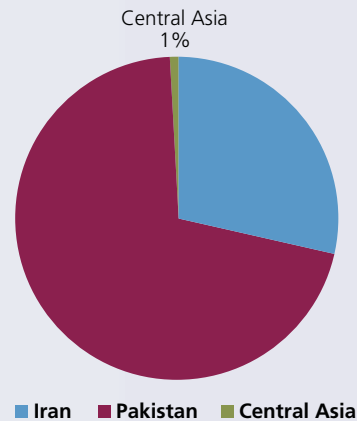
Fig. 28: Acetic anhydride seizures in Afghanistan and neighbouring countries (excluding China), 1995-2010 (litres)

Source: UNODC Regional Office for Central Asia; UNODC Office in the Islamic Republic of Iran; UNODC Country Office Pakistan; UNODC TARCET reports.

launch Operation TARCET,²⁴⁶ in conjunction with Paris Pact Partners in 2008. A primary goal of the operation is to promote regional action and cooperation against precursor trafficking into Afghanistan and as a result of the anti-trafficking operational activities, successes have been achieved both in Afghanistan and its neighbouring countries. In total, during the first phase of Operation TARCET

²⁴⁶ TARCET is an acronym for Targeted, Anti-trafficking, Regional, Communication, Expertise and Training. TARCET addresses the issue of smuggling in precursors used in heroin manufacture en route to Afghanistan. TARCET is a regional operation coordinated by the UNODC; the objectives of Operation TARCET are twofold: (a) to educate key law enforcement officers on methods used to identify and intercept smuggled consignments of chemicals; (b) to intercept consignments of smuggled chemicals using modern methodologies.

(2008), 44 tons of acetic anhydride and nearly 30 tons of other chemicals were seized in Afghanistan, the Islamic Republic of Iran, Pakistan, Kyrgyzstan, Tajikistan and Uzbekistan. Similarly, during the second phase of the operation (2009-10), 22 tons of acetic anhydride and over 430 tons of other chemicals were seized in Afghanistan, Pakistan, Kazakhstan and Kyrgyzstan. A third phase is currently underway. In the main destination market of Afghanistan, seizures of acetic anhydride in 2003-2010 average almost 13 tons, approximately 3 per cent or less of the country's estimated illicit requirements of the substance (475 tons). High seizures in 2009-2010, reflecting both increased local capacity and ISAF assistance, brought up the average considerably from 5 tons per annum in 2008.

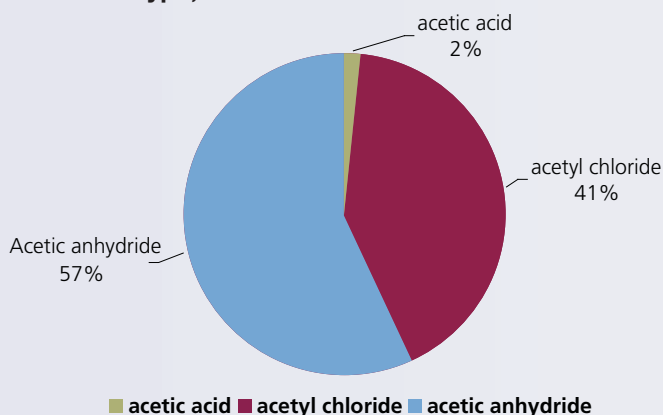
Fig. 29: Share of acetic anhydride seizures in countries neighbouring Afghanistan (excluding China), 2008-2010

Source: UNODC TARCET reports.

Alongside the resurging presence of acetic anhydride in 2008-2009, seizures of chemicals closely related to acetic anhydride – namely acetic acid and acetyl chloride – were also reported in at least three countries neighbouring Afghanistan. During the 2008-2010 period, acetyl chloride alone made up over 40 per cent of all seized chemicals destined for Afghanistan. The reasons for these seizures are unclear. Acetic anhydride is thought to be virtually irreplaceable, because it is the safest and most effective agent for acetylation. Nevertheless, the above seizures may indicate the use or attempted use of substitutes in heroin manufacture in the region. There is however no evidence of any substitute chemical being used in Afghanistan.

After 2002, a decrease in annual acetic anhydride seizures was observed in China, perhaps due to lower demand from neighbouring Myanmar and the Lao People's Democratic Republic. At the same time, acetic anhydride seizure cases in Pakistan pointing to Chinese diversions continued to be reported between 2000 and 2010. In recent years, some of the acetic anhydride seizure cases identified in Pakistan and Afghanistan were also linked to trafficking from India. Although India is a licit producer of acetic anhydride, it is unclear if the seized acetic anhydride had been diverted from domestic production. In 2008-2009, the Republic of Korea has detected and seized multiple shipments of acetic

Fig. 30: Share of Afghan-bound chemical seizures in countries neighbouring Afghanistan, by type, 2008-2010



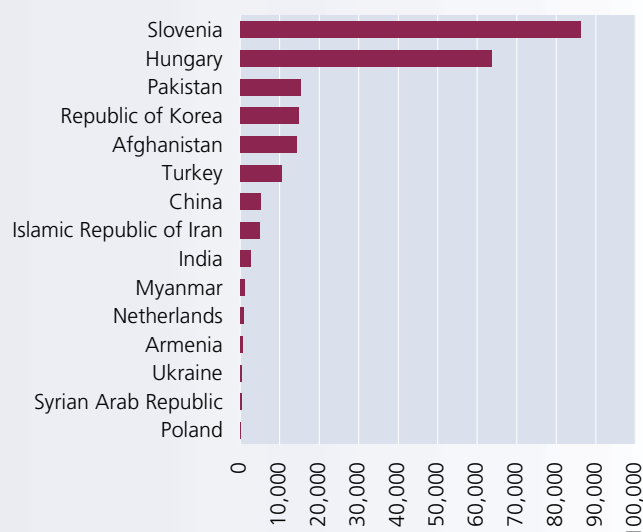
Source: UNODC TARCET reports.

anhydride destined for Afghanistan mainly via the Islamic Republic of Iran. In all cases, the chemical had been diverted from domestic distribution channels.

The Russian Federation has seized around 104 tons of acetic anhydride between 2000 and 2008. Some of these seizures were attempts to traffic the substance into Central Asia and there is recent evidence of attempted acetic anhydride trafficking from this country to Afghanistan via Central Asia.

In 2008, some 156 tons of acetic anhydride were seized in one year by Slovenia and its neighbour Hungary, accounting for approximately 75 per cent of global seizures in 2008. Seizures, or interceptions, of precursor chemicals are not the end of law enforcement action. They enable ‘back-tracking’ investigations to identify the original sources of

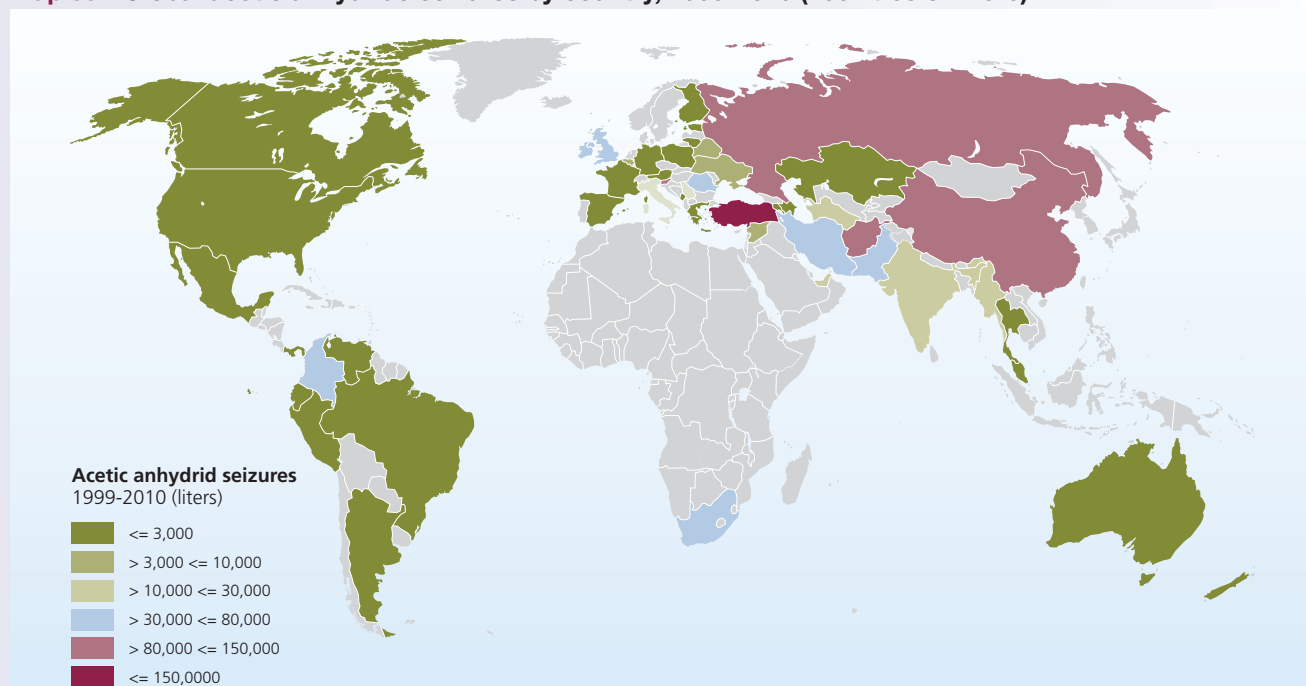
Fig. 31: Seizures of acetic anhydride in 2008 (over 100 litres), disaggregated by country



Source: Collated from UNODC Country reports, reports of the International Narcotics Control Board on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 (1999-2009).

diversion. As precursor chemical smuggling attempts often involve routes through third countries, such investigations necessitate joint investigations beyond borders, and possibly different law enforcement authorities. In other cases, where feasible, ‘controlled deliveries’ may be warranted, which again involve joint cross-border operations. In order to use either of these advanced investigative techniques, it is essential that necessary working mechanisms and standard operating procedures are established between the countries concerned.

Map 39: Global acetic anhydride seizures by country, 1999-2010 (100 litres or more)



Source: Collated from UNODC Country reports, reports of the International Narcotics Control Board on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 (1999-2009).

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

2.2 ACETIC ANHYDRIDE TRAFFICKING TO AFGHANISTAN

Afghanistan is the primary market for illicit acetic anhydride and thus the final destination of most global acetic anhydride routes. Acetic anhydride trafficking for Afghan heroin production is multi-directional and multi-modal. The chemical is diverted mainly in Europe and Asia and trafficked to Afghanistan via its neighbours, the Islamic Republic of Iran, Pakistan and the Central Asian countries of Tajikistan, Uzbekistan, Kyrgyzstan and Turkmenistan. Based on seizure data, Pakistan and the Islamic Republic of Iran receive the bulk of trafficked acetic anhydride by land and sea transportation. However, because illicit shipments of acetic anhydride can be re-routed - often via indirect routes - before reaching final destinations, it is difficult to speak of routes in the sense commonly used for opiates or other drugs. Moreover, acetic anhydride routes are not static and can change rapidly.

Three major routes

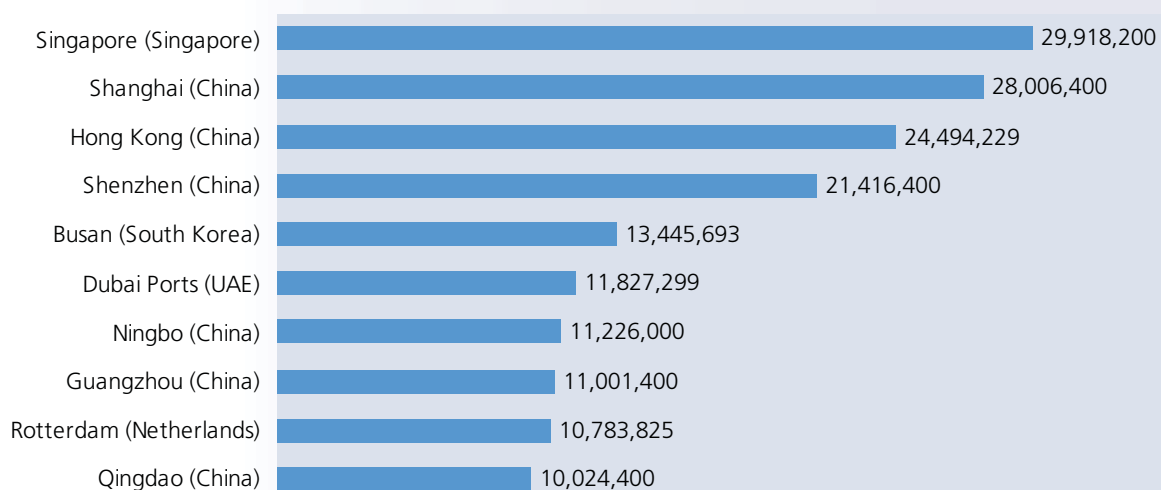
Acetic anhydride trafficking routes to Afghanistan appear to roughly operate along major Afghan opiate routes – in the reverse direction. Thus the Balkan, Northern and Southern routes out of Afghanistan which move hundreds of tons of heroin to Western and Asian markets are used in the reverse direction to smuggle hundreds of tons acetic anhydride. However, unlike with opiates, the number and size of acetic anhydride seizures reported in many countries along the Balkan, Northern and Southern routes have generally remained low. In most cases, seizures are erratic and during some periods non-existent.

Along the Balkan route, the newest European Union member states and the former Soviet states in Eastern Europe continue to be targeted, but effective international cooperation has also responded efficiently. Slovenia and

Hungary play a key role owed to their key geographic location as the Schengen zone's external borders. This is reflected in seizures of 156 tons of acetic anhydride in 2008 destined for movement through south-eastern Europe. Further downstream, acetic anhydride is smuggled into Turkey and continues to the Islamic Republic of Iran before reaching Afghanistan. Turkey is the only country on the Balkan route where there are reasonably consistent acetic anhydride seizures. By contrast, in all other countries along this route, the pattern of seizures is mostly erratic such as in the Islamic Republic of Iran which had no seizures between 2002 and 2007. There were several seizures in the Islamic Republic of Iran after 2008 but these originated in Asia and were affected at seaports. This may be an indication that acetic anhydride traffickers have successfully exploited vulnerabilities on the Islamic Republic of Iran border with Turkey. There also appears to be additional routes into the Islamic Republic of Iran, with acetic anhydride trafficked from northern Iraq intermingling with sea-borne AA flows from Asia.

There are however alternatives to trafficking large acetic anhydride loads overland from Europe into Turkey and through the Islamic Republic of Iran. Indeed, although illicit shipments of acetic anhydride can be smuggled into Afghanistan from nearly all directions, the eastern and southern borders with Pakistan appear to be subjected to a higher degree of risk due to a concentration of laboratories and the comparative lack of government presence in the area. Thus, the Southern route through Pakistan appears to be the other primary route into Afghanistan. Seizure data aside, there was a consensus among all sources interviewed that flows through southern provinces of Afghanistan (Kandahar, Hilmand) were quantifiably more important than those that travel via the country's western (or eastern) border. Most of this trafficking appears to source AA from

Fig. 32: Top ten ports by annual container volumes in twenty-foot equivalents units (TEUs), 2008



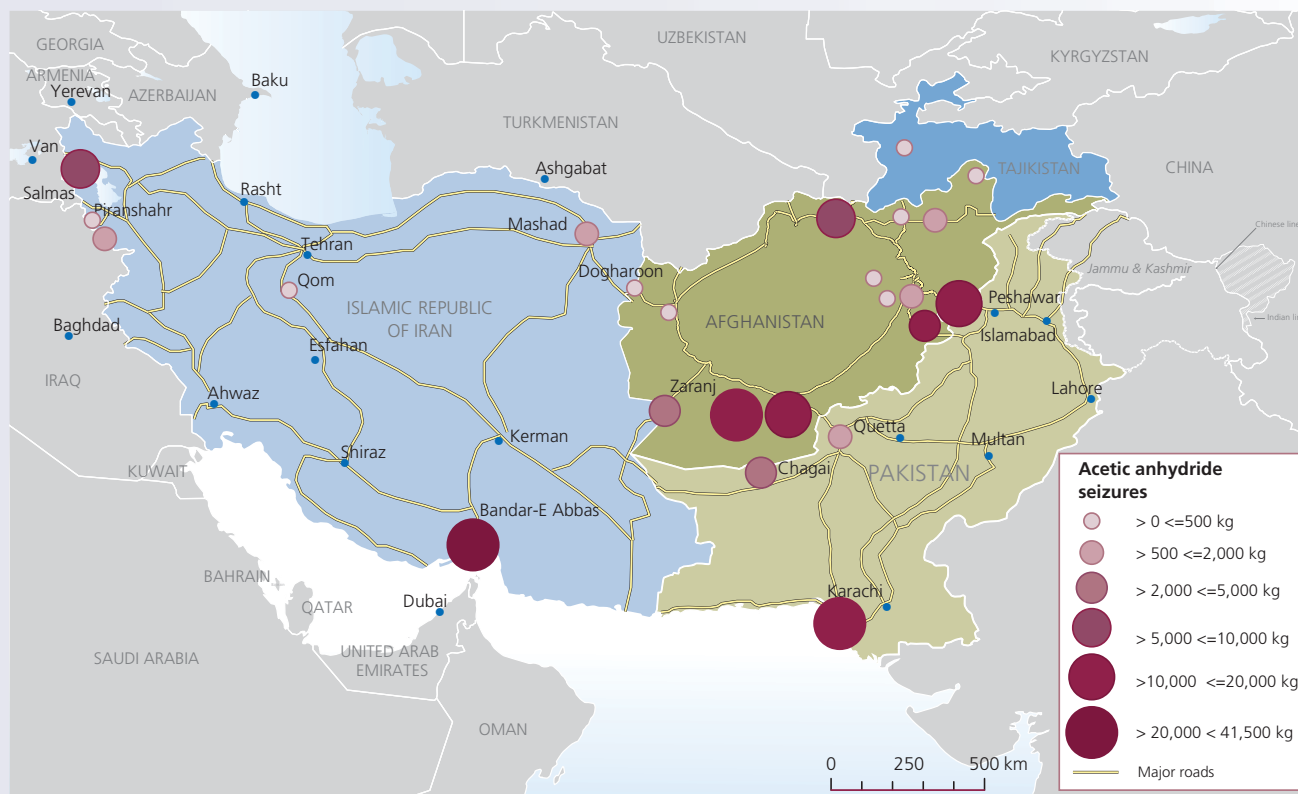
Asia and involves the use of seaports; although small overland (or aerial) ventures from India or China cannot be discounted.

In Afghanistan's region, the main trade and transportation hub is the United Arab Emirates. In the past, several seizures indicated that the United Arab Emirates was being used as a transit for smuggling towards Afghanistan.²⁴⁷ Since 2008, many acetic anhydride seizures in the Islamic Republic of Iran and Pakistan have transited Dubai ports, which now reportedly handle in excess of 11 million containers per year (five times as much as in 2000).²⁴⁸ In July 2010, as a result of intelligence sharing, 14.6 tons of mislabeled acetic anhydride diverted in China and destined for Pakistan were seized in Dubai. This is only illustrative, as there are other large seaports in the region used as a cover for acetic anhydride trafficking. As a result, authorities in Dubai and other major ports in the region face huge difficulties detecting illicit shipment among the thousands of containers that are processed daily. However, it is important to keep in mind that increased international focus on Karachi seaport (Pakistan) and Bandar Abbas (Islamic Republic of Iran) may influence traffickers to use alternate ports of entry such as Gwadar in Baluchistan (Pakistan) or Cha-

habar in Sistan-Baluchistan (Islamic Republic of Iran). Such efforts should, therefore, be complemented by intelligence sharing and regional cooperation.

Although a major thoroughfare for acetic anhydride trafficking in the 1990s, the use of the Northern route through Central Asia for trafficking acetic anhydride now appears secondary compared to the Balkan and Southern routes. UNODC research in Afghanistan indicate that flows from Central Asia are minor and irregular and this is likely to remain unchanged as long as heroin laboratories in provinces bordering Central Asia continue to rely on the Southern route supply line out of Pakistan. This said, there continues to be attempts at diverting acetic anhydride in the Russian Federation for smuggling through Central Asia. There is also fragmentary evidence that a China-Kyrgyzstan-Tajikistan-Afghanistan route is developing. It seems unlikely, however, that significantly larger volumes of acetic anhydride are being trafficked than those reflected in the limited seizure data. This is also in part the result of logistical disadvantages: sea-borne shipping²⁴⁹ to Pakistan and the Islamic Republic of Iran gives traffickers a logistical edge in supplying precursors to Afghanistan. In that regard, trade between Central Asia and Afghanistan is far below its

Map 40: Acetic anhydride seizures in Afghanistan and neighbouring countries (except China), 2008-2010



Source: UNODC. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

²⁴⁷ Early examples include seizures of 10 tons of acetic anhydride in Turkmenistan in 1997, 10 tons in Pakistan in 1998 as well as 9 tons in Dubai smuggled from India in 1999.

²⁴⁸ NAVLINK, March 2003, *Putting e-business in Dubai Ports at work*, www.navlink.com/march-03.html.

²⁴⁹ The closest equivalent is the Caspian Sea, which borders Kazakhstan and Turkmenistan, but UNODC has no information on its use for precursor movements.

potential²⁵⁰ and may continue to present fewer opportunities for precursor smugglers than the eastern or southern borders, which see far larger trade volumes. Another shift in trafficking routes is not out of the question however, particularly taking into account the new customs agreement between Kazakhstan, the Russian Federation and Belarus.²⁵¹

As controls in one area develop, alternative routes with fewer controls are sought by acetic anhydride traffickers. Although not discussed in-depth in this report, there are other regions that can be targeted by traffickers seeking the path of least resistance to Afghanistan. Iraq appears to be vulnerable; in particular, northern Iraq appears to be emerging as a transit zone for acetic anhydride shipments destined for Afghanistan through the Islamic Republic of Iran. Additionally, the number of identified diversion attempts involving countries neighboring Iraq is increasing. In 2008-2009, the Governments of Spain, Germany and the United States of America stopped suspicious shipments of nearly 95 tons of acetic anhydride, at the request of Iraqi authorities. Africa also appears vulnerable on account of weak controls and low law enforcement capacity. According to the 2010 International Narcotics Control Strategy Report (INCSR) issued by the United States of America State Department, Africa is increasingly targeted by traffickers for possible smuggling to Afghanistan. For example, several stopped shipments over the last few years could be indications that traffickers have redirected some of the trade through the East Africa region. This includes two shipments from India and the Islamic Republic of Iran that were intercepted by Djibouti authorities in 2009; these totaled 36 tons of acetic anhydride and were requested by a company in Djibouti.²⁵² Other African regions may have been targeted as well, as suggested by a stopped shipment of 15 tons of acetic anhydride from Italy to Egypt in December 2008. The acetic anhydride route through Africa appears to be a new phenomenon and more time is needed to monitor and analyse its potential dynamics.

Finally, some acetic anhydride may not be destined for Afghanistan at all. Based on significant increases in morphine seizures in countries bordering Afghanistan, the 2008 *World Drug Report* concluded that important amounts of heroin are produced outside Afghanistan, as morphine does not have a large user base. The possibility of processing occurring outside Afghanistan may also partially account for long-standing seizure gaps along key routes and would correlate with intermittent but unconfirmed reports of refining activity elsewhere in the wider region.

250 Asian Development Bank, Afghanistan Trade with CAREC Neighbours: Evidence from Surveys of Border Crossing Points in Hairatan and Sher Khan Bandar, October 29, 2008.

251 Under this agreement, once cargo enters any of these countries, customs officials consider it to be domestic cargo not subject to inspections while sealed, potentially presenting opportunities for traffickers.

252 The shipments were intercepted after authorities detected that the import permits were forged.

Groups involved

Based on arrests resulting from seizures, it appears that nationals of Afghanistan and Pakistan play an important role in diverting acetic anhydride internationally, even in distant producing and importing countries where there is not a large diaspora (Republic of Korea, Japan). Groups of Afghan and Pakistani nationals manage trafficking through the seaports of both Pakistan and the Islamic Republic of Iran. Considering that few Afghans are generally arrested on drug charges outside Afghanistan, it is notable that Afghan nationals are by contrast quite present in acetic anhydride related arrests.

This international mobility is facilitated by the acquisition of multiple citizenships, which provides an added degree of protection against law enforcement. This has proved helpful in internationalizing groups beyond the region, as evidenced by the reported involvement of Afghans in acetic anhydride procurement in India, the Russian Federation, Japan and the Republic of Korea, which all involved this form of *modus operandi*.

On the Balkan route, acetic anhydride distribution is handled by a diversity of criminal groups, which does not include Pakistani and Afghan nationals. It is unclear if Iranian traffickers are involved as middlemen on the Balkan route since detailed arrest figures are not available. For the most part, groups operating on the Balkan route do not have a strong social or ethnic identity. At the same time, there is a consensus among law enforcement that groups on this route are becoming more organized and more sophisticated in diverting and smuggling operations.

The following section of the chapter summarizes the main acetic anhydride trafficking trends over the last ten years, including a more detailed description of acetic anhydride routes into Afghanistan, the criminal groups that ply them and region-specific risk factors identified throughout the course of the research. The main indicator of trafficking activity is seizure data, bearing in mind the equivocal nature of such figures; for example, rising seizures in one country may simply reflect changes in the actions of law-enforcement agencies rather than changes in trafficking routes. The seizure data presented below is therefore supplemented by contextual information and expert opinion, for instance from law enforcement agencies in seizing countries and UNODC officials.

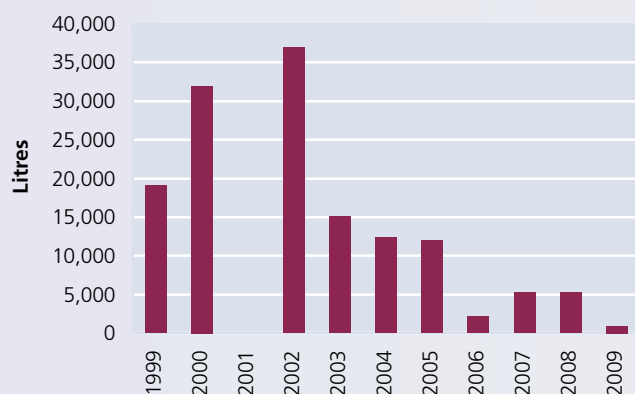
The Southern Route

The southern route is not a route in the conventional sense. Rather, it consists of a series of chains that converge on the borders between Pakistan and southern and eastern Afghanistan, most of which originate in Asia. Sea routes are privileged, but some road transportation from neighbouring China and to a lesser extent India may also occur.

China

Bordering Pakistan in the south-west, China is a major global producer and importer of precursor chemicals, including acetic anhydride. Despite tight controls on production and distribution, some domestic diversion occurs; a portion of which is likely then smuggled into Myanmar's laboratories, which in turn process opiates for the Chinese market. In 2008, China reported various large seizures of precursor chemicals, including 5.6 tons of acetic anhydride; however, earlier in the decade China was seizing six times this amount. It may be surmised that the drop in volumes is linked to the declining heroin manufacture in Myanmar, but this is largely speculative, as Chinese statistics on seizures made available to UNODC do not usually include disaggregated data on place of apprehension and, crucially, destination.

Fig. 33: Seizures of acetic anhydride in China, 1999-2009



Sources: UNODC Country reports, reports of the International Narcotics Control Board on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 (1999-2009).

The limited data available appears to indicate attempts by traffickers at establishing an acetic anhydride route from Western China's Xinjiang province to Afghan labs since the 1990s. For example, in 1999-2000, Chinese law enforcement noted several attempts to traffic the substance to Afghanistan from western China (Xinjiang province) via Pakistan.²⁵³ Referring to a seizure of 5.7 tons in April 2000, the annual drug control report for China states that 'on 7 April an Afghan businessman, a Pakistani businessman and some illegitimate persons inside China collaboratively attempted to smuggle acetic anhydride hidden in a trunk of carpets directed to Afghanistan, which were seized by the Urumqi (Xinjiang) customs'.²⁵⁴ In all, Chinese authorities reportedly seized more than 66 metric tons of acetic anhydride that traffickers were attempting to smuggle out of Xinjiang between 1991 and 2004.²⁵⁵

²⁵³ Annual Report on Drug Control in China, 2000, <http://www.fjncc.org/en/showinfo.asp?infoid=7948>.

²⁵⁴ Annual Report on Drug Control in China, 2000, <http://www.fjncc.org/en/showinfo.asp?infoid=7948>.

²⁵⁵ Dr. Murray Scot Tanner, "China Confronts Afghan Drugs: Law Enforce-

Truck at the Khunjerab checkpoint on the border between China and Pakistan



Source: UNODC Country Office Pakistan.

Apart from anecdotal reports of air trafficking,²⁵⁶ since then the last major case of attempted acetic anhydride smuggling from western China's Xinjiang province made known to UNODC resulted in arrests on September 2007. The case related to 1.07 tons of acetic anhydride seized in a chemicals market in Urumqi. Chinese state media reported that this was under the control of a smuggling group that had been trafficking to Pakistan. Although the exact route to Pakistan was not specified, the only overland route from China to Pakistan is through the Khunjerab pass, where in the past China has made very large seizures of acetic anhydride.²⁵⁷

The Khunjerab crossing currently accounts for a small proportion of bilateral trade, although this is likely to grow and traffic regulation of this crossing is difficult.²⁵⁸ A source from the Afridi tribe in the border areas of Pakistan indicated that acetic anhydride enters Pakistan from China in small quantities and mislabeled as other chemicals.²⁵⁹ Another source noted that illicit trade along this route has diminished as a result of Chinese interdiction and that sea routes are utilized instead.²⁶⁰ There is some recent evidence to substantiate this last claim in the form of three large seizures:

- A May 2010 seizure of 15.6 tons of acetic anhydride in port Qasim, Pakistan, which was reportedly diverted in China.
- A July 2010 seizure of 14.6 tons of acetic anhydride in Dubai, destined for Pakistan and reportedly diverted in China.

²⁵⁶ Views of "The Golden Crescent", CNA China Studies, March 2011, p.15.

²⁵⁷ In 2009, law enforcement sources in Afghanistan reported another route, by air, from Xinjiang to Islamabad and further along the same corridor, but no seizures have been reported.

²⁵⁸ Ningbo Customs district's people republic of china website. ningbo.customs.gov.cn/Default.aspx?tabid=7775.

²⁵⁹ UNODC Country Office Pakistan, "Precursor trafficking and diversion: March 2010", March 2010

²⁶⁰ Drug trafficker interviews, Peshawar, August 2010.

²⁶¹ Drug trafficker interviews, Peshawar, August 2010.

- 30 tons of AA seized in China in August 2010 and linked to the previous seizures. No further details are available.

All the aforementioned seizures were reportedly diverted within China, an indication that traffickers are targeting domestic distribution channels in response to tight export controls.

Although not a seizure, in 2007 China stopped a shipment of 80 tons of acetic anhydride destined for Afghanistan, which has no licit requirements for the substance.²⁶¹ China has a short (76 km), isolated border with Afghanistan, but acetic anhydride trafficking across this border is unlikely due to terrain and climate and to the existence of easier trafficking alternatives, including potential along the Central Asia-Chinese border.

The last seizure in Afghanistan purportedly linked to China occurred in 2003 in Nangarhar province, but no recent Afghan seizures were attributed to diversions in China. Although data is preliminary as of the time of this writing, a 2010 seizure of acetic anhydride in Central Asia (Tajikistan) seems to indicate a route originating in Xinjiang province. It should be noted that the end user country has not been confirmed to be Afghanistan.

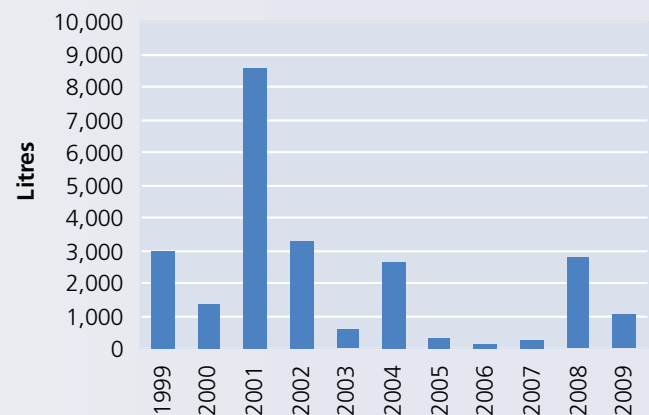
The volumes of acetic anhydride potentially arriving overland from China are likely to be small compared to the quantities received via other routes into Pakistan. Indeed, the use of sea routes could be an indication of Chinese success at curtailing smuggling across its land borders. At the same time, the increased trade with Pakistan²⁶² mostly by sea mitigates this as it reduces the ability to monitor cargoes unless further steps are taken to improve information flows and risk-based targeting among customs and law enforcement authorities.

India

Like China, India produces acetic anhydride. In 2008, production in India alone reportedly reached 42,000 tons from about seven manufacturers,²⁶³ with northern India (particularly the state of Uttar Pradesh), accounting for a major percentage of this turnover.²⁶⁴ Important acetic anhydride seizures have also occurred in this area. As an example, 85 per cent of the total 2,665 litres of acetic anhydride seized in 2004 was apprehended in a single seizure by

Indian law enforcement in Uttar Pradesh.²⁶⁵ This state also doubles as a licit growing area for opium poppy and, despite strict controls,²⁶⁶ domestic diversion remains a concern, particularly given a fairly vibrant illicit heroin manufacturing in India. Of note, India is among the few countries with both licit acetic anhydride and licit domestic opium production.²⁶⁷

Fig. 34: Seizures of acetic anhydride in India, 1999-2009



Source: Regional Office for South Asia, Narcotics Control Bureau of India, published reports of the International Narcotics Control Board on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 (1999-2009).

India seizes an annual average 2.2 tons of acetic anhydride. This does not solely reflect the acetic anhydride demand in Afghanistan, as some of these seizures are linked to local heroin manufacturing;²⁶⁸ this amount was perhaps as much as 15 tons of heroin base in 2009.²⁶⁹

In the past, acetic anhydride from India was smuggled across the border into Myanmar's laboratories,²⁷⁰ but this route appears to have fallen out of use particularly with the concentration of processing in Afghanistan. With acetic anhydride diverted from Indian domestic production or trade, India was also initially an important source of laboratories in Pakistan (and later Afghanistan). Between 1991 and 2000, 79 consignments of acetic anhydride totaling 34 tons were detected along the India-Pakistan border. Many

²⁶¹ Report of the International Narcotics Control Board for 2007 on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, p.15.

²⁶² In 2006, bilateral trade between China and Pakistan surpassed that between the United States of America and Pakistan, and in 2009, China became second largest trading partner of Pakistan. Source: IMF Direction of Trade Statistics.

²⁶³ UNODC, South Asia Regional Profile, 2008, p.86.

²⁶⁴ A.P. Kala, "Problem of diversion of precursor and their use in illicit production of drugs in Indian context", UNODC Precursor Control laws: Challenges And Response; www.unodc.org/pdf/india/publications/precursor_control_laws/10_mrkalapresentation.pdf.

²⁶⁵ More recently, in January 2008 Indian authorities made two simultaneous seizures of 1,500 litres in the states of Uttar Pradesh and Madhya Pradesh.

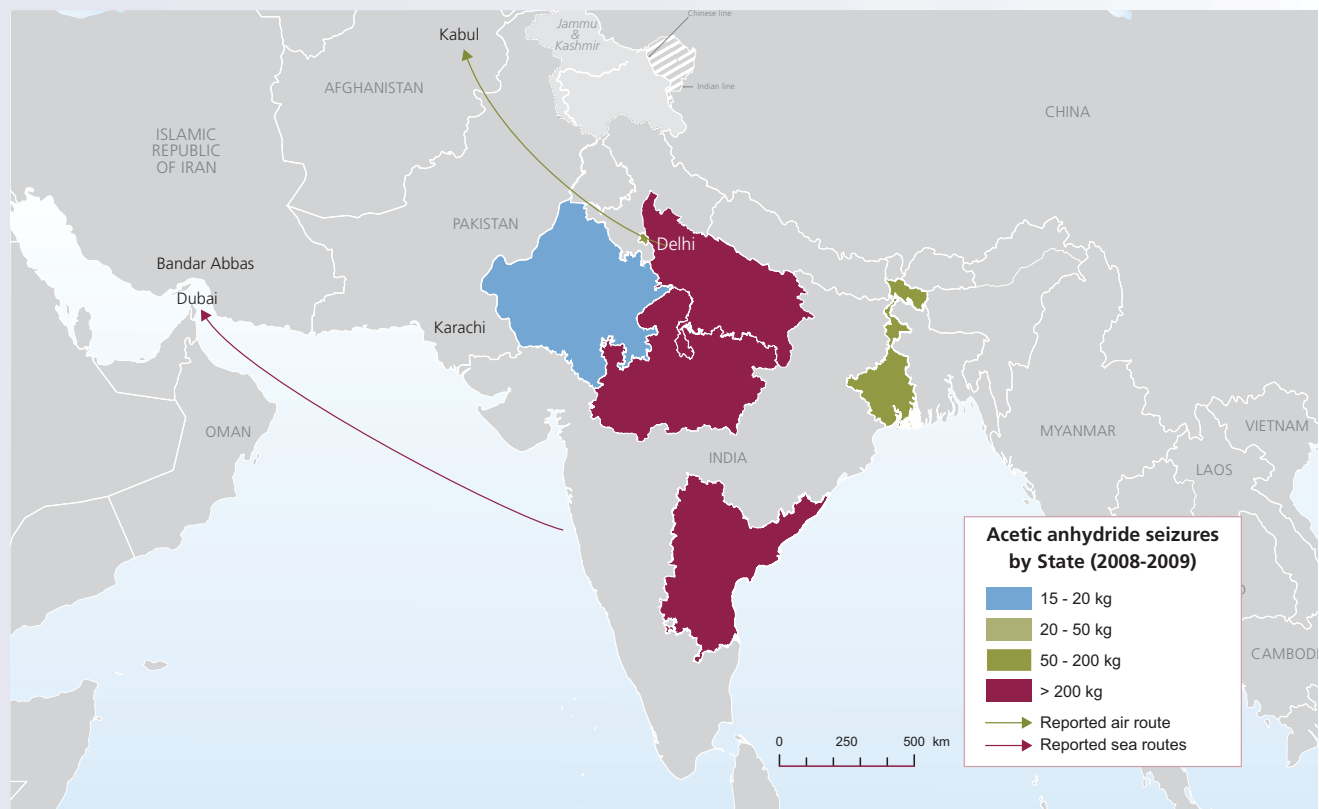
²⁶⁶ Acetic anhydride is subject to a special customs regime, according to which its storage and transportation within 100 km of the India-Myanmar border and 50 km of the India - Pakistan border are subject to special controls.

²⁶⁷ This production is confined to certain provinces and carefully monitored.

²⁶⁸ Low-grade heroin, known locally as 'brown sugar', is mostly manufactured; information provided by UNODC India Office, 2009.

²⁶⁹ Heroin aside, an unknown portion of diverted acetic anhydride could also be intended for mandrax production in South Africa, but data on individual seizures is limited. Mandrax is a blend of the pharmaceutical drugs methaqualone and antihistamine. It was originally used legally as a sleeping tablet. The term "mandrax" refers to the common street name for a drug containing significant quantities of methaqualone; UNODC South Africa Country Profile, 2002, p.7, www.unodc.org/pdf/southafrica/country_profile_southafrica.pdf.

²⁷⁰ United States of America Department of State, International Narcotics Control Strategy Report, 2001.

Map 41: Acetic anhydride seizures in India (2008-2009) and reported transnational trafficking routes (1999-2009)

Source: UNODC Regional Office for South Asia; Narcotics Control Bureau of India.

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

of these were mid-sized loads (16-200 litres) and the transporters were mostly Indian nationals.²⁷¹ Although the Indian border is heavily militarized and by all accounts smuggling has generally declined,²⁷² Pakistan law enforcement believes that some small acetic anhydride consignments are still trafficked into Pakistan overland from India.²⁷³ This said, no precursors have been seized at the Wagha crossing on the Indian border in years and any smuggling ventures are likely to be small amounts.²⁷⁴ Moreover, the small number of cargo trucks transporting goods from India into Pakistan are required to be fully unloaded and re-loaded onto trucks in Pakistan and the same applies to goods entering India from Pakistan. As such, traffickers are at a greater risk of detection than at the Afghan border, for example, where trucks can directly cross the border.

Most of the trade between India and Pakistan takes place primarily by sea and is often re-routed through a third port, such as Dubai.²⁷⁵ This offers obvious possibilities for acetic anhydride traffickers as reflected in a march 2008 seizure of

1,224 litres of acetic anhydride in Quetta. The shipment appears to have been sent from India via Dubai, concealed in drums. A shipment seized in Dubai itself offers an example of pilferage, an alternative illicit procurement method. In this particular case dating back to 1999, fully 9 tons of acetic anhydride had been pilfered over time from acetic anhydride-carrying tankers in India during licit transport. More recently reported cases continue to highlight the risk of pilferage, with one case involving hundreds of litres of acetic anhydride destined for Afghanistan.²⁷⁶

India has direct air links to Afghanistan, notably through Kabul and Kandahar.²⁷⁷ It is perhaps because most other trade avenues are limited that India is the only country to record several instances of acetic anhydride trafficking by air. An early example of usage of this route occurred in 2000, when 2 tons of acetic anhydride were seized en route to Kabul. More modest amounts, such as a shipment of 200 litres by air reported in 2008, highlight the continued use of air routes from India into Afghanistan.²⁷⁸ In this particular case, the transporters smuggled the chemical to Kabul by air, 20 litres at a time, likely indicating that smaller loads are now privileged. This is also reflected in a

²⁷¹ UNODC Regional Office for South Asia, "Significance of South Asia in Afghanistan-specific drug control strategy", 2009.

²⁷² UNODC, 2005, *South Asia Regional Profile – India*, www.unodc.org/pdf/india/publications/south_Asia_Regional_Profile_Sept_2005/10_india.pdf.

²⁷³ Information provided by UNODC office in Pakistan, 2010; Interview with ANF, Islamabad, May 2010.

²⁷⁴ Customs, Wagha Border, October 2010.

²⁷⁵ "Quantifying informal trade between Pakistan and India", Sustainable Policy Development Institute for the World Bank, June 28 2005.

²⁷⁶ UNODC Regional Office for South Asia, "Significance of South Asia in Afghanistan-specific drug control strategy", 2009.

²⁷⁷ Kandahar has an international airport with direct flight to India (and the U.A.E.) and there are daily flights from Delhi to Kabul.

²⁷⁸ Narcotics Control Bureau (NCB) of India.

May 2009 seizure of reportedly 137 kg of acetic anhydride of Indian origin in Karachi. Although most shipments are small, in the aggregate these can amount to significant quantities with higher profit margins.

The combination of hostile terrain, low trade flows and heavily militarized border control means that the greater volumes of acetic anhydride coming from India are likely to be shipped by boat rather than by air or by risking direct overland movement across the border.

Republic of Korea

In 2008 Republic of Korea customs detected two cases totalling about 83 tons of outbound acetic anhydride²⁷⁹ most of which had been diverted from domestic distribution channels. According to reports, between April 2007 and March 2008, the criminal group involved had already managed to send a full 50 tons of acetic anhydride from the Republic of Korea to Nimroz and Kandahar provinces in southern Afghanistan.²⁸⁰ This involved four different shipments disguised as disinfectant.²⁸¹ Of that total, 14 tons had been seized in Karachi port in 2008. That 14-ton seizure is not only important by virtue of breaking a seizure

lapse in the region, but it also led to numerous other seizures in the Republic of Korea. Most of these were destined to transit the Islamic Republic of Iran, but in July 2009 Korean police reportedly found 3.5 tons of acetic anhydride stored in a warehouse outside Seoul destined to reach Afghanistan via Pakistan.

Table 23: Reported acetic anhydride shipments (including seizures) linked to the seizure of 14 tons in Karachi in 2008*

Acetic anhydride shipments smuggled from the Republic of Korea to Afghanistan		
Year	Amount (tons)	Date
2007	0.5 tons	April
	0.5 tons	July
	13 tons	October
2008	13 tons	January
	27 tons	

Source: ANF Pakistan.

*Figures are preliminary and may be revised when updated information becomes available.

Map 42: Trajectory of the 2008 14-ton seizure of acetic anhydride in Karachi, Pakistan



Source: ANF Pakistan; UNODC TARCET.

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

²⁷⁹ "Combat against Drug Smuggling in Korea 2009" Narcotics Investigation Division, June 2009.

²⁸⁰ Korea used by Taliban heroin ring, article.joins.com/article/article.asp?ctg=12&Total_ID=3214030, July 7 2008.

²⁸¹ CARICC information bulletin 29, August 4, 2008.

Pakistan

Pakistan ceased licit domestic manufacturing of acetic anhydride in 1995, but it retains a legitimate demand for the chemical in a number of industries, particularly textile, pharmaceutical and paint making. Pakistan is the last line of defense against chemical smuggling into southern and eastern Afghanistan. The country's relatively developed port and highway infrastructure, which links with neighbouring Afghanistan, make Pakistan attractive as a transit country for both licit and illicit trade. Pakistan has seven official border entry and exit points, in addition to eight international airports and seaports.²⁸² Karachi and Qasim ports currently handle 95 per cent of external trade and containers are held in the port for at least seven days – three times the standard timeframe of developed countries.²⁸³ An added

challenge for controls is that smugglers can take advantage of the Afghan Transit Trade Agreement (ATTA) to avoid regular cargo inspections.

Afghan Transit Trade Agreement

The 1965 ATTA signed by Afghanistan and Pakistan allows goods for import and export on the three land border routes linking Afghanistan with Pakistan (Torkham, Ghulam Khan and Chaman/Spin Boldak) to transit through the port of Karachi (Pakistan) exempt from duties or customs tariffs and screening. The transit trade flowing through Pakistan constitutes a major portion of Afghan total trade – 38 per cent of imports and 52 per cent of exports²⁸⁴ – but it also poses an enormous challenge to the prevention of trafficking in precursor chemicals, weapons

Table 24: Afghan import transit trade through Pakistan, 2008-2009

	Chaman and Ghulam Khan			Torkham			Total		
	Commercial	Non-Comm	Total	Commercial	Non-Comm	Total	Commercial	Non-Comm	Total
MMTon	0.59	-	0.59	2.71	1.08	3.79	3.3	1.08	4.38
US\$ m	255	-	255	1 804	-		2 059	-	2 059

Source: Railway Headquarters, Karachi, quoted in Rapid Logistics Review: Transit of Afghan Goods through the Pakistan-Afghanistan Border Crossings and the Implications of Transit Trade on the Economies; World Bank, 2009.

Table 25: ATTA commercial cargo via Pakistan railways to Chaman and Peshawar

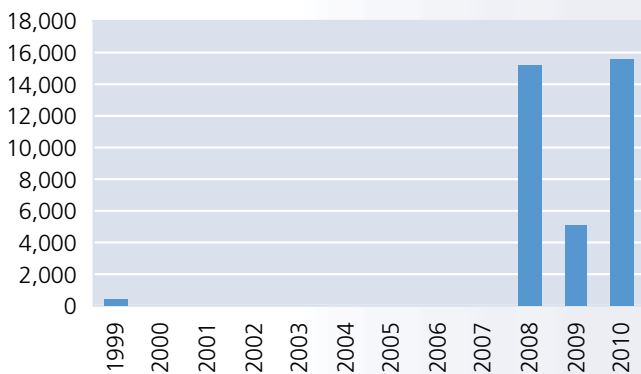
From Port to Border Crossing	2005-2006			2006-2007			2007-2008		
	Wagons	Containers	Total Tonnage	Wagons	Containers	Total Tonnage	Wagons	Containers	Total Tonnage
Karachi - Chaman	5,310	1,927	147,160	3,308	1,587	98,828	2,313	1,565	77,526
Port Qasim – Chaman	1,576	11	33,300	544	20	11,794	433	16	9,389
Sub-total (for Chaman):	6,886	1,938	180,459	3,852	1,607	110,622	2,746	1,581	86,915
Karachi/ Peshawar	10,446	7,770	363,111	8,322	8,105	324,705	6,409	8,799	297,371
Port Qasim – Peshawar	4,138	879	103,160	1,645	302	40,132	865	255	22,883
Sub-total (for Peshawar):	14,584	8,649	466,271	9,967	8,407	364,837	7,274	9,054	320,253
National Total:	21,470	10,587	646,730	13,819	10,014	475,458	10,020	10,635	407,168

Source: Railway Headquarters, Karachi, quoted in Rapid Logistics Review: Transit of Afghan Goods through the Pakistan-Afghanistan Border Crossings and the Implications of Transit Trade on the Economies; World Bank, 2009.

²⁸² UNODC country office Pakistan, "Illicit drug trends in Pakistan" April 2008, p. 28.

²⁸³ Akram Malik, Pakistan Planning Commission, NTCIP.

²⁸⁴ Rapid Logistics Review: Transit of Afghan Goods through the Pakistan-Afghanistan Border Crossings and the Implications of Transit Trade on the Economies – DRAFT, World Bank, 2009.

Fig. 35: Seizures of acetic anhydride in Pakistan (litres), 1999-2010

Source UNODC Country Office Pakistan; Pakistan Anti Narcotics Force (ANF).

and other contraband. Goods imported under ATTA are sometimes subsequently smuggled back into Pakistan for local consumption without having paid any import tariffs.

The volume of clandestine business (smuggling or re-routing of ATTA goods) between the two countries is estimated at several billion dollars, a lifeline for many residents in the border regions. As of the time of writing, under ATTA, sealed containers are not checked (unless strong intelligence requires it) and can only be opened upon reaching their destination in Afghanistan. Scanning each load at Karachi is obviously unworkable, given the large size of trade volumes. The possibilities for abuse are obvious and should inform strategies that support the cooperation between Afghanistan and Pakistan.

Seizures in Pakistan

Despite bordering what was fast becoming the number one processing centre in the world, acetic anhydride seizures in Pakistan were negligible near the turn of the century. This state of affairs lasted until 2008. This seizure lapse, particularly in Baluchistan and FATA, can no doubt be partly linked to general insecurity brought on by cross-border

insurgents and the related obstacles to government control. However, such a prolonged countrywide absence also likely denotes an adjustment in trafficking operations.

Between 2008 and 2010, Pakistan made several relatively large heroin chemical interdictions, mainly in Karachi and near the border with Afghanistan. The larger seizures appear to have been diverted in the Republic of Korea, China and to a lesser extent India. The last evidence of European-sourced shipments was reported in Rawalpindi in 1998 with a seizure of 10 tons of acetic anhydride reportedly diverted in Germany and trafficked through southeastern Europe.²⁸⁵

According to seizure data, the sea routes into Pakistan appear to be particularly targeted by traffickers with many shipments being concealed aboard maritime sea vessels. The most recent and largest AA seizure (15.6 tons) was misdeclared as water soluble paint when it was intercepted and seized at Port Qasim in March 2010.

Further along the sea coast, Pakistan law enforcement and Baluchistan locals point out that irregular and unmonitored landing of various boats is not unusual along the coast of Baluchistan. UNODC is not aware of any precursor seizures that have been traced back to such a landing, but this remains a possible entry into trafficking routes through Baluchistan.

Pakistan-Afghanistan border

Pakistan shares a 2,538 km border with Afghanistan, stretching from the Federally Administrated Tribal Areas (FATA) to Baluchistan province.²⁸⁶ The major legal border crossing points along the border between Afghanistan and Pakistan are: Torkham (Nangarhar Province-Khyber Agency), Ghulam Khan (Khost Province-Kurram Agency) and Chaman (Kandahar province-Baluchistan). Afghanistan imports goods primarily from Pakistan, which is reflected in the predominance of the Pakistan rupee in

Table 26: Chemical seizures in Pakistan, 2008-2010

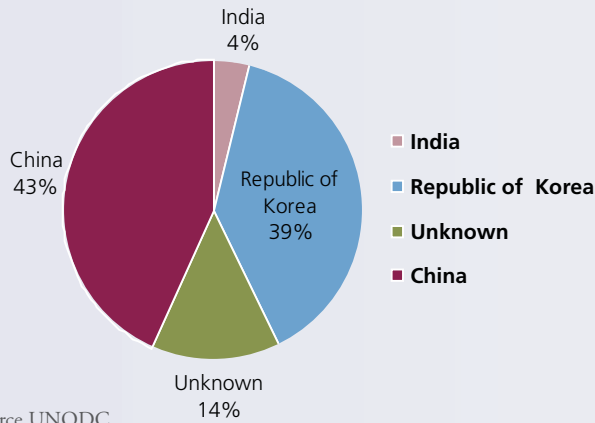
Date	Location	Seizure description
Mar-08	Quetta	1,224 L of acetic anhydride arriving from India via Lahore
23-Mar-08	Karachi	14,000 kg of acetic anhydride, arriving from South Korea.
29-Aug-08	Karachi	46.5 L of acetic anhydride coming from India.
16-Jan-09	Karachi	5,000 kg of acetyl chloride.
27-May-09	Karachi	137 kg of acetic anhydride coming from India.
29-Jul-09	Chagi, Baluchistan	4,989 kg of acetic anhydride and 3,600 L of ammonia.
Mar-10	Karachi	15.6 tons of acetic anhydride arriving from China

Source: Pakistan Anti Narcotics Force (ANF).

²⁸⁵ Presentation on precursors used in heroin manufacturing, ANF, Round Table on precursors, Vienna, May 2007.

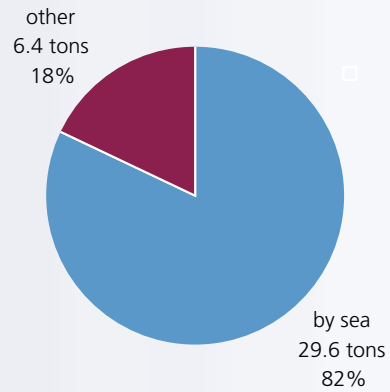
²⁸⁶ The Federally Administered Tribal Areas (FATA) is the area of Pakistan outside the four provinces, comprising a region of some 27,220 km². It consists of seven semi-autonomous agencies or administrative districts Bajaur, Khyber, Kurram, Mohmand, Orakzai, South Waziristan and North Waziristan.

Fig. 36: Share of acetic anhydride seizures in Pakistan by country of diversion, 2008-2010



Source UNODC

Fig. 37: Share of acetic anhydride seizures in Pakistan by mode of transportation, 2008-2010



Source UNODC

almost all Afghan districts bordering Pakistan. Sporadic seizures and law enforcement assessments suggest that the main route for acetic anhydride is through Karachi port. Mislabeling appears to be the most common method for smuggling acetic anhydride into the port city. Karachi is linked by road and rail to two major trade corridors: firstly, the Karachi-Peshawar-Jalalabad-Kabul corridor and secondly, the Karachi-Chaman-Kandahar-Hirat corridor. Acetic anhydride smuggling takes place along the border with Afghanistan and both legal and illegal crossing points are used. All manners of conveyances are utilized, including

large trucks, small pick-up trucks, pack mules or camels and crossings on foot.

Karachi-Chaman (Spin Boldak)

The largest flows of smuggled acetic anhydride occur primarily along the border with the southern Afghan provinces of Nimroz, Hilmand and Kandahar. An enduring hub in this area appears to be the Baramcha bazaar²⁸⁷ (southern Hilmand/Chagai district of Baluchistan), a village that straddles the Afghanistan-Pakistan border. Elsewhere in the

Map 43: Acetic anhydride seizures in Pakistan and trafficking routes into southern and eastern Afghanistan, 2008-2010



Source: UNODC

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

²⁸⁷ Phone interview with Nimroz border official, September 2008.

Chagai district of Baluchistan, the Girdi Jangle refugee camp continues to be a consolidation and repackaging point for southern laboratories, although nowhere near the importance it held in 2007-2008.²⁸⁸

Using ATTA and other covers, large consignment are transported along the main onward route through Baluchistan province and enter Afghanistan at Chaman (Spin Boldak), the only official crossing point in the region. Unofficial crossings may be used in the case of smaller consignments, as one recent seizure suggests. In August 2009, Pakistani ANF seized 4,989 kg of acetic anhydride in Chagai district. According to the information provided by the ANF, the chemicals were being smuggled into Afghanistan in small quantities packed in 30-litre cans transported on jeeps.²⁸⁹ Trafficking in small quantities may also be related to higher risk and prices, which means that even small shipments are now financially viable. The increasing sale of smaller volumes is likely to impact precursor trafficking logistics and result in the use of minor routes through the Afghanistan-Pakistan border, which will likely make interdiction more difficult.

This said, there is a possible alternative route into Baluchistan province. A significant proportion of opiates transiting Baluchistan enter into the Islamic Republic of Iran and these smuggling paths appear to be used in reverse to also traffic precursor chemicals.²⁹⁰ This route may gain in importance as counter narcotics operations intensify in southern Afghanistan. Law enforcement sources in Afghanistan expect an increased concentration further west around Zaranj, Robot-e-Jali and other remote areas in Nimroz province.

Karachi-Torkham/Ghulam Khan

From Karachi, another route runs through FATA and into south-eastern Afghanistan. Paktya province in Afghanistan has experienced a few sizeable seizures in recent years, with chemicals apparently smuggled through the Ghulam Khan crossing in North Waziristan Agency. However, in this region the major crossing for acetic anhydride is at Torkham in Khyber agency (FATA), which borders eastern Afghanistan. Once across the border, acetic anhydride is shipped to the many laboratories in border districts or continues to the north-east and Badakhshan province.

Acetic anhydride seizures occur mainly in Karachi or near the border with Afghanistan but few precursors are seized within Baluchistan and none in FATA. This may be indicative of both the lack of law enforcement capacity and traffickers' reliance on the ATTA. There was a consensus among sources interviewed that the routes through Baluchistan were quantifiably more important than those run-

ning through FATA. The main reason for this is the concentration of laboratories in southern Afghanistan, but also on account of the Chaman border links with the main transportation corridors in Afghanistan and its status under ATTA. There are serious allegations that a large opiate network controls the Chaman crossing; if true, this would also facilitate acetic anhydride smuggling.²⁹¹

Groups involved

Arrests in the Republic of Korea and Japan seem to show that nationals of Pakistan and Afghanistan dominate the acetic anhydride illicit trade along this route. Afghans and Pakistanis appear to cooperate seamlessly and, based on the limited data available, this appears to be a long-term trend.²⁹² In fact, one could make the case that some Afghan and Pakistan precursor networks are fully integrated, but with the caveat that the term 'multi-national' loses some of its meaning in the Afghan context. In fact, many Afghans by virtue of conflict and other reasons have dual nationality of Pakistan and Afghanistan; at times, this is triple nationality, as they are also citizens of the Islamic Republic of Iran.

Such networks are active internationally, perhaps more so than opiate-specific networks who are often confined to their respective countries. In recent cases, the groups involved in trafficking AA out of Asia are also involved in international trafficking of opiates and hashish.²⁹³ The limited seizure data indicates that acetic anhydride networks have often established bases in the targeted source or transit countries when attempting to organize shipments; this includes countries where there is not a large Afghan diaspora. In such countries, acetic anhydride networks usually operate with the help of several local associates constituting fluid networks of buyers, sellers and middlemen who are opportunistically linked together across regions and ethnic groups. In the case of the cooperation between the Republic of Korea and Pakistan, examples of such networks stretch back a decade, but several arrests since 2000 illustrate that networks also cooperate with Chinese and Japanese operatives to traffic acetic anhydride through both Pakistan and the Islamic Republic of Iran. Some of these are unwitting participants, while others are knowingly involved. In September 2009, prosecutors of the Republic of Korea arrested a Korean suspect who allegedly attempted to smuggle 11.6 tons of acetic anhydride to Afghanistan.²⁹⁴ The suspect was involved in the dyeing business and had contacted two members of groups in Pakistan acting as inter-

²⁸⁸ UNODC Mission to Afghanistan Mazar-Sharif and Hairatan March 2008).

²⁸⁹ Information provided by ANF Pakistan, August 2009.

²⁹⁰ Interviews with drug traffickers, Peshawar, October 2010.

²⁹¹ Mathieu Aikins, "The Master of Spin Boldak", *Harper's Magazine*, December 2009, pp.59-62.

²⁹² As an example, one group linked to a 1998 shipment of ten tons of acetic anhydride from Germany to Pakistan was composed of three Afghans and four Pakistani nationals, Presentation "on precursors used in heroin manufacturing", ANF, Round Table on precursors, Vienna, May 2007.

²⁹³ Information provided by Directorate General Anti Narcotics Force Rawalpindi, January 2011.

²⁹⁴ "South Korean police bust 'Taliban-linked' drug ring", AFP, July 3, 2008.

mediaries.²⁹⁵ Some Pakistani or Afghan acetic anhydride traffickers are dual nationals of target countries. For example, acetic anhydride seizures in the Republic of Korea led to the arrest of a Pakistani man who had become a naturalized Korean in 2005.²⁹⁶

The volumes and logistics involved in the Republic of Korea seizures suggest that these are rather well-organized international ventures. In the region of study, smaller players appear to operate mostly out of India, but there may be larger, more sophisticated networks sending larger shipments by sea. Although seizure data from India indicates that most persons arrested on acetic anhydride trafficking charges are Indian nationals,²⁹⁷ some recent arrestees have familial or ethnic links with Afghanistan.²⁹⁸ In a 2008 case of acetic anhydride trafficking by air (200 litres) from Delhi to Kabul, the Afghan organizer based in southern Afghanistan had recruited two fellow Afghans based in Delhi.²⁹⁹ However, as many as a dozen other players (organizers, financiers, facilitators, transporters) were involved, opportunistically linked for even this small acetic anhydride venture.

According to the available data, the hawala (also referred to as hundi) money transfer system is the most widely used method of financing for acetic anhydride procurement in the region.³⁰⁰ The aforementioned air trafficking case to India is one example; the investigation in the 2008 seizure made in the Republic of Korea also uncovered financing centered around a network of Pakistani hawala or hundi operators in that country.³⁰¹ These networks manage transfers of monetary value, but can also be important in connecting different nodes in logistics networks.

Hundi agents who considered themselves to be legitimate businessmen claimed that other agents who are willing to move criminal funds will serve more than one criminal network and/or industry. These agents can occasionally take an important role as a match-maker between networks. One reported example was an agent who facilitated connections between a client who ran an importing company and a client involved in precursor chemical trafficking through Pakistan to southern Afghanistan.³⁰²

There also appears to be evidence of extremist involvement in acetic anhydride procurement. The planned recipient of the 14 ton-seizure made in Pakistan in 2008 was based in Peshawar and, according to ANF sources had links to Al-Qaida and the Taliban. Moreover, according to reports, an Afghan man linked to acetic anhydride seizures in 2008 had admitted procuring the chemicals for members of the Taliban movement,³⁰³ who had sent \$50,000 through hawala to purchase the 12 tons.³⁰⁴ If confirmed, these reports may indicate that elements of the Afghan insurgency are involved, directly or indirectly, in acetic anhydride distribution in Afghanistan. This is perhaps not surprising given that Afghan insurgents are involved in many other aspects of the Afghan opiate trade, since the opiate economy is a central rather than marginal phenomenon in Afghanistan.

The Balkan route

The traditional Balkan route is the largest opiate conduit in the world with long established criminal networks smuggling significant amounts of heroin annually from Afghanistan through the Islamic Republic of Iran and Turkey towards the European market. In a reverse course, acetic anhydride is diverted in – or trans-shipped through – Western and Central Europe and trafficked through South-Eastern Europe, towards Afghanistan.

Western and Central Europe

Several countries within Western Europe can act as trans-shipment points for international acetic anhydride trafficking. Countries such as Belgium³⁰⁵ and the Netherlands are huge trans-shipment and brokerage hubs that have been targeted by trafficking networks in the past. More recently, central Europe has been used as a sourcing hub for acetic anhydride diverted from domestic distribution.

Apart from a brief spike in 2001 and again in 2008, comparatively few acetic anhydride seizures are reported in Western and Central European countries between 1999-2008; producing highly volatile series. A recurring theme is that almost all seizures were destined for transit through the Balkan region and further to Turkey. This was the case for a rare seizure of nearly 70 tons made in 2001 in the United Kingdom.³⁰⁶ Other notable seizures during the 2000-2001

²⁹⁵ Korean businessman arrested for exporting raw materials for heroin production 14/09/2009 <http://vestnik.kr/law/3770.html>.

²⁹⁶ Korea times, July 7.

²⁹⁷ Seizure data for the 2007-2009 period provided by UNODC India Country Office.

²⁹⁸ The following is based solely on local media account.

²⁹⁹ Sahil Makkar, "200 Litres of Acetic Anhydride Seized by Delhi Police", India E-news, 2 March 2008.

³⁰⁰ CARICC Information Bulletin n. 29.

³⁰¹ Korea Times, 2008, *Illegal currency trading ring caught*, www.koreatimes.co.kr/www/news/nation/2010/06/113_33987.html.

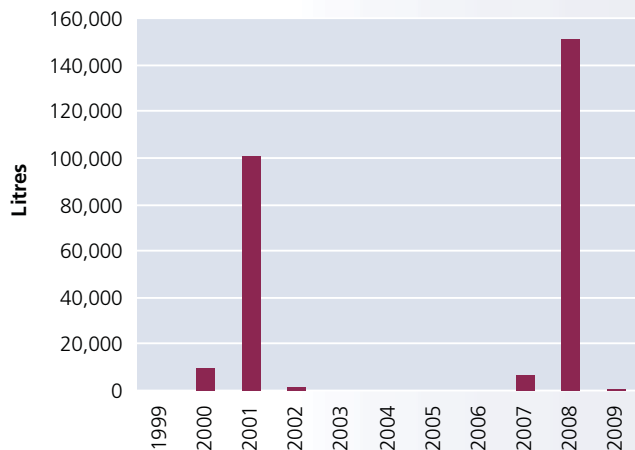
³⁰² "Precursor trafficking and diversion: March 2010" UNODC Country Office Pakistan, March 2010.

³⁰³ Korea Times, "Police Round Up Drug Ring Linked to Taliban", July 4 2008.

³⁰⁴ Financial Action Task Force, Mutual Evaluation Report - Anti-Money Laundering and Combating the Financing of Terrorism, Republic of Korea, 26 June 2009, www.oecd.org/dataoecd/22/54/43439553.pdf.

³⁰⁵ According to the 2006 International Narcotics Control Strategy Report "Although Belgium is not a major producer of precursor chemicals used in the illicit manufacture of drugs, it is an important transshipment point for these chemicals coming from China to Europe. Precursor chemicals that transit Belgium include: acetic anhydride (AA) used in the production of heroin; see United States of America Department of State, International Narcotics Control Strategy Report, 2006. www.state.gov/p/inl/rls/nrcrpt/2006/vol1/html/62111.htm.

³⁰⁶ Report of the International Narcotics Control Board for 2001 on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, P. 21, www.incb.org/pdf/e/tr/pre/2002/precursors_2002_3b_2.pdf.

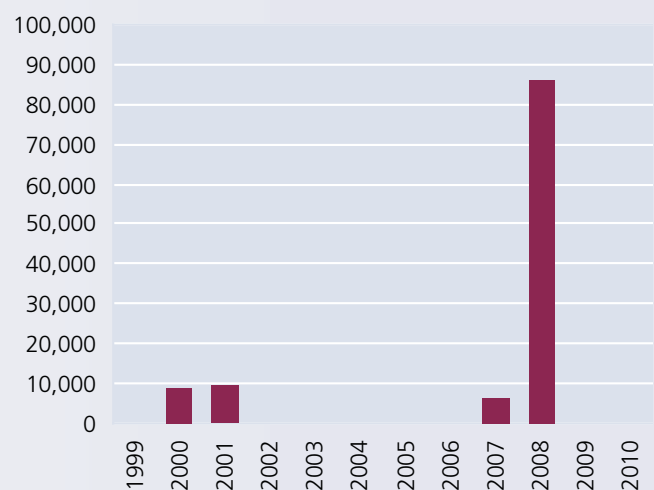
Fig. 38: Acetic anhydride seizures in Central and Western Europe (litres), 1999-2009

Sources: UNODC Country reports, EU law enforcement agencies, reports of the International Narcotics Control Board on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 (1999-2009).

period took place in Germany and Slovenia. Almost no seizures were reported in the following five years even if some seizures made downstream in Bulgaria were linked back to trans-shipment through Central Europe.³⁰⁷

The first seizure to break the pattern occurred in March 2007, when Slovenia reported a seizure of 6,472 litres of acetic anhydride. That seizure alone accounted for almost 100 per cent of European seizures that year. Slovenian law enforcement reported that this was part of a larger 20-ton shipment, which continued on to Turkey through Hungary, Romania and Bulgaria (later seized). The backtracking investigations into the origin of the acetic anhydride later determined that the substance was diverted in the Czech Republic and then smuggled through Austria before its storage in Slovenia awaiting delivery. Although impressive, the 2007 seizure is dwarfed by the interdiction of a staggering 93 tons in Slovenia during three separate operations in early 2008. This amount of acetic anhydride would have been sufficient to produce up to 90 tons of heroin (approximately the total heroin demand for Western and Central Europe) worth billions of dollars on the European market.

The investigation into this last seizure led to the arrest of several individuals, all Slovene citizens.³⁰⁸ Two additional elements stand out: firstly, this illicit shipment reportedly involved the same diversion point,³⁰⁹ route and groups as

Fig. 39: Acetic anhydride seizures in Slovenia (litres), 2000-2010

Source: Slovenian Ministry of Interior.

previous seizures in 2007 and possibly earlier.³¹⁰ Secondly, according to Slovenian law enforcement, one of the criminal groups involved had already managed to similarly divert -and successfully traffic through the Balkans- almost 366 tons of acetic anhydride from 2006-2008;³¹¹ evidence of extensive use of the Balkan route during that period.³¹²

The same year that Slovenia seized its record haul, its north-eastern neighbour Hungary seized a total of 63 tons of acetic anhydride – its only seizures during the entire 1999-2008 period. Although the group involved reportedly differed, the initial diversion had also occurred in the Czech Republic³¹³ with the shipment sent to Slovakia before stopping in Hungary. As in Slovenia, the interdicted shipment had been stored in Hungary awaiting shipment, indicating perhaps that these two countries were used as a storage or repackaging point prior to downstream distribution along the Balkan Route. Altogether, both countries accounted for approximately 75 per cent of global seizures in 2008.

In what appears to be linked to the aforementioned interdictions, in May 2009 a seizure of 800 litres was made in Slovakia, originating in the Czech Republic. According to official reports, four Slovakian nationals were arrested and Slovakian authorities prevented the diversion of further large amounts of the substance in the region.³¹⁴ Given the

³⁰⁷ This was the case in 2004 when an investigation into a 7-ton seizure in Bulgaria revealed that the shipment (originating in South-East Asia) had been transhipped through Slovenia, where it had been re-packaged and concealed in industrial air conditioners. Report of the International Narcotics Control Board for 2005 on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, p.12; www.incb.org/pdf/e/tr/pre/2005/precursors_2005.pdf.

³⁰⁸ Interview with Criminal Police Directorate of Slovenia, Ljubljana, November 2010.

³⁰⁹ Annual report on the work of the police, 2008, Republic of Slovenia, Ministry of the Interior, p.7, www.policija.si/portal_en/statistika/lp/pdf/report2008.pdf; see also Results of the Slovenian Presidency of the European

Union in the field of drugs, Council of the European Union, Brussels, July 23 2008, p.5, www.parlement.com/9353000/1/j4nvgs5kjg27kof_j9v-vhy5i95k8zxl/vi7jgr96razw.

³¹⁰ Annual report on the work of the police, 2008, Republic of Slovenia, Ministry of the Interior, www.policija.si/portal_en/statistika/lp/pdf/report2008.pdf; Report on the drug situation in Slovenia 2009.

³¹¹ Annual Report of Czech Republic Police Headquarter 2008; p.22, www.policie.cz/SCRIPT/ViewFile.aspx?docid=21219340; Interview with Criminal Police Directorate of Slovenia, Ljubljana, November 2010.

³¹² Interview with Criminal Police Directorate of Slovenia, November 2010.

³¹³ Interview with officials of the Hungarian National Bureau of Investigation, Budapest, November 2010.

³¹⁴ National Drug Headquarters Annual Report 2009 Czech republic, p.14.

Table 27: Seizures of acetic anhydride 2008: Slovenia and Hungary

Location	Amount (tons)	Percentage of global seizures	As a percentage of estimated Afghanistan illicit requirement	Potential retail value in Afghanistan in \$ (rounded)
Slovenia	93	42%	20%	30 000 000
Hungary	63	28%	14%	22 000 000
Sub-total	156	70%	34%	52 Million
Total global seizures in 2008	224 tons (rounded)	100%		

number and volumes of seizures and increased attention paid to the region, trafficking groups may elect to start moving smaller quantities of acetic anhydride to reduce detection and losses. It is also possible that they may simply reorganize their supply routes in the future and avoid this leg of the Balkan route altogether.

The cost of interdiction

The aforementioned seizure successes in the region also place a heavy burden on seizing countries, a reality that complicates law enforcement responses. As an example, Hungarian law enforcement agencies informed UNODC that it cost almost €1,000 a day to observe an acetic anhydride storage site, a process which can last months. Traffickers will store acetic anhydride for long periods knowing full well that law enforcement resources of authorities are limited and observation of a consignment cannot be continued indefinitely. Costs then multiply at the time of interdiction, Slovenian authorities informed UNODC that the 93 tons of acetic anhydride seized in 2008 cost their government €250,000 in storage alone and that destruction of the substance had brought additional difficulties. In both cases, law enforcement officials felt their countries had borne a disproportionate share of the interdiction burden.

Seizure and other data seem to indicate that traffickers may be exploiting the advantages of a single market, diverting trade internally from the weakest-controlled distributors to the weakest-controlled exit points. The term ‘control’ needs to be qualified here since domestic trade implies that orders of acetic anhydride are not subject to the established pre-export notification system.

With regard to this, many law enforcement officials believe that traffickers are taking advantage of insufficient international judicial cooperation and inadequate legislation. Regarding the latter, law enforcement officials in Central Europe stressed that a significant roadblock to more effective control of acetic anhydride was the fact that in European Union legislation (Regulation (EC) No 273/2004),

end users of acetic anhydride (a Category 2 substance according to this legislation), who do not place on the market the substance, are neither required to register nor to report the quantities they buy for their own end-use. It was felt that this did not allow adequate control and investigation by authorities in countries of the European Union. Three years following the implementation of the European precursor legislation, the European Union carried out an evaluation of the functioning of its legislation which concluded that even though the legislation was overall functioning well, it also showed some weaknesses, notably with regard to the effectiveness of preventing the diversion of acetic anhydride. The EU is in the process of assessing different options to address the identified weaknesses.³¹⁵

Through the Balkans

The Balkan region is the obligatory stopover for overland shipments destined for Turkey. Relative to seizures upstream, seizures in the Balkans occurred with slightly more regularity over the period of study.³¹⁶ Bosnia and Herzegovina was an early and recurring target of acetic anhydride traffickers, perhaps due to perceptions of weak law enforcement structures and national controls.³¹⁷ In 2001, Bosnia and Herzegovina reported seizing 5 tons of acetic anhydride.³¹⁸ The following year, Slovakian and Czech authorities reported stopping exports amounting to 20 tons and 500 tons, respectively, to Bosnia and Herzegovina and Yugoslavia (now Serbia and Montenegro). This was followed by combined seizures totaling 76 tons in 2003, the largest volumes ever seized in the Balkan region.

³¹⁵ Report from the Commission to the Council and the European Parliament (pursuant to Article 16 of Regulation (EC) No 273/2004 and to Article 32 of Regulation (EC) No 111/2005) on the implementation and functioning of the Community legislation on monitoring and control of trade in drug precursors, COM 709(2009), Brussels 7 January 2010; Council conclusions on the functioning and implementation of the EU drug precursor legislation, 3016th Competitiveness Council meeting, Brussels 25 May 2010.

³¹⁶ For the purposes of the report, the Balkans comprises the nine nations of the Stability Pact: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the former Yugoslav Republic of Macedonia, the Republic of Moldova, Montenegro, Romania and Serbia.

³¹⁷ Interview with Bosnian law enforcement officials (SIPA), Sarajevo, December 2010.

³¹⁸ Report of the International Narcotics Control Board for 2001 on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, p. 21.

The first of these - 22,800 litres of acetic anhydride - was seized in early 2003. The shipment had been imported from the Netherlands then moved through Germany, Austria, Slovenia and Croatia before crossing into Bosnia.³¹⁹ In this particular case, the name of a legitimate company was used without the knowledge of the company concerned. In November 2003, an additional 19,872 litres of acetic anhydride were seized, once again sourced in the Netherlands.

The next seizure occurred in late 2003, consisting of 33,600 litres split in two separate shipments. While also purportedly transhipped through the Netherlands, the acetic anhydride had reportedly been diverted in Mexico. Half of the shipment had reportedly arrived at the seaport of Ploce, Croatia and was transported from there via truck to Bosnia and Herzegovina and³²⁰ was reportedly destined to be sold in Serbia.³²¹

In Serbia itself, only one seizure of AA has been reported since 2000, it consists of 20 tons of AA seized at the border crossing with Hungary. The intercepted truck was reportedly on its way to Montenegro (at the time Serbia and Montenegro were in a state union). Although no other acetic anhydride seizures were reported in Serbia,³²² the direct overland road from Hungary through Serbia toward Bulgaria was nevertheless active during the period of study. This is attested by multi-ton seizures in both Bulgaria (2010) and Turkey (2008) that transited Serbian territory.³²³

In this particular area of the western Balkans, border management remains a challenge as some crossings are poorly maintained and often easily bypassed. This applies especially to Kosovo³²⁴, whose borders “are still not fully secured”.³²⁵ Only one seizure has been reported having links to Kosovo³²⁶ however; in 2004 Montenegro police at the Klobuk border crossing between Bosnia and Herzegovina and Montenegro reportedly confiscated 3,000 litres of acetic anhydride.³²⁷ According to police information, the substance was ordered by a company in Austria on behalf of a corporate customer in Kosovo.³²⁸

319 Interview with Bosnian law enforcement officials (SIPA), Sarajevo, December 2010.

320 United States Department of State, International Narcotics Control Strategy Report, March 2004.

321 Authorities in Bosnia advanced that the acetic anhydride was destined for processing amphetamines, but this was not confirmed by Serbian authorities.

322 Ministry of Interior of Serbia: Analysis of the results in the fight against narcotics smuggling in Serbia from 2004 to 2006; 2006.

323 Interview, Bulgaria Ministry of Interior, Bulgaria, February 2011.

324 All references to Kosovo in this report should be understood to be in the context of United Nations Security Council resolution 1244 (1999).

325 “Kosovo 2010 progress report”, European Commission, Brussels, 9 November 2010.

326 All references to Kosovo in this report should be understood to be in the context of United Nations Security Council resolution 1244 (1999).

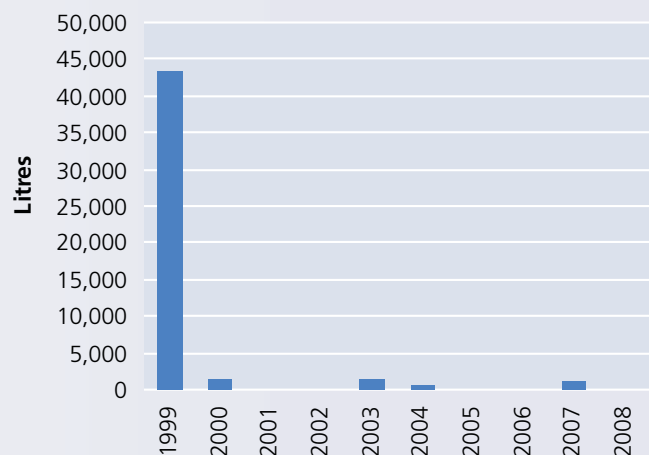
327 “Networking sites - Criminal group expands across the Balkans”, Jane’s Intelligence Review, December 2009.

328 All references to Kosovo in this report should be understood to be in the context of United Nations Security Council resolution 1244 (1999).

Smaller seizures in this area also include 370 litres of acetic anhydride (2003) seized by the authorities of the former Yugoslav Republic of Macedonia - the country’s only seizure during the period of study. The substance had been smuggled through Albania and was destined for Greece and eventually Turkey. This seizure is also the only indication that the territory of Albania has been used to traffic acetic anhydride in the last decade.

Another important acetic anhydride route passes through the eastern Balkans, through Hungary into Romania, Bulgaria, Turkey and further to Afghanistan. The first Balkan country on this route, Romania, has had steady, yet small seizures since 2000. Its last large seizure was a 43.5-ton confiscation in 1999. Romania continues to be a major transit point; for instance, the route through Romania (Slovenia-Hungary-Romania-Bulgaria-Turkey) was used in April 2007 when 12,970 litres were seized in Turkey as part of a controlled delivery.³²⁹ That same year, Romanian law enforcement seized an additional 1,206 litres of acetic anhydride stored in and around Bucharest. More recently, 13 tons seized in neighbouring Bulgaria in September 2010 had also transited Romania.

Fig. 40: Acetic anhydride seizures in Romania, 1999-2008

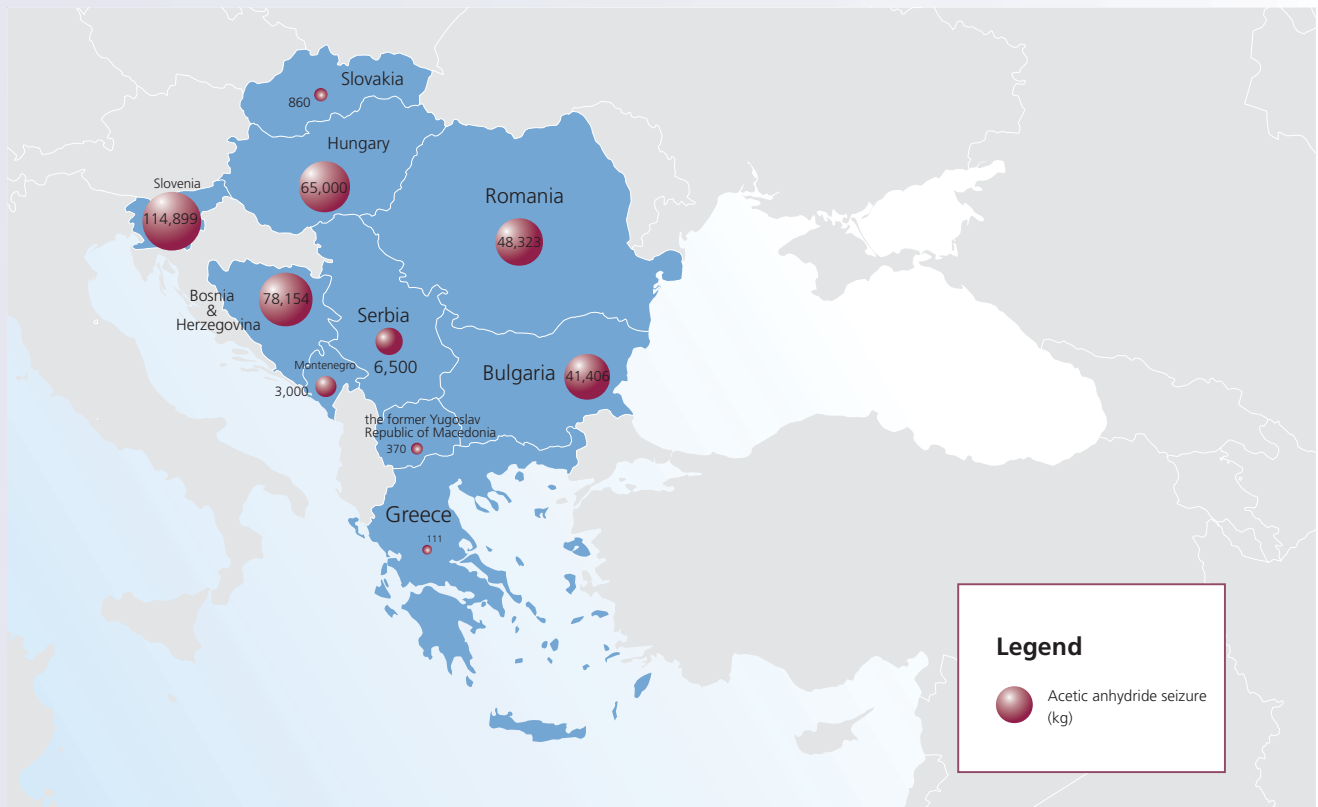


Sources: UNODC Country reports, reports of the International Narcotics Control Board on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 (1999-2009).

South of Romania, Bulgaria is the last stop before Turkey. Its border crossing of Kapitan Andreevo is the only truck crossing into Turkey and thus acts as a natural target for traffickers. One important seizure occurred at that crossing in October 2004, when Bulgarian customs officials seized barrels totaling 7 tons of acetic anhydride hidden between

329 The operation involved the United States of America DEA as well as Turkish and Romanian authorities. It ended in Turkey with the arrest of 4 perpetrators and the seizure of the entire quantity; see National Report on Drug Situation, 2008 Romania: “New Development, Trends and In-depth Information Selected Issues”, p. 96.

Map 44: Acetic anhydride seizures in the Balkans and Central Europe, 1999-2010



Source: UNODC country reports, various Balkan law enforcement agencies, reports of the International Narcotics Control Board on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 (1999-2009).
 Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

textile machines in a truck.³³⁰ The truck was en route from Slovenia-Hungary-Romania.³³¹ In September 2010, a very large 13-ton shipment using a nearly identical route was seized at the crossing.³³² Due to its geographical location, Bulgaria also receives smuggled shipments from the western section of the Balkans particularly through its border with Serbia. As an example, in April 2010, 8 tons of acetic anhydride trafficked from Serbia were seized while in storage in a village near Sofia, Bulgaria's capital.³³³

Greece, neighbouring Bulgaria, the former Yugoslav Republic of Macedonia and Albania, also shares a border with Turkey. The country seized only 167 litres of acetic anhydride between 1999 and 2009, with its last and only sizeable interdiction dating back to the year 2000. In 2003, an investigation into a seizure of 370 litres of acetic anhydride in the former Yugoslav Republic of Macedonia revealed that Greek territory was to be used to traffic the substance into Turkey. While the above concerns relatively small amounts, it should be noted that some seizures reported downstream indicate that in the past Greece (and the former Yugoslav

Republic of Macedonia) has been used to transit significantly larger amounts. In 2002, for example, Turkish police reportedly seized more than 12 tons of acetic anhydride at Ipsala customs gate at the border between Greece and Turkey; the chemical was found in a truck driven by a Macedonian national and had last transited the former Yugoslav Republic of Macedonia.³³⁴

Fig. 41: Acetic anhydride seizures in Bulgaria, 1999-2010

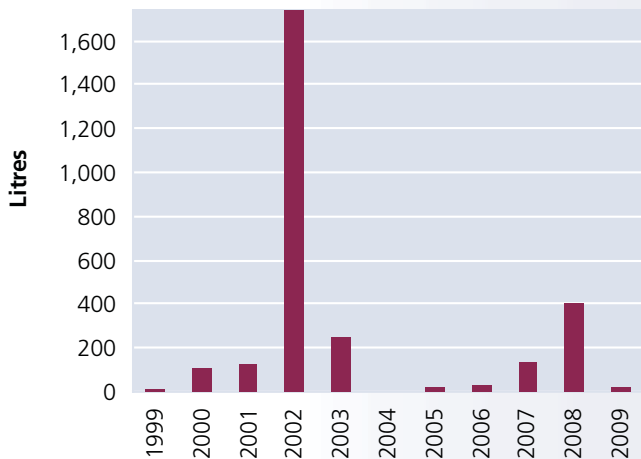


Sources: UNODC Country Reports, UNODC Regional Office for South Eastern Europe.

330 Crime in the Balkans, UNODC, p. 64, 2008.
 331 "Bulgarian Police Arrest Turkish National in Seizure of 8.5 Tones of Heroin Precursor", Bulgaria News Network, 31 October 2004.
 332 "Bulgaria: 2 arrests in chemical smuggling case" The Associated Press, September 13, 2010.
 333 Corruption, Trafficking and institutional reform, Prevention of Trans-Border Crime in Bulgaria, Centre for the study of democracy, unpan1.un.org/intradoc/groups/public/documents/unpan/unpan017006.pdf.

334 Anadolu Agency, "Police seize 12 tons of acid anhydrite, highest amount so far found in Turkey", 23 August 2002.

Fig. 42: Acetic anhydride seizures in Ukraine, 1999-2009



Sources: UNODC Country Reports, Security service of Ukraine, UNODC Ukraine project office.

Outside the traditional Balkan routes, erratic and mostly small-sized seizures are noted in Eastern Europe, including Ukraine and Poland. These are often linked to local production of acetylated opium or, exceptionally, heroin manufacture, as suggested by a 2007 interdiction of a heroin laboratory in Ukraine.³³⁵ Early in the decade, the few larger seizures reported in Ukraine were destined for Turkey-336 and reportedly sourced in the Russian Federation.³³⁷ However, in 2008 a portion of Ukrainian acetic anhydride seized purportedly originated in the European Union.³³⁸ Given that trafficking routes can change rapidly, continued vigilance of this region should be encouraged.

Into Turkey

Traffickers exploit the Turkey-Bulgaria border in two directions, trafficking drugs into south-eastern Europe and smuggling acetic anhydride into Turkey using overland routes. According to Turkish authorities, most acetic anhydride seizures in 2008-2010 in Turkey originated in the European Union³³⁹ and the main gateway appears to be the Kapikule border crossing the country shares with Bulgaria. The most commonly used route to bring AA to Turkey involves trafficking through the eastern Balkans (Romania-

Bulgaria-Turkey route) as attested by several large seizures over the last decade. The most recent Turkish seizure of 10 tons of the substance in December 2010 indicates that this trend is solidly in place.³⁴⁰ Although less used, an alternate route involves transiting through the Western Balkans. Serbia is intermittently used as a transit country as attested by Bulgarian seizures in 2010 and a Turkish seizure of 3,520 litres of acetic anhydride in August 2008.³⁴¹

There are, however, alternate routes into the country, specifically sea routes. In 2002, some 10,700 litres of AA were seized in a warehouse in Bursa (northwestern Turkey).³⁴² The investigation revealed that the substance had been trans-shipped in Izmir port (on the Aegean sea) from the Balkans and was to be smuggled onward.³⁴³ Another corridor, the Black sea route, which carries opiates from Turkey to Eastern Europe, was used in the reverse direction to smuggle acetic anhydride into Samsun and Zonguldak sea-ports in Turkey. During the 2003-2004 period it was reported that acetic anhydride was transshipped from Ukraine to Turkey via the Russian Federation, or shipped directly from the Russian Federation to Turkey.³⁴⁴

- In 2001, Turkey seized 6,718 litres in its Black sea ports coming from Ukraine in a TIR truck.
- In 2002, nearly 4 tons of acetic anhydride was seized while being transported across the Black sea; the chemical had been sourced in the Russian Federation and was transported through Ukraine and into Turkey's port Samsun.³⁴⁵
- In 2002, 1,850 litres of acetic anhydride were seized in Istanbul concealed in a tractor-trailer. The investigation revealed that the substance had been smuggled into Turkey through Zonguldak port.
- In 2006 Turkey seized several tons of acetic anhydride arriving from Ukraine. No further details are available

As shown above, most seizures using seaborne routes occurred during the first half of the decade. According to Turkish records, at the time there was an efficient territorial division whereby the "European-originated" acetic anhydride entered Turkey through the Kapikule border gate and "Russian-originated" acetic anhydride entered at Samsun port.³⁴⁶ An important diversion point during that period,

³³⁵ The laboratory was reportedly controlled by a mixed Turkish-Ukrainian group in the Ukraine. 125 kg of heroin were also seized at the site; Official correspondence, security service of the Ukraine, 22 March 2010.

³³⁶ Report of the International Narcotics Control Board for 2001 on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, p. 23, www.incb.org/pdf/e/tr/pre/2002/precursors_2002_3b_3.pdf.

³³⁷ In 2001, Russia stopped the export of 1,000 tons of acetic anhydride to Ukraine, when Ukrainian authorities determined that the company allegedly placing the order did not exist. In 2003, a precursor route running from the Russian Federation to Turkey was also noted; www.incb.org/pdf/e/tr/pre/2005/precursors_2005.pdf.

³³⁸ Report of the International Narcotics Control Board for 2009 on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, p.16, incb.org/pdf/precursors-report/2009/English/Precursors_Report_09_english.pdf.

³³⁹ Information provided by Turkish Ministry of Interior, March 2010.

³⁴⁰ Presentation by the Turkish National Police, The Paris Pact Initiative Expert Working Group on Precursors, Paris, 8-9 November 2010.

³⁴¹ Information provided by the Bulgarian Ministry of Interior, February 2011.

³⁴² Economic Cooperation Organisation, 2002, *Draft Country Profile – Turkey*, www.ecodccu.org/English/country_profiles/turkey/Turkey_DCP_2002.htm.

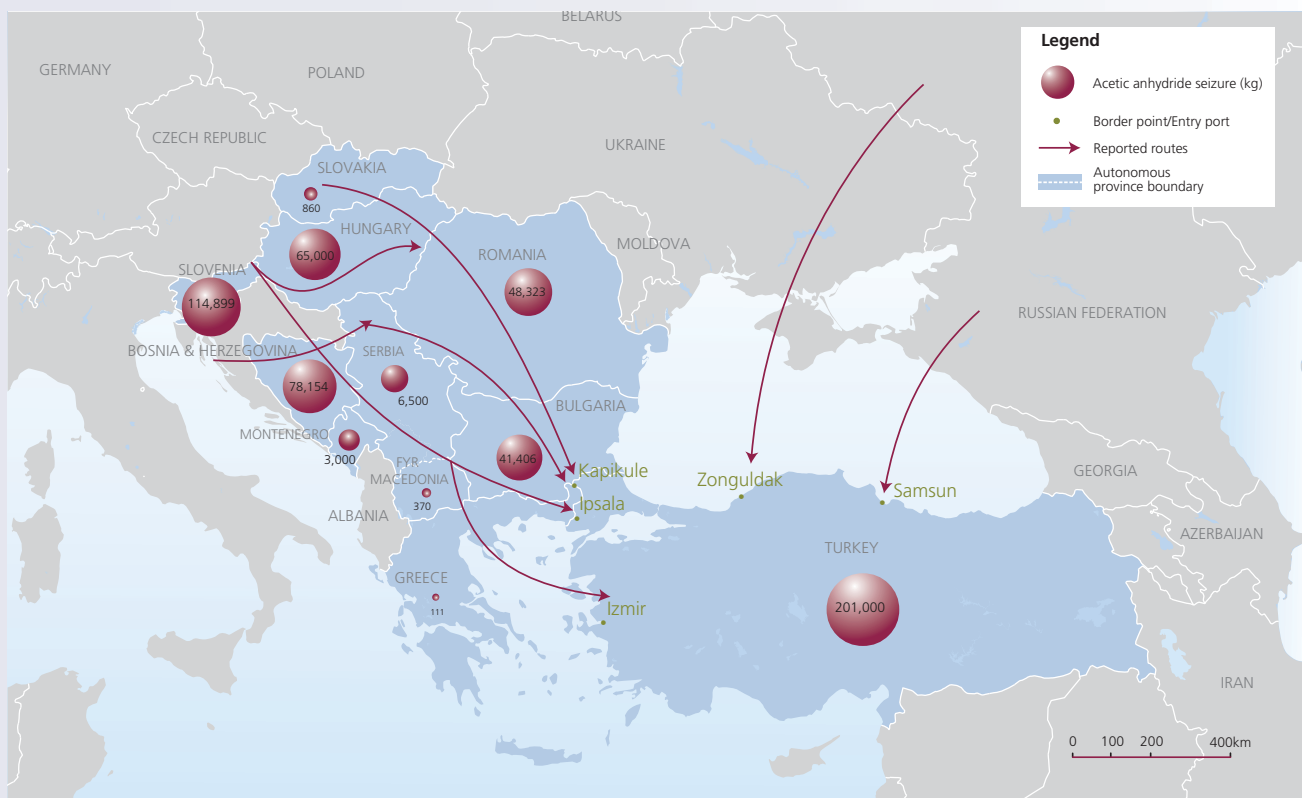
³⁴³ This seaborne route through the Aegean Sea and into Izmir was again reported by Turkish authorities in 2010, but no other details were available; Presentation by the Turkish National Police, The Paris Pact Initiative Expert Working Group on Precursors, Paris, 8-9 November 2010.

³⁴⁴ US Department of State, International Narcotics Control Strategy Report (INSCR), 2004.

³⁴⁵ Economic Cooperation Organisation, 2002, *Draft Country Profile – Turkey*, www.ecodccu.org/English/country_profiles/turkey/Turkey_DCP_2002.htm.

³⁴⁶ "Border security control", Turkish general staff, partnership for peace training center, Ankara-Turkey, 2003 www.gnews.gr/Reportage/file/Border_Security_Control.pdf?m=download.

Map 45: Reported acetic anhydride seizures and routes in Central Europe, the Balkans and Turkey, 1999-2010



Source UNODC Country reports, reports of the International Narcotics Control Board on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 (1999-2009).

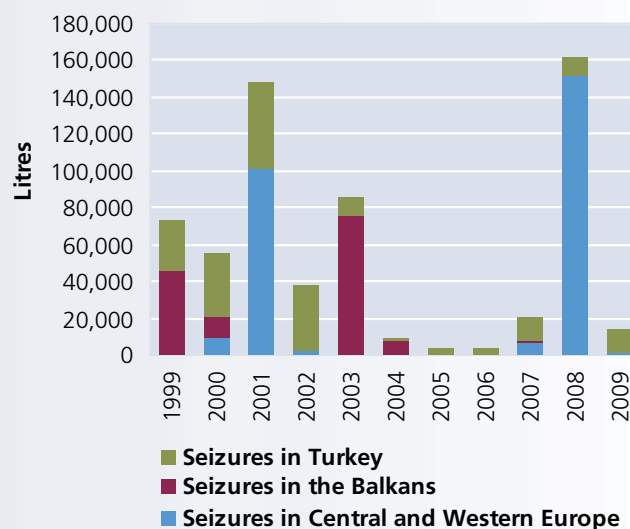
Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

the Russian Federation currently has strict controls over its acetic anhydride manufacturing and cooperates closely with Turkish and other national authorities in the region. It appears that most acetic anhydride currently trafficked into Turkey is shipped via overland routes. Seizures occur mostly at the extreme ends of the country. Istanbul, which seized the largest volumes in 2008-2010 has often served as a storage/consolidation³⁴⁷ site and is the natural choke point for most acetic anhydride trafficked into Turkey. In eastern Turkey, the Van and Hakkari districts bordering the Islamic Republic of Iran (and Iraq in the case of Hakkari) consistently report higher acetic anhydride seizures than most other districts.³⁴⁸ This is logical since the Islamic Republic of Iran is the last leg of the Balkan route carrying acetic anhydride into Afghanistan. This can be seen in a September 2009 seizure of 2,400 litres of acetic anhydride (in Van province),³⁴⁹ concealed in brick-carrying trucks reportedly headed to the Islamic Republic of Iran.³⁵⁰ However, unlike seizures on the Bulgaria-Turkey border, there are no recent seizures at actual border crossings between the Islamic

Republic of Iran and Turkey.

It is also possible that some acetic anhydride shipments are smuggled through the Iraqi border, as one 125-litre seizure in Hakkari district (south-east of Turkey bordering Iraq) in 2006 seems to suggest. It is unclear, however, if the shipment was destined for processing inside northern Iraq, for

Fig. 43: Seizures in Western, Central, South-Eastern Europe and Turkey, 1999-2009



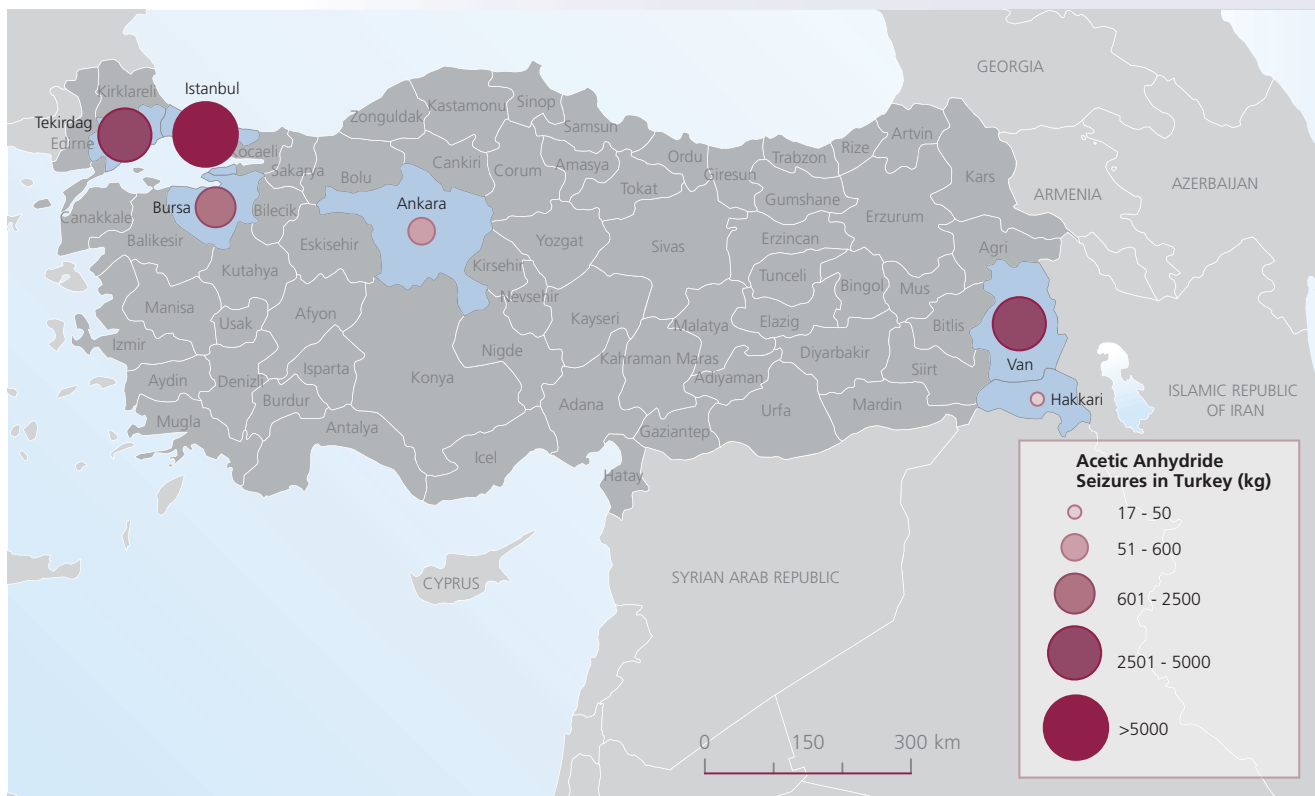
Sources: Ministry of Interior of Turkey, UNODC Country reports, reports of the International Narcotics Control Board on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 (1999-2009).

347 For example, in July 2006, law enforcement seized 3 tons of acid anhydride (along with 381 kg of morphine and 26 kg of heroin) in a private warehouse in Istanbul; Turkishpress, 7-10-2006, www.turkishpress.com/news.asp?id=132855.

348 See "Turkish report on drugs and organized crime"2003, 2006.

349 Presentation by the Turkish National Police, The Paris Pact Initiative. Expert Working Group on Precursors, Paris, 8-9 November 2010.

350 "Narcotics police seize huge quantity of drugs in eastern turkey", www.mia.com.mk, September 2009.

Map 46: Reported acetic anhydride seizures in Turkey by district, 2007-2010

Source: Turkey Ministry of Interior. Turkish national Police Department of Anti-smuggling and Organized Crime.

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Afghanistan through the Islamic Republic of Iran or yet another destination. A more recent 2008 seizure in Istanbul reportedly involved 3 tons of acetic anhydride destined for the Hakkari district. Here again, the final destination of the shipment is unclear although the arrest of an Iraqi citizen hints at a cross-border connection in Iraq. These assumptions however cannot be verified without additional data, particularly as it pertains to individual seizures made in Turkey.

Turkey is the only country in the region to have consistently reported acetic anhydride seizures every year between 1999 and 2010. Turkey's smallest seizures were in 2004 with 1.5 tons but that aside, it averages nearly 20 tons of acetic anhydride seized annually. This consistency is partly explained by the fact that the country acts as a bottleneck for many illicit shipments transiting the Balkans eastward by land. At the same time, the fact that seizures in all other countries upstream are irregular and in some cases simply non-existent indicates that responses to acetic anhydride trafficking in the Balkans need to be more effective. Increasing joint regional action and cooperation between the EU, Western Balkan countries and Turkey is crucial. Practically speaking, this should include increased support for the Southeast European Cooperative Initiative (SECI) centre which provides an operational platform for coordination and cooperation in South-East Europe.³⁵¹

³⁵¹ The SECI Centre is a regional organization that brings together police and

The Islamic Republic of Iran

To reach processors in Afghanistan, the last stopover on the Balkan route is the Islamic Republic of Iran. Western European countries aside, the Islamic Republic of Iran is the only other licit producer of acetic anhydride³⁵² before the Balkan route reaches Afghanistan, but controls appear strict and there is no evidence of diversion according to the Drug Control Headquarters (DCHQ) of the Islamic Republic of Iran.

When tracking seizures along the Balkan route, the lack of data in the western part of the Islamic Republic of Iran is striking. Indeed, before 2009, there was little hard evidence of seizures that could be sourced back to Turkey.³⁵³ That year, the Islamic Republic of Iran reported its largest acetic anhydride seizure in eight years, consisting of 7 tons traf-

customs representatives from 13 member states in direct cooperation, coordinating joint investigations and facilitating information exchange against organized crime and trafficking in South East Europe. The organization includes member states such as: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Greece, Hungary, the former Yugoslav Republic of Macedonia, the Republic of Moldova, Montenegro, Romania, Serbia, Slovenia and Turkey.

³⁵² Interview with DCHQ official, Islamic Republic of Iran, December 2010; see also International Narcotics Control Board (INCB) Report: 2007, p.91.

³⁵³ One possible exception concerns an intercepted shipment of two large acetic acid consignments (respectively 17,700 kg and 16,173 kg) at Bazargan customs on the Islamic Republic of Iran-Turkey border in July 2005. The substance was transiting the Islamic Republic of Iran toward Uzbekistan using TIR Carnet and was initially reported as acetic anhydride, but no additional information was made available except the fact that the shipment was turned back and not seized.

ficked from Turkey. This was followed in October 2010 by a controlled delivery of 1.5 ton of acetic anhydride travelling from Turkey into Mashhad city³⁵⁴ in the north-east of the Islamic Republic of Iran.³⁵⁵ These recent successes are impressive and better reflect the geographical location of the country, bordering the global center of heroin production in Afghanistan.

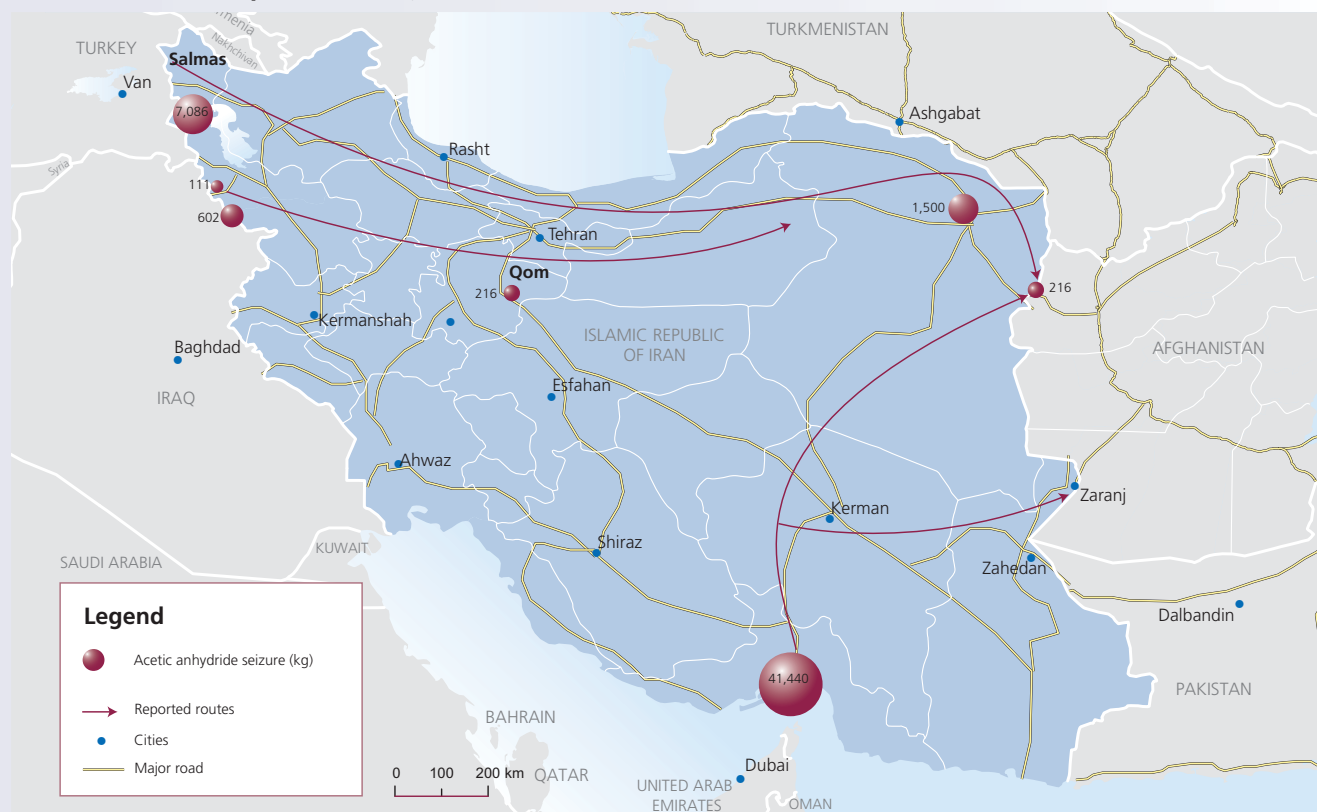
Although the core Balkan route passes through Turkey, northern Iraq³⁵⁶ has recently emerged as a possible transit point for acetic anhydride. In 2009-2010, Iranian authorities seized five shipments, totalling some 1,139 litres, which had crossed from northern Iraq into West Azarbaijan province (bordering Turkey). In the past, this same province has been the site of small-scale processing, such as a 2007 lab interdiction that seized morphine along with 20 kg of 'special acid used in changing morphine to heroin'.³⁵⁷

Another possibility for acetic anhydride trafficking into the Islamic Republic of Iran is through the Caucasus. The 2007 report on organized crime issued by Turkey noted a route

through the region involving licit trade to Armenia, and subsequent diversion and smuggling to the Islamic Republic of Iran (and other countries).³⁵⁸ Armenia has not confirmed this information and for its part generally only seizes small amounts of acetic anhydride linked to the consumption of local acetylated opium, locally known as chern-yashka. It should be noted, that in 2008, German authorities stopped a 10-ton shipment to Armenia in what is believed to be an attempt to divert the substance.³⁵⁹

Beyond this limited data, nearly all large hauls in the Islamic Republic of Iran in the last decade have not involved an overland route, but rather concern the use of sea routes, converging in the commercial port of Bandar Abbas.³⁶⁰ For example, in 2000-2001, two shipments of acetic anhydride totaling 37 tons, concealed in textile shipments, were seized at Bandar Abbas coming from Busan seaport in the Republic of Korea. Bandar Abbas is a key strategic transport node for the Islamic Republic of Iran and has become its major port reportedly handling approximately 15 million tons of cargo and more than three quarters of its ports' transit traf-

Map 47: Acetic anhydride seizures and reported routes into western and southern Afghanistan via the Islamic Republic of Iran, 2000-2010



Source: Turkey Ministry of Interior.

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

³⁵⁴ Presentation by Iranian DCHQ official, The Paris Pact Initiative Expert Working Group on Precursors, Paris, 8-9 November 2010.

³⁵⁵ Mashhad is a town in northeastern Iran in that straddles a major road artery and lies close to the border with Afghanistan and Turkmenistan.

³⁵⁶ The region is also a suspected transit zone for heroin.

³⁵⁷ "Iran: Police seize 100 kg of morphine in West Azarbaijan", BBC monitoring 09-10-2007; West Azarbaijan Provincial TV, Orumiye, in Azari 1715 gmt 9 Oct 07.

³⁵⁸ Turkish report on organized crime; 2007. Ministry of Interior of Turkey, Turkish national Police Department of Anti-smuggling and Organized Crime.

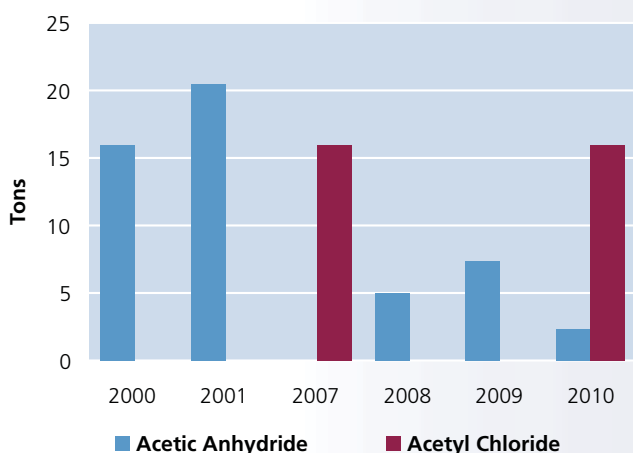
³⁵⁹ Report of the International Narcotics Control Board for 2009 on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, p.17, incb.org/pdf/precursors-report/2009/English/Precursors_Report_09_english.pdf.

³⁶⁰ The port itself is 20 km to the west of Bandar Abbas, a city of 350,000 people on the Persian Gulf in the vicinity of the Sea of Oman. It is 1,050 km from Tehran and 1,100 km from the Caspian Sea port of Neka.

fic. The port is linked by ferry to Dubai. As with other major seaports worldwide, the sheer size and volume of trade through Bandar Abbas seaport provides significant concealment opportunities for prospective smugglers. Opiate traffickers also exploit the port for outgoing deliveries to various destinations worldwide.

From 2001 to 2007, no seizures of acetic anhydride were reported, but a seizure of a non-controlled chemical was made in November 2007, when Iranian customs seized nearly 16 tons of acetyl chloride at Bandar Abbas port. The acetyl chloride, a chemical that can potentially be used in heroin production, was destined for Afghanistan.³⁶¹ Another 16-ton seizure of the substance made at the port in May 2010 might be viewed as an indication of a trend, particularly when taking into account a large seizure of the same substance in Pakistan (also destined for Afghanistan) in 2009. It should be noted however that there is no evidence that acetyl chloride is used in heroin production in Afghanistan.

Fig. 44: Heroin chemical seizures (acetic anhydride and acetyl chloride) in the Islamic Republic of Iran, 2000-2010

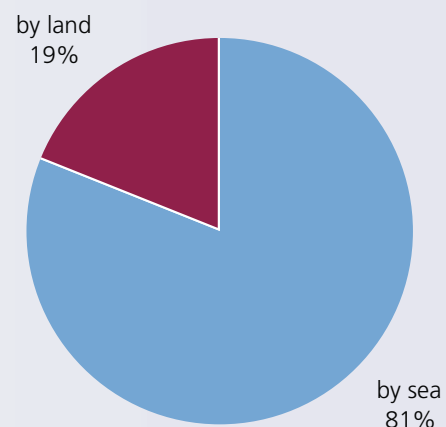


Source: UNODC Office in the Islamic Republic of Iran, UNODC TARCET seizure database, Islamic Republic of Iran DCHQ.

In April 2008, the regional Operation TARCET at Bandar Abbas revealed that the Busan-Bandar Abbas acetic anhydride corridor was still active. The operation uncovered a shipment of 5 tons of acetic anhydride that had transited through Dubai, reportedly originating in the Republic of Korea. The shipment was destined for Afghanistan through Hirat province.³⁶² The seizure was the result of intelligence sharing and cooperation between the authorities of the Republic of Korea and the Islamic Republic of Iran. Based solely on seizure volumes, the sea route appears to be privileged by traffickers as Bandar Abbas alone accounts for 80 per cent of total acetic anhydride seizures in the Islamic

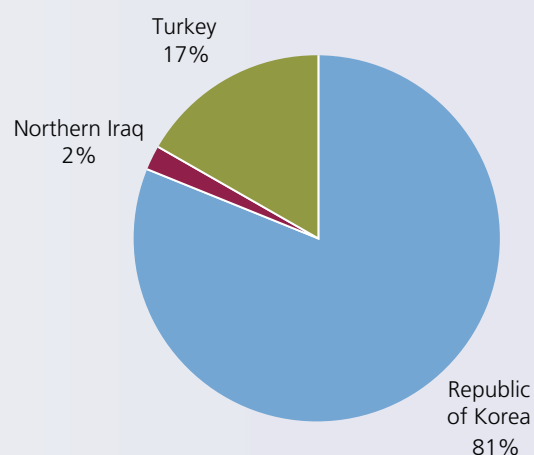
Republic of Iran. However, given the purported trajectory of detected shipments in Europe, this breakdown is unlikely to accurately reflect international distribution structures or the actual breakdown of acetic anhydride flows into the country. Rather, this is likely a case of increased capacity at Iranian customs³⁶³ and effective cooperation between the Islamic Republic of Iran and the Republic of Korea. The lack of acetic anhydride seizures at border crossings with Turkey also suggests that particular attention should be paid to monitoring the relatively short (499 km) Islamic Republic of Iran -Turkey border.

Fig. 45: Share of acetic anhydride seizures in the Islamic Republic of Iran by mode of smuggling, 2000-2010



Source: UNODC Office in the Islamic Republic of Iran, UNODC TARCET, Islamic Republic of Iran DCHQ.

Fig. 46: Share of acetic anhydride seizure in the Islamic Republic of Iran by country of departure, 2000-2010



Source: Collated from UNODC Office in the Islamic Republic of Iran, UNODC TARCET, Islamic Republic of Iran DCHQ.

³⁶¹ Presentation on precursor control in the Islamic Republic of Iran, Thirty-second Meeting of Heads of National Drug Law Enforcement Agencies (HONLEA), Asia and the Pacific, Bangkok, 10-13 February 2009.

³⁶² Information provided by the UNODC Office in the Islamic Republic of Iran, July 2008.

³⁶³ This is noted in the annual drug control report (2009) issued by the Islamic Republic of Iran: "Moreover, the Islamic Republic of Iran's Customs Administration has become quite sensitive towards the smuggling of chemical substances and precursors so much so that great amount of acetic anhydride were seized in 2009"; "Drug Control in 2009", DCHQ of the Islamic Republic of Iran, 2009, p.38.

Table 28: Reported chemical seizures in the Islamic Republic of Iran, 2000-2010

Date	Substance	Amount	Trafficked from	Seizure location	Remarks
2000	Acetic anhydride	16 tons	Korea (Rep. of)	Bandar Abbas	
2001	Acetic anhydride	20.440 tons	Korea (Rep. of)	Bandar Abbas	
Nov. 2007	Acetyl chloride	16 tons	China	Bandar Abbas	Transiting Dubai – destined for Afghanistan
Jul. 2008	Acetic anhydride	5 tons	Korea (Rep. of)	Bandar Abbas	Transiting Dubai – destined for Afghanistan
Sept. 2009	Acetic Anhydride	79.5 litres	Northern Iraq	Salmas (West Azarbaijan)	Transported in a vehicle – destined for Afghanistan
Sept. 2009	Acetic Anhydride	7 tons	Turkey	Salmaz district (West Azarbaijan)	
18 Nov. 2009	Acetic Anhydride	200 litres	Northern Iraq	Qom	Transported in a vehicle – destined for Afghanistan
24 May 10	Acetic Anhydride	103 litres	Northern Iraq	Piranshahr (West Azarbaijan)	Seized in a private residence – destined for Afghanistan
May 10	Acetyl Chloride	16 tons	Hong Kong, China	Bandar Abbas	Intelligence-led in cooperation with Dubai authorities. Load consisted of 80,200-litre barrels
Apr. 2010	Acetic Anhydride	200 litres	Northern Iraq	Dougharoon (Islam Qala)	
Sept. 2010	Acetic Anhydride	556 litres	Northern Iraq	Border with northern Iraq	
Oct. 2010	Acetic Anhydride	1.5 ton	Turkey	Mashad city	

Source: UNODC Office in the Islamic Republic of Iran, UNODC TARCET reports, Islamic Republic of Iran DCHQ.

*Figures are preliminary and may be revised when updated information becomes available.

At the same time, continued monitoring not only of the seaport of Bandar Abbas, but also that Chabahar port is warranted. The latter may also be vulnerable to acetic anhydride trafficking due to its proximity to the Afghan border.³⁶⁴ Upstream of this route, another seaport which bears monitoring is Busan port in the Republic of Korea, which appears to continue to be targeted by traffickers intent on transiting through seaports in the Islamic Republic of Iran and Pakistan.

³⁶⁴ A Trade and Transit Agreement was entered into with the Chabahar Free Zone Authority, allowing goods destined for import to and export from Afghanistan through this port to receive a 90 per cent discount on Iranian customs duties or tariffs and allowing 20 per cent of warehouse space to be allocated for goods transiting to Afghanistan.

Sea routes into the Islamic Republic of Iran

Republic of Korea- Islamic Republic of Iran -Afghanistan

The Republic of Korea has been targeted by trafficking networks since the mid-1990s when multi-ton seizures of acetic anhydride in Central Asia were found to have been diverted there. This continued in 2000-2001 with acetic anhydride seizures of 37 tons in the Islamic Republic of Iran reportedly smuggled out of the Republic of Korea.

In March 2008, the actions taken by authorities of the Republic of Korea led to the seizure of 2.8 tons of acetic

anhydride destined for Afghanistan through the Islamic Republic of Iran³⁶⁵ In July 2008, the continuing investigation led to the arrest of several individuals in a chemical engineering factory in the Seoul suburb of Ansan³⁶⁶ and a seizure of an additional 12 tons of acetic anhydride. In another case linked to the Republic of Korea in July 2009, four tons of acetic anhydride were seized in Dubai bound for Afghanistan via the Islamic Republic of Iran.

In September 2009, the Supreme Prosecutors Office of the Republic of Korea arrested a Korean suspect,³⁶⁷ who allegedly attempted to smuggle 11.6 tons of acetic anhydride to Afghanistan through Pakistani agents. Overall, the group is suspected of having successfully shipped 6.6 tons of acetic anhydride to Afghanistan in February 2009.³⁶⁸

Table 29: Reported acetic anhydride seizures and stopped shipments in the Republic of Korea, 2008-2009

Year	Amount (tons)	Date	Destination
2008	12	Jul-08	Afghanistan via Islamic Republic of Iran
	2.8	Mar-08	Afghanistan via Islamic Republic of Iran
2009	4	Jul-09	Afghanistan via Dubai Islamic Republic of Iran
	3.15	Jul-09	Afghanistan via Dubai Pakistan
	11.6	Aug-09	Afghanistan via Islamic Republic of Iran
Total	33.5 tons		

Source: Country reports, UNODC TARCET, media reports, Report of the International Narcotics Control Board for 2008 on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988.

*Figures are preliminary and may be revised when updated information becomes available.

Japan-Islamic Republic of Iran-Afghanistan

Japan has a well-developed and controlled chemical industry and had never reported a seizure of acetic anhydride before 2009.³⁶⁹ In February of that year, Japanese authorities seized a total of 8.4 tons of acetic anhydride at two separate seaports, Yokohama and Nagoya. The first seizure, consisting of 1.4 tons of acetic anhydride concealed inside

metal tanks,³⁷⁰ occurred at Nagoya port in February. A Pakistani national was arrested that same month. In a likely related incident, which also occurred in February, a further 0.9 tons of acetic anhydride, concealed in a vehicle, were seized at the port, also involving a Pakistani national.³⁷¹ Both arrestees were used car dealers and, in both cases, the shipments were destined for Kandahar in Afghanistan.

Table 30: Reported acetic anhydride seizures in Japan, 2009

Year	Amount (tons)	Date	Destination
2009	1.4	Feb-09	Kandahar, Afghanistan through Iran (Bandar Abbas)
	0.9	Feb-09	Kandahar, Afghanistan through Iran (Bandar Abbas)
	2.6	Feb-09	Jalalabad, Afghanistan through Iran (Bandar Abbas)
	3.6	Feb-09	Sharjah (UAE)
Total seized	8 tons		

Source: National Police Agency Japan, media reports.

Also in February, in Yokohama port, more than 6 tons of acetic anhydride destined for Afghanistan were seized on two separate occasions. Nearly 4 tons were found in freight containers bound for the United Arab Emirates, leading to the arrest of a Pakistani used car salesman.³⁷² A further 2.5 tons were seized in February on the way to Afghanistan, for which an Afghan used car salesman was arrested in July 2009. According to official information, the networks of Afghan and Pakistani nationals³⁷³ had acquired the chemicals through Japanese brokers.³⁷⁴

These seizures, a first in Japan, support the assertion that traffickers are looking for new points of diversion and more evidence that Afghan and Pakistani traffickers are becoming increasingly international. Moreover, the involvement of traffickers in the used vehicles trade might not be a coincidence, since there are established trade routes for this commodity.³⁷⁵ Japanese cars, which dominate the vehicle market

³⁶⁵ Report of the International Narcotics Control Board for 2009, E/INCB/2009/1, p.89.

³⁶⁶ TARCET Debriefing 2010.

³⁶⁷ Korean businessman arrested for exporting raw materials for heroin production, 14/09/2009 <http://vestnik.kr/law/3770.html>.

³⁶⁸ International Narcotics Control Strategy Report (INCSR) 2010, www.state.gov/p/inl/rls/nrcrpt/2010/vol1/137193.htm.

³⁶⁹ International Narcotics Control Strategy Report (INCSR) 2010, www.state.gov/p/inl/rls/nrcrpt/2010/vol1/137193.htm.

³⁷⁰ "Criminal groups shifting operations to East Asia after crackdowns elsewhere", (Mainichi Japan) November 24, 2009, mdn.mainichi.jp/features/archive/news/2009/11/20091124p2a00m0na003000c.html.

³⁷¹ Asia and Pacific Amphetamine-type stimulant Information Centre, www.apaic.org/index.php?option=com_content&view=article&id=133&Itemid=141.

³⁷² "Afghan held over drug-linked substance found at Yokohama port", Japan Today, 16 August 2009.

³⁷³ Yomiuri online, July 25 2009.

³⁷⁴ Presentation: "attempted smuggling cases of acetic anhydride", National Police Agency Japan; "Afghan held over drug-linked substance found at Yokohama port", www.japantoday.com 16 August 2009.

³⁷⁵ According to AREU research quoting Japanese sources "around half of Japan's

in Afghanistan, are supplied largely via second-hand car markets in Dubai; from here they are shipped to Bandar Abbas in the Islamic Republic of Iran and driven overland to Hirat (Islam Qala) or Nimroz province (Zaranj). The same routes through Dubai are used for vehicle spare part imports, a market which Japan also dominates.³⁷⁶

Islamic Republic of Iran-Afghanistan border

Once inside the Islamic Republic of Iran, acetic anhydride flows east toward the 949-km Afghan border, which comprises the Afghan provinces of Hirat, Farah and Nimroz. The border is mainly mountainous in the north bordering Hirat province and gradually grows into harsh desert in the south bordering Nimroz. Afghanistan operates three major border crossings on the Afghan-Iran border: firstly, Islam Qala in Hirat province (Dogharun in the Islamic Republic of Iran); secondly, Zaranj (Zaranj district in Nimroz province) connected to Milak on the Iranian side and thirdly, Mile 73 in Farah province. The Islamic Republic of Iran-Afghanistan border also has some 60 semi-official crossing points with reportedly a law enforcement presence on the Afghan side, contrasting with over 200 checkpoints on the Iranian side.³⁷⁷ On the surface, the border appears well protected on the Iranian side and Afghan officials interviewed have confidence in the protective measures in place on the Iranian side of the border.³⁷⁸ In attempting to stem the flow of opiates, the Islamic Republic of Iran has spent hundreds of millions in the last few years to dig ditches, build barriers and install barbed wire along its borders with Afghanistan.

Wall section on the Islamic Republic of Iran-Afghanistan border



Source: Iran Drug Control Headquarters.

used vehicle exporters are non-Japanese and most are from Pakistan"; Anna Paterson, "Understanding markets in Afghanistan: a study of the market of second hand cars", AREU, October 2005, p.18.

376 Anna Paterson, "Understanding markets in Afghanistan: a study of the market of second hand cars", AREU, October 2005.

377 Interview, UNAMA, Kabul, October 2008.

378 Interview with Customs in Hirat (November 2008); Interview with ABP in Hirat (November 2008); Interview CNPA Hirat (November 2008); Interview UNAMA in Hirat (November 2008); Interview with Customs in Kabul (October 2008).

Both Bandar Abbas and Chabahar seaports are connected by road with the official Afghan border crossings of Zaranj (Nimroz province) and Islam Qala (Hirat province). Officers of the Counter Narcotics Police of Afghanistan (CNPA) based in Nimroz reported acetic anhydride trafficking through Zaranj,³⁷⁹ but no seizure of acetic anhydride was reported at the crossing until 2010.³⁸⁰ Reportedly, a spur of the Balkan route may flow across the 976 km border between the Islamic Republic of Iran and Pakistan into Baluchistan province, before turning north towards southern Afghanistan but evidence in the form of seizures on either side is also lacking here.

The road through Hirat appears to be favored by traffickers over the more direct route through Sistan-Baluchistan to reach Nimroz province; perhaps because of the harsher terrain in south eastern Iran. Furthermore, according to UNODC sources in Afghanistan, the town of Mashad in the north-east of the Islamic Republic of Iran appears to be a consolidation and forwarding point for some acetic anhydride destined for Afghanistan.³⁸¹ According to the same sources, acetic anhydride shipments tend to be transported into Hirat inside commercial containers/cargo, which suggests that some loads are carried through the Islamic Republic of Iran in bulk to Afghanistan. This is supported by the limited seizure data available, which indicates that the 2008 acetic anhydride shipment of 5 tons seized at Bandar Abbas seaport was to be smuggled into Afghanistan through the Dougharoun-Islam Qala border crossing.³⁸² A previously mentioned controlled delivery of 1.5 ton of acetic anhydride from Turkey into Mashhad city³⁸³ also supports bulk movements. At the same time there appears to be a mixture of approaches, since there are also suggestions that shipments are split into smaller loads for onward transportation. It is unclear however if this occurs in the Islamic Republic of Iran or upstream. A 2010 seizure of 200 litres at Islam Qala had reportedly originated in northern Iraq. Smaller amounts (100 litres or less) are also reportedly trafficked through this crossing using public buses.³⁸⁴

Groups involved

Some of the groups discussed and cases presented below are more than a decade old, but the insights they provide are still relevant today because often the groups or group types, and sometimes the methods of illicit trafficking, have not changed fundamentally in the intervening period. As an

379 The same sources reported that acetic anhydride was being smuggled as antifreeze liquid and engine oil; Interview, Nimroz CNPA, ABP March 2010.

380 In December 2010, Zaranj customs reported seizing 3,457 Kg of acetic anhydride. No further details are available.

381 Multiple interviews with Afghan acetic anhydride traffickers in Hirat, Farah and Nimroz, 2009-2010.

382 Information provided by UNODC Country Office of the Islamic Republic of Iran, September 2009.

383 Presentation by Iranian DCHQ official, The Paris Pact Initiative Expert Working Group on Precursors, Paris, 8-9 November 2010.

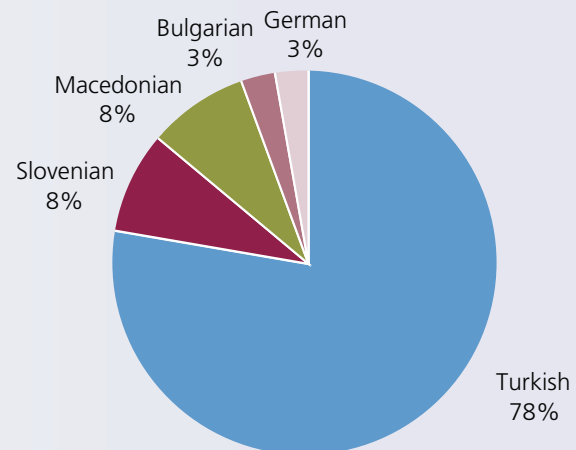
384 Multiple interviews with Afghan acetic anhydride traffickers in Hirat, Farah and Nimroz, 2009-2010.

example, one of the criminal organizations linked to recent seizures of acetic anhydride in Central Europe has been reportedly active in the same region since the beginning of the decade.³⁸⁵ Another long-standing feature is the apparent multi-crime approach of many organized crime groups, including in trafficking weapons, human beings and heroin.³⁸⁶ Approximately 10 criminal organizations are estimated to control most illicit trafficking in the region,³⁸⁷ which might be taken as a proxy for the upper limit to the number of groups trafficking acetic anhydride. In Slovenia alone, two separate groups were involved in trafficking the acetic anhydride seized in 2008.³⁸⁸ Whatever the number, the sheer size and value of recent seizures in Slovenia and Hungary indicate significant working capital and logistical organization.³⁸⁹

According to Slovenian and Hungarian law enforcement officials, group membership is fluid and generally ranges from 10 to 20 members. Such groups often straddle several borders, benefiting from representation in multiple countries of the region. Organizers often hold multiple citizenships which they exploit to avoid law enforcement and extradition efforts. Some groups operating in Central Europe and the Balkans seem to have adopted a cell-like structure based on the principle of compartmentalization. Each link in the chain has a specific role and responsibility³⁹⁰ (transport, bribes, storage) and has limited contact with other cells in the organization.³⁹¹ At the same time, a minority of organizations active in acetic anhydride trafficking seem to have retained features of older organizational types, including hierarchal command structures. In terms of composition, many organizations trafficking acetic anhydride (or indeed heroin) along the Balkan route include members of almost every regional ethnic group.³⁹² This is apparent when looking at the breakdown of nationalities arrested in Turkey on acetic anhydride trafficking charges.

The relationships between Turkish, Balkan, Central Euro-

Fig. 47: Distribution of arrestees for acetic anhydride trafficking in Turkey (by nationality), 2007-2009



Source: Turkey Ministry of Interior.

pean and other criminals appear fluid, with the different ethnic groups working together seamlessly.³⁹³ In truth, the relevance of ethnicity or nationality has declined in recent years and most organizations now outsource activities to other specialists and networks irrespective of ethnic links. For example, a group involved in trafficking acetic anhydride through the Balkan route is reportedly composed of a Slovenian organizer, Turkish financiers, Croatian transporters with facilitators in the Czech Republic and procuring agents in Slovakia.³⁹⁴ Similarly, in Bosnia and Herzegovina, a venture for smuggling acetic anhydride was reportedly composed of Serb, Bosnian and Albanian traffickers from separate groups.³⁹⁵ With some notable exceptions,³⁹⁶ most groups should be viewed more as loose multi-national networks than rigid mono-ethnic mafia-style organizations. This integration is most obvious when two illicit commodities, in this case heroin and acetic anhydride, are exchanged. This type of exchange generally appears to take place in Turkey³⁹⁷ or Bulgaria³⁹⁸ and has been reported at least since 2003.³⁹⁹ This practice continues

³⁸⁵ Interview with Criminal Police Directorate of Slovenia, Ljubljana, November 2010.

³⁸⁶ Interior Ministry of Turkey, "2009 National Report on Counteracting Addictive Substances and Substance Addiction"; EMCDDA 2009 ANNUAL REPORT; EUROPOL, "Drug crime: a general overview", Presentation in Sofia, Bulgaria, 14-16 April 2010.

³⁸⁷ Multiple interviews with law enforcement agencies in Slovenia, Hungary, Romania, Bulgaria, Serbia and Bosnia and Herzegovina, September-December 2010; see also Iris Kempe (Ed.) A 2004/6844. *Prospects and Risks beyond EU Enlargement. Eastern Europe: Challenges of a Pan-European Policy*. Leske and Budrich, Opladen 2003, p. 126.

³⁸⁸ Interview with Criminal Police Directorate of Slovenia, Ljubljana, November 2010.

³⁸⁹ Interview with Slovenia Ministry of Interior, November 2010.

³⁹⁰ Interview with the BiH State Investigation Protection Agency (SIPA), Sarajevo, BiH, December 2010.

³⁹¹ Multiple interviews with law enforcement agencies in Slovenia, Hungary, Serbia and Bosnia and Herzegovina, November-December 2010.

³⁹² As an example. In October 2009 Turkish police seized 5 tons of acetic anhydride in Istanbul. The Balkan-based group arrested was composed of Turks, Macedonian and Slovenian nationals; see "Turkish police break Balkan narcotics ring", MIA Bulletin 1148, Macedonia Information Agency, October 20 2009, www.mia.com.mk.

³⁹³ "Situation report on organized and economic crime in southeastern Europe", CARPO regional project, Council of the European Union, September 2006, p.29.

³⁹⁴ Multiple interviews with law enforcement agencies in Slovakia, Czech Republic, Slovenia, Hungary, Serbia and Bosnia and Herzegovina, November 2010- February 2011.

³⁹⁵ Interview with the Bosnia and Herzegovina State Investigation Protection Agency (SIPA), Sarajevo, Bosnia and Herzegovina, December 2010.

³⁹⁶ There are some indications of territorial divisions in some parts of the route, particularly the apparent dominance of Serbian groups in controlling all aspects of the trade from Hungary through Serbia and toward other Balkan countries; United States of America Department of State, INCSR report 2010, www.state.gov/p/inl/rls/nrcrpt/2010/vol1/137197.htm.

³⁹⁷ Turkey's official report on drugs and organized crime (2007) asserted that acetic anhydride traffickers are paid with heroin and they deliver heroin to European countries; see "Turkish Report on Drugs and Organized crime 2007", Ministry of Interior Turkish National Police, 2007, p.23.

³⁹⁸ According to official reports of the Serbian Ministry of Interior, during the 2006-2008 period, Serb groups would usually sell acetic anhydride or trade it for heroin in Bulgaria where local groups would then take over; see Serbia Ministry of Interior, "Analysis of the results in the fight against narcotics smuggling in Serbia", 2004-2006.

³⁹⁹ Heroin for acetic anhydride exchanges were reported in 2003 involving 370

today. A group involved in trafficking 13 tons of AA into Turkey was planning on exchanging at the rate of one ton of acetic anhydride for 16-20 kg of heroin (in Turkey).

The Black sea acetic anhydride route into Turkey offers a rare example of PKK (Kurdistan Workers' Party) involvement in acetic anhydride procurement. In 2002, a joint Turkish-Russian-United States of America investigation codenamed 'Matruska' conducted a controlled delivery operation from the Russian Federation to Elazig province in Turkey. The operation led to the arrest of several individuals with links to the PKK in the Russian Federation.⁴⁰⁰ The involvement of the PKK in drug networks had already been documented but this was a rare occasion where its dual links with acetic anhydride procurement and heroin production were noted by another country.⁴⁰¹ However, it should be noted that this kind of fund-raising appears to be traditionally linked to the logistical networks of the PKK and not the guerilla directly implicated in the armed struggle.⁴⁰²

There is little data available on the groups involved in trafficking acetic anhydride from Turkey into the Islamic Republic of Iran. In the Islamic Republic of Iran itself, the limited data available on arrests does not allow to extract a profile of traffickers plying this route. The annual drug and crime reports issued by Turkey for 2006-2007 indicate the arrests of Iranians apparently linked to acetic anhydride seizures, but no other information is provided. In Romania, a dismantled trafficking group (composed of Turks, Iranians and Romanians) led by an Iranian citizen provides a rare example of Iranian nationals trafficking the chemical upstream.⁴⁰³ Other routes into the Islamic Republic of Iran do provide indication that the groups involved in trafficking acetic anhydride by sea appear to be dominated by Pakistani nationals. This seems to be a long-standing feature of this route as demonstrated by Iranian and Korean seaport seizures in 2001, 2008 and 2009 which, in all cases, led to the arrest of Pakistani (and Korean) nationals in the Republic of Korea.⁴⁰⁴

litres of acetic anhydride (seized in the former Yugoslav Republic of Macedonia), which were to be exchanged for heroin in Turkey. UNODC "Addiction, crime and insurgency: the transnational threat of Afghan opiates", 2009, p. 75.

400 "Turkey country profile 2002", Economic Cooperation Organization. Drug Control Coordination Unit (DCCU), www.ecodccu.org/English/country_profiles/turkey/Turkey_DCP_2002.htm; see also A. Pek and B. Ekici, "Narco-terrorism in Turkey: the financing of PKK Kongra gel", Understanding and responding to the terrorism phenomenon: a multi-dimensional perspective, Band 2006, p.148.

401 Turkey for its part had already noted a link as far back as 1997 when cross-border military operations in northern Iraq reportedly uncovered missiles, guns and acetic anhydride; see Nur Bilge Criss and Yavuz Turan Çetiner, "Terrorism and the Issue of International Cooperation", etc.hil.unb.ca/ojs/index.php/JCS/article/viewFile/4337/4977.

402 « Le PKK, terrorisme et guerrilla au Coeur de la zone des tempetes », Assemblée Nationale 20 Novembre 1995, Centre de Recherches des Menaces Criminelles Contemporaines, 1995.

403 Romania National Report on the drug situation, 2008, p. 96.

404 Report of the International Narcotics Control Board for 2001 on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, p.22.

The Northern Route

To the north, Afghanistan borders the Central Asian countries of Tajikistan, Uzbekistan and Turkmenistan, over a length of 2,600 km. Before 1991, the borders between the then-Soviet Union and Afghanistan were effectively sealed to large scale trafficking. The dissolution of the Soviet Union resulted in the creation of a new outlet for Afghan opiates almost overnight. Progressively, a portion of opiates that were transiting the Islamic Republic of Iran (Balkan route) and Pakistan (Southern route) began to be shipped through the former Soviet states towards Europe, creating new markets along the way, notably in the Russian Federation.

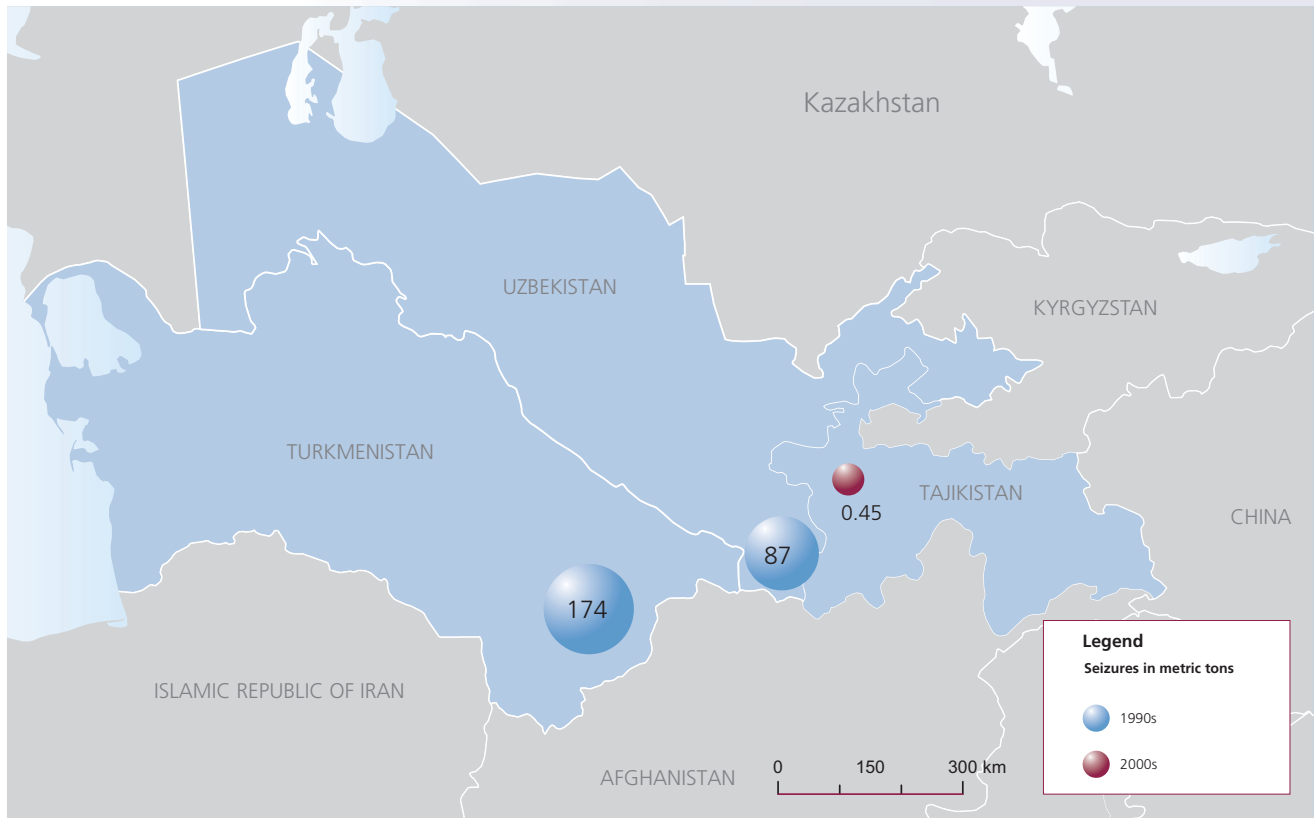
Central Asia

The fall of the Soviet Union also enabled the re-activation of dormant cross-border trade and migration. Ethnic populations spill over the borders of countries throughout the region all the way to the Afghan border. This has facilitated various forms of trafficking including in the reverse direction, with a route dedicated to precursors soon developing. From 1995 to 2000, more than 120 tons of acetic anhydride were seized in Uzbekistan and Turkmenistan alone. During the 1995-2000 period, these two countries seized on average 40 tons per annum. Most of the acetic anhydride seized during the period originated in China, the Republic of Korea, Ukraine⁴⁰⁵ and the Russian Federation, but at least one case of domestic diversion was reported within the region. In 2000, Central Asian seizures alone were sufficient to process some 40 tons of heroin— nearly 10 per cent of the potential heroin manufacture capacity of Afghanistan that year. Trafficking during the 1995-2000 period was partly due to an increase in the number of processing laboratories in the south and west of Afghanistan and their aggregation over the next several years, shifting part of the route burden. Additionally, the Islamic Republic of Iran had closed its border with Afghanistan in September 1998 (then reopened it in late 1999), forcing traffickers to rely more on Central Asian routes. After the year 2000, a lapse in seizures occurred and there was little intelligence of large acetic anhydride shipments transiting the region. Whether this was due to tighter border controls or a shift in trafficking strategies is unclear since, to a lesser degree, a similar phenomenon occurred in all countries bordering Afghanistan.⁴⁰⁶

Indeed, after seizing huge seizures of acetic anhydride between 1995 and 1998, Uzbekistan has since reported only two chemical seizures, which were not involving acetic anhydride. A 2002 seizure of 200 litres of unidentified precursors at Hairatan port was followed six years later by a

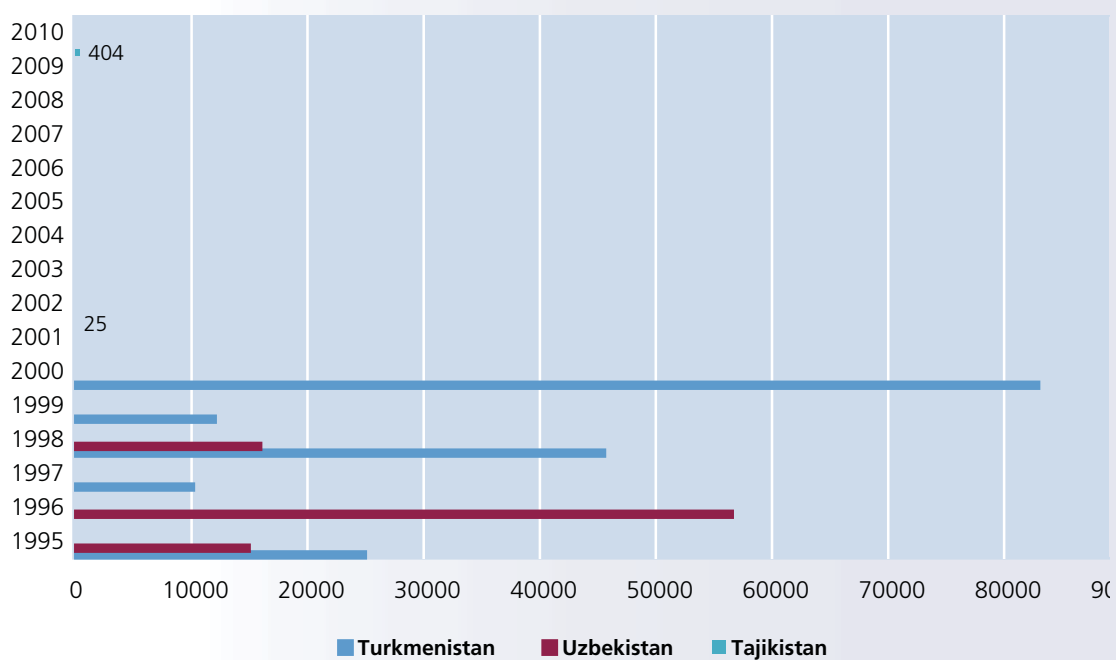
405 "Money Laundering and Related Issues in Uzbekistan", GPML Central Asia Briefing No.2, 24, May 2002.

406 By contrast, opiates continued to move through Central Asia as seizure data can attest.

Map 48: Acetic anhydride seizures (in tons) in Central Asia, 1995-2010

Source: UNODC Regional Office for Central Asia.

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Fig. 48: Acetic anhydride seizures (in litres) in Central Asia, 1995-2010

Source: UNODC Regional Office for Central Asia.

Table 31: Chemical seizures in Central Asia, 1995-2010

Date	Location	Substance	Amount	Remarks
1995	Uzbekistan	Acetic anhydride	15 tons	Originated from Uzbekistan, exported to Kyrgyzstan, and re-exported to Uzbekistan.
1995	Turkmenistan	Acetic anhydride	25 tons	Originated from the Russian Federation, exported without export authorization.
1996	Uzbekistan	Acetic anhydride	7.2 tons	Smuggled in railway cargo. Originated from Republic of Korea.
1996	Uzbekistan	Acetic anhydride	17.4 tons	From the Russian Federation smuggled as cargo with engine oil in truck.
1996	Uzbekistan	Acetic anhydride	32 tons	Transported on railway. Originating in China
1997	Turkmenistan	Acetic anhydride	10.2 tons	Two shipments originated from China. Shipped via UAE and Iran to Turkmenistan. Transported on truck, mislabeled as corn oil.
1998	Uzbekistan	Acetic anhydride	16 tons	Smuggled in railway cargo. Originated from China.
1998	Turkmenistan	Acetic anhydride	45.6 tons	
1999	Turkmenistan	Acetic anhydride	12.07 tons	
2000	Turkmenistan	Acetic anhydride	40.29 tons	Seized at Serkhetabad State Customs (total 2 cases). Originated from Singapore
2000	Turkmenistan	Acetic anhydride	42.47 tons	Seized at Mary State Customs (total 2 cases). Originated from Republic of Korea.
2001	Khorog Tajikistan	Acetic anhydride	25 kg	
2008	Termiz, Uzbekistan	Acetic Acid	1600 kg	Containers from Korea concealed among commodities transported to Afghanistan.
2008	Dushanbe, Tajikistan	Acetic acid	156 kg	
2009	Osh Kyrgyzstan	Acetic acid	1547 kg	Reportedly sourced in China
2010	Tajik-Kyrgyz border	Acetic anhydride	404 kg	The shipment was crossing into Tajikistan from Kyrgyzstan

Source: UNODC Regional Office for Central Asia.

seizure of 1,600 litres of acetic acid in May 2008 at the same port.⁴⁰⁷ Uzbekistan is an important trade partner for Afghanistan,⁴⁰⁸ which imports 10,000 tons of fuel daily (3.4 million tons annually) in addition to other commodities, most of it through the Hairatan river port.⁴⁰⁹ While the trend towards larger trade flows is a key point in assessing the risk of acetic anhydride trafficking, the country's short border with Afghanistan appears to be generally avoided by acetic anhydride traffickers. Uzbekistan is also the only Central Asian producer of acetic anhydride and controls are reported as strict.⁴¹⁰

Turkmenistan was the last Central Asian country to seize large amounts of acetic anhydride, 83 tons in the year 2000. Since then, no seizures have been reported but research carried out by UNODC in Afghanistan indicates that small amounts of acetic anhydride may be trafficked through the Turkmen border into Faryab province to be used by local laboratories.⁴¹¹ After 2000, Tajikistan was the site of the last reported acetic anhydride confiscations in the region, purportedly destined for Afghanistan. In February 2001, the Russian Federal Border Service (then deployed in Tajikistan) seized 28 litres of acetic anhydride in the border areas near Khorog in the Gorno Badakhshan autonomous region bordering Afghanistan.⁴¹² Nearly a decade later, 404 litres of acetic anhydride, was apprehended by customs in northern Tajikistan, travelling from Kyrgyzstan. The source was not specified.

⁴⁰⁷ Acetic acid is a non-controlled chemical which is increasingly suspected of being used in heroin production.

⁴⁰⁸ "Afghanistan, Uzbekistan and ADB Sign Memorandum of Understanding for Railway Transport Cooperation", ADB, 20 November 2008, www.adb.org/media/Articles/2008/12719-railway-transport-cooperation/.

⁴⁰⁹ The major exports from Uzbekistan to Afghanistan are fuels, glass, cement, and molten-soft bars of iron; Asian Development Bank, 2008, Afghanistan's Trade with CAREC Neighbors, <http://www.adb.org/Documents/Events/2008/9th-Trade-Policy-CAREC/9th-TPCC-AFG-Trade-Study-paper.pdf>.

⁴¹⁰ The plant is located in Ferghana city.

⁴¹¹ "Opiate and precursor seizures in Afghanistan 2008", 2009, UNODC, p. 21.

⁴¹² It is important to note that Khorog is the last step of a drug route that runs through Murghab (a city on the border between Tajikistan and China) and crosses the Tajikistan-Kyrgyzstan border towards Osh in southern Kyrgyzstan and ultimately to Bishkek in northern Kyrgyzstan.

Acetic anhydride aside, other chemicals including heroin processing chemicals have been seized in Central Asia. Three chemicals have been consistently reported in the region since 2001: sulphuric acid⁴¹³ and to a lesser extent acetic acid and hydrochloric acid.⁴¹⁴ As an example, the report issued by Tajikistan's Drug Control Agency in 2009 notes that two cases of chemical trafficking occurred that year, including a sizeable 7,500 kg of hydrochloric acid at the customs post Nijniy Pianj, which is the country's main border point with Afghanistan. In June of the previous year, a seizure of 156 litres of acetic acid was reported in the capital Dushanbe.⁴¹⁵ In neighboring Kyrgyzstan, 1,670 litres of acetic acid sourced in China were seized in Osh, in November 2009.⁴¹⁶ This said, it is important to note that these seizures are not reported in relation to heroin processing. Furthermore, UNODC research in Afghanistan does not indicate that chemicals like acetic acid or sulphuric acid are smuggled from Central Asia⁴¹⁷ or used in heroin processing within the country.⁴¹⁸

Seizures - or the lack thereof - are not the only indicators of transit potential. In Central Asia, both Kyrgyzstan and Tajikistan display a number of vulnerabilities, which are exploited by criminal groups that traffic all forms of illicit goods. Firstly, most of the 90 tons of heroin that cross from Afghanistan annually are transported through both countries; this also provides opportunities for other forms of smuggling. In Kyrgyzstan, continuing instability combined with high levels of corruption at all levels of public and private life can only be attractive to transnational criminals. Similar conditions are observed in the southern neighbour of Kyrgyzstan - Tajikistan - which is also the only Central Asian country to directly border a major heroin-manufacturing area in Badakhshan province. UNODC research in

413 In July 2006, during the international operation transshipment, Kazakh mobile teams seized approximately 3 tons of hydrochloric acid in Eastern Kazakhstan near the Kazakhstan-Russian Federation border.

414 Negligible amounts (4 litres of acetic anhydride) were also seized in Kazakhstan in 2006.

415 In addition, in August 2008, the head of the engineering research department at the Yovon chemical plant in Tajikistan was arrested and five litres of acetic anhydride seized; see Avaz Yuldoshev, "Alleged precursor trafficker has been detained in Dushanbe", *Asia-Plus*, 18.08.2008; asiaplus.tj/en/news/47/37105.html.

416 The only acetic anhydride seizure in Kyrgyzstan was effected in Bishkek in December 2007 and consisted of ten litres of acetic anhydride and 4 litres of acetone leading some observers to suggest the existence of small processing ventures in the country; see www.for.kg/ru/news/51825/.

417 Moreover, Afghanistan has reported few confiscations of sulphuric acid, the last dating back to the 1999 International Narcotics Control Strategy Report which reported "the Taliban destroyed 34 heroin narcotics laboratories in Nangarhar province in a series of well-publicized raids in February 1999. The Taliban authorities claimed to have seized in the same raids 500 kg of opium, 70 kg of mixed heroin, 1,200 litres of acetic anhydride, 500 kg of hydrochloric acid (HCl), 800 kg of ammonium chloride, 900 kg of charcoal, 1200 litres of sulfuric acid, 700 litres of ammonium hydroxide, and 380 litres of ethyl alcohol"; US Department of State, INCSR, 1999; CNPA seizure data shows only 2 small seizures of sulphuric acid between 2003-2008.

418 One law enforcement source in Central Asia surmised that seizures of acetic acid, may indicate a lack of sophistication on the part of groups; that is, they likely ordered acetic anhydride and were duped with acetic acid, or they themselves do not know that acetic acid is not a heroin precursor. This remains largely speculative and additional research is needed on the theme of acetic anhydride substitutes.

Badakhshan and other north-eastern provinces indicates that local laboratories receive most of their heroin precursors from eastern Afghanistan through the Pakistan border but that small shipments of AA do intermittently come in, primarily through Tajikistan. From 2008-2010, the highest risk acetic anhydride smuggling point identified was the bridge at Nijniy Pianj connecting Tajikistan's Khatlon province with Afghanistan's Takhar province,⁴¹⁹ as well the bridges of Tem, Ishkashim and Darvuz on the border with Badakhshan.⁴²⁰ In addition to being the only Central Asian country since 2000 to seize acetic anhydride, Tajikistan territory has also been targeted in at least two attempts to smuggle large amounts of acetic anhydride diverted in the Russian Federation.

The Russian Federation – Central Asia

The lapse of seizures in Central Asia after the year 2000 needs to be qualified. There were in fact some attempts outside the region in which Central Asian countries were the purported destination. Most of these attempts were foiled by authorities in the Russian Federation;⁴²¹ this was the case in 2001, when Russian law enforcement dismantled a network that was planning to smuggle acetic anhydride to an unspecified Central Asian country for onward smuggling into Afghanistan. Authorities seized 1.5 tons of the substance and arrested six individuals.⁴²² The following year, 6 tons of acetic anhydride was seized in the Russian Federation. The investigation determined that the shipment had been smuggled from the United States of America through the Netherlands and into the Russian Federation. In that particular case, the end user was reportedly in Kazakhstan.⁴²³

The only acetic anhydride producing plant remaining in the Russian Federation is located in Dzerzhinsk city (Nijgorodskaya Oblast). The Russian Federation has since 2007 reduced acetic anhydride exports to zero and controls are strict but traffickers have nevertheless made some attempts at diversion. In 2007, the Russian Federation confirmed a 10-ton seizure in Moscow destined for Afghanistan through Tajikistan. The seizure was an attempted diversion of licit production from the Russian Federation through a legitimate company. More recently, 800 kg of acetic anhydride were seized by Russian authorities in April 2011.

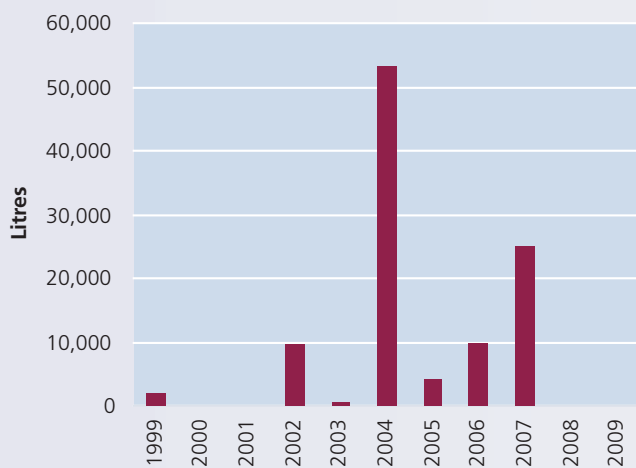
419 In 2008, respondents in a UNODC drug flow survey in Afghanistan reported that the sole source of precursors from Central Asia was the bridge at Nijniy Pianj, see UNODC Drug flow survey 2007, p.11.

420 UNODC Field mission to Badakhshan, Kunduz and Takhar, April 2010, October 2010.

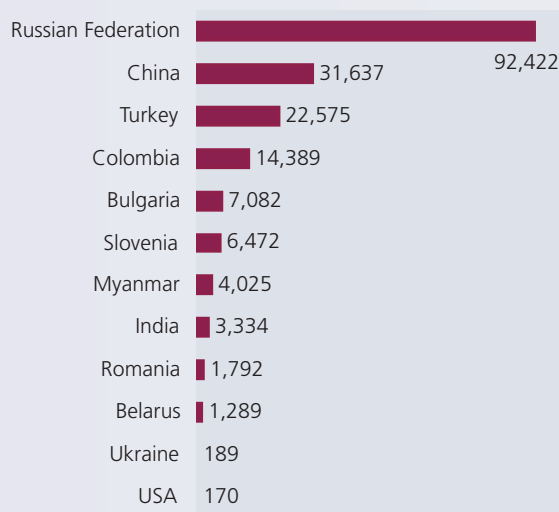
421 Report of the International Narcotics Control Board for 2004 on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, s133, p.21.

422 Report of the International Narcotics Control Board for 2001 on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, p.21.

423 Report of the International Narcotics Control Board for 2004 on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988, s133, p.21.

Fig. 49: Seizures of acetic anhydride in the Russian Federation, 1999-2009

Sources: Reports of the International Narcotics Control Board on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 (1999-2009).

Fig. 50: Accumulated annual AA seizures (in thousands of litres) during 2004-2007, top 12 countries

Sources: UNODC Country reports, reports of the International Narcotics Control Board on the Implementation of Article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 (1999-2009).

Once again, it appears that the substance was to be trafficked through Tajikistan.⁴²⁴

Background information on individual cases in the Russian Federation is limited, making it difficult to determine routes or destinations. During the general lapse in global seizures between 2004 and 2007, the Russian Federation led the world in acetic anhydride seizures, accounting for approximately 50 per cent of reported global seizures. With seizures declining in most countries, the reasons for this increase are unclear. Although individual seizure data is unavailable, a portion of confiscations in the Russian Fed-

eration appears to be linked to the local production of acetylated opium. An example of this is the seizure of 1,500 litres of acetic anhydride in Voronezh in February 2005, which the dealers were selling for almost US\$300 per litre.⁴²⁵ It was also reported that 10 tons of acetic anhydride were stolen in 2004 and since then, no reports of similar incidents have been made known to UNODC.⁴²⁶ As previously mentioned, early in the decade the Russian Federation had also been a source for acetic anhydride destined to Turkey.⁴²⁷

Groups involved

Given the limited data made available to UNODC and the relatively secondary role of the Northern route in acetic anhydride trafficking, little information exists on the nature of chemical trafficking groups in this region. A first point is that unlike Balkan networks, which have had time to build trafficking capacity to Afghanistan, the Northern route is comparatively more recent, with less entrenched trafficking groups. Second, there was a consensus among interviewed law enforcement agencies in Central Asia that those involved have tended towards specialization and were not involved in processing activities for example. Third, unlike traffickers plying the Balkan and Southern routes, local groups do not appear to be able to access acetic anhydride markets outside their region. Available information on the 2007 10-ton seizure in the Russian Federation indicates a multinational group, which included one naturalized Russian citizen of Afghan descent and several Russian criminal associates.⁴²⁸ In addition to the 10 tons the group had secured, it had reportedly planned to dispatch an additional 300 tons of the substance.⁴²⁹ Such volumes and logistical capacity point to well-organized groups with access to important revenue streams.⁴³⁰ The limited information on the more recent 2011 seizure appears to indicate the involvement of Tajik citizens which is consistent with the targeting of Tajikistan as the transit country to reach Afghanistan. Finally, the 2010 seizure made in Tajikistan of a consignment of the chemical from Kyrgyzstan indicates regional links however, the volumes suggest the involvement of smaller entrepreneurs.⁴³¹

⁴²⁵ "Police seize large stockpile of drug components in central Russia", BBC monitoring, 8 February 2005.

⁴²⁶ Кузбассинвест.RU, March 2004, www.kuzbassinvest.ru/news.shtml?id=1078981798_2.

⁴²⁷ For example, a seizure of 3 tons of acetic anhydride by Russian authorities made in April 2003 was reportedly linked to this route; International Narcotics Control Strategy Report, 2003; Russian Country Report, March 2004, Bureau for International Narcotics and Law Enforcement Affairs.

⁴²⁸ "Russian police seize large batch of heroin precursor destined for Afghanistan", ITAR-TASS news agency, November 7 2007.

⁴²⁹ Dublin group, Regional Report for Central Asia, June 18 2008, /register.consilium.europa.eu/pdf/en/08/st10/st10843.en08.pdf.

⁴³⁰ In an anecdotal reference to this case, a high-ranking CNPA official evoked a method whereby Afghan businessmen would claim to be involved in the leather business to purchase acetic anhydride in the Russian Federation; Interview with CNPA officials, Kabul, May 08 2008.

⁴³¹ "Копнут дальше, если дойдут руки", MCH online, www.msn.kg/ru/news/30314/.

⁴²⁴ http://www.fskn.gov.ru/includes/periodics/news_all/2011/0425/004712332/detail.shtml.

2.3 GETTING TO MARKET IN AFGHANISTAN

In general terms, major opiate and acetic anhydride routes use the same infrastructure across the borders of Afghanistan. However, the level of inspection of shipments entering Afghanistan is not as thorough as that headed in the other direction. Passive or active connivance on the part of border officials also facilitates acetic anhydride movements.

Much of the recent data from countries neighbouring Afghanistan indicates that acetic anhydride trafficking into Afghanistan takes place with the use of container trucks and the wide usage of mislabeling. The main methods reported to UNODC during the study are outlined below:

- Acetic anhydride mislabeled/disguised as battery acid (western Afghanistan)
- Acetic anhydride mislabeled/disguised as innocuous chemicals or liquids (reported at all borders)
- Acetic anhydride mislabeled/disguised as motor/engine oil (southern and eastern Afghanistan)
- Acetic anhydride mislabeled/disguised as disinfectant (southern and western Afghanistan)
- Acetic anhydride mislabeled/disguised as mineral water (southern Afghanistan) Acetic anhydride disguises as edible oil (eastern Afghanistan)
- Acetic anhydride concealed in car parts, used vehicles, household appliances (southern and western Afghanistan)
- Acetic anhydride concealed inside oil tankers (western Afghanistan)

A combination of field⁴³² and seizure⁴³³ data over the past three years shows that one of the most commonly used stratagems to traffic the substance is to disguise the substance as engine oil. Reconstruction or general construction in Afghanistan also necessitates huge quantities of chemicals, thus creating opportunities for traffickers. Finally, the used car business can and has provided cover for illicit trafficking, particularly through Dubai, but also potentially along the traditional Balkan route.⁴³⁴ The importation of car parts also provides an attractive means of importing acetic anhydride, given that both new and second-hand spare parts are delivered in containers purchased on order by large importers.⁴³⁵

|||||||

432 Drug flows in Afghanistan, UNODC, 2007, p.11.

433 "South Korean police arrest Taliban-linked drug ring", Taipei Times, July 5 2008, <http://www.taipetimes.com/News/world/archives/2008/07/05/2003416563>.

434 Another often mentioned route for the use of the vehicle trade involves importations from Germany through Turkey and the Islamic Republic of Iran and into Afghanistan; see Anna Paterson, "Understanding markets in Afghanistan: a study of the market in second-hand cars", AREU, October 2005.

435 Anna Paterson, "Understanding markets in Afghanistan: a study of the market in second-hand cars", AREU, October 2005, p.20.

Until they reach Afghanistan, consignments of acetic anhydride generally have to follow established transport routes and are therefore more likely to come into contact with border controls. At the border with Afghanistan, trafficking can easily occur using pack mules and even individuals crossing over unguarded borders on foot. Much like opiates, some precursor shipments may get divided into smaller consignments to facilitate transport and minimize losses in case of detection.⁴³⁶ Smaller networks may also opt to import small amounts at a time using other means of transportation. In some cases, these dealers may make use of professional tribal smugglers to bring their shipments into Afghanistan. Other methods include the use of shipment or transportation companies and individual bus or truck drivers,⁴³⁷ knowingly or unknowingly importing the substance. Generally, the transporters do not strictly form part of a criminal group and they carry considerably smaller volumes than what is handled by the larger, better-connected smugglers who can afford to pay the bribes required along the main highways.

Smuggling routes into and through Afghanistan

The following section presents a summary assessment of the border provinces in order to illustrate aspects of processing and cross-border interactions in the context of precursor trafficking flows. The provincial assessment contained therein is therefore not exhaustive and does not include an in-depth analysis of inland provinces with seizure histories.

Eastern and south-eastern regions

Along the Afghanistan-Pakistan border, three decades of conflict have resulted in a closely-knit network of contacts that facilitates trafficking in weapons, timber and drugs or chemicals. Trafficking on the eastern border of Afghanistan is controlled by tribal networks dominated by Pashtuns (mostly criminal elements of the Shinwari and Afridi

Torkham border crossing

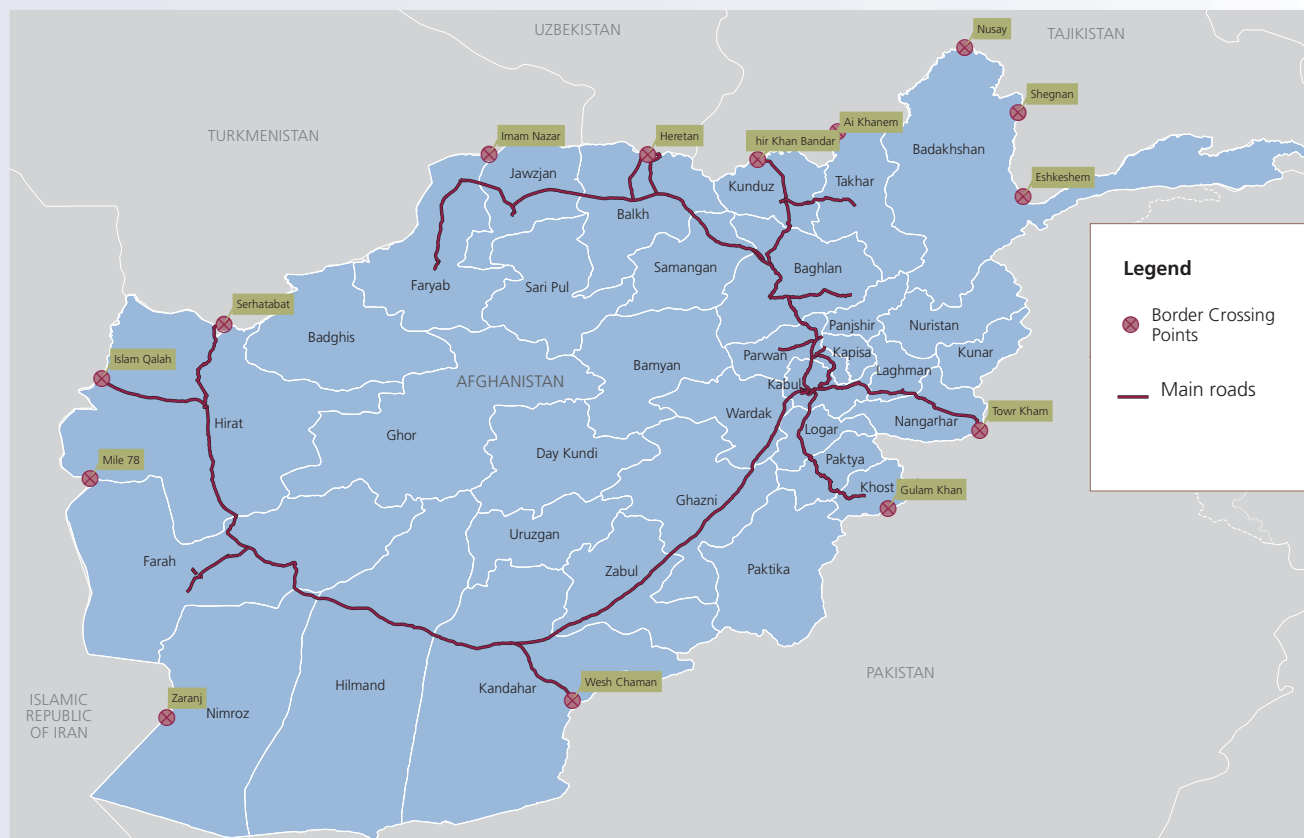


Source: Asian Development Bank.

|||||||

436 Interview DEA Kabul, 2010.

437 This appeared to be the case in November 2009 when Afghan police in Hirat province seized 100 litres of acetic anhydride in a local transport bus coming from the Islamic Republic of Iran.

Map 49: Afghanistan border crossing points

Source: UNODC.

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

tribes). Nangarhar is the keystone province for acetic anhydride trafficking in the eastern region and no precursor trafficking has been reported in the north, in Kunar or Nuristan.⁴³⁸ In the south-eastern region, Paktya province is another major precursor crossing point and Khost may be emerging as an acetic anhydride route into Afghanistan. Further south, Paktika has never reported a chemical seizure of any kind.

Nangarhar

Nangarhar boasts the largest border crossing point in the country -the Torkham border post- which alone accounts for 20 per cent of the customs revenue and 10 per cent of Afghan tax revenue. It is also one of two border points through which ATTA-authorized traffic can cross into Afghanistan. The border is immensely porous and nearly half of the travellers at Torkham have property and/or family links across the border.⁴³⁹

Federally Administered Tribal Areas (FATA)-Nangarhar

The main acetic anhydride route into eastern and south-eastern Afghanistan is through FATA. There is reportedly

some acetic anhydride coming from western Afghanistan to Nangarhar, but no seizure data is available to confirm this. In addition to being processing centres, Nangarhar districts directly bordering Pakistan, such as Dur Baba and Aichin, have been major smuggling routes for decades. In fact, one of the main sources of income for residents on both sides of the border is derived from cross-border smuggling, including in opiates.⁴⁴⁰ Across the border, Khyber agency in FATA acts as a consolidation and forwarding point for precursors. There are at least three drug/precursor markets in the Khyber agency: Landi Kotal (Lwargah), approximately 10 km from the border with Afghanistan, is the most famous precursor/opiate market in the agency; Ali Masjid, which is also located 10-15 km from the Afghan border and lastly Karkhano Market, located between the Jamrud and Peshawar border on the Khyber Pass road. Some traffickers reportedly travel outside the region (Lahore, Islamabad, Faisalabad, Karachi) to purchase chemicals that they then traffic into the Khyber Agency for forward shipment.

Nangarhar has at least 20 unofficial crossing points with FATA, through which precursors and a multitude of other goods (arms, but also timber and gems in the reverse direction) are smuggled into Nangarhar. Across these mountain passes, local smugglers use mules and in some instances simply pack the acetic anhydride on their back and walk it

⁴³⁸ There were anecdotal reports of scattered heroin labs in 2006 in Dokalam (Nuristan), which were fed through Chitral.

⁴³⁹ UNHCR Research Study on cross-border population movement between Afghanistan and Pakistan, June 2009.

⁴⁴⁰ Interview with CNPA Nangarhar, October 2008; Interview with local informants, October 2008.

Map 50: Acetic anhydride smuggling routes into eastern Afghanistan

Source: UNODC.

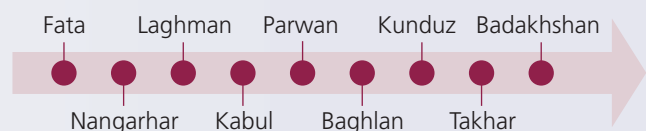
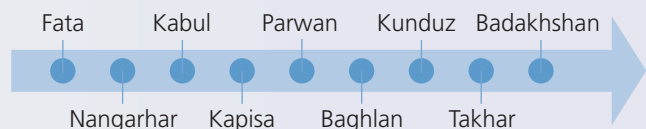
Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

into Afghanistan.⁴⁴¹ Some of these crossings have a government presence, but this has not necessarily curbed smuggling since some officials receive payments or have familial links with traffickers. The price of precursors depends on the transportation cost as well as distance of transport. Small-scale smugglers plying this route charge a flat rate of \$25-30 per litre⁴⁴² for transportation to border districts from Khyber. Some are also provided with money to cover bribes for officials on either side of the border. Most of the chemicals are brought directly to buyers, that is labs on the border, while a portion is reloaded onto vehicles and sent onward to buyers elsewhere. Most freight carriers transport acetic anhydride from Ali Masjid to Achin or Dur Baba district (Nangarhar), a widely used route.

CNPA seizure data and UNODC field research indicate that heroin processing chemicals not destined for processing in the border districts of Nangarhar are transported toward Kabul. Some acetic anhydride consignments are veered off into Laghman province for processing, but most are headed towards the capital city, which essentially acts as a storage and consolidation point for further shipping. Although no labs were dismantled in Kabul in 2008, the city reported the fourth largest amount of chemicals seized

in 2008,⁴⁴³ including a 380-litre incident in Kabul gate in February. From Kabul, acetic anhydride and other precursors generally follow the ring road and travel northward through the Parwan and Baghlan provinces towards Takhar and Kunduz, where some chemicals feed the few local laboratories. The final destination of most acetic anhydride trafficked along this route are laboratories in Badakhshan.

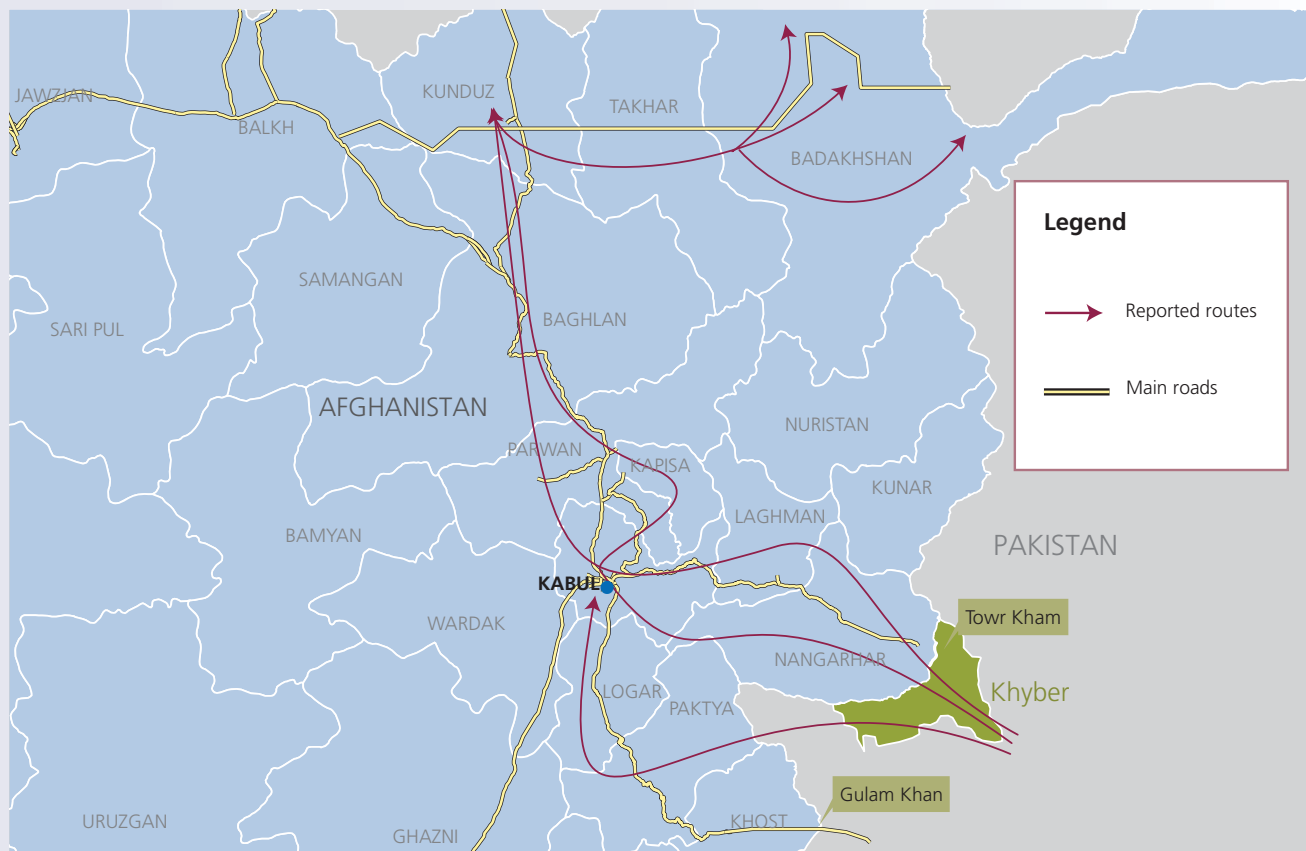
Transporting acetic anhydride across Afghanistan is not cheap; specialized freight carriers charge approximately US\$100 for transportation from eastern Afghanistan (Nangarhar) to north-eastern Afghanistan (Badakhshan). This appears to be a steady and regular supply that increases

Fig. 51: Acetic anhydride route 1**Fig. 52: Acetic anhydride route 2**

⁴⁴¹ Interview with UNODC officials, Nangarhar, October 2008.

⁴⁴² Interview with ABP intelligence head, January 2010.

⁴⁴³ "Opiate and precursor seizures in Afghanistan 2008", UNODC, 2009

Map 51: Acetic anhydride smuggling routes in eastern and southeastern Afghanistan

Source: UNODC.

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

slightly during the summer due to the later harvest in Badakhshan. Over the years, several seizures testify to the use of the east to north-east corridor.

- In 2004, a routine search of a truck entering Kabul revealed 375 litres of acetic anhydride travelling from Jalalabad.
- In January 2006, over 400 litres of acetic anhydride were seized on the route from Kabul to Baghlan heading to Kunduz and further to supply laboratories in Badakhshan.⁴⁴⁴ Later that month, 925 kg of unspecified precursor chemicals sourced in Shinwar district of Nangarhar were seized in Baghlan (Doshi district), also headed for Kunduz.
- In May 2008, over 3 tons of chemicals (2,230 kg of ammonium chloride, 737 kg of sodium carbonate and 124 kg of activated carbon) were seized in Kabul. The truck had allegedly crossed into Nangarhar and was headed to Kunduz.
- In July 2008, 480 litres of acetic anhydride mislabeled as hydrogen peroxide 'made in Pakistan' were seized in Kabul; no further details on this seizure were made available.
- In September 2010, 840 litres of acetic anhydride were seized in Badakhshan province. The shipment had been sent from Kabul concealed in cement and was be-

ing transported to the Baharak district of Badakhshan when it was seized in the provincial capital.

There are no reports or seizures of acetic anhydride being transported southward from Nangarhar, a route, which would add significant costs and complications for southern processors.

Southeast: Paktya, Khost, Paktika, Ghazni

South of Nangarhar, Paktya province also appears to be a major trafficking point for heroin precursors, seizing over 50 tons of different precursors in 2006-2007. In 2008 Gardez, the capital of Paktya, was the scene of a 2.3-ton seizure of acetic anhydride. That seizure followed similarly large confiscations of acetic anhydride in 2006 and 2007, apparently crossing from Pakistan by truck.⁴⁴⁵ The topography of the border region would seem to make large-scale precursor trafficking challenging; yet, Paktya appears to be an established branch of the trunk route in Pakistan that feeds Nangarhar.

No laboratories were dismantled in Paktya in 2008; however, based on law enforcement feedback and seizure data,

⁴⁴⁴ CNPA seizure database.

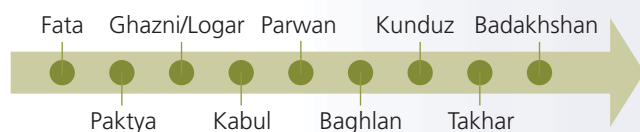
⁴⁴⁵ Of particular interest is a 2007 seizure of 26 tons of acetic anhydride in the provincial capital Gardez. CNPA reports this seizure as 26 tons of 'unidentified chemicals and acids' although the customs mobile units who carried out the seizures repeatedly confirmed they had positively identified acetic anhydride before handing the case over to CNPA.

it appears that a portion of precursors entering Paktya is directed northward to Nangarhar, while the bulk joins flows heading for the northeast. Regarding the latter route, shipments are linked with the main ring road (or adjacent secondary roads) in the provincial capital Gardez, before continuing to Logar or Ghazni to Kabul and further to laboratories located in the north-eastern provinces. A number of major seizures in Paktya supported this premise, including a 2.3-ton confiscation of acetic anhydride in 2006. The acetic anhydride shipment, which included other precursor chemicals,⁴⁴⁶ was seized in a truck that had crossed from the neighbouring Kurram Agency⁴⁴⁷ and was being transported to Badakhshan through Takhar province.⁴⁴⁸ Other seizures from the past two years indicate the continued importance of Paktya and its capital Gardez as a transit point for onward trafficking of acetic anhydride:

- In May 2006, 20 tons of unidentified chemicals and 6,670 kg of unknown acid were seized in Gardez.
- In January 2008, 4 tons of chemicals (2,310 litres of acetic anhydride and 1,960 kg of ammonium chloride) were seized in Gardez.

Paktya borders Ghazni province, whose significance to trafficking between south-eastern and northern/eastern Afghanistan is a result of the ring road crossing the province. Some precursors seized in neighbouring Paktya province were likely intended to transit Ghazni, although Ghazni's role in processing remains unknown.⁴⁴⁹ Some chemicals crossing into Paktya are reportedly destined for other provinces (Wardak, Uruzgan and Zabul), but most quantitative and qualitative information seems to testify to the importance of north-eastern shipments. There may also be minor flows from Paktya to the south, although there is no seizure data to substantiate this.

Fig. 53: Acetic anhydride route 3



UNODC information suggests that direct entry to Paktya province continues to be the preferred route in this part of Afghanistan. At the same time, the province of Khost located south of Paktya is also punctured by dozens of passes and trails and it is possible that acetic anhydride moving through Paktya first transited Khost. On one occasion, a multi-ton shipment was carried across the south-eastern border by pack animals, then loaded onto a truck in

⁴⁴⁶ The seizure consisted of 900 kg of ammonium chloride, 2320 litres of acetic anhydride and 165 kg of carbon.

⁴⁴⁷ The Kurram Agency borders Nangarhar province of Afghanistan in the north-west and the Khost and Paktia provinces of Afghanistan in the south-west.

⁴⁴⁸ Pajwok News Agency, May 2006.

⁴⁴⁹ "Opiate and precursors seizures in Afghanistan 2008", UNODC, 2009, p.27.

Afghanistan. Khost has a comparatively developed infrastructure including an official truck crossing at the Ghulam Khan border point. Only one seizure of acetic anhydride was recorded in Khost, in May 2010, but it was a very significant incident involving 6.5 tons of the substance.⁴⁵⁰ Additionally, a massive 10,000-litre seizure in northern Balkh province in August 2009 was reported as having crossed from Khost province,⁴⁵¹ indicating perhaps the emergence of a new acetic anhydride sub-route into Afghanistan and again confirming the importance of the east to north-east precursor route. Further south, Paktika has not reported precursor seizures since CNPA record keeping began. Although Paktika also has numerous unofficial crossings handling dozens of vehicles a day, UNODC information suggests that Paktika is not a significant acetic anhydride crossing point.

Nangarhar seems to dominate the central, south-east and eastern regions in processing activity, with Laghman province a distant second. In Nangarhar, this takes place particularly in the remote border areas of Achin, Nazyan, Door Baba, Lal Pura, Khogyani, Sherzad and Gohsta districts.⁴⁵² It is there that law enforcement control is weakest, while government presence is virtually non-existent across the border in FATA. Laboratories in this region do not function year round -although there are certain periods of heightened activity around harvest time- and usually produce based on demand and specific orders from traffickers. Over the past few years, interdiction fears have forced processors into mobile underground facilities, which could be as simple as the courtyard of a private home. Laboratory owners usually purchase acetic anhydride in small amounts, based on their daily or weekly needs and no stockpiling has been reported.⁴⁵³ Laboratories in the region typically manufacture morphine and several grades of heroin, including white heroin hydrochloride.

North, north-western and north-eastern Afghanistan

The north-western and north-eastern regions of Afghanistan border the Central Asian countries of Uzbekistan, Tajikistan and a large section of Turkmenistan, with the nature of the border zone varying from country to country. The Uzbek and Tajik borders are marked by the Amu Darya river, while the area around the Turkmen border is mainly desert. There are more than eight official crossings with Central Asia including two river ports:

- Hayraton (Balkh province of Afghanistan - Sukhanraya province of Uzbekistan)
- Sher Khan Bandar (Kunduz province of Afghanistan - Khatlon province of Tajikistan).

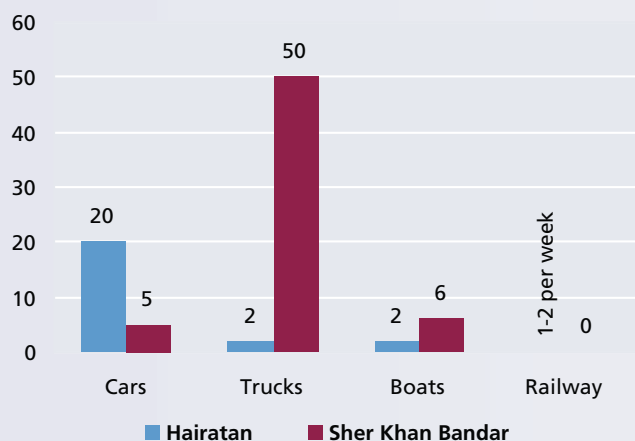
⁴⁵⁰ TARCET database.

⁴⁵¹ Information provided by CNPA Balkh, November 2010.

⁴⁵² Interview CNPA Nangarhar 2010; UNODC drug flow survey (2007).

⁴⁵³ Interview CNPA Nangahar; Interview with Nangahari lab owners, January 2010.

Fig. 54: Daily border crossing volumes by means of transportation (Hairatan and Sher Khan Bandar), 2008



Source: Asian Development Bank.

These two ports are the primary crossing points in terms of trade volumes and infrastructure. They are also potentially the most important gateways for landlocked Central Asia, providing connections to the seaports of Karachi and Bandar Abbas, among others. The range of products exported from Afghanistan to Tajikistan and Uzbekistan is limited, mainly consisting of raisins, potatoes and cement. Imports seem to consist mostly of oil and oil products.

Although this section of the Afghan border enjoys strong ethnic and cultural ties with Central Asia, with regard to heroin chemicals, the most important relationship appears to be with Pakistan and eastern Afghanistan. As mentioned previously, most chemicals in the north and north-east appear to be smuggled from FATA into Nangarhar before heading to Kabul towards Balkh, Kunduz, Takhar and ending in the laboratories of Badakhshan. There are also occasional small inflows from Chitral (Pakistan)⁴⁵⁴ in the summer months, often using pack animals. Interestingly, according to interviews with law enforcement officials in Badakhshan, during the 1990s most acetic anhydride was also transiting Chitral and not, as perhaps expected, Central Asia. CNPA officials in north-eastern Afghanistan also note that a limited amount of acetic anhydride comes from southern Afghanistan and is transported through Kabul and into the Kunduz-Takhar-Badakhshan corridor.⁴⁵⁵ Similarly to the eastern region, laboratories in the north, north-west and north-east are usually not permanent fixtures. Most laboratories operate in Badakhshan province with the remainder scattered in Takhar, Kunduz, Balkh, Faryab and Baghlan.

North and north-west – selected provinces: Faryab, Balkh

The Balkh transportation network is excellent by Afghan standards and includes the best road link between Kabul

and Central Asia. Three seizures were reported to CNPA in Balkh between 2006 and 2007, including a 1.6-ton confiscation of unknown acids and other chemicals in Mazar-I-Sharif in April 2007; the source of those seizures was not identified. In August 2009, a huge 10,000-litre seizure of acetic anhydride was reported in Balkh. According to CNPA information, it was transported through Khost province into Kabul towards Balkh. Its final destination was reportedly the north-east (Kunduz, Takhar and Badakhshan provinces).⁴⁵⁶

According to field information, there was limited laboratory activity in Balkh in 2009. Balkh receives acetic anhydride from the east and a smaller inflow from the south, most of which is forwarded on to Kunduz and further to Badakhshan. There are no reports of acetic anhydride being smuggled from Central Asia and the Uzbek side of the official Hainatan crossing is relatively well run. Conversely, precursor networks may find it convenient to use the better-developed infrastructure of Hainatan, as perhaps suggested by a seizure of acetic acid in Uzbekistan during Operation TARCET in 2008.

Faryab has a road crossing with Turkmenistan at Akina/Imam-Nazar. This was previously in poor repair, but in recent years the Turkmen Government has invested heavily in this infrastructure and licit traffic flows are increasing. Irregular crossings in and out of Faryab have always occurred, facilitated by ethnic links into eastern Turkmenistan. In 2008, some precursors were reportedly transported across this border into Faryab.⁴⁵⁷ UNODC sources indicate that up to 8 labs were active in 2009-2010, all in the Kohistan district. Criminal groups in this district have close ties with networks in Hilmand province and, as in Balkh, Faryab is reported to receive a portion of its acetic anhydride from southern Afghanistan. Finally, the province has become increasingly insecure, with predictable effects on law enforcement.⁴⁵⁸

North-east – selected provinces: Kunduz, Takhar, Badakhshan, Baghlan

Baghlan sits on a transportation fork, with the well-developed Balkh-Kabul road heading north-west and direct links to Takhar and Kunduz going north-east. Many precursor shipments are transported along this route through the province, but few seizures were reported in 2008, apart from 2,281 litres of unknown chemicals in a single incident in the provincial capital; UNODC has no data by which to assess the significance of this incidence. Heroin-processing labs were located in Tala wa Barfak district in 2007 and UNODC has reports of limited laboratory activity in Baghlan in 2009, including one in Tala wa Barfak.

⁴⁵⁶ Interview CNPA Balkh, December 2010.

⁴⁵⁷ "Opiates and precursors in Afghanistan 2008", 2009, p. 22, UNODC.

⁴⁵⁸ In early 2009, the Governor of Faryab decided that no eradication effort would be made, citing security concerns.

⁴⁵⁴ This rarely-used route runs through the Shah Salim corridor in Zebak district which doubles as a small opiate route to Garma Chishma of Pakistan.

⁴⁵⁵ Interview, Badakhshan, April, 2010.

Further north, Kunduz province borders Tajikistan in three districts (Qala-e-Zal, Imam Sahib and Archi) and hosts the Sher Khan Bandar crossing over the Pianj river. Although a reported route for opiates, the port had also previously been mentioned as the only Central Asian conduit for heroin chemicals in the UNODC 2007 drug flow study.⁴⁵⁹ While no evidence of seizures has emerged, the bridge's forecasted capacity of several hundred vehicles per day and direct connection to Kunduz city and the ring road could potentially be misused for chemical movements. In 2009, little laboratory activity was identified in Kunduz; UNAMA⁴⁶⁰ sources reported some limited processing in the Imam Sahib district and provincial CNPA reports only 100 litres of acetic anhydride seized with no laboratory destructions.⁴⁶¹

Moving eastward along the border, Takhar province is also a transit point for the eastward acetic anhydride flows to Badakhshan. Additionally, according to 2010 field research there is a possibility that Takhar intermittently receives some precursors from Tajikistan as well.⁴⁶² According to 2009-2010 UNODC field research, there is some limited heroin manufacturing in Takhar.⁴⁶³ As in Kunduz, these are small mobile facilities, manufacturing at most 5 kg per day. The seizure of small quantities of ammonium chloride and acetic anhydride in 2008 could be taken as a sign of processing activity, but it seems equally likely that these were in transit to Badakhshan. In 2009, Takhar was the only north-eastern province to seize acetic anhydride, with 480 litres seized in January.

Traditionally a heroin manufacturing area, Badakhshan is the longest gateway to Tajikistan. Nine districts of Badakhshan have a border with Tajikistan⁴⁶⁴ and there are three official border crossing points or bridges with Tajikistan in Badakhshan province: Nusay, Shegnan and Eshkashem. In 2007, there were reportedly as many as 100 heroin laboratories in Badakhshan,⁴⁶⁵ but most were destroyed during operations. In 2008 CNPA reported the destruction of 15 heroin labs and the following year 12 lab destructions were reported.⁴⁶⁶

CNPA officers, UNAMA sources and UNODC field research consistently report that Badakhshan laboratories seem to specialize in manufacturing white heroin, necessi-

tating large volumes of hydrochloric acid, or an analogue.⁴⁶⁷ This seems to square with consistent reporting that north-eastern opiates are considered to be of high quality and are used to cut lower-quality products. This is not, however, reflected in the province's seizure data, which does not document a single case of hydrochloric acid seizure. Indeed, despite sustained processing in the province since the 1990s, most seizures have been small in volume and have consisted of unidentified chemicals or non-controlled precursors.⁴⁶⁸ Since CNPA record keeping began in 2003, Badakhshan has reported exactly two seizures of acetic anhydride: 40 litres in September 2008 and 840 litres in September 2010. Such low seizures, despite continuous processing activity and comparatively good security, highlight deficiencies in counter-narcotics law enforcement.

Western region

The western region is characterized by rising insecurity in Hirat and Baghdis and low Government presence in the key provinces of Farah and Nimroz. It also straddles the largest drug route out of Afghanistan, along the Balkan route to Europe. Most acetic anhydride in this region transits the Islamic Republic of Iran and, in some instances, continues towards southern Afghanistan.

Baghdis

There is consistent reporting that opium from Badghis usually has low morphine content and is therefore rarely used to manufacture heroin. However, there have also been suggestions that laboratories may be operating in the districts of Murghab and/or Jawan, respectively situated on western and eastern borders of Badghis. Security in Badghis deteriorated in 2008-2009 and the government's influence has become increasingly constrained. No chemical seizures were ever officially reported in the province, but UNODC information from Badghis suggests that small-scale precursor smuggling from Turkmenistan occurs using pack animals. Noting the higher prices of precursor chemicals in recent times, this method has likely become more profitable, although it is still likely dwarfed by mislabeled and hidden chemicals that arrive via legal crossings in Faryab (north-west region) and especially Hirat.

Hirat

Hirat province borders both the Islamic Republic of Iran and Turkmenistan. The Iranian border crossing point is Islam Qala. According to 2009 data, Islam Qala reportedly processes on average 335 vehicles a day,⁴⁶⁹ of which approximately 98 per cent are trucks.⁴⁷⁰ On average 170 vehicles cross the border from Afghanistan toward the Islamic

459 "Monitoring of drug flow in Afghanistan", UNODC, 2007, p.11.

460 United Nations Assistance Mission for Afghanistan.

461 CNPA report, March 2009- March, 2010.

462 Multiple interviews with drug traffickers, lab owners and CNPA; Badakhshan province, April 2010.

463 These were reportedly operating in the districts of Rustaaq, Dashti Qala, Yangi Qala, Khwaja Ghar and perhaps Samti. Although there were no reports of processing in Takhar the previous year; UNODC, "Opiate and precursor seizures in Afghanistan", 2008, p.20.

464 Wakhan, Eshkashem, Shegnan, Mahimai, Nusai, Shekai, Kofab and Shahr-e-Buzarg.

465 Interview, CNPA Badakhshan, April 2010.

466 Labs were reportedly active in the districts of Kishem, Warduj, Argo, Darayem, Tishkan, Baharak, Jerm, Khash, Ragh, Faizabad city.

467 UNODC Field mission to Badakhshan, April 2010, October 2010.

468 CNPA database.

469 Data provided by Afghanistan Customs Directorate; 2009.

470 Information provided by international Mentors based in Islam Qala, October, 2009.

Republic of Iran and 165 vehicles travel from the Islamic Republic of Iran to Afghanistan. According to a 2008 study conducted by the World Bank in cooperation with UNCTAD, 85 per cent of trucks entering through this crossing are Iranian, 70 per cent of which arrive from the Bandar Abbas seaport in the southern part of the Islamic Republic of Iran. Traditionally, strong cross-border relations with the Islamic Republic of Iran were further reinforced by the back and forth movement of refugees across the border.⁴⁷¹

As well as the Iranian crossing point of Islam Qala, Hirat has a rail and road link with Turkmenistan through Torghundi. In the past, this was the location of large acetic anhydride seizures, which have not occurred now for nearly a decade. According to sources, small amounts of precursors, originating in the Islamic Republic of Iran, are trafficked through this border, although this account also remains anecdotal. Torghundi is also of lesser commercial importance than Islam Qala, processing 10-30 vehicles on any given day.⁴⁷²

Considering the amount of acetic anhydride purported to be crossing into Hirat, there were negligible seizures in Hirat in 2008, with only 16 kg of unidentified precursor chemicals seized. The largest seizure in the past five years involves 369 litres of hydrochloric acid in Hirat city in October 2007. Before 2009, the sole example of an acetic anhydride sighting concerns a 2004 seizure reported in the media, involving 100 litres of the substance seized in a private house in Hirat; this said, the seizure does not figure in CNPA databases.⁴⁷³ Significantly, drug traders and laboratory operators interviewed in Hirat note no lack of acetic anhydride availability.⁴⁷⁴

As of 2009, laboratory activity was reported in the province, including in Hirat city and the Kushk Kohna, Ghoryan and Kohsan districts. Heroin processors have also been reported using Shindand district, a contested area that borders Farah and is subject to insurgent influence.⁴⁷⁵ However, like most laboratories in western Afghanistan, these are mobile, small facilities that typically produce no more than 10 kg of heroin per day.⁴⁷⁶ The only laboratory dismantled in 2008 was a small-scale facility in Hirat city and UNODC sources have observed the importation of equipment for 'at-home' heroin processing.⁴⁷⁷ Another indication of small-scale processing is that most acetic anhydride

coming into Hirat does not appear to remain in-province, but continues southward to Kandahar and Hilmand province.⁴⁷⁸ As an example, in November 2009 a local transport bus coming from the Islamic Republic of Iran to Hirat was stopped with 100 litres of acetic anhydride. The investigation revealed that the chemical was to be shipped by local transport to a businessman in Kandahar province. According to UNODC research, smugglers charge US\$40-70 for west to south transportation inside Afghanistan.

Farah

Moving south along the western border, the rise in insurgent control in Farah has created an environment conducive to opium poppy cultivation, processing and trafficking. Farah is an entry point for acetic anhydride transported through the Islamic Republic of Iran and, in a perhaps related trend, in recent years it has become a host for heroin processing. The usage of trucks and fuel tankers seems to be the preferred *modus operandi* for precursor trafficking and the Mil-78 (Qala Kah district) crossing appears to be a major thoroughfare.⁴⁷⁹ Sources in Farah described a smuggling method involving 25-litre jerry cans hidden inside hollowed fuel tankers that were then filled with water (and some fuel) and smuggled into the province. Visits by UNODC staff to crossing points on the Afghan side of the border in 2008 and 2010 confirm that commercial truck traffic from the Islamic Republic of Iran continues to be heavy both at legal and illegal border crossings. In that regard, UNODC witnessed a number of large fuel smuggling operations in remote southern Farah, including one involving a very large truck stop in full sight and with the apparent complicity of provincial authorities.⁴⁸⁰

Heroin production in Farah and Hirat provinces peaks immediately after harvest time, when opium prices are lowest. UNODC has identified lab activity in Farah centre, Bakawa, Qala Kah and Bala Bluk districts. Most labs appear to be concentrated in Bakawa district⁴⁸¹ and some are under the control of networks from adjacent Nimroz province.⁴⁸² All this activity translates into very few heroin chemical seizures reported with the exception of two confiscations in October 2007 in Farah city (the capital) consisting of unknown chemicals and 1,250 kg of ammonium chloride.⁴⁸³

Nimroz

Nimroz is located in south-western Afghanistan and borders both the Iranian province of Sistani-Baluchistan (222 km) and the province of Baluchistan (223 km) in Pakistan.

471 "Local Governance and Cross Border Relations in Afghanistan", Center for Development Research, Universität Bonn, 19 September 2006.

472 Interview with international consultant, Hirat, November 2008; Data provided by Afghan customs.

473 "Afghan security forces seize drugs in western city", BBC monitoring, 28 December 2008.

474 Interview drug trader; Interview with lab operator; Hirat city, November 2009.

475 "Opiate and precursor seizures in Afghanistan", UNODC, 2009, p.23.

476 Interview CNPA Hirat; Interview with lab operator; Hirat, November 2009.

477 "Opiate and precursor seizures in Afghanistan 2008", UNODC, 2009, p.23.

478 Interview, Ghoryan Chief of Police, Ghoryan district (Hirat), November 2009.

479 Information provided by the Afghanistan Customs Directorate, June 2008.

480 Information provided by international officials, June 2008.

481 Interview CNPA Farah.

482 Interview, UNAMA analyst, June 2010.

483 CNPA seizure database.

The border with the Islamic Republic of Iran is formed by the Hilmand river, which dries out completely in the summer months. Nimroz also borders two major poppy growing and processing provinces (Hilmand and Farah) and is itself a major processing centre, as evidenced by the destruction of numerous laboratories in 2007.⁴⁸⁴ As of 2010, UNODC has received reports that heroin is being manufactured in the districts of Khashrod, Chahrburjak, Delaram, Zaranj (mainly the Deh Maldaran area). Most labs in the province appear to be concentrated in Khashrod district, which straddles the ring road.⁴⁸⁵

As stated above, Nimroz is a major trafficking hub, straddling some of the most important drug routes out of Afghanistan and into Pakistan and the Islamic Republic of Iran. The border with Pakistan is largely desert and isolated, forming one giant illegal crossing point. The Robat area at the junction of the borders of Pakistan, Afghanistan and the Islamic Republic of Iran is also a major drug and precursor trafficking route that is under the control of Anti-Government Element (AGE) groups.⁴⁸⁶ The precursor route from the Islamic Republic of Iran through Nimroz and into Helmand is well worn and there are reports that the Taliban provide protection to some acetic anhydride shipments moving through this route. Trafficking from Hirat travels south, along the route: Hirat-Farah/Nimroz - Helmand or Kandahar).

There is one official crossing point in Nimroz, the Milak-Zaranj bridge over the Parian river bordering Sistan-Baluchistan province in the Islamic Republic of Iran. On average, 90 transit trucks - inbound and outbound - cross the bridge on a daily basis.⁴⁸⁷ This crossing has for years been suspected as a major entry point for acetic anhydride, but only in 2010 has this been supported by evidence. In December, 2010 a shipment of 86 plastic containers totaling 3457 kg was seized by Afghan Customs at the crossing.⁴⁸⁸ However, perhaps the most important smuggling point in the province is the unofficial Robat I Jali⁴⁸⁹ (Chahar Burjak district) crossing, located 200 km south-west of Zaranj. This isolated crossing sits on the corner of Pakistan and the Islamic Republic of Iran and doubles as a major smuggling route for narcotics.⁴⁹⁰ There is also an undeter-

Milak-Zaranj bridge in Nimroz province



Source: UNODC

mined number of other unofficial crossing points on the Nimroz section of the Iranian border.⁴⁹¹

One commonly reported smuggling route is a river port named Korki (Kang district), which is reportedly used extensively when the river dries up. This port is also used for legitimate trade, particularly imports of liquefied gas.⁴⁹² Nimroz traders interviewed for this research underscored the complete lack of police presence in the area of Korki and the heavy smuggling taking place there. In many areas along this border, smuggling has been a way of life for centuries. As one Nimroz trader put it, “where we have houses or small villages near the border we have smuggling for sure”.⁴⁹³ Iranian authorities have reportedly finalized construction of a wall along the border with the Kang district in Nimroz province, ostensibly to prevent drug smugglers from slipping into the Islamic Republic of Iran.⁴⁹⁴

In terms of trade, Nimroz is most closely linked to the Islamic Republic of Iran and is dependent on Iranian currency, locally called Toman. The continued development of trade links with the Islamic Republic of Iran may provide further opportunities for precursor traffickers to blend in with licit traders; furthermore, the numerous smuggling routes on the Iranian border (particularly in Farah and Nimroz) also have a strong potential to be used by acetic anhydride traffickers. Border control remains a tremendous challenge and would benefit greatly from strong trilateral cooperation.⁴⁹⁵

⁴⁸⁴ UNODC, Afghanistan: Opium poppy free roadmap and provincial profiles, June 2008, www.unodc.org/documents/regional/central-asia/Blue_Opium%20Poppy%20Roadmap-Work%20in%20Progress_June08.pdf.

⁴⁸⁵ There may be other drugs being processed in Nimroz labs, military lab interdictions in 2009 found evidence of methamphetamine production.

⁴⁸⁶ Interview CNPA Kandahar, 17 December 2009; Interview UNAM Kandahar, 18 December 2009.

⁴⁸⁷ Interview, Director of customs, Nimroz, March 2010.

⁴⁸⁸ Information provided by the UNODC country Office in Afghanistan, May 2011.

⁴⁸⁹ Information provided by UNAMA 2008; interview with United Nations officials, September 2008.

⁴⁹⁰ This route has a long history and was widely used by the Afghan Mujahideen during the war against the Soviet Union. It was identified early on by Alain Labrousse in his work “La drogue, l’argent et les armes”, (Paris: Fayard, 1991), p.125.

⁴⁹¹ Including Bazaar Mushtarak, Godar Samad, Gudar Khoaja, lakari in the Zaranj district; Haji Jan, Neshkoshi, Sharshila, Talaie and darvishok in the Kang district and Khujah Ali in the Charburjak district; see Institute for Afghan Studies, Afghanistan’s International Trade Relations with Neighboring Countries, 2001, www.institute-for-afghan-studies.org/Afghan%20Reconstruction/Economy/intltrade.pdf; personal communication with traders in Nimroz, June 2008.

⁴⁹² “Nimroz custom revenue up”, www.onlinenews.com.pk/details.php?id=133522.

⁴⁹³ Interview, June 2008.

⁴⁹⁴ Amin Tarzi, “Kabul mulls relations with Iran”, Radio Free Europe, March 16 2007.

⁴⁹⁵ “Opiate and precursors seizures in Afghanistan 2008”, UNODC, 2009.

Southern region

In Afghanistan, opium production and processing are concentrated in the southern provinces, such as Hilmand and Kandahar, where the insurgency and lack of Government control provide the ideal cover for these illicit activities. Heroin labs are located in the following districts of Hilmand province: Nad e ali, Marja, Musa Qala, Sangin, Garmser and Dishu. The southernmost Dishu district, it appears, houses the largest concentration of laboratories.⁴⁹⁶ In Kandahar, heroin labs (mostly mobile) appear to be concentrated in Maiwand, Spin Boldak, Ghorak, Panjwayi and Nish districts.

In this region, Pashtun and Baluch networks control both the drug and precursor trade. Most bulk shipments of acetic anhydride come from the southern border with Baluchistan province in Pakistan, but a significant number of small shipments are sent from western Afghanistan into Hilmand province. The south does not seem to receive acetic anhydride from eastern Afghanistan. This is logical since, from the perspective of southern Afghan drug processors, receiving acetic anhydride through that region has additional costs and complications, as the chemicals must then be transported through eastern and central Afghanistan back down to southern laboratories.

Kandahar

Kandahar has a 450-km border with Baluchistan in the south and south-east and borders the Afghan provinces of Zabul in the north-east, Oruzgan in the north and Hilmand in the west. The province has one official crossing point at Spin Boldak, considered the second most important port of entry into Afghanistan, after Torkham. In December 2009, customs at Spin Boldak estimated that on average 300-350 vehicles cross the border from Pakistan (almost all commercial trucks) and 20-25 vehicles are directed to Pakistan daily.⁴⁹⁷

Kandahar city is a main road junction, strategically situated along the trade route extending from Karachi in the south and from the Islamic Republic of Iran and Turkmenistan in the west to Kabul. Notably, Spin Boldak district in Kandahar was the location of the largest acetic anhydride seizure in 2008, with 7,500 litres destined for Hilmand province confiscated in a single incident. In 2010, Kandahar was again the site of a major acetic anhydride seizure. In May, police in Spin Boldak seized 4,590 litres of acetic anhydride, along with 2,100 kg of the explosive precursor ammonium nitrate and 1,775 kg of ammonium chloride.⁴⁹⁸ The 2008-2010 period contrasts sharply with previous years, which saw few precursor seizures in the province

particularly from 2003 to 2007.⁴⁹⁹ Insurgent-linked insecurity likely accounts for such negligible seizure numbers between 2004 and 2007, as do limited local data collection and reporting capacity.

Hilmand

Hilmand is at the core of the global trade in Afghan opiates. In addition to being a big producer of opium, Hilmand is also the location of large, fixed heroin processing facilities, such as the ones found in the village of Baramcha, which straddles the border between Afghanistan and Pakistan. This remote area is a major entry point for precursors and one of the most insecure areas in Afghanistan.⁵⁰⁰ Despite having the largest concentration of drug laboratories in Afghanistan, until 2008 only one 4-litre seizure of acetic anhydride was reported to CNPA. Hilmand, however, seized 15.5 tons of ammonium chloride in 2006-2007, almost half the total amount seized in Afghanistan.⁵⁰¹ A more informative case, which does not appear in the CNPA database, concerns the apprehension of over 200 litres of acetic anhydride in July 2007 in the Nadali district.⁵⁰² A year later, the same district was the site of the only acetic anhydride seizure made in Hilmand in 2008, consisting of an 80-litre seizure made in February. It should be noted that over 20 tons of various precursor chemicals and 'unknown acids' were also seized in Hilmand during the 2003-2007 period, but the proportion of acetic anhydride remains unclear. Although most precursor seizures are made in the vicinity of laboratories in northern Hilmand (Musa Qala, Sangin, Lash Karga and Nadali), Afghan law enforcement also reported two seizures in March 2007, following lab interdiction operations in Baramcha (Dishu district) along the border with Pakistan. Alongside military forces, significant law enforcement resources are devoted to Hilmand, although they operate in a difficult environment that includes not only regular bribery, but also constant physical threat. In 2009 and in testament to the particularly dangerous conditions in the province, approximately 20 tons of acetic anhydride were seized in ISAF-assisted operations in Hilmand - more than the country's total acetic anhydride seizures in 2008 (the highest year since 2003)⁵⁰³ and a huge increase over the seizures made in that particular province in 2008.

Groups involved

Criminality in Afghanistan spills over into neighbouring states with many traffickers having multiple citizenships

⁴⁹⁹ The earliest one, only reported in local media, consisted of 170 kg of unknown chemicals seized in a vehicle in Kandahar city. Official seizure data accounts for 30 kg of unknown chemicals in the Zari district in December 2004. Only two other seizures were reported before 2008, both in March 2007 in the capital Kandahar consisting of 670 litres of unknown acid.

⁵⁰⁰ Phone interview with Nimroz ABP official, 14 September 2008.

⁵⁰¹ CNPA database.

⁵⁰² Along with 2 tons of ammonium chloride; Information provided by UNODC Kabul.

⁵⁰³ ISAF seizure database.

⁴⁹⁶ Interview, June 4-6 2010, Kabul, Afghanistan.

⁴⁹⁷ Interview, Director of Customs, Kandahar, 18 December 2009.

⁴⁹⁸ CNPA.

and often not actually residing in Afghanistan itself. In and around Afghanistan, criminal activity can be roughly divided into two broad and sometimes overlapping categories: locally operating independent dealers and regional drug syndicates, most of which benefit from political connections. The method for transferring the chemicals inside Afghanistan depends on the network's importance and connections.

The largest shipments are brought in directly across major crossing points by politically connected opiate networks. These are usually the largest and best-established traffickers who have integrated their own precursor supply lines and are in many cases connected to high-ranking officials. Examples of drug syndicates integrating precursor supply lines include the recently sentenced Haji Khostel⁵⁰⁴ and Haji Abdullah - both operating along the western border of Afghanistan in Nimroz province - and Haji Baghcho, who was based in eastern Afghanistan.⁵⁰⁵ However, in general terms, this kind of overlap is less obvious in the east than in the south and west of the country.⁵⁰⁶ In some cases, public officials themselves are involved in trafficking; the March 2010 conviction of a CNPA commander in Balkh province for acetic anhydride trafficking is a clear example of this. Another example of the latter concerns a network that reportedly controls the Spin Boldak crossing in southern Afghanistan and allegedly uses it to traffic opiates and smuggle shipping containers filled with acetic anhydride diverted in China.⁵⁰⁷

In Afghanistan, most precursor traffickers are often local businessmen or traders who also smuggle other goods into Afghanistan (such as oil from the Islamic Republic of Iran), with acetic anhydride just acting as another 'grey market commodity' to tap into. Afghan intelligence officers advanced that some traffickers were directly involved in the car oil or construction business, which provides a cover for importing chemicals and other liquids. Few appear to specialize solely in precursors trafficking, as 2007 research by UNODC seems to also indicate.⁵⁰⁸ Thus, in Afghanistan the precursor trade closely mimics the dynamics apparent in licit trade.

At the retail level, most traders appear to be long established; for instance, one lab owner interviewed by UNODC had dealt with the same supplier for 15 years. In a similar fashion, such suppliers appear to have a fixed long-standing

circle of buyers that is, lab owners. These locally-operating, independent dealers can traffic as little as a few dozen litres a week to laboratories across Afghanistan. In some cases, their supply comes from the aforementioned larger networks in the country.

According to multiple sources, the higher acetic anhydride prices in Afghanistan have provided incentives for more players to enter the trade; this may include elements of the Afghan insurgency.⁵⁰⁹ Indeed, with rising prices and the long-term concentration of insurgents and processors in a few provinces, there are increased opportunities for direct insurgent involvement and entry into the supply chain, including in acetic anhydride procurement.

Laboratories, capacity and the price of processing

Heroin production is often a simple process, without the need for complex technology or technical training. Correspondingly, heroin laboratories are not large industrial facilities, but fairly rudimentary constructions that can be contained within one or two rooms of any given compound. Equipment generally consists of several large barrels or enamel containers, several basins, a pressing machine, a heat source (diesel generator, firewood) and the raw material - opium. Beyond that, the only prerequisite is access to a water source (rivers or wells). Facilities are usually temporary in nature and many are located near unofficial border crossing points for ease of smuggling.

From opium production to heroin production

The transition to heroin manufacture inside Afghanistan occurred incrementally. In the 1980s and 1990s, Turkey was a major processor of Afghan morphine. During that same period, a number of refining laboratories operated in FATA in north-western Pakistan. In 1994, as many as 100 labs with an estimated heroin production capacity of 70 tons per year were believed to be operating in that region.⁵¹⁰ The country's initial refining operations (mostly morphine production) were located close by, in eastern Afghanistan, near the transport routes to FATA. During the 1990s, these spread gradually into other opium-producing areas in the south-eastern and north-eastern regions. During this same period, opium seizures in countries neighbouring Afghanistan decreased and smuggling of acetic anhydride to Afghanistan increased, including huge multi-ton shipments through Central Asia. The years that followed saw processing become increasingly concentrated in Afghanistan, making the entire trade far more lucrative for local traffickers, as refined products are much more profitable. Today, taking into account that Afghan opium accounts for up to 85 per cent of global heroin manufacture, it is reasonable to assume that most processing occurs in Afghanistan. In

⁵⁰⁴ According to INSCR 2010 "Investigators obtained evidence linking Khostel to the trafficking of more than 1,700 kg of heroin, 4,100 kg of opium and 2,700 litres of precursor chemicals."; "directly linked by this evidence to 1.7 tons of heroin, 4.1 tons of raw opium and 2.7 tons of heroin processing chemicals".

⁵⁰⁵ Interview CNPA Nangarhar, interview ABP Nangarhar, January 2010.

⁵⁰⁶ AOTP Interview with a drug trafficker and head of Jalalabad CNPA, 2010; Interview with head of Nangarhar CNPA and phone interview with Mazar CNPA deputy, May, 2010.

⁵⁰⁷ Mathieu Aikins, "The Master of Spin Boldak", *Harper's Magazine*, December 2009, pp.59-62.

⁵⁰⁸ Drug flows in Afghanistan, UNODC, October 2007, p.15.

⁵⁰⁹ Interview, Hilmand traffickers and lab owners, Kabul 2009.

⁵¹⁰ US Department of State, International Narcotics Control Strategy Report (INSCR), April 1994.

Heroin laboratory in Kunduz, north-eastern Afghanistan, 2009



Source: UNODC Country Office Afghanistan.

addition to Afghanistan, it should be noted that the only confirmed large-scale heroin manufacture takes place in Myanmar and Latin America (primarily Mexico).

Laboratories in Afghanistan

In recent years, the largest laboratories reported by Afghan authorities were located in the remote areas of southern Afghanistan, particularly the border areas of Hilmand province where Government control is weak and instability is high.⁵¹¹ Some of these include a few fixed, long-term settlements contrasting with the smaller mobile facilities that can be found throughout most of Afghanistan. The south also appears to dominate numerically, followed by western Afghanistan and the processing centres of Nangarhar and Badakhshan.

Lab owners generally purchase the opium from local traders, although some in Hilmand deal directly with the farmers given the low risk of exposure;⁵¹² on the contrary, acetic anhydride is usually distributed by acetic anhydride traders or brought directly to the laboratories by smugglers. According to field data, laboratories generally employ 4-12 workers (usually drug addicts) and one 'chemist' that for the most part simply follows set recipes. Only a minority operating in the country are experienced and knowledgeable cooks, which generally include foreigners from Pakistan, the Islamic Republic of Iran or Turkey.⁵¹³

There are numerous estimates on the number of laboratories in Afghanistan and obvious limitations when attempting to quantify an activity that is by nature hidden. Estimates as to the number of laboratories in Afghanistan range from 100 to 500. At the high end of the range, officials of the Russian Federal Drug Control Service estimated that as many as 500 laboratories were active in Afghanistan

⁵¹¹ In provinces like Hilmand, they are usually near the remaining opium markets.

⁵¹² Interview with Hilmand lab owner, Kabul, June 2010.

⁵¹³ Jon Boone, "Afghan drug lords hire foreign chemists," *Financial Times*, July 28 2008.

in 2010.⁵¹⁴ In 2008, the UNODC survey on drug flows in Afghanistan estimated that at least 97 laboratories operated in the country; however, once again numbers are only indicative⁵¹⁵ due to limited data availability and data collection errors, such as double counting. On the other hand, the accurate number of laboratories destroyed provides a picture of the minimum number of laboratories present in the area. Afghan authorities reported the destruction of 69 similar facilities⁵¹⁶ in 2008,⁵¹⁷ although this represented less than a third of lab destructions reported in 2006.⁵¹⁸ The table below also suggests what may be a worrying trend: despite the reported increase in Afghan law enforcement capacity since 2004, lab interdictions have in fact declined.

Table 32: Heroin lab destructions in Afghanistan, 2004-2009

Year	Number of reported lab destructions
2004	125
2005	188
2006	263
2007	57
2008	69
2009	48

Source: CNPA/MOI Afghanistan.

Most surveys and intelligence-based estimates attempting to quantify laboratory activity begin with supply side estimates. Another method would be to start from the demand side (an estimated 380 tons are produced in Afghanistan to meet global demand) and estimate back to the lab level to calculate the number of laboratories required to manufacture 380 tons of heroin. There are regional divisions with respect to heroin processing and heroin types, but these are not absolute. Not unexpectedly, Hilmand and Kandahar provinces host some large heroin labs that can manufacture 20-40 kg of heroin daily, with some reports claiming even higher outputs. In certain parts of Hilmand, such labs may have as many as 15-20 individuals working at any given time, depending on the security situation (for example, depending on law enforcement pressure) and the orders received from traffickers. It is estimated that the average annual production per laboratory is around 1,300 kg in both southern provinces.

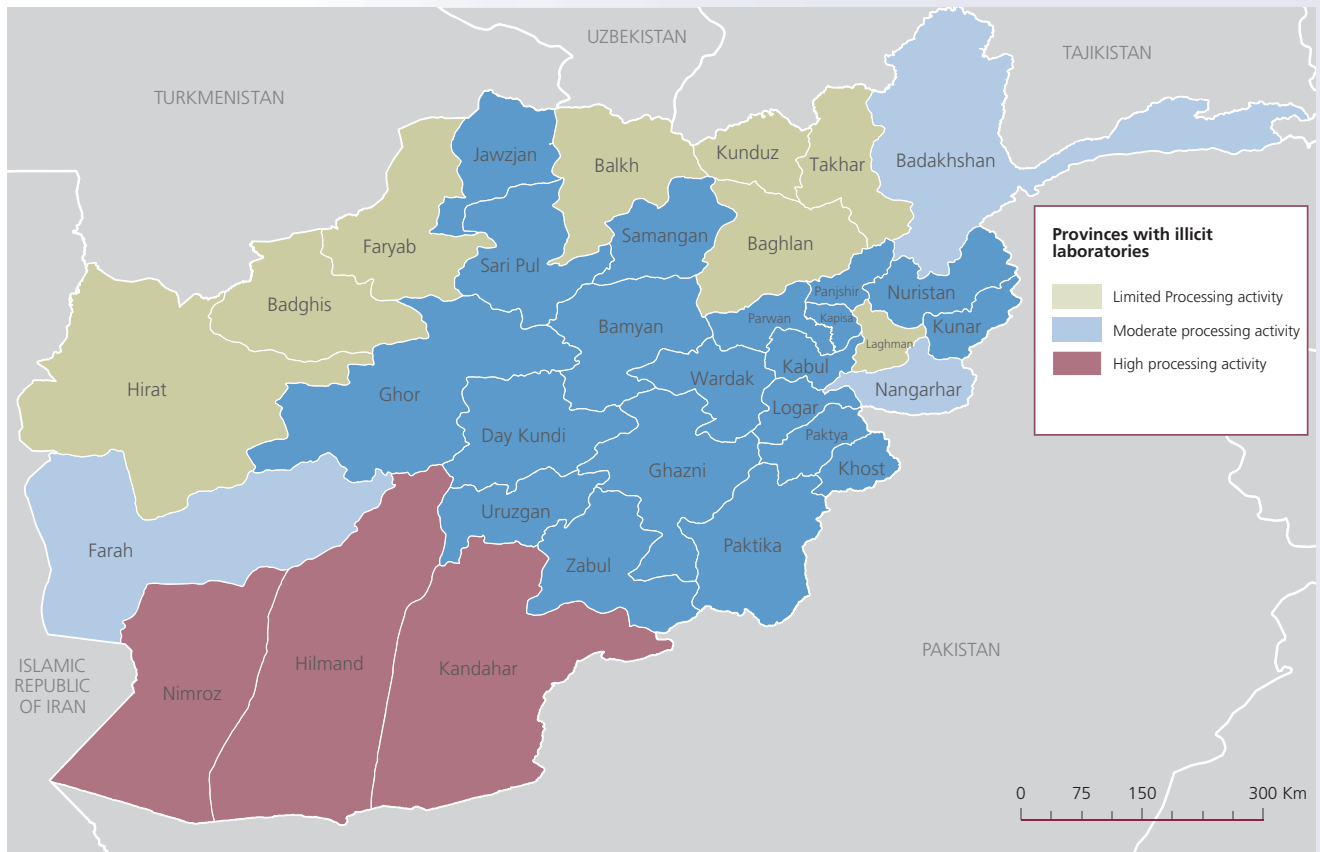
⁵¹⁴ RIA Novosti, en.rian.ru/russia/20100628/159613460.html.

⁵¹⁵ Drug flows in Afghanistan, UNODC, 2007.

⁵¹⁶ By way of comparison, Myanmar authorities dismantled 24 heroin laboratories over a three year period (2006-2008); UNODC, "Patterns and Trends of Amphetamine-Type Stimulants and Other Drugs in East and South-East Asia", November 2009, pp 86-91.

⁵¹⁷ UNODC Afghanistan country office, "Analysis of Opiate and Precursor Seizures in Afghanistan in 2008", 2009, p.13; UNODC, 2009 World Drug Report, p.37.

⁵¹⁸ Already in 2002, 417 labs were reportedly active in Afghanistan; see "Allies' heroin habit a dilemma for the US", *The Associated Press*, 15 October 2002; see also Roger McDermott, "Border security in Tajikistan", October 2002. Conflict Studies Research Center.

Map 52: Reported heroin lab activity in Afghanistan by province, 2009-2010

Source: UNODC.

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

In the west, it was estimated that the average annual production per laboratory, which was gleaned from survey data, stood at approximately 300 kg per year. Like most laboratories in Afghanistan, these also function just a third of the time, or approximately ten days a month. The overwhelming majority of laboratories appears to be small and consisting of mobile facilities mostly concentrated in insecure areas of Farah or Nimroz and to a less extent Herat and Badghis. In the eastern region, the average annual production capacity is around 1,200 kg per lab. These laboratories, mostly concentrated in Nangarhar and to a lesser extent Laghman, go largely undetected and can be quickly moved in response to law enforcement pressure.⁵¹⁹ In some districts, such facilities may be shared among five or six families. Similar to the eastern region, laboratories in the north, northwest and northeast are usually not permanent fixtures. Most of them operate in Badakhshan province with the remainder scattered in Takhar, Kunduz, Balkh, Faryab and Baghlan. The average annual heroin manufacturing capacity is estimated 1,150 kg per laboratory and processing appears to mostly occur between late June and late December.⁵²⁰

⁵¹⁹ According to one informant in Aichin, “The lab may be located in one house for 2-4 weeks and then be moved to another house to avoid detection”.

⁵²⁰ UNODC Mission to Mazar, interviews with CNPA, UNODC Survey coordinator, CNAT, ABP officials, December 2009.

Table 33: Average annual heroin production and estimated number of heroin laboratories in Afghanistan, 2009

Region	Average annual production (kg) per laboratory
East	1 200
North, North-East and North-West	1 150
West	300
South	1 300
Average annual heroin manufacture per lab	980 kg (rounded)
Estimated 2009 heroin manufacture	380 tons
Estimated number of heroin labs	385

Source: UNODC.

In order to collect information, a survey of selected lab owners in Afghanistan was undertaken.⁵²¹ The methodology used for data collection in this report is a pragmatic approach to a first rapid and explorative assessment in a

⁵²¹ Approximately 30 lab owners were repeatedly interviewed in Afghanistan in 2009-2010. Formal semi-structured in-depth interviews and focus group discussions were conducted over a period of six months. Surveyors supplemented interview data with information gathered through participant observation while working in the regions in question.

region that includes difficult and insecure areas where obtaining information can be dangerous. This is reflected in the limited number of lab owners that could be interviewed (30). For present purposes, the figures presented are therefore only intended as an indication of the level of activity required in this part of the opiate trade and should be treated as illustrative rather than authoritative. Moreover, a similar survey with a larger sample size will be conducted in 2011 and the results will be provided in a forthcoming report.

According to the survey results, the average Afghan annual heroin manufacturing per laboratory is 300 kg in the west, 1,150 kg in the north-east, north and north-west, 1,200 kg in the east and 1,300 kg in the south. Thus, it could be estimated that a laboratory manufactures on average 980 kg a year. In turn, an estimated 385 laboratories would be required to manufacture 380 tons annually. Within this context, it should be noted that there is a variety of lab sizes and daily/weekly outputs, so the estimated number of laboratories and annual production estimates are intended as indicators of the level of activity required in this part of the opiate trade, rather than actual numbers of laboratories in operation on a given day.

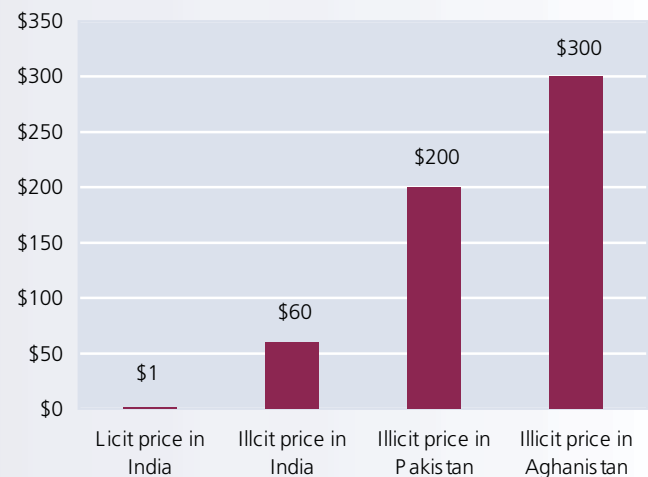
The crucial variable or main determinant to reach these estimates required information on the average lab production in Afghanistan, taking into account geographic variations. Most laboratories in Afghanistan do not function all year round and generally operate based on demand and specific orders from traffickers. The typical heroin manufacturing period are the months following the harvest season, usually June and July in southern and western Afghanistan, when opium is cheaper than the rest of the year. Research by UNODC seems to indicate that most laboratories operate 10 days a month, which equals roughly 120 workdays per year.

Market value and prices

Market-size estimates are based on price data; however, unlike in the case of legitimate commodity markets, it is difficult to obtain accurate illicit acetic anhydride prices.⁵²² Prices collected informally by UNODC in Afghanistan indicated a retail cost of US\$350 in 2009 (2009 prices ranged from \$250 to \$450 a litre, with a mid-range point of \$350). Given that acetic anhydride demand in Afghanistan is estimated at 380-570 tons (mid-range point 475 tons) this would imply a retail market value of approximately \$130-200 million annually (mid-range point of \$165 million).

⁵²² The way prices alter at market level is a significant gap in our understanding of illegal acetic anhydride markets. There are strong suggestions that international precursor controls – though not having a real impact on availability – have, at least, an impact on prices. Apart from standard conclusions on more effective interdiction or increased demand, there is no strong evidence that individually or together these would have resulted in such a sharp and prolonged spike in prices.

Fig. 55: The value chain of acetic anhydride from India to Afghanistan



Sources: CNPA; AOTP research in Pakistan and Afghanistan; UNODC Regional office for South Asia.

The acetic anhydride supply chain

As would be expected, acetic anhydride prices are highest in Afghanistan. It is worth reiterating that no licit demand for acetic anhydride exists in Afghanistan, although there have been cases of attempted importation in the past.⁵²³ UNODC currently has limited data on prices outside Afghanistan, but one basic observation is that the value added across countries is substantial. For example, in 2009 illicit retail prices in India were approximately 60 per kg,⁵²⁴ for acetic anhydride destined for Afghanistan. Once in Pakistan, the same litre of acetic anhydride was sold for US\$200, yielding a substantial mark-up, while in Afghanistan the cost was around \$300. The figure below shows the outline of the system and includes estimates of the prices and value added to the acetic anhydride at each level.

Illicit acetic anhydride prices for Afghanistan, the Islamic Republic of Iran and Pakistan were reported to UNODC researchers in the field. All other prices are taken from interviews with law enforcement or sources quoting law enforcement officials. Thus, the resulting information should not be viewed as a reliable guide, but rather as a snapshot of the types and prices of acetic anhydride available in certain locations at a certain point in time.

Acetic anhydride prices for both the Republic of Korea and

⁵²³ The first documented example occurred in May 2007 when the drug regulation committee of Afghanistan received an application from a commercial company in Kandahar province for a license to import 70 tons of acetic anhydride (enough to manufacture at least 70 tons of heroin). The company proposed importing the substance from a Chinese company for the purposes of ceramic tile production. The Ministry of Trade and Commerce, the Ministry of Public Health, and the Afghan Investment Support Agency (ISA) all submitted written expressions in support of the application to the Committee. The application was eventually rejected. A year later, another attempt was reported, again from Kandahar province. The company proposed importing 1,000 litres of acetic anhydride from the Republic of Korea, transiting via the Islamic Republic of Iran. (source: UNODC Country Office Afghanistan).

⁵²⁴ This ratio is dependent on quality, location and law enforcement pressure; information provided by UNODC Country Office India, August 2010 and UNODC sources in Afghanistan, June 2010.

Table 34: Reported illicit acetic anhydride prices (wholesale) in selected countries, 2007-2010

Country	Price/L	Year reported
India	\$60	2009-2010
Pakistan	\$200-300	2009-2010
Republic of Korea	\$4-6	2009
China	\$12	2007
Islamic Republic of Iran	\$220-250	2009-2010
Slovakia	\$25	2010
Bosnia and Herzegovina	\$130	2010
Bulgaria	\$100	2010
Turkey	\$200-225	2010

Sources: Afghan Opiate Trade Project; law enforcement agencies of Slovenia; law enforcement agencies of Bosnia and Herzegovina; law enforcement agencies of Slovakia; UNODC regional office for South Asia; local media sources (Republic of Korea, China).

China seem out of place compared to prices in Europe, and in countries neighbouring Afghanistan. The Republic of Korea figure is based on the wholesale price traffickers allegedly paid for a 12-ton shipment,⁵²⁵ while the second figure is from an official 2008 report issued by the Chinese National Narcotics Control Commission. Lower prices in the Republic of Korea are likely due to perceived lower risk and fewer intermediaries. Additionally, if these prices are correct, sourcing from Asia would appear to lead to higher mark-ups for traffickers in Afghanistan or its neighbours, while the greatest price differential would be between Europe and Afghanistan. In Europe, price mark-ups appear to occur earlier in the trafficking chain, consistent with law enforcement risks. Smuggling by sea (Republic of Korea, China) may also be less expensive than road transportation through the Balkan route. In any case, due to the rapid increase in value as precursors approach Afghanistan, most of the profit is realized inside Afghanistan or in its neighbouring countries.

In 1998, at a value of US\$24 per litre in Afghanistan,⁵²⁶ the acetic anhydride trade offered a more modest income to retailers. Prices steadily climbed over the following 7-8 years, but a sharp spike occurred sometime between spring 2007 (approximately \$145 a litre)⁵²⁷ and spring 2008

⁵²⁵ Financial Action Task Force, "Mutual Evaluation Report: Anti-Money Laundering and Combating the Financing of Terrorism," Korea, 26 June 2009, www.oecd.org/dataoecd/22/54/43439553.pdf.

⁵²⁶ 1998 prices ranged from \$13 to \$34, "The opium economy in Afghanistan: an international problem", UNODC, 2003.

⁵²⁷ "Monitoring of Drug Flow in Afghanistan," UNODC, 2007.

(\$350).⁵²⁸ Due to insufficient data, there are no conclusive answers as to why the price of acetic anhydride has risen so sharply and how this resonates internationally. The rise in prices does roughly correspond to a 250 per cent rise in global seizures from 2007 to 2008, but this does not necessarily indicate causality. Increased law enforcement pressure is one variable in most illicit markets, while stricter controls in source regions may have raised the risk of diversion and consequently costs downstream.

Although price data is severely limited, there are indications of price increases in other regions. For example, according to the UNODC Regional Office for South Asia, illicit retail prices of acetic anhydride in India were estimated at \$20 a litre in 2005,⁵²⁹ but reached approximately \$45 a litre in 2009.⁵³⁰ China also reported an increase in illicit acetic anhydride prices of nearly 50 per cent between 2004 and 2007.⁵³¹ Altogether, these developments suggest that the trade in heroin precursors may be experiencing disruptions.

Acetic anhydride prices in Afghanistan

In Afghanistan itself, there is evidence of more efficient law enforcement leading to additional risk premiums, particularly with the growing engagement of International Security Assistance Forces (ISAF) in counter-narcotics operations in the south. As an example, before the recent military operations in Hilmand, the average acetic anhydride price in the province was \$260 per litre. During operations, the price jumped to \$420 and as of April 2010 had come back down to \$315.⁵³²

At the national level, acetic anhydride prices range widely, reflecting several other potential variables beyond law enforcement pressure, such as buyer-seller relationships, quantities purchased (retail or bulk), frequency of purchase, origin (real or perceived) and transportation costs.

In 2009, the price of acetic anhydride varied substantially between and even within regions and provinces in Afghanistan. This was less apparent in the 2007 drug flow survey carried out by UNODC, with national prices ranging from \$140 a litre in southern, western and eastern Afghanistan to \$150 a litre in the north and north-east.⁵³³ When analyzing 2009-2010 price data, the discrepancy between the north/north-east and the rest of the country has widened considerably. The average cost of a litre of acetic anhydride in the northeast (\$420) is higher than anywhere else in Afghanistan and is most prone to fluctuation. Acetic anhy-

⁵²⁸ "Addiction, crime and insurgency: the transnational threat of Afghan opiates", UNODC, 2009.

⁵²⁹ UNODC, India Country Profile, 2004.

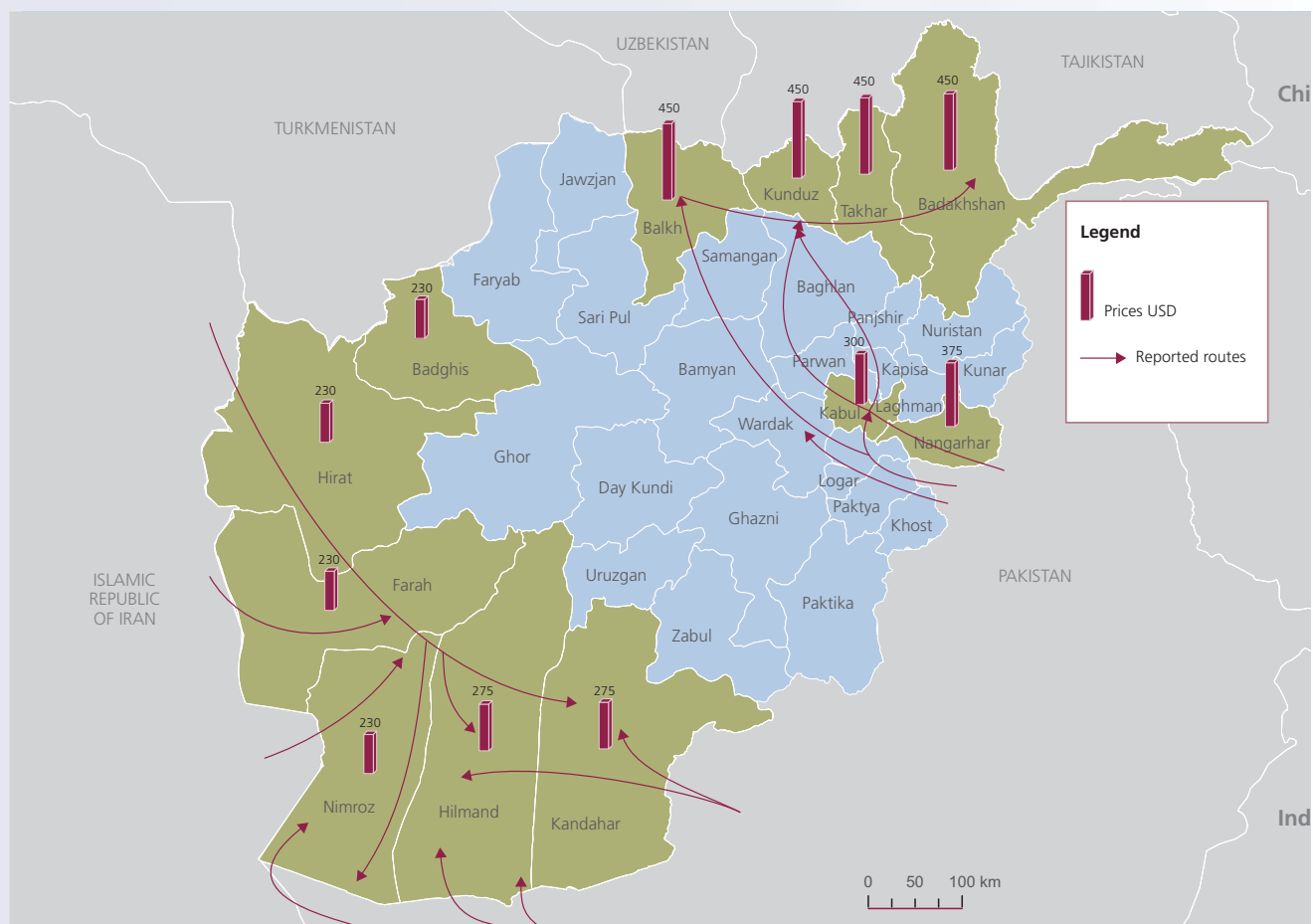
⁵³⁰ Prices ranged from \$25 to \$65 (median point: \$45) per kilogram depending on a variety of factors such as quality, location and law enforcement presence. Information provided by UNODC Country Office India, August 2010.

⁵³¹ "Addiction, crime and insurgency: the transnational threat of Afghan opiates", UNODC, 2009, p.68.

⁵³² UNODC Mission to Hilmand province, 21 March - 08 April 2010.

⁵³³ UNODC Drug Flow Survey 2007, p.12.

Map 53: Illicit acetic anhydride prices in Afghanistan (by region) and main acetic anhydride routes, (snapshot, May 2009)



Source: UNODC.
 Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Table 35: Illicit acetic anhydride prices in Afghanistan, 2009-2010

Region	Average price per litre in US\$
Eastern region (Nangarhar)	325
Central Region (Kabul)	300
Northern region (Balkh)	385
Northeast region (Takhar, Kunduz, Badakhshan)	420
Western region (Farah, Hirat, Nimruz, Baghdis)	260
Southern region (Kandahar, Hilmand)	290
Afghanistan average	330

Source: UNODC Afghan Opiate Trade Project.

drude in the south is sold for approximately \$290 a litre and appears to vary less between districts and provinces. Wholesale-level prices for acetic anhydride in the western provinces were the lowest national prices – reportedly related to the perceived low quality of the acetic anhydride available.⁵³⁴

⁵³⁴ Lab owners interviewed in Afghanistan informed UNODC that the purity of acetic anhydride is directly proportional to heroin quality, noting that 97-98 per cent of pure acetic anhydride is required to prepare good quality heroin.

UNODC research indicates that Nangarhar is the main supplier of acetic anhydride for areas in the north (Balkh) and all of the north-east (including Takhar, Kunduz and Badakhshan). The links between the two regions are well established, particularly between the two processing centres of Nangarhar and Badakhshan. For example, many Nangarhar heroin laboratories relocated to Badakhshan in 2001-2002.⁵³⁵ That link is still strong today, with several laboratories in Badakhshan reportedly under the control of a single network based in Nangarhar⁵³⁶ and many lab workers hailing from that province. Moreover, according to UNODC drug flow surveys in 2008, Badakhshan also received morphine for processing exclusively from Nangarhar. In 2008, some Badakhshan prices in the spring had reached \$700 a litre, likely due to acetic anhydride shortages;⁵³⁷ north-eastern purchasers face occasional supply

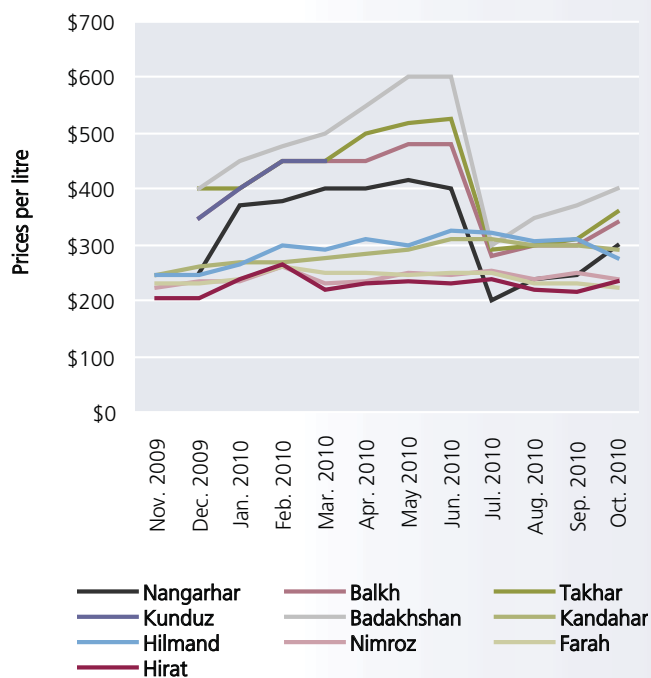
⁵³⁵ Precursor networks and heroin lab owners reportedly test the purity of acetic anhydride through a litmus paper, before striking any deal for purchase of acetic anhydride. A good quality acetic anhydride shows its actual colour on the litmus paper. Part of the concerns with purity may also be linked to the practice of blending acetic anhydride with other chemicals, a form of ‘cutting’.

⁵³⁶ Interview, UNAMA analyst, June 16 2008; Interview ABP Nangarhar 2008; Interview, UNAMA analyst, March 2009.

⁵³⁷ Interview, UNAMA analyst, June 2010, Kabul.

⁵³⁸ Badakhshan was also the only province to report acetic anhydride shortages in October 2007; ‘Heroin lab destroyed in Afghan north’, Voice of the Islamic

Fig. 56: Acetic anhydride prices in Afghanistan by province, 2009-2010



Source: UNODC Afghan Opiate Trade Project.

problems likely due to reliance on eastern suppliers. Prices for other precursor chemicals also seem to be higher in Badakhshan.⁵³⁸

The lack of a stable and sufficient acetic anhydride supply line from Central Asia (particularly due to the distance from the major acetic anhydride pipelines in southern and western Afghanistan) likely plays the biggest role in driving the overall higher prices found in Badakhshan and the north-east. As an example, 1 litre of acetic anhydride in FATA costs \$200, but once across the border in Nangarhar it can be sold for \$250. However, if the consignment is transported across Afghanistan, the price can go up substantially as the same litre will generate 60 per cent more revenue in north-eastern Afghanistan.⁵³⁹ This is not due solely to transportation costs, but also to informal payments collected by law enforcement agencies, as the chemical is transported across the country.

At the prices quoted above, it becomes profitable to engage in small-scale trafficking - for example to travel to a neighbouring country with 20 kg of opium and return with 20 litres of acetic anhydride. If even small shipments are financially viable, there will likely be an impact on precursor trafficking logistics by increasing the sale of smaller volumes and the subsequent use of minor routes, making interdiction more difficult.

According to 2009-2010 data, prices in the country are

Republic of Iran External Service, Mashhad 1 Oct 2007.

538 As an example, ammonium chloride costs \$6.38 per kg (\$1.67 per kg in Nangarhar) while ammonium costs \$45 per litre (\$1.40 per litre in Nangarhar).

539 Interview CNPA, 2010.

generally lower in the fall and winter and increase leading up to harvest season. This makes sense, considering that processors require acetic anhydride to process the opium immediately after it is harvested; this phenomenon is particularly pronounced in the eastern and north-eastern region. The sudden drop in prices in 2010 affected both regions and was attributed to increased importation from Tajikistan and Pakistan.⁵⁴⁰ In general, the supply of precursors is not a smooth process and shipments are for the most part erratic since Afghans cannot control supply lines, unlike in the case of opium.

The impact of prices on processing

In most markets, price increases generally lead producers to seek alternatives. In the illicit market, the additional risk premiums (that is, increased international vigilance and seizures) likely add a form of urgency. Since large seizures of acetyl chloride and acetic acid were made in countries neighbouring Afghanistan between 2008 and 2010, there has been speculation that processors are attempting to use substitutes.⁵⁴¹ However, in Afghanistan there is little evidence (in the form of seizures) that analogues are used, even though seizures made outside the country appear to generally coincide with rising acetic anhydride prices in Afghanistan. One lab owner interviewed in eastern Afghanistan noted the following:

A few years ago, when acetic anhydride prices became very high, there was new chemical available for processing morphine to heroin. The process with this chemical was sophisticated and the result was not good. This kind of heroin created a lot of problems between local and international drug traffickers. So, with time, this new chemical disappeared from the heroin industries. Now, in all heroin labs here in Nangarhar, the only chemical used for processing morphine to heroin is acetic anhydride.⁵⁴²

Higher precursor prices do not seem to have impacted heroin processing or precursor availability. It is possible that the price increase has led some to do more with less, such as experimenting with lower volumes of precursor chemicals or mixing acetic anhydride with other analogues. This should theoretically compromise quality, but there has been little change in the reported purity levels of heroin in Afghanistan.

Although the higher cost of acetic anhydride should logically increase heroin prices, in some areas these may have even been lowered due to declining acetic anhydride availability; in fact, by limiting the quantities of the product

540 Interview with opium farmers and lab owners in Nangarhar and Badakhshan, July-August 2010.

541 This shift to substitutes seems to have already occurred with cocaine and the reported use of non-controlled chemicals in its manufacture.

542 Interview, Nangarhar, January 2010.

that can be purchased, higher prices would limit the amount of opium (morphine) that can be processed into heroin. In such periods, there is likely to be an increase in morphine exports. An average of 18.5 tons of morphine was seized in Pakistan and the Islamic Republic of Iran between 2003 and 2006.⁵⁴³ In 2008, Pakistan and the Islamic Republic of Iran seized a combined 16.3 tons of morphine, mostly close to the Afghan border and representing 95 per cent of global morphine seizures that year. In 2009, the Islamic Republic of Iran seized some 16 tons of morphine, 70 per cent of global seizures. Base morphine is used to produce heroin but the purpose of trafficking morphine to Pakistan and the Islamic Republic of Iran remains unclear given the negligible levels of morphine use in those countries.

It is important to note that morphine seizures almost always concern border areas. In theory, mobile laboratories (consisting of gas fired stoves attached to the back of large trucks) should have no hindrance crossing a border. The rustic and mobile nature of laboratories combined with the porous and unsupervised nature of the Afghan border means that a laboratory could easily be operating along the border with the Islamic Republic of Iran, Pakistan or Tajikistan, without authorities on either side being aware that a boundary has been crossed. Laboratories have also been known to temporarily relocate across the border in anticipation of military operations in southern Afghanistan. As an example, interdictions in Pakistan during 2006 involved laboratories operating no more than 800 metres from the border, which facilitated the escape of lab employees into Afghanistan where Pakistan agencies could not follow. Given the relative ease of setting up small mobile refineries, the absence of law enforcement control along certain sections of the Afghan borders and the expertise available on both sides of the border, the possibility that a portion of opium produced in Afghanistan is processed outside the country deserves further investigation. However, in order to make a real reduction in precursor costs, laboratories would have to be moved, or rather set-up, closer to the source since that is where the mark-up occurs.

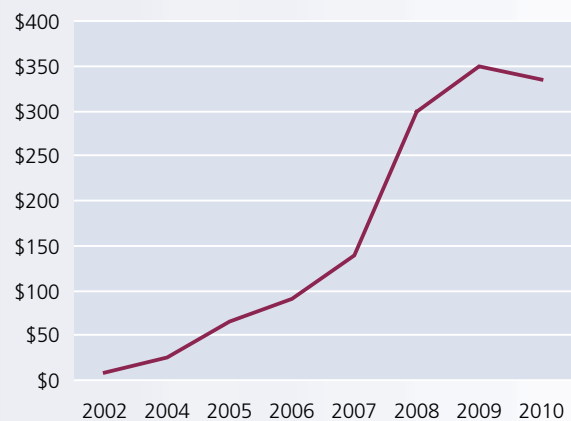
Costs and profit margins

The average price for one litre of acetic anhydride in Afghanistan is US\$330, which implies between \$350-500 in acetic anhydride costs for each kilogram of heroin. Beyond acetic anhydride, there are a number of direct and indirect costs associated with the manufacture of heroin, which drive up the price of processing and translate into more modest profits for heroin processors than otherwise expected.

Various studies of heroin trade dynamics have been conducted in Afghanistan since the 1990s, mainly in Nangarhar province. Although primarily focused on heroin,

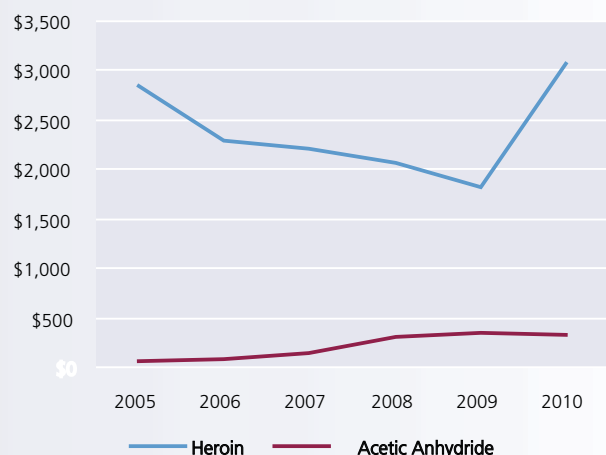
some general price patterns have also been identified. The first observation is that the price of acetic anhydride has steadily increased over the past ten years. Following the opium poppy ban in 2001, it had reached an all-time low in early 2002 of \$8 per litre⁵⁴⁴ and by April 2004 it amounted to \$20-\$25. According to intelligence information reported by the United Kingdom to UNODC, the January 2005 price for acetic anhydride in Nangarhar amounted to \$60-\$65 per litre. The UNODC drug flow survey published in October 2007 (findings from July 2007) showed prices averaging \$140 a litre in the east.⁵⁴⁵ In 2008 there was a huge jump in the reported price with a doubling (and in some regions like Badakhshan tripling) of the retail price of acetic anhydride.

Fig. 57: Average prices for acetic anhydride in Nangarhar province, 2002-2010



Source: UNODC.

Fig. 58: Heroin and acetic anhydride prices in Nangarhar province 2005-2010



Source: UNODC.

⁵⁴³ Turkish seizures of morphine are negligible and the last heroin laboratory detected was in 2006.

⁵⁴⁴ Price reported in Ghani Khel district, Nangarhar; Thomas Pietschmann, Mission Report "UNODC participation at the BKA meeting on production of heroin in Afghanistan", UNODC, 20-21 January 2005.

⁵⁴⁵ UNODC "Drug Flow Survey 2007", p.12.

Table 36: Nangarhar, estimated chemical/opium volumes and cost of processing 1 kg of brown heroin base*

Substance	Average price in \$/kg (May 2010)	Chemical volumes required per kg of opium	Chemical volumes required per kg of brown heroin (rounded)	Cost (\$) per kg of brown heroin produced
Calcium oxide	0.24/kg	0.1	1 kg	0.24
Ammonium chloride	1.67/kg	0.29	2.5 kg	3.34
Acetic anhydride	416	0.11	1	416
Sodium carbonate	1.56/kg	0.29	2.5	3.12
Activated carbon (charcoal)	7.14/kg	0.09	1	7.14
Concentrated hydrochloric acid	1.40/lit	0.02		
Concentrated ammonia solution	1.40/lit	0.02		
Acetone	N/A	0.002		
Opium	167/kg		7	1170
Total				1600 (rounded)
Price for one kg of brown/white heroin				2517
Estimated profit				917

* This is a snapshot of prices in Nangarhar's Aichin district in May 2010 combined with the observed quantities used in heroin processing by the BKA in 2005. Source: Adapted from BKA observations, "Documentation of heroin manufacturing process in Afghanistan", 2005.

In any manufacturing environment such a jump in prices would be reflected in the price of the end product. However, looking at average heroin prices in Nangarhar, there does not seem to be a comparative increase in heroin prices relative to acetic anhydride prices; in fact the opposite is observed.

At these prices, acetic anhydride makes up a significant proportion of the costs of manufacturing heroin. For example, in May 2010 in Nangarhar, acetic anhydride cost around \$416 per litre. A kilogram of dry opium was \$167. With the understanding that 1 litre of acetic anhydride and 7 kg of dry opium are required to obtain 1 kg of brown heroin, the cost of these inputs is \$1,586. In the same month, price monitoring by UNODC in Nangarhar reports a price of \$2,517 per kilogram of heroin.

At face value, that leaves a margin of \$917 per kilogram, excluding all other input costs, such as labour. This means that lab owners must factor in expenses such as rent and employee salaries, including the cook.⁵⁴⁶ Generally the cook

⁵⁴⁶ Most cooks in Nangarhar heroin labs are Afghans of the Shinwari Tribe, but at times, foreign expertise may be brought in, further raising overheads. In

is not paid a daily wage, but by production units. According to current information, an average cook receives \$25 per kg of heroin manufactured. In other words, for a typical 10 kg heroin processing cycle, a cook can expect to earn \$250.

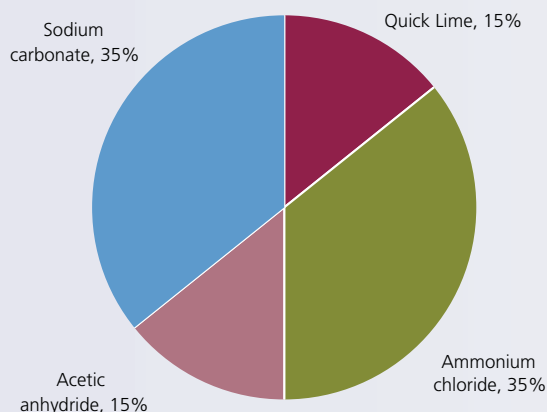
Yet another cost must be absorbed by processors; in the east, there is strong evidence that in Nangarhar province (the Khugiani and Sherzad border areas) heroin lab owners give financial support - between \$600 and \$1,200 per month for each lab - to anti-government elements.⁵⁴⁷ This insurgent tax is more widespread in the south, with numerous reports suggesting that some laboratories in Hilmand offer a portion of their income to insurgent groups in exchange for protection. In Badakhshan, some laboratories also pay a monthly tax of around \$1,000 to police officers, local elders or local warlords.⁵⁴⁸

⁵⁴⁷ 2008, UNODC drug flow surveyors identified two types of foreign chemists in Nangarhar, Turkish and Pakistani: 1. A Pakistani cook is paid 40,000 rupees a day from Pakistan. 2. A Turkish cook is paid 60,000 to 80,000 rupees a day (roughly \$800).

⁵⁴⁸ Aziz Ahmad Tassal, "Hilmand Heroin Menace Grows", Institute for War & Peace Reporting (ARR No. 351, 04-Feb-10).

⁵⁴⁸ UNODC has not received any reports of insurgent taxation in other north-eastern provinces where the Taliban presence is more marked, such as Takhar.

Fig. 59: Proportion of acetic anhydride to other chemicals in the production of one kg of brown heroin



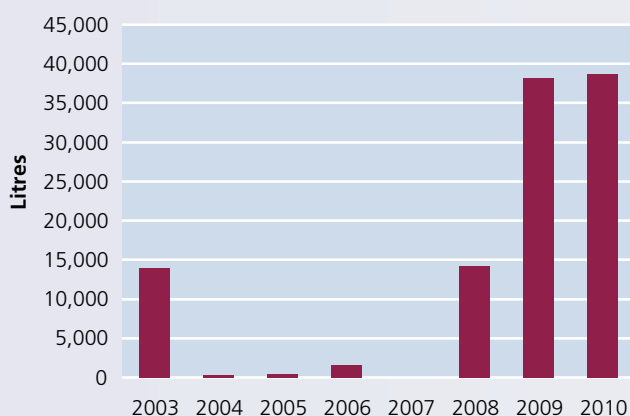
Source: Adapted from BKA observations 2005.

Even taking informal payments and labour costs into account, refining is still profitable, particularly if we consider the practice of cutting of the heroin, which means that 1 kg manufactured from the laboratory becomes 1.5 or even 2 kg when sold.

Interdiction

Usually, the most direct and obvious indicator of processing or trafficking activity is seizure data. While there is clear evidence that shipments seized along major routes are destined for Afghanistan, the country only started seizing large volumes recently. In 2008, Afghanistan reported its largest acetic anhydride seizures to date (totaling 14,234 litres). This was a substantial increase over the previous year but still constituted only about 3 per cent of estimated requirements (475 tons) and Afghanistan averaged about 5 tons seized annually. In 2009, seizures increased nearly threefold (38 tons), mostly linked to military seizures carried out by ISAF and ANA forces in southern Afghanistan. Similar figures are reported in 2010 which brought up the average

Fig. 60: Acetic anhydride seizures in Afghanistan, 2003-2010*



Source: Collated from data provided by ISAF, CNPA, UNODC Country Office Afghanistan.

* preliminary data for 2010 based on available data as of 31 May 2011.

considerably to about 13 tons per annum. Relative to the overall size of the Afghan acetic anhydride market, the 2009 seizures constitute about 8 per cent of national acetic anhydride requirements and are valued at approximately \$12 million on the Afghan retail market. In addition, the amount of acetic anhydride seized in 2009 was enough to process as much as 40 tons of heroin compared with an estimated actual production of 380 tons.

Increased seizures in 2009-2010 seemed to have had little impact on acetic anhydride prices, which are comparable to 2008 prices.⁵⁴⁹ This does not however indicate that seizures are not having an impact on trafficking activities; UNODC believes that, as a result, laboratories no longer buy precursors in bulk, but prefer small orders based on daily or weekly production. This is supported by acetic anhydride seizures themselves, which are generally small, perhaps indicating that large stockpiles may be held away from laboratories and that acetic anhydride is simply drip-fed to these facilities.⁵⁵⁰ It must be added that interviewees in southern and western Afghanistan were unaware of any heroin chemical stockpiles, at least in Afghanistan. A related trend is that laboratories are becoming more mobile and short-term, partly in response to law enforcement pressure. The situation is somewhat different for laboratories in Hilmand and Kandahar, since some of these, such as those situated in Baramcha, are fixed facilities; lab destructions in these provinces still only concern small quantities.

According to 2008 research, laboratories now tend to keep on site only the amount of chemicals needed to prepare a particular batch and manufacturing seems to occur increasingly at night, another sign that the environment is less permissive.⁵⁵¹ This can be seen in documents obtained by UNODC, which detail the results of three interdiction operations on 26 labs in Nangarhar between January and April 2008. The elite United Kingdom-trained Afghan Special Narcotics Force (ASNF), that carried out the operations, seized 7,754 kg of almost every heroin processing chemical (ammonium chloride, sodium chloride, hydrochloric acid, sodium carbonate, soda power, carbon and acetone), but not acetic anhydride. It is more difficult to explain why numerous other lab interdictions lead to seizures of every chemical except acetic anhydride. It should be noted that there also exists a thriving secondary market of on-selling seized acetic anhydride by corrupt law enforcement officials who will substitute it with another chemical (such as hydrochloric acid).⁵⁵²

⁵⁴⁹ "Addiction, crime and insurgency: the transnational threat of Afghan opiates", UNODC, 2009, p.68.

⁵⁵⁰ Some acetic anhydride traders keep acetic anhydride stocks on both sides of the border; potential candidates are the border regions of Pakistan and the Islamic Republic of Iran and perhaps Kabul, which acts a forward shipping area for both north-eastern and southern laboratories.

⁵⁵¹ Joanna Wright, "Blood flowers - Afghanistan's opium industry remains robust", *Jane's Intelligence Review*, Dec 11, 2008.

⁵⁵² "Opiate and precursor seizures in Afghanistan 2008", 2009, UNODC

Unlabeled bottles of acetic anhydride hidden in wooden fruit boxes

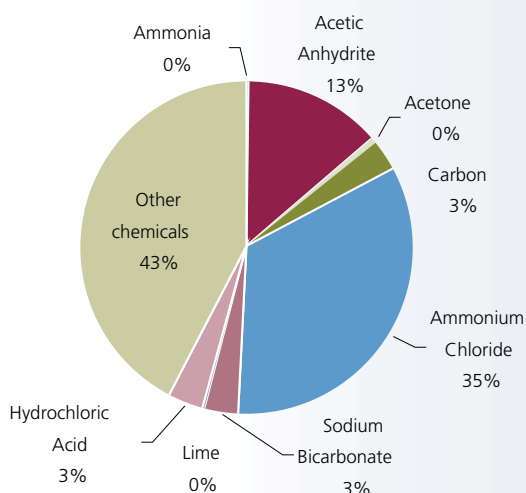


Source: UNODC Jalalabad provincial office.

Some of the largest chemical seizures in Afghanistan concern substances that are not under international control and are, by extension, much cheaper and easier to procure. As a UNODC report notes, these chemicals have licit uses within the country and are locally available, thus making interdiction efforts more difficult.⁵⁵³ These chemicals are used to extract morphine from opium; others are used to purify intermediate and final products. They include ammonia, sodium carbonate, charcoal, ammonium chloride and lime; for example, ammonium chloride accounts for the largest proportion of all heroin chemical seizures, followed by acetic anhydride. It is striking that in seizure data, the category named 'unknown chemicals' accounts for the largest proportion of seizures due to the current limited precursor chemical testing capacity in Afghanistan.⁵⁵⁴

Some controlled chemicals, such as hydrochloric acid, are used almost exclusively to produce white heroin hydrochloride.

Fig. 61: Disaggregated chemical seizures in Afghanistan, 2003-2008

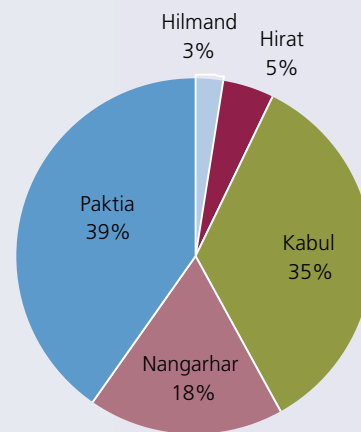


Source: CNPA.

⁵⁵³ UNODC, "Targeting precursors used in heroin manufacture", 2007, p.5.

⁵⁵⁴ An additional explanation came to light during fieldwork in Nangarhar. The researcher found that Afghan law enforcement and locals familiar with heroin processing referred to acetic anhydride simply as 'acid'. It is therefore likely that many seizures classified as 'acid' or 'unknown chemicals' actually consist of acetic anhydride.

Fig. 62: Share of seizures of hydrochloric acid in Afghanistan by province, 2003-2008



Source: CNPA.

ride. Assuming use of the recipe identified by the German Federal Police, the 890 litres of hydrochloric acid seized in Afghanistan in 2008 would be sufficient to manufacture approximately 2.3 tons of heroin hydrochloride.⁵⁵⁵ As shown in the figure below, almost all seizures (94 per cent) of identified hydrochloric acid⁵⁵⁶ occurred in the eastern, south-eastern and central areas of Afghanistan. Paktya province in south-eastern Afghanistan ranks ahead mostly on the strength of one seizure of 3,100 litres made in May 2006.⁵⁵⁷ One recorded seizure of 2,110 litres of hydrochloric acid in Kabul takes second place, with 35 per cent followed by Nangarhar (18 per cent) and Hirat (5 per cent). The presence of hydrochloric acid is thought to be an indicator that heroin hydrochloride is being manufactured in the eastern region.⁵⁵⁸ Conversely, the limited seizures of hydrochloric acid in Hilmand should not be understood as an indicator of negligible heroin hydrochloride manufacture in that region.

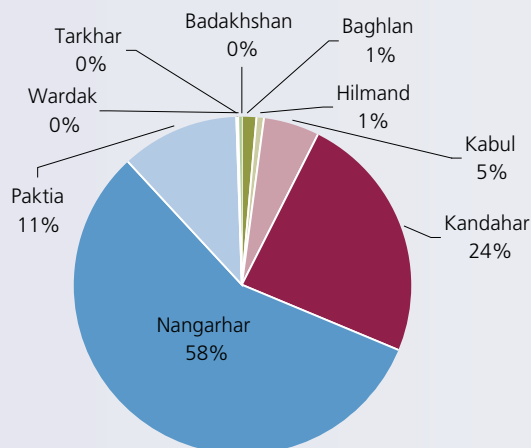
Nangarhar is the only province where there are reasonably consistent seizures of heroin processing chemicals. The majority (58 per cent) of all identified acetic anhydride was seized in Nangarhar province between 2003 and 2008. Notably, Spin Boldak district (Kandahar) was the location of the largest acetic anhydride seizure in 2008, with 7,500 litres (destined for Hilmand province) confiscated in a single incident. This seizure placed the province in second

⁵⁵⁵ Most heroin hydrochloride was traditionally manufactured in the north-east and east of the country, reportedly destined for the Russian Federation. The last few years have seen increased reporting of heroin hydrochloride or "chrystal" production in the west (Farah, Hirat) and south, mostly Hilmand, which were then shipped to the Islamic Republic of Iran. The further trajectory of this heroin is unclear given that the use of heroin hydrochloride is not widely used in Europe. Low quality heroin (under 10 per cent) is typically used for local abuse and/or abuse in neighbouring countries (mostly Pakistan; see Baluchistan section).

⁵⁵⁶ Hydrochloric acid is a notoriously risky and volatile substance, often associated with experienced chemists.

⁵⁵⁷ The substance was reportedly sourced in Pakistan and destined for Nangarhar.

⁵⁵⁸ Brown heroin (a free base), is the most commonly available form of heroin in Europe. White heroin is much less common and likely destined for other markets.

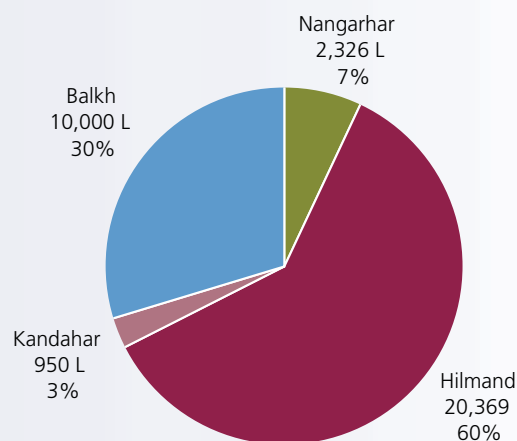
Fig. 63: Acetic anhydride seizures in Afghanistan (shares by province), 2003-2008

Source: ISAF.

place (24 per cent) in 2008, followed by Paktia. Paktia is followed by Kabul, a transit point for precursor and drug flows in all directions. Negligible amounts of acetic anhydride were seized in Baghlan, Takhar and Badakhshan (north-eastern region) respectively. Virtually no seizures of acetic anhydride were reported to the Counter Narcotics Police of Afghanistan (CNPA) in western Afghanistan (Farah, Hirat and Nimroz) from 2004 to 2008. Significantly, before 2008, southern seizures were similarly negligible and remained so until 2009 for Hilmand province (only 1 per cent from 2003-2008), the hub of the Afghan processing industry.

Seizures in 2009 reflect the growing engagement from ISAF, with seizures in Hilmand accounting for the majority of seizures. Seizing acetic anhydride for the first time, the northern province of Balkh confiscated 10,000 litres of acetic anhydride in a single operation in August 2009. In the east, Nangarhar remains a high-seizure area, but once again acetic anhydride is conspicuous by its absence in the west and north-east of Afghanistan. For the west, this state of affairs remained largely unchanged in 2009 but 2010 saw the first seizures of acetic anhydride in Nimroz province since CNPA record keeping began in 2003.⁵⁵⁹ Similarly, in the north-east Badakhshan authorities seized 840 litres of acetic anhydride in September 2010, a 20-fold increase over its only other recorded seizure. In 2010, Kandahar was again the site of major acetic anhydride seizures including a seizure in May of 4,590 litres of acetic anhydride along with 1,775 kg of ammonium chloride.⁵⁶⁰

It should be noted that each region's share of seizures depends on the extent to which their interdiction is prioritized by local law enforcement. As an example, the volumes of acetic anhydride seized in the south (2003-2008), particularly in Hilmand province, clearly do not reflect the

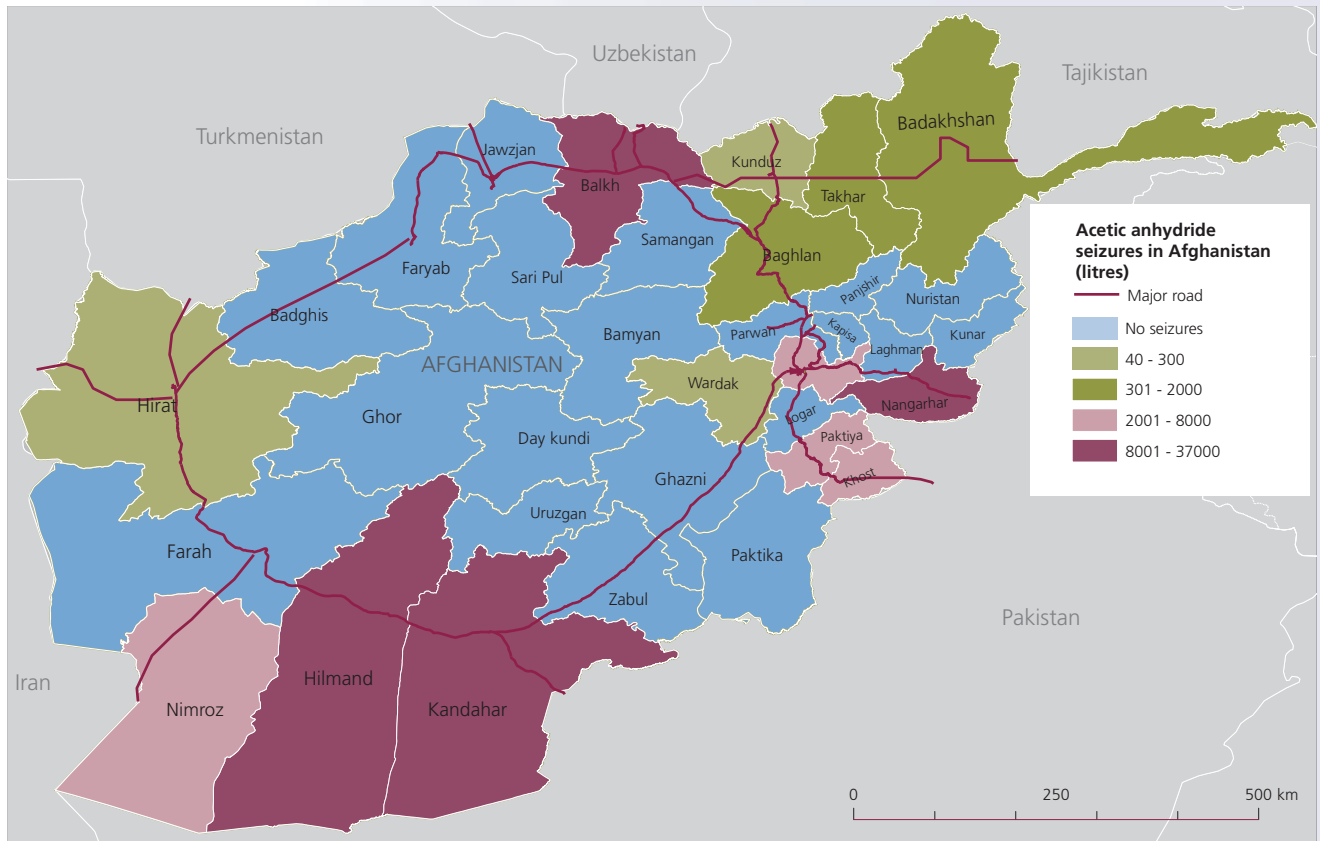
Fig. 64: Acetic anhydride seizure volumes in Afghanistan by province (litres, 2009)

Source: CNPA Database.

region's position as the main heroin processing area (as made clear from 2009 seizures). Similarly, the relatively few seizures in the west and north-east do not negate the possibility that significant amounts of acetic anhydride may be flowing through an area, but rather indicate that little is done to stop them, either by design or by necessity. Moreover, data collection is still very weak in Afghanistan and available seizure data may not be an accurate reflection of all actual seizures in Afghanistan. Seizure data thus needs to be supplemented by contextual information; this includes qualitative information, data on prices, purity levels and an approximation of final indicators, including interdiction. Finally, the way prices alter at market level is a significant gap in our understanding of illegal acetic anhydride markets. There are strong suggestions that international precursor controls – though not having a real impact on availability – have, at least, an impact on prices in Afghanistan. Apart from standard conclusions on more effective interdiction or increased demand, there is no strong evidence that individually or together these would have resulted in such a sharp and prolonged spike in prices. These and several other knowledge gaps will be further studied and analysed in the next report from the Afghan Opiate Trade Project.

559 In December 2010, 3,456 kg of acetic anhydride were seized in Nimroz.

560 UNODC Kandahar provincial office, 12 May 2010.

Map 54: Reported seizures of acetic anhydride in Afghanistan, by province, 2003-2010

Source: CNPA, ISAF, UNODC Country Office Afghanistan.

Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

ANNEX 1: METHODOLOGY

Chapter 1

The findings in this report were calculated by examining a range of indicators, such as demand statistics together with the opiate seizure databases of the WCO and UNODC, as well as the ARQs and individual country reports. During the estimation period, experts from specialized global organizations such as the WCO were consulted and provided their input. Similarly, all concerned UNODC field offices were consulted regarding the estimations of heroin and opium abuse in their respective regions.

Analysis of both opiate abuse and seizure data from 2009 was carried out to track the pattern and estimate the magnitude of opiate flows throughout the world. The total amount of heroin abused was calculated for each country, then combined with official seizure data and balanced against total manufacture. Manufacture, abuse and seizure data were analyzed together. For example, the size of estimated heroin flows from Afghanistan or Pakistan to country “X”, should be similar to the amount of heroin abused and intercepted in country “X” and the destination and

transit countries receiving heroin via country “X”. First, heroin or opium demand in the main destination regions or countries was calculated. Then, by drawing on seizure statistics from each country, the amounts of heroin or opium flowing between the countries were estimated. As this report aims to provide global insights as well as orders of magnitude, the flows represented on maps should be considered broadly indicative rather than definitive flow outlines. Flows may deviate to other countries along the routes and there are numerous secondary flows that may not be represented. Moreover, trends respond rapidly to changes in law enforcement and demand. Opiate flow estimations would therefore be revised if demand statistics provided in the UNODC *World Drug Report* were to change. The estimates will be updated periodically as new drug abuse data is provided by Member States.

Calculations used in this report are outlined below. Some rows do not add up due to rounding, estimates or discrepancies in information. Estimates are unable to be made for some countries due to a lack of information.

Table 38: Heroin trafficking calculations, tons, 2009

Country or region	Trafficked out (rounded)	+	Consumption	+	Seizures	-	Domestic production	=	Amount trafficked in (rounded)
Western and Central Europe	0	+	69	+	7.5	-	0	=	77
Northern Europe	0	+	3	+	0.126	-	0	=	3
South-East Europe	59	+	5	+	18	-	0	=	82
Russian Federation and Eastern Europe	2	+	73	+	3.1	-	0	=	78
Central Asia	77	+	11	+	3.4	-	0	=	90
Islamic Republic of Iran	91	+	16	+	39	-	0	=	145
Pakistan	138	+	20	+	2	-	0	=	160
Afghanistan	365	+	5	+	2.2	-	380	=	0
Oceania	0	+	3.8	+	0.2	-	0	=	4
East and South-East Asia	3	+	80	+	7.8	-	25	=	65
South Asia	15	+	23	+	1.2	-	15	=	25
Americas	0	+	25	+	3.5	-	41	=	Domestic production is much higher than consumption.
Africa	9	+	34	+	1.2	-	0	=	44

Source: UNODC, country ARQs, World Customs Organization.

Note: for the purposes of this report all calculations in the table are listed in pure heroin form. Pure heroin originates from Afghanistan and has an estimated 70 per cent purity. Street level heroin is normally around 10 per cent purity before consumption. All consumption figures above have been converted to pure heroin value.

Chapter 2

The precursor chapter provides a snapshot analysis of the acetic anhydride illicit distribution system to Afghanistan. Qualitatively, it draws on considerable consultations including in-country visits in Central Europe, Afghanistan, Pakistan, the Islamic Republic of Iran, Central Asia and the Balkans. Sources consulted include law enforcement officials in Central Europe, the Balkans, Turkey, Central Asia and the Islamic Republic of Iran as well as acetic anhydride traffickers and heroin processors in Afghanistan and Pakistan. Much of the quantitative data used was taken from several primary sources, namely UNODC field collection, UNODC Annual Report Questionnaires and seizure data provided by Member States. The law enforcement agencies of Pakistan, Hungary, Slovenia, India and Turkey to name a few, lent their expertise and provided detailed disaggregated statistics on seizures. Data provided by UNODC offices in South Asia, Afghanistan, Central Asia, Islamic Republic of Iran and Bulgaria were also utilized. An extensive review of UNODC and International Narcotics Control Board (INCB) published documentation was undertaken, including the World Drug Report, the Afghanistan and Myanmar Opium Poppy Surveys and numerous publications by the Laboratory and Scientific Section of UNODC.

The information and the derived estimations contained in this study are subject to revised conclusions due to the inherent difficulty of gathering accurate data on illegal enterprises or consumers of illegal commodities. There is no simple research practice that could satisfy these concerns, but it is hoped that this effort will serve to contribute to a stronger evidence base to inform heroin precursor control efforts.

ANNEX 2 Substances controlled under the 1988 convention*

Table I	Table II
Acetic anhydride	Acetone
N-acetylanthranilic acid	Anthranilic acid
Ephedrine	Ethyl ether
Ergometrine	Hydrochloric acid
Ergotamine	Methyl ethyl ketone
Isosafrole	Phenylacetic acid
Lysergic acid	Piperidine
3,4-methylenedioxyphenyl-2-propanone	Sulphuric acid
Norephedrine	Toluene
1-phenyl-2-propanone	
Piperonal	
Potassium permanganate	
Pseudoephedrine	
Safrole	

* The UN Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances