



UNODC

United Nations Office on Drugs and Crime

AOTP UPDATE

VOLUME 1

Acetic anhydride in the context of Afghan heroin



About the AOTP Update Content

About the Afghan Opiate Trade Project

The opiates produced in Afghanistan continue to pose a threat to public health, governance and security in the region and beyond at global level. Afghan opiates are likely to widen their reach following the marked increase in cultivation and production in recent years. To address the need for systematic monitoring, comprehensive and consolidated analytical information about the multidimensional threat of the global illicit trade in Afghan opiates, the UNODC Afghan Opiate Trade Project (AOTP) was established in 2008. The project has produced a number of regional and global threat assessment reports and has been collaborating extensively with numerous national and regional policy making bodies and law enforcement agencies to provide the international community with a better understanding of the threat posed by the opiates produced in Afghanistan.

About the AOTP Update

The AOTP Update series is designed to provide brief, regular reporting on emerging patterns and trends of the global situation pertaining to Afghan opiates. Given the speed at which changes in the illicit opiate markets occur, it is important to have a simple sustainable mechanism for regular information sharing.

THE EXPANSION OF THE ILLICIT MARKET FOR ACETIC ANHYDRIDE IN THE CONTEXT OF AFGHAN HEROIN	3
Size of the illicit market for acetic anhydride	3
Acetic anhydride: from licit production and trade to diversion for heroin manufacture	4
Acetic anhydride prices in Afghanistan	7
Trafficking of acetic anhydride into Afghanistan	9
CASE STUDIES	10

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The expansion of the illicit market for acetic anhydride in the context of Afghan heroin

Over the last 15 years, Afghanistan has been the main source for opiates worldwide, primarily supplying markets in neighbouring countries, as well as in Europe, the Middle East and Africa and, to a far lesser extent, North America, South East Asia and the Oceania region.¹ While the processing of Afghan-sourced opium into heroin takes place mainly in Afghanistan, there are indications that heroin manufacture may also take place in other countries, with significant morphine seizures in some of the neighbouring countries pointing to potential heroin manufacture outside Afghanistan.

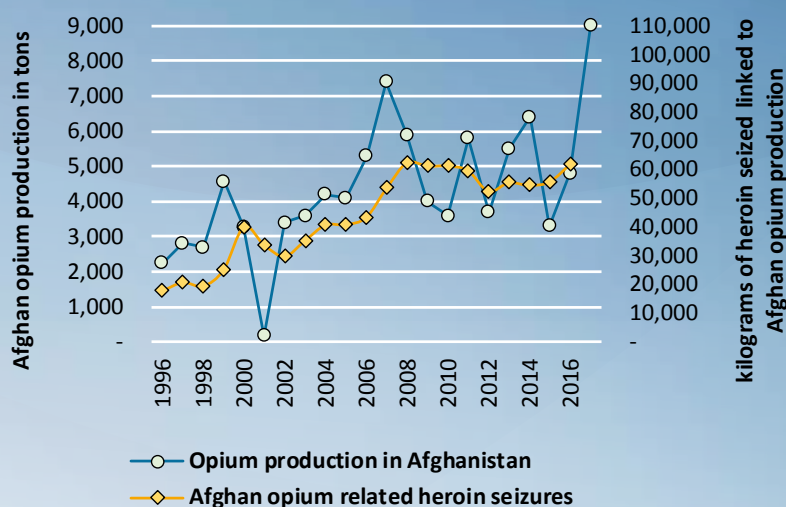
Despite significant annual fluctuations in the amounts of opium produced in Afghanistan, a number of indicators (heroin seizures and price along the different trafficking routes and level of heroin use in destination markets) suggest that heroin supply to destination markets has remained rather stable over time, with little changes on a year-on-year basis.² In order to ensure this smooth and stable supply, heroin may have been manufactured with opium from different harvests, depending on the existence of opium inventories and market strategies.

Size of the illicit market for acetic anhydride

The estimated amount of acetic anhydride (AA) needed for the manufacture of heroin in Afghanistan may vary substantially depending not only on the manufacturing method, the equipment used and the nature of the product (heroin base versus heroin hydrochloride (HCl)), but also on the availability and price of AA. The table below reviews the different estimates available.

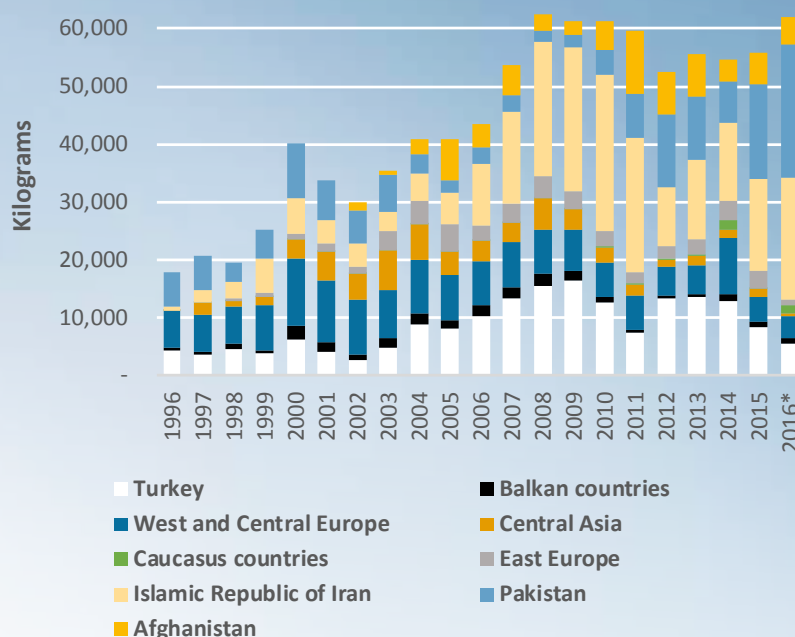
1 UNODC, 2017 *World Drug Report, Booklet 3*, New York 2017.
 2 UNODC and Afghanistan Ministry of Counter Narcotics, *Afghanistan Drug Price Monitoring Monthly Reports*, August 2017 (and previous years) and UNODC Annual Report Questionnaire.

Figure 1: Afghan opium production and heroin seizures related to Afghan opium production, 1996-2016



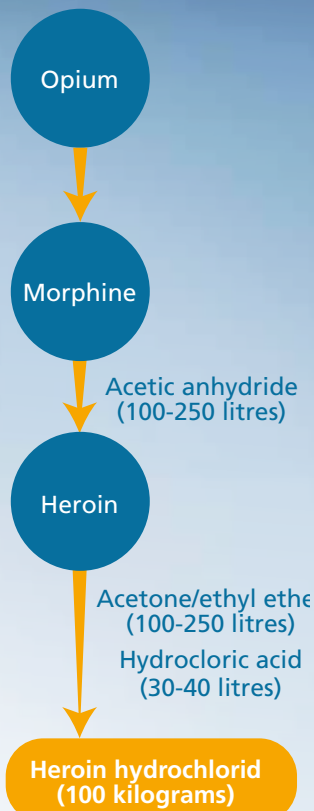
Sources: UNODC and Afghanistan Ministry of Counter Narcotics, *Afghanistan Opium Survey 2016: Cultivation and Production*, December 2016 (and previous years); UNODC Annual Report Questionnaire.

Figure 2: Heroin seizures related to Afghan opium production, kilograms, 1996-2016



*Preliminary seizure data for 2016.
 Sources: UNODC and Afghanistan Ministry of Counter Narcotics, *Afghanistan Opium Survey 2016: Cultivation and Production*, December 2016 (and previous years); UNODC Annual Report Questionnaire.

Opium to heroin processing



There are two critical materials required for the manufacture of heroin: opium and acetic anhydride (AA). Opium is the primary raw material used in heroin manufacture, a process that involves a series of sequential operations and several chemicals, some widely available, and others subject to international control measures. Of all the chemicals used, AA is the only one that is not easily replaceable with alternative chemicals. AA is controlled under Table I of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, 1988. Although it has many legitimate licit applications around the world, AA is neither produced in Afghanistan nor legally imported into the country.¹

Opium and AA account for the bulk of the overall production costs for heroin. A 2010 assessment in the province of Nangarhar in Afghanistan suggested that opium comprised 73 per cent, AA 26 per cent and the other chemicals only 1 per cent of the total cost of the inputs required to manufacture heroin.² The costs related to AA appears to have decreased in subsequent years, in line with price reductions. Nonetheless, estimates for 2013 suggest that AA still accounts for some 20 per cent of the total heroin manufacturing cost.³

Source: INCB, *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2016*.

- ...
- 1 INCB, *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2016*.
 - 2 Costs related to labour, equipment, security et cetera are not included in this calculation. UNODC, *The Global Afghan Opium Trade: A Threat Assessment*, July 2011, p. 151.
 - 3 UNODC, *World Drug Report 2014* (United Nations publication, Sales No. E.14.XI.7), p. 87.

Heroin base has for many years, been the typical type of heroin exported out of Afghanistan.³ However, laboratories recently dismantled in the country were mainly producing heroin HCl, suggesting a possible change in the relative share of the different types of heroin manufactured in Afghanistan.⁴ This change in the type of heroin product may have an impact on the requirements for the different chemicals used in the manufacture of heroin, including the quantity of AA needed to obtain 1 kg of end-product. Indeed, the quantity of AA needed to manufacture each of these two heroin products (base and HCl) may differ. While, from a theoretical point of view, less AA would be needed to obtain 1 kg of heroin HCl as compared to 1 kg of heroin base, empirical data from Table 1 suggest that the efficiency of heroin manufacture may be lower when producing heroin HCl leading

to greater needs in AA as compared to heroin base.

Between 2012 and 2016, it is estimated that Afghanistan produced on average 4,740 tons of opium annually, from which 313 tons of heroin per year would have been manufactured in the country.⁵ Based on an estimated requirement of 1-2.5 litres of AA to produce 1 kg of heroin, between 313,000 and 783,000 litres of AA would have been needed every year to supply the Afghan heroin sector over the period 2012 to 2016.

Seizures of AA in Afghanistan have been fluctuating widely over the period with a marked decline until 2015 and a sharp increase in 2016. Considering an average of 25,500 litres seized annually from 2012 to 2016, between 3 and 8 per cent of estimated smuggled quantities of AA were seized in the country.⁶ These interception rates are

significantly lower than the 8 to 12 per cent⁷ estimated for illegally manufactured morphine and heroin over the period 2012 - 2016 in Afghanistan.

Acetic anhydride: from licit production and trade to diversion for heroin manufacture

Since 2009, the Government of Afghanistan has prohibited the imports of AA and has not granted any exceptional import or transit licenses for this chemical. Thus, the AA found in Afghanistan is from illegal sources.

In the absence of any evidence of major illicit production of AA in

...
3 UNODC, *The Global Afghan Opium Trade: A Threat Assessment*, July 2011.

4 Interview with Mr. Kabir Khan, head of Precursors Unit of the Counter Narcotics Police of Afghanistan (CNPA), 7 September 2017.

...
5 UNODC and Afghanistan Ministry of Counter Narcotics, *Afghanistan Opium Survey 2016: Cultivation and Production*, December 2016 (and previous years).

6 INCB, *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and*

...
psychotropic substances 2016, Annex IV, New York 2017 and information provided by the Counter Narcotics Police of Afghanistan to UNODC (September 2017).

7 Average Afghan heroin and morphine seizures amounted to 30 tons per year over the period 2012-2016. Average heroin production over the period 2012-2016 amounted to 313 tons (260-360 tons). (Sources: UNODC, annual report questionnaire data and UNODC and Afghanistan Ministry of Counter Narcotics, *Afghanistan Opium Survey 2016: Cultivation and Production*, December 2016 (and previous years).

Table 1: Estimated amounts of AA needed for the manufacture of 1 kg of heroin

Source	Method	Heroin base	Heroin hydrochloride	Heroin (not specified)
DEA 2008 ^a	Informants			1.5 to 2.5 litres
INCB 2012-2016 ^b	Review		1 to 2.5 litres	
BKA 2003 ^c	Manufacture of heroin by 2 Afghan 'cooks' from Nangarhar	1 litre	2.1 litres	
UNODC 2010 ^d	Survey among informants in eastern Afghanistan	1.05 litres	1.7 litres	1 to 1.5 litres
DEA 2017 ^e	Estimate			1 litre

Sources:

^a United States Department of Justice/Drug Enforcement Administration (DEA), 2008, informal communication for the UNODC and Afghanistan Ministry of Counter Narcotics, Afghanistan Opium Survey 2010, p. 109.

^b International Narcotics Control Board (INCB), Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2012, Annex IV, New York 2013; INCB, Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2016, Annex IV, New York 2017.

^c Zerell, B. Ahrens and P. Gerz, (Federal Criminal Office, Wiesbaden, Germany), Documentation of a heroin manufacturing process in Afghanistan, United Nations, Bulletin on Narcotics, Vol. LVII, Nos. 1 and 2, 2005, (published in 2007), pp. 11- 31.

^d UNODC, The Global Afghan Opium Trade: A Threat Assessment, July 2011;

^e US Drug Enforcement Administration Special Testing and Research Laboratory analysis – October 2017.

Afghanistan, it is likely that the quantities used in clandestine heroin manufacture are diverted from licit sources abroad.

The estimated requirements of AA for heroin manufacture in Afghanistan represent only a marginal proportion of that for the licit sector, accounting for 0.02-0.06 per cent of global production⁸ and 0.08-0.2 per cent of global imports of licit AA over 2012-2016⁹. Such numbers suggest that a tiny proportion diverted from global production and licit trade flows is sufficient to guarantee the ongoing heroin manufacture in Afghanistan, making it quite challenging to control global licit flows of AA.

8 313,000 litres/1,389,000,000 litres (i.e. 1.5 tons*0.926) = 0.02% and 783,000 litres/1,389,000 litres = 0.06%. UNODC estimates based on UNODC and Afghanistan Ministry of Counter Narcotics, *Afghanistan Opium Survey 2016* and previous years; INCB 2013 Precursors Report, New York 2014 and other years. The factor for converting quantities of acetic anhydride measured in kilograms into litres amounts to 0.926 according to INCB (derived from the Merck Index (Rahway, New Jersey, Merck, 1989) (INCB, Precursors Report 2016, New York 2017, p. 65).

9 313,000 litres/395,119,747 litres (i.e. 426,695,192 kg*0.926) = 0.08% and 783,000 litres/395,119,747 litres = 0.2%. UNODC estimates based on UN Comtrade; UNODC and Afghanistan Ministry of Counter Narcotics, *Afghanistan Opium Survey 2016*; INCB, Precursors Report 2016, New York 2017 and previous years.

AA is widely traded worldwide, with many countries engaged in both imports and exports. Out of 127 countries which imported AA over the period 2012-2016, a third also exported the substance. Most of the licit AA trade flows take place across countries in Europe, North America and East Asia. The largest exporters of AA by volume in 2016 were Belgium, followed by Mexico, the USA, India, Switzerland, China and Japan, while the largest importers were Belgium followed by Germany, Switzerland, France, China, the USA and the Republic of Korea.¹⁰

Such data, not only highlights the size of the AA trade but also the large numbers of players involved in this trade, which makes it difficult to prevent the diversion of small portions of AA into illicit channels. Currently, most diversions of AA take place within national borders rather than through cross-border transactions.¹¹

The analysis of licit import and export flows of AA shows that the global average import price of AA decreased in the last two years from around US\$

1 per litre in 2014 to US\$ 0.8 per litre in 2016.¹² Data suggest that licit AA prices are significantly higher than the global average in a number of countries, including several along the Balkan route, Eastern Europe, the Caucasus region, Central Asia, East Asia, Central America and the Near and Middle East. The smuggling of AA has been reported in several of these regions.

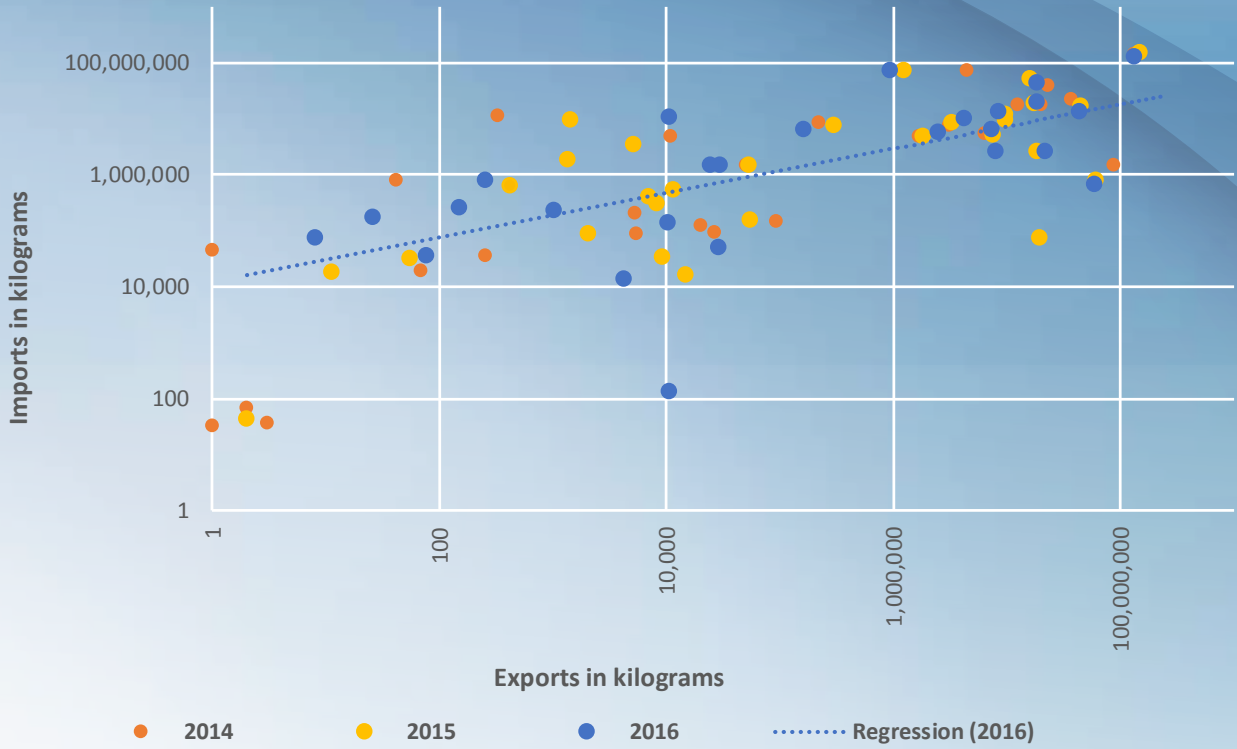
Whether high prices reflect a risk premium linked to illegal activities - and therefore could be a reliable indicator to identify potential diversions of AA - remains, nonetheless, questionable. The actual quantities traded in "high-price AA countries" would not have been sufficient to meet even a small fraction of the overall AA requirements of the Afghan heroin industry. In fact, the high AA prices in many countries seem to be simply a reflection of the very small volumes of AA traded. The less AA is imported, the higher the price for AA (up to 100 times or more the global average market price). The quantity discount seems to be far more pronounced for AA than for other commodities.

10 UN Comtrade database.

11 INCB, *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2016*, New York 2017, p. 24.

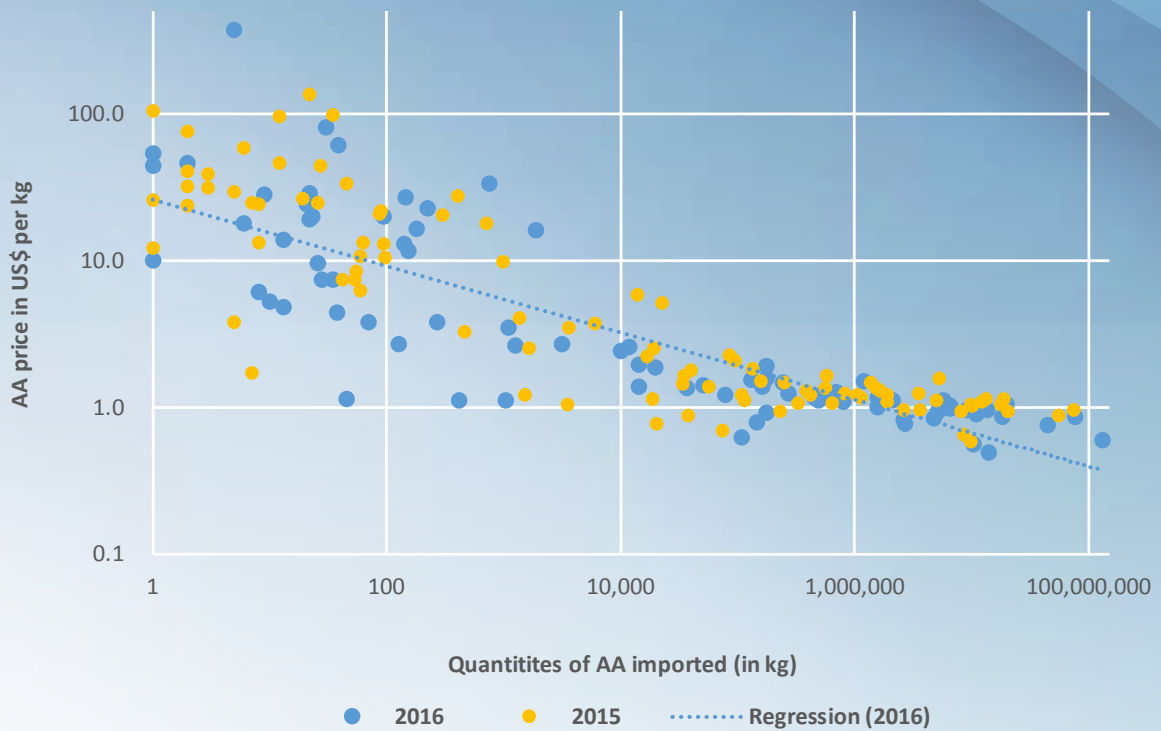
12 UN Comtrade database (information on the quantities and the value of AA traded for licit purposes).

Figure 3: Licit imports and exports of AA, in tons, 2014-2016 (logarithmic scale)



Source: UN Comtrade database.

Figure 4: Licit AA import prices per kilogram and quantities of AA imported in 2015 and 2016 (logarithmic scale)



Source: UNODC elaboration based on amounts imported and value of imports per country, as published in the UN Comtrade database.

Acetic anhydride prices in Afghanistan

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

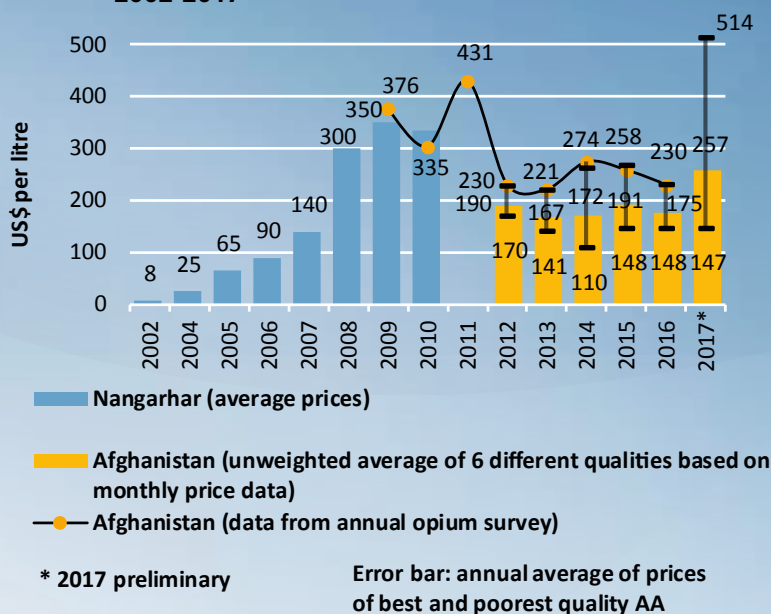
AA prices in Afghanistan increased sharply in the first decade of the new millennium, before declining in 2012 and then remained rather stable in subsequent years until 2017, when AA prices markedly increased again. In August 2017, the cost of a litre of 'best quality' AA¹³ (type A, mostly used in the manufacture of high quality heroin destined for exports to Europe and other developed countries) was more than US\$ 700. This is much higher than the average global price of AA in licit trade of around US\$ 1 per litre.

The initial upward trend of Afghan AA prices over the period 2006-2011 may be linked to increased international efforts to control the AA supply chain, as well as a rising demand for AA resulting from increasing opium and heroin production in the country over that period.

The subsequent decline, over the period 2011-2015, did not reflect reductions in opium and heroin production in Afghanistan, but rather paralleled a marked decrease in seizures of both opiates and AA. This suggests that between 2011 and 2015 there was a lower risk in AA trafficking. This stemmed from increasing problems for law enforcement to control the territory, prompted inter alia by the withdrawal of international troops, a growing donor fatigue to assist law enforcement and an ever more violent insurgency over larger parts of the country. During that period, Afghan morphine and heroin seizures fell sharply together with AA seizures. The

13 Caution is required since the grading of AA into quality A to F is based on the assumed countries of origin, which have been associated with different qualities of the product.

Figure 5: AA prices in Afghanistan as reported to UNODC, 2002-2017



Sources: UNODC, *The Global Afghan Opium Trade: A Threat Assessment*, July 2011; UNODC and Afghanistan Ministry of Counter Narcotics, *Afghanistan Opium Survey 2014: Cultivation and Production*, November 2014 (and previous years); UNODC, *World Drug Report 2014* (United Nations publication, Sales No. E.14.XL.7); UNODC and Afghanistan Ministry of Counter Narcotics, *Afghanistan Drug Price Monitoring – Monthly Reports*, August 2017 and previous years.

risk of seizure of AA in Afghanistan declined – and so did the risk premium associated with the price.

The situation changed again in 2017 when rising seizures of AA in Afghanistan and neighbouring countries went hand in hand with strong AA price increases, particularly in the price of 'best quality' AA (types A and F, primarily used to manufacture heroin for export markets in Europe). In August 2017, the best perceived quality of AA (category A) fetched a record price of US\$ 711, three times as high as a year earlier.¹⁴

Intelligence reports received by the Counter Narcotics Police of Afghanistan (CNPA) suggest that prices even exceeded US\$ 1,000 per litre (US\$ 1,000-1250) for 'best quality' AA in the summer of 2017, up from around US\$ 250 in 2016.¹⁵ In the western and southern regions, AA prices

ranged from US\$ 1,000 to 1,050 per litre while in the eastern region they fetched even higher prices ranging from US\$ 1,050 to 1,250 per litre.¹⁶

In contrast, prices for 'low quality' AA (used in the manufacture of cheaper, lower-grade heroin, likely for consumption in local and regional markets) remained relatively stable in 2017.¹⁷ This suggests that AA used in the manufacture of low quality heroin remains easily available while high quality AA for the manufacture of heroin destined for the more lucrative markets in Western Europe may be more difficult to obtain. This is likely a consequence of some large AA seizures reported by countries in the region in 2016 and 2017¹⁸ as well as a growing demand for AA due to the increasing opium and heroin production in Afghanistan over the same period.

14 UNODC and Afghanistan Ministry of Counter Narcotics, *Afghanistan Opium Price Monitoring – Monthly Report*, August 2017.

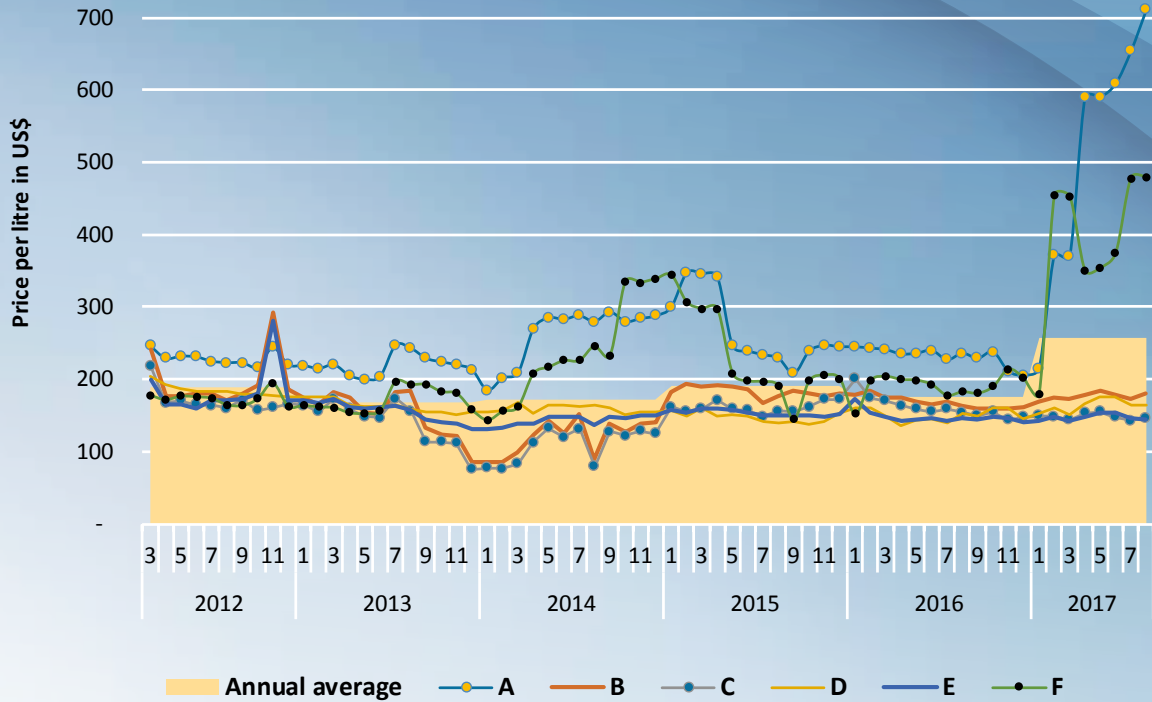
15 Data based on CNPA intelligence reports, provided by the Precursors Control Unit of the Counter Narcotics Police of Afghanistan (CNPA).

16 *Ibid.*

17 UNODC and Afghanistan Ministry of Counter Narcotics, *Afghanistan Opium Price Monitoring – Monthly Report*, August 2017.

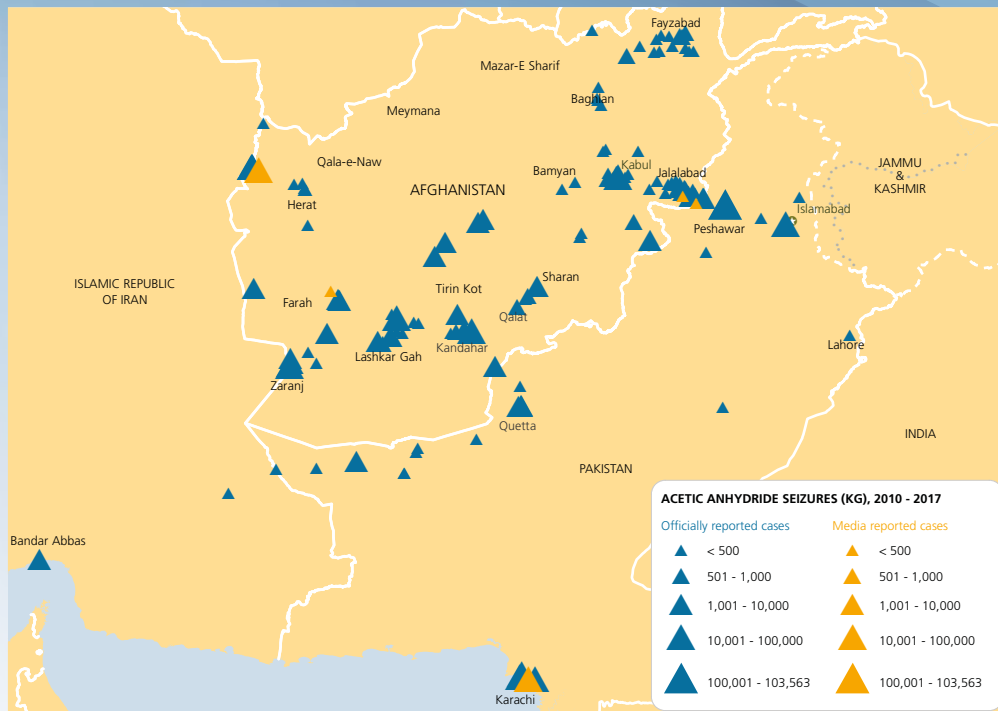
18 *Ibid.*

Figure 6: Price developments of various AA qualities in Afghanistan, March 2012 - August 2017



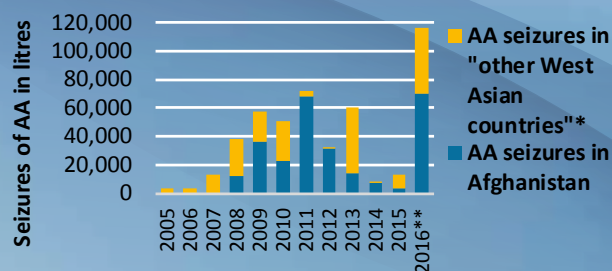
Sources: UNODC and Afghanistan Ministry of Counter Narcotics, *Afghanistan Opium Price Monitoring - Monthly Report*, August 2017 and previous months.

Figure 7: Seizures of AA in and around Afghanistan as reported to UNODC, 2010- 2017



Source: UNODC Drugs Monitoring Platform (DMP) and Individual Drug Seizures (IDS) 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. Dashed lines represent undetermined boundaries. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

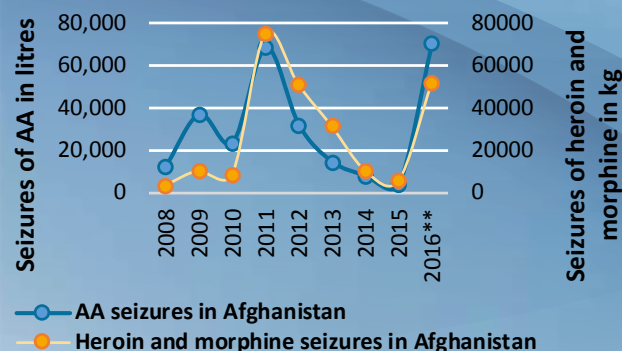
Figure 8: Seizures of AA in Afghanistan and other West Asian countries*, 2005-2016**



* West Asia includes – according to the INCB classification – countries of South-West Asia (Afghanistan, Islamic Republic of Iran and Pakistan), Central Asia, the Caucasus, Turkey as well as countries of the Near and Middle East).

** AA seizure data for West Asian countries for 2016 are preliminary. Source: INCB, *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances*, 2016, March 2017 (and previous years) and UNODC, Annual Report Questionnaire Data, CNPA. AA data are based on published INCB data for the years 2005-2015 and on UNODC Annual Report Questionnaire data for 2016.

Figure 9: Seizures of AA* and of heroin and morphine in Afghanistan, 2008-2016**



*AA seizure data based on INCB for 2008-2015 and UNODC Annual Report Questionnaire for 2016.

** AA seizure data for Afghanistan for 2016 are preliminary. Source: INCB, *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances*, 2016, March 2017 (and previous years) and UNODC, Annual Report Questionnaire Data, CNPA.

Trafficking of acetic anhydride into Afghanistan

Based on data from 2011 to 2014, less than half of all Afghan AA seizures occur at the borders; most are made inland while the chemical is being transported from temporary warehouses to illicit manufacturing sites¹⁹ as well as when clandestine laboratories are being dismantled. Seizures of AA are particularly concentrated in the province of Nangarhar in eastern Afghanistan, in the provinces of Kandahar and Helmand in southern Afghanistan, in the provinces of Farah, Herat and Nimroz in western Afghanistan, and, to a lesser extent, in the provinces of Baghlan and Badakhshan in northern and north-eastern Afghanistan.²⁰ While such seizures may suggest a stronger presence of law enforcement in these locations, they may also point to places where AA is most likely to be used, i.e. clandestine laboratories.

Trafficking of AA into Afghanistan mainly takes place across two of the country's international borders. The International Narcotics Control Board, based on data provided by the

Government of Afghanistan, estimated that over 85 per cent of cross-border trafficking cases involving AA over the 2011-2014 period took place via Iran (Islamic Republic of) with most of the remainder smuggled into the country via Pakistan.²¹

Several of the individual seizures made in Iran (Islamic Republic of) and Pakistan in recent years suggest that much of the AA intercepted is shipped to the region from China and neighbouring countries. The chemical often enters the region at the ports of Bandar Abbas in Iran (Islamic Republic of) or at the port of Karachi in Pakistan.²² The AA arriving in Iran (Islamic Republic of) is then often shipped to the province of Khorasan before entering the Afghan province of Herat from where it is then transported to final destinations, typically the locations of clandestine laboratories operating in Afghanistan.

Important AA seizures in Pakistan have taken place in recent years in the province of Baluchistan²³ which borders the Afghan provinces of Kandahar and Helmand (where many clandestine heroin laboratories are

located)²⁴ as well as in the North West Frontier province and the Federally Administered Tribal Areas bordering the Afghan province of Nangarhar, another important centre of Afghan heroin production.

Moreover, AA seizures made in countries along the Balkan route, including in 2017, suggest that some additional shipments of AA from Europe are smuggled via Turkey and Iran (Islamic Republic of) to Afghanistan. Some of the AA in Afghanistan seems to be also of Indian origin.²⁵

19 INCB, *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2015*, March 2016, p. 26.

20 UNODC Drugs Monitoring Platform (DMP).

21 INCB, *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2015*, March 2016, p. 26.

22 UNODC Drugs Monitoring Platform (DMP).

23 UNODC Drugs Monitoring Platform (DMP).

24 UNODC, *The Global Afghan Opium Trade: A Threat Assessment*, July 2011, p. 145. According to the Ministry of Counter Narcotics 64 per cent of all 109 laboratories destroyed over the March 2012 to March 2013 period were located in Helmand province and 8 per cent in Kandahar province (Islamic Republic of Afghanistan, Ministry of Counter Narcotics, *2013 Afghanistan Drug Report*, December 2014, p. 85). According to the Counter Narcotics Police of Afghanistan (CNPA) 73 laboratories were dismantled in 2012 of which 48 were located in Helmand and 3 in Kandahar; in 2013 a total of 61 laboratories were dismantled in Afghanistan, including 31 in Helmand and 6 in Kandahar (CNPA, February 2014). According to information from the Afghan Ministry of Counter Narcotics some 70 per cent of clandestine laboratories dismantled in between 2013/14 and 2014/15 in Afghanistan were located in the southern region (68 laboratories in Helmand, 8 laboratories in Kandahar and 3 in Uruzgan). Such laboratories were thus located in the region where most of Afghanistan's opium production has taken place in recent years. (Islamic Republic of Afghanistan, Ministry of Counter Narcotics, *2015 Afghanistan Drug Report*, 9 December 2015, p. 92.)

25 UNODC Drugs Monitoring Platform (DMP).

AA seized in western Afghanistan

APRIL 2016. 700 barrels, each containing 30 litres of AA (21,000 litres in total), were seized in Afghanistan in Islam Qala, Herat province. The container entered Afghanistan from Iran (Islamic Republic of) through the Dogharon border crossing point.¹

OCTOBER 2016. Afghan authorities seized 60 litres of AA in Nimroz province at another border crossing with Iran (Islamic Republic of).²

JANUARY 2017. Afghan authorities seized a further 1,000 litres of AA in Nimroz province together with 1,940 litres of hydrochloric acid from a container coming from the United Arab Emirates via Iran (Islamic Republic of) to Afghanistan.³

JULY 2017. Afghan police seized 15,360 litres of AA on a trailer truck in Herat city, which had transited Iran (Islamic Republic of). The AA had been initially shipped to the Iranian port city of Bandar Abbas and then entered Herat province on a truck at the Islam Qala border crossing. The final destination was intended to be the Bakwa district in neighbouring Farah province⁴ located south of Herat province. The value of this shipment was estimated at US\$ 15 million, at approximately US\$ 1,000 per litre.⁵

...
1 Counter-Narcotics Police of Afghanistan (CNPA), reported to UNDOC on 10 September 2017.

2 *Ibid.*

3 *Ibid.*

4 Counter-Narcotic Police of Afghanistan (CNPA); incident of 2 July, published on 5 July 2017.

5 *Ibid.*

AA seized in clandestine laboratories in western and southern Afghanistan

OCTOBER 2016. Afghan authorities conducted an operation in Bakwa district of Farah province, located in western Afghanistan, and dismantled 7 heroin laboratories and seized 8,490 litres of AA. In addition, 16,310 kg of solid chemicals, 129 kg of heroin, 12,500 kg of morphine, 6,534 kg of opium and 12 kg of hashish were seized.¹

MAY 2017. 180 litres of AA were seized while dismantling a clandestine heroin laboratory in the Nadi Ali district of Helmand province. In the process, Afghan counter-narcotic units seized and destroyed about US\$ 19 million worth of narcotics and drug production equipment, along with vehicles, weapons and communications equipment. The operation also “yielded” 220 kilograms of heroin, 7 tons of morphine base, 80 litres of ammonium hydroxide and 275 kilograms of soda ash.²

...
1 Counter-Narcotic Police of Afghanistan (CNPA) (AF, 2016-10-17), quoted in UNODC Drugs Monitoring Platform (DMP).

2 *Counter-Narcotic Police of Afghanistan (CNPA) (AF, 2017-07-31, based on Government and NATO Int.), quoted in UNODC Drugs Monitoring Platform (DMP).*

Seizures of AA in Pakistan, originating in China and transiting the United Republic of Tanzania

JANUARY 2016. One of the largest seizures of AA took place in Pakistan in 2016. The authorities of Pakistan informed INCB of a seizure of more than 20,000 litres (21.7 tons) of AA. The consignment was declared at customs as a shipment of glacial acetic acid from the United Republic of Tanzania. Subsequent backtracking investigations resulted in the identification of China as the country of origin and the United Republic of Tanzania as the point of diversion where the AA was mislabelled prior to its export to Pakistan.¹

...
1 INCB, *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2016*, March 2017, p. 26.

AA seized in Karachi, Pakistan

FEBRUARY 2016. Pakistani authorities seized 16.2 tons of AA in a container at the port of Karachi, shipped from Hong Kong, China to Pakistan according to the Pakistan Anti-Narcotics Force (ANF). The chemical was packed in 600 cans in a container en-route from Hong Kong, China to Afghanistan.¹ The port of Karachi has also served in the past as the main entry point of overseas shipments of AA into Pakistan.²

...
1 Anti Narcotics Force of Pakistan (PK, 2016-02-17), quoted in UNODC Drugs Monitoring Platform (DMP).

2 UNODC, *The Global Afghan Opium Trade – A Threat Assessment, July 2011 and UNODC Drugs Monitoring Platform (DMP).*

AA seized in Baluchistan, Pakistan

DECEMBER 2016. 100 cans, containing 3,660 litres of AA, were seized by the ANF in Quetta.¹

JUNE 2017. The ANF of Quetta seized a further 120 litres of AA at an uninhabited residential home in Chagi district, province of Baluchistan, in addition to 135 kg of opium. The substances were allegedly in temporary storage before transfer to another organized crime group.²

...

1 Anti Narcotics Force of Pakistan (PK, 2016-12-23), quoted in UNODC Drugs Monitoring Platform (DMP).

2 Anti Narcotics Force of Pakistan (PK, 2017-06-08), quoted in UNODC Drugs Monitoring Platform (DMP).

AA seized in the Islamic Republic of Iran

2015. The Iranian customs authorities seized two large consignments of 9.3 tons and 17.6 tons of AA destined to Afghanistan.¹

FEBRUARY 2016. INCB was made aware of 11.5 tons of AA seized by the Iranian customs authorities in February 2016, shipped via Taiwan Province of China to Iran (Islamic Republic of) with a final destination in Afghanistan.²

...

1 INCB, *Precursors and chemicals frequently used in the illicit manufacture of narcotic drugs and psychotropic substances 2016*, March 2017, p. 25.

2 Ibid.

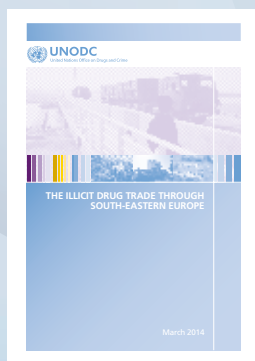
In this issue

Processing of Afghan-produced opium into heroin takes place mainly in Afghanistan. Acetic anhydride (AA) is a crucial precursor required for conversion of opium into heroin. Over the period 2012 - 2016, it is estimated that between 313,000 and 780,000 liters of AA were required annually for manufacturing heroin in Afghanistan. This first issue of the AOTP Update is dedicated to the illicit market of AA in Afghanistan and reviews recent developments in AA trafficking routes, seizures, market size and prices up to 2017.

Recent AOTP publications



The global Afghan opiate trade



The illicit drug trade through South-Eastern Europe



The Afghan opiate trade and Africa



Afghan opiate trafficking through the southern route

The Afghan Opiate Trade Project aims at addressing the need for systematic, comprehensive and consolidated analytical information on trends in the global illicit Afghan opiate trade in order to support the international responses to that issue. In addition, the project also aims at enhancing the drug research capacity of those countries most affected by Afghan opiates, and increasing the awareness of the data and information needs to support research on opiate trafficking. Established in 2008, the Afghan Opiate Trade Project has produced a number of research reports relating to several aspects of the illicit trade in Afghan opiates, and has also supported a number of countries in producing their own reports.

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