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Afghanistan Opium Survey 2018

Cultivation and Production

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	2017	Change from 2017	2018
Net opium poppy cultivation (after eradication)	328,000 ha (301,000 - 355,000)	-20%	263,000 ha (242,000 - 283,000)
Number of poppy free provinces[1]	10	0%	10
Number of provinces affected by poppy cultivation	24	0%	24
Eradication	750 ha	-46%	406 ha
Average opium yield (weighted by cultivation)	27.3 kg/ha	-11%	24.4 kg/ha
Potential production of opium	9,000 mt (8,000 -10,000)	-29%	6,400 mt (5,600 - 7,200)
Average farm-gate price (weighted by production) of fresh opium at harvest time	US$ 131/kg	-42%	US$ 76/kg
Average farm-gate price (weighted by production) of dry opium	US$ 155/kg	-39%	US$ 94/kg
Total farm gate value of opium production	US$ 1.4 billion	-56%	US$ 0.6 billion

Area under opium poppy cultivation decreased by 20% since 2017 but remains at very high levels

The total opium poppy cultivation area in Afghanistan was estimated at 263,000 (242,000 – 283,000) hectares in 2018, a 20% or 65,000 hectares decrease compared to the previous year. It is the second highest measurement since the beginning of systematic opium poppy monitoring and recording in 1994. The level of 2018 exceeds the third highest level of 2014 by 17% or 39,000 hectares.

Opium poppy cultivation decreased by some 24,000 hectares (-56%) in the Northern region, by 23,200 hectares (-43%) in the Western region and by 15,000 hectares (-8%) in the Southern region. The strong decreases in the Northern and parts of the Western regions were mainly attributed to the adverse effects of a drought.

Most of the opium poppy cultivation took place in the Southern region (69%), followed by the Western region (12%). The Eastern and Northern regions accounted for 8% and 7% of total cultivation, respectively. The North-eastern and Central regions together accounted for 4% of the total cultivation.

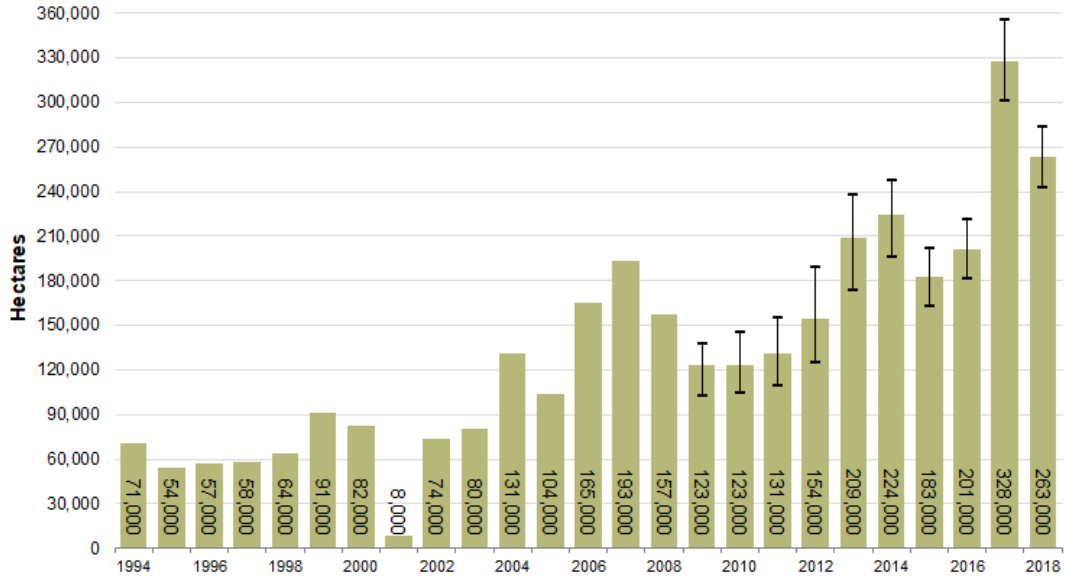
[1] *A province is defined as poppy-free when it is estimated to have less than 100 hectares of opium poppy cultivation.*

Hilmand remained the country's leading opium poppy cultivating province, followed by Kandahar, Uruzgan,[2] and Nangarhar. The number of poppy-free provinces in 2018 remained at 10, the same number as in 2017. Nuristan province regained its poppy-free status but Takhar province, which had been poppy-free since 2008, lost it. The number of provinces affected by opium poppy cultivation remained at 24.

Crops in the Northern region and in Badghis province were heavily affected by a drought. Cultivation of opium poppy in Balkh decreased by 30% from 12,100 hectares in 2017 to 8,500 hectares in 2018. In Jawzjan, opium poppy cultivation decreased by 90% from 3,200 hectares in 2017 to 338 hectares this year, and in Badghis cultivation decreased by 72% from 24,700 hectares in 2017 to 6,970 hectares in 2018.

In 2018, 406 hectares of opium poppy were eradicated in four provinces, compared to 750 hectares in 14 provinces in 2017. During the 2018 eradication campaign, five lives were lost, and two persons were injured (six lives were lost and eight injured in 2017).

Opium poppy cultivation in Afghanistan, 1994-2018 (Hectares)



Sources: MCN/UNODC opium surveys 1994-2018. The vertical lines represent the upper and lower bounds of the 95% confidence interval. The purple line represents the average farm-gate price without inflation adjustment, the orange line the farm-gate price after inflation adjustment.

Potential opium yield and production decreased in 2018, reducing the potential amount of heroin produced from Afghan opium

Potential opium production was estimated at 6,400 (5,600 – 7,200) tons in 2018, a decrease of 29% from its 2017 level (9,000 tons). The decrease in production was due to decreases in area under opium poppy cultivation and opium yield per hectare.

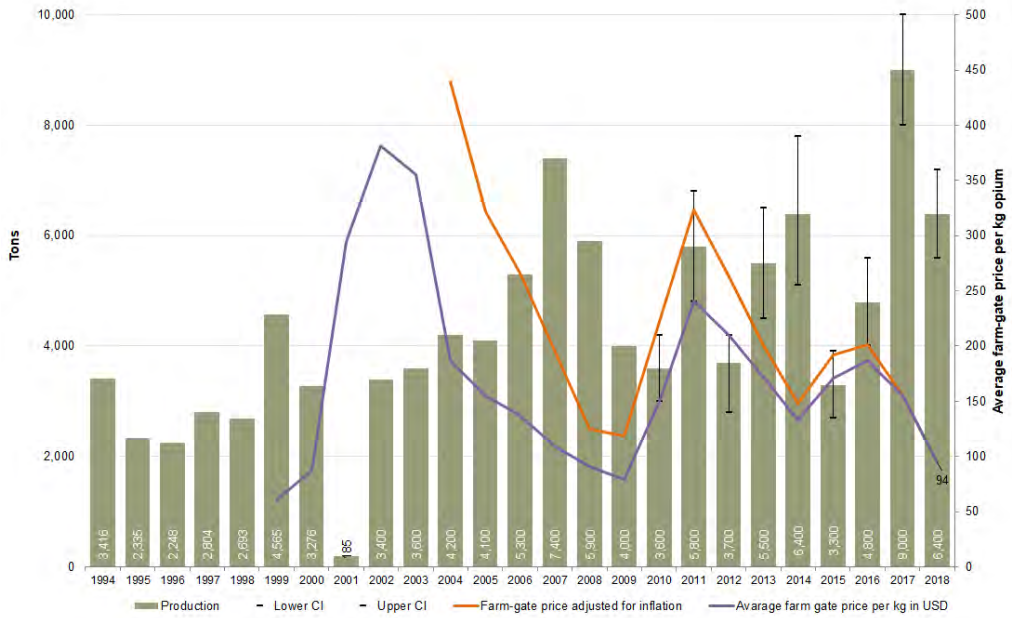
The average opium yield in 2018 was estimated at 24.4 kilograms per hectare, which was 11% lower than in 2017. Yields in the Central, Eastern and Northern regions decreased notably by 47%, 29% and 19% respectively. Yields decreased by 8% in the Southern region and remained stable in the Western and North-eastern regions.

The Southern region continued to produce most of the opium in Afghanistan (68% of national production), followed by the Western (11%), Eastern and Northern regions (8% each). The North-eastern and Central regions accounted for 5%.

[2] Including Gizab district, a district formerly part of Day-Kundi, but under the administration of the Governor of Uruzgan province.

After accounting for consumption of raw opium in the region of Afghanistan and neighbouring countries, it can be estimated that 5,000 to 5,300 tons of opium are potentially available for heroin production in and outside of Afghanistan. This can potentially yield some 360 to 610 tons of heroin of export quality (between 50 and 70 per cent purity) or 250 to 300 tons of pure heroin base.

Potential opium production in Afghanistan and average farm-gate prices of opium, 1994-2018 (mt, US$/kg opium)



Sources: MCN/UNODC opium surveys, 1994-2018 (prices and production), the World Bank and CSO Afghanistan (CPI and inflation available since 2004). The vertical lines represent the upper and lower bounds of the confidence interval of the estimates. Figures refer to oven-dry opium. Production figures for 2006 to 2009 have been revised in 2012; see MCN/UNODC Afghanistan opium survey 2012.

Farm-gate prices hit all time low and the farm-gate value of opium decreased by 56% compared to 2017

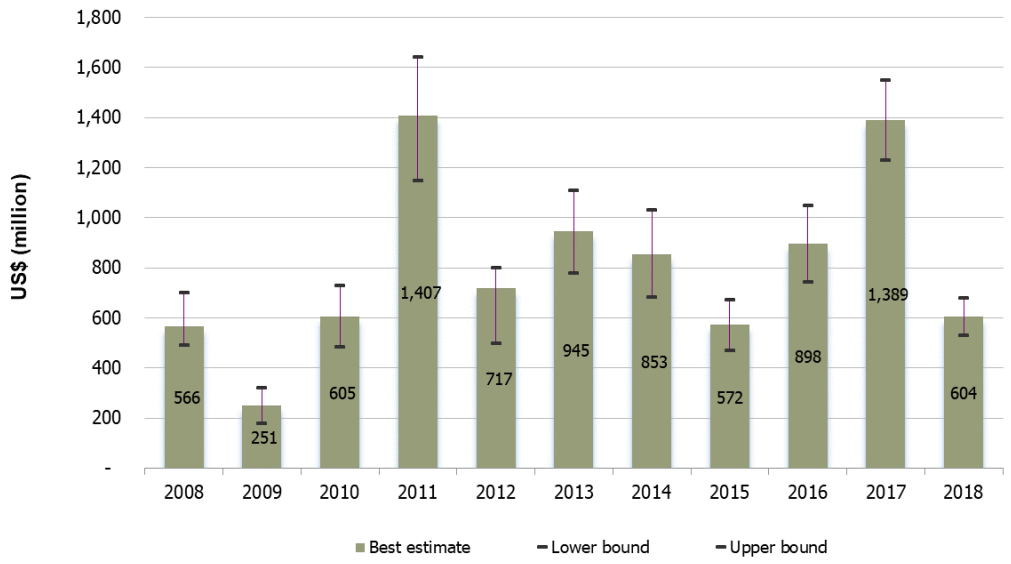
In response to the continuing high levels of supply, the farm-gate price of dry opium at harvest time fell the second consecutive year to an average of 94 US$/kg in 2018. It is at its lowest level since 2004 after adjusting for inflation. Prices below 100 US$/kg were observed the last time in 2009 (not adjusted for inflation). When compared to 2017, farm-gate prices decreased by about 39% at the national level.

The low prices strongly affected the income earned from opium cultivation by farmers. At US$ 604 million (530 – 680 million), equivalent to roughly 3% of Afghanistan's estimated GDP,[3] the farm-gate value of opium production decreased by 56%[4] when compared to past year (estimated at 1.4 billion US$).

[3] Estimated at USD 20.4 billion excluding opium for the Afghan year 2017-2018. Source: CSO Afghanistan

[4] Without adjustment for inflation.

Farm-gate value of opium production in Afghanistan without inflation adjustment, 2008-2018
(Million US dollars)



Analysis of the results

At 263,000 hectares, the area under opium poppy cultivation decreased by 20% when compared to 2017. This decrease can be attributed to an heavy drought in the Northern region and parts of the Western region, and possibly to low and decreasing prices in regions less affected by the drought. Remote sensing data of the Northern region and Badghis (Western region) showed that crops failed at major scale in rain-fed land due to less and late rain. Irrigated areas were also affected, since reduced snow fall in the winter restricted the water available for irrigation in spring. The impact of the drought on opium poppy cultivation appeared to be limited in the Southern region. Here the moderate reduction in opium poppy cultivation could be potentially linked to the low and continuously falling opium prices.

The area under opium poppy cultivation remained at very high levels in 2018 (it is the second highest level since beginning of the monitoring), in spite of decreasing prices and a seemingly saturated opium market. Opium poppy has become a crucial component of the Afghan economy that secures the livelihoods of many Afghans who engage in cultivation, work on poppy fields or partake in the illicit drug trade. In rural areas, a considerable share of the population earned income from opium poppy cultivation. In addition to farming households, opium provides daily wage labor to many local and migrant workers hired by farmers. In 2017, opium poppy weeding and harvesting provided for example the equivalent of up to 354,000 full time jobs to rural areas.

With viable alternatives lacking, many communities - not only farmers - have become dependent on the income from opium poppy to sustain their livelihoods. Afghan farmers continue to grow opium poppy at large scale, even with prices at an all-time low (after adjusting for inflation). This indicates the degree of dependence and the lack of better alternatives to opium poppy.

The continuing improvement of agricultural productivity also plays a role, including the use of solar panels for powering irrigation pumps and fertilizers and pesticides, which may have made opium poppy cultivation increasingly profitable even under unfavorable natural conditions and falling prices. Solar panels for irrigation seem to have replaced diesel pumps in many areas. These panels require a sizable initial investment but have lower running costs than diesel-powered pumps.

There is, however, no single explanation for these continuing high levels of opium poppy cultivation. The multiple drivers are complex and geographically diverse, as many elements continue to influence farmers' decisions regarding opium poppy cultivation. Rule of law-related

challenges, such as political instability, lack of government control and security, as well as corruption, have been found to be among the main drivers of illicit cultivation. Socio-economic drivers also impact farmers' decisions. Scarce employment opportunities, lack of quality education and limited access to markets and financial services continue to contribute to the vulnerability of farmers towards opium poppy cultivation.

Future challenges

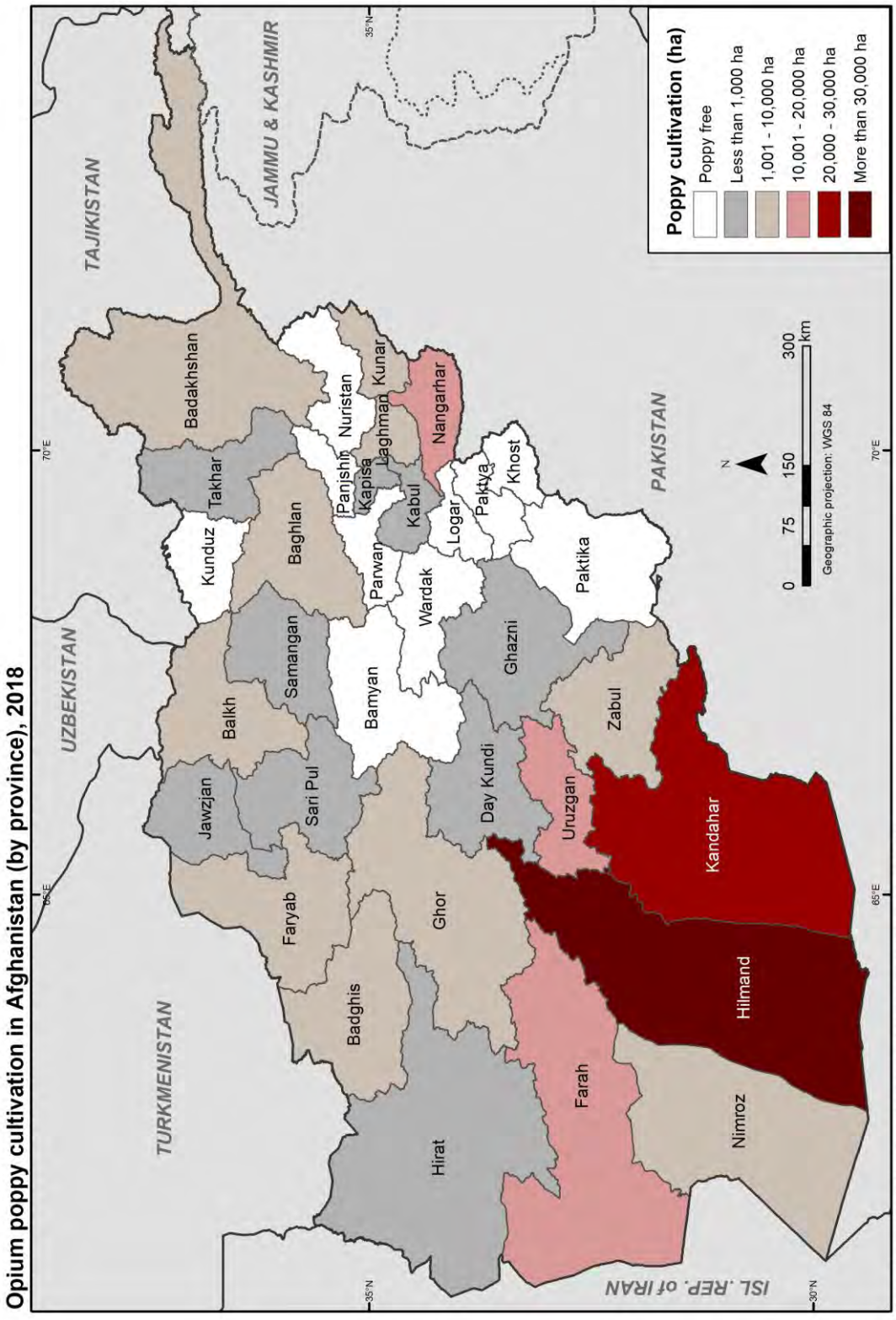
The continuing high levels of opium poppy cultivation in Afghanistan create multiple challenges for the country, its neighbours and the many other countries that are transit for or destination of Afghan opiates. The significant levels of opium poppy cultivation and illicit trafficking of opiates will probably continue to fuel instability, insurgency and provide funding to terrorist groups in Afghanistan. More high quality, low cost heroin will reach consumer markets across the world, with increased consumption and related harms as a likely consequence.

Addressing the opiate problem in Afghanistan remains a shared responsibility. Only a small share of the revenues generated by the cultivation and trafficking of Afghan opiates remains in Afghanistan. This year's decrease of the farm-gate value of opium means that less money is available for Afghan farmers to purchase food, have medical expenses, and purchase daily needs products. If no legal alternatives are made available to help Afghanistan and its impoverished rural population to cope with its economic and social challenges, the current negative consequences of the already existing large-scale production of opiates will be reinforced.

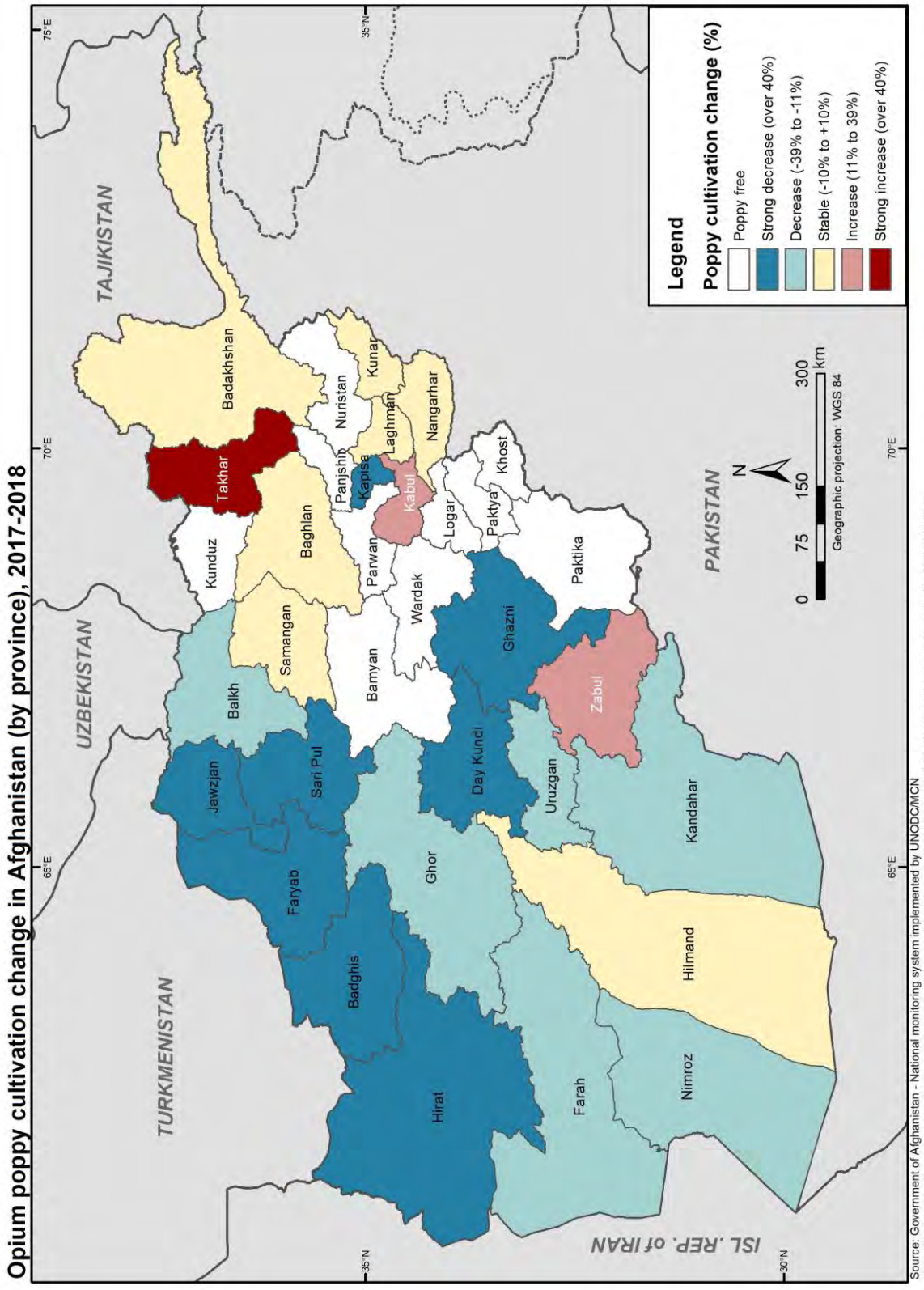
The illicit economy, which in many provinces has permeated rural societies and made many communities dependent on the income from opium poppy, will constrain the development of the licit economy and potentially further fuel corruption. If prices continue to decrease, the situation of already impoverished farmers will become even more precarious, with the potential consequence of further expansion of the area under cultivation at cost of other, licit crops. The continued availability of cheap opium and heroin in the country might affect opiate use and its the social and economic costs for drug users, their families, and for society in general.

While opium production has fallen considerably compared to last year, it is still at a high level and billions of dollars will be made from converting opium into heroin and trafficking it into major consumer markets, mainly in Europe and Asia. Moreover, the transformation of opium into heroin is likely to bring increased trafficking of precursor substances. Tons of precursor chemicals will potentially be diverted from licit international markets and smuggled into Afghanistan to supply manufacturers of heroin.

To support the Afghan Government in its efforts to counter illicit crop cultivation, continuing analysis and monitoring of the links between the rule of law, illicit drug cultivation, production, and trafficking is required. In addition, more information would be needed about changes along opiate trafficking routes in transit and destination countries, including information about use and prices, to be able to determine possible consequences and policy considerations for Afghanistan and the international community of the continuing high opium production.



Source: Government of Afghanistan - National monitoring system implemented by UNODC/MCN
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 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 poppy cultivation change in Afghanistan (by province), 2017-2018
TAJIKISTAN
UZBEKISTAN
TURKMENISTAN
PAKISTAN
ISL. REP. of IRAN
Badakhshan
Takhar
Kunduz
Baghlan
Nuristan
Kunar
Laghman
Panjshir
Kapisa
Kabul
Nangarhar
Logar
Paktya
Khost
Parwan
Wardak
Paktika
Ghazni
Samangan
Balkh
Bamyan
Zabul
Jawzjan
Sari Pul
Day Kundi
Uruzgan
Faryab
Ghor
Kandahar
Badghis
Hilmand
Hirat
Farah
Nimroz
Legend
Poppy cultivation change (%)
Poppy free
Strong decrease (over 40%)
Decrease (-39% to -11%)
Stable (-10% to +10%)
Increase (11% to 39%)
Strong increase (over 40%)
N
0 75 150 300 km
Geographic projection: WGS 84
75°E
70°E
65°E
35°N
30°N
Source: Government of Afghanistan - National monitoring system implemented by UNODC/MCN
Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.
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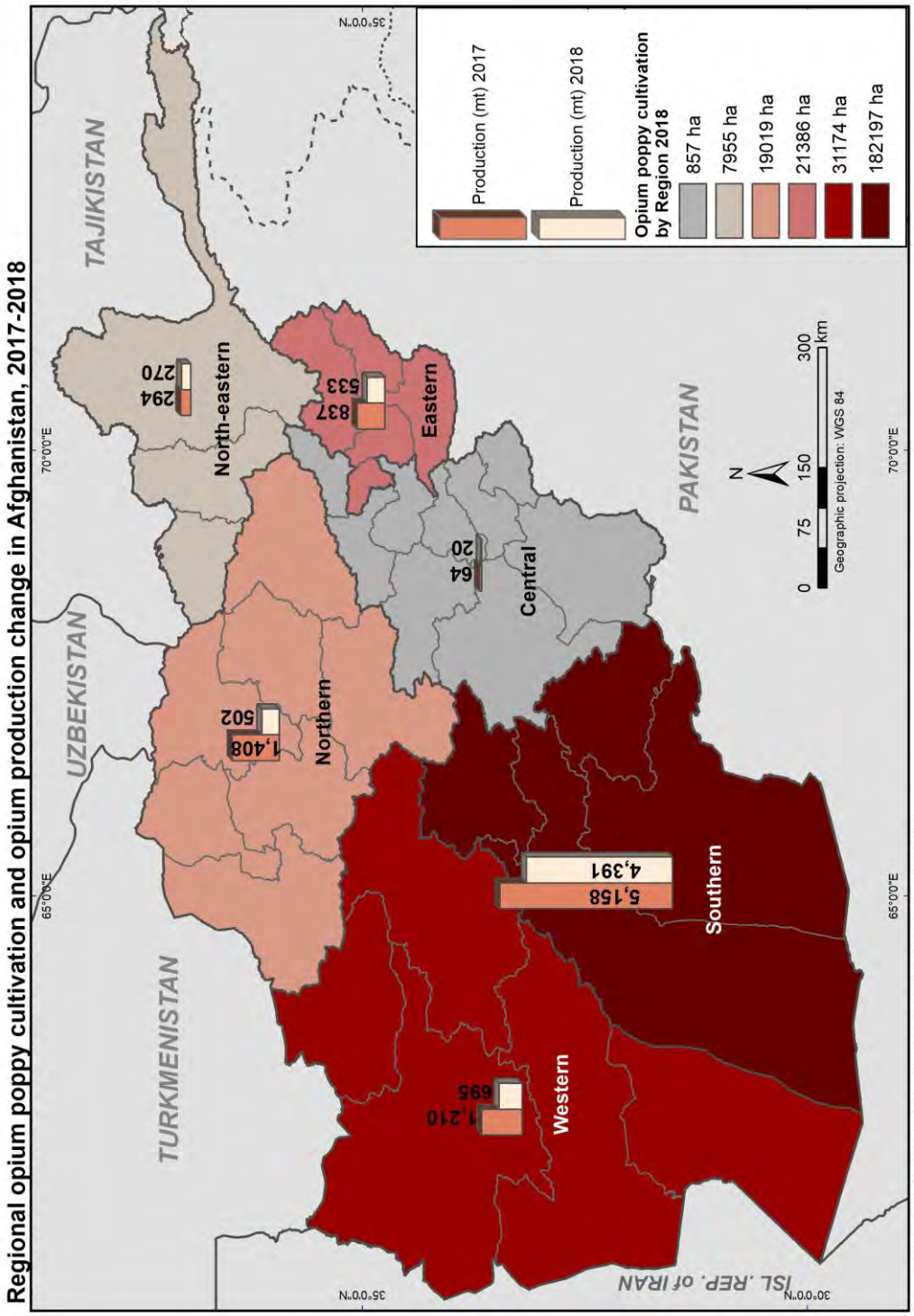


Source: Government of Afghanistan - National monitoring system implemented by UNODC/MCN
Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.
The dotted line represents approximately the line of control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

1 Introduction

The Afghanistan Opium Survey is implemented annually by the Ministry of Counter Narcotics (MCN) of Afghanistan in collaboration with the United Nations Office on Drugs and Crime (UNODC). The survey team collects data and analyses information on the location and extent of opium poppy cultivation, potential opium production and the socio-economic impact on Afghanistan, with emphasis on the rural areas. MCN and UNODC have also been involved since 2005, in the verification of opium eradication conducted by provincial governors and poppy-eradication forces. The results provide a detailed assessment of the outcome of the current year's opium season and together with data from previous years, enable the identification of medium- and long-term trends in the evolution of the illicit drug problem. This information is essential for planning, implementing and monitoring the impact of measures required for tackling a problem that has far-reaching implications for Afghanistan as well as the international community.

The opium survey is implemented within the technical framework of the UNODC Illicit Crop Monitoring Programme (ICMP). The objective of ICMP is to assist the international community in monitoring the extent and evolution of illicit crops, an objective that was reiterated in the plan of action adopted by the United Nations (the 53rd session of the Commission on Narcotic Drugs in March 2009) and in the more recent 'outcome document' from the United Nations General Assembly Special Session on the World Drug Problem[5]. Under ICMP, monitoring activities currently supported by UNODC also exist in other countries suffering from illicit crop cultivation, such as in Asia (Myanmar), Latin America (the Plurinational State of Bolivia, Colombia, Mexico and Peru) and in Africa (Nigeria).

The Afghanistan Opium Survey 2018 was implemented under project AFG/F98, "Monitoring of Opium Production in Afghanistan", with financial contributions from the Governments of Japan and the United States of America.

[5] See points 3u, 7c, 7d, 7g in *Our joint commitment to effectively addressing and countering the world drug problem*. Outcome Document of the 2016 United Nations General Assembly Special Session on the World Drug Problem, New York, 19-21 April 2016

2 Opium Poppy Cultivation

2.1 National and regional opium poppy cultivation trends

The total area under opium poppy cultivation in Afghanistan was estimated at 263,000 hectares in 2018, nearly 20% or 65,000 hectares less compared to the previous year. This level of opium poppy cultivation is still the second highest since the beginning of the systematic monitoring.

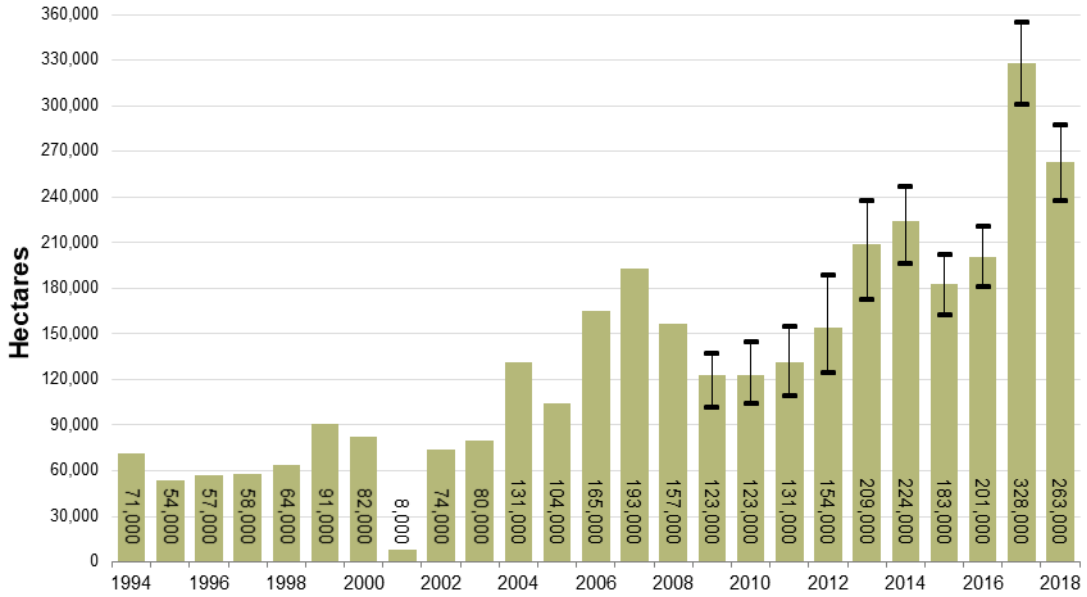
A reduction in opium poppy cultivation was observed in all main opium poppy cultivating provinces (Table 2). Bagdhis and Faryab provinces recorded the most significant reductions by -72% and -64%, respectively, in total reducing the area under cultivation by 32,400 hectares. Balkh and Nimroz also showed a reduction of -30% and -21% in area under opium poppy cultivation. Hilmand and Kandahar provinces, which had the largest areas under opium-culitivation (more than 60% of national total), witnessed a fall of -5% and -16% respectively in 2018, amounting to a net reduction by over 12,000 hectares.

The regional distribution of opium poppy cultivation shows that the majority (69%) of cultivation continues to be in the Southern region of the country. The Western region accounted for 12% of total cultivation, and the other regions contributing the remaining 19%.

Hilmand remained the country's major opium poppy cultivating province at 136,798 hectares, followed by Kandahar (23,410 hectares), both in the Southern region.

In 2018, the number of poppy-free provinces in Afghanistan remained at 10. Nuristan province regained its poppy-free status, but Takhar in the North-eastern region lost its poppy-free status, with an estimated 251 hectares of opium poppy cultivation.

Figure 1 Opium poppy cultivation in Afghanistan, 1994-2018 (Hectares)



Sources: MCN/UNODC opium surveys 1994-2018. The vertical lines represent the upper and lower bounds of the 95% confidence interval.

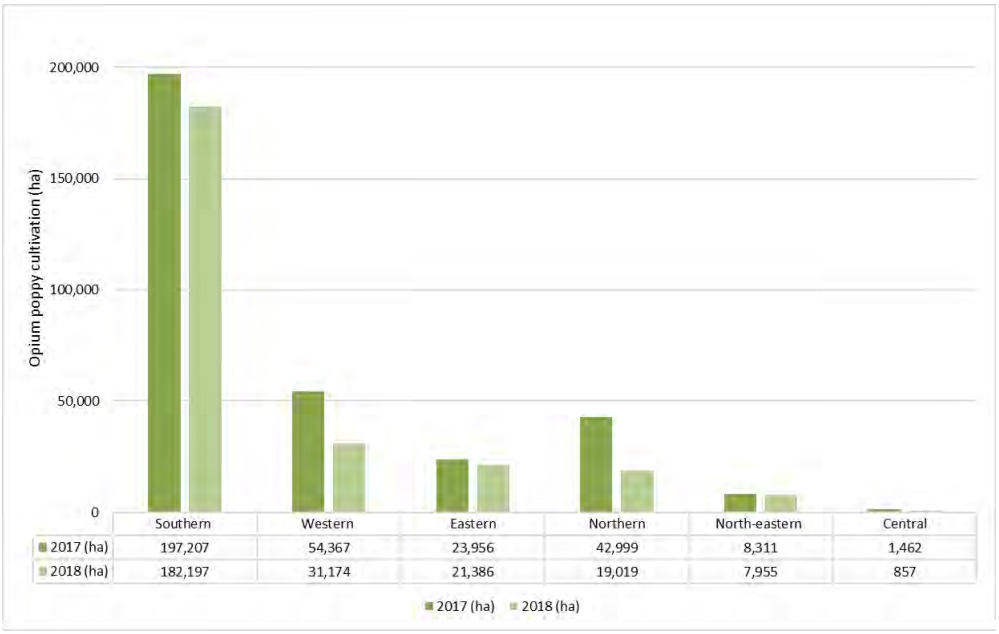
Table 1 Regional distribution of opium poppy cultivation, 2017-2018 (Hectares)

Region	2017 (ha)	2018 (ha)	Change 2017-2018*	2017 (ha) % of total*	2018 (ha) % of total*
Central	1,462	857	-41%	0%	0%
Eastern	23,956	21,386	-11%	7%	8%
North-eastern	8,311	7,955	-4%	3%	3%
Northern	42,999	19,019	-56%	13%	7%
Southern	197,207	182,197	-8%	60%	69%
Western	54,367	31,174	-43%	17%	12%
Rounded Total	**328,000**	**263,000**	**-20%**	**100%**	**100%**

**Rounded to the nearest integer*

Note: From 2017, the provincial boundaries of Badghis (Western region) and Faryab (Northern region) were changed. Ghormach district, formerly part of Badghis province and a major opium poppy cultivating district, came under the administration of the Governor of Faryab province. The changes in opium poppy cultivation in these two regions are affected by this change.

Figure 2 Opium poppy cultivation in Afghanistan, by region 2017-2018 (Hectares)



In the **Eastern region**, the opium poppy cultivation was mainly driven by the strong contribution of Nangarhar (17,177 hectares), although there was a decline by 9% in opium poppy cultivated area. The other provinces with a low level of cultivation were Laghman (2,092 hectares) and Kunar (1,732 hectares). Nuristan regain it's poppy-free status this year. In the Eastern region, a total of 308 hectares of opium poppy were eradicated, mainly in Nangarhar province, compared to 261 hectares in 2017.

In the **North-Eastern region**, Badakhshan saw a cultivation decrease to 7,703 hectares in 2018 from 8,311 hectares in 2017. Takhar lost its poppy-free status with 251 hectares being cultivated in 2018. Eradication took place only in Badakhshan province and was 85 hectares in 2018, a significant drop from 269 hectares in 2017

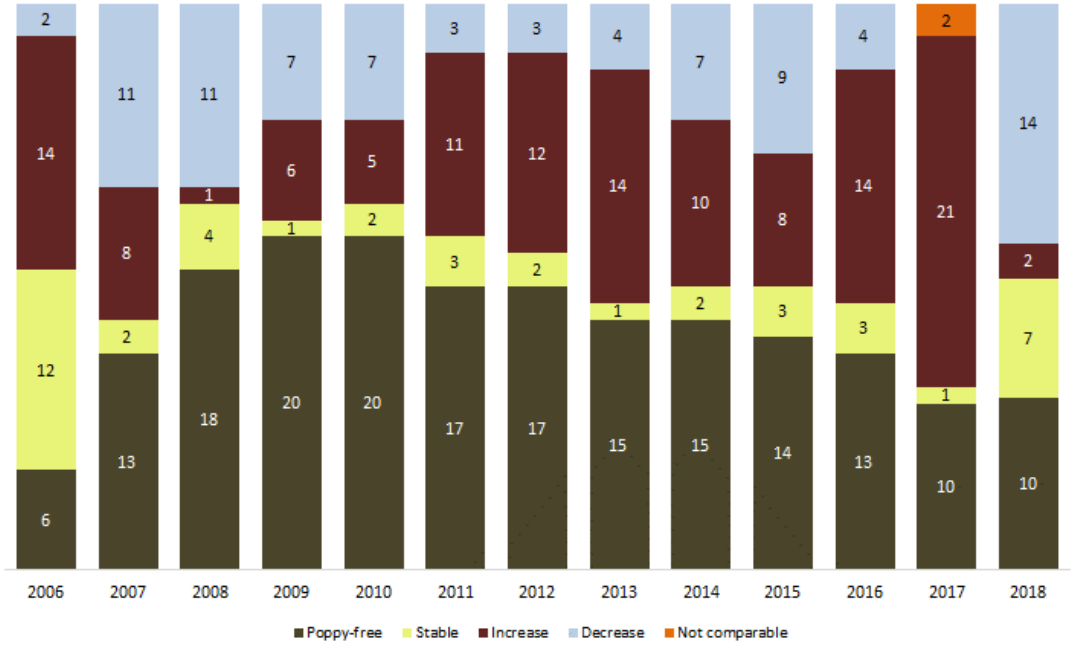
In the **Northern region**, an overall strong decrease was observed in opium poppy cultivation (-56%). While Jawzjan at 338 hectares and Sari-Pul at 660 hectares in 2018 recorded the highest reductions when compared to 2017 (-90% and -81% respectively), Balkh's reduction by -30% (from 12,116 to 8,532 hectares) is also notable. Baghlan and Samangan remained almost the same. Bamyan remained as the only poppy-free province in the Northern region. No eradication was

recorded in 2018, compared to 25 hectares in 2017. The overall reduction in Northern region seems to be due to the drought in 2018 which caused a fall in agriculture area in both rain-fed and irrigated land.

In the **Southern region**, opium poppy cultivation decreased in all provinces, with an exception of Zabul which saw an increase of 21% to 2,581 hectares. Hilmand remained Afghanistan's largest opium poppy cutivation province and accounts for 52% of the total area under opium poppy cultivation, although cultivation dcreased by 7,220 (5%). Second and third largest cultivating provinces were Kandahar (23,410 hectares) and Uruzgan (18,662 hectares). As in 2018, only Kandahar carried out minor eradication (13 hectares).

The **Western region** continued to be the second most important opium poppy cultivating region in the country in 2018. The two main poppy-cultivating provinces, Farah (10,916 hectares in 2018) and Nimroz (9,115 hectares in 2018), saw moderate decreases, -15% and -21%, respectively. Opium poppy cultivation decreased significantly by 72% from 24,723 hectares in 2017 to 6,973 hectares in Badghis province, which was mainly driven by drought. Opium poppy cultivation also decreased in Hirat and Ghor provinces by -46% and -15% respectively in 2018. Eradication was not carried out in 2018 in the entire Western region.

Figure 3 Number of provinces by opium poppy cultivation trends, 2006-2018[6]



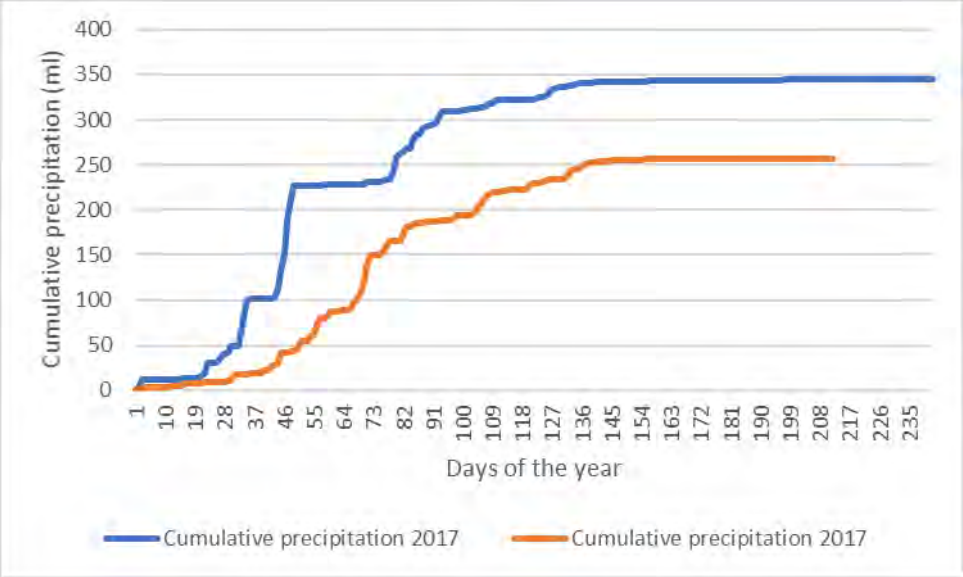
[6] For the purpose of this table, change of area under cultivation from one year to the next is considered stable when the change is smaller than 10 per cent. Data since 2006 has been updated in 2015 to fit this criterion.

Table 2 Main opium-poppy-cultivating provinces in Afghanistan, 2013-2018 (Hectares)

Province	2013	2014	2015	2016	2017	2018	Change 2017-2018	2018 (ha) as % of total
Hilmand	100,693	103,240	86,443	80,273	144,018	136,798	-5%	52%
Kandahar	28,335	33,713	21,020	20,475	28,010	23,410	-16%	9%
Badghis	3,596	5,721	12,391	35,234	24,723	6,973	-72%	3%
Faryab	158	211	1,160	2,923	22,797	8,175	-64%	3%
Uruzgan	9,880	9,277	11,277	15,503	21,541	18,662	-13%	7%
Nangarhar	15,719	18,227	10,016	14,344	18,976	17,177	-9%	7%
Farah	24,492	27,513	21,106	9,101	12,846	10,916	-15%	4%
Balkh	410	PF	204	2,085	12,116	8,532	-30%	3%
Nimroz	16,252	14,584	8,805	5,303	11,466	9,115	-21%	3%
Badakhshan	2,374	4,204	4,056	6,298	8,311	7,703	-7%	3%
Rest of the country	7,553	7,647	6,089	9,771	23,499	15,127	-36%	6%
Rounded Total	**209,000**	**224,000**	**183,000**	**201,000**	**328,000**	**263,000**	**-20%**	**100%**

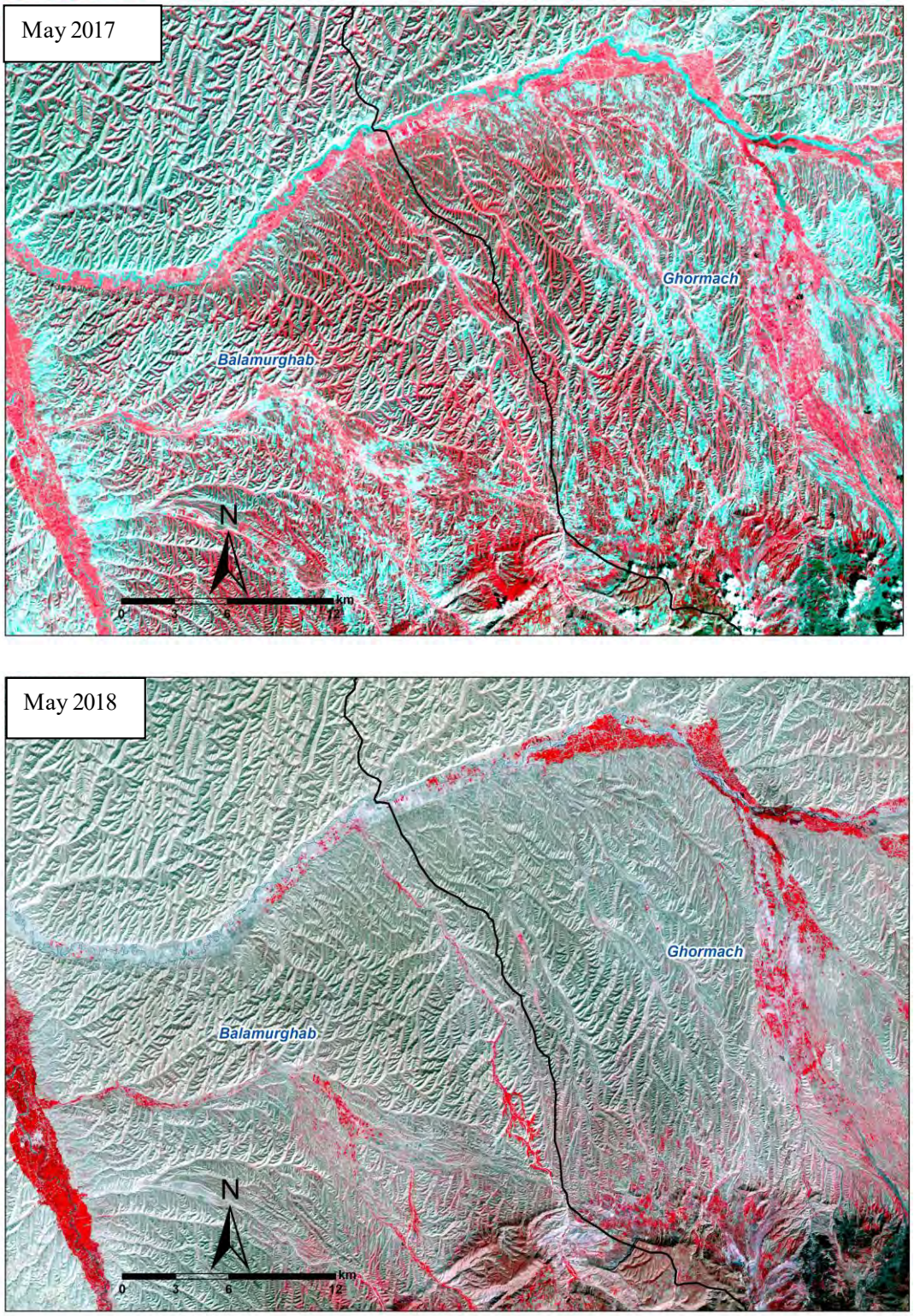
In 2017, the provincial boundaries of Badghis (Western region) and Faryab (Northern region) were changed. Ghormach district, formerly part of Badghis province and a major opium poppy cultivating district, came in 2017 under the administration of the Governor of Faryab province. The changes in opium poppy cultivation in these two regions are affected by this change.

Figure 4 Cumulative precipitation in the Northern region, 2017 and 2018



Note: The graph shows the cumulative precipitation (sum of precipitation until day of the year) in the Northern region. In 2018, rain fall was strongly reduced in the critical period in Spring, causing crops to fail.

Figure 5 Drought affected area comparing 2017 and 2018 satellite images (false colour images)

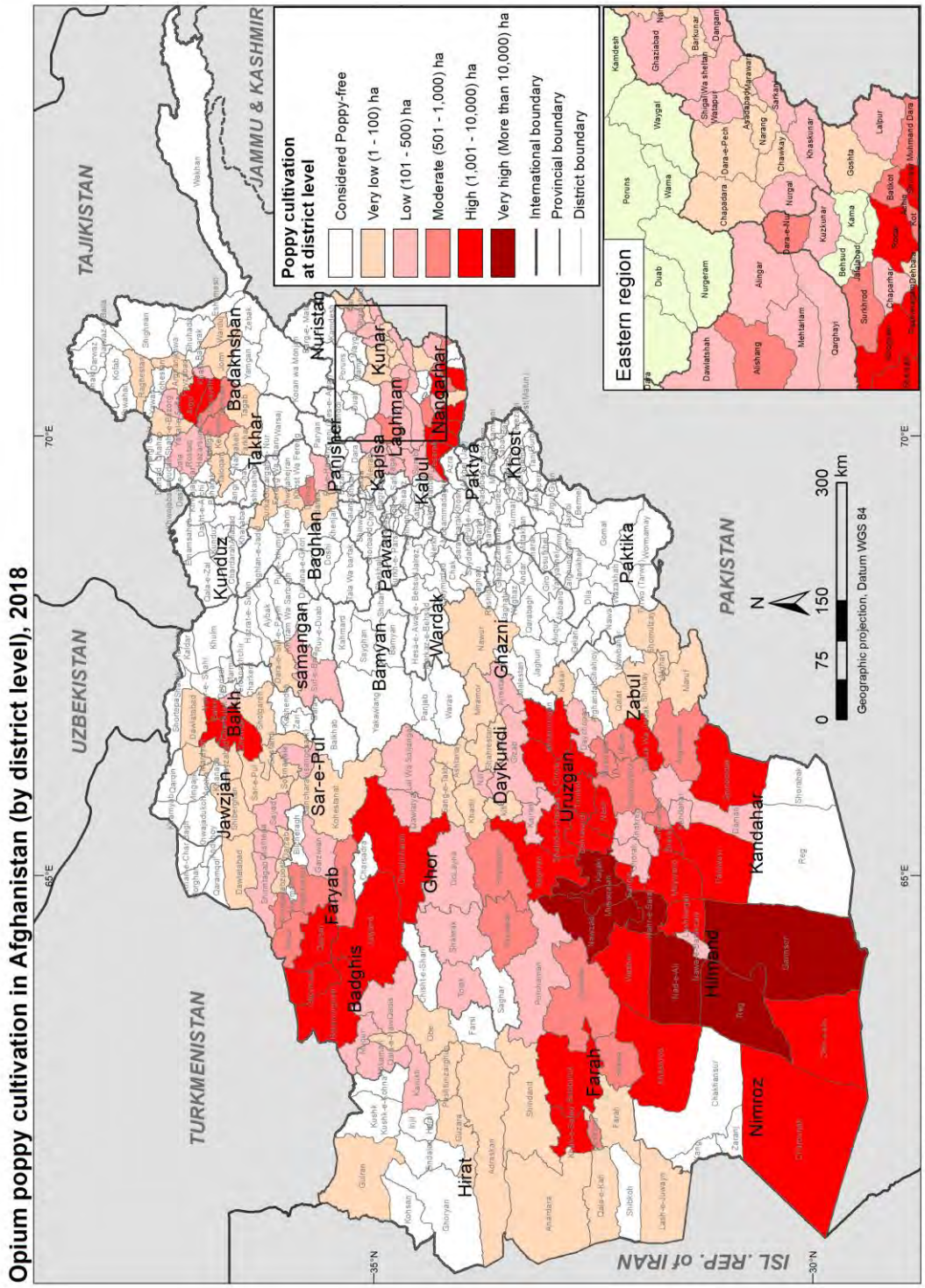


Agricultural areas can be observed in red and include opium poppy fields. The crops near the rivers are irrigated crops, the ones in the hills are rainfed crops. The 2018 image clearly shows an drastic reduction of rainfed crops but also irrigated crops, especially the mid/western part along the east- west trending part of Murgab river.

Table 3 Opium poppy cultivation (2013-2018) and eradication (2017-2018) in Afghanistan
(Hectares)

PROVINCE	Cultivation (ha)						Change (%)	Estimation method 2018	Eradication (ha)	
	2013	2014	2015	2016	2017	2018	2017 - 2108		2017	2018
Ghazni	PF	PF	PF	PF	1,027	373	-64%	T	0	0
Kabul	298	233	321	398	435	484	11%	T	27	0
Khost	PF	PF	PF	PF	PF	PF	-	V	0	0
Logar	PF	PF	PF	PF	PF	PF	-	T	0	0
Paktika	PF	PF	PF	PF	PF	PF	-	V	0	0
Paktya	PF	PF	PF	PF	PF	PF	-	V	0	0
Panjshir	PF	PF	PF	PF	PF	PF	-	V	0	0
Parwan	PF	PF	PF	PF	PF	PF	-	T	0	0
Wardak	PF	PF	PF	PF	PF	PF	-	V	0	0
Central Region	**298**	**233**	**321**	**398**	**1,462**	**857**	**-41%**		**27**	**0**
Kapisa	583	472	460	608	968	386	-60%	T	3	0
Kunar	1,127	754	987	1,276	1,634	1,732	6%	S	31	7
Laghman	1,236	901	779	1,380	2,257	2,092	-7%	S	23	0
Nangarhar	15,719	18,227	10,016	14,344	18,976	17,177	-9%	S	204	301
Nuristan	PF	PF	PF	PF	121	PF	NA	T	0	0
Eastern Region	**18,665**	**20,353**	**12,242**	**17,608**	**23,956**	**21,386**	**-11%**		**261**	**308**
Badakhshan	2,374	4,204	4,056	6,298	8,311	7,703	-7%	S	269	85
Kunduz	PF	PF	PF	PF	PF	PF	-	T	0	0
Takhar	PF	PF	PF	PF	PF	251	NA	T	15	0
North-eastern Region	**2,374**	**4,204**	**4,056**	**6,298**	**8,311**	**7,955**	**-4%**		**284**	**85**
Baghlan	141	168	180	849	1,057	1,076	2%	T	0	0
Balkh	410	PF	204	2,085	12,116	8,532	-30%	S	25	0
Bamyan	PF	PF	PF	PF	PF	PF	-	V	0	0
Faryab	158	211	1,160	2,923	22,797	8,175	-64%	S	0	0
Jawzjan	PF	PF	PF	409	3,237	338	-90%	S	0.3	0
Samangan	PF	PF	PF	PF	243	238	-2%	T	0	0
Sari Pul	PF	195	331	1,686	3,550	660	-81%	S	0	0
Northern Region	**710**	**574**	**1,875**	**7,951**	**42,999**	**19,019**	**-56%**		**25**	**0**
Day Kundi	1,536	587	381	374	1,508	747	-50%	S	0	0
Hilmand	100,693	103,240	86,443	80,273	144,018	136,798	-5%	S	0	0
Kandahar	28,335	33,713	21,020	20,475	28,010	23,410	-16%	S	48	13
Uruzgan	9,880	9,277	11,277	15,503	21,541	18,662	-13%	S	0	0
Zabul	1,335	2,894	644	1,363	2,131	2,581	21%	S	0	0
Southern Region	**141,779**	**149,711**	**119,765**	**117,987**	**197,207**	**182,197**	**-8%**		**48**	**13**
Badghis	3,596	5,721	12,391	35,234	24,723	6,973	-72%	S	55	0
Farah	24,492	27,513	21,106	9,101	12,846	10,916	-15%	S	0	0
Ghor	264	493	1,721	1,222	4,228	3,574	-15%	S	14	0
Hirat	952	738	285	208	1,104	595	-46%	T	23	0
Nimroz	16,252	14,584	8,805	5,303	11,466	9,115	-21%	S	14	0
Western Region	**45,557**	**49,049**	**44,308**	**51,067**	**54,367**	**31,174**	**-43%**		**105**	**0**
Total (rounded)	**209,000**	**224,000**	**183,000**	**201,000**	**328,000**	**263,000**	**-20%**		**750**	**406**

Area estimation method: S=remote sensing sample survey, T=remote sensing target survey, V=village sample survey and field observation. See Methodology section for detailed description of methods used. A province is defined as poppy-free when it is estimated to have less than 100 hectares of opium poppy cultivation. In 2017, the provincial boundaries of Badghis (Western region) and Faryab (Northern region) were changed. Estimates of these provinces and respective regions are not comparable between 2016 and 2017.



Source: Government of Afghanistan - National monitoring system implemented by UNODC/MCN
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 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.

2.2 Provincial Breakdown

2.2.1 Central region

(Ghazni, Kabul, Khost, Logar, Paktika, Paktya, Panjshir, Parwan, Wardak)

In keeping with the overall national trend, opium poppy cultivation in the Central region declined by 41% in 2018 as compared to 2017, with the total area under cultivation decreasing from 1,462 hectares to 857 hectares (Table 4).

Seven out of the nine provinces in the Central region maintained their poppy-free status in 2018.

Ghazni province which had lost its poppy-free status in 2017 with 1,027 hectares under opium poppy cultivation saw a -64% change in 2018, with only 373 hectares under cultivation. Opium poppy was mainly cultivated in Ajrestan district where the security situation was extremely poor.

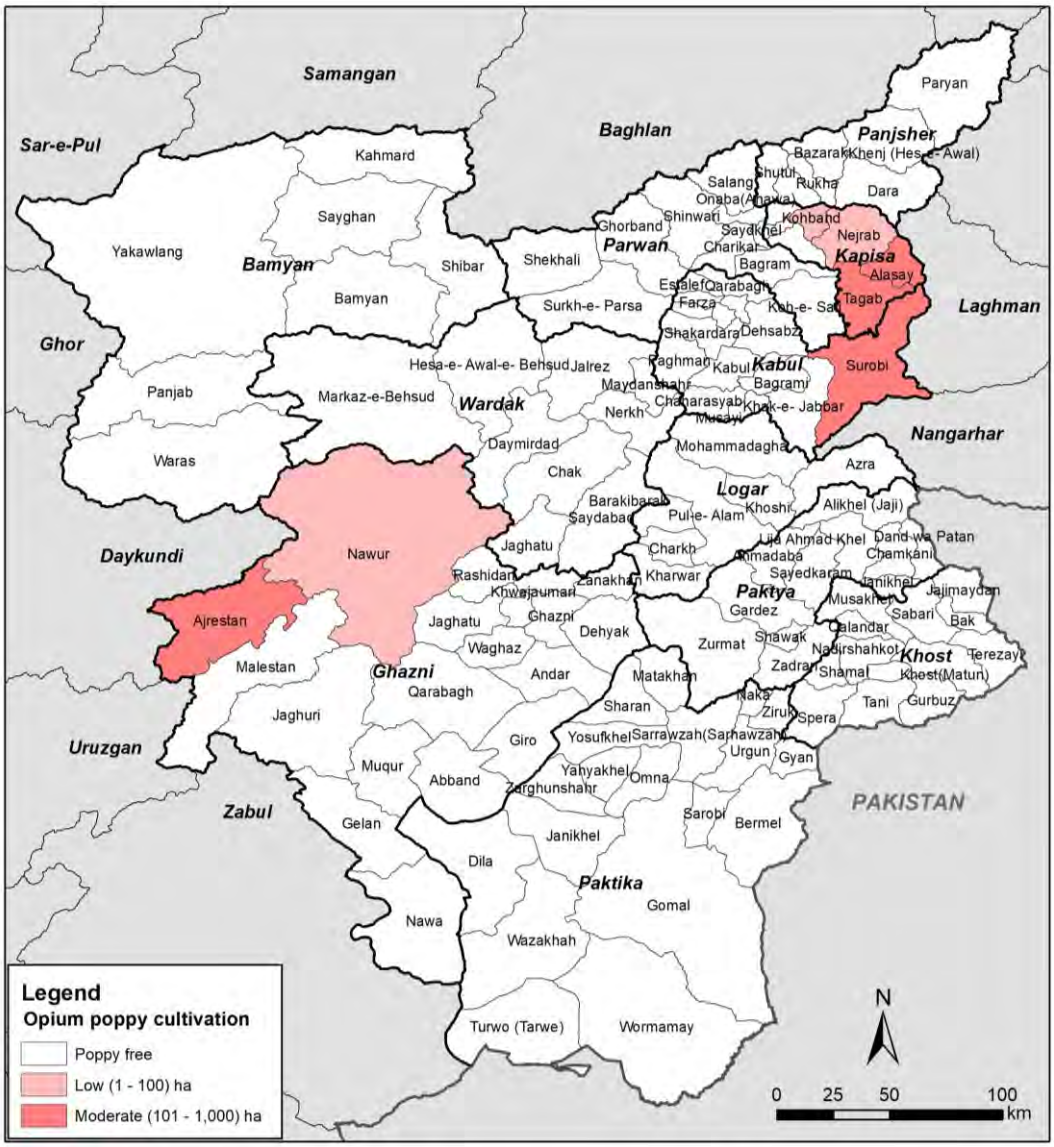
In Kabul province opium poppy cultivation was limited to the Uzbeen valley of Surobi district, where security was extremely poor. An increase of 11% was recorded in 2018, with 484 hectares of opium poppy in 2018 compared to 435 in 2017.

Table 4 Opium poppy cultivation and eradication in the Central region, 2014-2018 (Hectares)

Province	Cultivation (ha)					Change 2017-2018 (%)	Eradication (ha)	
	2014	2015	2016	2017	2018		2017	2018
Ghazni	PF	PF	PF	1,027	373	-64%	0	0
Kabul	233	321	398	435	484	11%	27	0
Khost	PF	PF	PF	PF	PF	-	0	0
Logar	PF	PF	PF	PF	PF	-	0	0
Paktika	PF	PF	PF	PF	PF	-	0	0
Paktya	PF	PF	PF	PF	PF	-	0	0
Panjshir	PF	PF	PF	PF	PF	-	0	0
Parwan	PF	PF	PF	PF	PF	-	0	0
Wardak	PF	PF	PF	PF	PF	-	0	0
Central Region	**233**	**321**	**398**	**1,462**	**857**	**-41%**	**27**	**0**

A province is defined as poppy-free when it is estimated to have less than 100 hectares of opium poppy cultivation.

Figure 6 Opium poppy cultivation in the Central region (by district), 2018



2.2.2 Eastern region

(Kapisa, Kunar, Laghman, Nangarhar, Nuristan)

The Eastern region experienced a 11% decrease in opium poppy cultivation from 23,956 hectares in 2017 to 21,386 hectares in 2018. The total eradication carried out was 308 hectares in 2018.

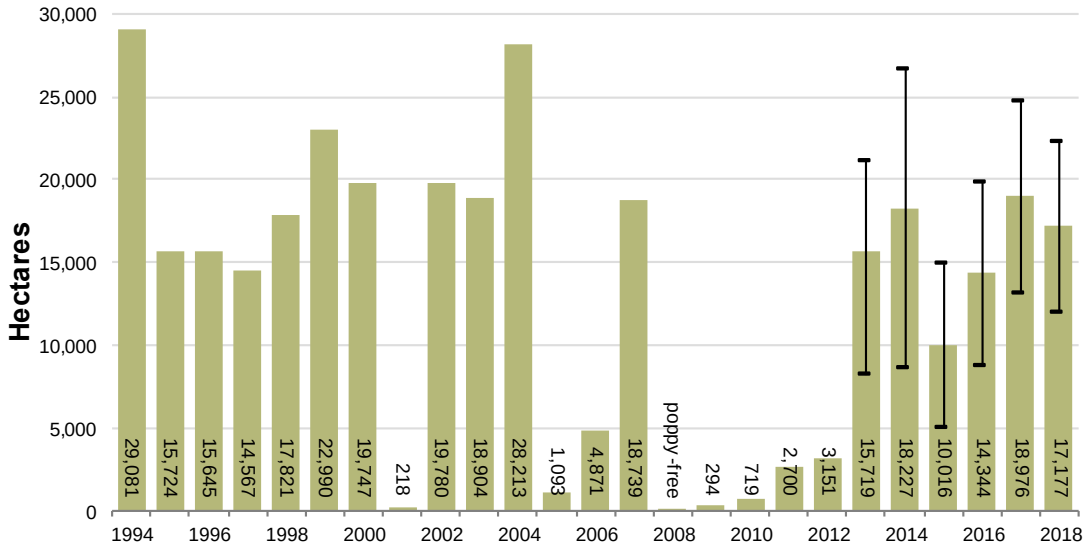
Nangarhar continued to be the leading cultivating province in the Eastern region with 17,177 hectares under opium poppy cultivation, 9% less than the 2017 level. Decreases were mainly observed in Khogyani, Chaprahar and Lalpoor districts. Significant increasse were observed in Kot, Shinwari and Achin disricts. The majority of eradication in the Eastern region was also in Nangarhar province (301 hectares).

Table 5 Opium poppy cultivation and eradication in the Eastern region, 2013-2018 (Hectares)

Province	Cultivation (ha)						Change 2017-2018	Eradication (ha)	
	2013	2014	2015	2016	2017	2018	%	2017	2018
Kapisa	583	472	460	608	968	386	-60%	3	0
Kunar	1,127	754	987	1,276	1,634	1,732	6%	31	7
Laghman	1,236	901	779	1,380	2,257	2,092	-7%	23	0
Nangarhar	15,719	18,227	10,016	14,344	18,976	17,177	-9%	204	301
Nuristan	PF	PF	PF	PF	121	PF	NA	0	0
Eastern Region	**18,665**	**20,354**	**12,242**	**17,608**	**23,956**	**21,386**	**-11%**	**261**	**308**

A province is defined as poppy-free when it is estimated to have less than 100 hectares of opium poppy cultivation.

Figure 7 Opium poppy cultivation in Nangarhar province, 1994-2018 (Hectares)



The vertical lines represent the upper and lower bounds of the 95% confidence interval.

In **Laghman** and **Kunar** provinces, opium poppy cultivation remained similar to 2017 levels, at 2,092 and 1,732 hectares in 2018 respectively. At district level, there were no significant changes in opium poppy cultivation in 2018 when compared to 2017.

In **Kunar** province, opium poppy cultivation increased by 6% from 1,276 hectares in 2017 to 1,634 hectares in 2018. The main opium poppy cultivating districts were Sar Kani, Khas Kunar, Shigal wa Sheltan, Watapoor and Dangam.

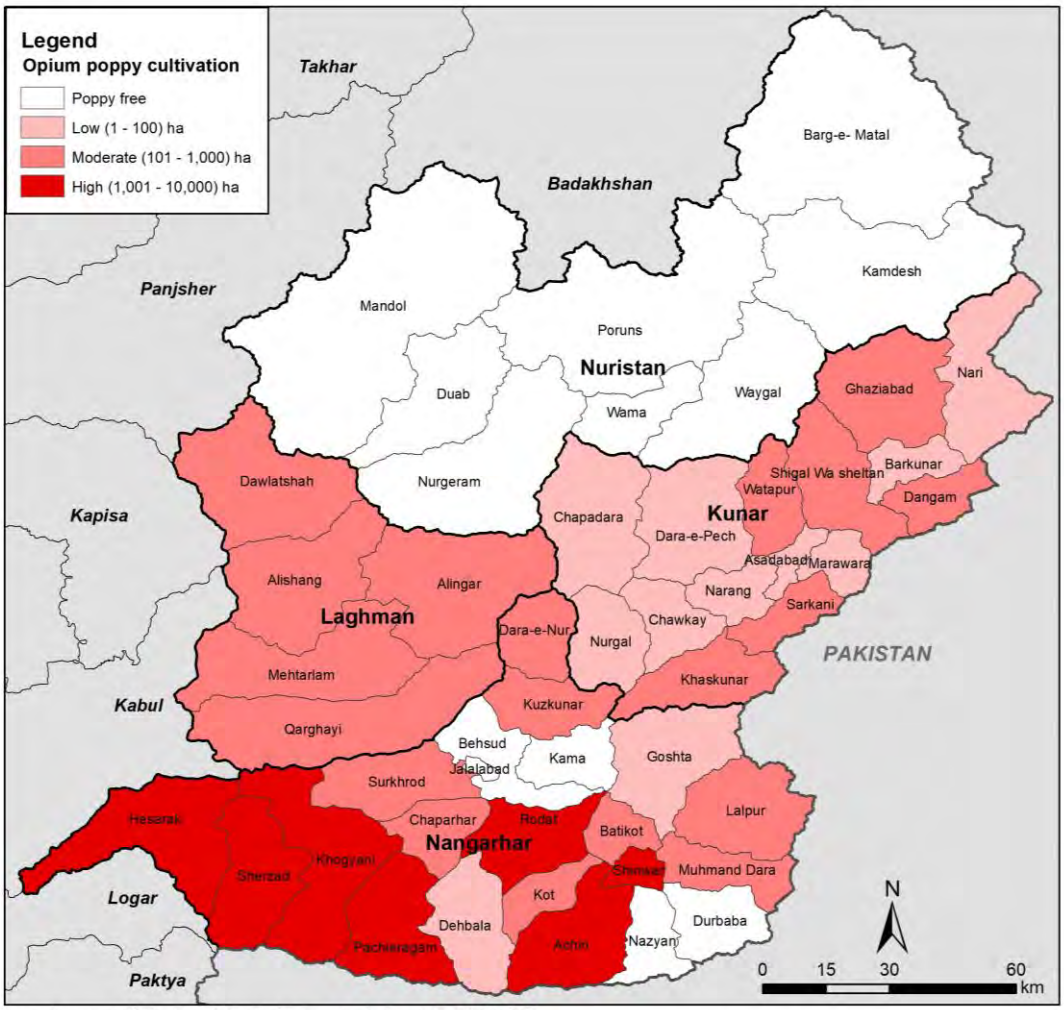
Opium poppy cultivation in **Kapisa** province decreased by 60%, from 968 hectares in 2017 to 386 hectares in 2018. Tagab and Alasai were the main opium poppy cultivating districts.

Nuristan province, which was poppy-free from 2007 to 2016 and lost its poppy-free status in 2017, once again became poppy-free in 2018.

Table 6 Opium poppy cultivation in Laghman, Kunar, Nuristan and Kapisa provinces, 1994-2018 (Hectares)

Year	Kapisa	Kunar	Laghman	Nuristan
1994	PF	115	PF	PF
1995	PF	152	PF	PF
1996	PF	18	PF	PF
1997	PF	PF	PF	PF
1998	PF	75	77	PF
1999	PF	288	297	PF
2000	PF	786	707	PF
2001	PF	82	15	PF
2002	PF	972	950	PF
2003	PF	2,025	1,907	648
2004	522	4,366	2,756	764
2005	115	1,059	274	1,554
2006	282	932	710	1,516
2007	835	446	561	PF
2008	436	290	425	PF
2009	PF	164	135	PF
2010	PF	154	234	PF
2011	181	578	624	PF
2012	290	1,278	877	PF
2013	583	1,127	1,236	PF
2014	472	754	901	PF
2015	460	986	779	PF
2016	608	1,276	1,380	PF
2017	968	1,634	2,257	121
2018	386	1,732	2,092	PF

Figure 8 Opium poppy cultivation in the Eastern region (by district), 2018



Source: Government of Afghanistan - National monitoring system implemented by UNODC/MCN
Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

2.2.3 Northern region

(Baghlan, Balkh, Bamyan, Faryab, Jawzjan, Samangan, Sari-Pul)

In **Baghlan** province, opium poppy cultivation in 2018 was 1,076 hectares, similar to the 2017 level,. The main opium poppy cultivating districts were Deh Salah, Pul-i-Hisar, Andrab and Khwajah Hijran (Jalgah).

In 2018, opium poppy cultivation in **Balkh** decreased almost -30% from 12,116 hectares to 8,532 hectares. Until 2014, Balkh was poppy-free; it lost this status in 2015. Opium poppy was mainly cultivated in Chimtal, Chahar Bolak and Balkh districts.

Faryab was poppy-free in 2009, 2010 and 2012, but lost its poppy-free status in 2013. Since then the area under opium poppy cultivation continuously expanded until 2017. In 2017, opium poppy cultivation in Faryab province was estimated at 22,797 hectares (including Ghormach district, formerly part of Badghis province and a major opium poppy cultivating district, that came under the administration of Faryab province in 2017). However, this was significantly reduced to 8,175 hectares in 2018, a reduction by almost 64%. The decrease was mainly due to adverse effects of drought in rain-fed areas.

In 2018, **Samangan** which had lost its poppy-free status in 2017, opium poppy cultivation remained stable at 238 hectares. Darah-i-Soof-i-Bala and Darah-i-Soof-i-Payin were the main opium poppy cultivating districts.

Bamyan remained poppy-free.

Sari-Pul province was poppy-free from 2008 to 2013. However, it witnessed significant growth between 2014 and 2017, from 195 hectares to 3,550 hectares. In 2018 , the trend reversed with a sgnificant drop of -81% and only 660 hectares were under opium poppy cultivation, with the main opium cultivating districts being Sayyad, Sangcharak and the Sari-Pul provincial center. The rain-fed agriculture area was badly affected by drought in 2018.

Jawzjan province also recorded a sgnificant drop in opium poppy cultivation of -90% to only 338 hectares in 2018 from 3,237 hectares in 2017. The province was also badly affected by drought

In the Northern region, there was no eradication of opium poppy in 2018.

Table 7 Opium poppy cultivation and eradication in the Northern region, 2014-2018 (Hectares)

PROVINCE	Cultivation (ha)					Change 2017-2018 (%)	Eradication (ha)	
	2014	2015	2016	2017	2018		2017	2018
Baghlan	168	180	849	1,057	1,076	2%	0	0
Balkh	PF	204	2,085	12,116	8,532	-30%	25	0
Bamyan	PF	PF	PF	PF	PF	-	0	0
Faryab	211	1,160	2,923	22,797	8,175	-64%	0	0
Jawzjan	PF	PF	409	3,237	338	-90%	0.3	0
Samangan	PF	PF	PF	243	238	-2%	0	0
Sari Pul	195	331	1,686	3,550	660	-81%	0	0
Northern Region	**574**	**1,875**	**7,951**	**42,999**	**19,019**	**-56%**	**25**	**0**

A province is defined as poppy-free (PF) when it is estimated to have less than 100 hectares of opium poppy cultivation. From 2017, the provincial boundaries of Badghis (Western region) and Faryab (Northern region) were changed. Ghormach district, formerly part of Badghis province and a major opium poppy cultivating district came under the administration of the Governor of Faryab province. The changes in opium poppy cultivation in these two regions are affected by this change.

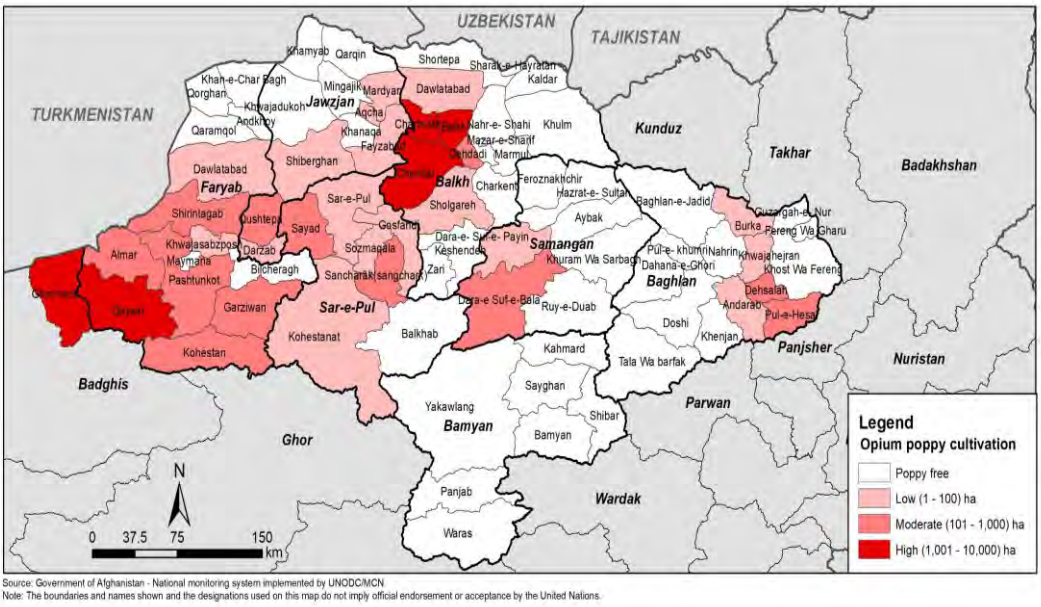
Table 8 Opium poppy cultivation in the Northern region, 2004-2018 (Hectares)

Year	Baghlan	Balkh	Bamyan	Faryab	Jawzjan	Samangan	Sari Pul
2004	2,444	2,495	803	3,249	1,673	1,151	1,974
2005	2,563	10,837	126	2,665	1,748	3,874	3,227
2006	2,742	7,232	17	3,040	2,024	1,960	2,252
2007	671	PF	PF	2,866	1,085	PF	260
2008	475	PF	PF	291	PF	PF	PF
2009	PF	PF	PF	PF	PF	PF	PF
2010	PF	PF	PF	PF	PF	PF	PF
2011	161	PF	PF	PF	PF	PF	PF
2012	177	PF	PF	PF	PF	PF	PF
2013	141	410	PF	158	PF	PF	PF
2014	168	PF	PF	211	PF	PF	195
2015	180	204	PF	1,160	PF	PF	331
2016	849	2,085	PF	2,923	409	PF	1,686
2017	1,057	12,116	PF	22,797	3,237	243	3,550
2018	1,076	8,532	PF	8,175	338	238	660

A province is defined as poppy-free when it is estimated to have less than 100 hectares of opium poppy cultivation.

From 2017, the provincial boundaries of Badghis (Western region) and Faryab (Northern region) were changed. Ghormach district, formerly part of Badghis province and a major opium poppy cultivating district came under the administration of the Governor of Faryab province. The changes in opium poppy cultivation in these two regions are affected by this change.

Figure 9 Opium poppy cultivation in the Northern region (by district), 2018



2.2.4 North-eastern region

(Badakhshan, Kunduz and Takhar)

The only opium poppy cultivating province since the last several years in the region was **Badakhshan** province, however, in 2018 Takhar province lost its poppy free status which I had obtained since 2008.

Opium poppy cultivation in Badakhshan remained rather stable at 7,703 hectares in 2018 compared to 8,311 hectares in 2017 and was mostly confined to rain-fed areas cultivated in spring, mainly in Argo, Darayim and Kishim districts. The impact of the drought on these rain-fed areas was limited since there was rain during the growing season which is later than in other parts of Afghanistan. There was a sharp drop in eradication from a total of 284 hectares of opium poppy eradication in 2017, to only 85 hectares in 2018 (-70%).

Kunduz province has been poppy-free since 2007 and is well known for growing a wide range of licit crops, from fruit and vegetables to cotton. While an insignificant amount of opium poppy cultivation was observed in this province in recent years it remained under 100 hectares in 2018, (the threshold for obtaining the poppy-free status).

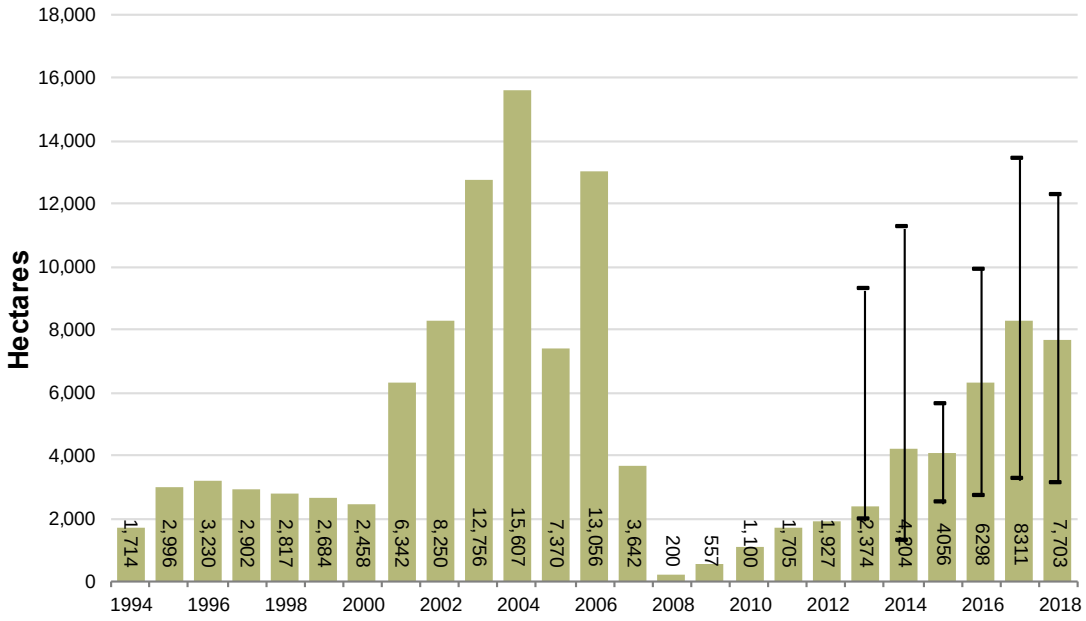
Takhar province was poppy-free from 2008 to 2017 but the province lost its poppy-free status in 2018 with 251 hectares of opium poppy cultivation in Rustaq, Kalafgan and Farkhar districts.

Table 9 Opium poppy cultivation and eradication in the North-eastern region, 2014-2018
(Hectares)

Province	Cultivation (ha)					Change 2017-2018	Eradication (ha)	
	2014	2015	2016	2017	2018	%	2017	2018
Badakhshan	4,204	4,056	6,298	8,311	7,703	-7%	269	85
Kunduz	PF	PF	PF	PF	PF	-	0	0
Takhar	PF	PF	PF	PF	251	NA	15	0
North-eastern Region	**4,204**	**4,056**	**6,298**	**8,311**	**7,955**	**-4%**	**284**	**85**

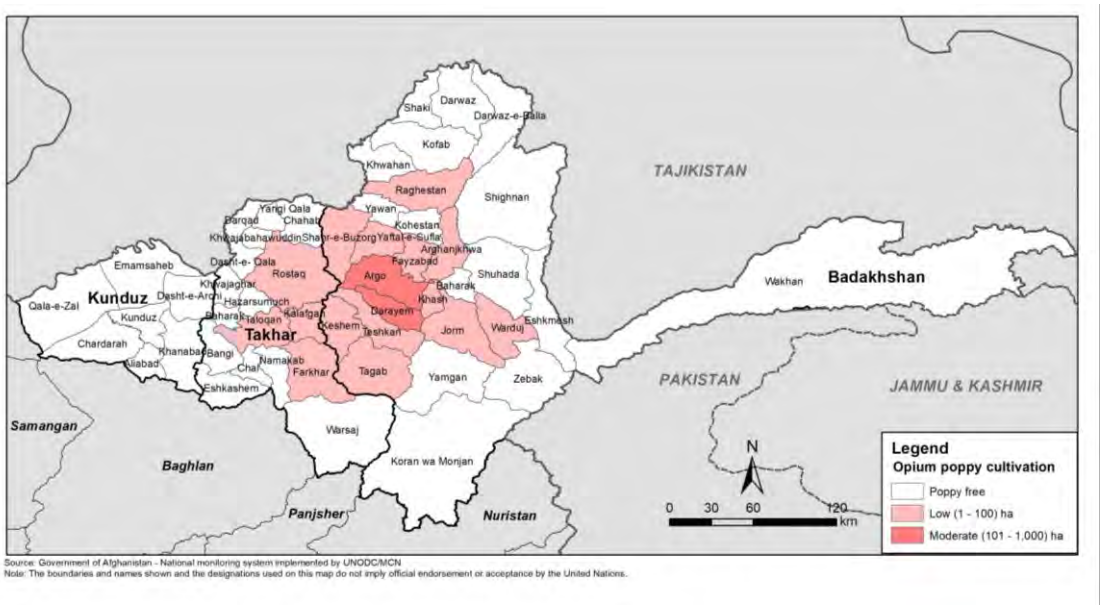
A province is defined as poppy-free when it is estimated to have less than 100 hectares of opium poppy cultivation.

Figure 10 Opium poppy cultivation in Badakhshan province, 1994-2018 (Hectares)



The high-low lines represent the upper and lower bounds of the 95% confidence interval.

Figure 11 Opium poppy cultivation in the North-eastern region (by district)**, 2018**



2.2.5 Southern region

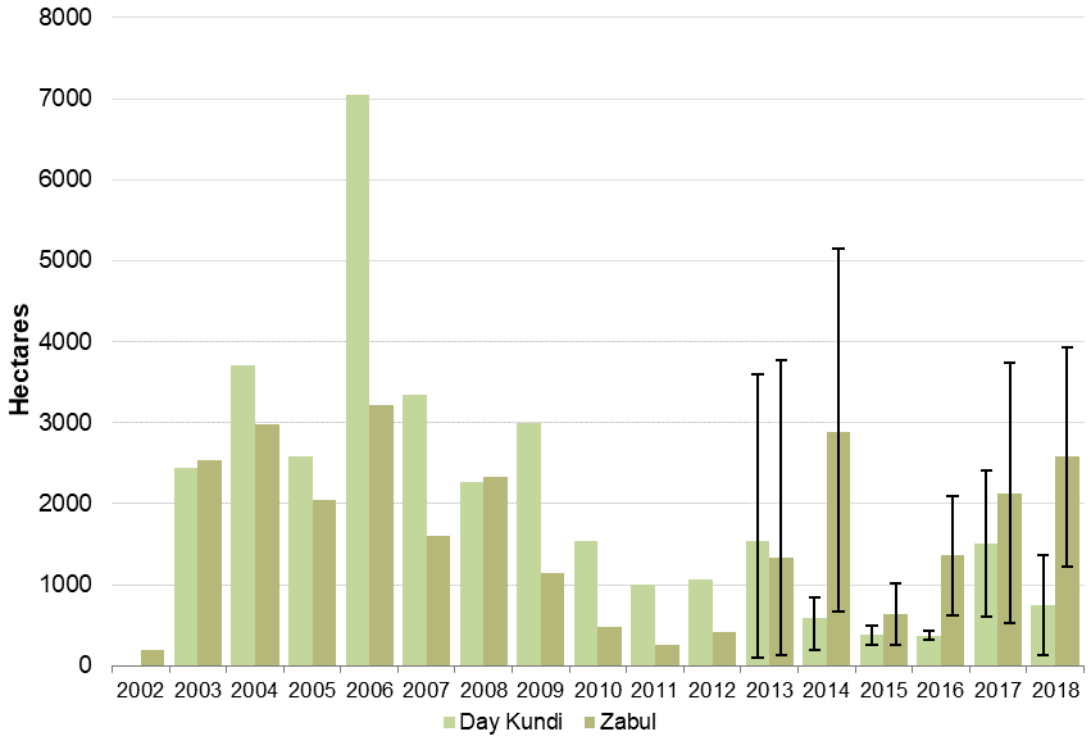
(Day-Kundi, Hilmand, Kandahar, Uruzgan, Zabul)

Table 10 Opium poppy cultivation and eradication in the Southern region, 2015-2018
(Hectares)

Province	Cultivation (ha)					Change 2017-2018	Eradication (ha)	
	2014	2015	2016	2017	2018	%	2017	2018
Day Kundi	587	381	374	1,508	747	-50%	0	0
Hilmand	103,240	86,443	80,273	144,018	136,798	-5%	0	0
Kandahar	33,713	21,020	20,475	28,010	23,410	-16%	48	13
Uruzgan	9,277	11,277	15,503	21,541	18,662	-13%	0	0
Zabul	2,894	644	1,363	2,131	2,581	21%	0	0
Southern Region	**149,711**	**119,765**	**117,988**	**197,207**	**182,197**	**-8%**	**48**	**13**

A province is defined as poppy-free when it is estimated to have less than 100 hectares of opium poppy cultivation.

Figure 12 Opium poppy cultivation in Day-Kundi and Zabul provinces, 2002-2018



A province is defined as poppy-free when it is estimated to have less than 100 hectares of opium poppy cultivation. The vertical lines represent the upper and lower bounds of the 95% confidence interval.

Hilmand province saw a 5% decrease in opium poppy cultivation and remained Afghanistan's single largest opium-poppy-cultivating province in 2018, with 136,798 hectares. It accounted for 52% of the total area under opium poppy cultivation in Afghanistan. No Governor-led eradication was carried out in this province in 2018, as in 2016 and 2017.

At the district level, opium poppy cultivation levels were highest in Nad Ali, Nawzad, Naher-i-Saraj, Musa Qala, Kajaki, Garmser, Regi-i-Khan Nishin, Washer, Dishu, Sangin Qala, Lashkargah, Baghran and Nawa-e-Barakzaiy districts.

Between 2009 and 2012, an alternative livelihood programme was implemented in central Hilmand (known as the "Hilmand Food Zone"; see map). In 2013, MCN/UNODC started to produce annual estimates of the area under opium poppy cultivation within and outside of the former "Food Zone" area for monitoring purposes.

Inside the former Food Zone, opium poppy cultivation decreased by 20% from 66,181 hectares in 2017 to 52,868 hectares in 2018, although outside of the former Food Zone it increased by 8% (from 77,837 hectares in 2017 to 83,929 hectares).

Table 11 Poppy cultivation inside and outside the former Hilmand "Food Zone" (after eradication), 2013-2018

	Poppy Cultivation						% Change 2017-2018
	2013	2014	2015	2016	2017	2018	
Inside the food zone	36,244	41,089	31,216	34,760	66,181	52,868	-20%
Outside the food zone	64,449	62,151	55,227	45,513	77,837	83,929	8%
Total Province	**100,693**	**103,240**	**86,443**	**80,273**	**144,018**	**136,798**	**-5%**

The Food Zone estimates refer to an area in ten districts of Hilmand (the "Food Zone" as of 2011), where farmers were provided with fertilizers, certified wheat seeds and high-value horticulture seeds in the poppy planting seasons for the 2009-2012 harvests. See e.g. Afghanistan Opium Survey 2009.

In **Kandahar** province opium poppy cultivation decreased by 16% from 28,010 hectares in 2017 to 23,410 hectares in 2018. The main opium poppy cultivation districts were Maiwand, Zhire, Nesh, Spin Boldak and Panjwayee.

In **Uruzgan** province opium poppy cultivation decreased by 13% from 21,541 hectares in 2017 to 18,662 hectares in 2018. Tirin, Kot, Dihrawud and Shahidi, Hassas were the main opium poppy-cultivating districts.

In contrast, opium poppy cultivation in **Zabul** province saw an increase by 21% from 2,131 in 2017 to 2,581 hectares in 2018. The main opium-poppy-cultivating districts in Zabul were Tarank Wa Jaldak and Mizan, where the security situation was bad.

Figure 13 Hilmand Food Zone, 2011

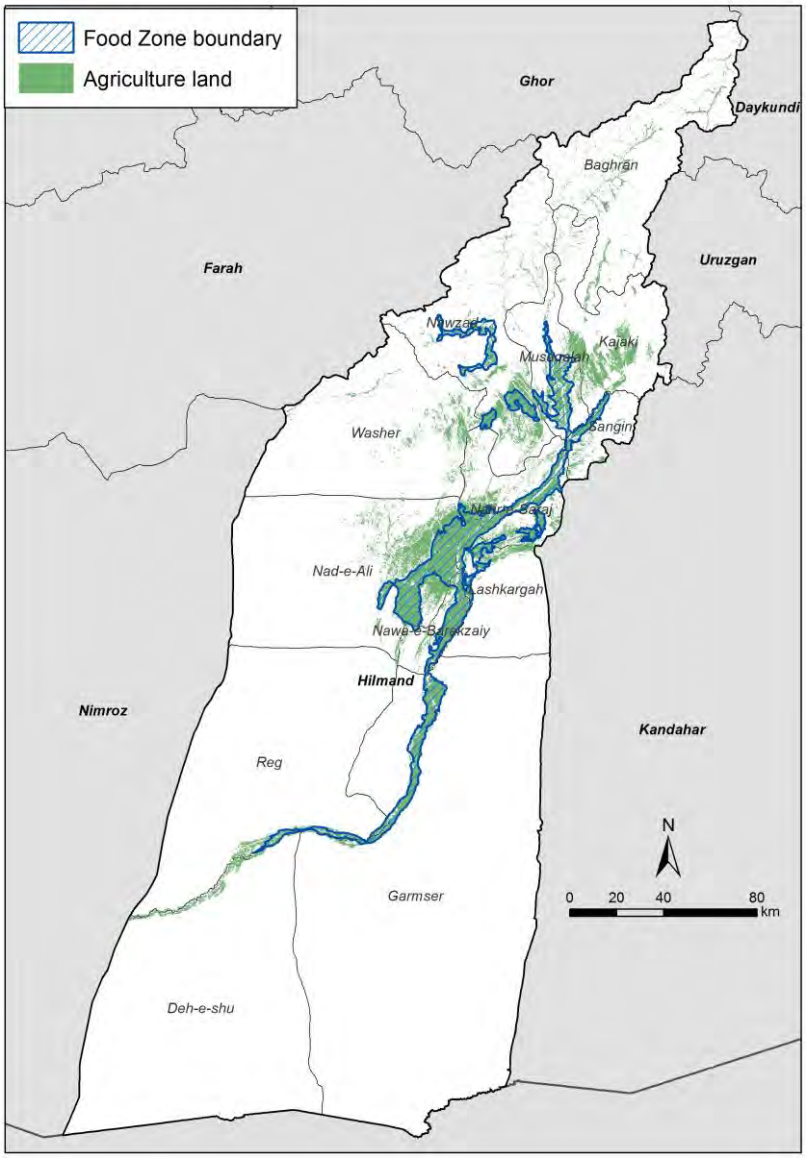
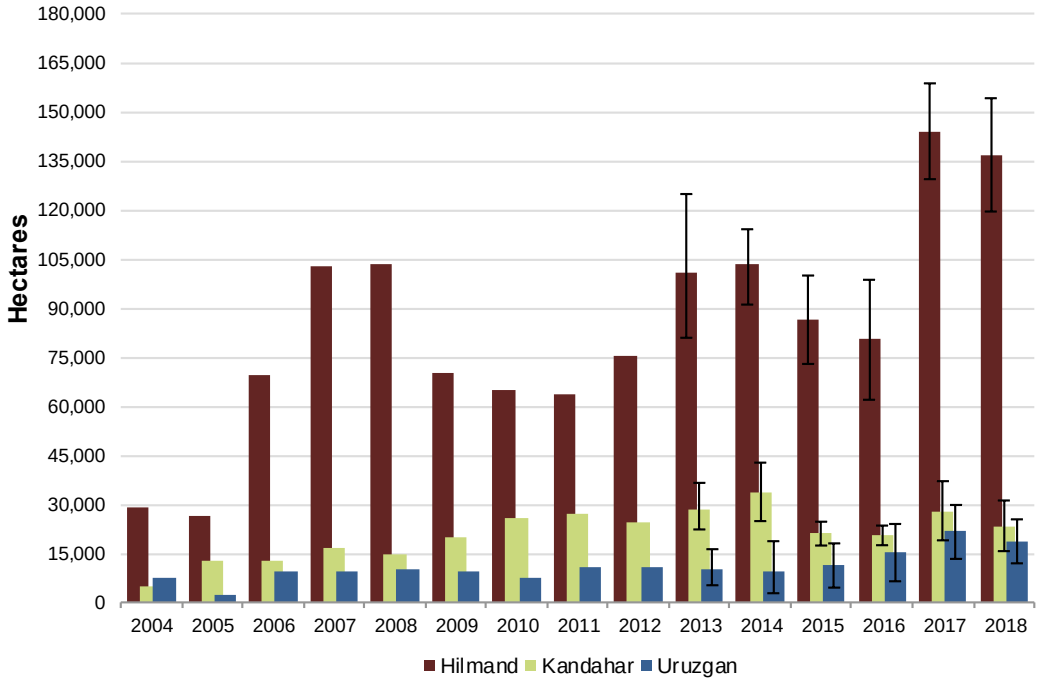
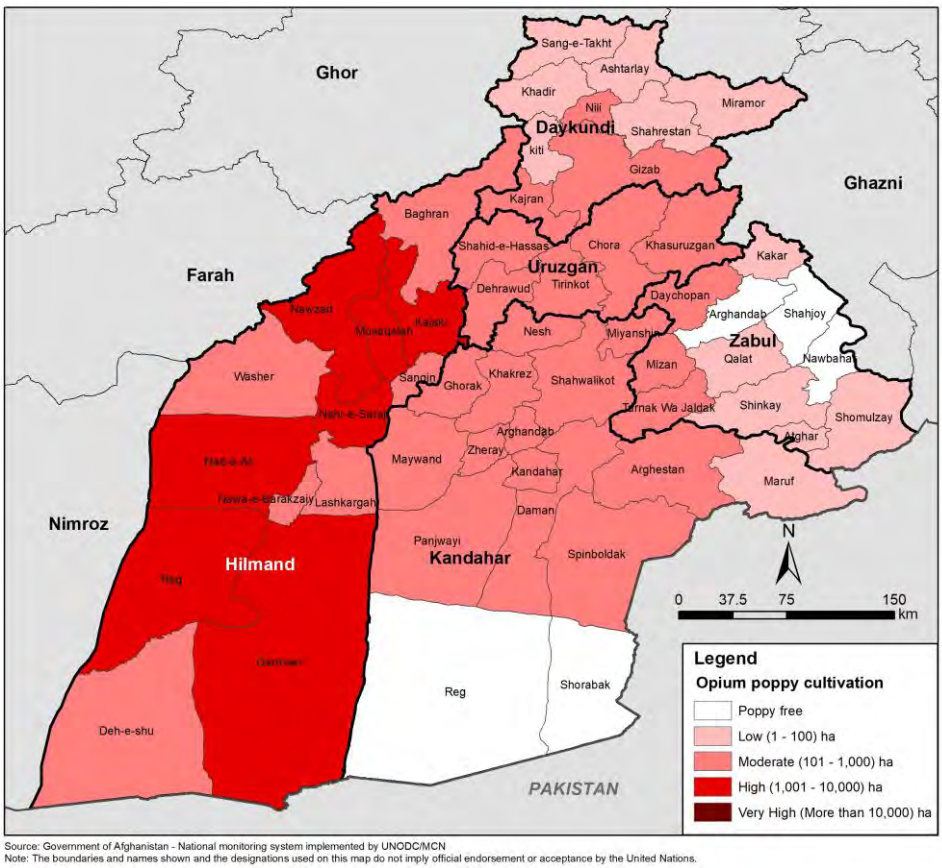


Figure 14 Opium poppy cultivation in Hilmand, Kandahar and Uruzgan provinces, 2004-2018 (Hectares)



The high-low lines represent the upper and lower bounds of the 95% confidence interval

Figure 15 Opium poppy cultivation in the Southern region (by district), 2018



Source: Government of Afghanistan - National monitoring system implemented by UNODC/MCN
Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

2.2.6 Western region

(Badghis, Farah, Ghor, Hirat, Nimroz)

Opium poppy cultivation in **Farah** province decreased by 15% from 12,846 hectares in 2017 to 10,916 hectares in 2018. The main opium-poppy-cultivating districts in Farah, were Khak-i-Safed, Bala Buluk, Bakwah, Pusht-Rod and Gulistan where security was very poor (see district details in the Annex I).

Opium poppy cultivation in **Ghor also** , decreased by 15% in 2018 compared to 2017: from 4,228 hectares to 3,574 hectares. The main opium cultivating districts were Ghaghcharan, Pasaband and Taywara.

In **Hirat** province, the level of opium poppy cultivation decreased siginificantly (-46%) , from 1,104 hectares in 2017 to 595 hectares in 2018. The main opium poppy cultivating districts in Hirat province were Kushk (Rabat-i-Sangi) and Shindand where security was very poor. The decrease was mainly in Shindand district .

In 2018, the level of opium poppy cultivation in **Nimroz** province (9,115 hectares) decreased by 21% since 2017, when it was 11,466 hectares). The main poppy cultivating districts were Khash-Rod and Chahar Burjak.

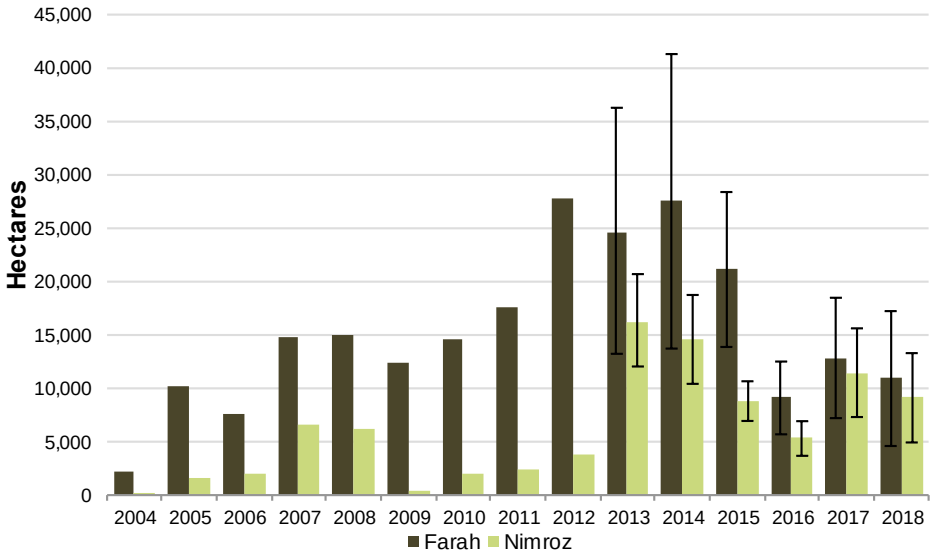
Badghis province was the second and third highest opium poppy cultivating province in 2016 and 2017 respectively. However, in 2018 Badghis saw significant decrease by 72% from 24,723 hectares in 2017 to 6,973 hectares in 2018. The decrease was due to the adverse effecrs of drought particularly in rain-fed area.

In 2017, a total 106 hectares of Governor-led eradication was carried out . However, no eradication was recorded in 2018 in any of the western region provinces.

Table 12 Opium poppy cultivation and eradication in the Western region, 2015-2018 (Hectares)

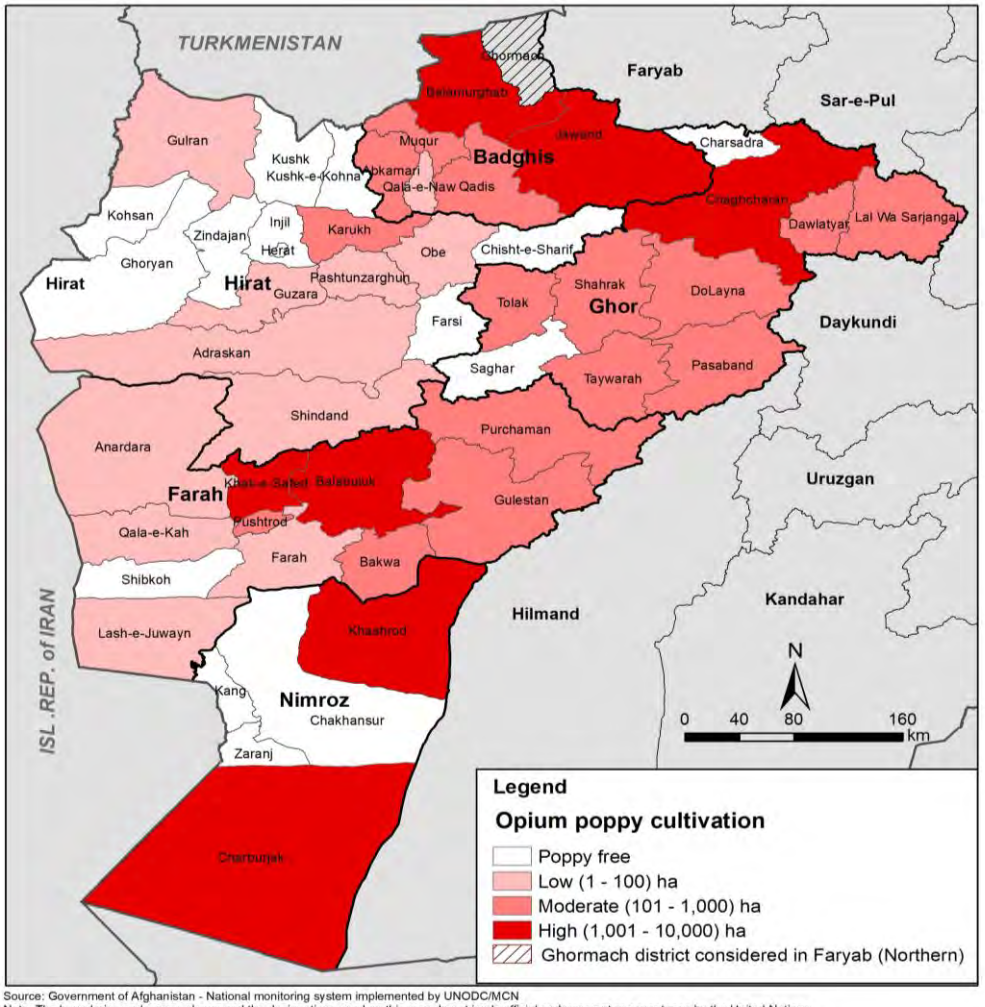
Province	Cultivation (ha)				% Change 2017-2018	Eradication (ha)	
	2015	2016	2017	2018		2017	2018
Badghis	12,391	35,234	24,723	6,973	-72%	55	0
Farah	21,106	9,101	12,846	10,916	-15%	0	0
Ghor	1,721	1,222	4,228	3,574	-15%	14	0
Hirat	285	208	1,104	595	-46%	23	0
Nimroz	8,805	5,303	11,466	9,115	-21%	14	0
Western Region	**44,308**	**51,067**	**54,367**	**31,174**	**-43%**	**106**	**0**

Figure 16 Opium poppy cultivation in Farah and Nimroz provinces, 2004-2018 (Hectares)



The high-low lines represent the upper and lower bounds of the 95% confidence interval.

Figure 17 Opium poppy cultivation in the Western region (by district), 2018



Source: Government of Afghanistan - National monitoring system implemented by UNODC/MCN
Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

3 Eradication

3.1 Poppy eradication decreased by 46% in 2018

A total of 406 hectares of verified poppy eradication was carried out by the provincial Governors in 2018. This represented a decrease of 46% from 2017 when 750 hectares of Governor-led eradication (GLE) was verified by MCN/UNODC.

In 2018, MCN/UNODC field surveyors verified the eradication of 4885 fields in 152 villages in 4 provinces. In 2017 MCN/UNODC verifiers had visited 317 villages (7,271 poppy fields) in 14 provinces.

Quality control of eradication verification was carried out using satellite data in Kunar, Badakhshan Kandahar,and Nangarhar provinces. Final figures for eradication in these provinces were confirmed after checking with high-resolution satellite imagery supported by GPS tracking files, and photographs from the ground.

Major observations on the 2017 and 2018 eradication campaigns:

- Total eradication of opium poppy decreased by 46% from 750 hectares in 2017 to 406 hectares in 2018.
- In 2018, less security incidents occurred than in 2016: in 2017, 5 lives were lost and 2 persons were injured; in 2016, 6 lives were lost and 8 persons were injured.
- Eradication took place in 4 provinces in 2018, namely Kunar, Nangarhar, Kandahar and Badakhshan (as opposed to 14 provinces in 2017)
- The largest amount of poppy eradication took place in Nangarhar province (301 hectares), followed by Badkhshan province (85 hectares).
- Since 2016, there has not been any eradication in Hilmand, which is the province with the highest levels of opium poppy cultivation in Afghanistan.
- In 2018, the quality of eradication (partially eradicated fields) reported by surveyors was verified using satellite imagery and ground pictures of eradicated fields. Eradication was reported separately for fields with more than 80% of the field eradicated and less than 80% of the field eradicated.
- In 2018, the start and ending dates of eradication were similar as last year, but the majority of eradication took place a bit earlier, in April instead of May last year.

Table 13 Reported and verified governor-led eradication, by province, 2018

Province	No. of Eradicated fields reported	No. of villages eradication reported	Eradication Verified (ha) (>=80%)	Eradication Verified (ha) (<80%)	Total eradication (ha)	Eradication Method
Kunar	336	8	7	0	7	Stick
Nangarhar	2,769	86	287	14	301	Stick
Kandahar	42	7	13	0	13	Tractors
Badakhshan	1,738	51	20	65	85	Stick
Grand Total	**4,885**	**152**	**327**	**79**	**406**	

Table 14 Verified governor-led eradication, by province, 2017 - 2018

Province	Verified eradication (ha) 2017	Verified eradication (ha) 2018	% Change
Badakhshan	269	85	-69%
Balkh	25	0	-100%
Kabul	27	0	-100%
Kapisa	3	0	-100%
Badghis	55	0	-100%
Kandahar	48	13	-72%
Nangarahar	204	301	48%
Laghman	23	0	-100%
Nimroz	14	0	-100%
Hirat	23	0	-100%
Ghor	14	0	-100%
Jawzjan	0.3	0	-100%
Takhar	15	0	-100%
Kunar	31	7	-78%
Total	**750**	**406**	-46%

Table 15 Opium poppy eradication and cultivation in Afghanistan, 2013-2018 (Hectares)

Year	2013	2014	2015	2016	2017	2018
Number of provinces eradication carried out	18	17	12	7	14	4
Governor-led Eradication (GLE), (ha)	7,348	2,692	355	355	750	406
Cultivation (ha) *	209,000	224,000	183,000	201,000	328,000	263,000
Poppy-free provinces	15	15	14	13	10	10

** Net opium poppy cultivation after eradication.*

Figure 18 Area of opium poppy eradication, per month, 2017-2018 (Percentage of total)

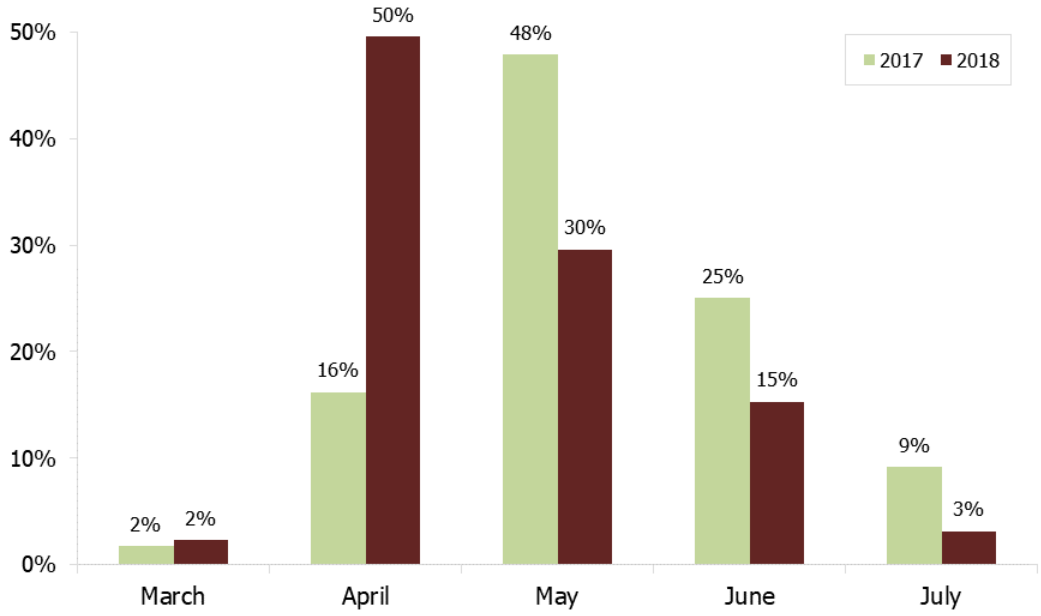


Table 16 Start and end dates of Governor-led eradication, 2018

Region	Province	Eradication Start Date	Eradication End Date	Eradication (ha)
Central	Kabul	24-Apr-2018	10-May-2018	0
East	Kunar	21-Apr-2018	3-May-2018	7
	Laghman	30-Apr-2018	4-May-2018	0
	Nangarhar	4-Apr-2018	5-Jun-2018	301
South	Kandahar	7-Mar-2018	24-Apr-2018	13
North	Balkh	8-May-2018	8-May-2018	0
North-east	Badakhshan	22-May-2018	4-Jul-2018	85

3.2 Quality control of reported eradication with satellite images

As in previous years, in 2018 MCN/UNODC procured high-resolution satellite images based on field coordinates recorded by verifiers in eradicated poppy fields to validate the authenticity of reports and generate more accurate area figures by on-screen digitization of the eradicated fields.

The Governor-led eradication of opium poppy in Badakhshan, Kandahar, Kunar and Nangarhar provinces was checked with satellite images. Satellite images were supported with ground pictures and GPS tracking collected during the eradication campaign.

Since 2013, surveyors have generated a GPS track around eradicated fields that provides both the location and shape of the fields. These tracks have helped verification of eradicated fields with satellite imagery. Satellite images of eradicated fields were interpreted and cross-checked with the data reported from field and corrected for over-reporting or under-reporting.

In 2018, the quality of eradication (partially eradicated fields) reported by surveyors was verified using satellite imagery and ground pictures of eradicated fields. The field verifiers report the percentage of each eradicated field on the ground. The satellite imageries acquired immediately after the date of eradication provides differences in tone and texture of eradicated and standing poppy which is used to verify the quality of eradication within each field. This year eradication was

reported separately for fields with more than 80% of the field eradicated and less than 80% of the field eradicated.

In **Badakhshan** province, eradication quality and area reported by verifiers were checked with satellite imagery and the final eradication figures were corrected to 85 hectares. Similar to previous years, the quality of eradication (measured in terms of the area of a field that was actually eradicated) was very poor. 65 hectares of eradicated fields were less than 80% in each field. Only 20 hectares were confirmed to be eradicated more than 80% in each field.

Figure 19 Percentage of poppy eradication in each field in Badakhshan province, by number of fields, 2018

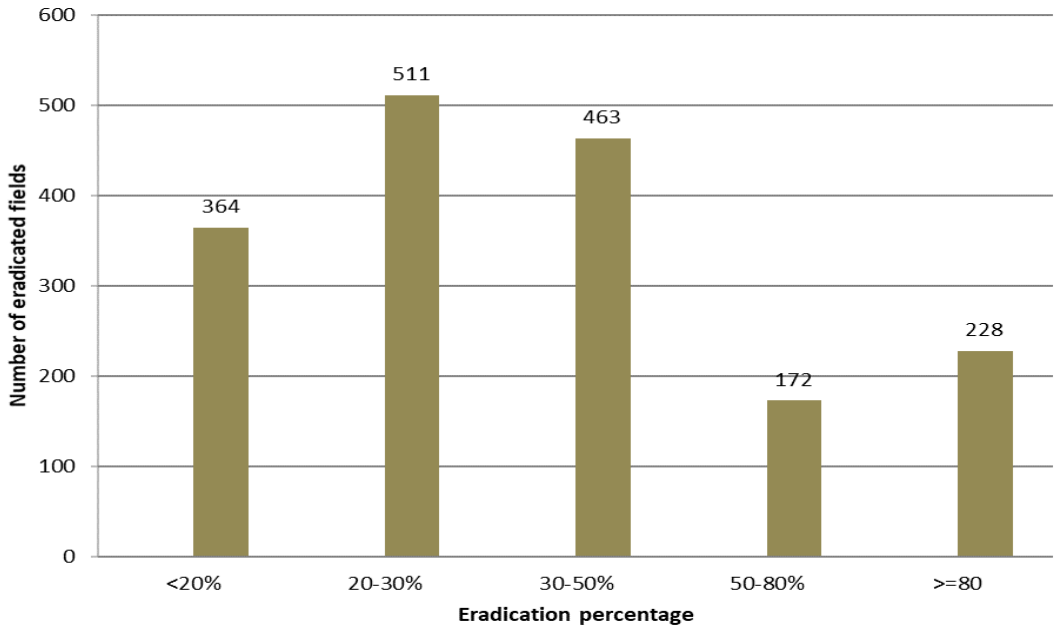


Figure 20 Quality check of partially eradicated fields using satellite imagery in Badakhshan province in 2018

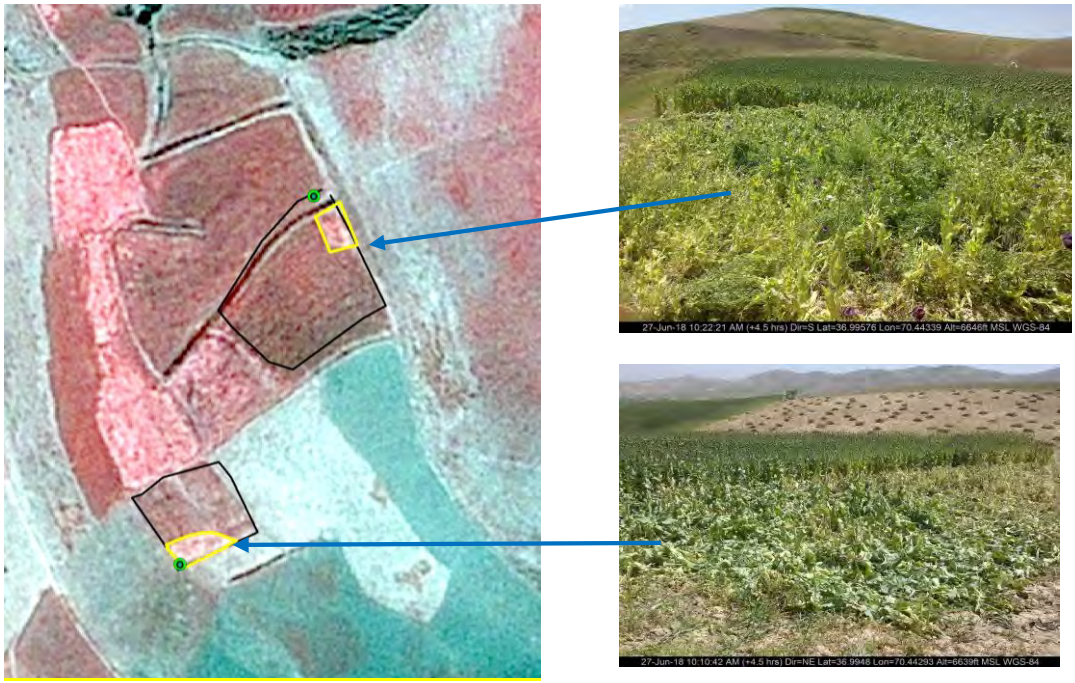


Figure 21 Area and check of eradicated fields using satellite imagery in Kandahar province in 2018

Verifier reported: 7.17 ha size of the fields

Checked with satellite: 0.97 ha size of the fields

Black lines and numbers: GPS tracks of poppy field boundaries registered on the ground with an estimate of the area (ha) that was actually eradicated; Yellow lines and numbers: eradicated parts of the fields that were verified and measured (in ha) with satellite imagery.

4 Potential opium yield and production

4.1 Potential opium yield and production decreased in 2018[7]

In 2018, estimated potential opium production in Afghanistan amounted to 6,400 tons, a reduction of 29% from its 2017 level (9,000 tons). The average opium yield amounted to 24.4 kilograms per hectare in 2018, which was 11% lower than in 2017 (27.3 kilograms per hectare).

The decrease in potential opium production in 2018 is mainly explained by the decrease in opium poppy cultivation and a general reduction in opium yields per hectare also contributed to this fall. The largest relative decrease in opium yield occurred in the Central region, where yield decreased by 47% from 43.8 kg/ha in 2017 to 23.3 kg/ha in 2018. In the Eastern and Northern regions, yields decreased by 29% and 19%, respectively. The Southern and North-eastern regions also showed marginal reduction in opium yields (-8% and -4% respectively). In the Western region, yields remained stable.

Table 17 Opium yield, by region, 2017 - 2018[8] (Kilograms per hectare)

Region	2017 average yield (kg/ha)	2018 average yield (kg/ha)	% Change
Central	43.8	23.3	-47%
Eastern	34.9	24.9	-29%
North-eastern	35.4	34.0	-4%
Northern	32.8	26.4	-19%
Southern	26.2	24.1	-8%
Western	22.3	22.3	0.2%
Weighted national average	**27.3**	**24.4**	**-11%**

There are some limitations in the yield estimates since the yield survey was not implemented in all main cultivating provinces for security reasons. For the provinces not covered, the regional average was used.

In 2018, a total of 191 poppy fields were surveyed in 15 provinces for the purpose of estimating opium yield. Since 2012, the yield survey has been limited to low-risk areas where the security situation allowed access and enough time to carry out all measurements. Together with close supervision of field work, this ensured a very high degree of compliance with the yield survey protocol.[9] All yield data obtained in 2018 met the strict quality criteria introduced in 2011.

Table 18 Potential opium production, by region, 2017 - 2018 (mt)

Region	Production 2017	Production 2018	Change 2017-2018 (%)	2017 (tons) as % of total	2018 (tons) as % of total
Central	64	20	-69%	0.7%	0.3%
Eastern	837	533	-36%	9%	8%
North-eastern	294	270	-8%	3%	4%
Northern	1,408	502	-64%	16%	8%
Southern	5,158	4,391	-15%	57%	68%
Western	1,210	695	-43%	13%	11%
Total (rounded)	**9,000**	**6,400**	**-29%**	**100%**	**100%**

[7] "Potential production" is a hypothetical concept and not an estimate of actual opium or morphine/heroin production. For more information, see UNODC *World Drug Report 2011*, p. 265.

[8] Yield estimates in this report are based on the concept of potential yield, i.e., the amount opium farmers can potentially extract from poppy capsules. Depending on local conditions and practices, this may differ from the amount actually harvested.

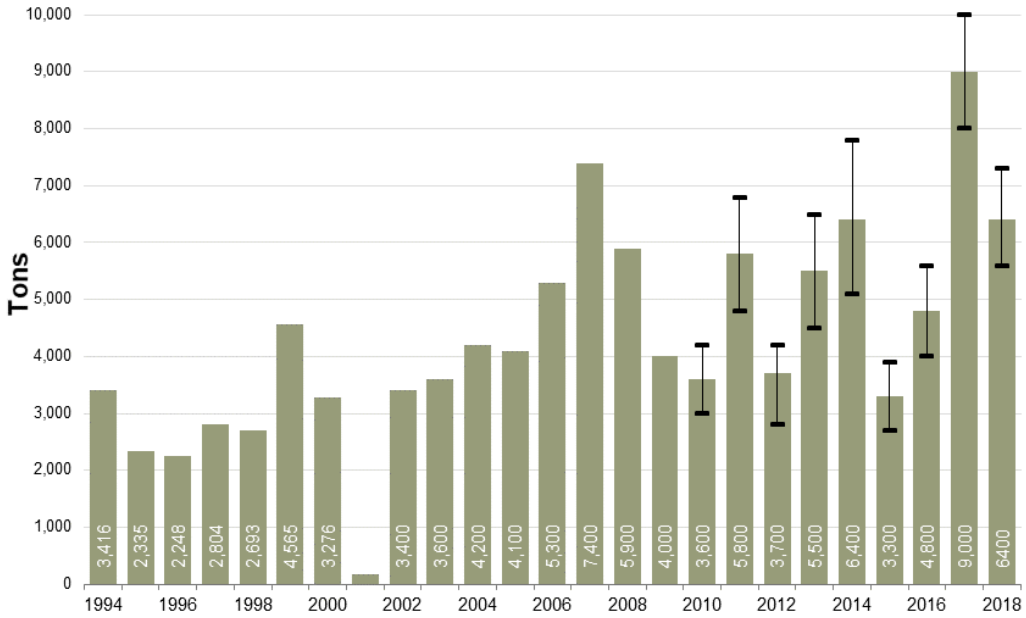
[9] Published in UNODC *Guidelines for yield assessment of opium gum and coca leaf from brief field visits*, UN New York, 2001, ST/NAR/33.

Table 19 Opium production in Afghanistan 2014-2018, by province (mt)

Province	Production (mt)					Change (mt) 2017-2018	Change (%) 2017-2018
	2014	2015	2016	2017	2018		
Ghazni	PF	PF	PF	45	9	-36	-81%
Kabul	11	13	18	19	11	-8	-41%
Khost	PF	PF	PF	PF	PF	-	-
Logar	PF	PF	PF	PF	PF	-	-
Paktika	PF	PF	PF	PF	PF	-	-
Paktya	PF	PF	PF	PF	PF	-	-
Panjshir	PF	PF	PF	PF	PF	-	-
Parwan	PF	PF	PF	PF	PF	-	-
Wardak	PF	PF	PF	PF	PF	-	-
Central Region	**11**	**13**	**18**	**64**	**20**	**-44**	**-69%**
Kapisa	19	17	20	34	10	-24	-72%
Kunar	30	36	41	57	43	-14	-24%
Laghman	36	28	45	79	52	-27	-34%
Nangarhar	721	365	465	663	428	-235	-35%
Nuristan	PF	PF	PF	4	PF	-4	-100%
Eastern Region	**805**	**446**	**571**	**837**	**533**	**-304**	**-36%**
Badakhshan	161	161	196	294	262	-32	-11%
Kunduz	PF	PF	PF	PF	PF	-	-
Takhar	PF	PF	PF	PF	9	9	NA
North-eastern Region	**161**	**161**	**196**	**294**	**270**	**-24**	**-9%**
Baghlan	6	7	30	35	28	-6	-18%
Balkh	PF	8	73	397	225	-172	-43%
Bamyan	PF	PF	PF	PF	PF	-	-
Faryab*	7	44	102	747	216	-531	-71%
Jawzjan	PF	PF	14	106	9	-97	-92%
Samangan	PF	PF	PF	8	6	-2	-21%
Sari Pul	7	13	59	116	17	-99	-85%
Northern Region	**20**	**72**	**278**	**1,408**	**502**	**-906**	**-64%**
Day Kundi	17	6	8	39	18	-21	-54%
Hilmand	3,048	1,392	1,763	3,767	3,297	-470	-12%
Kandahar	995	338	450	733	564	-168	-23%
Uruzgan	274	182	340	563	450	-114	-20%
Zabul	85	10	30	56	62	6	12%
Southern Region	**4,420**	**1,928**	**2,591**	**5,158**	**4,391**	**-767**	**-15%**
Badghis*	117	202	786	550	156	-395	-72%
Farah	561	343	203	286	243	-42	-15%
Ghor	10	28	27	94	80	-14	-15%
Hirat	15	5	5	25	13	-11	-46%
Nimroz	297	143	118	255	203	-52	-20%
Western Region	**999**	**721**	**1,139**	**1,210**	**695**	**-515**	**-43%**

**Estimates prior to 2017 are not comparable since Ghormach district, a major opium cultivating district formerly part of Badghis province (Western region) came in 2017 under the administration of Faryab province.*

Figure 22 Potential opium production in Afghanistan, 1994-2018 (mt)



Sources: MCN/UNODC opium surveys, 1994-2018. The vertical lines represent the upper and lower bounds of the confidence interval of the estimates. Figures refer to oven-dry opium. Production figures for 2006 to 2009 have been revised in 2012; see MCN/UNODC Afghanistan opium survey 2012.

Table 20: Potential opium production, by region, with ranges, 2018 (mt)

Region	Best estimate	Lower bound	Upper bound
Central	20	17	23
Eastern	533	311	756
North-eastern	270	110	430
Northern	502	281	724
Southern	4,391	3,734	5,048
Western	695	464	927
National	**6,412**	**5,632**	**7,192**
National (rounded)	**6,400**	**5,600**	**7,200**

4.2 Potential heroin production in Afghanistan

All the opium produced in Afghanistan each year is either exported as raw opium or in the form of heroin/morphine, consumed domestically in various forms, seized, stored for later use or lost (for example, due to mold, disposal to avoid seizures, etc.).

It can be estimated that the 2018 harvest of 6,400 tons provides 1,100 to 1,400 tons of opium to meet the demand for consumption of opium in its unprocessed form. The remaining 5,000 to 5,300 tons are potentially available for heroin production in and outside of Afghanistan and can yield some 360 to 610 tons of heroin of export quality (purity between 50 and 70 per cent) or 250 to 300 tons of pure heroin base.

For details on the demand estimates and conversion ratios, see MCN/UNODC "Afghanistan opium survey 2017 – Challenges to sustainable development, peace and security" (May 2018).

Table 21 Estimated shares of opium production available for heroin production

Opium production 2018	Demand for unprocessed opium in the region	Potential production of heroin of export quality	Potential production of pure heroin base
6,400 tons (5,600 – 7,200)	1,100 – 1,400 tons	360 - 610 tons	250 - 300 tons

A ratio of 18.5:1 (17.5:1 – 19.6:1) is used for converting opium to pure heroin base. For converting opium to 50% pure heroin, 9.2 kilograms (8.7 to 9.8 kilograms) of opium are assumed to be needed; for converting opium to 70% pure heroin, 12.9 kilograms (12.2 to 13.7 kilograms) of opium are assumed to be needed. Ranges reflect different purities and the upper and lower estimates of the demand estimates for raw opium.

These values represent a potential heroin production: A noteworthy share of the opium and heroin production is seized or lost along the supply chain from source to destination countries, and a proportion of the product may not enter the market in the year of interest. The amount of heroin that actually reaches end-consumer markets is thus lower than this estimate.

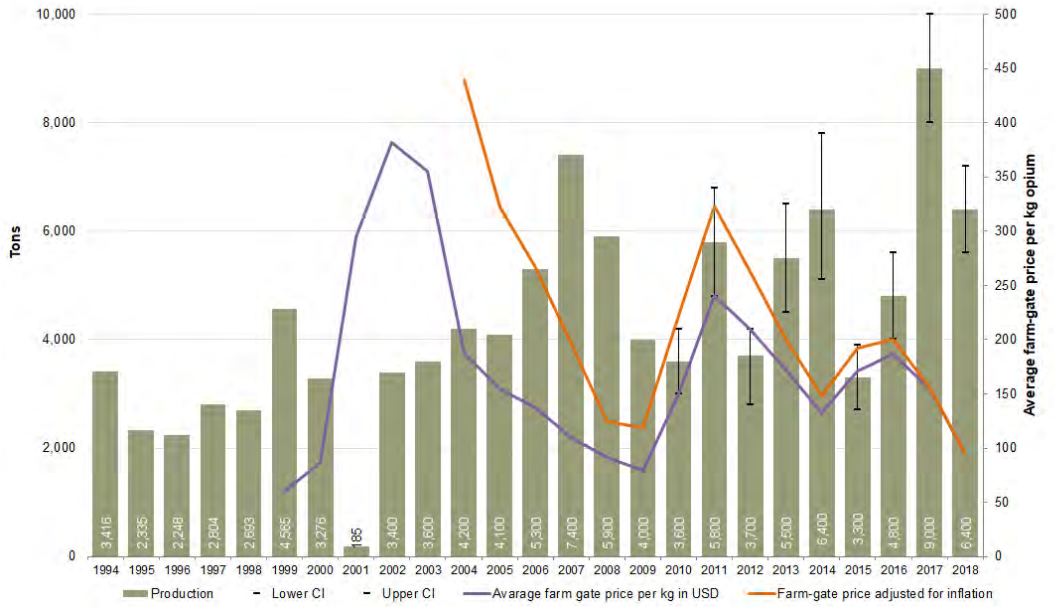
There is great uncertainty around these estimates. While confidence in the opium production estimates is high, uncertainties around the conversion ratio from opium to heroin stem mainly from the wide range of possible purities of the product and from scarce data on the efficiency of the conversion from opium to heroin (i.e., how much opium is needed to produce one kilogramme of heroin). Uncertainties around the demand estimate are mainly associated with the assumptions around annual opium consumption per user. MCN/UNODC is continuously aiming at improving these estimates. A more detailed discussion of heroin produced form Afghan opiates will be provided in the forthcoming second issue of the Afghanistan opium survey report 2018.

5 Opium prices and farm-gate value of opium

5.1 Opium prices

MCN/UNODC has been monitoring opium prices in selected provinces of Afghanistan on a monthly basis since 1994 and has been calculating average farm-gate prices annually based on prices at harvest time weighted by regional production. Figure 23 shows that the average farm-gate price follows the laws of demand and supply: following years of high production (e.g. 2011 or 2018) the average price decreased, whereas following a supply shortage (for example the Taliban ban opium in 2001) the average price strongly increased.

Figure 23 Farm-gate prices of dry opium at harvest time weighted by production and annual opium production, 1999-2018 (tons; US dollars per kilogram)



Opium prices at the farm-gate present strong seasonal fluctuations and can vary substantially in reaction to the supply of opium on the market. In 2018, the average regional farm-gate prices at harvest time decreased in all regions of Afghanistan with exception of the North-eastern region, where they increased before harvest and started to decrease only in the months after the harvest.

The continuously decreasing prices point towards a market saturation. Even though supply of opium reduced compared to the last year, the still very high levels of production seem to overfull-fill the demand in the market, which reacts with decreasing prices for opium gum. A more detailed analysis of the potential impact of prices and how it affects farmer's motivations for cultivating opium poppy will be provided in the forthcoming second issue of the Afghanistan opium survey report 2018 (to be released in Spring 2019).

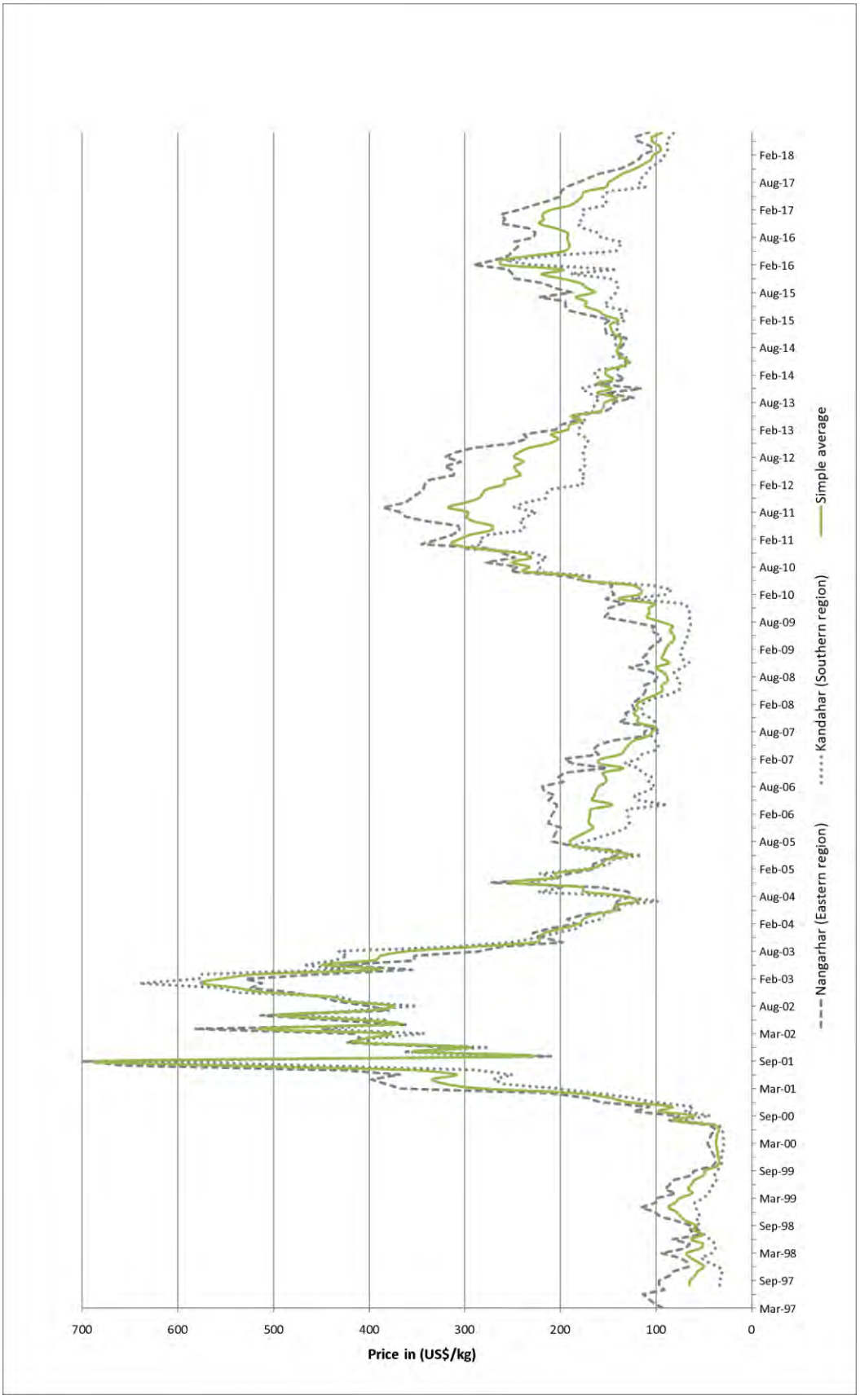
Table 22 Regional farm-gate prices of dry opium at harvest time, reported by farmers through the price-monitoring system, 2016-2018 (US dollars per kilogram)

Region	Average Dry Opium Price (US$/kg) 2017	Average Dry Opium Price (US$/kg) 2018	Change 2017-2018 (%)
Central	NA	NA	NA
Eastern	184	107	-42%
North-eastern	63	70	12%
Northern	82	56	-31%
Southern	155	87	-44%
Western	241	165	-32%
National average weighted by production*	**155**	**94**	**-39%**

Table 23 Dry opium prices reported by opium traders, by region, August 2017-August 2018
(US dollars per kilogram)

Region	Price of Dry Opium (US$/Kg) Trader		Change 2017-2018 (%)
	Aug-17	Aug-18	
Eastern region (Kunar, Laghman, Nangarhar)	171	113	-34%
Southern region (Hilmand, Kandahar, Uruzgan, Zabul)	129	88	-32%
Western region (Badghis, Farah, Ghor, Hirat, Nimroz)	228	125	-45%
North-eastern region (Badakhshan, Kunduz, Takhar)	64	75	17%
Northern region (Baghlan, Balkh, Faryab, Sur-Pul, Jawzjan, Samangan)	87	59	-32%
Average	**143**	**94**	**-34%**

Figure 24 Dry opium prices collected from traders in Nangarhar and Kandahar provinces (US$/Kg), March 1997 - July 2018

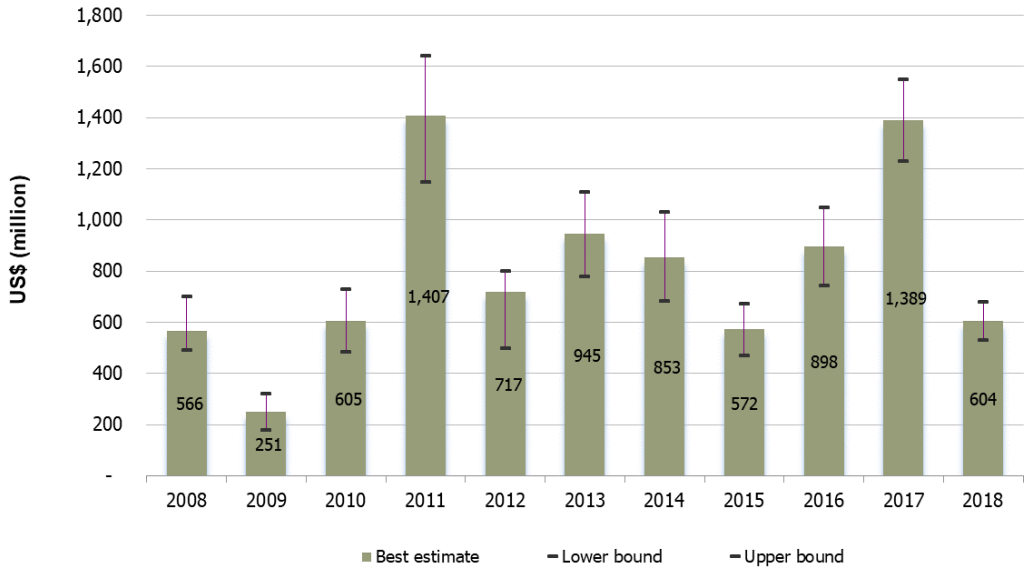


5.2 Farm-gate value of opium production

Amounting to US$ 604 million (US$ 530-680 million), the estimated farm-gate value of opium production in 2018 decreased by 56% from its 2017 level. The decrease in farm-gate value was mainly due to the combination of reduced opium poppy cultivation, production and decreasing opium prices.

Farmers in Hilmand, the country's largest opium-producing province, earned some estimated US$ 288 million, which was equivalent to 48% of the total farm-gate value of opium production in Afghanistan in 2018; a decrease of 51% from 2017 (US$ 584 million). The large reduction in income was mainly caused by the 44% decrease of farm-gate prices in the Southern region.

Figure 25 Farm-gate value of opium production in Afghanistan, 2008-2018 (Million US dollars)



6 Methodology

This chapter covers various methodological aspects regarding survey design and estimation procedure.

6.1 Estimation of area under opium poppy cultivation

Remote sensing methodologies have been used by UNODC since 2002 to monitor the extent of opium poppy cultivation in Afghanistan. Changes in the location of opium poppy cultivation and the increased security difficulties involved in accessing the area of interest require continuous improvements of the survey designs.

A sampling approach is used to cover those provinces where most of the poppy is found, whereas a targeted approach is used in provinces with a low level of opium poppy cultivation. "Targeted approach" means that a certain area of a province is fully covered by satellite imagery. Provinces without indication for opium poppy cultivation are covered by the village survey only.

From 2015, new and better satellite technology allowed for a major change in the study design: the size of the grid cells used for acquiring satellite imagery has been reduced from 10 x 10 km images to 5 x 5 km images. This change affected only provinces where a sampling approach was used; all other provinces were not affected by this change.

In 2018, out of 34 provinces in Afghanistan, 17 were sampled and 11 were targeted. The remaining 6 provinces were considered to be poppy-free based on information from the field. These provinces were not covered by the remote sensing survey, but were covered by the village survey.

To the extent possible the same sampling locations were used in both 2017 and 2018, which ensured high levels of comparability in provinces where a sampling approach was applied. In Faryab, the more wide-spread cultivation in 2017 and a change in the provincial boundaries caused an update of the sampling locations.

Likewise due to the more wide-spread cultivation activities in Balkh and Saripul the approach was changed from a target approach in 2017 to a sampling approach in 2018. It cannot be excluded that this may have influenced the results, as some of the poppy might have been missed in 2017.

Table 24 Area estimation method, by province, 2018

Region	Targeted approach	Sampling approach	Village survey only
Central	Ghazni, Kabul, Parwan, Logar		Khost, Paktya, Panjshir, Wardak, Paktika
Eastern	Kapisa, Nuristan	Kunar, Nangarhar, Laghman	
Northern	Baghlan, Samangan	Faryab, Jawzjan Balkh, Sari-Pul,	Bamyan
North-eastern	Takhar, Kunduz	Badakhshan	
Southern		Day-Kundi, Hilmand, Kandahar, Uruzgan, Zabul	
Western	Hirat	Badghis, Farah, Nimroz, Ghor	

6.1.1 Study design

6.1.1.1 Sampling frame

The sampling frame was established by extracting the area of land potentially available for opium poppy cultivation in 17 provinces. This area was divided into regular 5 km by 5 km grids, which constituted the sampling frame. The final sampling frame, from which the satellite images were randomly selected, consisted of 7,477 cells. In the case of images that cut across provincial boundaries, only the part falling into a particular province was considered to be in that province.

The area available for agriculture in the sampling frame covers irrigated and rain-fed land. The total area in the 17 provinces was 41,791 km^2, which is equivalent to 38% of all potential agricultural land in Afghanistan. Potential land refers to all land available for cultivation and also includes land that is currently fallow.

Cells containing less than 0.25 km^2 of potential agricultural land were excluded from the sampling frame in order to reduce the likelihood of choosing cells with very little arable land. In total, the exclusions represented less than 1% of the total potential agricultural land.

6.1.1.2 Sample size determination

The total number of images to be selected in the sampled provinces was determined in 2015 with the goal to increase accuracy of the estimates and to save cost when compared to previous years.

The accuracy of area estimates depends on the proportion of land covered by satellite imagery and even more so on the number of images than can be acquired. With opium poppy cultivation being concentrated in hot spots and thus unevenly distributed across the agricultural land, information from a large, contiguous piece of land has less value than geographically evenly distributed, smaller pieces information. Costs associated with satellite imagery depends mainly on the total area covered (and not on the number of images). By using 5 x 5 km instead of 10 x 10 km images, at same costs four times the number of images can be acquired. Further details on the sample size determination methodology can be found in O*pium Survey, December 2015*, page 42.

6.1.1.3 Sample size allocation

The available number n of images has been distributed to provinces h according to a so-called power allocation, which uses agricultural area as size measure. For provincial sample size n_h,

$$n_h = n \frac{X_h^q CV_h}{\sum_{h=1}^{H} X_h^q CV_h}$$

where CV_h is the coefficient of variation of area under poppy cultivation in province h and X_h land available for agriculture in province h. This approach ensures that sample size depends on both the variability of poppy and the size of the province measured by agricultural land. After an empirical assessment, the smoothing parameter q, $0 \leq q \leq 1$, was set to 0.2. In addition, a mininum of 20 samples per provinces was set, which took effect in Day-Kundi and Kunar.

In 2018, high-resolution satellite images were acquired for 821 sampled locations 5 km by 5 km in size covering a total of 17 provinces.

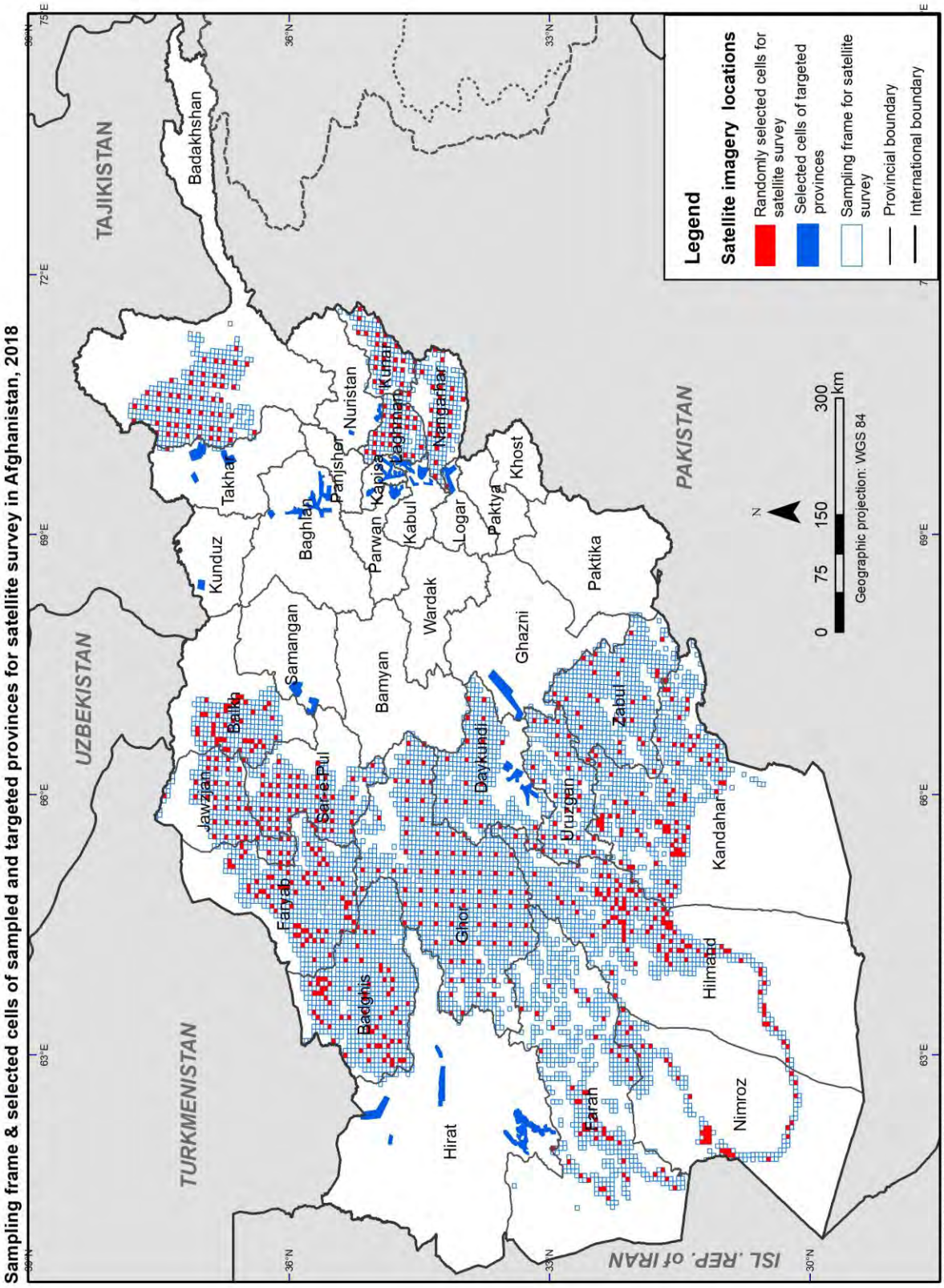

Sampling frame & selected cells of sampled and targeted provinces for satellite survey in Afghanistan, 2018
TAJIKISTAN
UZBEKISTAN
TURKMENISTAN
PAKISTAN
ISL. REP. of IRAN
Badakhshan
Takhar
Kunduz
Baghlan
Panjsher
Nuristan
Kunar
Laghman
Nangarhar
Parwan
Kapisa
Kabul
Logar
Paktya
Khost
Paktika
Samangan
Balkh
Jawzjan
Sar-e-Pul
Faryab
Badghis
Bamyan
Wardak
Ghazni
Daykundi
Ghor
Hirat
Zabul
Uruzgan
Kandahar
Helmand
Farah
Nimroz
Legend
Satellite imagery locations
Randomly selected cells for satellite survey
Selected cells of targeted provinces
Sampling frame for satellite survey
Provincial boundary
International boundary
0 75 150 300 km
Geographic projection: WGS 84
Source: Government of Afghanistan - National monitoring system implemented by UNODC/MCN
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 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.

Table 25 Sample size and agricultural land and sampling ratio, by province, 2018

Province	Total arable land (km2)	Frame	Effective sample size	Arable land in selected cells	% of arable land represented by selected cells
		# cells	# cells	(km2)	
Badakhshan	3,490	396	53	456	13%
Badghis	6,168	636	50	820	13%
Faryab	6,068	532	86	1181	19%
Jawzjan	3,504	294	39	530	15%
Laghman	263	103	25	61	23%
Ghor	1,615	1144	83	114	7%
Day Kundi	544	406	20	25	5%
Farah	2,076	604	46	361	17%
Hilmand	4,013	696	98	965	24%
Kandahar	2,837	695	80	702	25%
Kunar	246	124	24	42	17%
Nangarhar	919	181	26	162	18%
Nimroz	985	213	36	284	29%
Balkh	3923	256	40	865	22%
Saripul	3282	379	56	587	18%
Uruzgan	787	277	30	83	11%
Zabul	1,071	541	29	124	12%
Total	**41,791**	**7,477**	**821**	**7,362**	**18%**

6.1.1.4 Sample design

MCN/UNODC undertook an extensive simulation study which compared various sampling designs and estimation methods in order to determine the best (most accurate with a given number of samples) design for a certain situation.

Case studies were undertaken for Hilmand and Kandahar province. The sampling desings considered have been used in the past by MCN/UNODC:

- simple random sampling,
- probability proportional to size sampling (PPS), using agricultural area as a size measure,
- stratified random sampling using compact geostrata of equal size as strata,
- systematic random sampling.

Two estimation methods have been compared: a ratio estimator using agricultural area as auxiliary variable and the Horvitz-Thompson estimator.

The study concluded that for the two cases considered

- PPS performed best, and
- The ratio estimator is to be preferred for simple random sampling, systematic random sampling, and stratified random sampling. For PPS, it does not yield any improvements in accuracy.

The PPS builds on the correlation between the size measure and the variable of interest. In provinces where poppy and agricultural land are highly correlated, PPS is expected to perform best. In provinces, however, where poppy and agricultural land are only weakly correlated, PPS does not bring any advantages and might reduce accuracy.

Therefore, in Badghis, Balkh, Farah, Faryab, Hilmand, Kandahar, Nimroz and Zabul, PPS was applied. In the remaining provinces, systematic random sampling was used, a sampling design that

ensures an even geographical distribution of samples (see the "Opium poppy 2015 – Cultivation and production" for more details).

In more detail, in a PPS design without replacement a unit has a probability to be selected in the first draw of

$$pi = \frac{x_i}{\sum_{i=1}^{N} x_i}$$

where x is the size variable (agricultural land) in unit i, and N is the number of units that can be selected. The subsequent units have slightly modified inclusion probabilities. For drawing the samples and for calculating the inclusion probabilities the statistical software *R* (package *sampling*) was used.

Since agricultural area tends to be concentrated in one or more clusters in a province, PPS sampling without further stratification would lead to a concentration of samples in a few spots and possibly do not cover every district. Therefore, in all PPS provinces, the sample was stratified by district.

In the remaining provinces, a one-stage systematic random sampling approach was employed in which a sampling rule was applied that ensured good geographic coverage. Starting from a randomly chosen cell, every kth element from then onwards was chosen, where k is determined by the number of cells in the frame and the desired sample size (the actual sample size might differ slightly).

In *Nangarhar* province, the districts Dara-e-Nur, Kuzkunar, Kama, Behsud, Jalalabad and partially Surkhrod were excluded from the frame.

6.1.2 Area estimation in sampled provinces

The estimation of the extent of opium poppy cultivation is a ratio estimate[10] for each of the provinces, using potential agricultural land as an auxiliary variable. The national estimate was obtained by adding up the provincial estimates in what is known as a separate ratio estimate.

In provinces where systematic random sampling was applied, the area of opium poppy cultivation, Yk, within province k, is estimated as:

$$Y_k = X \frac{\sum_{i=1}^{n_k} y_i}{\sum_{i=1}^{n_k} x_i}$$

where n_k is the number of satellite image locations within the province; y_i is the area of poppy cultivation in image i; x_i is the area of land potentially available for poppy cultivation in image I, and X is the total potential land available for poppy cultivation in province k.

In PPS provinces, where units are selected with unequal inclusion probability, a slightly different ratio estimate was used that incorporates the inclusion probability (Horvitz-Thompson estimator).

6.1.2.1 Uncertainty

In the PPS provinces the confidence intervals were calculated following statistical practice.[11]

In all remaining provinces no unbiased estimator for the variance was available; confidence intervals were approximated by assuming simple random sampling. The confidence intervals therefore slightly overestimate the uncertainty of the estimates.

[10] The ratio estimator did not outperform the Horvitz Thompson estimator in the PPS provinces. The ratio estimator was applied in all provinces for reasons of consistency and to account for possible updates of the agricultural area in future years.

[11] See, e.g. Cochran, W. G., Sampling techniques, John Wiley & Sons (2007).

Table 26 Area estimates of sample provinces with 95% confidence interval, 2018 (Hectares)

Province	Point estimate (Hectares)	Lower bound (Hectares)	Upper bound (Hectares)
Badakhshan	7,703	3,132	12,274
Badghis	6,973	1,800	12,146
Balkh	8,532	1,381	15,684
Day kundi	747	133	1,361
Farah	10,916	5,479	16,353
Faryab	8,175	4,984	11,366
Ghor	3,574	1,961	5,188
Hilmand	136,798	124,349	149,246
Jawzjan	338	136	540
Kandahar	23,410	19,081	27,738
Kunar	1,732	822	2,642
Laghman	2,092	536	3,649
Nangarhar	17,177	12,024	22,329
Nimroz	9,115	5,341	12,888
Saripul	660	297	1,023
Uruzgan	18,662	11,940	25,384
Zabul	2,581	1,230	3,931
Target provinces	**3,403**	**-**	**-**

To express the uncertainty associated with the national area estimation, which includes the provinces covered by the targeted approach and the sample provinces, but excludes provinces with an estimate of less than 100 hectares (which are considered "poppy-free" and not counted), a range was calculated by adding the poppy area figures of the target provinces to the upper and lower limits of the 95% confidence interval at the national level.

6.1.3 Area estimation in target provinces

The consensus view of those working in Afghanistan was that the MCN/UNODC surveillance system developed in the provinces can identify sites where poppy was grown, with further inputs being obtained from the survey of village headmen. Fieldworkers visited potential poppy-growing sites to confirm the situation and provided GPS references for the sites. If geographical clusters of sites were identified, targeted satellite images were obtained to measure the areas involved. The total poppy area of a target province is equal to the poppy area measured on the imagery without any further calculation. For a list of provinces for which the target approach was used see Table 4.

In provinces where satellite images were targeted, the estimated area under opium poppy cultivation is not affected by sampling errors, although they may be affected by the omission of areas with very little cultivation. Area estimates of target provinces should therefore be considered as a minimum estimate.

6.1.4 District level estimation

District level results are indicative only. For district level estimation all cells are used which have the majority of agricultural area in that district. That means that in certain cases, agricultural area and poppy cultivation is accounted for in a neighbouring district and not within the district where cultivation occurred. This is, however, in most cases set off by those cells, where the contrary is the case.

6.1.5 Accuracy assessment

Due to the difficult security situation in many parts of Afghanistan, which prevented surveyors from carrying GPS and mapping equipment, an insufficient number of ground segments could be visited in order to conduct a systematic accuracy assessment.

6.1.6 Estimation of the net cultivation area

The area figure presented is the net harvestable opium poppy cultivation area. The effect of poppy eradication activities was taken into account based on data from the eradication verification survey, which provides exact GPS coordinates of all eradicated fields supplemented with additional information. The gross cultivation areas would be the net cultivation plus eradication.

In provinces where the poppy area is estimated with a sampling approach, the first step is to calculate the gross poppy cultivation area. The total area eradicated in those provinces is then deducted from the mid-point estimate of the provincial cultivation estimate to obtain the net cultivation area. If eradication activities were carried out after the date of the image acquisition, no adjustment is necessary as the poppy present in the image reflects the gross poppy area. If eradication activities were carried out in a sample block before the date of the image acquisition, the area interpreted as poppy would not reflect the gross area. Therefore, the eradicated fields are added to the interpreted fields. The adjusted poppy area figure for the block is then used for the provincial estimate.

In provinces where the poppy areas is estimated with a targeted approach (census), eradication activities that happened before the date of the image acquisition are already reflected, as these fields no longer appear as poppy in the image. Fields that were eradicated after the date of the images acquisition are simply deleted.

6.2 Satellite image interpretation

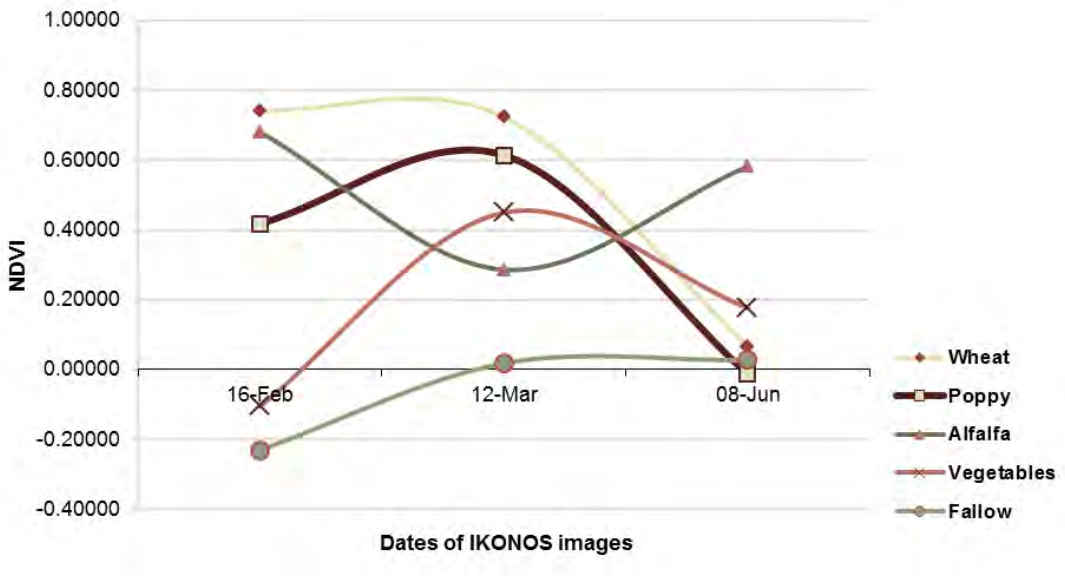
6.2.1 Acquisition of satellite images

The acquisition of satellite images at the appropriate growth stage of the opium poppy is key to the successful identification of opium poppy fields on satellite images. Satellite data is collected at two stages: the pre-harvest (flowering) stage and the post-harvest (post-lancing) stage. In recent years, detailed information on the crop growth cycle of each district has been collected in the form of a phenological chart, which is useful for deciding on appropriate dates for satellite data acquisition. First-dated images of the Southern, Eastern and Western regions are collected during March and April due to the early cultivation and maturity of crops in those regions. The crop growth cycle begins later as one goes northward. Images of the North and North-eastern region are acquired during May, June and July. Second-dated satellite images are collected approximately two months after the first images are collected.

The normal time window for satellite data acquisition is one month, depending on the scheduled passing of satellite and weather conditions. The time window for first-dated image acquisition begins at the full flowering stage and continues through the capsule stage. Second-dated image acquisition begins towards the end of the lancing stage and continues until the opium poppy fields are ploughed. Images acquired in the middle of the prescribed time window facilitate optimum discrimination between opium poppy and other crops.

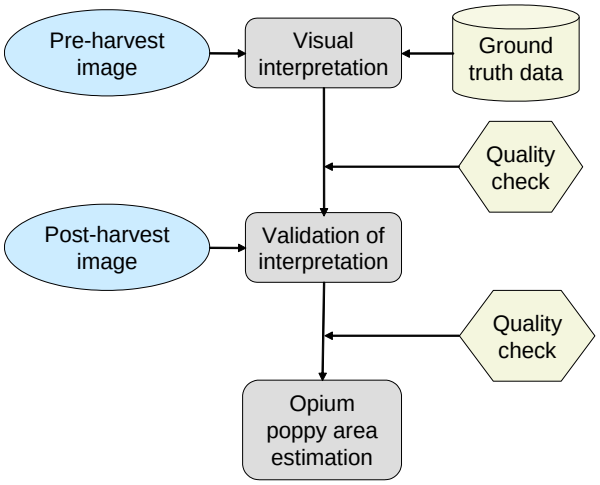
The figure below illustrates the spectral characteristics (Normalized Difference Vegetation Index; NDVI) of opium poppy and other crops between February and June. Wheat and opium poppy have the same growth cycle between March and June, as illustrated. The spectral differences between those two crops are more pronounced in February, which marks the beginning of the capsule stage of the crop in this example. Poppy fields are ploughed immediately after the harvest, whereas wheat fields are not. That is why two-dated images (pre-harvest and post-harvest) are collected for the same location.

Figure 26 Spectral reflectance of opium poppy and other crops



The figure above illustrates the growth cycles of opium poppy, wheat and clover from February to June, with the help of ground photographs. Note that maximum visual discrimination between opium poppy and other crops is possible during the flowering/capsule stage and after capsule lancing. The different phenological stages described above are shown in the figure on the previous page (field photographs of opium poppy, wheat and clover on different dates).

Figure 27 Image classification methodology for estimating opium poppy cultivation area



6.2.2 Interpretation of opium poppy cultivation from satellite images

First-dated images were acquired during the flowering or capsule stage and second-dated images were acquired after the opium harvest. For example, wheat appears mostly in bright red on the first date image in false colour composite (full coverage with vegetation appears in red; bare soil in grey/green), while opium poppy fields are shown in tones of pink. Although there can be some confusion between opium poppy and wheat in the first-dated images, the acquisition of second-dated images makes it possible to distinguish opium poppy from other crops, because the opium poppy crop has been harvested and the fields appear in grey/green.

Visual interpretation was used to delineate opium poppy fields by interpreting PLEIADES images covering a 5 km by 5 km area. Ortho-rectified PLEIADES images of 0.5 m resolution (PAN-sharpened) were used for this purpose. Opium poppy was initially identified using first-dated high resolution images. Ground truth information collected in the form of segment maps and GPS points was also useful in identifying opium poppy fields. The interpretation based on first-dated images was improved using patterns of observation in second-dated images. Ground photos of the poppy fields were used in the provinces of in Kabul, Kapisa, Kunar, Laghman, Nangarhar Faryab, Baghlan, Badakhshan, Jawzjan and Sari-Pul provinces. These photographs were tagged by latitude and longitude and facilitated to locate the poppy areas on satellite images, and were very helpful in confirming the poppy areas in the satellite images. Poppy field boundaries were delineated by an on-screen digitization method.

6.2.2.1 Band combination for opium poppy identification

Two kinds of band combination were used to detect opium poppy. True-colour combination (blue, green, red) was used in areas where land use is dominated by opium (for example, Hilmand and Kandahar) and in cases where images were obtained during the flowering and lancing stages of opium poppy. False-colour combination (infra-red, red, green) was used in almost all cases. Analysts used both combinations simultaneously to optimize discrimination between opium poppy and other crops.

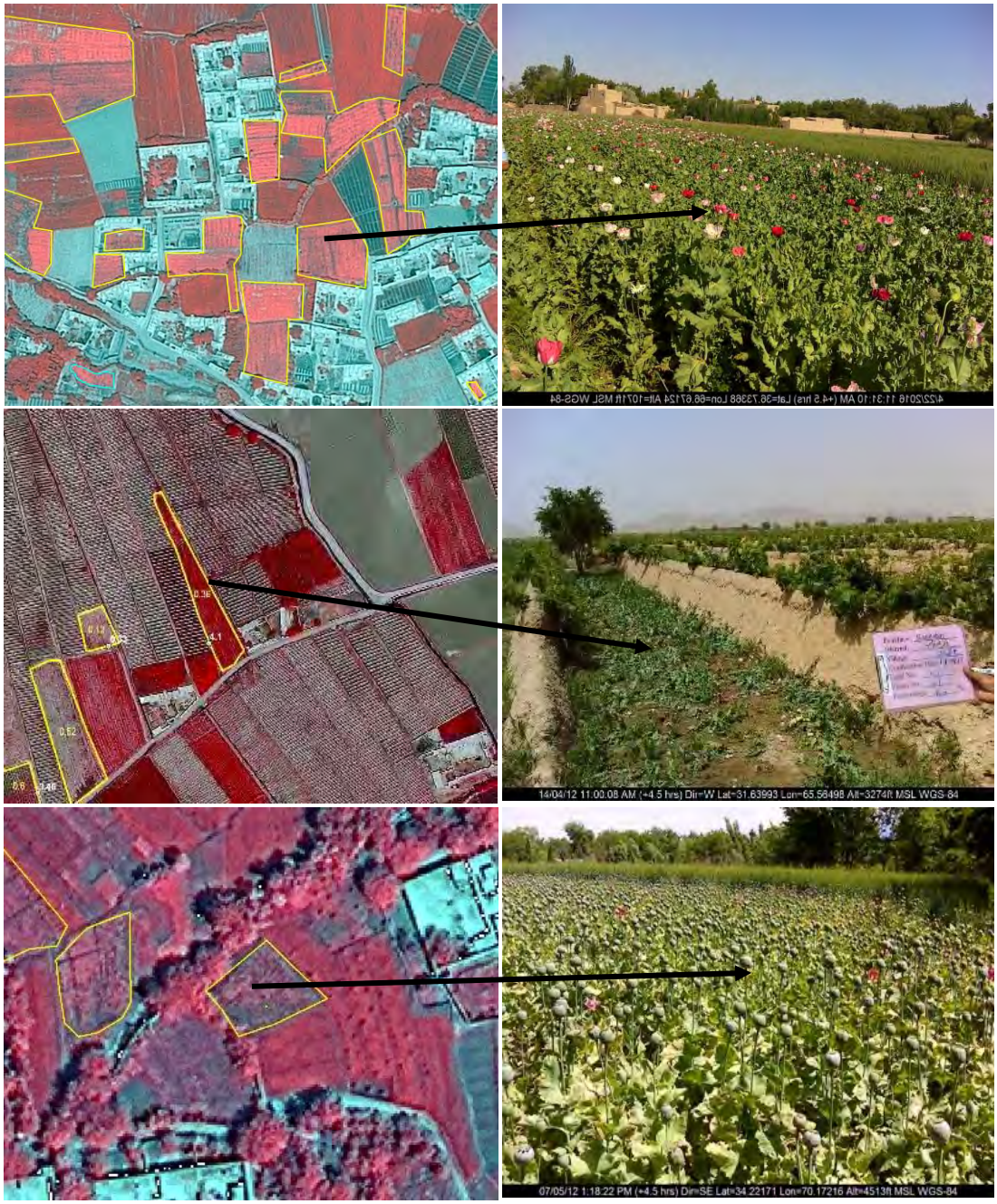
Some of the images could not be acquired at the appropriate time due to weather conditions and/or the time at which the satellite passed. The delayed acquisition of images makes it difficult to detect opium poppy, since fields may be at the senescence stage due to the lancing of capsules and can therefore be confused with fallow fields. In such cases, second-dated images are often useful in confirming opium poppy fields, since harvest patterns are different for wheat and opium poppy.

6.2.2.2 Ground reference information

Ground reference data were collected in the form of GPS points. Some 2,700 GPS points of poppy fields, supported with pictures, were collected from the provinces of Sari-Pul, Baghlan, Balkh and Faryab.

GPS point data were superimposed over the ortho-rectified satellite images to facilitate identification of poppy fields during visual interpretation.

Figure 28 Use of geo-referenced ground photos for image interpretation



6.2.2.3 Advantage of two-dated images

Visual interpretation of single-dated very high-resolution images was a relatively easy task in Hilmand, Kandahar, Uruzgan, Farah and Nimroz provinces. This was due to larger field sizes and timely acquisition of the images. Interpretation in target provinces Nangarhar, Laghman, Kunar, Kabul, Kapisa, Hirat, Ghor, Baghlan, Faryab and Badakhshan was easy with the help of GPS points and aerial photographs. Interpretation of images in Badghis, Faryab, Saripul, Jawzjan and Zabul was more difficult since the spectral signatures of opium poppy were not as clear as in Hilmand, Kandahar, Uruzgan and Nangarhar. The second-dated images were useful to distinguish poppy from barley, wheat and grapes in certain provinces, namely Kabul, Kandahar and Nangarhar, particularly where the first-dated images were acquired late during the senescence stage or acquired early before flowering stage. The second-dated (post-harvest) images were therefore useful in confirming

whether the opium poppy on the first-dated images had been correctly identified. Image acquisition at two different times (pre- and post-harvest) is thus proven to be essential in such cases.

6.2.2.4 Quality control

A quality control mechanism was applied to the image interpretation process, with each analyst's work being checked by two other experts. Both first-dated and second-dated images were cross-checked.

All fields determined as likely to be under opium poppy cultivation (potential opium poppy fields) were delineated on the basis of the interpretation of first-dated satellite imagery. In some cases a second-dated image was acquired for the purpose of confirmation. The corrections involved a few commissions and omissions.

6.3 Verification of Governor-led eradication (GLE)

MCN/UNODC has improved field-based verification activities since 2010 by enhancing the control mechanism. The areas verified by eradication verifiers were randomly checked by the team leader and MCN/UNODC survey coordinators for validation of the reported figures. A total of 100 eradication verifiers were trained in eradication verification techniques and deployed in a phased manner to provinces where eradication activities were envisaged. The eradication verifiers were part of the eradication teams led by the respective provincial governor.

Verification methodology for GLE:

- Eradication verifiers were part of the Governor-led eradication teams.
- The verifiers take measurements of each eradicated field with two different methods, one using pace length converted them into metres and calculated the area in jerib (1 jerib=2000 m2) and the other using GPS tracking system, this provides the location, area and shape of the eradicated fields facilitating verification by satellite imageries.
- Coordinates and photographs of all eradicated fields are collected by verifiers using GPS cameras.
- The reported eradication figures by field verifiers are compiled at provincial centers and sent to Kabul weekly.
- Quality of eradication is assessed by verification using satellite imageries and field pictures. The quality of eradication is assessed separately for fields eradicated more than 80% and less than 80%.
- The verifiers filled in hardcopy survey forms and submitted them to UNODC regional offices. The forms were then sent to the Kabul office for data entry. Quality control was undertaken by MCN/UNODC survey coordinators at the regional level. Eradicated fields were revisited randomly by team leaders and MCN/UNODC survey coordinators to check the accuracy of the reports. Further validation of the results was done using data obtained from satellite imagery, to calculate the final area of eradicated poppy fields wherever possible.
- The area calculations of the eradicated poppy fields was facilitated by calculating the area of fields automatically using a standard template in Excel file, thus avoiding manual calculation errors at the field level.
- MCN/UNODC published periodical reports on a weekly basis to inform stakeholders of eradication activities. The eradication figures provided in these reports were considered provisional until they were finalized based on field checks and/or checks based on the satellite image interpretation.

6.4 Opium yield and production

6.4.1 Estimating opium yield

The relationship between poppy capsule volume per square metre and dry opium yield is used to estimate opium production.[12] It takes the form of a non-rectangular hyperbola.

Non-rectangular hyperbola formula for opium yield as function of capsule volume:

$$Y = [(VC + 1495) - ((VC + 1495)^2 - 395.259\ VC)^{0.5}] / 1.795$$

where

Y = Dry opium gum yield (kg/ha), and

VC = Mature capsule volume (cm^3/m^2).

In the yield survey, data on the number of yield capsules per plot and capsule volume are collected. The survey follows the procedure established in the UNODC *Guidelines for Yield Assessment*.

An imaginary transect was drawn on each surveyed field, along which three one-metre square plots were selected. In each plot, the number of flower buds, flowers, immature capsules and mature capsules that were expected to yield opium were counted, and the diameter and height of 10 to 15 opium-yielding capsules were measured with a calliper. The capsule volume per square metre was calculated with these data and entered into the formula for the yield calculation. Each plot thus provided one yield observation. The simple average of the three plots in a field is the field yield. The simple average of all fields in a region is the regional yield. A range was calculated to express the uncertainty of the yield estimate due to sampling with the 95% confidence interval.

Table 27 Regional opium yield values with 95% confidence intervals, 2018 (Kilograms per hectare)

Region	Best estimate	Lower bound	Upper bound
Central	23.3	19.4	27.2
Eastern	24.9	16.7	33.2
North-eastern	34.0	29.2	38.8
Northern	26.4	22.3	30.5
Southern	24.1	21.1	27.1
Western	22.3	18.1	26.5
National weighted by opium poppy cultivation	**24.4**	**20.6**	**28.2**

6.4.2 Size of the yield survey and data quality

Since 2012, the yield survey has been significantly reduced in comparison to previous years. Due to the increasingly difficult security situation, only fields where it was possible to complete the survey without time pressure were visited. Furthermore, training was improved and surveyors worked in pairs rather than alone. The survey is therefore no longer statistically representative. This year the yield suveys were conducted in Saripul province in addition to the provinces covered last year.

Part of the quality control measures are the use of photos from the field: surveyors are instructed and provide photographs of all fields, plots and capsule measurements (both height and diameter). This measure allows for a very strict control of the process and to detect wrongly applied methods.

[12] UNODC Guidelines for yield assessment of opium gum and coca leaf from brief field visits, UN New York, 2001, ST/NAR/33. See also UNODC (2003): Limited opium yield assessment surveys. Technical report: Observations and findings. Guidance for future activities. In: Scientific and Technical Notes, SCITEC/19, December 2003.

Table 28 Yield survey villages and fields surveyed (all data), 2010-2018

Region	2011	2012	2013	2014	2015	2016	2017	2018
Number of Villages	232	41	48	45	63	76	79	73
Number of fields (max 3 Per village)	685	114	142	134	188	209	222	191
Number of plots (3 per field)	2,055	342	426	401	553	620	631	560
Number of capsules measured	20,769	3,211	4,009	3,474	4,280	5,388	5,682	4,706

6.4.3 Estimating opium production

Opium production was calculated by the estimated regional area under opium poppy cultivation being multiplied by the corresponding regional opium yield. All opium estimates in this report are expressed in oven-dry opium equivalent, i.e. the opium is assumed to contain 0% moisture. The same figure expressed in air-dry opium, i.e. opium under "normal" conditions as traded, would be higher as such air-dry opium contains some moisture.

The point estimates and uncertainties of the opium production estimate due to sampling of the area under poppy cultivation and yield can be expressed as $a_p \pm \Delta a$ and $y_p \pm \Delta y$, respectively, where the uncertainty is determined from the 95% confidence intervals.

These uncertainties will impact on the estimate of production ($p_p \pm \Delta p$, or equivalently expressed as the range ($p_p - \Delta p$, $p_p + \Delta p$)), where the best estimate $p_p = a_p y_p$, such that

$$\frac{\Delta p}{p_p} = \left[\left(\frac{\Delta a}{a_p} \right)^2 + \left(\frac{\Delta y}{y_p} \right)^2 \right]^{\frac{1}{2}}$$

expresses the error in production, Δp , resulting from uncertainty in the estimates for cultivation area and yield.

For targeted regions there is no sampling error in the area under cultivation. In such cases, the error in production relates only to the uncertainty in the yield and is given by $\Delta p = p_p \Delta y / y_p$.

6.5 Average farm-gate price and farm-gate value of opium production

Since 2009, farm-gate prices at harvest time have been derived from the opium price monitoring system and refer to the month when opium harvesting actually took place in the different regions of the country, which is thought to reflect opium prices at harvest time better. To calculate the national average price, regional price averages were weighted by regional opium production. The opium price in the Central region was calculated from the annual village survey, as there is no monthly opium price monitoring in that region.

The farm-gate value of opium production is the product of potential opium production at the national level multiplied by the weighted average farm-gate price of dry opium at harvest time. The upper and lower limits of the range of the farm-gate value were determined by using the upper and lower opium production estimate.

Annex I Indicative district level estimates of opium poppy cultivation, 2005-2018 (Hectares)

Province	District	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Badakhshan	Arghanj Khwah	-	-	-	-	-	-	-	10	3	11	5
Badakhshan	Argo	60	203	327	617	610	565	2,046	1,273	2,648	3,658	3,828
Badakhshan	Baharak	14	2	-	-	43	322	41	271	0	0	-
Badakhshan	Darayim	43	145	289	662	898	684	1,282	1,530	1,744	1,957	1,749
Badakhshan	Darwaz-i Payin (mamay)	-	-	-	-	-	-	-	-	-	-	-
Badakhshan	Darwaz-i- Bala (nesay)	-	-	-	-	-	-	-	-	-	-	-
Badakhshan	Faizabad (Provincial Center)	64	11	10	64	7	48	65	4	1	10	1
Badakhshan	Eshkashim	-	-	-	-	-	-	-	-	-	-	-
Badakhshan	Jurm	6	6	2	43	98	196	85	50	23	46	17
Badakhshan	Khash	7	6	4	46	-	-	-	152	330	640	281
Badakhshan	Khwahan	-	-	-	-	-	5	21	7	40	61	-
Badakhshan	Kishim	2	68	204	73	45	141	117	35	674	1,128	825
Badakhshan	Kohistan	-	-	-	-	2	0	11	8	-	-	-
Badakhshan	Kuf Ab	-	-	-	-	-	0	-	-	-	-	-
Badakhshan	Kiran wa Munjan	-	-	-	-	-	0	-	-	-	-	-
Badakhshan	Raghistan	-	-	-	-	19	9	26	-	44	61	49
Badakhshan	Shahri Buzurg	-	2	3	3	36	148	59	37	4	35	66
Badakhshan	Shighnan	-	-	-	-	-	0	-	-	-	-	-
Badakhshan	Shiki	-	-	-	-	-	0	-	-	-	-	-
Badakhshan	Shuhada	-	-	-	-	12	86	236	-	-	-	-
Badakhshan	Tagab	-	-	-	-	22	36	101	57	167	63	44
Badakhshan	Tashkan	-	57	163	145	73	107	92	595	582	570	697
Badakhshan	Wakhan	-	-	-	-	-	0	-	-	-	-	-
Badakhshan	Wardooj	3	14	1	1	-	0	-	-	10	15	34
Badakhshan	Yaftal-i-Sufla	-	43	97	50	32	18	12	25	23	52	107
Badakhshan	Yamgan	-	-	-	1	-	5	10	-	4	3	-
Badakhshan	Yawan	-	-	-	-	30	-	-	2	2	-	-
Badakhshan	Zaybak	-	-	-	-	-	-	-	-	-	-	-
Badakhshan Total		**200**	**557**	**1,100**	**1,705**	**1,927**	**2,374**	**4,204**	**4,056**	**6,298**	**8,311**	**7,703**
Badghis	Ab Kamari	11	161	16	5	14	24	-	1,996	71	281	208
Badghis	Ghormach	328	299	486	1,485	1,005	2,395	1,009	6,855	17,594	Part of Faryab	
Badghis	Jawand	13	1,090	130	106	187	850	797	683	940	2,303	1,358
Badghis	Muqur	7	102	81	9	61	26	47	86	1,062	2,097	324
Badghis	Bala Murghab	81	2,754	2,055	284	870	-	3,762	1,417	12,372	18,202	4,682
Badghis	Qadis	146	906	135	92	152	264	57	1,331	3,185	1,802	377
Badghis	Qala-i-Now (Provincial Center)	-	99	55	9	75	37	49	23	11	38	26
Badghis Total		**587**	**5,411**	**2,958**	**1,990**	**2,363**	**3,596**	**5,721**	**12,391**	**35,234**	**24,723**	**6,973**
Baghlan	Andarab	475	-	-	18	5	3	4	8	92	91	54
Baghlan	Baghlan *	-	-	-	-	-	-	-	-	-	-	-
Baghlan	Baghlan-i-Jadeed	-	-	-	-	-	-	-	-	-	-	-
Baghlan	Burka	-	-	-	-	-	4	1	0	4	11	25
Baghlan	Dahana-i- Ghuri	-	-	-	-	-	-	-	-	-	-	-
Baghlan	Deh Salah	-	-	-	113	33	37	60	68	351	473	690
Baghlan	Dushi	-	-	-	-	-	-	-	-	-	-	-
Baghlan	Firing Wa Gharu	-	-	-	-	-	-	-	-	-	-	-
Baghlan	Gozargah-i-Noor	-	-	-	-	-	-	-	-	-	-	-
Baghlan	Kahmard *	-	-	-	-	-	-	-	-	-	-	-
Baghlan	Khinjan	-	-	-	-	-	-	-	-	-	-	-
Baghlan	Khost Wa Firing	-	-	-	-	-	-	-	-	-	-	-
Baghlan	Khwajah Hijran (Jalgah)	-	-	-	-	-	-	-	-	84	57	66
Baghlan	Nahreen	-	-	-	-	-	-	-	-	-	-	-
Baghlan	Pul-i-Hisar	-	-	-	30	139	97	103	104	319	424	242
Baghlan	Pul-i-Khumri (Provincial Center	-	-	-	-	-	-	-	-	-	-	-
Baghlan	Talah wa Barfak	-	-	-	-	-	-	-	-	-	-	-
Baghlan Total		**475**	**p-f**	**p-f**	**161**	**177**	**141**	**168**	**180**	**849**	**1,057**	**1,076**
Balkh	Balkh	-	-	-	-	-	-	-	-	5	2,334	4,855
Balkh	Chahar Bolak	-	-	-	-	-	10	-	9	316	4,007	1,515
Balkh	Chahar Kent	-	-	-	-	-	-	-	-	-	-	-
Balkh	Chimtal	-	-	-	-	-	400	-	195	1,764	5,768	1,974
Balkh	Dowlat abad	-	-	-	-	-	-	-	-	-	1	7
Balkh	Dehdadi	-	-	-	-	-	-	-	-	-	6	154
Balkh	Kaldar (Shahrak-i-Hairatan)	-	-	-	-	-	-	-	-	-	-	-
Balkh	Khulm	-	-	-	-	-	-	-	-	-	-	-
Balkh	Kishindeh	-	-	-	-	-	-	-	-	-	-	-
Balkh	Marmul	-	-	-	-	-	-	-	-	-	-	-
Balkh	Mazar-i-Sharif	-	-	-	-	-	-	-	-	-	-	-
Balkh	Nahr-i-Shahi	-	-	-	-	-	-	-	-	-	-	-
Balkh	Sholgarah	-	-	-	-	-	-	-	-	-	-	27
Balkh	Shortepa	-	-	-	-	-	-	-	-	-	-	-
Balkh	Sharak-e-Hayratan	-	-	-	-	-	-	-	-	-	-	-
Balkh	Zari	-	-	-	-	-	-	-	-	-	-	-
Balkh Total		**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**410**	**P-f**	**204**	**2,085**	**12,116**	**8,532**

Province	District	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Bamyan	Bamyan (Provincial Center)	-	-	-	-	-	-	-	-	-	-	-
Bamyan	Kahmard	-	-	-	-	-	-	-	-	-	-	-
Bamyan	Panjab	-	-	-	-	-	-	-	-	-	-	-
Bamyan	Saighan	-	-	-	-	-	-	-	-	-	-	-
Bamyan	Shebar	-	-	-	-	-	-	-	-	-	-	-
Bamyan	Waras	-	-	-	-	-	-	-	-	-	-	-
Bamyan	Yakawlang	-	-	-	-	-	-	-	-	-	-	-
Bamyan Total		**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**
Day Kundi	Gizab	665	810	722	621	684	727	Part of Uruzgan				
Day Kundi	Ishtarlay	214	239	9	9	9	6	8	16	-	35	34
Day Kundi	Kajran	357	704	622	153	288	700	320	124	273	442	310
Day Kundi	Khedir	289	160	5	8	9	4	6	24	6	53	15
Day Kundi	Kiti	168	284	134	151	14	-	-	13	-	290	74
Day Kundi	Mir Amor	281	703	19	22	5	12	16	72	15	34	56
Day Kundi	Nili (Provincial Center)	214	5	5	9	16	3	-	-	13	141	117
Day Kundi	Sang-i-Takht	1	68	10	15	8	30	150	43	-	47	50
Day Kundi	Shahristan	85	29	21	13	25	53	87	89	67	466	91
Day Kundi Total		**2,273**	**3,002**	**1,547**	**1,003**	**1,058**	**1,536**	**587**	**381**	**374**	**1,508**	**747**
Farah	Anar Darah	239	79	1	9	3	314	104	-	2	1	1
Farah	Bakwah	3,090	3,570	1,936	800	5,822	8,844	12,651	5,567	1,503	2,040	907
Farah	Bala Buluk	1,509	2,705	2,586	3,157	3,951	1,947	2,730	7,033	2,062	3,490	3,887
Farah	Delaram	-	3,011	4,404	4,263	8,899	Part of Nimroz					
Farah	Farah (Provincial Center)	1,013	1,142	51	-	129	4,451	4,760	128	72	47	34
Farah	Gulistan	4,756	1,355	2,661	4,565	3,920	3,759	2,000	1,065	841	1,102	558
Farah	Khaki-Safed	609	232	645	1,103	2,220	1,186	1,726	4,562	2,715	3,998	4,265
Farah	Lash-i-Juwayn	109	45	3	6	2	179	27	7	10	8	1
Farah	Pur Chaman	1,046	96	2,175	3,512	2,164	230	930	365	315	642	292
Farah	PushtRod	1,588	46	61	46	505	2,521	2,214	2,192	1,517	1,499	968
Farah	Qala-i-Kah	888	47	11	39	117	914	354	186	64	17	3
Farah	Shib Koh	163	77	18	-	-	149	17	1	-	4	-
Farah Total		**15,010**	**12,405**	**14,552**	**17,499**	**27,733**	**24,492**	**27,513**	**21,106**	**9,101**	**12,846**	**10,916**
Faryab	Almar	-	-	-	-	-	-	-	-	52	1,448	938
Faryab	Andkhoy	-	-	-	-	-	-	-	-	-	-	-
Faryab	Bil Chiragh	102	-	-	-	-	-	-	-	1	-	-
Faryab	Dowlat abad	-	-	-	-	-	-	-	-	-	-	6
Faryab	Gurziwan	-	-	-	75	-	46	40	108	39	-	214
Faryab	Khani ChaharBagh	-	-	-	-	-	-	-	-	-	-	-
Faryab	Khwajah Sabz Poshi Wali	-	-	-	-	-	-	-	-	-	-	27
Faryab	Kohistan	10	-	-	49	-	65	69	69	89	289	571
Faryab	Maimanah	10	-	-	-	-	-	-	-	-	-	-
Faryab	Pashtun Kot	-	-	-	9	-	1	-	-	-	-	587
Faryab	Qaram Qul	-	-	-	-	-	-	-	-	-	-	-
Faryab	Qaisar	168	-	-	13	-	46	102	983	2,742	8,294	1,429
Faryab	Qurghan	-	-	-	-	-	-	-	-	-	-	-
Faryab	Shirin Tagab	-	-	-	-	-	-	-	-	-	-	468
Faryab	Ghormach										12,766	3,935
Faryab Total		**291**	**p-f**	**p-f**	**146**	**p-f**	**158**	**211**	**1,160**	**2,923**	**22,797**	**8,175**
Ghazni	Ab Band	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Ajristan	-	-	-	-	-	-	-	-	-	1,022	370
Ghazni	Andar	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Bahram-e Shahid (Jaghatu)	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Deh Yak	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Gelan	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Ghazni (Provincial Center)	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Giro	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Jaghatu *	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Jaghuri	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Khwajah Omari	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Malistan	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Muqur	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Nawa	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Nawur	-	-	-	-	-	-	-	-	-	5	3
Ghazni	Qara Bagh	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Rashidan	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Waghaz	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Wali Muhammad Shadid Khug	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Zanakhan	-	-	-	-	-	-	-	-	-	-	-
Ghazni Total		**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**1,027**	**373**
Ghor	Chaghcharan (Provincial Cente	-	-	-	-	71	72	222	397	356	886	1,191
Ghor	Chahar Sadah	-	-	-	-	-	64	95	-	182	13	-
Ghor	Dowlatyar	-	-	-	-	5	82	117	154	235	251	390
Ghor	Do Lainah	-	-	-	-	16	9	9	17	11	83	127
Ghor	Lal Wa Sarjangal							9	289		193	221

Province	District	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Hilmand	Baghran	2,890	4,287	4,279	3,343	4,049	6,739	2,788	4,037	4,553	2,190	4,408	4,318	3,255
Hilmand	Dishu	851	1,160	688	475	119	481	1,601	4,161	3,338	3,528	4,391	6,675	5,772
Hilmand	Garm Ser	6,168	6,523	8,000	5,789	6,333	4,342	1,246	4,527	8,394	10,406	10,574	13,211	11,665
Hilmand	Kajaki	6,760	5,807	6,240	3,696	3,299	6,435	9,065	10,611	10,836	11,564	8,490	14,447	14,782
Hilmand	Lashkargah (Provincial Center)	4,008	6,320	7,857	4,379	2,014	649	1,469	1,828	2,562	2,089	1,935	4,669	3,620
Hilmand	Musa Qala	6,371	8,854	12,687	8,603	8,415	10,340	7,235	10,586	8,320	6,974	6,112	13,474	15,522
Hilmand	Nad Ali	11,652	20,045	20,824	17,063	18,646	5,413	8,038	19,136	22,256	17,022	12,429	27,398	21,396
Hilmand	Marja	-	-	-	-	-	2,629	2,046	part of Nad Ali					
Hilmand	Naher-i-Saraj	10,386	22,769	13,270	9,598	11,517	12,638	22,468	18,701	16,984	11,759	11,050	18,464	17,981
Hilmand	Nowzad	2,707	6,192	3,863	6,473	2,845	4,694	10,822	11,944	9,839	5,576	7,256	16,972	20,366
Hilmand	Nawa-i-Barukzai	10,168	6,314	13,978	4,416	1,328	1,610	41	97	319	2,176	559	4,064	444
Hilmand	Reg-i-Khan Nishin	3,765	8,484	4,720	2,056	2,292	2,120	2,718	5,912	6,781	7,352	8,352	10,251	10,445
Hilmand	Sangin Qala	2,862	5,150	5,532	2,754	2,631	2,941	2,882	3,709	5,349	3,731	2,955	5,667	5,421
Hilmand	Washer	735	865	1,653	1,188	1,555	2,275	2,757	5,445	3,710	2,076	1,759	4,409	6,128
Hilmand Total		**69,323**	**102,770**	**103,590**	**69,833**	**65,045**	**63,307**	**75,176**	**100,693**	**103,240**	**86,443**	**80,273**	**144,018**	**136,798**
Hirat	Adraskan	99	196	22	1	-	-	-	3	10	5	1	0	1
Hirat	Chiisht-i-Sharif	42	-	-	-	-	-	-	-	-	-	-	-	-
Hirat	Fersi	111	-	-	-	-	-	-	-	-	-	-	-	-
Hirat	Ghoryan	204	302	-	-	-	-	-	-	-	-	-	-	-
Hirat	Gulran	32	-	-	-	-	-	-	-	-	-	-	-	8
Hirat	Guzara	233	-	-	-	-	-	-	-	-	-	-	-	1
Hirat	Hirat	16	-	-	-	-	-	-	-	-	-	-	-	-
Hirat	Enjil	382	-	-	-	-	-	-	-	-	-	-	-	-
Hirat	Karrukh	121	-	-	-	-	-	-	-	-	-	-	-	-
Hirat	Kohsan	73	146	-	-	-	-	-	-	-	-	-	-	-
Hirat	Kushk (Rabat-i-Sangi)	50	367	43	-	-	-	-	-	-	-	-	575	394
Hirat	Kusk-i-Kohnah	15	-	-	-	-	-	-	-	-	-	-	11	-
Hirat	Obe	131	-	-	-	-	-	-	-	-	-	-	-	28
Hirat	Pashtun Zarghun	242	-	-	-	-	-	-	-	-	-	-	-	65
Hirat	Shindand	408	516	201	555	360	366	1,080	949	729	280	207	517	98
Hirat	Zendah Jan	129	-	-	-	-	-	-	-	-	-	-	-	-
Hirat Total		**2,288**	**1,526**	**266**	**556**	**360**	**366**	**1,080**	**952**	**738**	**285**	**208**	**1,104**	**595**
Jawzjan	Aqchah	30	-	-	-	-	-	-	-	-	-	-	20	15
Jawzjan	Darzab	16	803	-	-	-	-	-	-	-	-	85	327	73
Jawzjan	Faizabad	473	21	-	-	-	-	-	-	-	-	7	396	17
Jawzjan	Khamyab	2	-	-	-	-	-	-	-	-	-	-	-	-
Jawzjan	Khanaqa	-	-	-	-	-	-	-	-	-	-	-	8	0
Jawzjan	Khwajah DuKoh	271	-	-	-	-	-	-	-	-	-	-	10	0
Jawzjan	Mardyan	348	62	-	-	-	-	-	-	-	-	-	399	12
Jawzjan	Mingajik	38	-	-	-	-	-	-	-	-	-	-	37	0
Jawzjan	Qarqin	17	-	-	-	-	-	-	-	-	-	-	6	0
Jawzjan	Qush Tepah	-	43	-	-	-	-	-	-	-	-	316	1,168	121
Jawzjan	Sheberghan (Provincial Center)	828	156	-	-	-	-	-	-	-	-	1	867	100
Jawzjan Total		**2,023**	**1,086**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**409**	**3,237**	**338**
Kabul	Bagrami	-	-	-	-	-	-	-	-	-	-	-	-	-
Kabul	Chahar Asyab	-	-	-	-	-	-	-	-	-	-	-	-	-
Kabul	DehSabz	-	-	-	-	-	-	-	-	-	-	-	-	-
Kabul	Farzah	-	-	-	-	-	-	-	-	-	-	-	-	-
Kabul	Gulara	-	-	-	-	-	-	-	-	-	-	-	-	-
Kabul	Estalef	-	-	-	-	-	-	-	-	-	-	-	-	-
Kabul	Kabul	-	-	-	-	-	-	-	-	-	-	-	-	-
Kabul	Kalakan	-	-	-	-	-	-	-	-	-	-	-	-	-
Kabul	Khak-i-Jabar	-	-	-	-	-	-	-	-	-	-	-	-	-
Kabul	Mir Bacha Kot	-	-	-	-	-	-	-	-	-	-	-	-	-
Kabul	Musahi	-	-	-	-	-	-	-	-	-	-	-	-	-
Kabul	Paghman	-	-	-	-	-	-	-	-	-	-	-	-	-
Kabul	Qara Bagh	-	-	-	-	-	-	-	-	-	-	-	-	-
Kabul	Shakar Dara	-	-	-	-	-	-	-	-	-	-	-	-	-
Kabul	Surubi	80	500	310	132	152	220	120	298	233	321	398	435	484
Kabul Total		**80**	**500**	**310**	**132**	**152**	**220**	**120**	**298**	**233**	**321**	**398**	**435**	**484**
Kandahar	Arghandab	735	1,016	57	158	22	84	114	18	512	247	381	1,183	832
Kandahar	Arghistan	784	310	28	43	7	42	90	155	1,515	178	58	16	648
Kandahar	Daman	183	375	19	119	-	-	-	-	1,227	37	43	157	106
Kandahar	Ghorak	336	1,445	232	628	1,466	1,165	952	676	269	691	565	573	494
Kandahar	Kandahar (Provinclal Center)	1,367	1,220	590	425	108	262	11	46	-	56	74	113	466
Kandahar	Khakrez	217	132	1,224	1,474	1,215	1,190	794	1,006	867	433	459	416	360
Kandahar	Maruf	464	914	182	36	33	31	28	49	275	8	91	408	84
Kandahar	Maiwand	1,362	2,878	3,375	6,524	9,966	10,114	12,690	16,382	16,228	9,112	7,287	9,284	8389
Kandahar	Miya Neshin	-	322	1,603	158	44	45	30	162	632	4	9	410	841
Kandahar	Nesh	-	432	3,284	1,717	2,842	2,096	620	1,057	405	1,065	1,986	2,257	2397
Kandahar	Panjwayee	4,714	-	-	1,564	2,982	4,914	4,780	984	3,315	1,735	1,565	2,141	1689
Kandahar	Reg	-	4	-	-	-	-	-	-	-	-	-	-	0
Kandahar	Shah Wali Kot	1,593	1,258	560	911	813	615	242	474	1,471	541	818	1,568	675
Kandahar	Shorabak	409	308	4	-	-	-	-	102	-	-	-	-	0
Kandahar	Spin Boldak	454	768	541	650	1,359	1,368	121	207	1,889	2,027	1,857	1,880	1281
Kandahar	Zhire	-	5,232	2,923	5,405	4,978	5,288	3,867	7,017	5,108	4,886	5,282	7,605	5147
Kandahar Total		**12,618**	**16,615**	**14,623**	**19,811**	**25,835**	**27,213**	**24,341**	**28,335**	**33,713**	**21,020**	**20,475**	**28,010**	**23,410**

Province	District	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Bamyan	Bamyan (Provincial Center)	-	-	-	-	-	-	-	-	-	-	-
Bamyan	Kahmard	-	-	-	-	-	-	-	-	-	-	-
Bamyan	Panjab	-	-	-	-	-	-	-	-	-	-	-
Bamyan	Saighan	-	-	-	-	-	-	-	-	-	-	-
Bamyan	Shebar	-	-	-	-	-	-	-	-	-	-	-
Bamyan	Waras	-	-	-	-	-	-	-	-	-	-	-
Bamyan	Yakawlang	-	-	-	-	-	-	-	-	-	-	-
Bamyan Total		**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**
Day Kundi	Gizab	665	810	722	621	684	727	Part of Uruzgan				
Day Kundi	Ishtarlay	214	239	9	9	9	6	8	16	-	35	34
Day Kundi	Kajran	357	704	622	153	288	700	320	124	273	442	310
Day Kundi	Khedir	289	160	5	8	9	4	6	24	6	53	15
Day Kundi	Kiti	168	284	134	151	14	-	-	13	-	290	74
Day Kundi	Mir Amor	281	703	19	22	5	12	16	72	15	34	56
Day Kundi	Nili (Provincial Center)	214	5	5	9	16	3	-	-	13	141	117
Day Kundi	Sang-i-Takht	1	68	10	15	8	30	150	43	-	47	50
Day Kundi	Shahristan	85	29	21	13	25	53	87	89	67	466	91
Day Kundi Total		**2,273**	**3,002**	**1,547**	**1,003**	**1,058**	**1,536**	**587**	**381**	**374**	**1,508**	**747**
Farah	Anar Darah	239	79	1	9	3	314	104	-	2	1	1
Farah	Bakwah	3,090	3,570	1,936	800	5,822	8,844	12,651	5,567	1,503	2,040	907
Farah	Bala Buluk	1,509	2,705	2,586	3,157	3,951	1,947	2,730	7,033	2,062	3,490	3,887
Farah	Delaram	-	3,011	4,404	4,263	8,899	Part of Nimroz					
Farah	Farah (Provincial Center)	1,013	1,142	51	-	129	4,451	4,760	128	72	47	34
Farah	Gulistan	4,756	1,355	2,661	4,565	3,920	3,759	2,000	1,065	841	1,102	558
Farah	Khaki-Safed	609	232	645	1,103	2,220	1,186	1,726	4,562	2,715	3,998	4,265
Farah	Lash-i-Juwayn	109	45	3	6	2	179	27	7	10	8	1
Farah	Pur Chaman	1,046	96	2,175	3,512	2,164	230	930	365	315	642	292
Farah	PushtRod	1,588	46	61	46	505	2,521	2,214	2,192	1,517	1,499	968
Farah	Qala-i-Kah	888	47	11	39	117	914	354	186	64	17	3
Farah	Shib Koh	163	77	18	-	-	149	17	1	-	4	-
Farah Total		**15,010**	**12,405**	**14,552**	**17,499**	**27,733**	**24,492**	**27,513**	**21,106**	**9,101**	**12,846**	**10,916**
Faryab	Almar	-	-	-	-	-	-	-	-	52	1,448	938
Faryab	Andkhoy	-	-	-	-	-	-	-	-	-	-	-
Faryab	Bil Chiragh	102	-	-	-	-	-	-	-	1	-	-
Faryab	Dowlat abad	-	-	-	-	-	-	-	-	-	-	6
Faryab	Gurziwan	-	-	-	75	-	46	40	108	39	-	214
Faryab	Khani ChaharBagh	-	-	-	-	-	-	-	-	-	-	-
Faryab	Khwajah Sabz Poshi Wali	-	-	-	-	-	-	-	-	-	-	27
Faryab	Kohistan	10	-	-	49	-	65	69	69	89	289	571
Faryab	Maimanah	10	-	-	-	-	-	-	-	-	-	-
Faryab	Pashtun Kot	-	-	-	9	-	1	-	-	-	-	587
Faryab	Qaram Qul	-	-	-	-	-	-	-	-	-	-	-
Faryab	Qaisar	168	-	-	13	-	46	102	983	2,742	8,294	1,429
Faryab	Qurghan	-	-	-	-	-	-	-	-	-	-	-
Faryab	Shirin Tagab	-	-	-	-	-	-	-	-	-	-	468
Faryab	Ghormach										12,766	3,935
Faryab Total		**291**	**p-f**	**p-f**	**146**	**p-f**	**158**	**211**	**1,160**	**2,923**	**22,797**	**8,175**
Ghazni	Ab Band	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Ajristan	-	-	-	-	-	-	-	-	-	1,022	370
Ghazni	Andar	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Bahram-e Shahid (Jaghatu)	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Deh Yak	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Gelan	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Ghazni (Provincial Center)	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Giro	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Jaghatu *	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Jaghuri	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Khwajah Omari	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Malistan	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Muqur	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Nawa	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Nawur	-	-	-	-	-	-	-	-	-	5	3
Ghazni	Qara Bagh	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Rashidan	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Waghaz	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Wali Muhammad Shadid Khugyan	-	-	-	-	-	-	-	-	-	-	-
Ghazni	Zanakhan	-	-	-	-	-	-	-	-	-	-	-
Ghazni Total		**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**1,027**	**373**
Ghor	Chaghcharan (Provincial Center)	-	-	-	-	71	72	222	397	356	886	1,191
Ghor	Chahar Sadah	-	-	-	-	-	64	95	-	182	13	-
Ghor	Dowlatyar	-	-	-	-	5	82	117	154	235	251	390
Ghor	Do Lainah	-	-	-	-	16	9	9	17	11	83	127
Ghor	Lal Wa Sarjangal	-	-	-	-	-	-	9	280	-	192	221
Ghor	Pasaband	-	-	-	-	-	-	-	633	258	1,426	781
Ghor	Saghar	-	-	-	-	-	-	-	8	-	6	-
Ghor	Shahrak	-	-	-	-	33	37	41	62	99	214	231
Ghor	Taywara	-	-	-	-	-	-	-	126	82	1,019	523
Ghor	Tulak	-	-	-	-	-	-	-	44	-	138	112
Ghor Total		**p-f**	**p-f**	**p-f**	**p-f**	**125**	**264**	**493**	**1,721**	**1,222**	**4,228**	**3,574**

Province	District	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Hilmand	Baghran	4,279	3,343	4,049	6,739	2,788	4,037	4,553	2,190	4,408	4,318	3,255
Hilmand	Dishu	688	475	119	481	1,601	4,161	3,338	3,528	4,391	6,675	5,772
Hilmand	Garm Ser	8,000	5,789	6,333	4,342	1,246	4,527	8,394	10,406	10,574	13,211	11,665
Hilmand	Kajaki	6,240	3,696	3,299	6,435	9,065	10,611	10,836	11,564	8,490	14,447	14,782
Hilmand	Lashkargah (Provincial Center)	7,857	4,379	2,014	649	1,469	1,828	2,562	2,089	1,935	4,669	3,620
Hilmand	Musa Qala	12,687	8,603	8,415	10,340	7,235	10,586	8,320	6,974	6,112	13,474	15,522
Hilmand	Nad Ali	20,824	17,063	18,646	5,413	8,038	19,136	22,256	17,022	12,429	27,398	21,396
Hilmand	Marja	-	-	-	2,629	2,046	part of Nad Ali					
Hilmand	Naher-i-Saraj	13,270	9,598	11,517	12,638	22,468	18,701	16,984	11,759	11,050	18,464	17,981
Hilmand	Nowzad	3,863	6,473	2,845	4,694	10,822	11,944	9,839	5,576	7,256	16,972	20,366
Hilmand	Nawa-i-Barukzai	13,978	4,416	1,328	1,610	41	97	319	2,176	559	4,064	444
Hilmand	Reg-i-Khan Nishin	4,720	2,056	2,292	2,120	2,718	5,912	6,781	7,352	8,352	10,251	10,445
Hilmand	Sangin Qala	5,532	2,754	2,631	2,941	2,882	3,709	5,349	3,731	2,955	5,667	5,421
Hilmand	Washer	1,653	1,188	1,555	2,275	2,757	5,445	3,710	2,076	1,759	4,409	6,128
Hilmand Total		**103,590**	**69,833**	**65,045**	**63,307**	**75,176**	**100,693**	**103,240**	**86,443**	**80,273**	**144,018**	**136,798**
Hirat	Adraskan	22	1	-	-	-	3	10	5	1	0	1
Hirat	Chiisht-i-Sharif	-	-	-	-	-	-	-	-	-	-	-
Hirat	Fersi	-	-	-	-	-	-	-	-	-	-	-
Hirat	Ghoryan	-	-	-	-	-	-	-	-	-	-	-
Hirat	Gulran	-	-	-	-	-	-	-	-	-	-	8
Hirat	Guzara	-	-	-	-	-	-	-	-	-	-	1
Hirat	Hirat	-	-	-	-	-	-	-	-	-	-	-
Hirat	Enjil	-	-	-	-	-	-	-	-	-	-	-
Hirat	Karrukh	-	-	-	-	-	-	-	-	-	-	-
Hirat	Kohsan	-	-	-	-	-	-	-	-	-	-	-
Hirat	Kushk (Rabat-i-Sangi)	43	-	-	-	-	-	-	-	-	575	394
Hirat	Kusk-i-Kohnah	-	-	-	-	-	-	-	-	-	11	-
Hirat	Obe	-	-	-	-	-	-	-	-	-	-	28
Hirat	Pashtun Zarghun	-	-	-	-	-	-	-	-	-	-	65
Hirat	Shindand	201	555	360	366	1,080	949	729	280	207	517	98
Hirat	Zendah Jan	-	-	-	-	-	-	-	-	-	-	-
Hirat Total		**266**	**556**	**360**	**366**	**1,080**	**952**	**738**	**285**	**208**	**1,104**	**595**
Jawzjan	Aqchah	-	-	-	-	-	-	-	-	-	20	15
Jawzjan	Darzab	-	-	-	-	-	-	-	-	85	327	73
Jawzjan	Faizabad	-	-	-	-	-	-	-	-	7	396	17
Jawzjan	Khamyab	-	-	-	-	-	-	-	-	-	-	-
Jawzjan	Khanaqa	-	-	-	-	-	-	-	-	-	8	-
Jawzjan	Khwajah DuKoh	-	-	-	-	-	-	-	-	-	10	-
Jawzjan	Mardyan	-	-	-	-	-	-	-	-	-	399	12
Jawzjan	Mingajik	-	-	-	-	-	-	-	-	-	37	-
Jawzjan	Qarqin	-	-	-	-	-	-	-	-	-	6	-
Jawzjan	Qush Tepah	-	-	-	-	-	-	-	-	316	1,168	121
Jawzjan	Sheberghan (Provincial Center)	-	-	-	-	-	-	-	-	1	867	100
Jawzjan Total		**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**409**	**3,237**	**338**
Kabul	Bagrami	-	-	-	-	-	-	-	-	-	-	-
Kabul	Chahar Asyab	-	-	-	-	-	-	-	-	-	-	-
Kabul	DehSabz	-	-	-	-	-	-	-	-	-	-	-
Kabul	Farzah	-	-	-	-	-	-	-	-	-	-	-
Kabul	Gulara	-	-	-	-	-	-	-	-	-	-	-
Kabul	Estalef	-	-	-	-	-	-	-	-	-	-	-
Kabul	Kabul	-	-	-	-	-	-	-	-	-	-	-
Kabul	Kalakan	-	-	-	-	-	-	-	-	-	-	-
Kabul	Khak-i-Jabar	-	-	-	-	-	-	-	-	-	-	-
Kabul	Mir Bacha Kot	-	-	-	-	-	-	-	-	-	-	-
Kabul	Musahi	-	-	-	-	-	-	-	-	-	-	-
Kabul	Paghman	-	-	-	-	-	-	-	-	-	-	-
Kabul	Qara Bagh	-	-	-	-	-	-	-	-	-	-	-
Kabul	Shakar Dara	-	-	-	-	-	-	-	-	-	-	-
Kabul	Surubi	310	132	152	220	120	298	233	321	398	435	484
Kabul Total		**310**	**132**	**152**	**220**	**120**	**298**	**233**	**321**	**398**	**435**	**484**
Kandahar	Arghandab	57	158	22	84	114	18	512	247	381	1,183	832
Kandahar	Arghistan	28	43	7	42	90	155	1,515	178	58	16	648
Kandahar	Daman	19	119	-	-	-	-	1,227	37	43	157	106
Kandahar	Ghorak	232	628	1,466	1,165	952	676	269	691	565	573	494
Kandahar	Kandahar (Provinclal Center)	590	425	108	262	11	46	-	56	74	113	466
Kandahar	Khakrez	1,224	1,474	1,215	1,190	794	1,006	867	433	459	416	360
Kandahar	Maruf	182	36	33	31	28	49	275	8	91	408	84
Kandahar	Maiwand	3,375	6,524	9,966	10,114	12,690	16,382	16,228	9,112	7,287	9,284	8,389
Kandahar	Miya Neshin	1,603	158	44	45	30	162	632	4	9	410	841
Kandahar	Nesh	3,284	1,717	2,842	2,096	620	1,057	405	1,065	1,986	2,257	2,397
Kandahar	Panjwayee	-	1,564	2,982	4,914	4,780	984	3,315	1,735	1,565	2,141	1,689
Kandahar	Reg	-	-	-	-	-	-	-	-	-	-	-
Kandahar	Shah Wali Kot	560	911	813	615	242	474	1,471	541	818	1,568	675
Kandahar	Shorabak	4	-	-	-	-	102	-	-	-	-	-
Kandahar	Spin Boldak	541	650	1,359	1,368	121	207	1,889	2,027	1,857	1,880	1,281
Kandahar	Zhire	2,923	5,405	4,978	5,288	3,867	7,017	5,108	4,886	5,282	7,605	5,147
Kandahar Total		**14,623**	**19,811**	**25,835**	**27,213**	**24,341**	**28,335**	**33,713**	**21,020**	**20,475**	**28,010**	**23,410**

Province	District	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Kapisa	AlaSai	-	-	-	3	34	33	125	71	103	254	137
Kapisa	Hisah-i-Awal Kohistan	-	-	-	-	-	-	-	-	-	-	-
Kapisa	Hisah-i-Duwumi Kohistan	-	-	-	-	-	-	-	-	-	-	-
Kapisa	Koh Band	-	-	-	9	16	20	46	10	25	29	16
Kapisa	Kohistan	-	-	-	-	-	-	-	-	-	-	-
Kapisa	Mahmood-i-Raqi (Provincial Cente	-	-	-	-	-	1	-	-	-	-	-
Kapisa	Nijrab	-	-	-	14	21	20	30	21	26	57	25
Kapisa	Tagab	436	-	-	155	219	508	270	358	454	628	207
Kapisa Total		**436**	**p-f**	**p-f**	**181**	**290**	**582**	**472**	**460**	**608**	**968**	**386**
Khost	Bak	-	-	-	-	-	-	-	-	-	-	-
Khost	Gurbuz	-	-	-	-	-	-	-	-	-	-	-
Khost	Jaji Maidan	-	-	-	-	-	-	-	-	-	-	-
Khost	Khost Matun (Provincial Center)	-	-	-	-	-	-	-	-	-	-	-
Khost	Manduzay (Ismyel Khel)	-	-	-	-	-	-	-	-	-	-	-
Khost	Musa Khel (Mangal)	-	-	-	-	-	-	-	-	-	-	-
Khost	NadirShah Kot	-	-	-	-	-	-	-	-	-	-	-
Khost	Qalandar	-	-	-	-	-	-	-	-	-	-	-
Khost	Sabari (Yaqubi)	-	-	-	-	-	-	-	-	-	-	-
Khost	Shamul (Dzadran)	-	-	-	-	-	-	-	-	-	-	-
Khost	Spera	-	-	-	-	-	-	-	-	-	-	-
Khost	Tanay	-	-	-	-	-	-	-	-	-	-	-
Khost	Terayzai (Ali Sher)	-	-	-	-	-	-	-	-	-	-	-
Khost Total		**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**
Kunar	Asad Abad (Provincial center)	252	4	-	-	61	342	209	1	1	0	2
Kunar	Bar Kunar (Asmar)	7	9	7	18	62	83	57	58	73	112	79
Kunar	Chapa Dara	-	-	12	42	-	-	-	-	4	5	7
Kunar	Dangam	-	9	-	43	30	46	46	28	15	140	134
Kunar	Dara-i-Pech	0	1	5	170	298	254	82	30	39	128	97
Kunar	Ghazi Abad	-	0	4	13	-	-	-	5	30	31	103
Kunar	Khas Kunar	1	-	-	-	57	79	21	116	36	127	305
Kunar	Mara warah	-	84	-	2	4	1	-	28	11	1	13
Kunar	Narang wa Badil	-	4	1	1	41	22	4	5	31	58	12
Kunar	Nari	15	1	-	-	21	18	7	20	25	26	50
Kunar	Noor Gal	-	4	20	20	101	-	79	9	241	346	100
Kunar	Sar Kani	6	1	-	-	14	25	-	476	359	282	427
Kunar	Shigal wa Sheltan	-	36	73	102	459	212	155	71	242	182	212
Kunar	Sawkai	9	4	33	30	124	-	50	8	6	14	11
Kunar	Watapoor	-	6	-	137	7	46	45	132	163	183	180
Kunar Total		**290**	**164**	**155**	**578**	**1,279**	**1,127**	**754**	**987**	**1,276**	**1,634**	**1,732**
Kunduz	Ali Abad	-	-	-	-	-	-	-	-	-	-	-
Kunduz	Dashti-i-Archi	-	-	-	-	-	-	-	-	-	-	-
Kunduz	Chahar Darah	-	-	-	-	-	-	-	-	-	-	-
Kunduz	Hazrati Imam Sahib	-	-	-	-	-	-	-	-	-	-	-
Kunduz	Khanabad	-	-	-	-	-	-	-	-	-	-	-
Kunduz	Kunduz (Provincial Center)	-	-	-	-	-	-	-	-	-	-	-
Kunduz	Qala-i-Zal	-	-	-	-	-	-	-	-	-	-	-
Kunduz Total		**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**
Laghman	Alingar	13	1	48	343	303	503	477	277	546	575	442
Laghman	Alisheng	370	1	65	124	335	472	278	285	471	962	881
Laghman	Dowlat Shah	3	0	31	52	158	142	5	90	180	301	250
Laghman	Mehterlam (Provincial Center)	16	43	90	104	69	119	137	123	175	281	319
Laghman	Qarghayee	23	90	-	-	12	-	5	4	8	137	200
Laghman Total		**425**	**135**	**234**	**624**	**877**	**1,236**	**901**	**779**	**1,380**	**2,257**	**2,092**
Logar	Azra	-	-	-	-	-	-	-	-	-	-	-
Logar	Baraki Barak	-	-	-	-	-	-	-	-	-	-	-
Logar	Charkh	-	-	-	-	-	-	-	-	-	-	-
Logar	Kharwar	-	-	-	-	-	-	-	-	-	-	-
Logar	Khoshi	-	-	-	-	-	-	-	-	-	-	-
Logar	Muhammad Aghah	-	-	-	-	-	-	-	-	-	-	-
Logar	Pul-i-Alam	-	-	-	-	-	-	-	-	-	-	-
Logar Total		**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**
Nangarhar	Achin	-	14	10	254	580	2,224	3,004	1,090	698	1,364	1,692
Nangarhar	Bati Kot	-	-	-	-	-	-	-	4	193	757	952
Nangarhar	Behsud	-	-	-	-	-	-	-	-	-	-	-
Nangarhar	Chaparhar	-	-	-	12	19	1,452	1,866	1,504	2,472	2,337	402
Nangarhar	Darah-i- Noor	-	-	-	-	-	-	162	11	326	700	866
Nangarhar	Deh Bala	-	-	-	-	14	-	-	275	55	112	8
Nangarhar	Dur Baba	-	-	-	-	-	-	-	-	-	-	-
Nangarhar	Goshta	-	-	-	-	-	19	95	6	3	-	44
Nangarhar	Hesarak	-	18	5	178	89	-	775	424	581	937	1,002
Nangarhar	Jalalabad	-	-	-	-	-	-	-	-	-	-	-
Nangarhar	Kama	-	-	-	-	-	-	14	-	-	-	-
Nangarhar	Khugyani	-	108	131	557	1,481	5,746	4,755	2,996	4,204	4,728	2,958
Nangarhar	Kot	-	-	-	-	-	993	2,040	872	80	49	972
Nangarhar	Kuzkunar	-	-	-	-	-	-	-	-	1	133	299
Nangarhar	Lalpoor	-	5	59	185	-	798	712	218	344	728	171
Nangarhar	Mohmand Dara	-	-	1	1	-	155	175	19	213	505	595
Nangarhar	Nazyan	-	1	-	-	-	-	-	-	-	-	-
Nangarhar	Pachir wagam	-	-	-	3	418	1,672	1,588	1,066	1,160	1,231	1,130
Nangarhar	Rodat	-	-	-	-	-	11	946	389	1,426	1,802	2,126
Nangarhar	Sherzad	-	148	513	1,510	550	2,650	1,876	884	1,393	1,534	1,499
Nangarhar	Shinwar	-	-	-	-	-	-	-	70	379	1,245	1,865
Nangarhar	Surkh Rud	-	-	-	-	-	-	219	188	818	816	594
Nangarhar Total		**p-f**	**294**	**719**	**2,700**	**3,151**	**15,719**	**18,227**	**10,016**	**14,344**	**18,976**	**17,177**
Nimroz	Asl-i-Chakhansur	1	-	183	855	98	9	-	57	34	41	-
Nimroz	Chahar Burjak	4	84	144	181	696	511	250	698	1,305	4,167	3,562
Nimroz	Kang	-	-	10	31	36	-	-	-	-	2	-
Nimroz	Khash Rod	6,197	326	1,621	1,323	2,536	15,731	14,334	8,046	3,962	7,256	5,552
Nimroz	Zaranj (Provincial Center)	-	17	81	102	442	1	-	4	2	0	-
Nimroz Total		**6,203**	**428**	**2,039**	**2,493**	**3,808**	**16,252**	**14,584**	**8,805**	**5,303**	**11,466**	**9,115**

Province	District	2008	2009	2010	2011	2012	2013	2014	2015	2,016	2,017	2,018
Nuristan	Barg-i-Matal	-	-	-	-	-	-	-	-	-	-	-
Nuristan	Du Ab	-	-	-	-	-	-	-	-	-	-	-
Nuristan	Kamdesh	-	-	-	-	-	-	-	-	-	-	-
Nuristan	Mandol	-	-	-	-	-	-	-	-	-	4	-
Nuristan	Noor Gram	-	-	-	-	-	-	-	-	-	117	-
Nuristan	Nuristan Paroon (Provincial Cente	-	-	-	-	-	-	-	-	-	-	-
Nuristan	Wama	-	-	-	-	-	-	-	-	-	-	-
Nuristan	Waygal	-	-	-	-	-	-	-	-	-	-	-
Nuristan Total		**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**121**	**p-f**
Paktika	Barmal	-	-	-	-	-	-	-	-	-	-	-
Paktika	Dilah wa Khwoshamand	-	-	-	-	-	-	-	-	-	-	-
Paktika	Giyan	-	-	-	-	-	-	-	-	-	-	-
Paktika	Gomal	-	-	-	-	-	-	-	-	-	-	-
Paktika	Jani Khel	-	-	-	-	-	-	-	-	-	-	-
Paktika	Mata Khan	-	-	-	-	-	-	-	-	-	-	-
Paktika	Nika	-	-	-	-	-	-	-	-	-	-	-
Paktika	Omna	-	-	-	-	-	-	-	-	-	-	-
Paktika	Sar Rowza	-	-	-	-	-	-	-	-	-	-	-
Paktika	Sharan (Provincial Center)	-	-	-	-	-	-	-	-	-	-	-
Paktika	Sarubi	-	-	-	-	-	-	-	-	-	-	-
Paktika	Turwo	-	-	-	-	-	-	-	-	-	-	-
Paktika	Urgun	-	-	-	-	-	-	-	-	-	-	-
Paktika	Wazahkhwah	-	-	-	-	-	-	-	-	-	-	-
Paktika	Wor Mamay	-	-	-	-	-	-	-	-	-	-	-
Paktika	Yahya Khel	-	-	-	-	-	-	-	-	-	-	-
Paktika	Yosuf Khel	-	-	-	-	-	-	-	-	-	-	-
Paktika	Zarghun Shahr	-	-	-	-	-	-	-	-	-	-	-
Paktika	Ziruk	-	-	-	-	-	-	-	-	-	-	-
Paktika Total		**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**
Paktya	Ahmadabad	-	-	-	-	-	-	-	-	-	-	-
Paktya	Ali Khail										-	-
Paktya	Samkani	-	-	-	-	-	-	-	-	-	-	-
Paktya	Dand Patan	-	-	-	-	-	-	-	-	-	-	-
Paktya	Gardez (Provincial Center)	-	-	-	-	-	-	-	-	-	-	-
Paktya	Woza Jadran	-	-	-	-	-	-	-	-	-	-	-
Paktya	Jaji	-	-	-	-	-	-	-	-	-	-	-
Paktya	Jani Khel	-	-	-	-	-	-	-	-	-	-	-
Paktya	Laja Ahmad Khel	-	-	-	-	-	-	-	-	-	-	-
Paktya	Lija Mangal	-	-	-	-	-	-	-	-	-	-	-
Paktya	Sayyid Karam	-	-	-	-	-	-	-	-	-	-	-
Paktya	Shamul *	-	-	-	-	-	-	-	-	-	-	-
Paktya	Shwak	-	-	-	-	-	-	-	-	-	-	-
Paktya	Zurmat	-	-	-	-	-	-	-	-	-	-	-
Paktya Total		**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**
Panjshir	Bazarak (Provincial Center)	-	-	-	-	-	-	-	-	-	-	-
Panjshir	Darah	-	-	-	-	-	-	-	-	-	-	-
Panjshir	Hissa-i-Awal(Khinj)	-	-	-	-	-	-	-	-	-	-	-
Panjshir	Hisa-i-Duwumi	-	-	-	-	-	-	-	-	-	-	-
Panjshir	Panjshir	-	-	-	-	-	-	-	-	-	-	-
Panjshir	Paryan	-	-	-	-	-	-	-	-	-	-	-
Panjshir	Rukhah	-	-	-	-	-	-	-	-	-	-	-
Panjshir	Shutul	-	-	-	-	-	-	-	-	-	-	-
Panjshir	Unaba	-	-	-	-	-	-	-	-	-	-	-
Panjsher Total		**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**
Parwan	Bagram	-	-	-	-	-	-	-	-	-	-	-
Parwan	Charikar (Provincial Center)	-	-	-	-	-	-	-	-	-	-	-
Parwan	Syahgird (Ghorband)	-	-	-	-	-	-	-	-	-	-	-
Parwan	Jabalussaraj	-	-	-	-	-	-	-	-	-	-	-
Parwan	Koh-i-Safi	-	-	-	-	-	-	-	-	-	-	-
Parwan	Salang	-	-	-	-	-	-	-	-	-	-	-
Parwan	Sayyid Khel	-	-	-	-	-	-	-	-	-	-	-
Parwan	Shaykh Ali	-	-	-	-	-	-	-	-	-	-	-
Parwan	Shinwari	-	-	-	-	-	-	-	-	-	-	-
Parwan	Surkh-i-Parsa	-	-	-	-	-	-	-	-	-	-	-
Parwan Total		**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**
Samangan	Aybak (Provincial Center)	-	-	-	-	-	-	-	-	-	-	-
Samangan	Darah-i-Soof-i-Bala	-	-	-	-	-	-	-	-	-	58	198
Samangan	Darah-i-Suf-i-Payin	-	-	-	-	-	-	-	-	-	185	40
Samangan	Fayroz Nakhcheer	-	-	-	-	-	-	-	-	-	-	-
Samangan	Hazrat-i-Sultan	-	-	-	-	-	-	-	-	-	-	-
Samangan	Khuram wa Sar Bagh	-	-	-	-	-	-	-	-	-	-	-
Samangan	Roi-Do-Ab	-	-	-	-	-	-	-	-	-	-	-
Samangan Total		**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**243**	**238**
Sari Pul	Balkhab	-	-	-	-	-	-	-	-	-	-	-
Sari Pul	Gosfandi	-	-	-	-	-	-	-	-	-	-	4
Sari Pul	Kohistanat	-	-	-	-	-	-	-	-	-	-	96
Sari Pul	Sangcharak	-	-	-	-	-	-	-	-	-	-	181
Sari Pul	Sari Pul (Provincial Center)	-	-	-	-	-	-	-	-	72	212	80
Sari Pul	Sayyad	-	-	-	-	-	-	195	331	1,614	3,338	239
Sari Pul	Sozma Qala	-	-	-	-	-	-	-	-	-	-	61
Sari Pul Total		**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**195**	**331**	**1,686**	**3,550**	**660**

	District	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Takhar	Baharak	-	-	-	-	-	-	-	-	-	-	-
Takhar	Bangi	-	-	-	-	-	-	-	-	-	-	-
Takhar	Chahab	-	-	-	-	-	-	-	-	-	-	-
Takhar	Chal	-	-	-	-	-	-	-	-	-	-	-
Takhar	Darqad	-	-	-	-	-	-	-	-	-	-	-
Takhar	DashtiQala	-	-	-	-	-	-	-	-	-	-	-
Takhar	Farkhar	-	-	-	-	-	22	-	-	-	7	18
Takhar	Hazar Sumuch	-	-	-	-	-	-	-	-	-	-	-
Takhar	Eshkamish	-	-	-	-	-	-	-	-	-	-	-
Takhar	Kalafgan	-	-	-	-	-	21	-	-	-	17	40
Takhar	Khwaja Bahawuddin	-	-	-	-	-	-	-	-	-	-	-
Takhar	Khwaja Ghar	-	-	-	-	-	-	-	-	-	-	-
Takhar	Namak Ab	-	-	-	-	-	-	-	-	-	-	-
Takhar	Rustaq	-	-	-	-	-	25	-	-	-	23	193
Takhar	Taloqan (Provincial Center)	-	-	-	-	-	2	-	-	-	-	1
Takhar	Warsaj	-	-	-	-	-	-	-	-	-	-	-
Takhar	Yangi Qala	-	-	-	-	-	-	-	-	-	-	-
Takhar Total		**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**251**
Uruzgan	Chorah	316	306	221	301	349	611	502	275	454	1,263	1,128
Uruzgan	Dihrawud	2,849	2,038	145	3,438	4,375	3,321	2,214	3,382	4,743	5,648	5,479
Uruzgan	Khas Uruzgan	304	407	230	384	38	123	1,074	172	2,492	2,680	1,059
Uruzgan	Nesh *	-	-	-	-	-	-	-	-	-	-	-
Uruzgan	Shahidi Hasas	4,403	2,445	3,635	3,601	3,617	3,888	2,296	3,489	1,951	3,062	2,707
Uruzgan	Tirin Kot (Provincial Center)	2,067	4,028	3,106	2,895	2,129	1,936	3,042	3,852	5,574	8,368	7,873
Uruzgan	Gizab*	-	-	-	-	-	-	148	107	290	520	417
Uruzgan Total		**9,939**	**9,224**	**7,337**	**10,620**	**10,508**	**9,880**	**9,277**	**11,277**	**15,503**	**21,541**	**18,662**
Wardak	Chak-i-Wardak	-	-	-	-	-	-	-	-	-	-	-
Wardak	Daimirdad	-	-	-	-	-	-	-	-	-	-	-
Wardak	Hisah-i-Awal Behsud	-	-	-	-	-	-	-	-	-	-	-
Wardak	Jaghatu	-	-	-	-	-	-	-	-	-	-	-
Wardak	Jalrez	-	-	-	-	-	-	-	-	-	-	-
Wardak	Markaz-i- Behsud	-	-	-	-	-	-	-	-	-	-	-
Wardak	Maidan Shahr (Provincial Center)	-	-	-	-	-	-	-	-	-	-	-
Wardak	Nerkh	-	-	-	-	-	-	-	-	-	-	-
Wardak	Sayyidabad	-	-	-	-	-	-	-	-	-	-	-
Wardak Total		**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**	**p-f**
Zabul	Arghandab	55	103	91	47	79	32	256	24	56	56	-
Zabul	Atghar	3	2	16	1	5	12	12	-	3	52	9
Zabul	Daychopan	422	147	122	26	25	259	178	25	35	93	294
Zabul	Kakar Kak-e Afghan	110	219	44	40	38	50	403	122	4	-	24
Zabul	Mizan	289	309	140	74	155	858	544	171	150	759	806
Zabul	Naw Bahar	44	33	4	2	12	-	-	-	-	-	-
Zabul	Qalat (Provincial Center)	310	19	20	56	10	28	146	37	-	10	18
Zabul	Shah Joi	237	175	20	11	69	96	146	-	-	-	-
Zabul	Shemel Zayi	153	46	15	1	5	-	41	-	-	202	32
Zabul	Shinkai	105	87	-	-	-	-	-	-	-	-	39
Zabul	Tarnak wa Jaldak	608	5	10	5	26	-	1,168	265	1,115	959	1,359
Zabul Total		**2,335**	**1,144**	**482**	**262**	**424**	**1,335**	**2,894**	**644**	**1,363**	**2,131**	**2,581**
TOTAL		**157,253**	**123,095**	**122,515**	**131,065**	**154,436**	**209,450**	**224,337**	**182,566**	**201,312**	**328,302**	**262,588**
Rounded Total		**157,000**	**123,000**	**123,000**	**131,000**	**154,000**	**209,000**	**224,000**	**183,000**	**201,000**	**328,000**	**263,000**

p-f: Poppy-free according to the definition of the respective year. This concept was introduced in 2007. In 2007, provinces with no poppy were considered poppy-free; since 2008, provinces with less than 100 hectares of poppy have been considered poppy-free.

The survey is designed to produce province level estimates. District estimates are derived by a combination of different approaches. They are indicative only, and suggest a possible distribution of the estimated provincial poppy area among the districts of a province.

Annex II Eradication figures, by district (2018)

	District	Eradication reported (ha)	No. of fields eradication reported	No. of villages eradication reported
Badakhshan	Argo	65	1,372	38
	Darayam	20	366	13
Badakhshan Total		**85**	**1,738**	**51**
Kandahar	Zheray	13	42	7
Kandahar Total		**13**	**42**	**7**
Nangarhar	Achin	12	155	7
	Batikot	1	8	1
	Dehbala	11	113	7
	Nazyan	2	73	2
	Rodat	15	178	7
	Shinwar	5	79	2
	Chaparhar	31	235	6
	Khogyani	114	685	19
	Kot	13	243	7
	Kuzkunar	6	125	1
	Muhmand Dara	0	22	1
	Pachieragam	71	573	12
	Surkhrod	9	94	4
	Dara-i- noor	11	186	10
Nangarhar Total		**301**	**2,769**	**86**
Kunar	Shigal	4	215	6
	Narang	3	121	2
Kunar Total		**7**	**336**	**8**
Grand Total		**406**	**4,885**	**152**