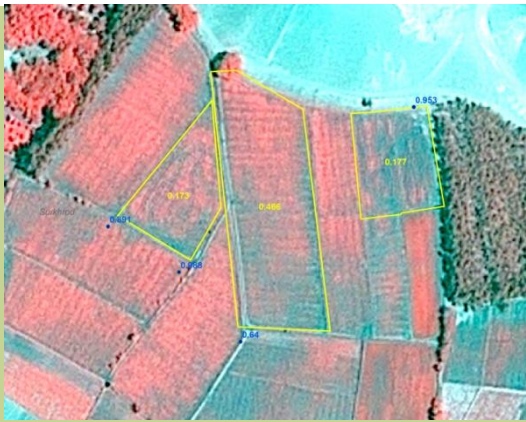




Afghanistan Poppy Eradication Verification



September 2017

Final Report

Abbreviations

GPS: Global Positioning System
GLE: Governor-led Eradication
MCN: Ministry of Counter Narcotics
UNODC: United Nations Office on Drugs and Crime
AGE: Anti Government Elements
ANA: Afghanistan National Army

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TYPICAL GROWTH STAGES OF POPPY



Emergence stage



Cabbage stage



Stem-elongation stage



Flowering stage



Capsule stage



Lancing stage

Summary

- MCN and UNODC are joint partners to monitor and verify Governor-led eradication of poppy.
- In 2017 a total of **750 hectares** of Governor-led eradication of poppy fields were verified in **14** provinces of Afghanistan namely Badakhshan, Balkh, Badghis, Ghor, Hirat, Jawzjan, Kabul, Kapisa, Kandahar, Nimroz, Kunar, Laghman, Nangarhar and Takhar provinces. Compared to last year, there was an increase of **53%** in Governor-led eradication of poppy fields in Afghanistan.
- Last year (2016) a total of **355 hectares** of Governor-led poppy eradication were verified in **7** provinces in Southern, Western, Eastern, Northern and North-eastern.
- The highest poppy eradication was verified in Badakhshan province (**269 hectares**).
- The eradication did not take place in most of the high opium poppy cultivated provinces this year as well, due to continued poor security situation.
- Final figures for eradication in Badakhshan, Balkh, Badghis, Kandahar, Kabul, Kapisa, Hirat and Nangarhar provinces are confirmed after checking with high resolution satellite imageries supported by ground pictures and GPS tracking files. For the other provinces namely Takhar, Laghman, Nimroz, Ghor and Kunar the quality checks was done by scrutinizing the survey forms, GPS tracking area and checking the area measurement calculations and field photographs.
- Satellite imageries were used to verify the eradication figures reported by surveyors in Badakhshan, Balkh, Badghis, Hirat, Kandahar, Kabul, Kapisa and Nangarhar provinces. The quality of eradication (partially eradicated fields) in Badakhshan province continued to be very poor this year as well.
- Farmers' resistance against poppy eradication operations were reported in Nangarhar and Kapisa provinces as direct attack on eradication team, Since the start of eradication operations this year one ANA, one ANP and 4 others were killed and one ALP two ANA and 5 insurgents were injured.

1. Introduction

The Ministry of Counter Narcotics (MCN) and the United Nations Office on Drugs and Crime (UNODC) have a joint responsibility of monitoring and verifying opium poppy eradication activities led by the Governors.

Governor-led eradication (GLE) activities are envisaged in all poppy cultivating provinces. The verifiers in the field were recruited and selected jointly by MCN/UNODC survey coordinators. A team of MCN/UNODC was deputed to regional offices to supervise the recruitment, training and coordination activities.

The verification activities in the field were monitored closely by MCN/UNODC survey coordinators in all regions.

Governor led eradication verification

Provincial Governors are responsible for eradication of poppy crops in their respective provinces with the support of district governors. Governor-led eradication activities were envisaged in most of the poppy cultivating provinces of Afghanistan.

Detailed methodology of Governor-led eradication verification is given in *Annex 1*. The areas verified by the eradication verifiers were checked with satellite imageries wherever acquisition of imageries was possible. A total of **101** eradication verifiers were trained on eradication verification techniques. Out of the 98 trained verifiers 59 verifiers were deployed in the field based on eradication plan received from Governors. The remaining 42 verifiers were on standby to be made available when required. The eradication verifiers are part of the eradication teams led by the respective provincial Governors.

Table 1: Distribution of verifiers by province

Province	No. of Verifiers trained	No. of Verifiers Deployed	No. of Verifiers standby
Kabul	6	4	2
Badakhshan	15	14	3
Faryab	5	0	5
Baghlan	3	0	3
Saripul	2	0	2
Balkh	10	10	0
Hilmand	15	0	15
Hirat	4	1	3
Kandahar	10	9	1
Kunar	3	0	3
Laghman	3	3	0
Nangarhar	10	7	3
Nimroz	4	4	0
Uruzgan	4	0	4
Takhar	2	2	0
Ghor	2	2	0
Badghis	3	3	0
Total Verifiers	101	59	44

2. Results

GLE was verified and reported from Badakhshan, Balkh, Badghis, Ghor, Hirat, Jawzjan, Kabul, Kapisa, Kandahar, Nimroz, Kunar, Laghman, Nangarhar and Takhar provinces. The areas verified and reported by the eradication verifiers were checked with satellite imageries per the availability. Table 2 shows the area of Governor-led poppy eradication along with number of fields and villages covered at province level. Detail of GLE by districts is given in *Annex 2*.

Table 2: GLE by province, 2017

Province	Eradication Reported (ha)	No. of eradicated fields reported	No. of villages eradication reported
Badakhshan*	269	4231	108
Balkh*	25	95	39
Kabul*	27	191	18
Kapisa*	3	39	2
Badghis*	55	111	11
Kandahar*	48	132	16
Nangarahar*	204	1370	85
Laghman	23	507	12
Nimroz	14	17	3
Hirat*	23	56	8
Ghor	14	20	2
Jawzjan	0.3	4	1
Takhar	15	64	13
Kunar	31	74	2
Grand Total	750	6,911	320

* Provinces checked with satellite imagery.

A total of **750 hectares** of poppy eradication were verified by physical measurement of **6,911** poppy fields in **320** villages of **14** provinces in Afghanistan. Quality checks using high resolution satellite image was carried out to authenticate the eradication area reported by verifiers in Badakhshan, Balkh, Badghis, Kandahar, Kabul, Kapisa, Hirat and Nangarhar provinces. There is an increase of **53%** in eradication verified this year compared to last year. In 2016 the total verified GLE was **355 hectares** in **7,922** poppy fields, **201** villages and **7** provinces.

Table 3: GLE and percentage change, 2016-2017

Province	Eradication Verification (ha) 2016	Eradication Verification (ha) 2017	% Change
Badakhshan	270	269	0%
Balkh	0	25	100%
Kabul	0	27	100%
Kapisa	0	3	100%
Badghis	0	55	100%
Kandahar	4	48	92%
Nangarahar	1	204	100%
Laghman	3	23	87%
Nimroz	1	14	93%
Hirat	0	23	100%
Ghor	0	14	100%
Jawzjan	0	0.3	100%
Takhar	21	15	-42%
Sari-Pul	55	0	NA
Kunar	0	31	100%
Total	355	750	53%

Note: Provincial eradication figures do not add to total due to rounding.

3. Verification of eradication using satellite imageries:

- **Verification of over reporting.**

Cross checking of eradication verification reported by field verifiers was carried out using high resolution satellite imageries. UNODC procured the satellite imageries based on the field coordinates recorded by verifiers in the eradicated poppy fields to validate authenticity of the reported eradication area. The GLE in Badakhshan, Balkh, Badghis, Hirat, Kandahar, Kabul, Kapisa and Nangarahar provinces were checked with satellite imageries. The verification with satellite imageries was supported with ground pictures and GPS tracking collected by verifier in provinces. Since 2013 the eradicated fields are tracked using GPS which provides the location and shape of the eradicated fields. These tracks have facilitated identification of eradicated poppy fields on satellite imageries.

- **Verification of eradication quality**

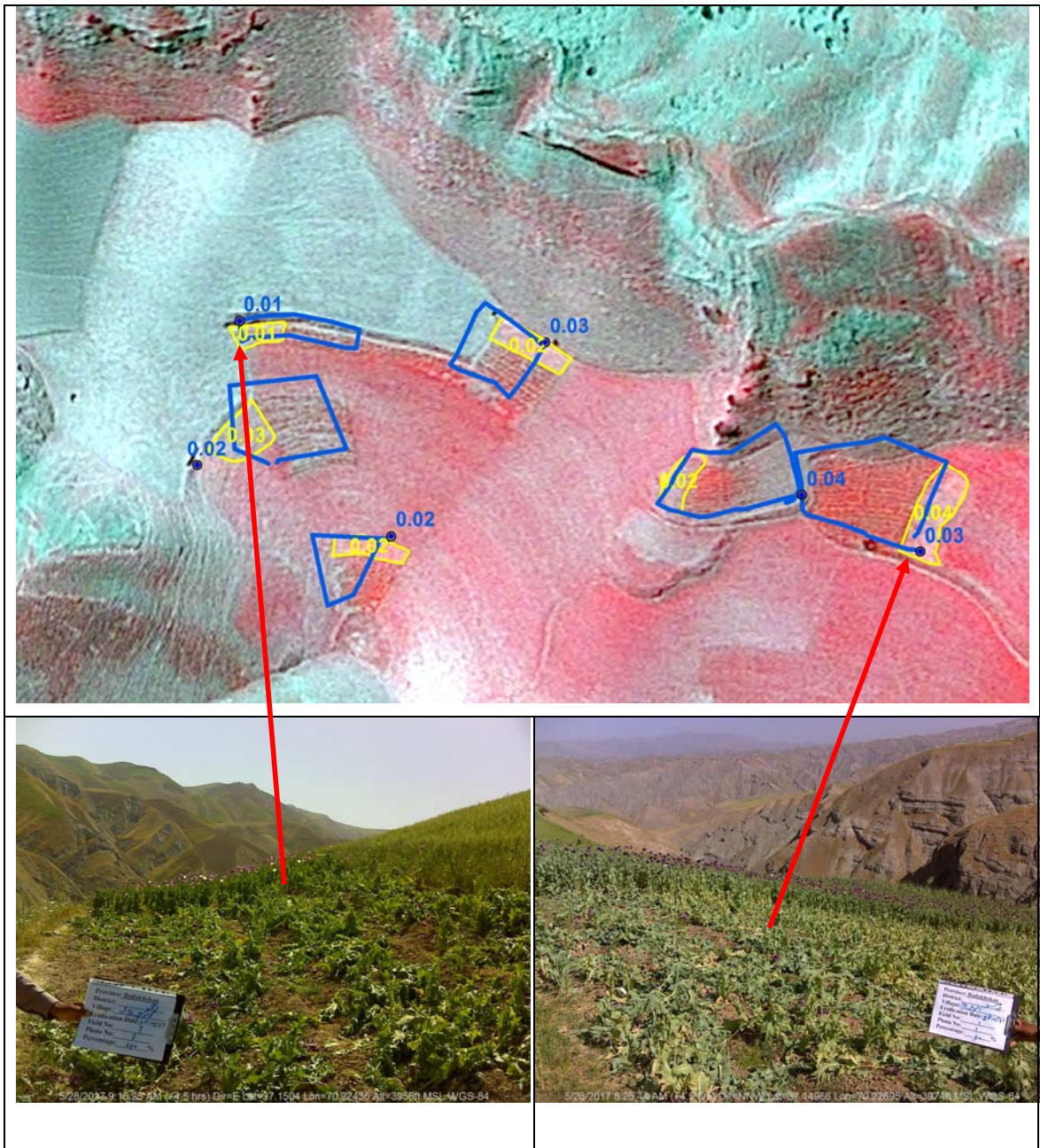
Partially eradicated fields were verified using satellite imagery this year as well. The field verifiers report the percentage of each eradicated field on the ground. This reported figure was verified using satellite imagery acquired immediately after the date of eradication. The difference in tone and texture of eradicated and standing poppy on the satellite imagery was used to verify the quality of eradication within each field.

In 2017, the eradication was mainly carried out manually with stick in most of the provinces. The quality of eradication (partially eradicated fields) was successfully verified using satellite imagery.

Badakhshan province:

- The eradication quality and area reported by verifiers were checked with satellite imageries and scrutinizing the survey forms, checking the area measurement calculations and field photographs. The final eradication figures in Badakhshan province has been corrected to 269 hectares. Similar to previous years the quality of eradication was very poor this year as well, however the extent of over reporting of eradication figures were insignificant.

The below snap shots show cases of partially eradicated poppy fields:



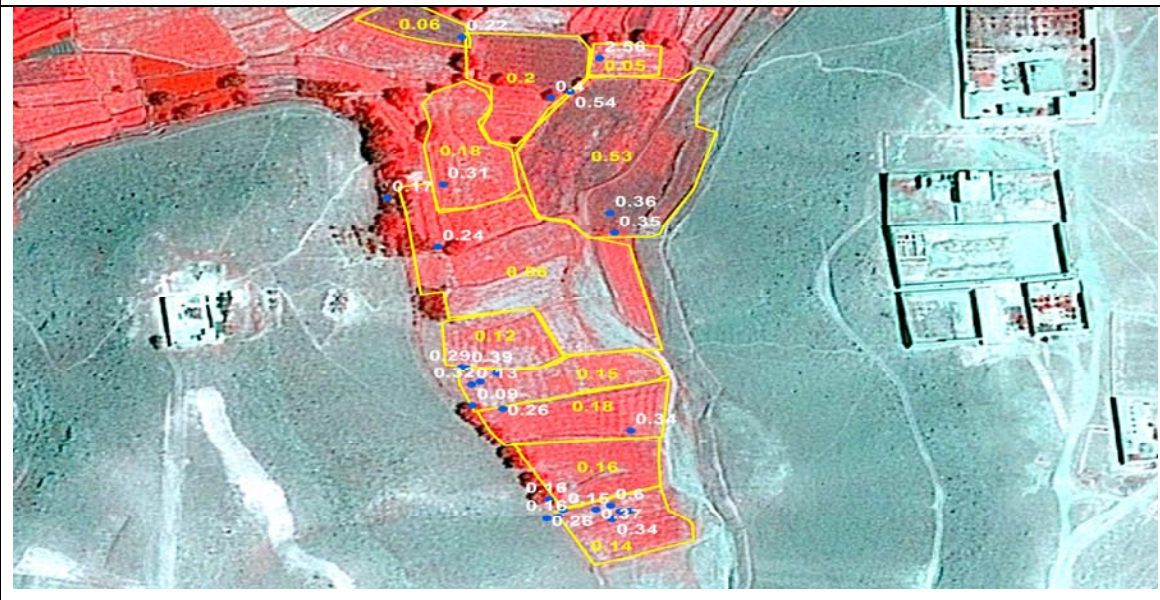
Nangarhar Province:

Eradication reported by verifiers was checked with satellite imageries. Over-reporting of eradication figures by field verifiers was very high this year. The final eradication figures in Nangarahar province has been corrected to 204 hectares.

The snap shots showing over-reporting of eradication by verifiers in Nangarahar province:



The below snap shots show fields are tracked more than one time and multiple eradicated points are recorded in a single field.



Kandahar Province:

Eradication reported by verifiers was checked with satellite imageries wherever available. The final eradication figures in Kandahar province has been corrected to 48 hectares.

The snap shots showing over-reporting of eradication reported by verifiers in Kandahar province:

	<p><i>Over reporting of eradication in Kandahar province.</i></p> <p><i>Date of eradication: 05 April 2017</i></p> <p><i>Date of image : 05 April 2017</i></p> <p><i>Verifier reported: 1.45 ha size of the field</i></p> <p><i>Verifier reported 30% poppy is eradicated in the field</i></p> <p><i>Checked with satellite: 0.85 ha size of the field</i></p> <p><i>Figures in white: reported by verifiers</i></p> <p><i>Figures in yellow: calculated from satellite imagery</i></p>
 <p>Province: Kandahar District: Zati Village: <i>سوسه</i> Eradication Date: 05/07/2017 Field No: 1 Photo No: 1 Percentage: 30</p> <p>4/5/2017 9:01:48 AM (+4.5 hrs) Dir=ENE Lat=31.68387 Lon=65.31914 Alt=3108ft MSL WGS-84</p>	

Badghis, Balkh and Hirat Provinces:

Eradication reported by verifiers in Hirat, Badghis and Balkh provinces are checked with satellite imagery and no over reporting is found in Badghis and Balkh province. The final eradication figures in Balkh and Badghis provinces remains unchanged. However eradication in Hirat province was corrected to the extent of 23 hectares.

The snap shots showing over-reporting of eradication by verifiers in Hirat province:

 <p>The satellite image shows a field with several sub-plots. A yellow outline covers a larger area, while a white outline covers a smaller portion. Measurements in white (reported by verifiers) and yellow (calculated from satellite) are shown. A blue label 'Kushk' is visible near a road.</p>	<p><i>Over reporting of eradication in Hirat province.</i></p> <p><i>Date of eradication: 05 April 2017</i></p> <p><i>Date of image : 05 April 2017</i></p> <p><i>Verifier reported: 3.7 ha size of the field</i></p> <p><i>Verifier reported 30% poppy is eradicated in the field</i></p> <p><i>Checked with satellite: 1.68 ha size of the field</i></p> <p><i>Figures in white: reported by verifiers</i></p> <p><i>Figures in yellow: calculated from satellite imagery</i></p>
 <p>A ground-level photograph showing a field with rows of young green plants in a brown, tilled soil. In the background, there are some simple structures and a hillside under a cloudy sky.</p>	

4. Timing of Poppy Eradication

The timing of effective eradication of opium is when poppy is at cabbage stage since poppy plants can be easily recognized at this stage. However, the stick eradication is not effective during the cabbage-stage. **99% of eradication** was carried out in month of May and June in 2016.

Figure 1: Percentage of GLE by month in 2016 and 2017

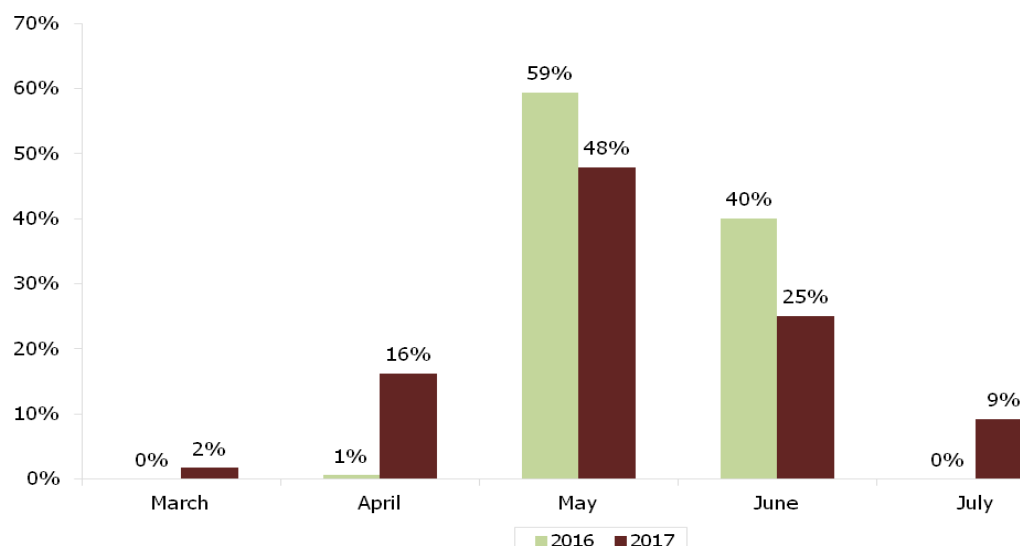


Table 4: Start and end dates of GLE, 2017

Region	Province	Eradication Start Date	Eradication End Date	Eradication (ha)
Central	Kabul	25-Apr-2017	16-May-2017	27
	Kapisa	21-May-2017	25-May-2017	3
East	Kunar	16-Apr-2017	11-May-2017	31
	Laghman	8-Apr-2017	11-May-2017	23
	Nangarhar	25-Mar-2017	11-May-2017	204
South	Kandahar	29-Mar-2017	16-Apr-2017	48
West	Badghis	29-Apr-2017	14-May-2017	55
	Ghor	18-Jun-2017	22-Jun-2017	14
	Hirat	1-Apr-2017	16-May-2017	23
	Nimroz	7-Mar-2017	25-Mar-2017	14
North	Balkh	14-May-2017	17-May-2017	25
	Jawzjan	6-May-2017	6-May-2017	0.3
North-east	Badakhshan	16-May-2017	20-Jul-2017	269
	Takhar	18-May-2017	24-May-2017	15

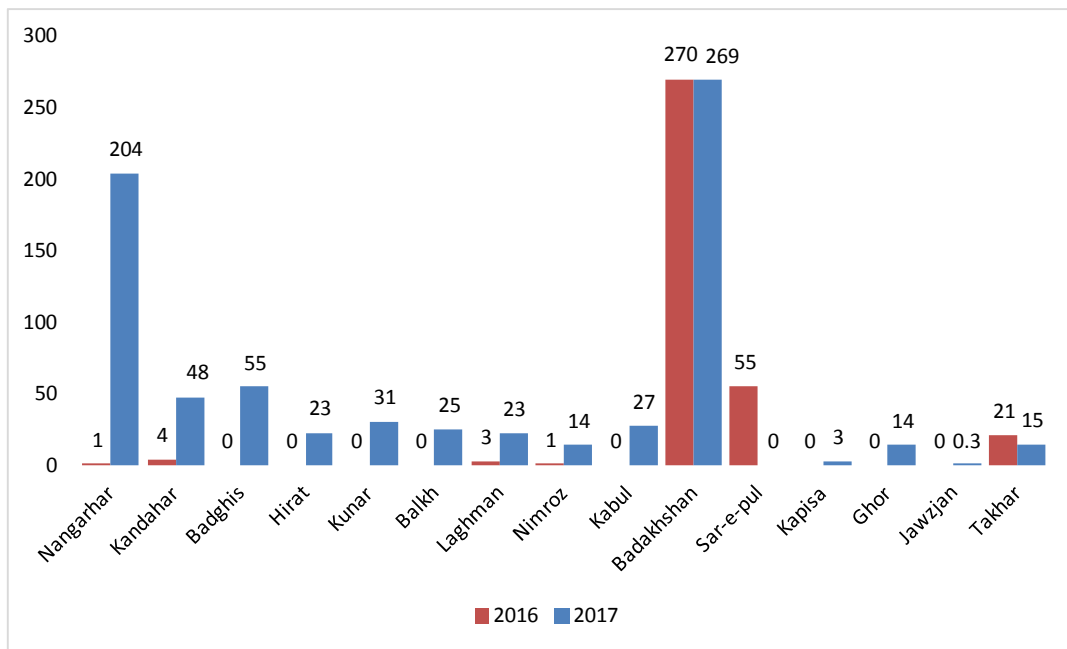
Note: Provincial eradication figures do not add to total due to rounding.

5. Comparison of GLE in 2016 and 2017

Major observations on eradication campaign in 2016 and 2017 are:

- Total poppy eradication carried out in 2017 was **53%** more than in 2016. This year the total GLE carried out was **750 hectares** in **14** provinces compared to **355 hectares** in **7** provinces in 2016.
- The GLE campaign started on late March similar to last year.
- The eradication campaign has not been carried out in most of the major opium poppy cultivated provinces this year as well, due to continued poor security situation on ground.

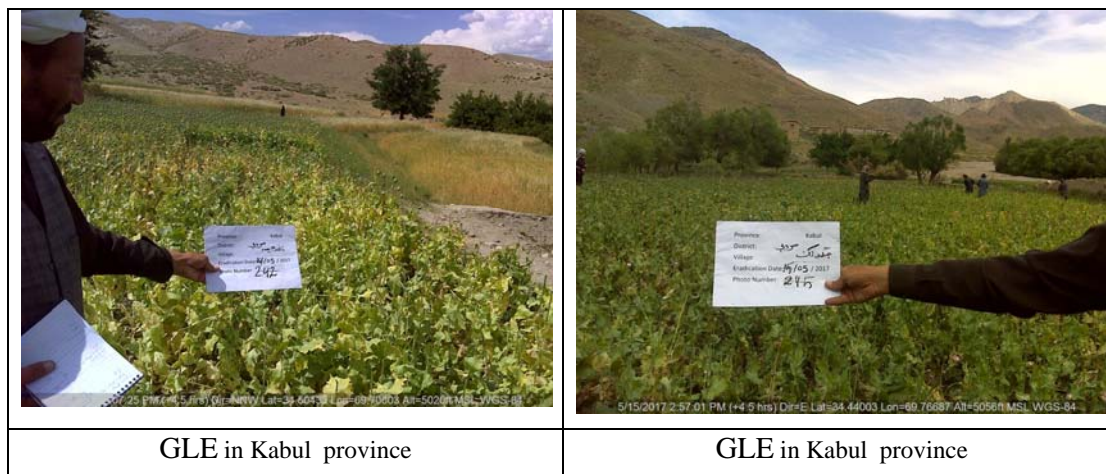
Figure 2: GLE in 2015 and 2016 (hectare)



6. Regional findings

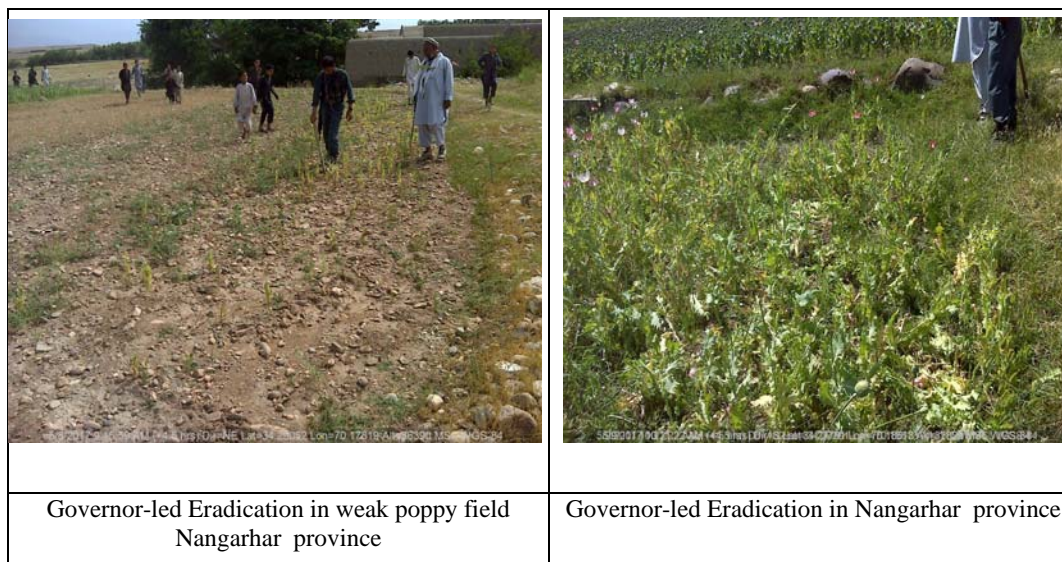
- **Central region (Kabul, Parwan, Ghazni):**

- In Central region governor led eradication only carried out in Kabul province. The GLE operations started on 25 April 2017 and concluded on 16 May 2017 in Surobi district. A total of **27** hectare of eradicated fields were verified.



- **Eastern region (Kunar, Laghman, Kapisa, Nangarhar, Nuristan):**

- In Nangarhar province, GLE operations started on 25 March 2017 and concluded on 11 May 2017 in Achin, Batikot, Dehbala, Nazyan, Rodat, Shinwar, Chaparhar, Khogyani, Surkhrod and Dara-i-noor districts. A total of **204** hectare of eradicated fields were verified.



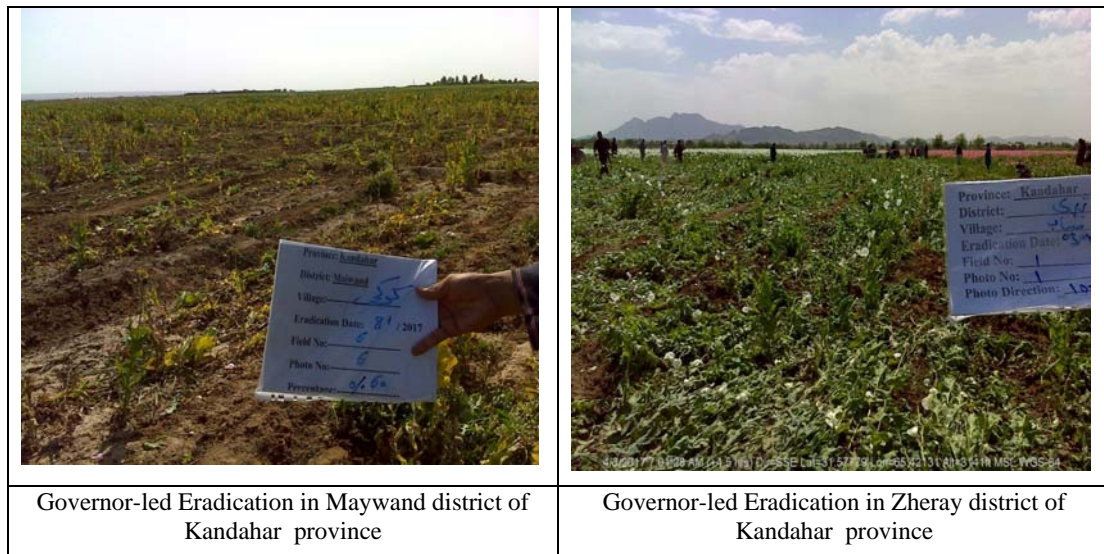
- In Laghman province, Governor-led poppy eradication operations started on 8 April 2017 and concluded on 11 May 2017. The eradication was carried out in Mehterlam district. A total of **23** hectares of eradicated fields were verified.
- In Kunar province, Governor-led poppy eradication operations started on 16 April and concluded on 11 May 2017 in Shigal and Narang districts. A total of **31** hectares of eradicated fields was verified.

- In Kapisa province, Governor-led poppy eradication operations started on 21 May and concluded on 25 May 2017 in Tagab district. A total of 3 hectares of eradicated fields were verified.
- No eradication was carried out in Nuristan provinces this year.



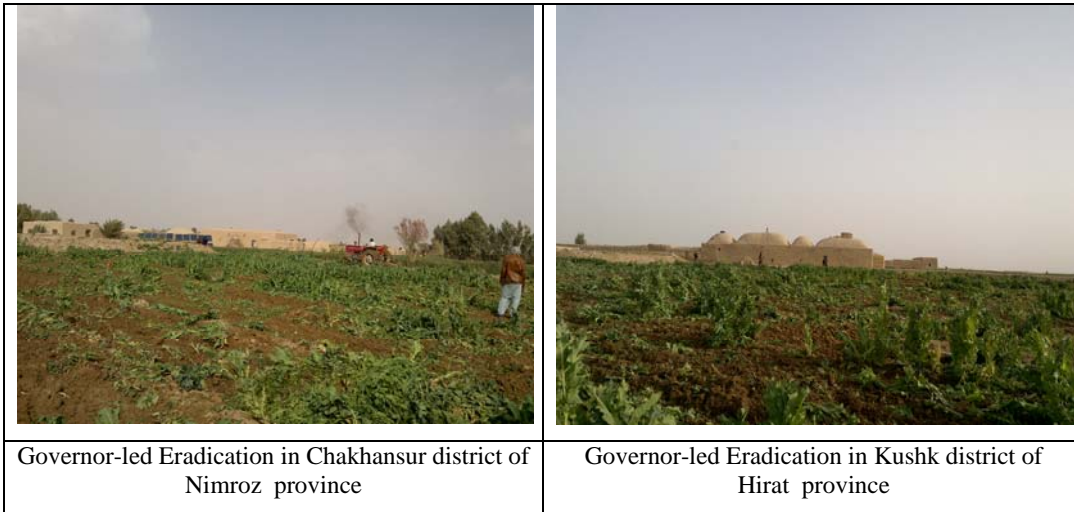
Southern region (Hilmand, Kandahar, Uruzgan, Zabul, Day Kundi):

- In Kandahar province, Governor-led poppy eradication operations started on 29 March 2017 and concluded on 16 April 2017 in Maywand, Panjwayi, Arghandab and Zheray districts. A total of 48 hectares were verified.
- No eradication was carried out in Hilmand, Uruzgan, Daykundi and Zabul provinces due to poor security situation.

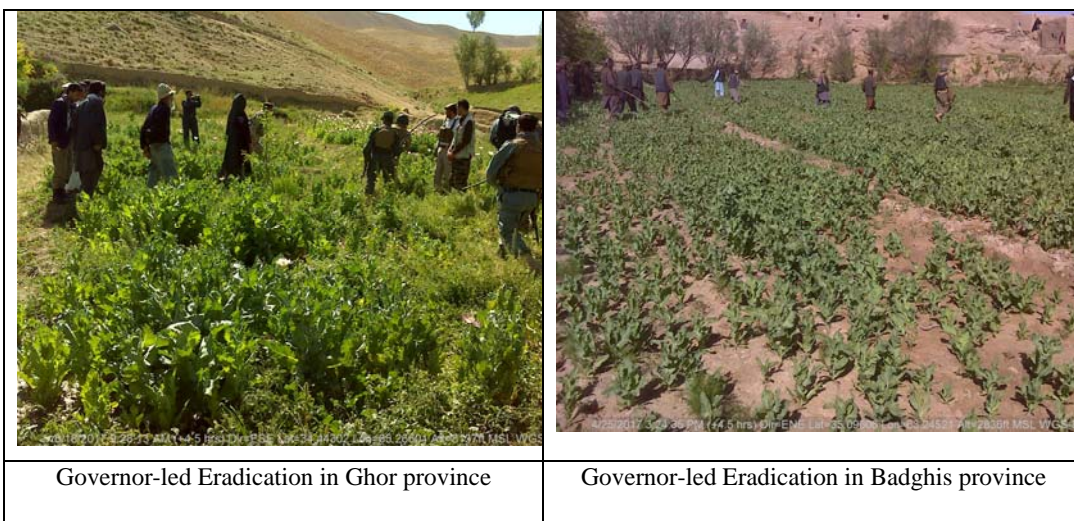


Western region (Farah, Ghor, Hirat, Badghis Nimroz):

- In Nimroz province, Governor-led poppy eradication operations started on 7 March and concluded on 25 March 2017 in Zaranj, Chakhansur and Khashrod districts. A total of **14** hectares of eradicated fields were verified.
- In Hirat province, Governor-led poppy eradication operations started on 1 April 2017 and concluded on 16 May 2017 in Kushk (Robat-i-Sangi) and Obe districts. A total of **23** hectares were eradicated.



- In Badghis province, Governor-led poppy eradication operations started on 29 April 2017 and concluded on 14 May 2017 in Ab Kamari, Qadis and Muqur districts. A total of **55** hectares of eradicated were verified. Eradication was concluded on 14 May 2017.
- In Ghor province, Governor-led poppy eradication operations started on 18 June 2017 and concluded on 22 June 2017 in Chaghcharan district. A total of **14** hectare of eradicated fields were verified.



- No eradication was carried out in Farah provinces this year.

Northern region (Baghlan, Faryab, Samangan, Sari-Pul):

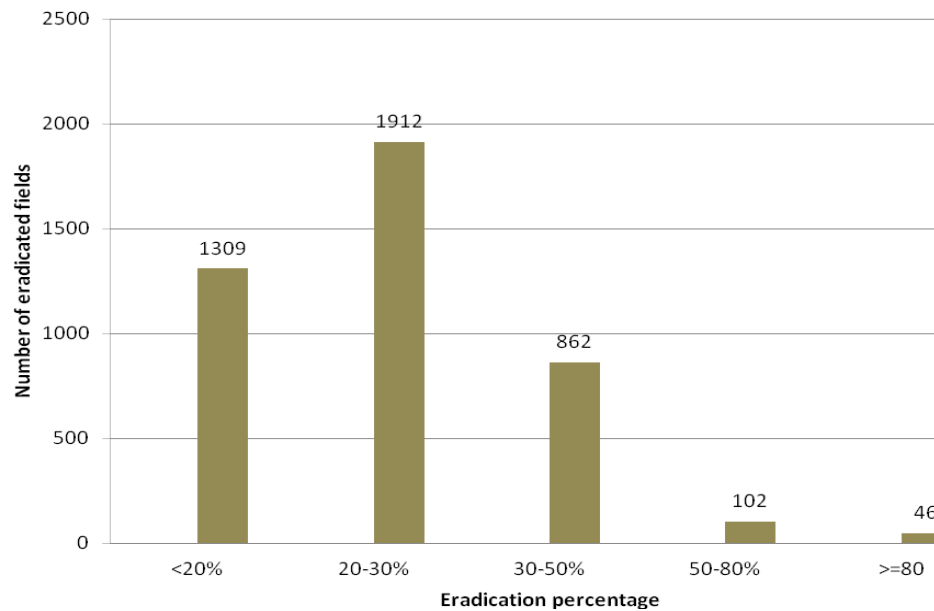
- In Balkh province, Governor-led poppy eradication operations started on 14 May 2017 and concluded on 17 May 2017 in Charbolak, Balkh, Chintal, Sholgara, Dawlat abad and Dehdadi districts. A total of **25** hectares of eradicated fields were verified.

	
<p>Governor-led Eradication in Dehdadi district of Balkh province</p>	<p>Governor-led Eradication in Balkh district of Balkh province</p>

- In Jawzjan province, Governor-led poppy eradication operations carried out only one day on 6 May 2017 Sheberghan district. A total of **0.3** hectare of eradicated fields was verified.
- Eradication did not take place in Baghlan, Samangan and Faryab provinces.

North-eastern region (Badakhshan, Takhar, Kunduz):

- *Badakhshan*: A total of 269 hectares of GLE was verified in Argo, Faizabad, Yaftal Sufla, Tashkan, Darayam and Kishim districts. The eradication was mainly carried out with stick during cabbage, stem-elongation, flowering and capsule stages. Since last four years the quality of eradication has been very poor (partially eradicated fields) in most of the eradicated fields. Out of 4231 poppy eradicated fields, the quality verified with satellite imagery and reported by verifiers has indicated that 1309 poppy fields were eradicated less than 20% per field, 1912 poppy fields eradicated from 20-30% per field, 862 poppy fields eradicated from 30-50% per field and 46 poppy fields were eradicated more than 80% per field.
- **Figure 3: Percentage of poppy eradication in each field by number of fields in 2017.**



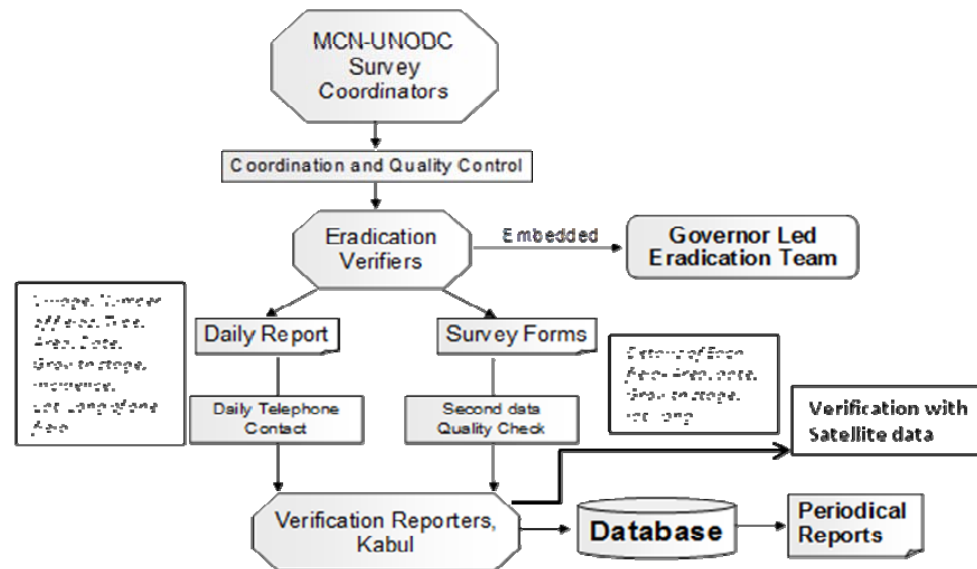


- In Takhar province, GLE operations started on 18 May 2017 and concluded on 24 May 2017 in Eshkamish district. A total of 14 hectares of eradicated fields were verified.

Annex 1

Methodology:

Governor-led eradication verification



1. Eradication verifiers are part of the governor-led eradication teams.
2. The verifiers take measurements of each eradicated field with two different methods, one is using pace length and the other is using GPS tracking system, this will provide the location, area and shape of the eradicated fields facilitating verification by satellite imageries.
3. Coordinates of all eradicated fields including photographs are collected by verifiers.
4. The verifiers draw sketch maps of each field as a reference for area calculations of eradicated fields.
5. The verification reporters in Kabul obtain the provisional data of eradicated fields from the verifiers through telephone (mobile/satellite phones) and update the database on a daily basis.
6. The verifiers fill in hardcopy survey forms and submit them to the UNODC regional offices. The forms are checked by the surveys coordinators before sending to the Kabul office for data entry.
7. MCN/UNODC publishes weekly reports to inform stakeholders on eradication status. The eradication figures provided in these reports are provisional until verified by satellite imageries.
8. The updated eradicated area figures for each province is reported in the weekly reports.
9. Further validation of the results is done using data obtained through satellite imagery to calculate the final area of eradicated poppy fields wherever such data are available.
10. Pressure of any kind on verifiers to influence their reporting may lead to the suspension or cancellation of the verification survey in that region.
11. The verification survey does not cover self-eradication by the farmers.

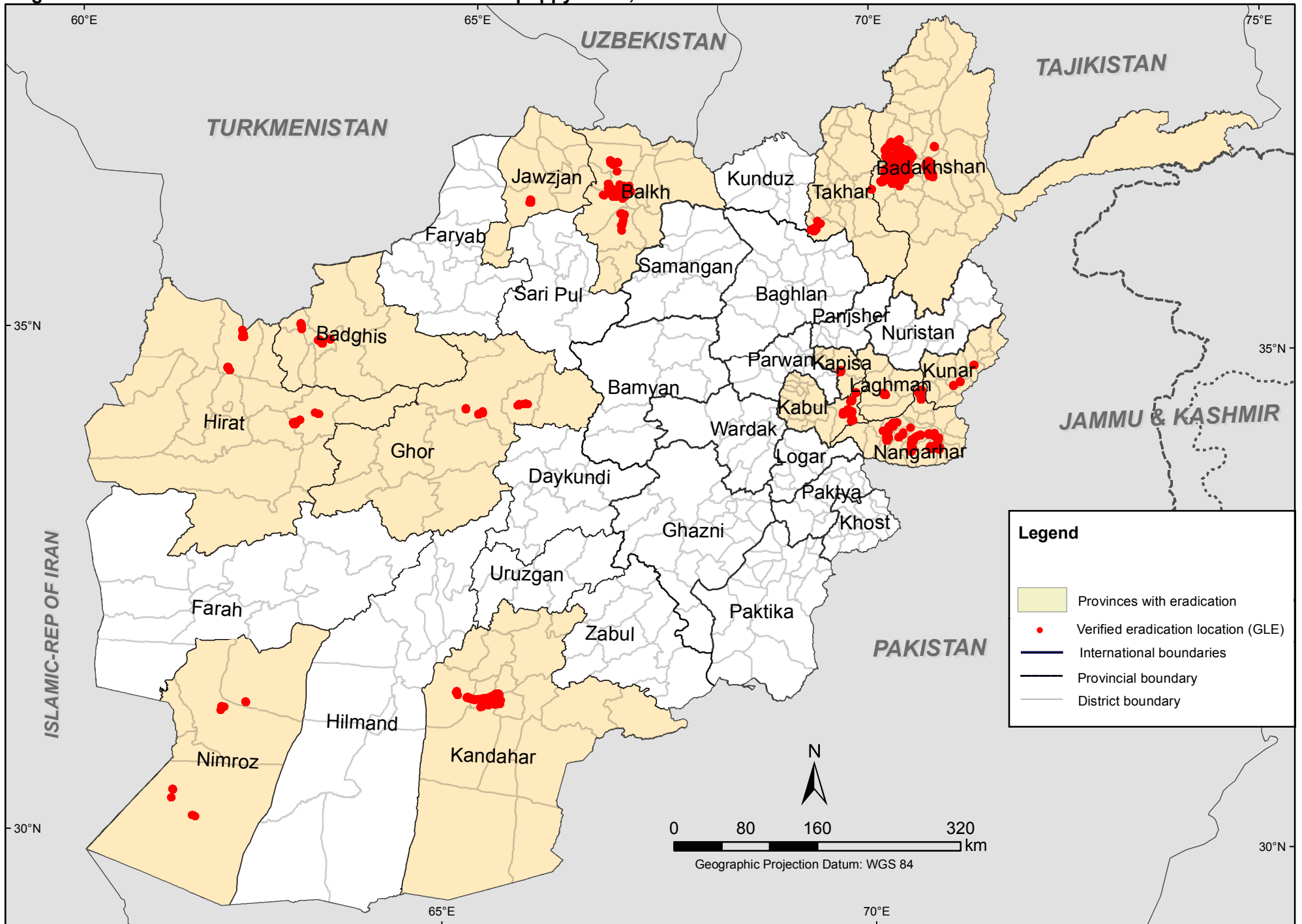
Annex 2:

Governor-led poppy eradication by district, 2017

	DISTRICT	Eradication reported (ha)	No. of fields eradication reported	No. of villages eradication reported
Badakhshan	Argo	149	2249	51
	Faizabad	1	9	1
	Yaftal Sufla	4	123	8
	Tashkan	28	488	16
	Darayam	59	828	14
	Khash	25	408	14
	Kishim	3	126	4
Badakhshan Total		269	4,231	108
Balkh	Charbolak	3	14	8
	Balkh	5	6	5
	Chimtal	3	8	6
	Sholgara	6	25	8
	Dawlat abad	3	27	6
	Dehdadi	5	15	6
Balkh Total		25	95	39
Kabul	Surobi	27	191	18
Kabul Total		27	191	18
Kapisa	Tagab	3	39	2
Kapisa Total		3	39	2
Badghis	Ab Kamari	20	23	2
	Qadis	1	2	2
	Muqur	34	86	7
Badghis Total		55	111	11
Kandahar	Arghandab	18	36	1
	Maywand	1	5	2
	Panjwayi	6	14	4
	Zheray	23	77	9
Kandahar Total		48	132	16
Nangarhar	Achin	20	96	8
	Batikot	11	21	3
	Dehbala	17	38	6
	Nazyan	2	16	4
	Rodat	29	172	13
	Shinwar	16	97	5
	Chaparhar	3	32	7
	Khogyani	53	625	13
	Surkhrod	49	245	20
	Dara-i- noor	4	28	6
	Nangarhar Total		204	1,370
Laghman	Mehterlam (Provincial Center)	23	507	12
Laghman Total		23	507	12
Kunar	Shigal	20	47	1
	Narang	11	27	1
Kunar Total		31	74	2
Nimroz	Zaranj	8	1	1
	Chakhansur	3	6	1
	Khashrod	3	10	1
Nimroz Total		14	17	3
Hirat	Kushk(Robat-i-Sangi)	11	25	4
	Obe	12	31	4
Hirat Total		23	56	8
Jawzjan	Sheberghan	0.3	4	1
Jawzjan Total		0.3	4	1
Takhar	Eshkamesh	15	64	13
Takhar Total		15	64	13
Ghor	Chaghcharan (Provincial Center)	14	20	2
Ghor Total		14	20	2
Grand Total		750	6,911	320

Note: Provincial and district eradication figures do not add to total due to rounding.

Afghanistan: Locations of Governor-led eradication of poppy fields, 2017



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

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

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.