



UNDCP

**Drug
Control
Monitoring**

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International Drug
Control Programme
(UNDCP)**

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Annual Opium Poppy Survey 2001

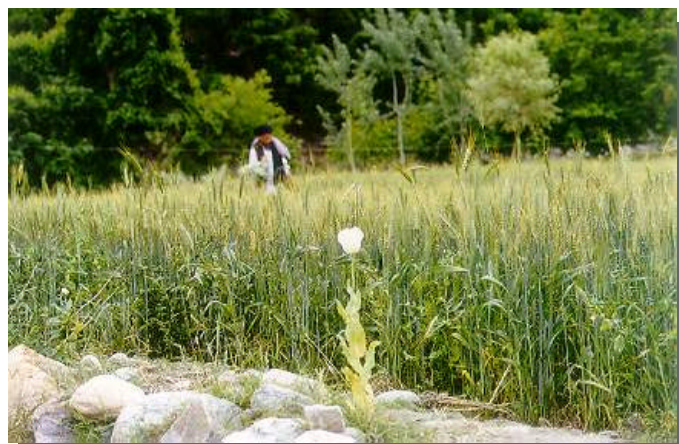


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EXECUTIVE SUMMARY

Background

The United Nations International Drug Control Programme (UNDCP) is committed to the elimination of illicit crop cultivation in Afghanistan. A key component of the Programme is the Afghanistan Annual Opium Poppy Survey. The survey is primarily a monitoring tool; it aims to provide information on the location and extent of poppy cultivation, and key production and pricing statistics for raw opium gum.

The survey is a ground-based census that visits all villages that are known to have cultivated poppy in the past, or that have recently commenced poppy cultivation. The survey employs a large, well-trained team of Afghan nationals. Each team member completes a survey form with data concerning the village poppy area, yield and growing conditions.

In July 2000 the Taleban authorities banned the cultivation of opium poppy throughout all areas under their control. In November/December 2000, reports from Afghanistan suggested vigorous implementation of the ban by the authorities. Early in February this year, UNDCP carried out a Pre-assessment Survey to obtain an early quantitative assessment of the area of poppy cultivation, and to determine the degree of compliance with the ban. Subsequently, in May 2001, a delegation of UNDCP major donors undertook a mission to the main poppy cultivating areas of Afghanistan to, *inter alia*, assess the effectiveness of the ban first hand. Both the Pre-assessment Survey and the UNDCP Donor Mission observed the near total success of the ban in eliminating poppy cultivation in Taleban controlled areas. This finding has been confirmed by the Annual Opium Poppy Survey.

Results

Cultivation: An estimated 7,606 hectares (Ha) of opium poppy was cultivated in Afghanistan during the 2001 season. This represents a reduction in total poppy area of 91% compared to last year's estimate of 82,172 Ha. Helmand Province, the highest cultivating province last year with 42,853 Ha, recorded no poppy cultivation in the 2001 season. Nangarhar, the second highest cultivating province last year with 19,747 Ha is reported to have 218 Ha this year. Almost all major former poppy growing provinces had no poppy or relatively small areas under cultivation this year. The reductions are clearly the result of the implementation of the opium poppy ban.

In Badakhshan, there has been an increase from 2,458 Ha to 6,342 Ha compared to last year. In Samangan, there has been an increase from 54 Ha to 614 Ha compared to last year.¹ This year, more villages were surveyed in Badakhshan to spot the possible displacement of poppy cultivation, and to implement the GPS Survey that requires that every single village in five designated districts be visited. Similarly, Samangan was surveyed for the first time this year upon information on poppy cultivation received from WFP.

¹ Although the increase in Badakhshan is cause for concern, some perspective is needed. Helmand Province last year was the highest producer of raw opium with 1,853 MT, which represented 57% of the national product. Badakhshan's record production this year amounts to almost 151 MT, which is about 8% of that amount.

Yield: *Based on farmer's estimates prior to harvest*, the 2001 survey projects a national weighted average yield for irrigated poppy of 31 Kg/Ha, while for rain-fed poppy it is 18 Kg/Ha. These figures are relatively similar to those of the previous year and indicate comparable growing conditions for both years.

Production: *Based on the above-mentioned figures for yield*, an estimated 185 metric tonnes (MT) of raw opium was produced in Afghanistan in 2001.² This would suggest a large reduction in opium production of 94% from the 2000 total of 3,276 MT and a reduction of 96% from the record high of 4,581 MT reported by the 1999 survey. Preliminary data for 2001 would indicate that the approximately 3,100 MT of reduction in opium production this year in Afghanistan compared to last year has not been offset by increases in other areas or countries.

Prices and Income: Prices for fresh and dry opium have increased greatly over the past year. The average farm-gate price for fresh opium, as reported by the farmers in different provinces, is US\$301/Kg, a 10-fold increase from last year's average price of US\$30/Kg. The potential gross income from the sale of fresh opium by farmers is around US\$56 millions, which is approximately 38% less than last years estimate of around US\$91 millions.

New Areas: In 2001, 10,030 villages in 160 districts in 23 provinces were surveyed. An additional 2,489 villages were surveyed compared to last year's survey of 7,541 villages in 125 districts in 22 provinces. In the 1999 survey, 6,842 villages in 105 districts in 18 provinces were surveyed.

Largest cultivating provinces: In the 2001 season, the top four provinces with largest cultivation of opium poppy are: Badakhshan Province with 6,342 Ha or 83% of the national poppy area, Samangan with 614 Ha or 8%, Nangarhar with 218 Ha or 3%, and Takhar with 211 Ha or 3% of the national poppy area. In the 2000 season, the top four provinces with largest cultivation of opium poppy were: Helmand with 42,853 Ha or 52% of the national poppy area, Nangarhar with 19,747 Ha or 24%, Oruzgan with 4,331 Ha or 5.3% and Qandahar with 3,427 Ha or 4.2% of the national poppy area.

Impact of Drought and Shortage of Agricultural Inputs: Growing conditions throughout the season were similar to last year. In those areas that still cultivate poppy, 91% of farmers interviewed reported that drought was the main cause of damage to their crop. Drought has caused the failure of new wheat, fruit and vegetable crops in many areas. The water requirements for these crops are generally higher than opium poppy. In many areas, farmers complained of a lack of seed and fertiliser, further hampering the transition to licit crops.

² All data in this report related to opium production and yield refer to fresh, or wet, opium unless otherwise stated.

INTRODUCTION

The United Nations International Drug Control Programme (UNDCP) has actively committed itself to the elimination of illicit crop cultivation in Afghanistan. An important component of the Programme is the Annual Opium Poppy Survey. The survey is primarily a monitoring tool; it aims to provide information on the location and extent of poppy cultivation, and key production and pricing statistics for raw opium gum. The information gathered by the survey leads to an understanding of the outcome of the past season, and the identification of trends in poppy cultivation. This information contributes to planning and resource allocation within UNDCP, and other multilateral, bilateral, and non-government agencies. National authorities are also increasingly using the survey to monitor domestic cultivation and production.

The survey also contributes to UNDCP's Global Illicit Crops Monitoring Programme. The objectives of this Programme are to define international core indicators on illicit crop cultivation, to establish uniform methodologies for data collection and analysis, to increase host governments' capacity to monitor and develop replacements to these illicit crops and to assist the international community in monitoring the extent and evolution of illicit crops in the context of the elimination strategy adopted by the member-states at the Special Session of the General Assembly in June 1998.

This report consists of two Chapters and three Annexes. Chapter One refers to the description of the Survey implementation. Chapter Two presents the main findings of the Annual Opium Poppy Survey. The Annexes contain, respectively: data summaries; the results of the Pre-assessment Survey that was undertaken in the beginning of 2001, prior to the implementation of the actual Annual Opium Poppy Survey; and the survey form.

CHAPTER ONE

SURVEY IMPLEMENTATION

Introduction

The Afghanistan Annual Opium Poppy Survey is a ground-based census that visits all known poppy-cultivating villages of the entire country. A census approach enables the determination of reliable estimates of a number of key indicators at district, provincial and national levels without the need to use statistical estimation methods. The survey uses a large, qualified team of Afghan nationals. Each team member must be very fit and able to cover a large amount of territory, sometimes in areas of conflict.

In 2001, more than in previous years, the survey team has gone to extraordinary lengths to find villages that grow poppy. The efforts by the Taleban authorities to implement the opium poppy ban have, to some degree, forced the cultivation into marginal areas, commonly in politically disputed or remote territory. There has been more resistance to questioning on the part of villages, who are dealing with the double impact of the ban and drought. This year the risk of exclusion of data was higher than in many other years.

A number of initiatives have been taken this year to enhance the reliability of the survey and to further supplement UNDCP's knowledge in this area. This includes a joint effort with ProMIS³ and UNDCP Illicit Crops Monitoring programme (ICMP) to undertake mapping of poppy areas based on information collected from field teams. A further initiative involves the use of GPS in 5 districts in the North (Faizabad, Shar-E-Buzorg, Keshim, Baharak, and Jurm). One surveyor per district has been tasked with recording the GPS location of every village in the district. This work will simplify reconciliation of the ProMIS village database with the UNDCP poppy village database.

UNDCP has conducted a limited yield survey in Badakhshan aimed at making preliminary assessment of the range of variability of opium crop characteristics, yield, and moisture and alkaloid content of opium gum. This exercise, combined with similar exercises conducted last year and in other opium producing countries, will enable to set up an objective method of assessing the opium yield from brief field visits. Such techniques are already being used in Myanmar and Laos but need further research to be applied to Afghanistan. The findings contained within this report continue to be based on reported farmer estimates.

This chapter describes the implementation of the survey: how districts and villages are selected for inclusion in the survey, the survey procedure, the training of surveyors, and survey monitoring.

Selection of Districts and Villages

³ The UNDP Afghanistan mapping project.

The survey is managed by dividing the country into four zones: the provinces of the South and Southwest are grouped into the Qandahar zone with the city of Qandahar at the centre, those of the East make up the Nangarhar zone with the city of Jalalabad at the centre. The Northern provinces are grouped into a Northwest zone with Mazar-e-Sharif at the centre and a Northeast zone with Faizabad at the centre. Each zone centre has a survey administration office.

The selection of districts to be surveyed is based on the results of the previous year's survey and intelligence received in the period prior to the start of the survey. Districts that were found to have poppy in 2000 were again included. If the previous year's survey found there was no poppy being cultivated in the district, then it was excluded from the new survey. When, in the intervening period between surveys, a district was found to have commenced poppy cultivation, it was also included in the survey. Intelligence regarding the emergence of new cultivating districts is gathered using an open network that includes UNDCP staff, other UN agencies, NGOs, surveyors, and the Afghan authorities.

Within the selected districts, the survey team visits every poppy-cultivating village. Again, the selection of villages is based on past surveys and intelligence received in the intervening period between surveys. Importantly, once in the field, surveyors are required to actively question villagers in poppy growing areas about any new areas of cultivation.

With the introduction of the ban there was a possibility that "displacement" of poppy cultivation would occur. That is, the farmers would relocate to marginal areas: those not directly under the control of the Taliban, or to remote areas that made access difficult. In light of this, whenever any intelligence regarding possible displacement of poppy cultivation was received it was acted upon by undertaking a reconnaissance survey. Additional 28 surveyors were recruited for this work and deployed to districts that previously had not reported poppy. Particular attention was paid to Samangan and Badghis following a WFP⁴ report of poppy cultivation in villages in these districts. Also in the Southwest, WFP reported cultivation in Khak-Safid district, this was re-checked by surveyors.

In the 2001 survey, there were 10,030 villages surveyed in 160 districts in 23 provinces. This compares to last year's survey of 7,541 villages in 125 districts in 22 provinces. In the 1999 survey, 6,842 villages in 105 districts in 18 provinces were surveyed.

The survey takes special care to correctly identify villages. A village can change name according to who is the headman or what families are living in the village at the time. Sometimes new villages are formed when larger settlements are split into smaller units. Surveyors identify villages from a master list that they carry in the field. The village name is checked against the record for previous years and any changes are recorded. At the district level, name changes can occur as districts are sometimes split into two. As far as possible, the survey retains the original district names and boundaries in order to maintain compatibility with previous years.

In Badakhshan, with the concurrence of the local authorities, the Annual Opium Poppy Survey was complemented by the recording of the GPS position of every village in five districts (Faizabad, Shar-E-Buzorg, Keshim, Baharak and Jurm). This component, on trial basis, was introduced to improve

⁴ World Food Programme. The WFP conducted a major agricultural survey in Afghanistan in February 2001.

the village database currently being used by UNDCP and other UN agencies. A precise and exhaustive database is essential for ensuring the effectiveness and reliability of the survey. If the relevant authorities in Afghanistan permit, it is planned for this improvement to be applied to other areas of the country in the future.

Staffing

An experienced team of surveyors and survey coordinators carries out the survey. The teams for the Qandahar and Nangarhar zones were recruited in the first week of March. For the Northern zone, as it has been the procedure in the past, an Afghan NGO, the Pamir Reconstruction Bureau (PRB) was again sub-contracted at the end of April to carry out the survey work. The PRB has been sub-contracted by UNDCP since 1996 to undertake the survey in the Northern areas because of its credibility and ability to work within areas of conflict and in the United Front controlled areas.

Surveyors are selected based on their previous experience, education and motivation. Of those selected nationally, 85% had participated in the survey in past years. Survey coordinators are responsible for the deployment of their survey teams in the field and for checking their work. To become a coordinator, a surveyor is required to have several years of past involvement in the survey, in addition to an appropriate educational background.

Table 1 below shows the surveyor recruitment in this year's survey.

<i>2001</i>			
<i>Zone</i>	<i>Coordinators</i>	<i>Surveyors</i>	<i>Reconnaissance Surveyors</i>
Nangarhar	5	60	-
Qandahar	7	64	3
Mazar	3	22	23
Badakhshan	3	20	2
TOTAL	18	164	28

Table 1: Number of surveyors recruited this year

In 2001, an increased effort was made to recruit surveyors with local knowledge of the area they would be surveying. This is the usual practice, however it mattered more this year. The tough measures taken to implement the ban made farmers suspicious about the opium poppy survey and less cooperative than in previous years. Several surveyors reported difficulties to carry out the survey freely in some villages and in particular to measure the very few opium fields encountered. To minimise this risk of omission, surveyors that had personal ties to the area they would survey were selected. Quite often surveyors were already well informed of the location of some hidden fields in an otherwise poppy-free village.

Liaison Officers were appointed for the Eastern and Southern zones. For the Northern zone, the regional administrator of the PRB acted as Liaison Officer. Their role was to closely supervise the implementation of the survey according to the work plan, perform spot-checking of the work, receive the completed forms from the survey coordinators, and to send these forms to UNDCP Islamabad for data entry. Liaison Officers were responsible for continuous monitoring of the fieldwork and

conducting reconnaissance surveys to new areas if field reports indicated that poppy was growing in these areas.

At the Afghanistan Country Office in Islamabad, a National Programme Manager headed the survey, along with a Technical Survey Officer and Data Analyst. They ensured the smooth implementation of the survey. Two international staff from UNDCP Headquarters assisted in monitoring and general technical guidance for national staff. An international consultant was recruited for data analysis and report writing.

Training and Mobilisation

Surveyors and coordinators undertake a rigorous training programme after they have been selected to participate in the survey. The training emphasises practical skill development, as well as establishing a sound understanding of the principles of surveys and the objectives of the survey. During the three-day training programme, surveyors attended classroom sessions covering data collection, survey methodology, respondent motivation, and area estimation. Role playing sessions were conducted in the second day. Surveyors acted out various roles as farmer, surveyor, DCCU⁵ representative and local guide. Fieldwork was conducted on the second and third days involving pace length calculations, village interviews, and area estimation. The training sessions were conducted at UNDCP offices in Jalalabad, from 10 – 16 March, and Qandahar from 23 – 28 March. Training for the PRB surveyors was conducted in Mazar-e-Sharif from 29 April to 3 May, and in Faizabad from 10 – 16 May. The Technical Survey Officer and the Data Analyst carried out surveyor training this year.



Figure 1: Training in Badakhshan

This year some improvements to the training programme were made to increase the accuracy of form completion. The first involved a session in basic arithmetic skill development. Past experience has shown that some surveyors' numeric skills were lacking and this could introduce errors in the form. These errors were generally found but this involved considerable time. The second improvement was a session devoted to developing handwriting skills. Legible handwriting has been a problem in past surveys causing time delays in data processing. The benefits of this training are evident this year as the standard of form completion has been very high.

At the end of the training session, each coordinator was required to prepare a work plan showing, in chart form, the allocation and timing of resources to the field. This plan was then discussed with the Technical Survey Officer (TSO), modified if required and then finalised. Each coordinator's work plan was aggregated into a project work plan covering all districts to be surveyed.

⁵ Drug Control and Coordination Units (DCCU) are the drug control authorities of the Taliban with offices in different provinces under their control.



Figure 2: *Training in Mazar*

Formal letters from DCCUs in Taleban controlled areas were issued before mobilisation and deployments of survey teams to the site. These letters gave surveyors the authority to conduct the survey in the districts assigned to them and were presented to the district administration and village leader on arrival in each village.

Similarly, in United Front areas, authorization letters were issued to the survey teams from the Governor of the provinces. The survey teams

then had to present these authorization letters to the chief commanders of the districts and village leaders on arrival in each village.

Survey Procedure

The primary task of each surveyor is the completion of a two-page questionnaire. This consists of three parts. The first part records village population, and the area of cultivated and poppy land. The second part records the estimates of three village interviewees in respect of village poppy area, and the expected yield and prices of their coming harvest. Interviewees are chosen according to their knowledge of village activities and their involvement in village poppy cultivation. In most cases one of those selected was the village Mirab (responsible for water distribution in the village) or Mirkhada (works under the Mirab). The third part of the survey form is a measurement crosscheck that is completed by coordinators during a supervision visit. Approximately five villages per district are checked in this way.

The survey form is reviewed each year and improvements made according to past experience and any changed information requirements. This year a field was added that required the surveyor to estimate the number of families within a village who were affected by the ban. Two other minor changes were designed to simplify the range of possible responses to questions about poppy eradication and crop damage. The respondents were asked to select from a number of pre-defined choices for these questions instead of allowing a free-form response. Finally, a surveyor comments field was added to the form. Previously, only coordinators' comments had been recorded.

Area estimation is carried out using a process of accurate measurement of individually shaped fields, followed by the addition of areas of all fields of similar dimensions. This approach yields quite accurate results when plots are regular. In areas in which this is not the case, the area is approximated into basic triangular and rectangular units before aggregation. Surveyors make sketches of the layout of plots within a village to help in this process. Surveyors are required to keep a notebook for recording of observations and notes.

The survey provides two important quality control measurements against which the estimates of the surveyor can be compared. The first is the village poppy area estimate given by each of the three village respondents. The second is the accurate area measurement carried out by the coordinator

during each supervision visit. The results from these checks indicate the accuracy of the surveyors' estimates.

Surveyors spend between two and four hours in each village. With the cultivation ban in place throughout most of the country, most villages could be surveyed in less time than previous years. The time consuming process of area measurement was unnecessary where there was no evidence of poppy.

More time this year, however, was spent in reconnaissance and gathering information about newly found outbreaks of poppy cultivation - occurring mostly because of the ban. The survey team used the term "hot spots" to describe these areas. These outbreaks were generally found in some of the areas that were not fully under the control of the Taleban authorities, or in very remote areas. There were other places that the surveyors were unable to enter such as private houses, gardens and orchards that were adjacent to the houses and were enclosed by high boundary walls.

Examples of *hot spots* that were discovered include:

- In Dewagal, Shingal and Shiltan valleys approximately 30 Ha were discovered. These are in areas of conflict.
- In the tribal areas of Parchaw district close to the Pakistan boarder, about 30 Ha were reported.
- Ozbin in Sarubi district of Kabul province.
- Ghwagiza from Hessarak district of Nangarhar province - a remote mountainous area with no proper access roads. Villagers of the area travel by foot or on mules.
- Warjan in Dehrawad district of Oruzgan province. The people live next to Kajaki dam and use boats to travel to Kajaki and Dehrawad district centers. About 40 jeribs⁶ were reported and eradicated by authorities.
- Hudh located in Dehrawud district of Oruzgan province. This is a remote area and takes about 7 hours to reach by foot. Around 30 jerib of poppy was reported in this area. Ghorak district authorities sent tribal elders to the poppy cultivators to eradicate their poppy field themselves voluntarily, but when this did not occur, the authorities sent armed men and their poppy crops were eradicated without any further problem.
- Khud and Jaghatu in Baghran district of Helmand province. These are located in a remote mountainous area and require 6 hours by foot to reach. The surveyor observed about 65 jerib of poppy. Despite reports of armed resistance to eradication efforts by the authorities, all opium poppy was eradicated in the area.
- Other known areas include Khurma in Shindand district - about 30 jeribs were destroyed, Toormi in Pasaband district of Ghor province - about 3 jeribs were destroyed, and Saraf village in Sharrestan district of Oruzgan province - reported to be cultivating small amounts for local addicts.

The surveying of poppy cultivation in *hot spots* presented a special challenge to the survey team. It was critical to the reliability of the survey that data from these areas was not missed. In the majority of cases poppy in these areas was eradicated by authorities once the surveyor had detected cultivation. In other areas where Taleban control was limited, a reconnaissance survey was carried

⁶. There are 5 jeribs in one hectare.

out to assess the amount of cultivation, and if warranted, then a full survey of the area was conducted.

The UNDCP Survey coordinators were responsible to randomly cross-check the poppy cultivation figures estimated by each surveyors in five villages by physical measurement in order to insure the accuracy of the data. At the end surveyors delivered each batch of completed forms to the coordinators for debriefing. The DCCU coordinators also participated in this process. Finally the forms were delivered to the regional UNDCP office or PRB administration office for each zone for onward transmission by UN pouch to UNDCP Islamabad for data processing.

Two operators carried out data entry over a period of three months. Extensive computer based checks were carried out to ensure accuracy and consistency of the data. These checks involve naming of villages and districts, duplication of village codes, inconsistencies between surveyor estimate and farmer estimate, and searching for outliers.

Survey monitoring was undertaken to ensure accurate and timely completion of survey forms, prompt attention to any problems or constraints that were hindering the progress of the survey, and early qualitative feedback on the cultivation trends for the current poppy crop. A team of four nationals and three international UNDCP staff carried out monitoring in 2001.

International staff from UNDCP Headquarters participated in survey monitoring on a continuous basis since the start of the survey. Four missions were undertaken during the period from February until May to southern and eastern zones. International staff from UNDCP HQ carried out a mission to Badakhshan in September 2001. The first mission was focused on implementing the pre-assessment survey. Subsequent missions were devoted to planning and implementation of the Annual Poppy Survey. This involved verifying the deployment of surveyors and coordinators in the Southern and Eastern zones, establishing strategies for surveying hot spots and displacement, and monitoring the effectiveness of the Taleban ban. International staff also monitored the performance of the surveyors and coordinators, ensuring the correct completion of survey forms; liased with DCCU officials in all matters relating to the survey implementation, particularly access and staffing, and ensured administrative support from local UNDCP offices.

CHAPTER TWO SURVEY FINDINGS

Introduction

This Chapter presents the main findings of the Afghanistan Annual Opium Poppy Survey. Units are all metric. Areas are recorded in hectares (Ha), weights are in kilograms (Kg), yields are recorded in Kg/Ha, and a metric tonne (MT) is 1000 Kg. Prices are denoted in US Dollars. Abbreviations are used for conciseness where appropriate.

Annexes 1A and 1B contain the detailed tabular data aggregated by district. These Annexes should be referred to for additional details. Note that aggregates using data from the printed tables may produce slightly different results due to the use of rounded values⁷.

Area of Poppy Cultivation

Nationally, the survey estimates that there were 7,606 Ha of poppy under cultivation in the 2001 season. This represents a reduction in total poppy area of 91% compared with last year. The main reason for this reduction has been the ban imposed on opium poppy cultivation in Taliban controlled areas.



The total number of villages surveyed was increased from 7,541 in 2000 to 10,030 in 2001. Although past surveys covered only villages where opium poppy cultivation was likely, this year's survey visited most villages a district to be able to detect any displacement of cultivation.

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Due to concerns about the displacement of poppy cultivation, a record of 31 additional districts were surveyed for the first time this year. Of these, 20 were completely poppy free, whilst the rest recorded an additional 734 Ha of poppy. Darae Souf district in Samangan accounted for the majority with 614 Ha, whilst Anderab in Baghlan, with 81 Ha, was the second new cultivating district. Darae Souf district was included in the survey following WFP report of poppy being cultivated in the region.

This further confirms previous evidence showing that, despite the ban, there has not been a significant uptake of poppy cultivation in new areas, as illustrated in Annex 1A.

The survey covered 23 provinces of the country's 32 and found that 10 provinces are completely poppy free, 9 are cultivating less than 100 Ha, and only 4 are cultivating more than 100 Ha. This

⁷ District aggregates (summation and averages) are computed using the raw survey data. Provincial aggregates are computed from the district aggregates.

compares with last year in which 22 provinces were found to be cultivating poppy, and all but 5 of these had more than 100 Ha.

The province with the highest cultivated area of poppy is now Badakhshan with 6342 Ha, 83% of the national total.⁸ Compared to last year, this represents approximately a 2.6 fold increase.⁹ The next highest province is Samangan, with 614 Ha, or 8% of the national total. Most of the above areas were surveyed for the first time this year. Nangarhar province is next with 218 Ha, followed by Takhar, with 211 Ha, and Kunar and Baghlan, with 82 Ha each. Smaller amounts of poppy were detected in Kabul (29 Ha), Laghman (15 Ha), Paktya (6 Ha), and Balkh (4 Ha). Negligible amounts of less than 2 Ha were detected in Logar, Oruzgan, and Zabul. Paktya with 6 Ha was surveyed for the first time this year.

In 2000, Helmand, Nangarhar, Oruzgan, Qandahar, and Balkh, were the top five provinces in terms of poppy area, collectively accounting for 73,027 Ha or 89% of the national crop. This year they collectively account for 223 Ha or less than 3% of the national crop.

Helmand, the province recording the largest poppy area last year, has completely eliminated cultivation, as have the provinces of Qandahar, Badghis, Farah, Faryab, Herat, Jawzjan, Kapisa, Kunduz, and Nimroz.

Nangarhar, with 218 Ha, has recorded a 99% decrease from its 2000 area of 19,746 Ha. Most of the poppy in Nangarhar is now cultivated in the border districts of Goshta and La'lpur. However, both of these districts still recorded decreases of 58% and 62% respectively from their 2000 levels. All other districts of Nangarhar are virtually poppy free this year.

The provinces of Balkh, Oruzgan and Zabul recorded near 100% decreases, Laghman and Logar recorded 98% decreases, and Kunar and Kabul recorded decreases of 90% and 91% respectively. Lesser decreases occurred in Baghlan (59%) and Takhar (67%).

Table 2 shows the area of poppy cultivation for each poppy-growing province of Afghanistan since 1994, the year of the first UNDCP Opium Poppy Survey. Blank cells indicate the province was not surveyed in that year because it was known to be poppy free.

⁸ Some farmers have told UNDCP's staff that this year's opium prices prompted some in Badakhshan to test a late opium crop or second cultivation on irrigated fields. This crop, sown in May/June, is to be harvested in September/October. It is the first time that farmers have been reported harvesting opium from lower altitude irrigated fields so late in the season. It is not accounted for in this report, which is based on data collected up to 6 July 2001. The total area under this late crop cultivation is probably negligible as farmers are only testing this new pattern of cultivation, but it indicates the willingness of some farmers to maximize the benefits of the high opium prices. Anecdotal information gathered from traders also suggests that there is more opium available on the market this year as compared to last year.

⁹ One main factor can explain this increase in the results obtained by the survey. The increased level of poppy cultivation in Badakhshan was triggered by high opium prices. At the time of planting, in February/March 2001, farmers reported the visit of opium traders promising exceptionally high prices and providing cash advances for this year's opium harvest. Farmers mentioned prices for fresh opium 10 times higher than last year.

Opium Poppy Cultivation in Afghanistan, 1994-2001								
Units are hectares								
Blank field=province not surveyed								
Province	1994	1995	1996	1997	1998	1999	2000	2001
Badakhshan	1,714	2,970	3,230	2,902	2,817	2,684	2,458	6,342
Badghis							41	0
Baghlan				328	929	1,005	199	82
Balkh			1,065	710	1,044	4,057	2,669	4
Farah		9	630	568	171	787	1,509	0
Faryab							36	0
Helmand	29,579	29,753	24,909	29,400	30,673	44,552	42,853	0
Herat							38	0
Jawzjan						2,593	746	0
Kabul						132	340	29
Kapisa						5	104	0
Kunar	115	152	19	0	75	288	786	82
Kunduz						38	489	0
Laghman	0	0	0	0	77	297	707	15
Logar	0	0	0	0	4	29	46	1
Nangarhar	29,081	15,722	15,643	14,567	17,822	22,990	19,747	218
Nimroz	682	119	136	642	11	203	219	0
Oruzgan	6,211	2,573	7,777	4,587	4,288	4,479	4,331	1
Paktya								6
Qandahar	4,034	2,461	3,160	4,521	5,602	6,032	3,427	0
Samangan							54	614
Takhar						201	647	211
Zabul	54		255	154	161	611	725	1
Total	71,470	53,759	56,824	58,416	63,674	90,983	82,172	7,606

Table 2: Opium Poppy Cultivation from 1994-2001

Yield

The survey collects yield estimates for both irrigated and rain-fed poppy for the coming harvest from farmers in each poppy-growing village prior to harvest. Previous survey reports have noted that yields vary with agricultural practices, poppy varieties, climate and altitude. Furthermore the survey methodology for determining yield is dependent on the reliability of farmer reports. UNDCP has conducted a limited yield survey in Badakhshan aimed at making preliminary assessment of the range of variability of opium crop characteristics, yield, and moisture and alkaloid content of opium gum. This exercise, combined with similar exercises conducted last year and in other opium producing countries, will enable to set up an objective method of assessing the opium yield from brief field

visits. Such techniques are already being used in Myanmar and Laos but need further research to be applied to Afghanistan. The findings contained within this report continue to be based on reported farmer estimates.

The average opium yield on irrigated poppy land and rain-fed poppy land in each district is determined by averaging the yields reported by farmers. Because irrigated land produces higher yields, these statistics are computed separately. Yield data could not be obtained for ten districts due to the low amount of poppy under cultivation. In these cases the district yield from last year has been used to calculate production figures.

The 2001 survey reveals a national average yield for irrigated poppy of 31 Kg/Ha, while for rain-fed poppy it is 18 Kg/Ha. These figures are relatively similar to those of the previous year and indicate comparable growing conditions for both years.¹⁰



Figure 4: Children Harvesting Opium Gum

At the district level, some unusually high yields have been reported this year. Sarobi in Kabul province, Tagab in Kapisa, and Chaparhar in Nangarhar reported irrigated land yields that were more than 50% higher than last year. Whilst these figures may be the results of farmers over estimation of yield, one coordinator reported that some farmers in Baghlan province are resorting to new technologies such as mechanical crushing of capsules in order to maximize the amount of gum extracted.

Production of Raw Opium

The estimate of national production¹¹ of raw opium for the year 2001 is 185 MT. This constitutes a reduction of 94% from 3,276 MT recorded in 2000 and a reduction of 96% from the record high of 4,581 MT reported by the 1999 survey.

The two highest producing districts are Jurm and Keshim - both in Badakhshan. Jurm, with 85 MT, produced 46% of the national total. Most poppy cultivation in Jurm is on irrigated land. Keshim, with 49 MT, produced 26% of the national total. Cultivation in Keshim is predominantly on rain-fed land.

¹⁰ Last year, the national average yield for irrigated poppy was reported to be 35.7 Kg/Ha, while for rain-fed poppy was 16.8 Kg/Ha. These figures can be compared with the significantly higher national average yield reported in 1999 of 50.4 Kg/Ha.

¹¹ District production is the sum of production on irrigated land and production on rain-fed land. These are determined separately as the product of poppy area and yield. National production is the sum of districts production.

Although the increase in Badakhshan is cause for concern, some perspective is needed. Helmand Province last year was the highest producer of raw opium with 1,853 MT or 57% of the national product. Badakhshan's record production this year amounts to almost 151 MT, which is about 8% of this amount.

Nationally, there has been a major increase in production of opium on rain-fed land. In the year 2000, over 99% of production derived from cultivation on irrigated land. This year only 48% of production was on irrigated land. Whilst production on irrigated land has decreased by 96%, it has *increased* on rain-fed land by 276% from 26 to 72 MT.

The Annual Opium Poppy Survey does not assess the amount of raw opium product that is taken out of the country. Past surveys have noted that farmers often retain up to 60% of their fresh opium product and sell it later at a more advantageous price as *dry opium*. In view of higher demand and prices this year, this practice may have changed. There is also evidence from other studies showing an increase in domestic consumption of opium - further reducing the amount remaining for export. However, there are no quantitative data or estimates available on the extent of opiate abuse in the country and the annual opium survey does not cover this aspect of the drug problem in Afghanistan.

Opium Pricing and Income from Production

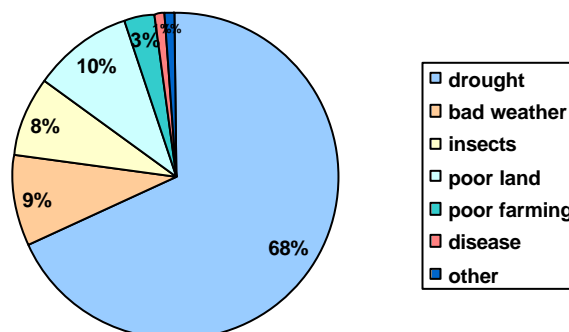
Most farmers were able to quote prices for *dry opium* - in contrast to *fresh opium* where market prices were not available for a number of provinces. No *fresh opium* price data was recorded from farmers for Badghis, Farah, Faryab, Helmand, Herat, Jawzjan, Kabul, Kapisa, Kunduz, Laghman, Nimroz, Oruzgan, Qandahar, and Zabol provinces. This could indicate that the market for *dry opium* still exists in provinces that are no longer cultivating poppy. Moreover, it could be an indication that some stockpiling of *dry opium* by farmers (both former poppy growers and active growers) is taking place, and that these farmers sell *dry opium* as the need for cash arises. The price for *dry opium* is about 20% higher than the price for *fresh opium*.

Assuming farmers sold their entire *fresh opium* crop, the expected gross national income from poppy cultivation in 2001 is estimated to be around US\$ 56 million. This is approximately 38% less than last years estimate of around US\$91 million.

The national weighted average farm-gate price for *fresh opium* this year is US\$301/Kg. This represents a 10-fold increase from last year's price of \$30/Kg.

Damage to Poppy Crop

In poppy growing areas, farmers are asked whether there had been any damage to their crop this season. In Badakhshan 82% of respondents reported poppy crop damage. The main reason for the damage given by nearly all farmers was drought. In Takhar, almost all respondents reported poppy crop damage, with the main reason being drought. Bad weather conditions



and poor land were cited as other reasons.

In Nangarhar, 88% of respondents in poppy growing areas claimed damage to their crop, and cited drought as the main reason for the damage. In Kunar, drought was also given as the main reason for crop damage by 85% of respondents.

Annex 1A
Opium Poppy Cultivation 1994-2001 (hectares)

Province	District	1994	1995	1996	1997	1998	1999	2000	2001	Percent Change from 2000	Proportion of National Poppy Area	
Badakhshan	Baharak	111	64	116	9	202	23	86	345	300%	4.54%	
	Eshkashem	0	0	3	0	0	0	0	0	0%	0.00%	
	Faizabad	77	2,344	1,592	1,634	1,282	906	1,073	868	-19%	11.41%	
	Jurm	433	555	1,326	1,051	1,198	1,249	773	2,897	275%	38.09%	
	Keshem	1,093	3	177	62	62	385	507	2,191	332%	28.81%	
	Khvahan								0	0%	0.00%	
	Ragh	0	0	8	31	2	8	0	0	0%	0.00%	
	Shahr-e-Bozorg	0	0	0	0	71	113	19	41	118%	0.54%	
	Zebak	0	4	8	115	0	0	0	0	na	0.00%	
Badakhshan Total		1,714	2,970	3,230	2,902	2,817	2,684	2,458	6,342	158%	83.38%	
Badghis	Ghowmach							20	0	-100%	0.00%	
	Morghab							21	0	-100%	0.00%	
Badghis Total								41	0	-100%	0.00%	
Baghlan	Anderab								81	na	1.06%	
	Baghian							152	0	-100%	0.00%	
	Dahaneh-e-Ghowri				328	929	967	27	0	-100%	0.00%	
	Nahrin								1	na	0.01%	
	Pul-e-Khumri							38	20	-100%	0.00%	
Baghlan Total				328	929	1,005	199	82	-59%	1.07%		
Balkh	Balkh				13	29	29	82	1	-98%	0.02%	
	Char Bulaq				165	530	2,600	53	0	-100%	0.00%	
	Chemtal			1,065	532	485	1,428	2,451	0	-100%	0.00%	
	Dehdadi							22	0	-100%	0.00%	
	Dowlatabad								3	na	0.04%	
	Nahr Shahi							33	0	-100%	0.00%	
	Shulgarah							28	0	-100%	0.00%	
Balkh Total			1,065	710	1,044	4,057	2,669	4	-100%	0.06%		
Farah	Anar Darreh								0	0%	0.00%	
	Bakwah		1	13	129	31	129	259	0	-100%	0.00%	
	Bala Balok		8	19	169	36	186	183	0	-100%	0.00%	
	Farah			18	18	10	44	73	0	-100%	0.00%	
	Farsi								0	0%	0.00%	
	Gulestan			581	252	94	428	849	0	-100%	0.00%	
	Khak-e Safid							0	0	0%	0.00%	
	Lash-e Joveyn								0	0%	0.00%	
	Purchaman								0	0%	0.00%	
	Qalae Koh								0	0%	0.00%	
	Shindand							146	0	-100%	0.00%	
Farah Total		9	630	568	171	787	1,509	0	-100%	0.00%		
Faryab	Belcheragh							6	0	-100%	0.00%	
	Meymaneh							1	0	-100%	0.00%	
	Pashtun Kowt							11	0	-100%	0.00%	
	Qeysar							16	0	-100%	0.00%	
	Shirin Tagab							3	0	-100%	0.00%	
Faryab Total							36	0	-100%	0.00%		
Helmand	Baghran		2,519	1,267	2,754	2,910	2,794	2,653	0	-100%	0.00%	
	Bust	2,256	885	1,054	1,325	1,869	2,528	3,145	0	-100%	0.00%	
	Deh Shu								0	0%	0.00%	
	Garmser	786	725	942	1,993	1,205	2,643	2,765	0	-100%	0.00%	
	Kajaki	979	4,087	2,814	3,904	3,959	5,746	4,625	0	-100%	0.00%	
	Khan Neshin								222	0	-100%	0.00%
	Musa Qala	1,154	5,137	3,924	4,360	5,574	7,013	5,686	0	-100%	0.00%	
	Nad-e-Ali	12,529	5,983	4,035	5,102	5,156	8,667	8,323	0	-100%	0.00%	
	Nahr-e-Saraj	590	4,716	4,309	4,807	2,426	4,041	4,378	0	-100%	0.00%	
	Naw Zad	2,345	2,799	3,596	1,585	3,605	4,424	5,085	0	-100%	0.00%	
	Nawa Barakzai	6,074	1,254	505	722	1,150	2,581	3,246	0	-100%	0.00%	
	Sarban Qala	2,866	973	1,909	1,971	1,734	2,646	1,711	0	-100%	0.00%	
	Washir		676	555	877	1,084	1,469	1,014	0	-100%	0.00%	
Helmand Total	29,579	29,753	24,909	29,400	30,673	44,552	42,853	0	-100%	0.00%		
Herat	Obey								0	0%	0.00%	
	Pashtun Zarghun	0	0	0	38	0	0	38	0	-100%	0.00%	
	Zنده Jan								0	0%	0.00%	
Herat Total	0	0	0	38	0	0	38	0	-100%	0.00%		
Jawzjan	Aqchah							532	208	0	-100%	0.00%
	Faizabad							43	105	0	-100%	0.00%
	Khamyab								6	0	-100%	0.00%
	Manga Jek						1,789	141	0	-100%	0.00%	
	Mardian							43	111	0	-100%	0.00%
	Qarqin							186	10	0	-100%	0.00%
	Sar-e Pol								146	0	-100%	0.00%
	Sheberghan								19	0	-100%	0.00%
Jawzjan Total						2,593	746	0	-100%	0.00%		
Kabul	Sarobi							132	340	29	-92%	0.38%
Kabul Total							132	340	29	-92%	0.38%	

Annex 1A
Opium Poppy Cultivation 1994-2001 (hectares)

Province	District	1994	1995	1996	1997	1998	1999	2000	2001	Percent Change from 2000	Proportion of National Poppy Area	
Kapisa	Tagab						5	104	0	-100%	0.00%	
Kapisa Total							5	104	0	-100%	0.00%	
Kunar	Asadabad						73	239	1	-100%	0.01%	
	Bar Kunar						47	72	31	-57%	0.40%	
	Barg-e Matal								0	0%	0.00%	
	Chawki	13	11	0	0	8	9	50	8	-84%	0.10%	
	Dangam								4	na	0.06%	
	Kamdeysh								0	0%	0.00%	
	Khas Kunar	75	82	10	0	12	50	173	0	-100%	0.00%	
	Mazar (Nur Gul)	27	19	5	0	8	28	98	9	-91%	0.12%	
	Narang		15	1	0	13	27	84	10	-88%	0.13%	
	Naray								1	na	0.01%	
	Peche								11	na	0.14%	
	Sarkani		25	2	0	34	54	71	8	-89%	0.10%	
Kunar Total		115	152	19	0	75	288	786	82	-90%	1.08%	
Kunduz	Aliabad						5	51	0	-100%	0.00%	
	Chahar Darreh						8	30	0	-100%	0.00%	
	Emam Saheb						3	0	0	0%	0.00%	
	Khanabad						2	36	0	-100%	0.00%	
	Kunduz						9	51	0	-100%	0.00%	
	Qala-e Zal						11	321	0	-100%	0.00%	
Kunduz Total							38	489	0	-100%	0.00%	
Laghman	Alingar	0	0	0	0	2	71	131	3	-98%	0.03%	
	Alishang	0	0	0	0	3	26	88	0	-100%	0.00%	
	Dowlat Shah								12	na	0.16%	
	Metarlam	0	0	0	0	14	72	190	0	-100%	0.00%	
	Nurestan (Nangaraj)								0	0%	0.01%	
	Qarghai	0	0	0	0	58	128	298	0	-100%	0.00%	
Laghman Total		0	0	0	0	77	297	707	15	-98%	0.20%	
Logar	Azro						4	29	46	1	-97%	0.02%
Logar Total							4	29	46	1	-97%	0.02%
Nangarhar	Achin	5,354	2,187	2,315	1,640	1,693	2,209	1,317	1	-100%	0.01%	
	Bati Kot	3,797	529	392	1,013	2,034	603	535	0	-100%	0.00%	
	Behsud	458	31	51	123	397	946	1,005	0	-100%	0.00%	
	Chaparhar	1,089	1,377	1,750	1,234	1,365	977	832	2	-100%	0.03%	
	Darae Noor	1,302	392	199	73	199	734	421	0	-100%	0.00%	
	Deh Bala	307	646	354	569	511	468	439	11	-98%	0.14%	
	Durbaba	29	78	38	39	56	50	33	0	-100%	0.00%	
	Goshita	1,249	467	116	77	122	240	238	99	-58%	1.31%	
	Hesarak	202	453	253	370	436	741	541	2	-100%	0.02%	
	Jalalabad City	0	0	0	0	0	33	16	0	-100%	0.00%	
	Kama	0	18	0	0	198	389	589	0	-100%	0.00%	
	Khogiani	4,347	2,577	2,628	3,385	3,808	5,338	4,913	3	-100%	0.03%	
	Kuz Kunar	293	233	115	15	105	236	399	0	-100%	0.00%	
	La'ipur	302	267	79	66	137	270	248	95	-62%	1.25%	
	Mohmand Dara	1,630	0	156	83	125	290	255	0	-100%	0.00%	
	Nazian	343	138	251	111	252	184	177	0	-100%	0.00%	
	Pachier wa Agam	768	571	681	400	488	731	630	3	-99%	0.04%	
	Rodat	1,026	2,038	1,959	1,583	2,147	3,649	2,302	0	-100%	0.00%	
	Sherzad	1,954	2,351	1,646	1,689	1,302	1,741	1,719	2	-100%	0.02%	
	Shinwar	3,884	1,265	2,075	1,478	1,374	1,559	1,300	0	-100%	0.00%	
	Sorkh Rod	747	106	587	619	1,072	1,602	1,840	0	-100%	0.00%	
Nangarhar Total		29,081	15,722	15,643	14,567	17,822	22,990	19,747	218	-99%	2.87%	
Nimroz	Char Borjak								0	0%	0.00%	
	Kang	10	2	1	107	5	2	0	0	0%	0.00%	
	Khash Rud	672	117	135	535	6	201	219	0	-100%	0.00%	
Nimroz Total		682	119	136	642	11	203	219	0	-100%	0.00%	
Oruzgan	Ajristan	313	0	0	0	0	0	0	0	0%	0.00%	
	Char Chashma	1,337	12	0	0	1,158	1,110	802	0	-100%	0.00%	
	Chora	694	424	1,574	233	652	932	1,179	0	-100%	0.00%	
	Dai Kundi								0	0%	0.00%	
	Dehrawud	909	938	2,923	1,870	1,033	1,243	726	0	-100%	0.00%	
	Gezab	1,476	16	8	0	0	0	0	0	0%	0.00%	
	Kajran								0	0%	0.00%	
	Khas Oruzgan	0	4	0	0	0	0	130	0	-100%	0.00%	
	Shahrestan								1	na	0.01%	
	Tirin Kot	1,428	1,180	3,271	2,484	1,445	1,194	1,494	0	-100%	0.00%	
Oruzgan Total		6,211	2,573	7,777	4,587	4,288	4,479	4,331	1	-100%	0.01%	
Paktya	Chamkani								0	0%	0.00%	
	Hasan Kheyl								0	0%	0.00%	
	Jaji								0	0%	0.00%	
	Seyed Karam								0	0%	0.00%	
	Speyrah								0	0%	0.00%	
	Tani								6	na	0.07%	
Paktya Total									6	na	0.07%	
Qandahar	Arghandab	211	87	331	561	399	750	459	0	-100%	0.00%	
	Arghistan								38	13	0.00%	
	Daman								110	50	0.00%	
	Dand	299	53	234	21	73	227	156	0	-100%	0.00%	
	Ghorak	347	803	692	1,503	1,126	1,109	574	0	-100%	0.00%	
	Qandahar City	21	0	0	0	0	0	0	0	0%	0.00%	
	Khakrez	362	274	627	286	518	632	320	0	-100%	0.00%	
	Maiwand	256	333	618	1,278	2,497	2,022	995	0	-100%	0.00%	
	Maruf	30	16	1	0	3	5	17	0	-100%	0.00%	
	Nesh	410	334	104	399	373	510	394	0	-100%	0.00%	
	Panjwai	250	357	266	255	134	132	184	0	-100%	0.00%	
	Shah Wali Kot	678	97	94	127	162	236	238	0	-100%	0.00%	
	Spin Boldak	1,170	107	194	91	317	261	26	0	-100%	0.00%	
Qandahar Total		4,034	2,461	3,160	4,521	5,602	6,032	3,427	0	-100%	0.00%	
Samangan	Darae Souf								614	na	8.08%	
	Khuram O Sarbagh							17	0	-100%	0.00%	

Annex 1A
Opium Poppy Cultivation 1994-2001 (hectares)

Province	District	1994	1995	1996	1997	1998	1999	2000	2001	Percent Change from 2000	Proportion of National Poppy Area
	Samangan							36	0	-100%	0.00%
Samangan Total								54	614	1042%	8.08%
Takhar	Bangi							8	0	-100%	0.00%
	Chah Ab						17	45	19	-59%	0.24%
	Chal						8	17	20	17%	0.26%
	Eshkamesh							10	19	90%	0.24%
	Farkhar						6	6	26	327%	0.34%
	Kalafgan						101	93	27	-71%	0.35%
	Khvajeh Ghar						9	57	32	-44%	0.42%
	Rostaq						10	151	24	-84%	0.31%
	Taloqan						16	97	16	-83%	0.21%
	Warsaj						12	9	10	11%	0.13%
	Yangi Qala						22	154	20	-87%	0.27%
Takhar Total							201	647	211	-67%	2.78%
Zabul	Arghandab	0	0	0	0	0	74	139	0	-100%	0.00%
	Dai Chopan	0	0	0	0	0	41	114	0	-100%	0.00%
	Jaldak	0	0	0	0	0	77	48	1	-97%	0.02%
	Mizan	54	0	255	154	160	373	383	0	-100%	0.00%
	Qalat	0	0	0	0	1	46	40	0	-100%	0.00%
	Shah Juy								0	na	0.00%
Zabul Total		54	0	255	154	161	611	725	1	-100%	0.01%
Grand Total		71,470	53,759	56,824	58,416	63,674	90,983	82,172	7,606	-91%	100.00%

**Annex 1B
District Production Data**

province	district	Area (ha)			Yield (kg/ha)		Production (kg)		
		Irr.	R.F.	Total	Irr.	R.F.	Irr.	R.F.	Total
BADAKHSHAN	BAHARAK	345	0	345	23		7,808	0	7,808
BADAKHSHAN	ESHKASHEM	0	0	0			0	0	0
BADAKHSHAN	FAIZABAD	347	521	868	17	6	5,864	3,017	8,881
BADAKHSHAN	JURM	2,459	437	2,897	31	20	76,581	8,718	85,298
BADAKHSHAN	KESHEM	88	2,103	2,191	34	22	2,967	45,614	48,582
BADAKHSHAN	KHVAHAN	0	0	0			0	0	0
BADAKHSHAN	RAGH	0	0	0			0	0	0
BADAKHSHAN	SHAHR-E-BOZORG	0	41	41		4	0	179	179
BADAKHSHAN Total/ Weighted Average Yield		3,240	3,102	6,342	29	19	93,220	57,528	150,748
BADGHIS	GHOWRMACH	0	0	0			0	0	0
BADGHIS	MORGHAB	0	0	0			0	0	0
BADGHIS Total/ Weighted Average Yield		0	0	0			0	0	0
BAGHLAN	ANDERAB	81	0	81	35		2,785	0	2,785
BAGHLAN	BAGHLAN	0	0	0			0	0	0
BAGHLAN	DAHANEH-E-GHOWRI	0	0	0			0	0	0
BAGHLAN	NAHRIN	1	0	1	27		27	0	27
BAGHLAN	PUL-E-KHUMRI	0	0	0			0	0	0
BAGHLAN Total/ Weighted Average Yield		82	0	82	34		2,812	0	2,812
BALKH	BALKH	1	0	1	15		21	0	21
BALKH	CHAR BULAQ	0	0	0			0	0	0
BALKH	CHEMTAL	0	0	0			0	0	0
BALKH	DEHDADI	0	0	0			0	0	0
BALKH	DOWLATABAD	3	0	3	10		31	0	31
BALKH	NAHER SHAHI	0	0	0			0	0	0
BALKH	SHULGARAH	0	0	0			0	0	0
BALKH Total/ Weighted Average Yield		4	0	4	12		52	0	52
FARAH	ANAR DARREH	0	0	0			0	0	0
FARAH	BAKWAH	0	0	0			0	0	0
FARAH	BALA BALOK	0	0	0			0	0	0
FARAH	FARAH	0	0	0			0	0	0
FARAH	FARSI	0	0	0			0	0	0
FARAH	GULESTAN	0	0	0			0	0	0
FARAH	KHAK-E SAFID	0	0	0			0	0	0
FARAH	LASH-E JOVEYN	0	0	0			0	0	0
FARAH	PURCHAMAN	0	0	0			0	0	0
FARAH	QALAE KOH	0	0	0			0	0	0
FARAH	SHINDAND	0	0	0			0	0	0
FARAH Total/ Weighted Average Yield		0	0	0			0	0	0
FARYAB	BELCHERAGH	0	0	0			0	0	0
FARYAB	MEYMANEH	0	0	0			0	0	0
FARYAB	PASHTUN KOWT	0	0	0			0	0	0
FARYAB	QEYSAR	0	0	0			0	0	0
FARYAB	SHIRIN TAGAB	0	0	0			0	0	0
FARYAB Total/ Weighted Average Yield		0	0	0			0	0	0
HELMAND	BAGHRAN	0	0	0			0	0	0
HELMAND	BUST	0	0	0			0	0	0
HELMAND	DEH SHU	0	0	0			0	0	0
HELMAND	GARMSER	0	0	0			0	0	0
HELMAND	KAJAKI	0	0	0			0	0	0
HELMAND	KHAN NESHIN	0	0	0			0	0	0
HELMAND	MUSA QALA	0	0	0			0	0	0
HELMAND	NAD-E-ALI	0	0	0			0	0	0
HELMAND	NAHR-E-SARAJ	0	0	0			0	0	0
HELMAND	NAW ZAD	0	0	0			0	0	0
HELMAND	NAWA BARAKZAI	0	0	0			0	0	0
HELMAND	SARBAN QALA	0	0	0			0	0	0
HELMAND	WASHIR	0	0	0			0	0	0
HELMAND Total/ Weighted Average Yield		0	0	0			0	0	0
HERAT	OBELY	0	0	0			0	0	0
HERAT	PASHTUN ZARGHUN	0	0	0			0	0	0
HERAT	ZENDEH JAN	0	0	0			0	0	0
HERAT Total/ Weighted Average Yield		0	0	0			0	0	0
JAWZJAN	AQCHAH	0	0	0			0	0	0
JAWZJAN	FAIZABAD	0	0	0			0	0	0
JAWZJAN	KHAMYAB	0	0	0			0	0	0
JAWZJAN	MANGA JEK	0	0	0			0	0	0
JAWZJAN	MARDIAN	0	0	0			0	0	0
JAWZJAN	QARQIN	0	0	0			0	0	0
JAWZJAN	SAR-E POL	0	0	0			0	0	0
JAWZJAN	SHBERGHAN	0	0	0			0	0	0
JAWZJAN Total/ Weighted Average Yield		0	0	0			0	0	0
KABUL	SAROBI	29	0	29	80		2,320	0	2,320
KABUL Total/ Weighted Average Yield		29	0	29	80		2,320	0	2,320
KAPISA	TAGAB	0	0	0	72		9	0	9
KAPISA Total/ Weighted Average Yield		0	0	0	72		9	0	9
KUNAR	ASADABAD	1	0	1	79		71	0	71
KUNAR	BAR KUNAR	30	1	31	62	16	1,870	8	1,878
KUNAR	BARG-E MATAL	0	0	0			0	0	0
KUNAR	CHAWKI	8	0	8	30		238	0	238
KUNAR	DANGAM	4	1	4	60	65	217	46	263
KUNAR	KAMDEYSH	0	0	0			0	0	0

**Annex 1B
District Production Data**

province	district	Area (ha)			Yield (kg/ha)		Production (kg)		
		Irr.	R.F.	Total	Irr.	R.F.	Irr.	R.F.	Total
KUNAR	KHAS KUNAR	0	0	0			0	0	0
KUNAR	MAZAR (NUR GUL)	9	0	9	48		439	0	439
KUNAR	NARANG	1	9	10	53	43	33	399	431
KUNAR	NARAY	1	0	1	52		27	0	27
KUNAR	PECHE/ DAREH PECHE (MANOGAI)	10	1	11	63	32	626	19	645
KUNAR	SARKANI	4	4	8	56	41	225	147	372
KUNAR Total/ Weighted Average Yield		67	15	82	56	42	3,746	619	4,365
KUNDUZ	ALIABAD	0	0	0			0	0	0
KUNDUZ	CHAHAR DARREH	0	0	0			0	0	0
KUNDUZ	KHANABAD	0	0	0			0	0	0
KUNDUZ	KUNDUZ	0	0	0	9		0	0	0
KUNDUZ	QALA-E-ZAL	0	0	0			0	0	0
KUNDUZ Total/ Weighted Average Yield		0	0	0	9		0	0	0
LAGHMAN	ALINGAR	3	0	3	52		135	0	135
LAGHMAN	ALISHANG	0	0	0	67		5	0	5
LAGHMAN	DOWLAT SHAH	12	0	12	55		652	0	652
LAGHMAN	METARLAM	0	0	0			0	0	0
LAGHMAN	NURESTAN (NANGARAJ)	0	0	0	45		18	0	18
LAGHMAN	QARGHAI	0	0	0	33		9	0	9
LAGHMAN Total/ Weighted Average Yield		15	0	15	54		819	0	819
LOGAR	AZRO	1	0	1	14		18	0	18
LOGAR Total/ Weighted Average Yield		1	0	1	14		18	0	18
NANGARHAR	ACHIN	1	0	1	33		27	0	27
NANGARHAR	BATI KOT	0	0	0			0	0	0
NANGARHAR	BEHSUD	0	0	0			0	0	0
NANGARHAR	CHAPARHAR	2	0	2	70		170	0	170
NANGARHAR	DARAE NOOR	0	0	0			0	0	0
NANGARHAR	DEH BALA	11	0	11	19		203	0	203
NANGARHAR	DURBABA	0	0	0			0	0	0
NANGARHAR	GOSHTA	32	67	99	47	31	1,520	2,067	3,586
NANGARHAR	HESARAK	2	0	2	36		61	0	61
NANGARHAR	JALALABAD CITY	0	0	0			0	0	0
NANGARHAR	KAMA	0	0	0			0	0	0
NANGARHAR	KHOGIANI	3	0	3	30		77	0	77
NANGARHAR	KUZ KUNAR	0	0	0			0	0	0
NANGARHAR	LA'LPUR	95	0	95	63		5,984	0	5,984
NANGARHAR	MOHMAND DARA	0	0	0			0	0	0
NANGARHAR	NAZIAN	0	0	0			0	0	0
NANGARHAR	PACHIER WA AGAM	3	0	3	40		127	0	127
NANGARHAR	RODAT	0	0	0			0	0	0
NANGARHAR	SHERZAD	2	0	2	56		104	0	104
NANGARHAR	SHINWAR	0	0	0			0	0	0
NANGARHAR	SORKH ROD	0	0	0	26		1	0	1
NANGARHAR Total/ Weighted Average Yield		151	67	218	55	31	8,273	2,067	10,340
NIMROZ	CHAR BORJAK	0	0	0			0	0	0
NIMROZ	KANG	0	0	0			0	0	0
NIMROZ	KHASH RUD	0	0	0			0	0	0
NIMROZ Total/ Weighted Average Yield		0	0	0			0	0	0
ORUZGAN	AJRESTAN	0	0	0			0	0	0
ORUZGAN	CHAR CHASHMA (CHAR CHINAH)	0	0	0			0	0	0
ORUZGAN	CHORA	0	0	0			0	0	0
ORUZGAN	DAI KUNDI	0	0	0			0	0	0
ORUZGAN	DEHRAWUD	0	0	0			0	0	0
ORUZGAN	GEZAB	0	0	0			0	0	0
ORUZGAN	KAJLAN	0	0	0			0	0	0
ORUZGAN	KHAS ORUZGAN	0	0	0			0	0	0
ORUZGAN	SHAHRESTAN	1	0	1	18		11	0	11
ORUZGAN	TIRIN KOT	0	0	0			0	0	0
ORUZGAN Total/ Weighted Average Yield		1	0	1	18		11	0	11
PAKTYA	CHAMKANI	0	0	0			0	0	0
PAKTYA	HASAN KHEYL (AHMAD KHEYL)	0	0	0			0	0	0
PAKTYA	JAJI (ALI KHEYL, JAJI ARYOB)	0	0	0			0	0	0
PAKTYA	SEYED KARAM	0	0	0			0	0	0
PAKTYA	SPEYRAH	0	0	0			0	0	0
PAKTYA	TANI	5	1	6	38	32	175	32	207
PAKTYA Total/ Weighted Average Yield		5	1	6	38	32	175	32	207
QANDAHAR	ARGHANDAB	0	0	0			0	0	0
QANDAHAR	ARGHISTAN	0	0	0			0	0	0
QANDAHAR	DAMAN	0	0	0			0	0	0
QANDAHAR	DAND	0	0	0			0	0	0
QANDAHAR	GHORAK	0	0	0			0	0	0
QANDAHAR	KHAKREZ	0	0	0			0	0	0
QANDAHAR	MAIWAND	0	0	0			0	0	0
QANDAHAR	MARUF	0	0	0			0	0	0
QANDAHAR	NESH	0	0	0			0	0	0
QANDAHAR	PANJWAI	0	0	0			0	0	0
QANDAHAR	SHAH WALI KOT	0	0	0			0	0	0
QANDAHAR	SPIN BOLDAK	0	0	0			0	0	0
QANDAHAR Total/ Weighted Average Yield		0	0	0			0	0	0
SAMANGAN	DARAE SOUF	44	570	614	23	19	1,023	11,055	12,077
SAMANGAN	KHURAM O SARBAGH	0	0	0			0	0	0

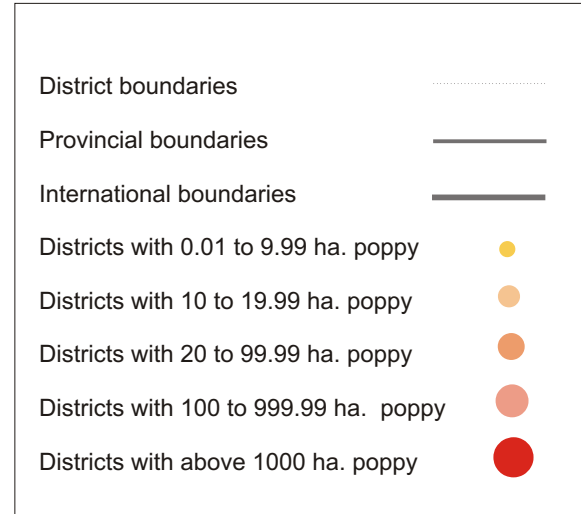
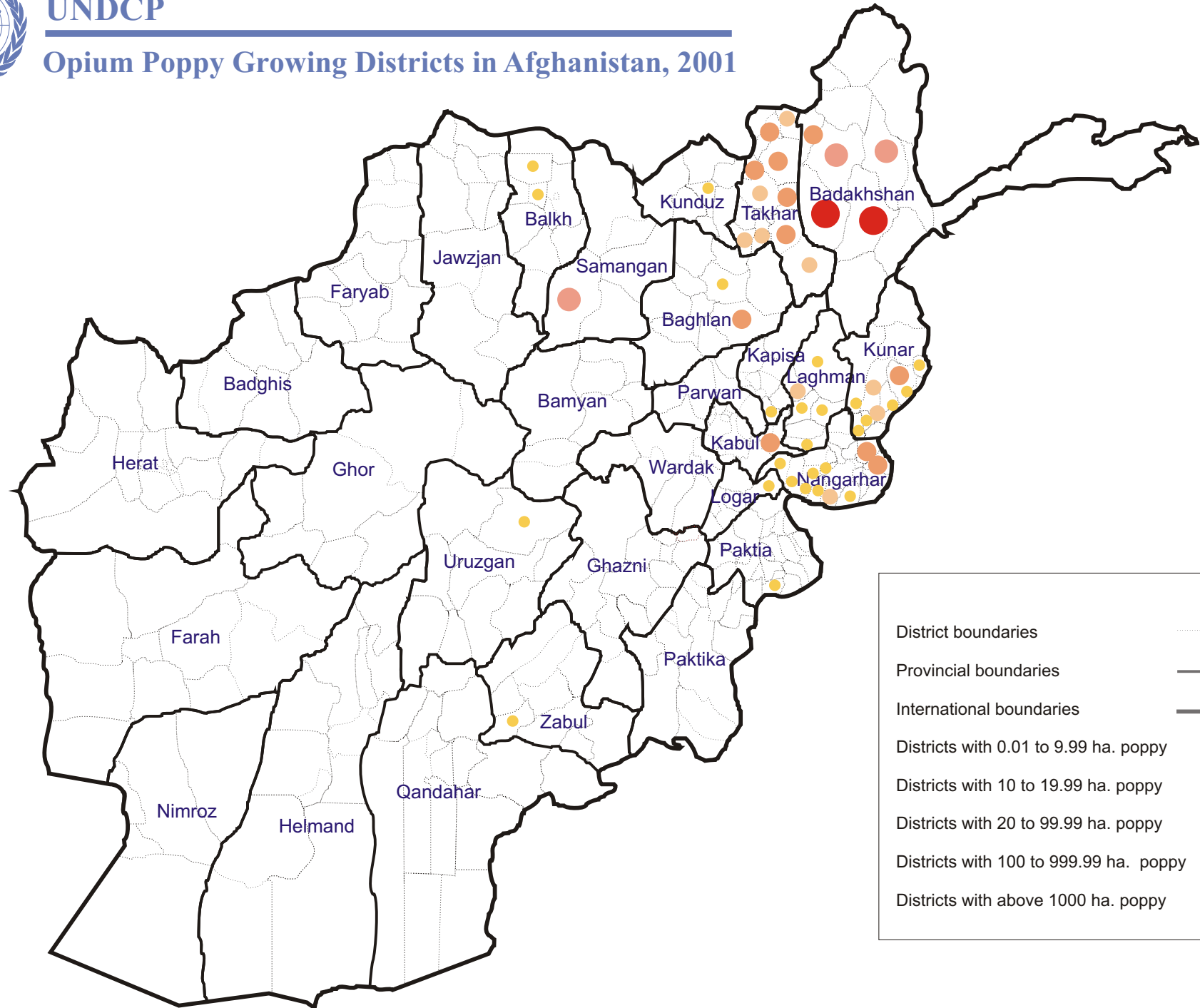
**Annex 1B
District Production Data**

province	district	Area (ha)			Yield (kg/ha)		Production (kg)		
		Irr.	R.F.	Total	Irr.	R.F.	Irr.	R.F.	Total
SAMANGAN	SAMANGAN	0	0	0			0	0	0
SAMANGAN Total/ Weighted Average Yield		44	570	614	23	19	1,023	11,055	12,077
TAKHAR	BANGI	0	0	0			0	0	0
TAKHAR	CHAH AB	4	15	19	13	8	46	122	168
TAKHAR	CHAL	4	16	20	19	6	71	90	161
TAKHAR	ESHKAMESH	1	18	19	15	6	9	111	120
TAKHAR	FARKHAR	7	18	26	13	6	93	108	201
TAKHAR	KALAFGAN	3	23	27	13	7	45	152	197
TAKHAR	KHVAJEH GHAR	8	24	32	20	6	160	145	305
TAKHAR	ROSTAQ	6	18	24	12	7	69	123	192
TAKHAR	TALOQAN	1	15	16	13	7	16	105	121
TAKHAR	WARSAJ	3	7	10	16	6	45	45	90
TAKHAR	YANGI QALA	3	17	20	8	5	25	83	108
TAKHAR Total/ Weighted Average Yield		39	172	211	15	6	579	1,083	1,663
ZABUL	ARGHANDAB	0	0	0			0	0	0
ZABUL	DAI CHOPAN	0	0	0			0	0	0
ZABUL	JALDAK	1	0	1	27		32	0	32
ZABUL	MIZAN	0	0	0			0	0	0
ZABUL	QALAT	0	0	0			0	0	0
ZABUL	SHAH JUY	0	0	0			0	0	0
ZABUL Total/ Weighted Average Yield		1	0	1	27		32	0	32
Grand Total/ Weighted Average Yield		3,680	3,926	7,606	31	18	113,090	72,383	185,473

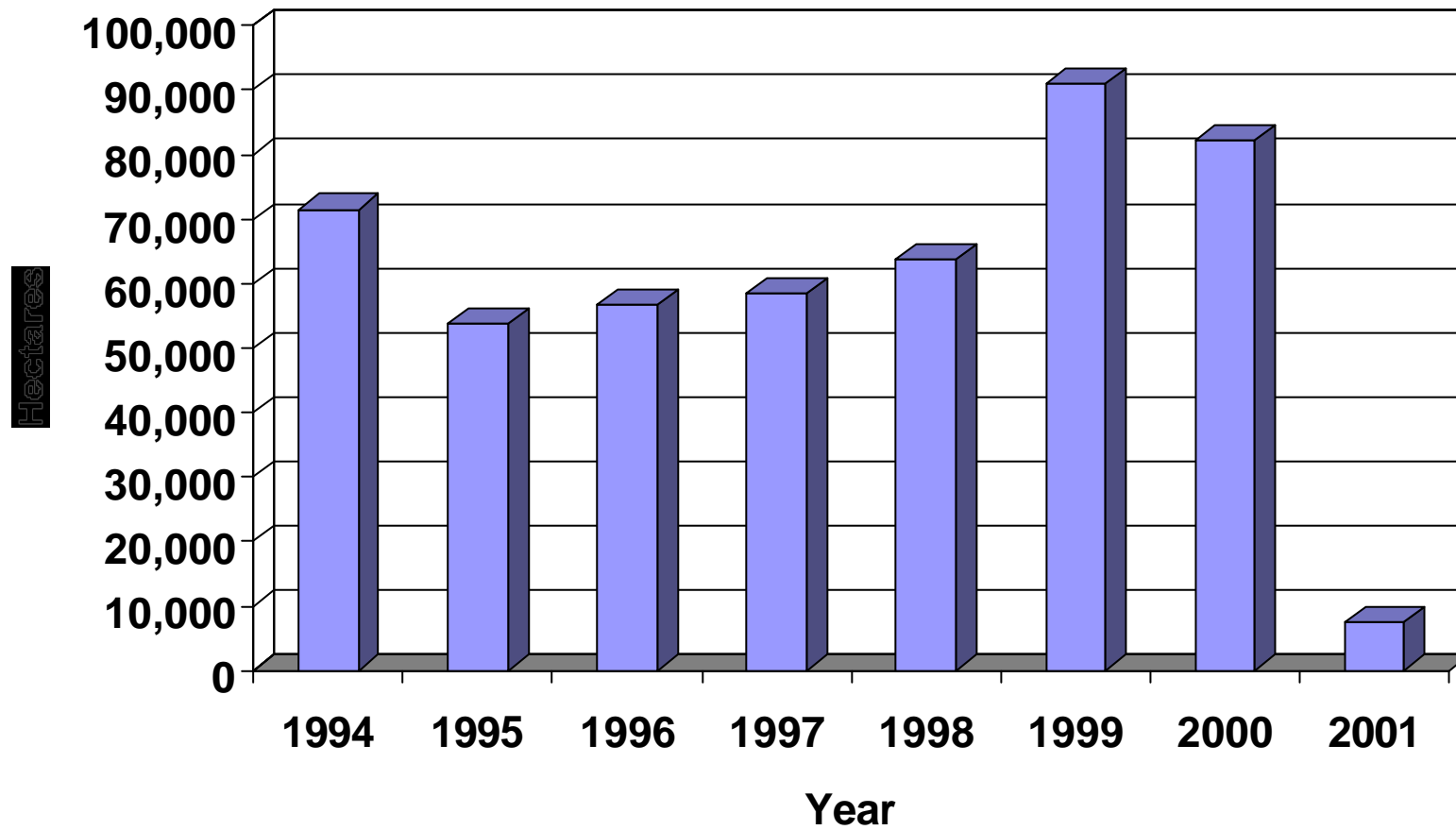


UNDCP

Opium Poppy Growing Districts in Afghanistan, 2001



Opium Poppy Cultivation in Afghanistan, 1994-2001



ANNEX 2

PRE-ASSESSMENT SURVEY

On 27 July 2000, the Taleban authorities banned the cultivation of opium poppy for the next planting season throughout all areas under their control. Since the start of planting season in October 2000, there were reports that the ban is being implemented seriously and farmers were refraining from cultivation of opium poppy¹. Fields that normally would be planted with poppy seed were instead planting wheat and vegetables. Furthermore, there was strong evidence that the Taleban authorities were taking stringent measures to enforce the ban. However, with the absence of any hard evidence about the effectiveness of the ban, many in the international community were sceptical that it would succeed.

Consequently, UNDCP decided to undertake a Pre-assessment Survey of main poppy growing areas under Taleban control. The goal of the survey was to provide tangible evidence of poppy elimination. The objectives of the survey were firstly, to obtain an early quantitative assessment of the area under poppy cultivation; secondly, to determine the degree of compliance with the ban; and thirdly, to assess the resources required for the coming Annual Poppy Survey. The survey was carried out from 31 January to 10 February.

Fifty-one districts were selected for survey. Last year these districts accounted for 86% of the total poppy area under cultivation. Every district of the main producing provinces, Helmand, Nangarhar and Qandahar, was included, as well as a further 14 districts in 6 provinces that reported high levels of cultivation in last year's Annual Opium Poppy Survey. Approximately 10% of all poppy-growing villages in these districts were selected randomly to be visited by a survey team member. In total, the team of 17 surveyors visited 2,770 villages.

The task of the surveyor was to visually estimate the present poppy area, and to determine the amount of poppy that had been already eradicated, if any. Surveyors also assessed the number of violations of the ban, as well as related arrests, and were asked to gain an indication of the farmers' attitude to the ban.

The conclusion of the Pre-assessment Survey was that the ban had been effective. The amount of poppy observed in all villages surveyed was 27 Ha. The preliminary estimate was that there would be a reduction of 70,000 Ha in total poppy area for Afghanistan. There were no exceptions to the ban. In areas where poppy had been planted, violators were arrested and imprisoned for several days and then released with the commitment that they would destroy their plantings.

¹ A snapshot survey carried out in November 2000 by Nangarhar UNDCP field staff indicated that between 20% and 70% of cultivated land had been *prepared* for poppy, but farmers were reluctant to proceed with planting, having become aware of the strict enforcement measures being taken by the authorities

The Pre-assessment Survey also concluded that resources for the Annual Survey needed to be deployed away from the previous main producing areas, which could be more rapidly assessed, to more remote areas, areas of resistance to the ban, and areas that were outside Taleban control. These marginal areas were the ones to which poppy cultivation was likely to move.

ANNEX 3 SURVEY FORM

OPIUM POPPY SURVEY 2001 QUESTIONNAIRE

SURVEYOR: _____

DATE: _____ TIME: _____

PROVINCE: _____

DISTRICT: _____

NEWLY ESTABLISHED DISTRICT: _____

AREA: _____

VILLAGE: _____

VILLAGE CODE: _____

SURVEYOR'S ESTIMATION:

1. How many households are in this village? _____

2. How many families are in this village? _____ Families affected: _____

3. What is the total area of cultivated land in jerib? Irrigated: _____ Rainfed: _____

4. What is the total area poppy cultivated land in jerib? Irrigated: _____ Rainfed: _____

RESPONDENT'S ESTIMATION:

5. What is the respondent's estimation of total area of cultivated land and poppy cultivated land in this village?

Respondents	Total Cultivated Land (jerib)		Total Poppy Cultivated Land (jerib)	
	Irrigated	Rainfed	Irrigated	Rainfed
No. 1				
No. 2				
No. 3				

6. What is the respondent's estimation of Opium & Wheat yield in kg/jerib last year (2000) and this year?

Respondent	1999 Actual Yield (kg/jerib)				2000 Estimated Yield (kg/jerib)			
	Opium		Wheat		Opium		Wheat	
	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed	Irrigated	Rainfed
No. 1								
No. 2								
No. 3								

7. Status of poppy cultivation compared to last year (2000): (Mark in the appropriate box)

Respondent	No Change	Increased	Decreased
No. 1			
No. 2			
No. 3			

8. Have there been any poppy eradication efforts in this village this season? (Mark in the appropriate box)

Respondents	Yes	No	IF Yes by who: (Mark or circle)
No. 1			1. Government 2. Religious Scholars 3. NGO (specify: _____) 4. Other (specify: _____)
No. 2			1. Government 2. Religious Scholars 3. NGO (specify: _____) 4. Other (specify: _____)
No. 3			1. Government 2. Religious Scholars 3. NGO (specify: _____) 4. Other (specify: _____)

9. Has the poppy crop suffered any damage this season in the village? (Mark in the appropriate box)

Resp.	Yes	No	IF Yes: Reason (Mark or Circle)	%
No. 1			1. Drought 2. Flood/Rain 3. Bad Weather 4. Insects/Pests 5. Poor land 6. Poor farming 7. Disease (specify: _____) 8. Other (specify: _____)	
No. 2			1. Drought 2. Flood/Rain 3. Bad Weather 4. Insects/Pests 5. Poor land 6. Poor farming 7. Disease (specify: _____) 8. Other (specify: _____)	
No. 3			1. Drought 2. Flood/Rain 3. Bad Weather 4. Insects/Pests 5. Poor land 6. Poor farming 7. Disease (specify: _____) 8. Other (specify: _____)	

10. What is the current price of 1 kg. Of Dry Opium, Fresh Opium and Wheat in Afghani/kg in this village?

Respondents	Dry Opium Price (Afs/kg)	Fresh Opium Price (Afs/kg)	Wheat (Afs/kg)
No. 1			
No. 2			
No. 3			

SURVEYOR COMMENT:

=====

TO BE COMPLETED BY COORDINATOR FOR 5 VILLAGES IN EACH DISTRICT:

- 1) What is the total number of poppy fields in this village? _____
- 2) What is the total land under poppy cultivation as per physical measurement in jerib? _____
- 3) What is the exchange rate of Afghani/Dollar)? _____

COORDINATOR COMMENT: _____

=====

* If there is a Mirab or Mirkhada in the village then preferably on Respondent should be Mirab or Mirkhada.