Case Study Series

WATER MANAGEMENT, LIVESTOCK AND THE OPIUM ECONOMY

Opium Poppy Cultivation in Nangarhar and Ghor

David Mansfield

This report is one of seven multi-site case studies undertaken during the first stage of AREU's three-year study "Applied Thematic Research into Water Management, Livestock and the Opium Economy".

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David Mansfield, November 2006

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Glossary[1]

biswa	a measure of land. One *biswa* is the equivalent of one hundred square metres; there are twenty *biswa* to one *jerib*.
eradication	the physical destruction of a crop, e.g. by aerial spraying
jawzai	loans in opium. The borrower repays an agreed amount of cash for each kilogramme of opium borrowed.
jerib	unit of land measurement; 5 *jerib* = 1 ha (2000 m^2)
jirga	gathering of elders
kuchi	nomadic or transhumant pastoralists
lalmi	rainfed crop production
maldars	nomadic or transhumant pastoralists
patak	checkpoint used to levy "tax"
seer	a unit of measure
shura	local council of elders
karez	underground irrigation systems

Acronyms

AREU	Afghanistan Research and Evaluation Unit
DACAAR	Danish Committee for Aid to Afghan Refugees
EC	European Commission
GAA	German Agro Action
GTZ	German Technical Cooperation (Deutsche Gesellschaft fur Technische Zusammenarbeit GmbH)
NGO	non-governmental organisation
UNODC	United Nations Office for Drugs and Crime
USG	United States Government
WOL project	Water, Livestock and Opium project

Exchange Rates

50 Afghanis (Afs) per 1 US$

60 Pakistani Rupees (PKR) per 1 US$

[1] Transliterations in this glossary, as well as in the text, are spelled according to AREU's editorial policy and do not reflect the opinion of the author.

1. Introduction

Currently there is considerable attention on the amount of opium poppy cultivation in Afghanistan, what has been referred to as "the metrics". On 2 September 2006, the United Nations Office on Drugs and Crime (UNODC) announced that opium poppy cultivation had reached an unprecedented level of 165,000 hectares (ha) in 2006 an increase of 59% since 2005.[2] However, it is important to look at these figures in context. Two thirds of the estimated total amount of cultivation in 2006 lies in the southern provinces of Helmand (69,324 ha), Kandahar (12,619 ha), Farah (7,694 ha), Uruzgan (9,703 ha), Daikundi (7,044 ha) and Zabul (3,210 ha), where there has been a sharp decrease in the level of security over the last year. Of the estimated 61,000 hectare increase in cultivation, 70% is from Helmand alone, 92% from the four southern provinces of Helmand, Uruzgan, Daikundi and Zabul.

Moreover, the top seven opium-producing provinces (Helmand, Badakhshan, Kandahar, Uruzgan, Farah, Balkh, and Daikundi) are responsible for 77% of total cultivation. Cultivation is less prevalent in the other 27 provinces of the country: 6 provinces are reported to be "opium poppy free", 8 cultivate less than 1,000 ha and 28 provinces less than 5,000 hectares. A further disaggregation of the data to the district level shows an even more complex picture where districts in which opium poppy is concentrated can be found neighbouring areas where the crop is marginal or non-existent. This diversity at the provincial, district, and even sub-district level, suggests that opium poppy cultivation in Afghanistan is both contingent and contextual — a function of where, who and when — and therefore highly dependent on local factors.

This particular report looks at the results of fieldwork in two specific provinces in which opium poppy cultivation is cultivated: Nangarhar and Ghor. According to UNODC, both provinces currently cultivate less than 5,000 hectares. However, the two provinces have very distinct histories in relation to opium poppy cultivation, much of which is not captured (and may be lost or even distorted) by an analysis of provincial statistics on the amount of land allocated to the crop. The report charts the role opium poppy plays in rural livelihood strategies within the two provinces and how this differs by the different assets households within these provinces have at their disposal. It documents the impact significant reductions in opium production have had on livelihood strategies in both Nangarhar and Ghor.

The report is part of the Water Management, Livestock and the Opium Economy (WOL) project funded by the European Commission and implemented by the Afghan Research and Evaluation Unit (AREU) in cooperation with the Danish Committee for Aid to Afghan Refugees (DACAAR) and German Agro Action (GAA). Fieldwork for this report was undertaken over a two-year period, where possible visiting the same households each year.[3]

[2] UNODC Press Release, *Afghan opium cultivation soars 59 percent in 2006, UNODC survey shows,* 1 September 2006. http://www.unodc.org/unodc/press_release_2006_09_01.html.

[3] In 2005, fieldwork in Nangarhar was commissioned by the Project for Alternative Livelihoods (PAL) implemented by GTZ and funded by the EC. The report of this work is David Mansfield, *Pariah or Poverty? The Opium Ban in the Province of Nangarhar in the 2004–05 Growing Season and Its Impact on Rural Livelihood Strategies*, GTZ Project for Alternative Livelihoods in Eastern Afghanistan, Internal Document No. 11, 2005. Fieldwork in Ghor in 2005 was funded by AREU.

The report should be read as a companion to other preliminary studies[4] of the WOL research programme and more specifically as a parallel to the study by Adam Pain on opium poppy cultivation in the provinces of Balkh and Kunduz.[5] It should be noted that the research on opium poppy cultivation has been deliberately expanded beyond the core WOL project research sites (Kunduz, Nangarhar, Ghazni and Herat) both to capture wider dynamics of shifts in the opium poppy economy as well as to provide specific points of contrast to the key WOL study sites.

The report is divided into four sections. The first section provides an overview of the theoretical underpinning of the analysis, offering an explanation of the diversity that exists amongst opium poppy cultivating households both in terms of the different assets they have at their disposal and the subsequent dependency they have on the cultivation of the crop as part of their overall livelihood strategy. The second section provides a detailed assessment of the coping strategies that households have adopted in response to a significant reduction in opium poppy cultivation in the province of Nangarhar between 2004 and 2005. These coping strategies are used to identify and characterise areas that contain different asset groups and their concomitant differing levels of dependency on opium poppy, as well as to discuss the likely sustainability of the current ban on opium poppy cultivation in each of these areas. The third section explores the process by which opium poppy was introduced into parts of Ghor in the late 1990s and the subsequent impact of crop failure in 2006. It highlights the marginal role opium poppy plays within livelihood strategies in Ghor, where non-farm income and livestock are typically given greater priority. The final section offers a comparative analysis of these two very distinct opium poppy growing areas.

[4] For example see Ian McAllister Anderson, *Water Management, Livestock and the Opium Economy: Irrigation Systems*; Jonathan Lee, *Water Management, Livestock and the Opium Economy: Social Water Management*; and Euan Thompson, *Water Management, Livestock and the Opium Economy: Livestock Production and Health.* All are reports for AREU's Applied Thematic Research into Water Management, Livestock and the Opium Economy, Kabul: AREU, 2006.

[5] Adam Pain, *Water Management, Livestock and the Opium Economy: Opium Cultivation in Kunduz and Balkh.* Kabul: AREU, May 2006

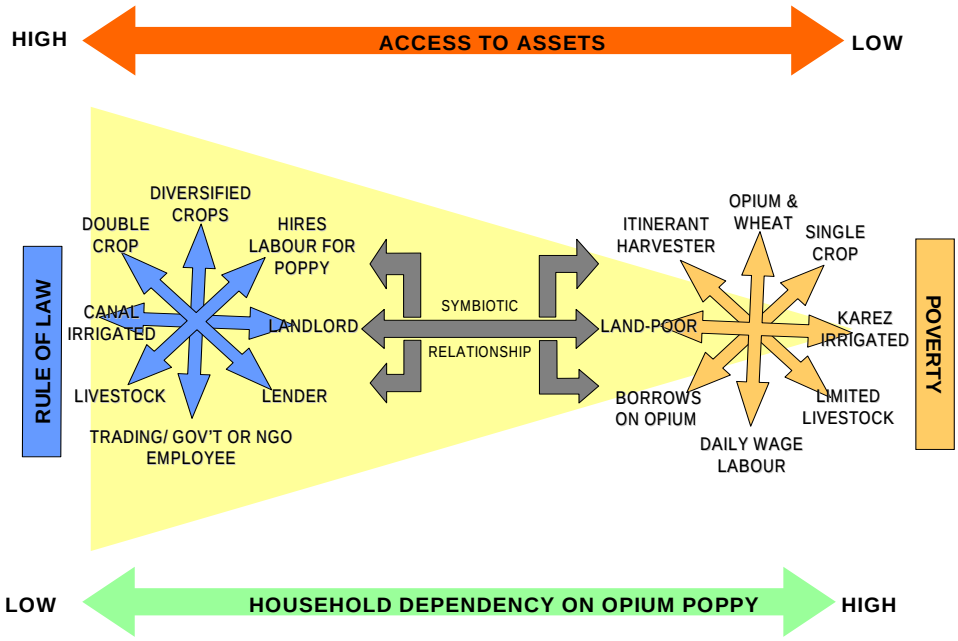
2. Methods

2.1 Conceptual underpinnings

Opium poppy has at some point been cultivated across all the provinces of Afghanistan by a variety of different ethnic groups and in a variety of different terrains.[6] Neither what some might crudely refer to as the "rich" nor the "poor" have the monopoly on cultivating the crop. Nonetheless, research has shown that some areas and socio-economic groups are more dependent on opium poppy than others.

To date, much of the work on the factors that influence opium poppy cultivation has focused on the household as the unit of analysis and revealed that opium poppy cultivation is both contingent and contextual — a function of where, who, and when — and therefore highly dependent on local factors. This work has also strongly suggested that opium poppy cultivation is dependent on the specific assets that the individual household has at its disposal and is not simply a function of the prevailing price of opium in the local bazaar. Moreover, previous research recognises that as the range of legal livelihood strategies available to households are a function of their assets and capabilities, so too is a household's dependency on opium production.

Diagram 1. Household access to assets and opium dependency



Within this framework there would appear to be an inverse relationship between household access to assets and dependency on opium poppy cultivation. This is illustrated in Diagram 1. While representing a simplified depiction of households at the two extreme ends of a spectrum, this diagram illustrates both the diversity in assets that different households have at their disposal and in turn the diversity in their dependency in opium poppy cultivation as a means of meeting their basic needs. It also highlights the symbiotic relationships that can exist between the dif-

[6] UNODC reported that opium poppy cultivation was present in all 32 provinces in 2004 compared to only 8 in 1994 and 24 in 2006.

ferent asset groups involved in opium poppy cultivation and the role that opium plays as a means of exchange between them.

On the right-hand side of the diagram are households with the most limited access to assets and whose dependency on opium poppy cultivation to meet their basic needs is most acute. These are households in areas where opium poppy cultivation has been found to be at its most concentrated and where poverty is not just income-related but also reflects severe paucity of opportunities. Households at this end of the asset- and dependency spectrum are typically found in the most inaccessible areas, where labour and agricultural commodity markets are constrained by limited infrastructure and limited purchasing power, land holdings are typically small and access to irrigation problematic, and population densities per unit of agricultural land are particularly high. In these areas, legal livelihood options are severely restricted and opium poppy cultivation is largely supplemented by off-farm and non-farm daily wage labour opportunities, many of them associated with opium production.

At the other end of the spectrum are households with greater access to assets and low dependency on opium poppy cultivation as a means of meeting their basic needs. Here it is primarily the absence of the rule of law that has led to a shift into opium poppy cultivation. These households would typically be found in the more fertile river basins in close proximity to the provincial centre, where facilitated by better access to physical infrastructure, as well as improved governance and security, they would have access to functioning labour and commodity markets. These households would typically be relatively land-wealthy and would have the opportunity to double-crop. For this group, opium poppy cultivation would be combined with greater diversity in on-farm, off-farm, and non-farm income opportunities to raise household income and reduce uncertainty and vulnerability to shocks. Opium sales, while still a significant proportion of total cash income, are pooled with the income derived from the sale of other agricultural products and livestock. Non-farm income is not only higher but also more secure and diverse, including in some cases government salaries, and possibly income from the transport and retail trade.

It is not merely the dependency on opium poppy cultivation that differs according to a household's access to assets — the economic returns on the crop also vary. For the resource-rich, opium poppy can generate a relatively high income. As Diagram 1 illustrates, access to cheap labour through their ownership of land and prevailing land tenure arrangements ensures that landowners accrue a disproportionate share of the final opium crop. Those with sufficient financial assets can further increase their profit margins on opium poppy by purchasing opium as a "distress sale", through the provision of advance payments, known as *salaam*, on the crop prior to its harvest. Finally, by being able to retain their opium crop and selling it some months after the harvest when prices have risen, those households that are least dependent on opium poppy as their sole source of income are most able to benefit.

The income that the resource-rich derive from opium poppy is in sharp contrast to the earnings of the resource poor. Their difficult circumstances mean that the poor provide relatively low-paid labour through unfavourable land tenure arrangements, and are compelled to sell their opium at low prices prior to the harvest as a means of accessing credit for consumption smoothing. Moreover, it is the poor that are most dependent on opium poppy due to limited on-farm, off-farm, and non-farm income opportunities.

2.2 Developing an area-based analysis

Household-level analysis has been crucial to developing a clearer sense of the role that opium poppy plays within rural livelihood strategies in Afghanistan and how this role differs by socio-economic group. It has also been instrumental in informing policy discussions amongst both development and drug-control communities. However, whilst providing some broad indication of the kind of areas that different asset groups might inhabit, so far this analysis has not gone far enough in providing the more manageable geographically-based analysis required for planning rural livelihoods interventions.

Fieldwork for this report was designed to move beyond existing household-level analysis and to try to develop a better understanding of how the relationship between asset portfolios and dependency on opium poppy cultivation differ not only by household but also at a district and sub-district level. Clearly there is a need for caution in extrapolating household-level data given the degree of socio-economic diversity that exists even at the village level within Afghanistan. Nonetheless, it is possible to see some common patterns with regard to the distribution of assets and dependency on opium poppy at the sub-district level.

This report looks at the different coping strategies households have adopted in response to significant reductions in opium production. The second consecutive year of low levels of opium poppy cultivation in the province of Nangarhar provided an opportunity to analyse the different coping strategies that different groups (with varying levels and types of assets) adopted and to extrapolate what this meant in terms of differing levels of dependency on opium poppy within areas where coping strategies and asset portfolios were broadly common. Fieldwork in Ghor at a time of crop failure offered the opportunity to compare the coping strategies adopted in response to a significant reduction in opium production in two very distinct provinces.

Districts were selected for fieldwork on the basis of the differing asset portfolios of the rural population within them. Geographic proximity to the provincial capital typically coincides with a number of assets. On the whole, provincial capitals, such as Jalalabad in Nangarhar and Chaghcharan in Ghor, are established in areas with better access to irrigated land and water. Therefore a household in a district located close to the provincial capital — such as Surkhrud, Behsud or Kama — is generally more likely to have a larger landholding with a greater availability and consistency of water supply than a household in a more remote district, such as Achin.

Proximity to the provincial capital can also mean better access to commodity markets for the purchase and sale of agricultural and non-agricultural goods as well as labour markets for daily wage labour opportunities and perhaps salaried employment. Those areas nearest the provincial centre may also experience better governance and security due to better infrastructure and accessibility as well as, in the case of Nangarhar, greater tribal heterogeneity which makes it easier for the provincial authorities to impose their will. The history and extent of opium poppy cultivation were also considered when identifying in which districts to undertake fieldwork. In both Ghor and Nangarhar preference was given to revisiting districts and households where fieldwork had been undertaken in the 2004-05 growing season.

Within each district, interviews were held with a variety of different socio-economic groups in order to explore how assets and capabilities affected the impact of the significant reductions in opium production on the household economy and subsequently informed the kind of coping strategies households adopted in response. Interviews were also conducted in the bazaars of Chaghcharan and Jalalabad as well as with shopkeepers and from district centres and along transit routes (such as Ahangaran and Ghouk in Ghor). These interviews were used to explore the contribution, both positive and negative, that opium poppy cultivation had made to the local economy.

In 2006, fieldwork was undertaken in Nangarhar during late March and early April, when the opium poppy crop is usually in flower. Fieldwork was undertaken in Nangarhar for GTZ at the same time in 2005. The districts covered were Achin, Kama, Khogiani, Shinwar and Surkhrud. Both "upper" and "lower" parts of each district were covered in order to explore the diversity within districts and how access to water impacted on assets, dependency on opium poppy cultivation and the coping strategies adopted in response to the implementation of the opium poppy ban.

Initial fieldwork was undertaken in the province of Ghor in August 2005. This was then followed up in July 2006. Due to the logistics of travelling in Ghor (even in the summer months) and security in the districts bordering the provinces of Helmand and Daikundi fieldwork was restricted to the districts of Chaghcharan and Shahrak in 2005. [7] In 2006, security in Sharak was problematic so fieldwork was undertaken in the same villages (and where possible households) in Chaghcharan and coverage was extended to include the district of Dawlatyar, to the east of the provincial centre. Attempts were made to travel to Charsada in northern Chaghcharan but again security did not allow for this. [8]

The fieldwork was undertaken by the author in partnership with Afghan colleagues. Interviews were semi-structured and conducted in a conversational manner. Notes were not taken during interviews but were written up once the interviews had finished and the interviewer had departed. Given the paucity of data on rural livelihood strategies in Afghanistan it is not possible to determine whether this sample is truly representative. Where possible, however, the findings of this study are cross-referenced with other research that has been conducted in this area.[9] Specific villages and individual households are not identified in this report due to the sensitive nature of the topic.

[7] In 2003, the districts of Chaghcharan and Sharak were reported to have produced 1,829 hectares by UNODC of opium poppy, constituting 48% of the provincial output that year.[7] By 2005, UNODC estimated that that these two districts were responsible for 43% of the provincial total and 1,167 ha. *Afghanistan Opium Poppy Survey 2005*, Kabul: UNODC and Ministry of Counter Narcotics, 2005.

[8] Dawlatyar and Charsada are considered new districts. It remains unclear how officials this is. UNODC currently include Dawlatyar and Charsada under the Chaghcharan district.

[9] The most detailed research in Ghor would appear to be work undertaken by Afghanaid, whose *Baseline Survey Report for Chaghcharan, Taiwara and Saghar* dates back to 1998. More recently, Jonathan Goodhand undertook research in the districts of Lal and Dawlatyar in late August 2006, and Adam Pain conducted fieldwork on the opium trade in Ghor in Tulak, Chaghcharan and Sharak in June 2005. I am grateful to both of them for sharing the findings of their work. Research in Nangarhar is better documented: A number of pieces of work were undertaken as part of the UNDCP Strategic Studies Series and by the GTZ Project on Alternative Livelihoods.

3. Nangarhar Province: The "Success Story"

Nangarhar has a history of extensive opium poppy cultivation. In the last ten years levels of cultivation within the province have been such that Nangarhar has typically been in the top three major producing provinces in the country. Between 2004 and 2005, the level of opium poppy cultivation fell by an estimated 96%, mirroring the dramatic reduction achieved in the province in 2001 — the year of the Taliban prohibition. While there has been some increase in cultivation in the province in 2006, negligible levels of opium poppy cultivation have largely been sustained in most districts.

From the counter narcotics perspective, Nangarhar has been lauded as a success story. Certainly over the last decade there are few examples of provinces where opium poppy has previously been grown so extensively sustaining such low levels of cultivation into a second consecutive year.[10] When results are measured in terms of the amount of land dedicated to opium poppy, there have been some major achievements in Nangarhar over the last two years. It remains to be seen, however, whether this significant reduction in opium poppy cultivation reflects a sustainable change in cropping patterns and livelihood strategies or whether households have simply replaced opium poppy with another annual crop, such as wheat, only return to opium production in the near future.

This section analyses the different coping strategies households have adopted in response to the ban on opium poppy cultivation first implemented in the 2004-05 growing season and how these strategies differ by socio-economic group and subsequently location. It uses fieldwork conducted for GTZ in 2005 to illustrate how the coping strategies adopted by different assets groups (and subsequently how these can be overlaid with geographic areas) in response to the ban on opium poppy highlight the differing levels of dependency on opium poppy within the province. Some of these strategies indicate that certain areas were never dependent on opium poppy cultivation and that efforts to enforce the ban on opium production have prompted households to further diversify their livelihood options and make a concerted push to move out of opium production. Other coping mechanisms illustrate a level of cumulative stress within household livelihood strategies which, as we have already seen in 2006, results in a return to opium poppy cultivation in the following growing season.

3.1 Overview of the province

The province of Nangarhar is located on Afghanistan's eastern border with Pakistan. It neighbours the provinces of Laghman and Kunar to the north, Kabul and Logar to the west and Paktia to the south. The three provinces of Nangarhar, Laghman and Kunar together represent a geographically enclosed basin of interlocking valleys drained by the Kabul and Kunar rivers and their subsidiary streams. To the south of Nangarhar lie the Spin Ghar mountains to the north the massif of the eastern Hindu Kush and Nuristan.

Nangarhar is one of the most densely populated provinces in the country. The estimated population of 1.8 million mainly consists of Pashtuns, although in the

[10] For instance, the year following the 50% reduction in opium poppy cultivation reported in Helmand province, cultivation returned to its 2002-03 level even in the canal irrigated areas in close proximity to the provincial centre of Lashkar Gah.

northern districts of the province around Dar-e-Nur the Pashai people dominate. The provincial centre is Jalalabad, which is located at the confluence of the Kabul and Kunar rivers. The Kabul river runs in an easterly direction through the province before flowing into Pakistan.

The province of Nangarhar has what is considered a sub-tropical climate with mild winters (except in the mountains) and hot summers. There is a broad range of agricultural crops cultivated in the main river basin of the province including citrus and olive trees. Double cropping can be achieved in those areas irrigated by the Kabul and Kunar rivers. In those areas reliant on seasonal flood streams or on the underground irrigation systems known as *karez,*[11] water shortages are more common and cropping patterns more limited. Drought has had a significant affect on these areas during the late 1990s and early part of the twenty-first century.

Throughout the 1980s and 1990s, Nangarhar province was one of the major recipients of development assistance from aid agencies located across the border in Peshawar, Pakistan. Peshawar continues to dominate the province economically with considerable amounts of trade between Afghanistan and Pakistan passing through the official border crossing at Torkham situated 45 km from Peshawar and around 60 km from Jalalabad, as well as a variety of unofficial border crossings throughout the province. There is a strong history of migration between Nangarhar and the North West Frontier Province in Pakistan with both areas having ethnic groups that straddle the border.

3.2 A history of opium poppy cultivation in Nangarhar

3.2.1 An "opium entrenched" province

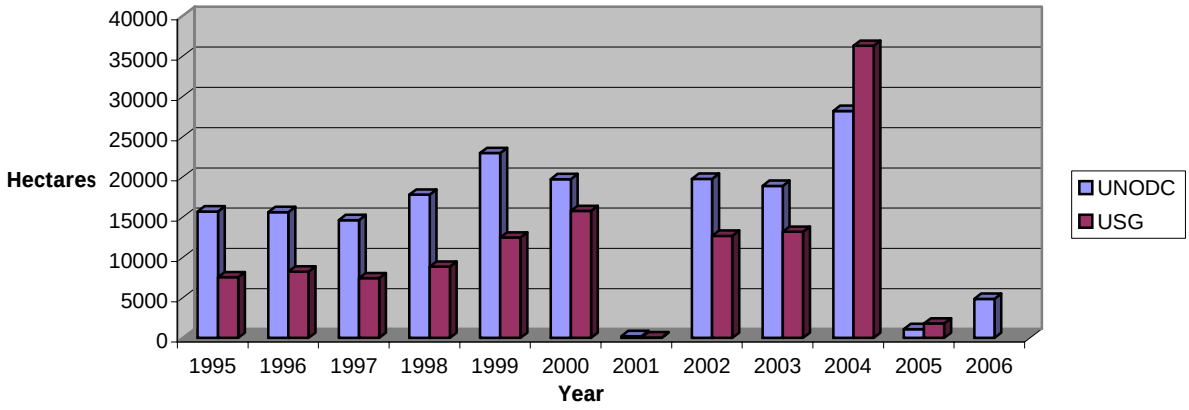
The province of Nangarhar is an area in which opium poppy could be considered "entrenched". Cultivation in some areas dates back well beyond the official estimates produced by the United Nations Office of Drug Control (which started in 1994) and the United States Government (where national estimates date back to 1986).[12] Locally it is reported that prior to the civil war, during the reign of King Zahir Shah, opium poppy was cultivated in some of the remote parts of the province and opium trading persisted in Kahi bazaar in the district of Achin.

Throughout the 1990s, the province of Nangarhar typically ranked only after Helmand in terms of the amount of land dedicated to opium poppy. Indeed, according to UNODC, between 1995 and 2004 cultivation did not fall below 14,000 ha except for 2001 when the Taliban prohibition on cultivation took effect. Cultivation reached a peak of 28,213 ha of opium poppy in 2004.

[11] A *karez* uses a series of access shafts that make it possible to dig and clean out the underground channels (tunnels) which eventually reach the surface far from the source of the water.

[12] At the time of writing, USG estimates of opium poppy cultivation for the province of Nangarhar for the 2005-06 growing season had not been released.

Figure 1. Official estimates of levels of opium poppy cultivation in Nangarhar Province, 1995-2006



3.2.2. The enforcement of the Taliban ban

Given the prevailing levels of cultivation during the 1990s, the low incidence of opium poppy cultivation in 2001 was viewed with some surprise at the time. Previously cultivation had been visible along both sides of the Torkham road just outside Jalalababad, but in 2001 there was not a crop in sight. Even in the most remote parts of the province opium poppy was abandoned and typically replaced with wheat. The result was cultivation fell from approximately 20,000 ha in Nangarhar province in 2000 to around 200 ha in 2001.

Beneath these headline figures was a complex political process of persuasion, negotiation and coercion determined by local circumstances and the political influence of the tribes involved. In Nangarhar province, the Shinwari tribe were thought to be pivotal to the successful implementation of the Taliban ban.[13] Not only are the Shinwari numerous and powerful but they also inhabit some of the lower areas which are some of the first to be planted. Compliance in areas such as the lower, canal-irrigated part of Shinwar district where the opium bazaar of Ghani Khel was located would no doubt have served as an important demonstration effect to other tribes within the province. Reports of payments being made to the elders of the Shinwari tribe to ensure compliance with the ban were commonplace. The elders from the Shinwari districts were also some of the more organised in their request for projects in response to the ban and were given the forum by the Taliban to make their request for assistance directly to the international community.

Despite compliance, dissent amongst the Shinwari tribes was evident even in 2001. Demonstrations were mounted in Achin district to highlight to the authorities that the support for the ban was by no means unequivocal. At the time, many farmers and members of the authorities within the Shinwari districts (as well as across the province as a whole) indicated their compliance for a second consecutive year was contingent on the provision of development assistance. Neighbouring tribes expressed their discontent at the Shinwari for what they saw as siding with the Taliban and providing the necessary political support for the enforcement of the ban

[13] David Mansfield, *The Displacement of Opium Poppy Cultivation: A Shift in the Regional Threat?* report for the Drugs & International Crime Department of the UK Foreign & Commonwealth Office, September 2001.

across the entire province. It remains unclear whether this delicate political balance could have been maintained into a second year even if the Taliban had retained power.

Cultivation resumed in Nangarhar even before the Taliban fell from power in the province in the middle of November 2001. By harvest time in 2002, levels of cultivation were once again back to their mid-1990s levels. Increasing levels of debt among farmers, higher farmgate prices as a consequence of the ban,[14] and new networks in the north east of the country[15] led cultivation to further expand in the years of the Afghan Transitional Authority until it reached an estimated 28,213 hectares in 2004.

3.2.3. The implementation of the opium ban in 2005

In 2005, there was once again a concerted effort on the part of the provincial authorities in Nangarhar to eliminate opium poppy cultivation in the province. The result was a 96% fall in the level of cultivation between the 2003-04 and 2004-05 growing seasons. The process of implementing the ban learned much from the Taliban's experience in 2000-01. In particular, emphasis was placed on preventing the planting of the crop itself and on working through district and local power structures to ensure compliance. Local administrators and security chiefs were held responsible for the reductions in their particular area and their dismissal was seen as a credible threat for a failure to deliver. As with the Taliban ban, promises of development assistance were made to communities in return for compliance with the ban.

In-depth research revealed that the ban imposed by the provincial authorities had a wide-reaching impact extending well beyond opium poppy farmers, affecting a variety of different socio-economic groups.16 Estimates suggest that rural labourers who had no land of their own but who had previously been employed during the weeding and harvesting seasons for opium poppy lost as much as US$ 1,000 in off-farm income due to the ban. Businessmen and shopkeepers in the provincial and district bazaars saw their turnover halve due to the significant shortfall in purchasing power that the ban imposed on the rural population. And unskilled daily wage labourers in Jalalabad city experienced a reduction in the number of days they were hired as well as in daily wage rates.

The most significant impact was borne by opium poppy cultivating households themselves. However, even for them the impact of the ban was less punitive in areas with better access to resources. For instance, while households with access to larger and well-irrigated landholdings experienced more substantial falls in on-farm income due to the ban, their proximity to the agricultural commodity markets of Jalalabad allowed them to offset some of these losses by increasing cultivation of other high-value crops. Those with a stock of assets also drew on the different

[14] See *The Impact of the Taliban Prohibition on Opium Poppy Cultivation in Afghanistan*. Paper prepared for the Donor Mission to Afghanistan, 23 April-4 May 2001.

[15] See David Mansfield, *Coping Strategies, Accumulated Wealth and Shifting Markets: The Story of Opium Poppy Cultivation in Badakhshan 2000-03,* Kabul: Agha Khan Development Network, January 2004.

[16] David Mansfield, *Pariah or Poverty? The Opium Ban in the Province of Nangarhar in the 2004–05 Growing Season and Its Impact on Rural Livelihood Strategies,* Kabul: GTZ Project for Alternative Livelihoods in Eastern Afghanistan: Internal Document No. 11, 2005.

sources of legal income that they had access to in the provincial centre and, where possible, increased the number of household members allocated to daily wage labour opportunities. While even in this relatively resource-wealthy group losses were significant — expenditure on basic food items were curbed to make ends meet — neither longer-term productive assets, such as livestock and land, nor investments in licit income streams were sold off in response to the imposition of the 2005 opium ban in Nangarhar.

In 2005, opium poppy cultivation was limited to specific areas in Nangarhar province.

In contrast, those households most dependent on opium poppy and who typically cultivated it most intensively were found to adopt coping strategies in response to the ban that not only highlighted their growing vulnerability but threatened their long-term capacity to move out of illicit drug crop cultivation. The loss in on-farm income that this group experienced was not offset even in part by an increase in cultivation of high-value licit crops. This was due to constraints on irrigated land, the distance to markets, and the increasing control "local officials" had gained over the trade in licit goods. Instead, these households replaced opium poppy with wheat. However, due to land shortages and the density of population wheat production was typically insufficient even to meet the household's basic food requirements. The loss in off-farm income during the opium poppy weeding and harvesting seasons (up to five months' employment) could not be replaced by intermittent wage labour opportunities paid at less than half the daily rate offered during the opium poppy harvest the previous year.

For this group, problems in accessing new loans were compounded by inability to pay accumulated debts. As a result, expenditures on basic food items were reduced; children were withdrawn from higher education; and livestock, household items, and prior investments in licit income streams were sold. The resource-poor were more likely than the resource-wealthy to send members of their family to

find employment in Pakistan, and were typically the most vociferous in their opposition to the government for its imposition of the ban and to the foreign countries they believed to be behind it. The impact of the ban on opium poppy cultivation on some households was so substantial that even in households that included only one male of working age, he would travel in search of wage labour opportunities, leaving the women and children without an adult male relative present in the household compound.

It is against this backdrop of contrasting assets and dependency on opium poppy cultivation that households entered the 2005-06 growing season, facing the likelihood of the provincial authorities enforcing a ban on opium poppy cultivation for a second consecutive year.

3.3 The continuation of the ban in 2006

In 2006, the province of Nangarhar has sustained its low levels of opium poppy cultivation for a second consecutive year. This is a precedent for a province that has come accustomed to very high levels of cultivation. While 2006 saw some rise in the amount of land dedicated to opium poppy in Nangarhar, the crop has typically only returned to the more remote parts of the province where land and water are scarce and security is more problematic. In the districts near the provincial centre, no opium poppy can be seen at all (and by all accounts none was planted). Even in many areas where cultivation was concentrated throughout the 1990s, such as lower Shinwar, Khogiani and Batikot, cultivation was typically limited to a few fields in 2006 of only half a *jerib* or one or two *biswa*.[17]

The consequences of the continued reduction in opium poppy cultivation in the province vary according to socio-economic group and location (these two issues being closely entwined). Indeed, fieldwork revealed that the severity of the coping strategies adopted, and the corresponding assets of the households that adopted them, broadly coincided with geographical areas or zones. These zones were not district-wide but more typically at the sub-district level. A crude typology of the different coping strategies adopted in these zones in both 2005 and 2006 is summarised in Diagram 2. The particular characteristics of these zones and what distinguishes them for each other are summarised in Table 1. The rest of this section discusses these findings in more detail.

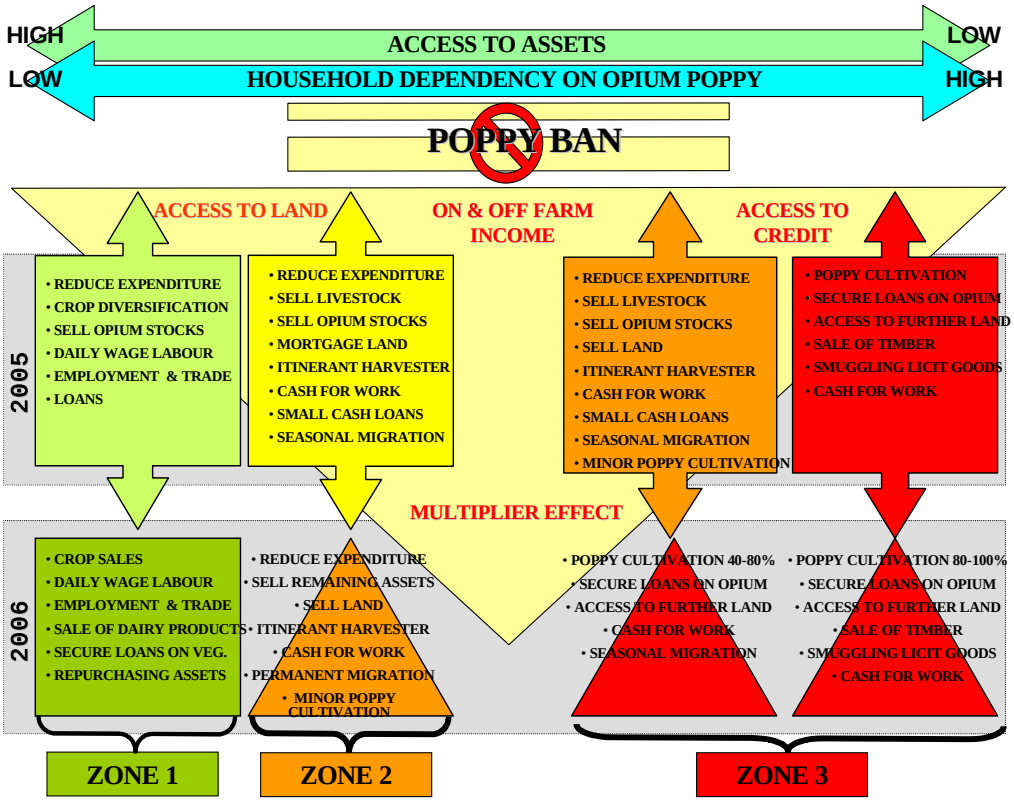
3.3.1 "Zone 1"

The first zone within the typology in Diagram 2 consists of those districts nearest Jalalabad where the abandonment of opium poppy, while not welcome in 2005, was met by a diversification in livelihood strategies. In these areas, the population has never been dependent on opium poppy cultivation, the crop has typically occupied less than 20% of household land and households generally have larger landholdings and better access to irrigation.[18] Their proximity to the provincial centre also means physical security is less problematic. Lower Surkhrud, lower Kama and the district of Behsud would come under this zone.

[17] One *biswa* is the equivalent of one hundred square metres. There are twenty biswa to one *jerib* and five *jerib*s is the equivalent of one hectare.

[18] See Anne E. Hurd and Stephen J. Masty, *Opium Poppy Cultivation Nangarhar Province Afghanistan,* Peshawar: UNFDAC, 1991.

Diagram 2. Household coping strategies adopted in response to poppy ban, by "zone"



While in 2005 many households in Zone 1 were aware of the reduction in income they experienced as a result of the implementation of the ban and had curbed their expenditure on food items accordingly, by 2006 they began to see the results of their diversification in livelihood strategies (which was supported by a substantial improvement in the availability of irrigation water during the spring and summer season that year). Those that cultivated onions had fared particularly well benefiting from buoyant farmgate prices which rose as high as 200 PKR/*seer* in 2005 (at its peak advance payments of 50,000 PKR per *jerib* were reported).[19]

By intercropping crops such as squash, tomato, and onion followed by cauliflower in the autumn households were able to both further increase their returns and obtain a constant flow of income due to the staggered nature of the harvests (see Annex: HH6). In areas such as Behsud and lower Kama these kind of cropping patterns were common. In lower Surkhrud intercropping was less obvious and crops such as spinach and okra (with opportunities of repeated harvests and subsequent regular cash flow) were the preferred option. In 2006, most of those interviewed in lower Surkhrud and Kama had further increased the amount of land they had allocated to vegetable crops. In Surkhrud, in particular, the amount of household land dedicated to onion had often doubled.

In this zone, the market for vegetables came to mimic some of the characteristics of the opium trade. Traders from Kabul and Jalalabad were found to be absorbing transportation and transaction costs, as well as the risks of spoilage by purchasing

[19] Pakistani Rupees, rather than Afghanis, are the main, often sole, currency in the province of Nangarhar. At the time of fieldwork, 60 PKR was the equivalent of US$1.

crops at the farmgate. In some cases advance payments were made on the crop prior to the harvest (although not prior to planting as was done with opium poppy in these areas in previous years). Empty bags for packing the produce were provided by traders prior to the harvest. Once the harvest was complete traders returned to collect the produce and pay any residual amount of cash owed. In these areas the cultivation of particular vegetable crops was even being perceived as collateral by those local shop keepers and traders who have until recently been reluctant to provide commodities without cash payment at the point of sale, or provide any kind of credit to households that did not cultivate opium poppy.

As they had in 2005, households in this zone continued to take advantage of the labour market in Jalalabad. While the labour market continued to be relatively depressed compared to 2004, when opium poppy was at its most prolific, daily wage rates had not fallen any further since 2005, and remained at around 120-150 PKR per day for unskilled work (this compares with 300-500 PKR for working on the opium poppy harvest in Nangarhar in 2004). The proximity of those within this zone to the provincial centre meant that those looking for work did not need to incur accommodation or transport costs (that can be punitive particularly on those days where wage labour cannot be found). In lower Surkhrud there were also opportunities to work in the brick kilns between March and October with wage rates of around 200-1,000 PKR per day (depending on how many bricks an individual could make each day). Most of the households encountered in lower Surkhrud and Kama during the course of the fieldwork had at least one male family member working in Jalalabad, often obtaining around four days work per week (see Annex: HH6).

There were also further market opportunities available to households in Zone 1. For example, farmers in lower Surkhrud were found to sell dairy products to the urban population in Jalalabad. In those areas nearest the city, traders purchase milk and yoghurt at the farmgate at a price of 10-15 PKR per kilogramme. For those with high-yielding cattle, producing between 8-10 kg of milk per day, this could be a considerable part of total household income (see Annex: HH6). Fodder crops were also sold to drivers of *tongas,* horse drawn carriages, in the city. In lower Surkhrud, the households that prospered from agricultural production in 2005 were in 2006 typically buying back some of the livestock that they had sold during the drought years.

In the immediate area surrounding Jalalabad, most farmers perceived eradication as a credible threat. It was suggested that the authorities could extend their writ within this area due to both their proximity and the absence of political cohesion among the various tribes that inhabited this zone. Given the credible threat of eradication, households within this area saw little benefit to allocating land and labour to an opium crop that was likely to be destroyed when these assets could be invested in legal livelihood options such as vegetable production or non-farm income opportunities. As a result, opium poppy was not planted in these areas.

The diversity in income streams in this zone results in a clear opportunity cost to opium production. While not commensurate with the level of income generated from opium poppy these diverse income streams are fairly significant in comparison to other areas of Nangarhar, where households have not complied with the ban for a second consecutive year (Zone 3, see Annex: HH1-HH4). Moreover, those nearest Jalalabad were more likely to comment on the improvements in economic and physical security, a "security premium" that they had experienced since the fall of the Taliban. In this zone, farmers were less likely to voice their opposition to the

government of Afghanistan or the President. Some even suggested that they were willing to forego the income that they earned from opium poppy in return for the improvements in security that they had experienced so far, commenting that they recognised the role that opium production had played in "financing the commanders and warlords" that they wished to be rid of.

3.3.2. "Zone 2"

The second zone represents areas where households are undergoing increasing hardship due to the imposition of the ban on opium poppy cultivation. These are areas in which households have not diversified their livelihood strategies sufficiently to refrain from cultivating opium poppy for a second year. The coping strategies of households in this zone suggest that they are experiencing increasing vulnerability and impoverishment. Areas that had adopted such coping strategies in 2005 were found to have resumed opium poppy cultivation in 2006 (see Diagram 2, page 13). This included areas such as lower Achin and Upper Shinwar, where 40-80% of agricultural land was allocated to opium poppy during the winter season of 2005-06 compared to only a few small fields in the 2004-05 growing season.

What is particularly worrying is that in 2006 this zone includes areas that have good access to water, such as the canal-irrigated lower Bati Kot and Shinwar, as well as areas that are relatively close to the provincial centre but experienced water shortages in 2006, such as upper Surkhrud and upper Kama and the district of Khogiani. These areas have sustained a second year of the ban on opium largely due to the sale of assets. For those households who no longer have assets to sell, the choice is largely limited to a return to opium poppy cultivation or migration.

Zone 2 is typified by extensive wheat cultivation, occupying 80% or more of agricultural land in both 2005 and 2006. In these areas, opium poppy has largely been replaced by wheat. It is argued that with the demise of opium poppy cultivation there was little purchasing power within these areas. Consequently, vegetable production is typically commensurate with the levels required for household consumption. Distance to market, poor infrastructure, and the incidence of rent seeking deters outside traders from purchasing at the farmgate. In 2005, there were some cases of vegetable traders beginning to make inroads into some areas, such as lower Batikot, but these were typically isolated cases. Indeed, a trader from the area who shipped significant amounts of wheat flour and rice between Pakistan and Afghanistan commented that vegetable traders were particularly vulnerable to bribery from "local officials" due to the perishable nature of their products. For this reason, he was not willing to diversify his business and move into vegetable trading, despite the potential for what he considered to be higher rates of profit.

While rent seeking was common in all districts across this zone, in the district of Kama it was seen as a major obstacle to the cultivation of legal crops. It was reported that each bag of green beans worth around 2000 PKR in the market at Jalalabad, cost 25 PKR to transport from Kama by truck, incurred a charge of 50 PKR in "tax" at the Kama bridge, and had 15 PKR levied on them at the point of sale.

Table 1: Categorisation of areas in Nangarhar Province by both access to assets and status of opium poppy ban

	Poppy ban likely to be sustainable	Poppy ban unlikely to be sustained in 2007	Poppy ban no longer sustained in 2006	Poppy ban not complied with in 2005 or 2006
Governance	▪ Local power elite weak or part of provincial and national government system ▪ Diverse tribal groups ▪ Close to provincial centre where government can impose will with minimum reaction	▪ Weak or divided local power elite; ▪ Accessible areas government can impose will but potential for groups in area to link with wider tribe ▪ Growing sense of "insecurity" in terms of crime and presence of anti-government elements	▪ Strong and unified tribal group ▪ Historically state penetration limited to district centre ▪ Relatively remote and perceived as "insecure"	▪ Strong and unified tribal group ▪ State presence only temporary ▪ Remote and perceived as "very insecure"
Agricultural land (winter and summer)	▪ Large: More than 15 *jeribs*	▪ Medium: More than 7.5 *jeribs* but less than 15 *jeribs*	▪ Small: Less than 7.5 *jeribs* ▪ Access to land on sharecropping or rental basis closely tied to level of poppy cultivation	▪ Very Small: Less than 3 *jeribs* ▪ Access to land on sharecropping or rental basis closely tied to level of poppy cultivation ▪ Rent payable in opium
Population density	▪ 0.5 to 1.4 per *jerib* of agricultural land	▪ 1.5 to 3.4 per *jerib* of agricultural land	▪ 3.5 to 5 per *jerib* of agricultural land	▪ Greater than 5 people per *jerib* of agricultural land
History of poppy cultivation	▪ Low percentage of total agricultural land even in peak years of production	▪ Cultivation only since war years ▪ In peak years some areas have seen extensive cultivation (50% plus of agricultural land)	▪ Long history of cultivation ▪ High proportion of total landholding allocated to poppy ▪ Extent of poppy cultivation and status of local economy very closely entwined ▪ Areas in which trade and/or processing were located in past	▪ Long history of cultivation ▪ High proportion of total landholding allocated to poppy ▪ Extent of poppy cultivation and status of local economy very closely entwined ▪ Trade and/or processing currently entrenched
Current levels of poppy cultivation	▪ None	▪ Negligible cultivation in 2005 but growing number of small plots of poppy even in accessible areas	▪ Lower levels in 2005 but extensive levels of cultivation (40-80% of agricultural land) in 2006	▪ Some households did not cultivate last year but cultivation almost 100% of land in 2006
Irrigation	▪ Canal or river irrigated ▪ Double cropping area	▪ Canal or river irrigated ▪ Double cropping (but restricted summer crop depending on water availability)	▪ Typically single crop area ▪ Vulnerable to water shortages even in winter/spring ▪ Mountain spring, snow melt or karez irrigated with growing reliance on tubewell	▪ Double crop ▪ Mountain spring and snow melt
On farm income	▪ Mixed cropping of vegetables, fodder and wheat (some wheat surplus) ▪ Sale of milk products in areas in close proximity to city	▪ Some wheat surplus (depending on family size); ▪ Limited vegetable production mainly for consumption	▪ Wheat and vegetable production for consumption only ▪ Limited purchasing power in area for production of high vale crops for	▪ Opium poppy only ▪ Summer crop of maize for consumption

		▪ In some areas evidence of penetration by vegetable traders from provincial centre and Kabul	sale; ▪ Where summer crop limited to maize	
Off farm income	▪ Limited daily wage labour opportunities in vegetable production	▪ Daily wage labour opportunities on government land currently leased to local power elites ▪ Seasonal work in poppy harvest in Balkh, Nuristan, Badakhshan, Takhar and other areas in eastern and northern regions where cultivation continues	▪ Seasonal work in poppy harvest and weeding within district	▪ Seasonal work in poppy harvest and weeding within district ▪ Collect firewood form mountains for sale locally and in Jalalabad
Credit	▪ Advance payments provided by vegetables traders for some farmers ▪ Vegetable production and employment seen as collateral by local shopkeepers and professionals get commodities and services with payment due only after harvest of winter crop.	▪ Some access from relatives and shops but becoming limited as capital diminishes; ▪ Mortgaging of land in 2005 and 2006	▪ Mortgaging of land in 2005 and 2006 ▪ With return to poppy now available but on less attractive terms to farmer than in the past.	▪ Advances payments on opium available ▪ Credit available from local shopkeepers to those that grow opium ▪ Advances payments on fire wood available in winter months
Sale of assets	▪ Limited to prior to vegetable harvest or where household experience shock	▪ Some sales of opium, livestock and high value commodities in 2005 ▪ Further sales in 2006	▪ Sold inventories of opium, livestock and high value commodities in 2005	▪ Limited to those that did not cultivate opium poppy in 2005
Livestock	▪ Partial restocking of losses of dairy cattle and oxen from drought years	▪ Continue to sell remaining livestock	▪ Sold majority of livestock only few small animals left	▪ Maintain limited dairy cattle ▪ Donkey and mules
Yields	▪ Wheat: 80 *seer/jerib* ▪ Opium: 9 kg/*jerib*	▪ Wheat: 60 *seer/jerib* ▪ Opium: 10 kg/*jerib*	▪ Wheat: 40-50 *seer/jerib* ▪ Opium: 14 kg/*jerib*	▪ Wheat: 70 *seer/jerib* ▪ Opium: 14 kg/*jerib*
Employment	▪ Daily wage labour opportunities in provincial centre ▪ Proximity means can travel each day at no or low cost ▪ Have regular income from salaried employment or vehicle for rent.	▪ Some wage labour opportunities within area (private sector and government projects); ▪ Sufficient male members of family able to travel to find work ▪ Typically unskilled daily wage labour in Jalalabad, Kabul, Pakistan or Iran ▪ Some members of extended family migrated to Pakistan on permanent basis to find work	▪ Few wage labour opportunities within area (mainly CFW); ▪ Typically unskilled daily wage labour in Jalalabad, Kabul, Pakistan or Iran. ▪ Some households no male members available to travel to find work	▪ Wage labour opportunities within area (only CFW); ▪ Wage labour in border bazaar smuggling licit goods
Examples of geographic areas in Nangarhar	▪ Lower Sukhrud, Lower Kama, Behsud,	▪ Lower Shinwar, Upper Surkhrud, Upper Kama, Lower Bati Kot, Khogiani	▪ Lower Achin; Upper Shinwar;	▪ Upper Achin

Reports continued of one particular commander operating a monopsony[20] on sugarcane across Kama district, purchasing the crop through his agents at lower than the Jalalabad market price. It was claimed that anyone trying to bypass these agents and sell in the open market were unsuccessful. A series of official and unofficial checkpoints operating along the Goshta road between Gandau in the district of Goshta on the Pakistan border, through the district of Kama to the Behsud bridge on the outskirts of Jalalabad were sufficient to prevent the "smuggling" of sugarcane. Households across Zone 2 often made the comparison between the opium market, in which traders purchased at the farmgate and incurred the cost of transportation and bribes, and the current market for vegetables in which the costs and risks of transportation were borne by the farmer.

Vegetable production was even further constrained in those areas experiencing water shortages within this zone. In some areas, such as Upper Surkhrud, tube wells have been installed to improve access to irrigation. However, due to the increasing cost of diesel many households report that there are few legal crops that earn sufficient revenue to cover the recurrent costs. Consequently, the majority of tubewells remain unused in this area.

In the context of low purchasing power, weak markets and irrigation constraints, the cultivation of wheat is seen as a low risk option. However, given the size of landholdings and the number of household members, few households report that they are self-sufficient in wheat, even in the canal irrigated areas of lower Shinwar where landholdings can be as large as 12 *jeribs* (but the number of household members can often exceed 20).[21] The relatively low labour inputs required for wheat cultivation, however, do release household labour to search for off-farm and non-farm employment.

The imposition of the ban on opium poppy in Nangarhar also means the loss of wage labour opportunities within the province. In 2006, Zone 2 had the greatest proportion of households where members of the family were absent from the home and migrating in search of work. In some villages, as many as 70% of households would have at least one male absent. Areas within the zone are not within easy reach of Jalalabad. To travel each day requires transportation that can be costly (50 PKR from Marko in Shinwar to Jalalabad) particularly when daily wage labour is typically not found every day. The result is migration from this zone is more seasonal in nature with the males of the household often migrating in search of work for weeks at a time.

Similar to upper Shinwar and lower Achin in 2005, in 2006 areas such Khogiani and lower Shinwar saw women and children left alone at home while the male of the household travelled in search of work. In lower Shinwar, there were also reports of an increasing number of entire families departing for Pakistan, leaving only a few

[20] In economics, a "monopsony" is a market form with only one buyer, called a "monopsonist", facing many sellers. It is an instance of imperfect competition, symmetrical to the case of a monopoly in which there is only one *seller* facing many buyers.

[21] It was often cited that a standard measure was applied to estimate the wheat flour requirements for each family member. This measure was 400g/day, representing the equivalent of 146 kg per year. In an area obtaining a yield of 80 *seer* of wheat per *jerib* (the equivalent of 560 kg/*jerib*) a household cultivating its own land would need the production of one fourth of a *jerib* of land per person to be self sufficient in wheat. A sharecropping household would require the equivalent of half a *jerib* of land for each family member. Clearly the amount of land required would also increase where irrigation and soil quality resulted in lower yields such as in lower Achin and upper Shinwar, where yields of 50 *seer* per *jerib* (250 kg/*jerib*) are more common.

household members behind. It was reported that the rate of migration from this zone to Pakistan would increase once the wheat harvest was complete, and that many of these migrants would not return to Afghanistan if the ban on opium poppy persisted for a third year.

Within Afghanistan many migrants from Zone 2 in Nangarhar travelled to Jalalabad and Kabul in search of employment. Others found employment in the Afghan National Army (ANA) and Afghan National Police (ANP). During the 2004-05 growing season, the province of Balkh seems to have been a common destination for male labourers from upper Surkhrud and the district of Shinwar (see Box 1). The majority of these seasonal migrants found employment in opium poppy cultivation most commonly amongst the mainly Pashtun district of Chemtal. They have even been paid preferential rates due to their perceived expertise in the harvesting of the crop.[22] Some migrants travelled on from Balkh to continue working in the opium poppy harvests in Samangan, Baghlan (Anderab district), Nuristan and Badakhshan; others reported they were nervous of working in areas inhabited by other ethnic groups. There were reports of theft and non-payment of wages, particularly in Nuristan. Many farmers in upper Surkrud and lower Shinwar reported that they would return to Balkh for the opium poppy harvest in 2006.[23]

Box 1: From Shinwar to Balkh and beyond

"Last year I went to Balkh to work in the opium poppy harvest. I went to the centre of the district with three friends and found a Pashtun farmer who was willing to employ me and my three friends. There were many people from Nangarhar in the area and maybe as many as one hundred from Shinwar. We were given one third of the final crop in payment. After we had finished we went on to Andarab district in Baghlan where we were also paid a third of the opium crop. I then went to Panjshir. There they also offered one third of the crop for harvesting but the yield was poor. I did not work in Panjshir."

With insufficient wheat to meet family food requirements, limited cash crop production and the reduction in off-farm income opportunities within the province, the majority of households within Zone 2 experienced a sizeable fall in income due to the imposition of the opium poppy ban. Making up this income deficit with loans has been problematic. With the demise of the crop from the area, advance payments on opium have not been available. Credit in-kind has also been harder to obtain as businesses and traders find it difficult to carry their existing unpaid debts. Examples of shopkeepers refusing to provide commodities on credit, such as cloth and food items to those that did not have the collateral to repay were commonplace. Pharmacies that had previously given medicine to farmers on the understanding that they would only be paid after the opium poppy harvest (typically with a premium) were not offering this service to those who were not cultivating opium poppy.

While advances on the opium crop were generally not available in this zone, loans in opium could be obtained. These loans, known as *jawzai*, were given on the understanding that the borrower would repay an agreed amount of cash for each kilogramme of opium borrowed. Repayment is expected after the harvest of the winter cropping season and at a considerable premium when compared with the actual price of opium at the time of the loan. For example, a farmer in lower Shinwar had

[22] Reports from both Nangarhar and Balkh provinces suggest that itinerant harvesters from the east are paid a share of the crop. See Adam Pain, *Water Management, Livestock and the Opium Economy: Opium Cultivation in Kunduz and Balkh,* Kabul: AREU, May 2006.

[23] Ibid.

obtained a loan of twenty *seer* of opium, agreeing to pay 25,000 PKR per *seer* in June 2006. The price of opium at the point at which the loan was made was only 15,000 PKR per *seer*.

Most households within Zone 2 have found it hard to obtain seasonal loans. Accumulated debts have also remained unpaid and were typically around 50-80,000 PKR among those households interviewed. There are increasing numbers of cases of creditors applying pressure on their lenders to repay, even where loans have been obtained from family members on an interest free basis and where there repayment is traditionally more flexible. Businesses in this zone have growing levels of unpaid loans as well as unpaid debts to businesses in Jalalabad (see Table 2). Some businesses had closed altogether; others suggested that they remained open only in the hope of collecting the loans that they had given in previous years.

There is evidence of households in Zone 2 selling their assets in order to meet both their living expenses and repay accumulated debts. Indeed, compared to other zones, Zone 2 households endured the most hardship in 2006. Expenditure on meat and fruit was further curtailed in 2006, with the majority of households reporting that they now eat meat every 15 to 21 days, compared to every week in 2005 and every three days in 2004.

Most households in Zone 2 have experienced a second year without viable alternatives to opium poppy cultivation. Typically, any opium stocks they had retained from the last crop in 2004 have been sold to meet daily living expenses. Other assets, such as livestock have also been sold in increasing numbers. The mortgaging of land is becoming more commonplace in some areas, such as lower Shinwar and Batikot. Yet mortgage rates and land prices have fallen in these areas with the demise of opium poppy typically by as much as 50%. For example, in lower Batikot and Shinwar it is reported that land prices have fallen by 50% between 2004 and 2006 and that those offering mortgages or purchasing land within the area are typically opium traders from outside the district. Only those households with access to sufficient non-farm income — thanks to the proportion of members regularly employed or the skilled nature of their labour — are avoiding a significant depletion of assets.

Most households in this zone are now under increasing stress. In 2006, as in those areas categorised as Zone 2 in 2005, there is increasing evidence of opium poppy cultivation. Fields are typically small (rarely exceeding half a *jerib*) and scattered. Though it was difficult to see any opium poppy fields from the Torkham-Jalalabad road, there is evidence of cultivation adjacent to non-paved roads within the districts. Opium poppy farmers are fearful of eradication, and consequently only cultivate small amounts of land with the crop. Most of them see few alternatives to poppy cultivation. In lower Shinwar, those cultivating opium poppy typically either had access to patron-client relationships within the local authorities and believed their crop would remain unscathed or, at the other end of the spectrum, saw cultivation as their only means for repaying accumulated debts and avoiding the sale of their land.

An increasing sense of frustration at the government and the local authorities prevailed in Zone 2. There were vociferous complaints that development assistance was insufficient and poorly distributed (typically going to village elders and *shura* members and not to those in most need). Corruption was a common discussion theme among interviewed households: Claims ranged from the number of

Table 2: Business Profiles, Nangarhar 2004-2006

Location	Type of Business	Indicator	2004	2005	2006
Jalalabad	**Hotel**	Wholesale Employed Wage Rate	15,000-20,000 PKR/day 6 100-150 PKR/day	12,000 PKR/day 4 100-120 PKR/day	10,000 PKR/day 4 80-120 PKR/day
	Clothes	Wholesale Capital Owed	20,000-30,000 PKR/day	10,000-15,000 PKR/day	5,000-7,000 PKR/day 1,000,000 PKR 300,000 PKR
	General store	Wholesale Profit Capital Owed Debt	10,000 PKR/day 500 PKR/day	7,000-8,000 PKR/day 300 PKR/day	3,000-4,000 PKR/day 0 400,000 PKR 140,000 PKR 150,000 PKR
	Tractor	Sales/month	20 tractors 140 threshers	10 tractors 70 threshers	10 tractors 140 threshers
	Cars	Sales/month	30 cars	13 cars	5 cars
Marko	**Hotel**	Wholesale Profit Employed Wage Rate	10,000 PKR/day 2,000 PKR/day 4 200-250 PKR/day	6,000 PKR/day 1,000-1,200 PKR/day 4 100-150 PKR/day	4,000 PKR/day 600 PKR/day 4 50-100 PKR/day
	Clothes	Wholesale Capital Owed Debt	15,000-20,000 PKR/day	10,000 PKR/day	3,000-4,000 PKR/day 600,000 PKR 300,000 PKR 90,000 PKR
	Electrical and Paint	Wholesale Profit Capital Owed Debt	8,000 - 10,000 PKR/day 500 - 600 PKR/day	6,000 PKR/day 350 PKR/day	3,500 PKR/day 200 PKR/day 500,000 PKR 200,000 PKR 55,000 PKR
Kahi	**General Store**	Wholesale Profit Capital Owed Debt	6,000 PKR/day 400-600 PKR/day	2,500 PKR/day 200-250 PKR/day	1,000-1,500 PKR/day 150 PKR/day 400,000 PKR 250,000 PKR 85,000 PKR
	Hotel	Wholesale Profit Owed	4,000 PKR/day 500 PKR/day	2,000 PKR/day 150-300 PKR/day	Out of Business NA 34,000 PKR
	Cloth	Wholesale Profit Capital Owed	20,000-22,000 PKR/day 4,000-5,000 PKR/day	5,000-6,000 PKR/day 500-700 PKR/day	2,000 PKR/day 200-250 PKR/day 300,000 PKR 80,000 PKR
	Vegetable	Wholesale Profit Capital Owed	4,000 PKR/day 300-400 PKR/day	3,000 PKR/day 250 PKR/day	1,500 PKR/day 100 PKR/day 30,000 PKR 20,000 PKR

checkposts *(pataks)* that had been established to "tax" both legitimate and illegitimate trade, to explanations of more complex corruption around the sub-leasing arrangements for the land under the Nangarhar canal. These claims were often accompanied with the assertion that corruption had reached an unprecedented level.

Feelings of resentment and anger were also directed at the "foreigners" that many saw as the architects of the opium poppy ban.[24] There were endless complaints over the proportion of development assistance received in the villages, with the presumption that much of it remained in Kabul or went back to the US and Europe, and over the way that the residual was distributed by "NGOs". References to interdiction operations in districts such as Khogiani and Achin, led by "US forces"[25] and targeting household compounds, were seen as contravening cultural mores and further exacerbating tension.[26]

In response there were those that made threats "to join the Taliban" or at least provide food and shelter to anti-government forces that might pass through the area. In Khogiani district, security had deteriorated considerably at the time of fieldwork with Improvised Explosive Devices (IEDs) being used against Afghan National Police (ANP) and Afghan National Army (ANA) vehicles entering the area. It was claimed that the current district administrator, himself from Khogiani, had become deeply unpopular for his continued enforcement of the opium poppy ban.

In both lower Batikot and Shinwar, relatively wealthy businessmen who had prospered since 2003 expressed concern for their security because of the deteriorating living standards and growing discontent of the majority population in their villages as an effect of the poppy ban. Given the prevailing conditions and clear evidence of stress in household livelihood strategies within Zone 2, it should be of little surprise that there are now reports, particularly from Shinwar district, that implementation of the opium poppy ban for a third consecutive year will not be tolerated.

Late planted and poorly germinated crop after eradication, in Upper Shinwar.

3.3.3. "Zone 3"

The third zone in Diagram 2 represents those areas where the opium poppy ban is not enforced and where households are typically highly dependent on opium production due to the limited assets they have at their disposal. These are areas where there is greater tribal cohesion, where government presence and delivery

[24] "Foreign people don't want Afghans to have a good economy or good life. They want to keep Afghan people poor. They want to keep Afghan people as the slaves of foreign people. This is not good. A lot of money comes to Afghanistan but 80% goes back to the US and Europe only 20% stays. We don't agree with the cultivation of poppy but we don't agree with the policy of the government. In the last four years they have spent a lot of money but nothing has happened", respondent in Khogiani.

[25] All foreign soldiers seem to be referred to as "US forces".

[26] Interestingly, this is in contrast to raids on heroin laboratories which occurred during fieldwork in Achin and which respondents saw as legitimate targets.

has always been limited, and where the local authorities typically gain access through negotiation rather than force. These are also areas in which the trade in opium and its processing into morphine base and heroin took place during much of the 1990s.

In 2005, opium poppy cultivation was typically restricted to upper Achin, where landholdings are particularly small and where legal livelihood opportunities are limited. Population density in this area is particularly high, and it is not uncommon to find households of fifteen members or more occupying as little as one to two *jeribs* of agricultural land.[27] In upper Achin, intensive opium poppy cultivation has become a means for maximising returns on scarce irrigated land. Indeed, it is one of the few areas in Afghanistan where opium poppy is often monocropped.[28] Wheat cultivation would leave households with considerable food deficits. There are limited options in terms of cash crops due to distance to markets and poor infrastructure. Livestock ownership is constrained by the shortage of fodder crops and wheat straw (due to intensive opium poppy cultivation) and the subsequent cost of purchasing feed on the open market.[29]

Even households that monocrop opium poppy, however, need to supplement the income they earn from opium production with off-farm and non-farm income opportunities (see Annex: HH1 to HH4). Cross-border trade, smuggling goods between Afghanistan and Pakistan from Gorroko bazaar in Dur Baba, seems to provide a significant part of household income.[30] Collecting firewood from the mountains for sale locally or in Jalalabad is also an important source of revenue. In this area there is a premium on owning mules and donkeys for the transportation of firewood and smuggling goods over the mountains into Pakistan. Consequently, revenues earned from opium poppy cultivation are often used to purchase mules or donkeys.

There were some attempts to reduce opium poppy cultivation in upper Achin in 2005. However, in 2006, cultivation has once again returned to its "normal" level, occupying 80-100% of household land. Given the resource constraints and popula-

[27] This is supported by the findings of Alan Roe, who reports that villages in this area "have the smallest cultivated area per capita of all baseline survey sites. Where water is increasingly scarce, crop diversity diminishes. Human diet (linked to crop diversity) and assets as an indicator of disposable income are also lowest in the upper villages". See Alan Roe, *Water Management, Livestock and the Opium Economy: Baseline Survey,* Kabul: AREU, 2006.

[28] David Mansfield, *What is driving opium poppy cultivation? Decision making amongst opium poppy cultivators in Afghanistan in the 2003/4 growing season,* paper prepared for the UNODC Second Technical Conference on Drug Control Research, 19-21 July 2004.

[29] Euan Thomson reports that "Farmers in villages in Achin district, where poppy eradication campaigns took place in spring 2006 and holding sizes are often tiny, were even more likely to sell young animals to raise cash during the months before the wheat harvest. This finding helps to explain why livestock ownership is limited in the upper villages in Achin district and why fragile livelihoods make it even more difficult for them to restock their herds". Euan Thomson, *Water Management, Livestock and the Opium Economy: Livestock Production and Health*, Kabul: AREU, 2006. Alan Roe reports that "the relationship between poppy cultivation and livestock is complex. There is a very strong inverse relationship between cows and poppy cultivation, perhaps suggesting competition over land resources for fodder production. In contrast, there is a mild correlation between ovicaprid ownership and poppy cultivation, possibly indicating that poppy incomes enable farmers to support these capital growth assets. The data is consistent with reports of widespread sales of small ruminants in response to the loss of poppy incomes". Alan Roe, *Water Management, Livestock and the Opium Economy: Baseline Survey,* Kabul: AREU, 2006.

[30] Goods such as clothes, tyres, televisions and fridges are smuggled across the border at Gorroko bazaar. Goods are moved by donkey or mule for up to eight months of the year. Those with their own mule can earn 300-500 PKR per day, those with a donkey 150-250 PKR per day. Those with neither are employed for 100 PKR per day. A mule costs 50,000 to 150,000 PKR and a donkey 20,000-40,000 PKR.

tion densities in this remote area it is difficult to see how the majority of households without access to non-farm income opportunities would meet their basic needs without recourse to opium poppy cultivation (see Annex, HH1 to HH4).

In 2006, opium poppy cultivation returned to areas that did not cultivate in 2005 but that have better asset endowments than upper Achin, such as lower Achin and upper Shinwar. Judging by the coping strategies that households adopted in these areas in response to the 2005 ban, a return to opium poppy cultivation in 2006 was inevitable. These copings strategies are the same as those adopted in 2006 in other areas, such as lower Shinwar, and provide insight into how things might develop in the 2006-07 growing season.

Evidence of late planting in Upper Shinwar, April 2006.

The majority of households in lower Achin and upper Shinwar do not have the capital to endure a further year without opium poppy cultivation. In 2005, assets were sold — including opium stocks, livestock, vehicles and jewellery — and land was mortgaged or sold at deflated prices. For others, unpaid debts resulted in an accumulation of interest. In many of these areas, the land cultivated with opium poppy in 2004 was simply replaced by wheat during the 2005 growing season. As a result, they experienced the same problems of food insecurity that in 2006 are seen in lower Shinwar and Bati Kot. Similar to those areas categorised as Zone 2 in 2006, vegetable production did not prove viable in upper Shinwar and lower Achin due poor purchasing power and irrigation constraints.

When revisiting the same households and the same areas for a second consecutive year it was clear there was little enthusiasm for sustaining a ban on opium poppy cultivation in 2006. While in 2005 only a few *biswa* of opium poppy were visible, much larger fields were being cultivated in 2006. Eradication was a concern and was ongoing at the time of fieldwork, but for most of those interviewed the potential destruction of their crops was not sufficient to deter them from planting opium poppy in the first place. As one respondent commented, with only one *jerib* of land, sixteen family members, insufficient irrigation and no viable vegetable market, he had little choice but to cultivate opium poppy: "If I cultivate wheat my family starves, if I cultivate opium poppy and the authorities destroy it, my family starves. What is the difference?" This individual had in fact obtained a further half a *jerib* of land as a sharecropper (on which he had also cultivated opium poppy) as a consequence of the increasing demands for labour that had accompanied the village's return to significant levels of opium poppy cultivation.

Despite the economic pressure to cultivate, many households did not plant their opium poppy until very late in the season — in some cases as late as the end of January. It was suggested that those who planted late were both concerned about

the prospect of eradication and lacked the cash for fertiliser. Up to one third of the crop seen during fieldwork in upper Shinwar and lower Achin was planted late. Poor germination was evident on these fields and as a result, these were often the crops that farmers "volunteered" for eradication by the local authorities. Many farmers thought late planting would result in considerably lower yields.

The return to extensive opium poppy cultivation in Zone 3 has led to increased access to land, credit and water. The demand for sharecroppers returned once landowners had shifted back to poppy from wheat, which is typically cultivated using household labour. Credit was also more readily available in 2006 than in 2005 (although it was not as accessible as in 2004). For example, some households had obtained an advance payment, known as *salaam*, on their future opium poppy crop. Rates of payment had diminished, however. For instance in lower Achin, advance payments of only one fifth and one third of the prevailing price of opium were reported, compared to the traditional rate of 50%.

In the *karez*-irrigated areas of lower Achin and upper Shinwar, the tubewells that had remained dormant in 2005 while the land was cultivated with wheat, were running in 2006 (see Box 2). In most of these areas, tubewells have been sunk due to the limited amount of water flowing from the traditional underground water system. Often these tubewells were financed jointly between a number of families and managed as a common resource. Typically, the construction and equipment required had been paid for by loans. It was often suggested that opium poppy was the only crop that could cover the recurrent costs of operating the tubewells given the high costs of diesel and the sheer number of irrigations required.[31] The costs were even more punitive for sharecroppers who, it was reported, had to rent the use of the tubewell at a mark-up of 50-70% an hour.

Eradication took place in Zone 3 in 2006, but using a pragmatic approach. While opium poppy cultivation was not tolerated in the lower-lying valleys near the provincial centre and along the Jalalabad river (Zone 1 and Zone 2), the local authorities were aware of the prevailing levels of vulnerability in some of the more remote districts of the province following the previous years' almost blanket ban. Consequently, the authorities were less strict in enforcing the poppy ban in these areas, fearing a backlash and growing support for anti-government forces.

Box 2: 'If we want water, we grow poppy'

In a village in lower Achin twelve tubewells had been sunk, most of them in late 2004. The village had four karez but three were completely dry and one almost dry. The cost of installing a tubewell was estimated at between 100,000 to 160,000 PKR each. In the autumn of 2004 opium poppy was cultivated but the local authorities destroyed it. Villagers replaced the crop with wheat, which yielded at best 60 seer per jerib. To make ends meet many of the men of the village travelled to Kahi, Pekhwa, Bati Kot and Ghani Khel in search of employment returning to the village by foot each day. Others went to Pakistan to work in the brick factories for around 150 PKR/day. In 2006, opium poppy was cultivated once again, occupying as much as 70-80% of agricultural land. Those who do not own the tubewell had to rent it for 250 PKR per hour. Given the sandy loam soils in the village, each jerib under cultivation required four hours of water and seven irrigations in total (a total of 7,000 PKR for water alone). The authorities had moreover instructed the villagers to eradicate 20 jeribs of opium poppy.

[31] In some areas with sandy soils up to seven irrigations were required.

In upper Shinwar and lower Achin, eradication took place in the week prior to and during fieldwork. In both areas, villagers reported that the authorities had allocated a specific number of *jeribs* that needed to be eradicated in their village. The village was given the task of deciding which fields would have their crop destroyed and on which criteria they would be selected. Whether compensation should be given to those that lost their crop was also left to villagers to decide. In both locations it was typically those fields nearest the roadside that were destroyed ensuring ease of access and preventing other crops from being damaged en route to the fields.

In upper Shinwar, where the remains of opium poppy plants could be seen after destruction, it was clear the crop had been planted relatively late and had not germinated well. It was reported that the owner of this *biswa* of land would receive 7,000 PKR as compensation from his fellow villagers for the loss of his crop. It is unclear how limiting the extent of eradication and sharing the cost it imposes among community members will impact on next year's planting, but it may have helped prevent violence in these areas in 2006.

3.4 Findings

The situation in Nangarhar province is both complex and dynamic. Opium poppy cultivation has remained low for a second consecutive year, a precedent for a province that has proven such a prolific producer of opium in the past. However, it is clear that much lay in the balance for the coming season.

In the areas around Jalalabad there are signs of a change in rural livelihood strategies. Investments in crop diversification and in non-farm income opportunities are paying dividends. Proximity to the agricultural and labour markets in the provincial centre as well as improvements in infrastructure have been instrumental. An increase in the demand from vegetable traders in the urban centres of Jalalabad and Kabul has led to purchases at the farmgate, as well as advance payments on future crops. Farmers in these areas have clearly benefited from adopting mixed cropping systems as well as increased precipitation in 2005. Daily wage labour opportunities, while not as numerous or as well paid as they were in 2004 when opium poppy cultivation was more prolific, have also played an important part in making up the shortfall in income caused by the enforcement of the opium ban in these areas. Households in these areas are even buying back assets that they had sold during the drought years.

In the more remote parts of the district, opium poppy cultivation continues unabated. These are areas where opium poppy was cultivated, albeit on a small scale, even during the period of Zahir Shah. After 25 years of conflict, land holdings are now so small, population densities so high and access to labour and agricultural commodity markets so limited that it is difficult to see how these areas could sustain their population without recourse to opium production.

Only 45 minutes' drive from Jalalabad there is evidence of hardship that communities seem unwilling and unable to endure for a further year. The coping strategies adopted by households in these areas are the same as those adopted in 2005 in more remote areas, which subsequently returned to extensive opium poppy cultivation in 2006. It may be a surprise to some that areas so near the provincial centre, which also enjoy two cropping seasons, do not have access to viable alterna-

tives to opium poppy. After all, these areas are typically seen as relatively prosperous and as targets for opium poppy eradication.

Low effective demand, the high incidence of rent seekers, small landholdings and high population densities conspire against farmers' moving into cash crop production. Access to labour markets incurs transportation and accommodation costs and requires the males of the household to reside outside the family compound and village on a seasonal basis. Wheat cultivation continues to dominate in this area, suggesting there has been little qualitative change in rural livelihood strategies. An opium poppy ban is unlikely to hold into another season without increasing levels of violence and political discontent.

While some argue that it is the political commitment of the provincial and district authorities that will determine whether the ban on opium poppy will be sustained across Nangarhar for a third consecutive year, research shows that the fate of the ban in large part lies with the economic realities facing rural households. The ban on opium poppy cultivation has imposed a heavy toll on household livelihood strategies, as evidenced by the sale of long-term productive assets (such as land), the migration of families to Pakistan, and the labour migration of male members of households. These are the very same coping mechanisms seen in 2005 in more remote and less asset-wealthy parts of Nangarhar, which subsequently returned to opium poppy cultivation in 2006. The local authorities have recognised the growing level of vulnerability in these areas and taken a pragmatic approach to eradication to avoid reprisals and minimise political opposition.

The deterioration in economic indicators amongst businesses across Nangarhar over the last two years, as well as increasing incidences of unpaid debt, further implies that the effect of the ban on opium poppy is felt far beyond those involved in its cultivation. Such a downturn in economic activity can exact a political price. When combined with growing dissatisfaction with the local authorities due to perceived increases in corruption and unmet expectations on service delivery, it is likely that any existing political commitment to the opium poppy ban will be tempered by more pressing political and economic realities. It remains to be seen whether there will be a return to opium poppy cultivation across larger swathes of Nangarhar in the 2006-07 growing season. Without a significant improvement in the livelihood options for the bulk of the rural population, it is clear that the ban on opium production implemented during 2005 and 2006 is looking decidedly fragile.

4. Ghor Province: Marginal Area, Marginal Crop

Since the mid-1990s, Afghanistan has experienced a proliferation of opium poppy cultivation into areas with no known history of cultivation. In 1994, UNODC reported opium poppy cultivation in only 8 provinces; by 2004 the crop was being cultivated in each of the 34 provinces in the country.[32] While in the late 1990s there were a number of reports that charted the socio-economic, political and environmental processes that led to the expansion of opium poppy into new areas,[33] the same cannot be said of the more dramatic expansion in the number of new areas cultivating opium poppy since the fall of the Taliban.

It is often assumed that the movement of opium poppy into new provinces is solely a function of the price increases that followed the Taliban's prohibition on opium production in the 2000-01 growing season. Little thought is given to how households learn the requisite skills for its cultivation, gain access to the necessary inputs, and develop linkages with markets, particularly in those areas that are not on the traditional trafficking routes. Often it is claimed that the opium traders are the sole protagonists in the crop expanding into new areas, despite evidence in Afghanistan in the late 1990s to the contrary.[34]

This section looks at Ghor, one of the provinces reported to have begun opium poppy cultivation since the fall of the Taliban in 2001. It seeks to explore how a province that many had assumed did not have the ideal environmental conditions for widespread cultivation has witnessed such a dramatic increase in cultivation within a short time frame. Looking at the impact of the 2006 opium crop failure in Ghor, this section explores the resilience of livelihood strategies and the ability to cope without opium poppy cultivation in the future.

4.1 Ghor: An overview

The province of Ghor is located west of the central highlands, bordering eight provinces: Herat, Badghis, Sari Pul, Bamian, Daikundi, Helmand and Farah. It is considered to be one of the poorest and most isolated provinces of Afghanistan. Access to much of the province is possible only between May and October, by four wheel drive vehicles. In the winter months (November to April) most of the roads are closed. In the summer months the journey between the provincial capital of Chaghcharan and either Herat or Kabul takes two to three days.

Some maps currently divide the province into seven districts: the district of Chaghcharan; Shahrak, Tulak and Saghar to the west; Taiwara and Pasaband to the south, and on the eastern border the district of Lal wa Sar-i Jangal. Increasingly, the district of Chaghcharan is referred to as being subdivided into the districts of Char-

[32] There is an important distinction between when opium poppy was reported for the first time and when it was cultivated for the first time. For instance, there were reports of opium poppy being cultivate in both Ghor and Wardak in 1999 but it was not possible to verify cultivation. UNODC and USG first reported opium poppy in Ghor in 2002 and 2003 respectively.

[33] See UNODC Strategic Study No. 1 and No. 5, *An Analysis of the Process of Expansion of Opium Poppy to New Districts in Afghanistan,* Islamabad: UNODC, 1998.

[34] Ibid. It was typically itinerant workers who had cultivated opium poppy in areas in which the crop had become entrenched were found to be responsible for subsequently introducing the crop into districts in which they resided.

sada to the north and Dawlatyar to the east (although it is unclear whether this is official).

The main language spoken in the province of Ghor is Dari. An estimated 90% of the population of Ghor are Aimaq, a Persian-speaking tribal grouping. Pashtuns make up the second largest ethnic group, and there is a Hazara population in Lal wa Sar-i Jangal. The province also represents an area of important summer pasture for pastoralists from various parts of the country; both Pashtun and Aimaq *kuchi*, or *maldars,* can be seen with their flocks throughout July and August.

Crop production, livestock and off-farm and non-farm employment are the main sources of livelihood in Ghor. An estimated 80% of the population depend on agriculture and animal husbandry. Irrigated land is limited: The district of Chaghcharan is particularly dry with an estimate of only 6% of land irrigated; for the province as a whole, 70-85% of the land is reported to be rainfed. The main crops cultivated are wheat (the majority rainfed) and barley. In the last few years there is a reported marked increase in the cultivation of potatoes. In Chaghcharan, opium poppy is typically cultivated in irrigated land often adjacent to the potato crop. In areas where there is more irrigated land, such as the southern districts of Pasaband, Taiwara and Shahrak, fruit and nuts are grown. Clover, alfalfa and other fodder crops are also grown in the river valleys. Grasses and weeds are collected for fodder from the irrigated land and in the upland pastures.

Crop production is typically for household consumption. Some households do sell part of their potato crop and fodder but much of it is stored and consumed by the family. Opium is produced purely for cash income but prices fluctuate quite widely — reportedly due to the market conditions in the southern region — making the economic returns difficult to predict at the time of planting. Livestock is an important source of income, particularly in areas where irrigated land is in short supply. Cattle, sheep and goats, as well as dairy products such as *kurut* (dry yoghurt) and ghee are sold locally for cash. Wool is made into carpets, kilims and *namats* (felts).

There has been a history of migration from Ghor in search of off-farm and non-farm employment. Typically it is the young males that migrate after the preparation for the winter is complete. Rates of migration are higher when crop production is insufficient to meet the food requirements of both the household and its livestock. Migration was reported to be particularly common during the drought from 1998 to 2002, when there was widespread crop failure in the rainfed land. The most commonly reported off-farm income opportunities were in the south of Afghanistan, typically in opium production. Non-farm income opportunities are found in Chaghcharan in the construction industry as well as in other parts of the country.

Iran is also an important source of non-farm income for households. Daily wages in the construction industry range from 300 to 350 Afs for non-skilled labour and up to 700 Afs for skilled work. Migrants can travel there either legally or illegally. The preference seems to be for using the well-trodden smuggling routes through Nimroz and Farah despite the risks of detection. The costs of travelling to Iran illegally or legally are about the same (12,000-15,000 Afs), but the legal route requires advance payments as well as paperwork that can take up to two months. This deters those with limited financial means.

4.2 The cultivation of opium poppy in Ghor

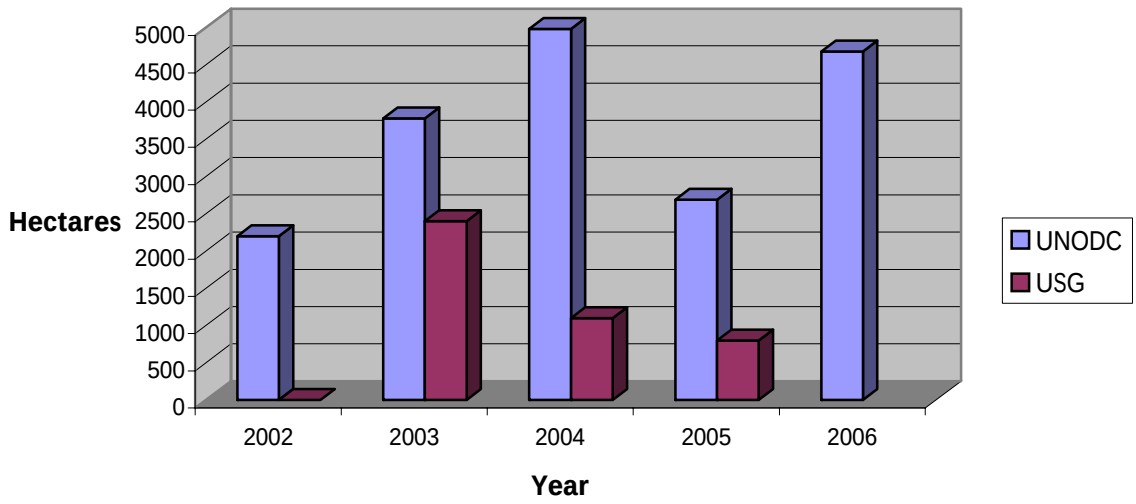
4.2.1. The history of cultivation

The province of Ghor does not have a history of opium poppy cultivation, but its inhabitants do. Since the late 1990s, there have been reports of agricultural labour from Ghor travelling south to the province of Helmand to find seasonal work. Fieldwork in Helmand in 1999 revealed that a significant number of those working in the opium poppy harvesters in the southern and central districts of Helmand were from Ghor.[35] These itinerant labourers — mainly from the districts of Pasaband, Sharaq and Taiwara (all neighbouring Helmand) and typically from the Tamaini tribe — were often referred to as "surgeons of harvesting", a comment on their perceived superior lancing skills.

UNODC reported that opium was being grown in Ghor for the first time in 2002, when it estimated that 2,200 ha of the crop were being grown. By 2003, UNODC reported that the crop had increased by 72% to 3,782 ha, rising again in 2004 to an estimated 4,983 ha. In 2005, UNODC reported that cultivation had fallen to 2,689 ha, only to report in 2006 a 74% increase to 4,679 ha. The United States Government (USG), on the other hand, reported opium poppy cultivation in Ghor for the first time in 2003, when it estimated that 2,400 ha were grown. In contrast to UNODC, the USG estimated that cultivation fell by 54% in 2004 to 1,100 ha, and decreased again in 2005 to 800 ha. USG estimates for Ghor were not available for the 2005-06 growing season at the time of publication.

Reports from respondents in Ghor suggest that cultivation predated the official statistics of UNODC and the USG. There was no consensus regarding the exact year that opium poppy was first introduced to the province, as reports differed by district and valley. There was unanimity, however, that opium poppy had been grown in the districts of Chaghcharan, Sharak and Dawlatyar prior to 2002. Some respon-

Figure 2. Official estimates of opium poppy cultivation in Ghor Province, 2002-06



[35] UNODC Strategic Study No. 4, *The role of opium in the strategies of itinerant harvesters working in the Helmand province,* Islamabad: UNODC, 1999.

dents claimed opium poppy cultivation was introduced into the province in 1998 — "when the Taliban came to power" — albeit on a limited basis.[36] The dominant view was that cultivation made its most significant inroad into the province in 2001, the year of the Taliban prohibition. Fieldwork in other districts has also confirmed this claim.[37]

4.2.2 The extension agents

In Chaghcharan and Shahrak, respondents claimed that Pashtuns from Afghanistan's southern provinces, generically referred to as Kandaharis, came to Ghor in 2001 with the purpose of extending the opium crop to the area due to the strict enforcement of the opium ban in their own districts. These farmers typically leased land in Ghor or obtained it on a sharecropping basis, often paying the full cost of production in return for only half of the crop.[38]

Qashuq *or* rambey *typical of the southern region*

It was also reported that Kandahari traders had provided seeds to farmers in the area. Evidence of Kandahari penetration can certainly be seen in the form of the typically southern equipment used for lancing *(neshtar)* and collection of the gum (*quashuq* or *rambey,* see photo).[39] Varieties of opium poppy cultivated in Ghor were also those of the southern region and, as in the south, after the harvest the opium is subsequently stored in plastic bags rather than in the leaves like in the eastern region.

In the district of Dawlatyar, and to a lesser extent in Chaghcharan and Sharak, the expansion of opium poppy was blamed on the return of itinerant workers who had previously (or still) worked in the opium poppy fields of the southern provinces. Many had gone looking for work during the drought years and had returned with seeds and knowledge of opium poppy cultivation. Three of those interviewed reported that having had direct experiences of cultivating opium poppy in the southern provinces, two in Helmand and one in Farah. One respondent, a *kuchi* nomad, still travels between the province of Helmand and Dawlatyar selling his livestock in the district of Nawzad in the winter and cultivating opium poppy in Dawlatyar in the summer months.

[36] Initial reports of opium poppy cultivation in Ghor were received in 1999 during the implementation of the annual opium poppy survey but unfortunately these reports were neither specific nor timely enough to verify.

[37] Author's personal communication with Adam Pain and Jonathan Goodhand. Fieldwork in Chaghcharan, Sharak and Taiwara in 2003 also reported that cultivation was introduced in 2001. See david Mansfield, *What is driving opium poppy cultivation? Decision making amongst opium poppy cultivators in Afghanistan in the 2003/4 growing season,* paper prepared for the UNODC Second Technical Conference on Drug Control Research, 19-21 July 2004.

[38] In most other parts of the country, sharecropping arrangements for opium poppy cultivation are more favourable with the landowner either paying for all or half of the cost of inputs.

[39] The style of *neshtars* and *qashuqs,* or *rambeys,* used can vary by province and in some cases (such as in the eastern region) even by district.

It appears that the Tamaini are the main protagonists in the extension of the opium crop within Ghor, as well as most likely to travel in search of opium-related work. It was reported that the Tamaini were not only more likely to work in Ghor's southern neighbours but also sell their labour in Charsadda in northern Ghor.

4.2.3. Agricultural practice

In the districts of Chaghcharan and Dawlatyar opium poppy was typically grown in the prime irrigated land near the household compound. It was rarely rotated and typically cultivated next to potato, clover and alfalfa. Only in the upper reaches of the valleys, where irrigated land is scarce, did it occupy a majority of land. For those in the lower and middle parts of the valleys, with between 6 and 12 *jeribs* of irrigated land, opium poppy typically occupied less than 10% of household land.

It is clear that most of those interviewed who were growing opium poppy were not familiar with the optimal agricultural practices for the crop. The crops seen were not weeded properly or thinned and in most fields a combination of different varieties of opium poppy was cultivated.[40] The timing of planting (and subsequent harvest) seemed to differ considerably despite altitude.[41] Plant and capsule sizes were particularly small compared to other regions of the country. Lancing and collection was typically not undertaken systematically but in a rather ad hoc manner resulting in lower levels of production.[42]

None of those interviewed hired outside labour and only one respondent (in 2006) was working as a daily wage labourer. Cultivation was typically commensurate with the household supply of labour. Children, both boys and girls as young as eight, could often be seen assisting older family members in harvesting the crop. In 2006, young boys were often seen harvesting the crop alone.[43] In some areas, particularly in Dawlatyar, and the valleys of Sufak and Ahangaran it was not uncommon to see women harvesting opium.

4.2.4. Yields

In 2005, the respondents in Chagcharan who had harvested their crop or were in the process of completing the harvest reported yields of around 3-5 kg per *jerib*. In 2006 yields were even lower, rarely exceeding 1 kg per *jerib*. Despite conducting fieldwork one month earlier than in 2005, most of the crop planted in March 2006

[40] When questioned about the varieties of opium poppy grown, farmers often referred to *mananai,* a variety common to the south, even when there were mixed varieties grown. Mixed varieties are rarely seen in the same field among the more experienced opium poppy cultivators of eastern and southern Afghanistan. For more details on the varieties of opium poppy grown see, "The varieties of opium poppy cultivated in selected districts in Afghanistan" in *the Afghanistan Annual Opium Poppy Survey 1999,* Islamabad: UNODC, 1999.

[41] Where there is a longer tradition of poppy cultivation, areas of lower altitude would typically plant and harvest first, followed by areas higher up the valley. In Ghor, crops in the higher valley could often be seen at the harvest stage while lower in the valley the opium crop was only just flowering. In some areas, the crop was being lanced whilst in the adjacent field it was still in the "cabbage" stage.

[42] Where harvesters are more experienced, they will work backwards through the field, pressing each capsule prior to lancing. When they return to collect the gum they will move forwards slowly revisiting each capsule that they lanced the previous day. In Ghor, those harvesting could be seen going from across the field looking for plants to lance or collect from. In some cases this led to much of the final harvest being on harvesters' clothes rather than in the collection bowl.

[43] One respondent reported that he had a preference for his son of 12 to lance and collect the gum as the crop was so low in height this year that harvesting was hurting his back.

had already been harvested. Farmers across the districts of Chagcharan and Dawlatyar complained that the crop was diseased. There was consensus that the first signs of crop failure were the yellowing of the leaves, which subsequently blackened and withered. As a result, the crop was stunted (rarely in excess of 30 cm tall) and very little gum oozed from the capsule when it was lanced. Some capsules were completely dried and purple in colour. None of those interviewed could identify the disease or its cause, but most blamed the drought.

New crop planted (foreground) once evidence of possible failure revealed. Neighbouring field

In Dawlatyar it was a commonly held view that opium poppy had not fared well over the last four years. The 2005 growing season was seen as the exception where yields as high as 7.5 kg per *jerib* were reported. Similar views were held in Chaghcharan with the exception of Kasi, a particularly dry valley where opium poppy was limited to a few *biswa* and most respondents were of the view that its cultivation did not merit the inputs required. In Chagcharan and Shahrak there were constant references to "the year of the Taliban ban" (2001) and the "first year of Karzai" (2002) as the "golden years of opium poppy cultivation", with yields as high as 10 kg per *jerib*. Despite these claims, none of those interviewed had obtained these yields themselves, it was always a neighbour or someone in the adjacent valley or district that had been so fortunate.

The presence of "Kandahari" buyers and the access to advance payments prior to the harvest of the crop in both 2001 and 2002 were all viewed with nostalgia.[44] Since then, it was reported that most of the Kandaharis had gone, the crops had

[44] Hotel owners in Chaghcharan, and in Ghouk and Jam in Sharak reported that they had witnessed a reduction in the amount of customers since 2002. They attributed this to a reduction in the number of traders travelling to Ghor to purchase opium.

failed in both 2003 and 2004, and cultivation had been significantly reduced. There was some recovery in 2005, but then widespread crop failure again in 2006.

Given the quality of what was reported to be a good crop in 2005, when irrigation was more abundant, and the poor agronomic techniques being applied, it is difficult to believe that yields as high as 10 kg per *jerib* could be obtained in Chaghcharan, Shahrak or Dawlatyar. The Kandaharis and the more experienced local farmers who had worked in the opium poppy fields of the southern provinces may have had the requisite skills to obtain yields approaching the national average, were the right environmental and climatic conditions to prevail, but there must also have been a reason why most of them chose to leave Ghor in 2002. Though respondents did not have an explanation for their departure, the fall of the Taliban and the opportunity for them to return to their own land and cultivate opium poppy in less marginal conditions is likely to have been an important factor.

4.3 Factors influencing poppy cultivation in 2005 and 2006

4.3.1. Reductions in cultivation in 2005

As in other parts of the country, the level of opium poppy cultivation in Ghor fluctuates according to range of different factors that are context specific — a function of price, time, location and household circumstance. There are also many other factors that a farmer considers prior to committing his resources to any crop, particularly such a resource intensive crop as opium poppy.

In the districts of Chaghcharan, Shahrak and Dawlatyar, where opium poppy cultivation does not have a long history and where knowledge of the crop is limited, there does not seem to be a commitment among farmers to cultivate on a yearly basis. Instead, farmers look to the previous year's experience and tend to move in and out of cultivation accordingly. For example, of those interviewed in 2005, nine households (33%) who had cultivated opium poppy in previous years did not cultivate in 2005. All blamed poor yields in 2003 and 2004 for their abandonment of the crop. Three respondents had reduced the amount of land they had dedicated to the crop. All of them were aware of the ban on opium poppy cultivation imposed by the government, but the prevailing view was that "Allah had banned opium poppy, not the government".

In Chaghcharan in 2005, opium poppy was typically cultivated in the upper valley areas where access to irrigation water was more reliable. It also seemed to be more prevalent among farmers with more irrigated land, who could possibly cover the risk of crop failure. The exception was in the upper reaches of the valley of Sufak, where both irrigated land and livestock are scarce. In the drier valleys, such as Kasi, the crop was limited to all but a number of small plots. Here, reports of the systematic failure of the opium poppy crop were commonplace and there seemed to be a far greater reliance on non-farm income from Iran compared to other valleys in the district.

In Ghouk, Jam and Kamenj, there was little opium poppy to be seen in 2005. Respondents in these valleys claimed that they had not obtained good yields from opium poppy even in 2001 and 2002. Typically they attributed this to frost. Respondents expressed little desire to cultivate opium poppy in the future, and rely instead on the production of fruit and nuts, as well as livestock and vegetables, all for sale in Herat.

4.3.2. Sporadic increases in cultivation in 2006

In 2006, the previous year's relatively good yield attracted more farmers to cultivate opium poppy in the district of Chaghcharan. There was evidence of opium poppy cultivation in the lower reaches of some valleys and along the main road to Herat, where it had not been seen in 2005. Fields rarely exceeded one *jerib* and often were no more than half a *jerib*.[45]

Among respondents who had cultivated opium poppy in 2005 and continued to do so in 2006 there was little evidence of an increase in the level of cultivation. Priority was given to cultivating sufficient levels of wheat for the family and fodder for livestock. The availability of family labour was also a constraint with most households expressing reluctance to employ outside labour to work on the crop. In the higher ends of the valleys, the amount of irrigated land also prevented an expansion of the crop. For example, in the valley of Sufak, the amount of irrigated land at the top of the valley rarely exceeded one *jerib*, and in upper Qartoos three *jeribs* was the maximum amount of irrigated land per household (allocated to opium poppy, wheat and fodder crops). In the district of Dawlatyar it was reported that the level of opium poppy cultivation had actually fallen between 2005 and 2006, with some of the reduction made up by an increase in the amount of land allocated to potato. None of those interviewed in Dawlatyar had increased the amount of land they had allocated to the crop, typically cultivating opium poppy in the same land as they had the previous year (and more often than not the year before last).

For the majority of those interviewed, opium production was seen as a source of cash income to make up any food shortage from their own land. In those areas where the crop could obtain a reasonable yield it could mitigate against the need to sell livestock or migrate in search of work. It was notable that in those areas where the crop did not fare well and where there were few other sources of income, rates of migration were significantly higher than in other areas. For example, in the valley of Kasi, 50% of the households had members of the family working in Iran. At the time of fieldwork a further 50 people from the valley had just left for Iran and it was anticipated that the number of people migrating would increase once the wheat harvest had been completed. This compared to only 20% of households with family members in valleys such as Sufak in Chagcharan and across the district of Dawlatyar. Similarly for those households that had lost their livestock during the drought, a good opium yield might reduce the pressure to migrate in search of cash income.

4.3.3. Widespread crop failure

Particularly low opium yields in the districts of Chaghcharan and Dawlatyar in 2006 has compounded the impact of the drought on rural livelihoods in the area. There was consensus among respondents that the wheat crop in the rainfed land had failed this year due to limited snow during the winter months and the failure of the spring rains. As a result, most households would not be self-sufficient in wheat flour or wheat straw for their livestock for the coming winter.

[45] The findings of this fieldwork in Chaghcharan and Dawlatyar would appear to differ from UNODC's annual opium poppy survey that reports a 75% increase in opium poppy cultivation across the province as a whole.

Most households had some irrigated land; the maximum among respondents was twelve *jeribs*. In 2006, the irrigated land in Chagcharan and Dawlatyar was typically divided between wheat, potato, clover, alfalfa and poppy. None of those interviewed cultivated sufficient wheat on their irrigated land (nor could they, given the number of household members) to meet their household food requirements. Thus, cash income was required to meet the deficit. Yet few agricultural crops were sold; even though there was a nascent market for potato, most households did not grow in excess of their household needs.

Typically, the sale of sheep, goats and cattle was the main source of cash income for those households fortunate enough to have retained livestock through the drought. However, the shortage of fodder in 2006, combined with concerns over household food supplies for the coming winter, led many to sell their animals. The result has been an almost 50% drop in livestock prices over the last twelve months. A number of those interviewed complained that livestock they had purchased last year and spent the last twelve months fattening were now worth considerably less than what they had initially paid for them.[46]

Opium poppy crop being irrigated using diesel pump.

Some households had hoped to avoid livestock sales until later in 2006 (if at all) through the sale of their opium production. However, widespread crop failure coincided with reductions in the price of opium (from 5,000-6,000 to 4,000 Afs per kg over twelve months) and the absence of traders in the area.[47] Crop failure was met with some alarm: Upon seeing their opium crop deteriorate, some farmers had ploughed up the ailing crop and replanted. Thus it was possible to see fields where opium had been harvested and in the neighbouring field the crop was only just emerging from the ground. One respondent had replanted for

[46] Euan Thomson (personal communication) quotes an ongoing market study by the Dutch Committee for Afghanistan which suggests that between September 2005 and July 2006 prices of bulls, rams and bucks decreased by 11%, 35% and 3%, respectively in the Herat market. The large decrease in the price of sheep may be because farmers tend to sell them before they sell cows and goats during droughts. The price decreases are partly due to seasonal variations but drought is a contributing factor. Significantly, the same study shows how different the situation is in the Nangarhar livestock market where bull, ram and buck prices increased by 19%, 12% and 110%, respectively, over the same period.

[47] Most attribute the reduction in opium prices to government action, but it is possible that it is more a function of a significant increase in opium production in Helmand and the subsequent fall in the farmgate price there (from US$150 per kg in April 2005 to US$89 per kg in April 2006).

the third time and was using a diesel pump to irrigate his land in an attempt to prevent it drying out once again (see photo).

In Dawlatyar it was reported that once initial signs of disease had been seen on their opium poppy crop some farmers had elected to replant potato, clover and wheat rather than to persist with opium production. In both Chaghcharan and Dawlatyar there was also evidence of fields with low-yielding or failed crops being turned over to grass and weeds for fodder. Even in some of the more productive fields weeds were prevalent. Some respondents suggested they were reluctant to weed the crop any further as their growth prevented the land from drying out (and subsequently the opium poppy) and the weeds could be used for animal feed in light of the failing rainfed wheat crop.

For those without livestock and opium the situation was of growing concern. Estimates of monthly household cash expenditures for an average family size of around 12 members varied from 2,000-4,000 Afs. At current prices this would be the equivalent of the sale of 0.5 kg to 1 kg of opium or one sheep (of around 20 kg meat) per month. With such low opium yields and fairly limited livestock herds, the vast majority of those interviewed had both insufficient food and cash income for the coming winter. Credit was typically in short supply, often consisting of credit in-kind from the local bazaar. There was a growing recognition, even in those valleys where water was more abundant and opium poppy had produced reasonable yields in the past, that migration to other parts of the country and Iran would be the only option. Some respondents even compared the situation with the late 1990s when entire families moved to camps in Herat for the internally displaced.

4.4 Findings

The emergence of opium poppy cultivation in the province of Ghor results from a number of factors. Migrants from Ghor were exposed to the crop in the southern provinces during the drought years, and subsequently brought their knowledge of the crop back to their home districts during their seasonal migration dating back perhaps as early as 1998. Compounding this transfer of knowledge was the Taliban prohibition on opium poppy in the 2000-01 growing season, which reduced the overall level of cultivation in the country by 96% within a year. This resulted in the migration of farmers from the southern provinces to avoid implementation of the ban and in a price increase from US$50 to US$500 per kg of opium.

As a result of the breaking of the drought, many labourers who had migrated south during the late 1990s returned to their lands in Ghor, bringing with them expertise in the cultivation and cropping of poppy. At the same time, market conditions encouraged a rise in the production of opium poppy. Livestock, the traditional source of household cash income in Ghor, had been depleted during the drought. Once fellow villagers saw their neighbours growing opium, they too began to cultivate opium poppy. The result was what is locally referred to as the as the peak years of cultivation: “the year of the Taliban ban” (2000-01) and “the first year of Karzai” (2001-02).

There are, however, a number of constraints on the expansion of the crop within Ghor. Most notable is the incidence of crop failure and poor yields. Problems of the availability and consistency of irrigation water limit the extent and location of the crop. Some valleys are just too dry to cultivate the crop with any degree of success. In other areas, it is only in the upper reaches of the valleys where sufficient

yields can be obtained. Frost also hampers production. Typically areas report more "bad" than "good" years when it comes to opium poppy cultivation.

Geography and terrain, and the way that these factors shape livelihood strategies would also seem to limit the extent of cultivation. As a consequence of being isolated from the rest of the country for up to five months every year, greater priority is given to self-sufficiency than in other more prolific opium-producing provinces. With the high risk of crop failure, the opportunity cost of allocating land to opium poppy may mean a shortage of food for both the household and livestock, an integral part of livelihood strategies in the area. Given the province's remoteness and the high price of food items and fodder during the winter months, the opportunity cost of not cultivating wheat and fodder crops is far higher than their exchange value at the time of harvest.

Opium production in Ghor would also seem to be hampered by its place in the market. As 2006 illustrates, despite very low yields within the province, the farmgate price of opium has fallen over the last twelve months. As previous research has shown,[48] circumstances in Helmand province will ultimately dictate the price of opium in Ghor. During the Taliban prohibition, prices rose so significantly that even the low yields typically obtained in Ghor became a worthwhile endeavour. In 2006, crop failure was exacerbated by the drop in price that resulted from what is thought to be a record crop in Helmand province.

However, the impact of the failure of the opium poppy crop in Ghor in 2006 is telling. It comes on top of a widespread failure of the wheat crop in the rainfed land. Faced with insufficient food for both family and animals, households have needed to turn to whatever sources of cash income they can draw upon to make up the deficit. The households that still own livestock are forced to sell their animals even though the price has fallen by as much as 50%. For those without rainfed wheat, livestock and now opium, the situation is quite stark.

As we have seen in other parts of Afghanistan, the cultivation of opium poppy has reduced the pressure on households to migrate in search of work. Because of continued crop failure, however, even in the more productive areas households now face the very real prospect of migration in search of off-farm and non-farm income. Migration to Herat and Iran is likely to increase, though it remains unclear whether there will be sufficient income opportunities to absorb them.

Overall, it would seem that unless there are significant shifts in the dynamics of opium production in other parts of the country, opium poppy is likely to remain a marginal crop in the province of Ghor, typically undertaken by the younger members of the family, and in some areas women, neither of which are considered to have a high opportunity cost associated with their labour. Even with a negligible threat of eradication, levels of cultivation are likely to remain relatively low. It is important to note that while a marginal crop, opium poppy can offer a lifeline to those with limited assets and during crisis and shocks. Indeed, if households had obtained a reasonable opium crop this year, fewer households in Ghor would be facing a winter of food shortage.

[48] Adam Pain, *Water Management, Livestock and the Opium Economy: Opium Cultivation in Kunduz and Balkh,* Kabul: AREU, 2006.

5. Conclusion

This report highlights the developments in opium poppy cultivation in the very distinct provinces of Ghor and Nangarhar. On the surface, these provinces appear very different: The province of Nangarhar is relatively abundant in natural resources, has a climate favourable to high-value horticultural production and is on the main arterial road between Peshawar and Kabul. The province of Ghor is mountainous, remote and isolated for up to five months of the year by the winter snows. Parts of Nangarhar have a long history of opium poppy cultivation and trade, while Ghor is considered a relative newcomer to opium poppy — cultivating it perhaps for the first time in the late 1990s.

It is, however, possible to see some common themes with regard to the role of opium poppy within rural livelihood strategies in these two provinces. Both are home to a full spectrum of household dependency on opium production as a livelihood strategy. This dependency is not simply a function of the on-farm income earned from opium production, but also a consequence of the off-farm income generated from working on the crop as an itinerant worker, as well as other assets — such as land, water and credit — to which opium cultivation provides access.

A comparison of Nangarhar and Ghor illustrates the impact that a significant reduction in opium production has had on migration patterns. While the increase in migration from Ghor cannot be solely attributed to the failure of the opium crop, it is clear that better opium yields would have reduced the pressure on households to move in search of work. In 2006, the twin crop failures of opium and rainfed wheat, combined with the fall in farmgate price for opium (due to the sizeable crop in Helmand) led to a loss of both direct and exchange entitlement. As in the 1990s, those households without sufficient sources of non-agricultural income are now compelled to move in search of work. For some, this may mean sending a son or another male household member to Herat or Iran. For others, it could mean moving the entire family.

In the parts of Nangarhar that lack viable legal cash crops, the income deficits that have arisen due to the opium poppy ban have resulted in a shift toward off-farm and non-farm income opportunities. However, the opium ban has produced a downturn in the regional economy, meaning there is little employment within the districts. The result is an increase in migration to the cities of Jalalabad, Kabul and Peshawar. This trend is at its most acute in those areas where land holdings are small and population densities particularly high. In these areas, opium poppy cultivation has typically been the most concentrated and people are the most dependent on it as a livelihood source. Where there has been little crop diversification and a second consecutive year of enforcement of the poppy ban, migration has taken on a more significant form: It is no longer only the males of the family migrating for employment but entire families, like in Ghor.

A comparison of Ghor and Nangarhar illustrates the linkages between the rural livelihood strategies in different provinces and the role that rural labour plays in the "footloose" nature of the opium crop. For example, in Ghor in the late 1990s, the drought pushed male household members south into Helmand, where they worked as seasonal labourers on the opium poppy crop until the ban on opium production. A similar process can be noted in Nangarhar, where migration to parts of Balkh, Samangan and Nuristan has occurred at the very same time that opium poppy culti-

vation has increased in these provinces. Labourers from Nangarhar, perceived to possess extraordinarily skills in opium poppy cultivation, have even been paid a premium for their work. In Ghor, the Taliban prohibition in 2001 led to seasonal migrants returning from Helmand with their newly acquired skills and expanding opium poppy cultivation across their own province. As such, events in both Ghor and Nangarhar illustrate not only the dynamic and mobile nature of the rural workforce in Afghanistan, but also the "balloon effect" — a reduction in one area results in an increase in an adjacent area.

It is also clear from the fieldwork that the impact of a significant reduction in opium poppy cultivation is not limited to those directly growing the crop on their land, but affect a wider section of the population. This effect is more significant in the province of Nangarhar due to the entrenched nature of the opium economy there. The reduction between 2004 and 2005 let to the loss of an estimated 9.8 million labour days, of which 3.4 million days represented daily wage labour opportunities to the estimated value of US$11.7 million.[49] In 2006, there has been some recovery in the economy for those in close proximity to the provincial centre with diversified livelihood strategies, as well as for farmers in more remote parts of the province who have returned to opium poppy cultivation, but the deflationary impact of sustained low levels of cultivation are being felt by a variety of enterprises across the province. Indicators show lower levels of employment, wage labour rates, profits and sales for businesses that trade in a variety of different legal goods and commodities. Unpaid debts have even resulted in closures.

In Ghor, the loss of the opium crop has left households with less cash income. The sale of livestock has become one of the few sources of agricultural income, but prices have fallen due to the increasing supply and a significant reduction in effective demand. While the deteriorating circumstances of sections of the population in Ghor cannot be solely blamed on the failure of the poppy crop, the loss of cash income that has ensued has removed an important safety net.

An analysis of the role of opium poppy cultivation in rural livelihood strategies in two distinct provinces such as Ghor and Nangarhar illustrate how highly dependent opium poppy cultivation is on local factors — both between and within provinces, districts and even sub-districts. It also shows the limitations of quantitative data on opium poppy cultivation. Numbers are an abstraction unless the context is understood, not only in terms of what the numbers actually mean with regard to the lives and livelihoods of those involved in opium poppy cultivation but also how the numbers are derived.

Aggregate data on the extent of cultivation at the national and even provincial level may give us some sense of the scale of the problem and how this might change over time, but it does not tell us why and how this change took place. Such knowledge is critical to understanding how interventions by the Afghan government and the international community may be contributing to the achievement of drug control objectives and the wider goal of state building and economic development, or how they may in fact they may be exacerbating it.

[49] David Mansfield, *Diversity and Dilemma: Understanding Rural Livelihoods and Addressing the Causes of Opium Poppy Cultivation in Nangarhar and Laghman, Eastern Afghanistan*, Kabul: GTZ, Project for Alternative Livelihoods (PAL) Internal Document No. 2, December 2004.

Economic Profile of Selected Households in Nangarhar Province, Household 1

Zone 3	Assets	Family Members	Activity	Number	Rate	Total	Equivalent in US$
HH1 **Khwagi, Upper Achin**	1 *jerib* of land 2 mules 3 working family members	Total 32					
		1	Cash-For-Work	30 days	150 Afs/day	4500 Afs	90
		2	Collecting firewood from mountains for sale locally	2 x 240 days	400 PKR/day	192,000 PKR	3200
	Sale		Sale of 1 cow		15,000 PKR	15,000 PKR	300
						Total annual household cash income	**3,590**
						Per person	**112.20**
					Accumulated Debt	**-200,000 Afs**	**3,333.3**
	With poppy		1 *jerib* of opium poppy	10 *seer*	15,000 PKR/*seer*	150,000 PKR	2,500
						Total annual household cash income	**6090**
						Per person	**190.3**

Economic Profile of Selected Households in Nangarhar Province, Household 2

Zone 3	Assets	Family Members	Activity	Duration	Rate	Total	Equivalent in US$
HH2 **Khwagi, Upper Achin**	Landless: Lease or sharecrop where available No mule or donkey 3 working members	Total 13					
		2	Labouring in Gorroko Bazaar	2 x 210 days	100 PKR/day	42,000 PKR	700
		1	Cash For Work	30 days	150 Afs/day	4500 Afs	90
						Total annual household cash income	790
						Per person	**60.1**
					Accumulated Debt	**-200,000 PKR**	**3,333.3**
	With Poppy		0.5 *jerib* of opium poppy (Rent 3.5 *seer*)	1.5 *seer*	15,000 PKR/*seer*	22,500 PKR	375
						Total annual household cash income	**1,165**
						Per person	**89.6**

Economic Profile of Selected Households in Nangarhar Province, Household 3

Zone 3	Assets	Family Members	Activity	Number	Rate	Total	Equivalent in US$
HH3 **Otturkhel, Upper Achin**	Owns 0.5 *jeribs* of land 3 working family members	Total 14					
		1	Cash-For-Work	45 days	150 Afs/day	6,750 Afs	135
		2	Trading in firewood from mountains to Jalalabad	Purchased 10 Kharwar at 1,500 PKR/Kharwar	Sold at 35 PKR/*seer* in Jalalabad	13,000 PKR (minus truck rental to Jalalabad at 6,000 PKR)	116.6
	Sale		Sale of 1 cow		10,000 PKR	10,000 PKR	200
						Total annual household cash income	**451.6**
						Per person	**32.2**
					Accumulated Debt	**-40,000 PKR**	**666.6**
	With Poppy		0.5 *jerib* of own land with opium poppy	5 *seer*	15,000 PKR/*seer*	75,000 PKR	1,250-
			1 *jerib* of rented land for poppy (Rent 7 *seer*/*jerib*)	3 *seer*	15,000 PKR/*seer*	45,000 PKR	900
						Total annual household cash income	**2,601.6**
						Per person	**185.8**

Economic Profile of Selected Households in Nangarhar Province, Household 4

Zone 3	Assets	Family Members	Activity	Duration	Rate	Total	Equivalent in US$
HH4 **Otturkhel**	Owns 3 *jeribs* of land 5 donkeys and 2 cows 7 working family members	Total 40					
		4	Transporting goods across the border at Gorroko Bazaar	4 x 300 days	200 PKR/day	240,000 PKR	4,000
		1	Cash For Work	45 days	150 Afs/day	6,750 Afs	135
	Sale		Sale of 1 cow ("good milker")		40,000 PKR	40,000 PKR	666.7
						Total annual household cash income	**4,801.7**
						Per person	**120**
					Accumulated Debt	**0**	**0**
	With Poppy		Maximum of 3 *jeribs* of opium poppy	30 *seer*	15,000 PKR/*seer*	450,000 PKR	7,500
						Total annual household cash income	**12,301.7**
						Per person	**307.5**

Economic Profile of Selected Households in Nangarhar Province, Household 5

Zone 2	Assets	Family Members	Activity	Duration	Rate	Total	Equivalent in US$
HH5 **Wiala 28, Lower Shin-war**	Owns 12 *jeribs* of land 4 goats 5 working members	Total 40					
			11 *jeribs* of Wheat and 1 *jerib* of clover (consumed by HH)		60 *seer*/*jerib*	0	0
		3	Working in brick factory in Pakistan	3 x 110	200 PKR/day	66,000	1,100
			Cash For Work	22 days	150 Afs	3,300 Afs	66
			Sold 0.5 *jerib* of land (rainfed and stony)		100,000 PKR		1,666.7
						Total annual household cash income	**2,832.7**
						Per person	**70.8**
					Accumulated Debt	**0**	**0**
	With Poppy		Maximum of 8 *jeribs* of opium poppy (amount grown in 2004)	64 *seer*	15,000 PKR/*seer*	960,000 PKR	16,000
						Total annual household cash income	16,000
						Per person	**400**

Economic Profile of Selected Households in Nangarhar Province, Household 6

Zone 1	Assets	Family Members	Activity	Duration	Rate	Total	Equivalent in US$
HH6 **Sultanpur, Lower Surk-hrud**	Owns 30 *jeribs* of land 2 oxen, 3 dairy cows, 3 cattle 8 working mem-bers	Total 35					
		5	Labouring in Jalalabad	5 x 208 days	150 PKR/day	156,000 PKR	2,600
			2 *jerib* of onion		40,000 PKR /*jerib*	80,000 PKR	1,333.3
			3 *jerib* of spinach		7,000 PKR/*jerib*	21,000 PKR	350
			2 *jerib* of tomato (Yield 5,150 kg/*jerib*)		7 PKR/kg	72,100 PKR	1,201.6
			3 *jerib* okra (Yield 4,500 kg/*jerib*)		10 PKR/kg	135,100 PKR	2,250
			24 *jerib* of wheat (yield 13,440 kg, with 5,110 kg for HH)		60 PKR/*seer*	71,400 PKR	1,190
			Sell milk in city 3 x 10 kg/day	300 days	20 PKR/kg	180,000 PKR	3,000
						Total annual household cash income	11,924.9
						Per person	**340.7**
					Accumulated Debt	**-50,000 PKR**	**833.3**

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