Afghanistan Research and Evaluation Unit

Case Study Series

WATER MANAGEMENT, LIVESTOCK AND THE OPIUM ECONOMY

The Spread of Opium Poppy Cultivation in Balkh

Adam Pain

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About the Author

Adam Pain has worked on rural livelihood issues in the Himalayan region for the last fifteen years. He is a research fellow at the School of Development Studies, University of East Anglia, UK. and Visiting Professor in Rural Development in the Department of Urban and Rural Development, Swedish Life Sciences University, Uppsala, Sweden.

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Adam Pain

Glossary

bawra	A bawra is the proportion of land that can be irrigated each year; in the case of 1 bawra all land can be irrigated, in the case of 2 bawra half of the land can be irrigated and in 3 and 4 bawra a third and a quarter of the land can be irrigated.
nawshar	"newcomers" or new settlers
nawared	new settlements, e.g. Nawared Aqtapa
mirabashi	water master
woliswal	head of district

Conversions

50 Afghani (Afs)	approximately US$1
60 Pakistani Rupees	approximately US$1
1 Kabuli *ser*	7 kg
1 Herati *man*	4 kg
1 *jerib*	approximately half an acre or one fifth of a hectare

1. Introduction

This study builds on preliminary research[1] undertaken in March 2006 and published as *Water Management, Livestock and the Opium Economy: Opium Poppy Cultivation in Kunduz and Balkh* in June 2006. This earlier report explored the dynamics of opium poppy cultivation in Kunduz and Balkh provinces and developed a series of propositions with respect to potential reasons for the significant absence of opium poppy cultivation in Kunduz in contrast to increasing cultivation in Balkh province (up to the 2005-06 growing season). The preliminary conclusion was that a range of variables explained the differences in opium poppy cultivation between the two provinces and the patterns of localisation of cultivation within Balkh. These variables included agro-ecological structures particularly of water (up-stream, down-stream effects and in particular the relative water scarcity in Balkh's irrigation system), soil biophysical gradients, socioeconomic differences, and patterns of ethnic identities associated with history of settlement. The report further noted that provincial governance structures and the blending of formal and informal institutions were not significantly different between the provinces (Balkh, however, saw a collapse of irrigation management structures under conditions of critical water scarcity). Both provinces are characterised by the availability of requisite skills to cultivate opium poppy and the presence of trading and trafficking networks for opium.

As noted it was difficult to attribute significance or weight to any one of these factors. Within Balkh, the issues of relative water distribution and availability, ethnic identities and trading networks were clearly linked to different patterns of opium poppy cultivation. However, more evidence was needed to justify and elaborate these preliminary propositions. A year later, the situation has changed significantly: Kunduz has remained relatively free of opium poppy cultivation but the area of opium poppy cultivation in Balkh is anticipated to show a sharp decrease.[2] There is even a report that Balkh has been declared poppy free.[3] How did this happen?

According to the 2007 Opium Survey by the United Nations Office on Drugs and Crime (UNODC), the explanation is clear: The decline in cultivation in Balkh "may be attributable to successful awareness campaigns against poppy cultivation conducted before the planting season".[4] In this view, the intensification of development efforts and the establishment of a good performance fund designed to reward provinces that achieve significant reductions in opium poppy cultivation have contributed to the general decrease in opium poppy cultivation in northern Afghanistan.[5] While the evidence in this report does not challenge the significance of the reduction in opium poppy cultivation in Balkh, it does not support UNODC's interpretation. UNODC fails to build evidence-based arguments linking interventions to consequences (causalities are simply assumed). The field evidence reported in this paper offers an interpretation of the decline in Balkh that is more consistent with the longer history of opium poppy cultivation in the province.

This report's interpretation centres on structures of ethnicity and settlement, actors associated with the control and regulation of the opium trade, and the interplay between the formal and informal institutions within Balkh province. It shows that the recent decline in opium poppy area in Balkh is not likely to be durable. The evidence points to a consolidation of power with limited accountability and severe, negative welfare outcomes for particular social groups as a consequence of the decline in cultivation.

[1] Adam Pain, 2006. Water Management, Livestock and the Opium Economy: Opium Poppy Cultivation in Kunduz and Balkh. Case Study Series, Kabul, AREU.

[2] UNODC, 2007:32-33.

[3] "Balkh declared poppy-free but residents unhappy". Pajhwok Afghan News, Mazar-i-Sharif, June 9 2007.

[4] UNODC, 2007:32

[5] UNODC, 2007:4.

The research reported here continues the line of enquiry pursued in the earlier report. It is based on field work carried out in Balkh in November 2006 and February 2007. The next section outlines the conceptual approach followed in this research, drawing from the literature on diffusion and spread of technical innovations and disease. These ideas have been used to structure the research enquiry, evidence building and interpretation. The third section briefly describes the methods used during the research and issues associated with these methods. Section four presents evidence with respect to the diffusion and spread of opium poppy cultivation in Balkh, which can be characterised by three distinctive phases and the current possible emergence of a fourth phase. Section five explores the determinants of this spread and its phased nature before summarising in section six the effects of opium cultivation on household economies and potential transformatory effects on structures and institutions. The seventh section explores implications of such effects in relation to the fourth phase of cultivation — the reported sharp decline in 2006-07. The report concludes with summary conclusions and exploration of implications for counter-narcotics policy. The conclusion also briefly discusses the comparative absence of opium poppy in Kunduz, which was the subject of the previous report.

2. Background

Much greater attention needs to be paid to the diffusion and spread of opium poppy cultivation and what drives it, rather than simply focus on the aggregate statistics of area of production at the district or provincial levels. Such aggregate statistics fail to draw attention and interest to patterns of cultivation between and within district (as if provinces and districts were uniform). The failure to identify patterns of spread and cultivation severely curtails analytical enquiry into the drivers behind diffusion and spread of cultivation. Patterns are assumed rather than investigated, generalised rather than differentiated. There are lessons to be drawn from comparative experience.

> *Despite similar times of . . . introduction, the epidemics in the various countries have played themselves out in remarkably different ways. Indeed this divergence has occurred even within individual countries. India could even be considered a continent in itself, with individual states or even small geographical units with unique epidemic patterns that require different responses. A major lesson . . . is the need to understand the remarkable diversity. Rigorous analysis should inform the policies and programs needed to curb the region's complex and diverse . . . epidemic. In particular, this analysis should entail an understanding of . . . epidemiology . . . transmission dynamics, and the behavioural and socioeconomic determinants of the epidemic, its potential evolution, response priorities, and gaps.*
>
> Moses et al, 2006:1

The element that has been removed from the above comment is the identity of the epidemic — the authors are writing about the HIV/AIDS epidemic. While the spread of opium poppy cultivation is not the same as the HIV epidemic,[6] not least because there is no physical transmissible agent in the case of opium poppy spread, the purpose of the comparison is more than simply creating a metaphor for an argument. Consider for example the patterns of spread of opium poppy cultivation in Badakhshan,[7] Nangarhar or Ghor,[8] and Balkh.[9] Each province has shown rather distinctive patterns in relation to location, time and intensity of cultivation. The development of the opium poppy epidemic has been unique to each location. There are contrasts within provinces as well as between provinces — of spread related to underlying agro-ecology, household resources, social structures and markets. Thus the analysis and understanding of the specific determinants of spread and cultivation should be fundamental to the development of a counter-narcotic response.[10]

In the debate on opium poppy cultivation in Afghanistan remarkably little attention has been paid to classic theory on the spatial diffusion of technical innovations, drawing from the work of Hagerstrand (1967) and influential in the green revolution debates of the 1970s. Then, the attention was on the process of adoption, the characteristics and social structures underlying adoption and the bringing to scale of technical innovations. Here, the focus on opium cultivation and its spread has been on the numbers, aggregated at best to the district level, and the methods of best estimation of area. This has placed the understanding of spread to follow Blaikie (1978) in a "spacious cul-de-sac", where the focus on the numbers and methods of determination of area has led to the systematic neglect of process — the understanding of the determinants of spread. Consistent with this has been the focus in counter-narcotic policy on the individual — the individual adopter of

[6] Although the language that is used to described the incidence of opium poppy, scourge and epidemic, for example is drawn directly from analogies to disease.

[7] Mansfield, 2007a

[8] Mansfield, 2006

[9] Pain, 2006

[10] Mansfield and Pain, 2006

opium poppy cultivation — with assumptions of individual profit maximisation behaviour to which the appropriate response is deemed to be raising risk through the threat of eradication, to the neglect of social context.

Of course, it is an individual decision in the narrowest of senses, to "decide" whether or not to cultivate opium poppy. But the "decision" of the individual cannot be understood or addressed without understanding the context within which such "decisions" are made. In the context of an extremely weak state and unregulated markets, where security and welfare have to be found through informal means — many of which, as Wood argued (2003), requires action to gain short term needs over longer term desires — the "decision" of growing opium poppy may not involve much real choice.

This paper uses the concept of "determinant" to characterise the range of factors related to both context and individual decision-making. The approach is drawn from the debates[11] around public health and the attention given to the wider determinants of health (social policies) rather than mere individual behaviour (e.g. food choices, smoking). This public health debate seeks to address structural issues of social position and social difference — based on ethnicity, gender, place, age and geography — that lead to inequalities in health outcomes. The same issues arise in relation to the determinants of behaviour in relation to opium poppy cultivation, although in a context where there is no effective state to mitigate the effects of the deep structural inequalities that exist in Afghan society.

Figure 1 outlines the conceptual framework used to explore the determinants of household opium poppy cultivation practices in Balkh. The route runs from structures determining the social position of individuals and the way these collectively connect with intermediary factors that are influential on outcomes. Key structures are agro-ecology, in Balkh meaning relative resource richness; settlement history, which determines where individuals live; and ethnic identity. These emphasise the importance of location in rural lives in Afghanistan and in this specific case, and as will be seen, the strong inter-linkages between agro-ecology, settlement history and ethnic identities. How individuals are affected is influenced both by their specific ethnic identity as well as their socio-economic position (for which land based assets are an important indicator). Key mediating factors are seen to be the communities[12] within which individuals live, markets and the ways in which they are subject to informal regulation, institutions (understood to be the rules that regulate behaviour and both formal and informal) and individual behaviour of actors.

Figure 1: Mapping the Determinants of Opium Poppy Cultivation

Structures		**Individual Social Position**		**Intermediary Factors**		**Outcomes**
Agro-ecology Settlement history Ethnicity	→	Ethnicity Socio-economic position	→	Community Markets Institutions Behaviour	→	Cultivate / Not cultivate opium poppy

Developed from Graham & Kelly, 2004: 4

[11] See Hilary Graham & Michael P Kelly, 2004. Health Inequalities: concepts, frameworks and policy. Briefing Paper www.hds.nhs.uk . The debates on the wider determinants of health have partly been driven by the evidence that the major improvements in health from 25–30 years from the late 19th century in the UK have been driven more by public health interventions than the effects of individual medical care.

[12] A key component of the institutional landscape (in addition to the state, market and individual) in contexts of weak states and the source of informal security for households (Wood, 2004)

3. Methodology

The key questions that the research was designed to investigate in Balkh province, focussing on Chimtal and Charbolaq districts, included the following:

1. What are the existing structures in relation to irrigation, settlement and ethnic identity?
2. How do institutions work in practice in relation to water management, markets and opium trade in particular?
3. What is the role of key actors (both formal and informal) at the provincial and district level in relation to opium poppy cultivation?
4. What has been the practice of government (central, provincial and district) in relation to counter-narcotics actions and eradication in particular?
5. What have been the patterns of diffusion and spread of opium poppy cultivation at village level in the districts? Which villages first started growing opium (and who first started growing it) and when, where and how and how did it spread to other villages? How does this link with ethnic identities and key trading networks?
6. What has been the contribution of opium poppy to household economies and how has this changed over time; what are the possible consequences to different households of a decline in opium poppy cultivation?

Many if not most of these questions cannot appropriately or reliably be addressed through formal surveys, random interviews or direct questioning. Research methods have required a patient and diffuse process of relationship building, generalised discussions and cautious investigation to build up a picture that responds to the above concerns, and seeking triangulation and corroboration from multiple sources. Nor can the evidence building be systematic and there are inevitably gaps and areas of ignorance at multiple levels. Building the level of understanding reported here also takes time and field research was undertaken over a six month period, with one key research associate. Informal discussions that he undertook were written up and these provided a basis for debriefing and debate. The author made joint visits with the research associate both at the beginning and toward the end of the research to cross-check and question emerging themes and patterns.

It goes without question that all identities and locations are kept anonymous to protect informants. This is a research exercise that seeks to build understanding and not to judge. A listing of sources has been provided in Annex 1. These have been grouped into household interviews (HH), involving detailed discussions and case studies; group discussions (Group) at the village level; and key informant interviews (KI) with a variety of individuals well informed on specific topics, both private and with official positions. In addition, there are additional informants who are located with respect to their village. Each household, key informant and group has been coded and identified by location using a village code and a short description of the individuals.

A second rather different source of information are maps drawn from remote sensing data, drawn on to supplement the field-base evidence.[13] Two sources of remote sensing data are available. The first draws on UK-derived data developed at Cranfield University and provides information on cropping intensity based on reflectance values of photosynthetically active vegetation to give a Normalised Difference Vegetation Index (NDVI) value. These values can range from 0 to 1 with values above 0.23 indicating crop

[13] These have very kindly been prepared and provided by Richard Brittan, working with the UK Drugs Team in Kabul.

growing activity. Spatial cropping intensity maps can be derived from these. At present, this method cannot be made crop specific, meaning that areas of opium poppy cultivation cannot be specifically identified. The second source of remote sensing data, developed in the US, provides opium poppy density maps. However, the methods used do not allow year-to-year comparisons and thus does not enable us to map opium poppy spread over time.

There is one point that should be made about terminology. Although ethnic identities are used to characterise communities — villages are described in terms of whether they are Turkman or Arab — these are descriptive and simplistic labels. Ethnic identities do not explain all or predetermine how people behave or how they see themselves and nor are they absolute unambiguous categories.

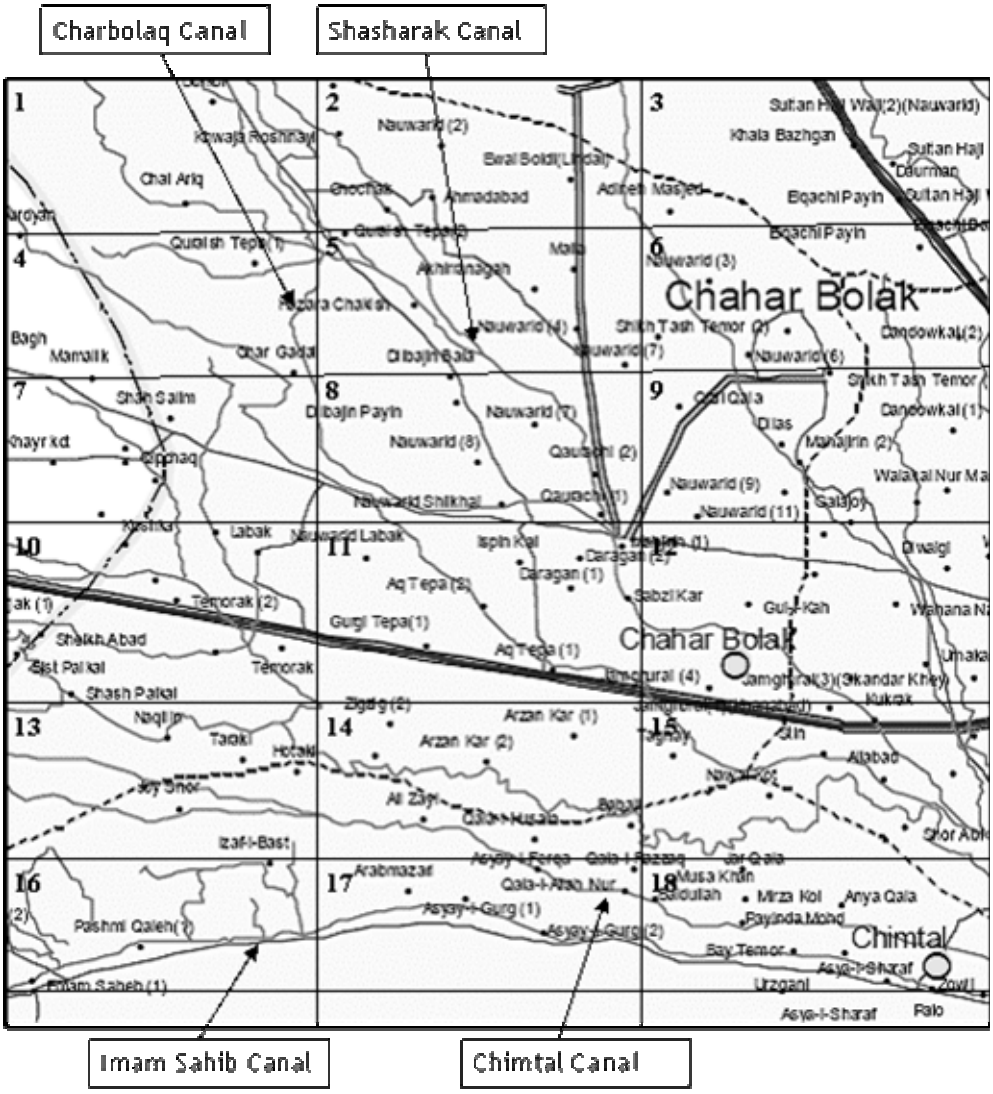
4. The Diffusion and Spread of Opium in Balkh

This section summarises the evidence drawn from the field on the spread and diffusion of opium poppy cultivation in two districts, Chimtal and Charbolaq, in Balkh province. This section reviews and summarises the available evidence, arguing that three distinct phases of cultivation — with specific spatial and temporal dimensions — can be identified. These are summarised as follows: Phase I of highly localised and limited cultivation occurred prior to 1994; Phase II ran from 1992 to 2001 and was characterised by intensive but concentrated cultivation in specific locations; and Phase III developed from 2001 and may be described as generalised cultivation but with clear spatial patterning. This phase was brought to an abrupt halt with the effective ban on opium poppy cultivation since the autumn of 2006. Arguably, a fourth phase of cultivation is now appearing.

In proposing that there are phases to the development of opium poppy cultivation in these two districts, we are talking about trends and shifts, in which boundaries of time and space are approximate rather than clear and definitive. In part, this probably reflects reality but the evidence also simply does not give more precision to when and where changes have taken place — in part because it is anecdotal but also because it is partial.

4.1 The context

Figure 2. Map of Chimtal and Charbolaq districts showing the main east-west road and primary irrigation canals, and overlaid with a reference grid.



To understand the argument about the diffusion and spread, it is first necessary to outline the key structural features of these two adjoining districts, Chimtal and Charbolaq. Figure 2 presents a map of the districts with key features identified and overlaid with a grid. Key features of the districts can be summarised as follows:

- The main road from Mazar-i-Sharif to Sheberghan runs east–west and is located in the southern end of Charbolaq district; a small but significant part of this district is located south of the road.
- The two irrigation canals, the Imam Sahib and the Chimtal canal run east-west through Chimtal district, which is located south of the main road.
- The Charbolaq and the Shasharak canals run diagonally east–northwest across Charbolaq district.
- Both sets of canals are divided into top, middle and bottom ends, which in the case of Chimtal run east-west, and in the case of the Charbolaq canals run roughly south-north.
- Note should be made that other irrigation canals that run through these two districts east-west and south-north to adjoining districts of Dawlatabad and Faizabad (in Jawzjan province) have not been included in the diagram.
- For the sake of simplification, these dimensions are presented in a matrix of 3 by 6 with the squares sequentially numbered for ease of reference; these squares are referenced (e.g. Sq14) to indicate approximately where informants are referring to. Table 1 summarises the location of village by grid reference.

Table 1. Locations of villages by district and map code (from Figure 2)

Square	Village	Square	Villages
1		10	
2	Char02 & 28	11	Char42
3		12	
4	Char45	13	Chim34,35,36,37,38
5	Char08	14	Chim32,33
6		15	Char62 & 65
7	Char14	16	Chim08,09
8	Char51	17	Chim13,14,15,16
9		18	Chim19

Chim = Chimtal; Char = Charbolaq

Table 2 below presents UNODC figures for opium cultivated area in Balkh. These give a broad sense of cultivation levels at the district level and the year-to-year changes.[14] What they do not tell us, nor are they designed to do this, is the spatial distribution of cultivation within districts. The UNODC figures provide an approximation of the symptoms or incidence of cultivation but can tell us nothing about causes or drivers of change in area. It is evident from the district data that Chimtal and Charbolaq have provided the major portion of the Balkh's area of the crop (district data is not available for 2004 and 2006).

[14] But it should also be remembered that methods of area determination have changed significantly over time and strictly speaking these cannot be considered time series data; see footnote 19 in Pain, 2006. District boundaries are not reported to have changed over the last 10 years.

Table 2. Indicative opium poppy area (ha) in Balkh by district and year

District	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06
Balkh				13	29	29	82	1	22	332		2786	
Chahrkint												25	
Charbolaq				165	530	2600	53			68		2701	
Chimtal			1065	532	485	1428	2451		153	617		1878	
Dawlatabad								3				202	
Dihdadi							22		8	35		990	
Kaldar												395	
Khulm												367	
Kishindih												290	
Marmul												18	
Mazar-i-Sharif												119	
Nahri Shahi							33		14	30		425	
Sholgara							28		19	28		543	
Shortepa												98	
Total	**0**	**0**	**1065**	**710**	**1044**	**4057**	**2669**	**4**	**217**	**1108**	**2495**	**10837**	**7100**

Source: UNODC & CNM, Afghanistan Opium Survey 2005:32 & 2006

4.2 The three phases of opium poppy cultivation

Phase I: Pre-1992

> *I can clearly remember that the first time we began poppy cultivation in this village (was) during king Zahir Shah and the only customers were Turkman people from bottom end village of Charbolaq, Dawlatabad, Shortepa and Aqcha. But the total harvest was about one or two sers and a few land owners were doing this who had relations with these Turkman people.* (HH22 Chim34)

This statement from a household in a village along the middle section of the Chimtal canal was confirmed by several informants. KI01 (Chim19), a man in his mid-fifties, reported that his parents had cultivated on a small scale, again for a local and specific market and as a relatively low-value crop. An informant from Chim09, at the bottom end of the Imam Sahib canal, said that his forefathers had sold opium only for domestic use and that he had learnt the skills of cultivation from his father.

All of these reports came from Chimtal (where there are no Turkman villages) and interestingly none came from the Turkman villages in the northern end of Charbolaq district. There has been a long history of small-scale production of opium for personal consumption by Turkman populations[15] so this probably also took place in Charbolaq. But it is also evident that there was a market for opium driven by local demand, although it was small and contained. The size of the market for opium in relation to that of hashish, for which there has also been a long history of cultivation in the province, is unknown. Nonetheless, this shows that the basic knowledge of opium production has long existed in Balkh, although the skills were not sufficient to handle the technological changes of the 1990s (see section 5.2).

[15] Anthony Fitzherbert, personal communication.

Phase II: From 1992 to 2001

> *Then in 1992 we noticed a speed on cultivation of poppy.* (HH22, Chim34)
>
> *Nabi Khan and his friends who participated in the discussion acknowledged the first cultivators were in [Chim32 to 38] although different dates were mentioned for the first cultivation in the area — 1992, 1994, 1996 and 1999.* (Informant from Char51)
>
> *The first cultivators were the nawshars in Chimtal about 13 years ago.*[16] (Informant from Char51)

From 1992, around the time of the fall of the Najibullah government, there seems to have been a significant expansion in the area of opium poppy cultivation in the two districts. All accounts point to cultivation being highly localised, and concentrated within the Chimtal canal, particularly in the middle and downstream ends. Some reports also (informants from Char51) indicated that cultivation may have started in the eastern end of the Charbolaq canal (Sq12) toward the end of the 1990s. But the reports are clear: Production started increasing at the time of Najibullah's fall, and increased significantly under the Taliban from 1996. During this time, however, it remained confined to specific locations and villages along the Chimtal canal.

Phase III: From 2002 to 2006

From 2001-02 all reports are clear that opium poppy cultivation expanded dramatically and became much more widespread across the two districts.

> *After the Taliban left, the amount of opium poppy grown increased.* (KI01, Chim19)
>
> *The peak of cultivation was from 2001-02.* (Informant, Char51)
>
> *The years 2002-05 were years of good income for myself and other villagers.* (Informant, Char51)
>
> *From 2001-02 the amount of opium poppy significantly increased.* (Group 7, Char62)

All the above statements are consistent with the evidence of the UNODC area statistics: From 2001 opium poppy cultivation became much more generalised and widespread, and if we accept the UNODC statistics, expanded by some 50 times during a four-year period. Comments from the informants, however, claim a much greater rate of expansion in the first few post-Taliban years than the UNODC figures indicate. There was a general expansion of cultivation, but within this expansion existed some distinct patterns (see section 5).

Phase IV?

From the 2006-07 season, both field observation and UNODC reports indicate that there has been a dramatic decline in the area of cultivation. During fieldwork in March 2007, all informants reported that cultivation had stopped and field observations were consistent with this. Fields where opium poppy was growing in March 2006, many of them within half a kilometre of the main road, had no opium poppy growing in March 2007. The possible causes and implications of this decline are discussed later in this paper.

Why these phases?

What has been argued so far is that three distinct phases of opium cultivation can be identified prior to the 2006-07 season based on location (where it has been cultivated), intensity (the scale or area of cultivation) within a location and extent (how widespread the cultivation has been or the overall area that it occupies). These parameters and their characteristics are schematically summarised in Table 3 below.

[16] The term "nawshars" refers to newcomers or new settlers and new settlements are identified by being termed "Nawared" e.g. Nawared Aqtapa.

Table 3: Characteristics of the three phases

	Location	Intensity	Extent
Phase I	Contained	Low	Small
Phase II	Restricted	High	Medium
Phase III	Dispersed	Variable	Large

Phase I saw localised, low-level, self-contained production. During Phase II, cultivation increased in intensity but remained restricted — implying an active containment or self-regulation. Finally, Phase III saw cultivation expand and become more dispersed with variable intensity, but also with forms of regulation apparent.

Two important questions arise from this conceptualisation. First, what are the factors or determinants that explain the characteristics of each phase, and to what extent have these changed or shifted according to each phase? Second, what are the factors that have caused a shift in phase or a transition from one phase to another?

5. Determinants of Opium Cultivation Spread

Building on the characterisation of a phased diffusion process of opium poppy cultivation, this section describes the underlying structures and links these with the factors that characterised each phase and led to phase change.

5.1 Underlying structures

Settlement Patterns

Any understanding of Balkh and its underlying structures has to start with history and complex patterns of settlement and the associated development of the irrigation structures since the end of the nineteenth century. Drawing from Tapper[17], and key informants (in particular KI09) a summarised and simplified picture can be drawn.

In the late nineteenth century, the northern Turkman plains — the most fertile areas of Afghanistan — had become severely depopulated with the collapse of the northern Khanates and the assertion of authority by Abdur Rahman.[18] As a key part of a political strategy to gain and maintain political control of the north, a systematic process of settlement of the north by people from the south was implemented. During the first part of the twentieth century, settlers were primarily Durrani Pashtuns from the West and South (Kandahar) and most of nomadic origins. From the mid 1930s, however, under the influence of Minister Muhammad Gul Khan Mohmand, the assertion of Durrani dominance was balanced by systematic settlement (in particular between Aqcha and Balkh) of Pashtuns of Ghilzai origin from eastern Afghanistan. In addition, populations of Hazara and others were also forcibly resettled.

KI09 reported on a *buzkashi* match attended by his father in the 1930s, where in the presence of Muhammad Gul Khan Mohmand the team made up of "Arab" people beat the Durrani Pashtun team. The latter team was reprimanded by the Minister who, as KI09 reports it, stated that "he brought people from the south to be powerful and not to be beaten". As Tapper notes and the field evidence amply confirms, settlement took place in the most favoured spots, primarily (although not always) upstream from the existing settlement of Uzbek, Aymak, Arab and Turkman.[19]

Processes of settlement have continued to this day. KI09 made reference to five phases of settlement. In a context of population scarcity and land abundance up to the 1950s, competition for land and resources — particularly of water — was not an issue or reason for conflict. Tapper makes it clear that the settlers from the south were quick to establish political and economic domination over existing populations while "local authorities turned a blind eye to Pashtun oppression, in conformity with what was essentially a tacit central government policy of political and cultural discrimination against non-Pashtuns".[20] While ethnic identities could serve as boundaries, particularly in relation to resources and marriage, this was often not the case in relation to trade and exchange.

Given this general background, the settlement patterns of the canal systems of interest in the two districts can now be examined and these are summarised in Table 4.[21] What is evident is that settlement history is different for each irrigation canal. In the case of the two canals in Charbolaq district, the top ends are settled by people almost exclusively of

[17] Tapper, 1973, 1991

[18] Tapper, 1973

[19] Tapper, 1991:28

[20] Tapper, 1991:34

[21] Villages were mapped according to position on the irrigation canals and several key informants assisted in identifying the ethnic identities of each village.

Pashtun origin although each village traces its origins to different parts of the south; the further downstream and north one goes in this district, the greater the populations of non-Pashtuns, particularly in the bottom ends of the irrigation systems. In Chimtal district, in contrast, the upper reaches of the irrigation systems contain non-Pashtun villages with the majority of Pashtun villages being located downstream.

Table 4. Patterns of ethnic identity by location in Chimtal and Charbolaq districts

Canal position	Imam Sahib	Chimtal	Charbolaq	Shasharak
Top	Tajik/ Hazara	Mixed	Pashtun	Pashtun
Middle	Hazara	Mixed	Mixed	Mixed
Bottom	Pashtun/ Mixed	Pashtun	Mixed	Mixed

This summary of course severely summarises a rather complex pattern of settlement and serves to point out that such patterns exist, and they have a historical basis, even if the exact chronology is not clear. However, the finer the scale of examination, the more complex these patterns become, not least because of issues of what and who defines a village. Examples were found, for example, of a village of non-Pashtun identity being surrounded by *nawared* settlements. Officially these may be treated as one village although often the local perspective is different.

Underlying structures of water availability

The settlement of new people in major irrigation systems clearly has implications for the design and management of the distribution of water among villages and between upstream and downstream. At a time of water and land surplus and with an incremental process of settlement over a long period of time it is not at all clear that considerations of the implications of settlement for irrigation design and water distribution and availability were structured into irrigation management at a system level. Indeed, in such an old system the notion of design may well be inappropriate since tradition has evolved and developed a practice of managing what is there. The primary concern of government appears to have been to develop a system of taxation around the water distribution.

There are a set of questions concerning the distribution of water and the underlying structures of the irrigation system and the extent to which the development of the irrigation system was concerned to achieve equitable distribution of water between upstream and downstream within canals and across canals so that each village got the same amount of water. Central to answering such questions would be information on the amount of water allocated to an area and the extent to which the times for allocation of water compensated for reduced water flow rates the further down the irrigation system one goes. Such information does not exist or does not appear to be formally documented.

What anecdotal information there is, and this is primarily based on what has been reported by individuals with a long history of engagement in water distribution at the district level (the *mirabashis*), indicates that there are structural inequalities built into the irrigation system and water distribution within the canals. There appears to have been no attempts or intention to allocate downstream villages longer irrigation times, for example, to compensate for downstream effects of reduced water flow. The existence of such inequalities is not in doubt and there were consistent reports of contrasts between potential yields for crops upstream in contrast with those downstream.

KI10, for example, commented that villages at the top end of the irrigation system in Charbolaq could easily produce 40 *sers* per *jerib* of wheat while those at the bottom would only achieve 18–20 *sers* in a good year. In his view, a wealthy landowner at the top end of the irrigation system would have between 40–50 *jeribs* of land, while a wealthy landowner at the bottom of the system would have to own at least 100 *jeribs*, if not more. These

inequalities are officially recognised and they provide the basis for taxation classes introduced during King Amanullah's time in the 1920s. Thus land at the top end of the canals, which is termed 1 or 2 *bawra*[22], is taxed at the rate of 5 Afs per *jerib* and land that is 3 or 4 *bawra* taxed at the rate of 2 Afs per *jerib* (as reported by KI11).

Under conditions of water sufficiency, water distribution inequalities did not matter too much and did not provide a point of friction between upstream and downstream villages. Villages at the bottom end of canals reported, as in the case of Imam Sahib canal, that there was in the past sufficient water for them to be able to double crop with wheat during the winter period to meet household requirements and a cash crop of either cotton or sesame to meet cash requirements. For the Turkman villages at the bottom of the Charbolaq canals, large livestock holdings combined with a secure winter wheat crop provided for a robust and sufficient economy during the 1950s.

However, two things have happened since the 1950s. The first is the steady growth of population and increasing intensification of agriculture as households have sought to intensify production to meet the reduced land areas per household. The example of KI11 illustrates this clearly. A man in his 80s recalled that his father and two brothers together had cultivated 1,000 *jeribs*. Now eighty households utilise this land. The second change is the increased demand for water: Since the drought of 1998, water supply has also been in decline. The result has been acute water scarcity, emergence of conflict and the surfacing of underlying inequalities in water distribution and access. In Charbolaq district, upstream villages have exerted control over water distribution and severely reduced downstream water supplies. This has also happened in Chimtal district, but not to the same extent.

The effects of increasing population and decreasing water supply are most clearly evidenced by the intensity of double cropping in the district canals derived from remote satellite imagery (Figure 3). The strong concentration of double cropping at the upstream end of all the irrigation systems since 2001 points to extremely unequal patterns of water distribution (the darker grey areas in Figure 3 have double cropped in all 7 years in contrast to the lighter grey areas, which have double cropped only 1-2 years out of 7). All the evidence from the field confirms this.

Against this background summary description of two key underlying structures — settlement history and water distribution — the phased development of opium poppy cultivation in these two districts can be explained.

5.2 Understanding the diffusion and spread of opium poppy in Balkh

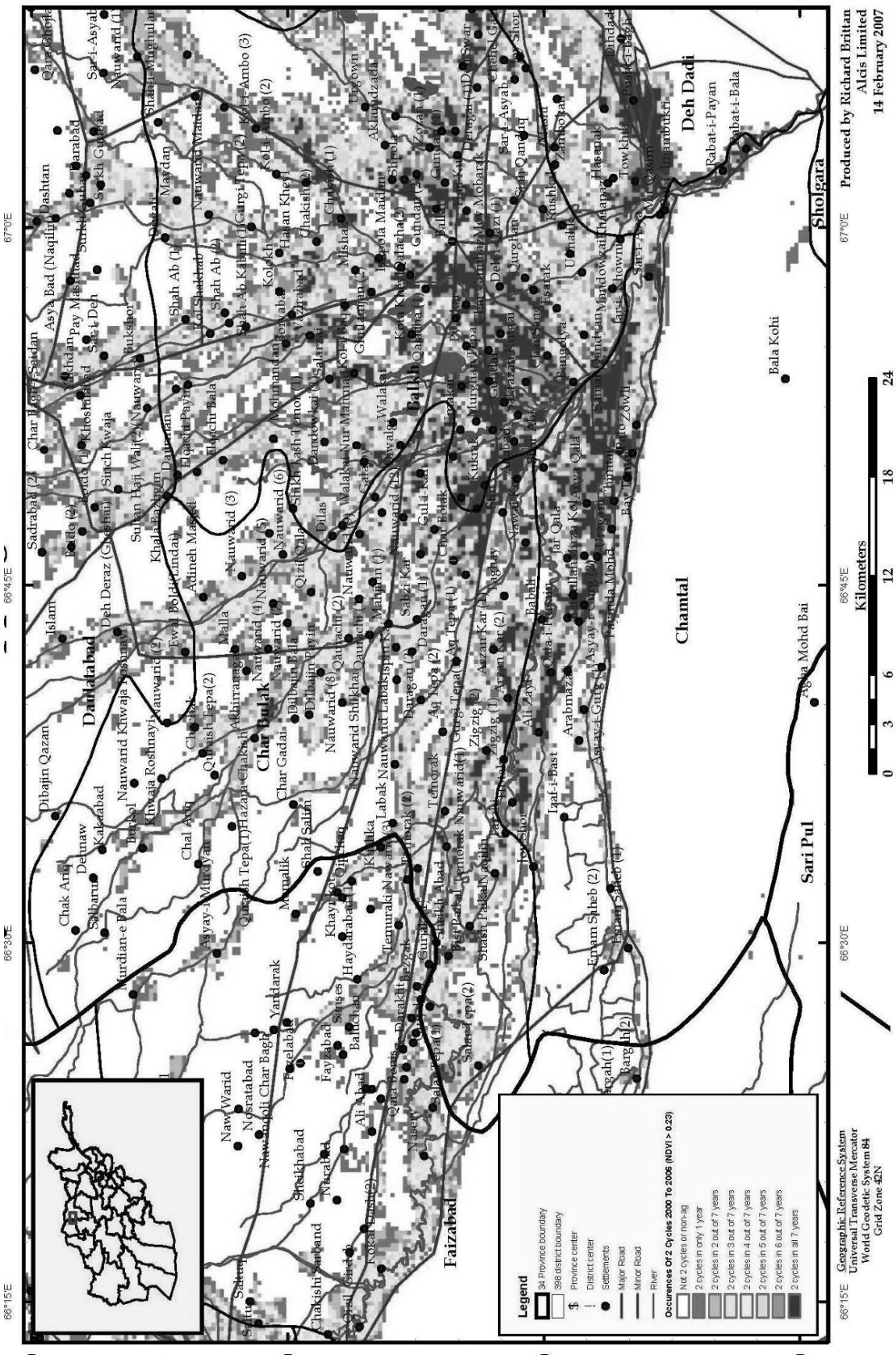
As discussed above, this paper proposes three distinct phases of the development of opium poppy cultivation in Balkh. Why have there been such distinct phases and what has driven the shift from one phase to the next? What do answers to these questions tell us about the underlying drivers of opium poppy cultivation in these two districts?

Phase I: Pre-1992

With respect to Phase I, it appears that the major reason for its limited area and dispersed cultivation was that there was only a small local demand for opium consumption which justified its production. It is not clear why the Turkman populations who are reported to have been the major consumers did not meet their opium demand through their own production. One possible explanation is that after the official banning of opium poppy cultivation in Afghanistan after 1948 it was safer or easier for Pashtun populations to grow the crop than it was for the Turkmans.

[22] A *bawra* is the proportion of land that can be irrigated each year; in the case of 1 bawra all land can be irrigated, in the case of 2 bawra half of the land can be irrigated and in 3 and 4 bawra a third and a quarter of the land can be irrigated.

Figure 3: Quality of double cropping in Balkh 2000-2006



Phase I shows that the knowledge and the skills to grow the traditional varieties of opium poppy have long been present in these two districts. What led to the transformation of low-level and dispersed cultivation into the larger-scale cultivation seen during Phase II?

Phase II: From 1992 to 2001

Although there may well have been an increase in opium production from the 1980s onward[23], there are no UNODC statistics to cover this period. There was a major rural-to-urban refugee movement during this period, setting limits to possible expansion of cultivation. It is only with the return of populations after the departure of the Russians at the end of the 1980s that the basic conditions for expansion would have existed. That there was an increase in opium cultivation leading to Phase II is corroborated by all sources, but what brought this about? Moreover, why did it assume its particular characteristics of being located only in specific areas but reportedly intensively cultivated in these and not spread more generally within these districts?

The answer is not entirely clear. Some associate the expansion of poppy cultivation in the north with the coming to power of the Taliban and the capture of Mazar-i-Sharif in 1996. Informants indicated (for example informants from Char62) that cultivation started to expand during Jumbesh rule (from 1992-96) and that there were traders from the north engaged in the market. Whether this meant that cultivation of opium poppy was taken up more widely in the districts is not known but it is evident that by 1996 it had become firmly restricted to certain villages in Chimtal[24], which the UNODC data supports (Table 2).

The expansion of opium poppy cultivation from its previously low level is likely to have been a result of an external demand penetrating the market, which shifted the profitability of the crop. Although price data does not appear to exist for this period, it is clear that it was not just a change in market conditions. There seem to be three dimensions to the change.[25] First, external traders from Kandahar appeared (KI01) and rapidly turned one village (Chim32) into a trade centre (KI14) for the two districts. One informant commented (Char62) that there had long been a history of trade in hawks between the cluster of village in Sqs 13 and 14 and Kandahar, dating back at least 30 years. Thus trade links were strong, cemented by common tribal identities. Second, there appears to have been a transformation of technology. Various informants (for example KI14) commented that new opium poppy seed was brought from the south and that these new varieties had the potential to yield up to six times more opium than the traditional varieties with the appropriate skills and lancing equipment. Third, beginning in 1992, major problems of water distribution began to emerge (informants from Char51).

Why did cultivation not spread more widely given these conditions? The cultivation of opium appears to have been regulated and restricted. As informants put it:

> *We lost the opportunity at that time — if we have cultivated we would be rich but we were scared of the authorities — they appeared in black turbans and we were scared they would find some reason to punish us.* (Group 6 Char01)

KI14 told the story of his father who one day was sitting on his metal bed on the roof and saw a "talib" coming. His father had a small area of opium poppy growing[26] in his garden and he quickly went down to destroy it but when the "talib" came, this man's major

[23] Hyman, 1992:36 comments that from the late 1970s opium was being cultivated in over half of Afghanistan's 28 provinces.

[24] In Nangarhar there are many reports (David Mansfield, personal communication) of land scarce families going to Balkh during the Taliban years and leasing or sharecropping lands in Chimtal and cultivating poppy, consistent with comments from informants comments from Charbolaq.

[25] See Byrd & Jongles, 2006

[26] So evidently some degree of covert cultivation was going on.

concern was to check that the metal bed was not a gun, which is what he had assumed from seeing it at a distance.

From the 1980s, underlying fractures and tensions between the multiple ethnic communities within the districts began to surface. It started with conflicts and tension between the Mujahidin groups. An informant (HH09, Char51) remembered the severe shortfall of irrigation water in 1989-90 during internal conflict between Jamiat Islami (under Rabbani) and Hezb-e-Islami (under Hekmatyar). The Hekmatyar commander at the time, Juma Khan Hamadard, blocked the streams towards Charbolaq and Shasharak canals to prevent water flows to middle and bottom end villages that were connected to Jamiat.

It is also clear that during 1992-96, under the rule of the Uzbek Jumbesh party, the communities of Pashtun origin suffered considerably. The head of HH06 (Char45) was from Faizabad, though orginally from Ghazni, and he said that his village in Faizabad had been surrounded by Uzbeks, Arabs and Turkmans, and that his people were in minority. During the Russian period, he as many others migrated to Mazar-i-Sharif city until 1992.

> *When Jumbesh came to power (in 1992) we lost the opportunity to return back to our village in Faizabad and there was a mass migration of our tribe (from Faizabad). I am the only one from my family tree that managed to build a relationship with Uzbek and Turkman neighbours. During the Jumbesh era, Uzbek and Turkman commanders were cultivating and harvesting on our agricultural lands. When the Taliban came to power I was able to cultivate on my land and even established my own carpentry shop.*

As the Taliban came to power in 1996, there was certainly retribution in these two districts for the power that the Jumbesh had wielded from 1992. For example, in Chimtal district a significant group of leading Hazara from the cluster of villages in (Sq17) were simply executed. There is no wonder that a crop that was closely linked in with trading networks of people from the Durrani Pashtuns, and so intimately tied in with sustaining the means of power, should be so closely and effectively regulated.

There is of course a certain irony in that the Taliban were able to control the market, as dramatically exemplified by their ability to effectively shut down production in the 2000-01 growing season. In the case of Chimtal, this would have meant the cessation of cultivation by those to whom they were most closely allied. There are parallels to be drawn with the effective closure of the market in Balkh in 2006-07. What does the current closure tell us about who is regulating the market in Balkh? The market has continued to be regulated after 2001 using much of the same informal structures although in a less visible way. The significance of the second phase of opium poppy cultivation should not be underestimated. Although cultivation did not come to scale during this phase, conditions were created for expansion to happen. In a sense, it could be viewed as a local but concentrated epidemic sustained through intense local networks but with a key bridge (trading networks) to sustain it.

Phase III: From 2002 to 2006

As noted earlier, all informants made reference to a dramatic expansion of cultivation from 2002, as entry barriers to the market were reduced. The story of its expansion, as told by informants, is not entirely consistent with the UNODC data (Table 2). The UNODC data reports the following cultivation in Balkh province: 4 hectares in 2000-01; 217 hectares in 2002-02; 1,108 hectares in 2002-03; 2,495 hectares in 2003-04; 10,837 hectares in 2004-05; and 7,100 hectares in 2005-06. While percentage increases across seasons are high, according to UNODC the biggest increase in cultivation area was in 2004-05. That year, cultivation levels exceeded the highest reported for the Taliban years (4,057 hectares in 1998). The UNODC figures report an expansion of cultivation in terms of spread to new districts and the decline in the relative importance of Chimtal as a centre of cultivation. Informants argued that the increase took place earlier, consistently

referring to 2002-05 as "the prosperity years". As KI14 noted, "after the Taliban fell, it spread at double speed".

It is not possible to map in detail the diffusion of cultivation across the districts. The opium poppy density images do not lend themselves to year-to-year comparisons, given the underlying methods used for their determination.[27] Figure 5 below presents the Balkh opium poppy density map for 2006, indicating the broad distribution of opium along the two Chimtal canals, with a more concentrated pattern in the upstream areas of the Charbolaq canals.

The story that emerges from informants is that, first, a general expansion took place out of the core area in Chimtal (Sqs 13-14) into neighbouring areas. In the case of Chimtal there was very rapidly a spread southward into all reaches of the Imam Sahib canal (Sqs 16-18). There also appears to have been a rapid spread northward into the upper reaches (eastern end) of the Charbolaq canal, particularly for those villages south of the main road. The spread of cultivation north of the road appears to have been a more gradual and uncertain process. Informants just north of the road — Pashtuns originally from Eastern Afghanistan — explained why they had not started opium cultivation earlier:

> *We were not aware; actually traders from Kandahar came to particular villages and went there first; they only came to us later. The first reason was that those villages had outside connections from ten years ago. The second reason was the weakness of relations between villages south of the road, despite the authorities being located here. South of the road they are better connected to authorities and traders.* (Group 9, Char42)

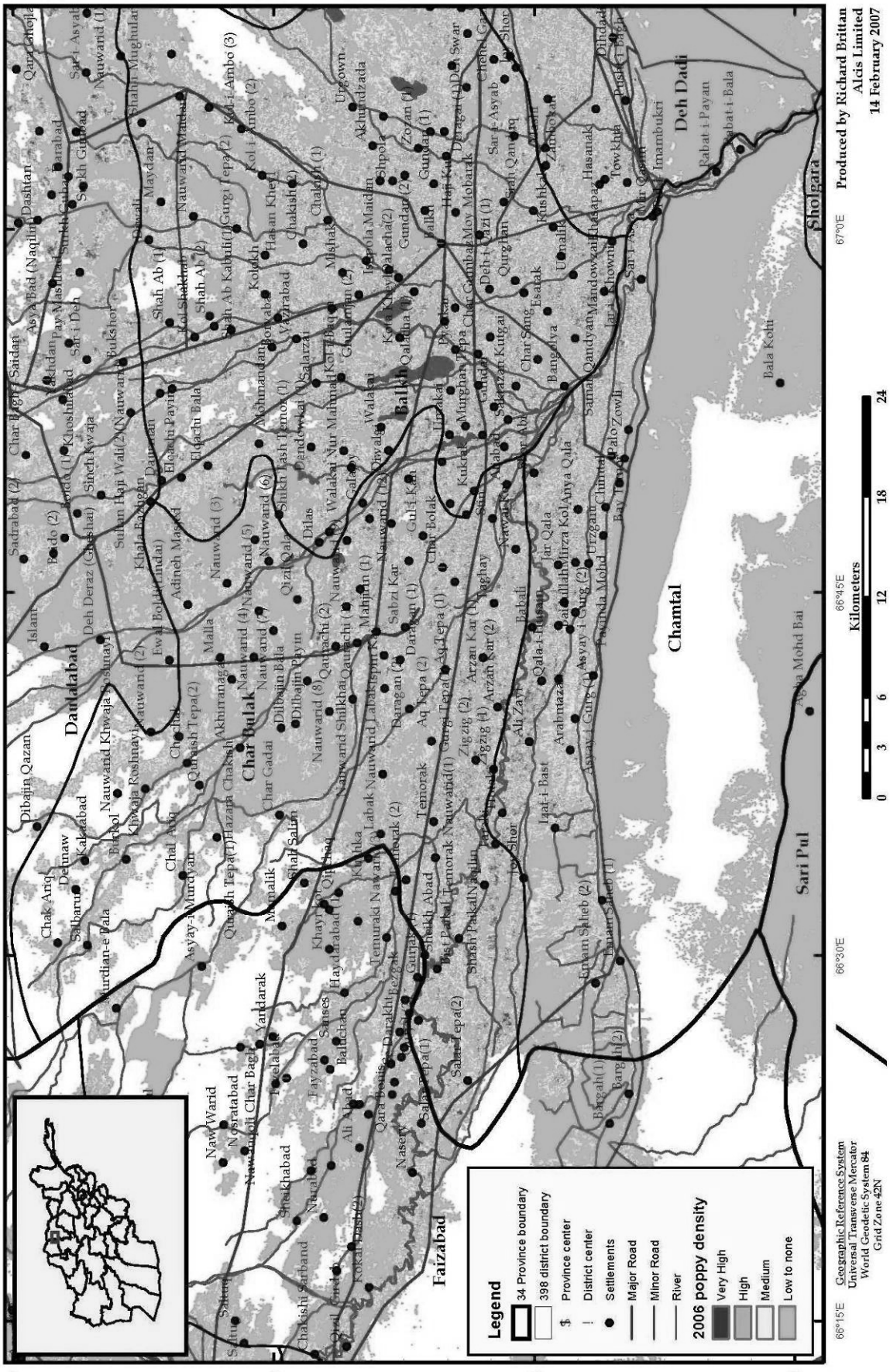
On the other hand, HH15 (Char14) illustrates that such barriers were not felt everywhere.

> *The diffusion rapidly took place in our villages and neighbourhoods, as I remembered now, all villages along the Imam Sahib Canal and Chimtal were involved in cultivation, processing and producing opium in 2003 and onward up to last spring.*

The picture that can be drawn from information provided by informants points to a process of diffusion of cultivation influenced by three key factors: 1) price, although the returns differ; 2) the availability of skills and labour for cultivation; 3) the availability of water. Against these must be matched the relative returns from cultivation as influenced by potential opium yields according to location, socio-economic status (as determined by land assets) and market access as reflected in price taking. These aspects will be examined below.

[27] Personal communication, Richard Brittan; the opium poppy density map for 2005 (not shown) indicates a much lighter density of cultivation in contrast to 2006, which is neither consistent with the UNODC data (see Table 2) or fields reports.

Figure 5. Opium poppy density in Charbolaq and Chimtal districts in 2006



Factors influencing the diffusion of cultivation after 2001

The documentary record shows clearly that there was a dramatic rise in market price of opium from the second half of 2000 and the early part of 2001. The price rose from around $50 per kg of dry opium in Kandahar and Nangarhar to over $500 by mid 2001[28]. Mazar-i-Sharif prices, as recorded by UNODC, were substantially below this. This may not reflect the prices in Chimtal, as HH15 (Char14) noted in commenting on the effects of the price rises:

> *During the last months of Taliban rule, the price rose to $700 per kg, then dropped to about $400-500 per kg[29] during the first four months of 2002. Households from the middle of Chimtal started buying cars and this was noticed in villages in the top and middle of the Imam Sahib canal. Before the Taliban fell there was very little opium in these villages but after they fell it spread rapidly.* (HH15, Char14)

The opportunity to generate substantial income after years of hardship due to conflict and drought should not be underestimated as a driver of the spread of cultivation. However, cultivation required both skill and labour. Closely related to this was the need for credit, although the effects of the rise in prices on the ability to hire labour should be appreciated. Access to all three of these components mattered. On the question of skill, some sources from the northern end or downstream in Charbolaq indicated (HH08, Char51) that initially, they did not have the skill for cultivation. It was only after labouring in the southern belt of the district that they acquired sufficient skill and knowledge to be able to cultivate the crop themselves. As he put it:

> *We used to seek opium-poppy related jobs in other villages. I remember my hard work with good enough income on opium poppy farms in [Char65, Char24 and Char62]. My aim was to learn the lancing skills because we were not so skilled at that time [2001 and 2002]. Gradually over a couple of years we learned this skill very well and have been able to cultivate on our own lands since then. We cultivated and harvested opium in small pieces of our lands independently and gradually expanded within our village. Many of our farmers owning a lot of land were admitted to the opium poppy lands of other villages even though we had problems with them in the past.*

This interesting comment, from a Hazara informant, points to a history of social boundaries to the diffusion of cultivation skills. It also points to the effects of the market expansion on lowering some of these boundaries.

It is also clear that there was a shortage of skilled labour in both districts. Although villages from the south started systematically to recruit labour from more northern parts of the district to work on the opium crop, it is also evident that migrant skilled labour from Nangarhar became a significant part of the labour force for the crop for the first few years after 2001. The significance of the higher skill levels of the Nangarhar labour should be noted. According to one source (KI17), the use of labour from Nangarhar could contribute a 20-30 percent difference in yield due to their ability to extract more opium resin through multiple lancing in contrast with less skilled labour.[30] Indeed, there were reports from numerous informants that Nangarharis had been coming to the north to work[31], sometimes as sharecroppers even before the Taliban times.

[28] Byrd & Jonglez, 2006

[29] These may well be prices of wet rather than dry opium.

[30] In Nangarhar skilled labour can be paid 350–500 Pakistan Rupees day in contrast to 250-400 Rupees per day of less skilled labour (Mansfield, 2006).

[31] Corroborated by Mansfield (2006) and (2007b)

During 2005, some 5,000 Nangarharis were thought to be in Charbolaq district (informants, Char28, [Sq02]), in all probability driven by the effective prohibition on opium poppy cultivation in Nangarhar during 2005-06[32]. But as local labour gained skills, there came a point when the demand for Nangarhar labour declined (informants, Char62 [Sq12]). An informant (Char65 [Sq12]) recalled how in one morning during the 2006 harvest, the village woke up to find that about 100 Nangarhari workers had arrived overnight. The villagers reportedly had to ask for the provincial administration to get them sent back and to stop any more coming, a request that was apparently met.[33]

On the question of access to credit, much depended on who you were and where you lived. For those villages in the core of the opium area and well-linked into the trading system, credit was reportedly easily available either within the village or from traders (e.g. HH10, Char65). From those who were not part of these groups, credit could either be raised from within known networks or provided by traders they had dealings with for cotton or sesame. Credit, given largely in cash, appears to have been easier upstream rather than downstream, reflecting effects of the relative prosperity of these areas and income generated from opium and better connections into trader networks.

The third regulator of the spread of opium poppy was the availability of water. Here, contrasts have to be made between the bottom ends of the Imam Sahib canal and the bottom of the Shasharak canal.[34] The villagers at the bottom end of the Imam Sahib canal are primarily of Pashtun origin. Reportedly (KI14) during the time of the Taliban when the management of the water distribution within the canal was under the control of a Pashtun *mirabashi,* they were able to deepen and widen their irrigation canal to pull through more water. The current *mirabashi* is apparently one who is both well connected to the government and effective, and water distribution along the length of the Imam Sahib canal has not been subject to the degree of absolute control at the upper end as has been seen elsewhere. The result is that sufficient water gets through to the bottom end to support an opium crop (KI, Sq16). There is not enough water to cultivate wheat, and certainly not enough to double crop.

In contrast, in Charbolaq district, the water that gets through to the bottom the irrigation canals is not even sufficient for drinking water purposes (KI05). There has been very limited crop production in these areas. This varies according to location and canal, but generally there is much greater water scarcity at the bottom of the irrigation canals in Charbolaq than in Chimtal. This links to questions of power structures which will be further discussed below.

Factors affecting the returns to cultivation of opium poppy after 2001

Three major factors determine the actual returns of opium poppy cultivation. The first is resources, such as water and other inputs that determine potential yield. The second is the terms and conditions of cultivation: whether the cultivator owns the land, uses it as a tenant or sharecropper, landlord or labourer. The third is the price for which the opium can be sold.

Many informants made reference to major differences in opium yield according to location on the canal and the inputs that were applied. The comments from Ch08, a downstream village on the Imam Sahib canal exemplify this well:

[32] Mansfield, 2006

[33] This account has resonance with a recent report from Helmand where opium labour tried to negotiate a larger share of the harvest leading to protests from landowners who involved the provincial authorities in order reach a settlement.

[34] See Adam Pain, 2006: 16

Upstream they use fertiliser with water and can get 6 kg per jerib of opium; we have no water so we use no fertiliser on the opium and in a good year can get 4 kg per jerib or only 2 kg in a poor year. (Group 2, Chim08)

This picture is consistent with the view of a UN official (KI17) who reported an average yield of opium in the districts of about 15 kg per hectare with good yields of up to 25 kg per hectare or even higher upstream in each district. While yields are evidently highly variable according to both skills and available inputs, downstream villages are clearly at a disadvantage. While there is no quantitative data to support the observation, field observation supported a picture of a greater area (a higher percentage of the land under opium poppy cultivation) that was more intensively cultivated at the top end of irrigation systems than at the bottom. In short, more land was allocated to opium cultivation in the more favourable areas and these achieved higher yields than in the less watered areas downstream. The opium poppy density maps are consistent with this observation.

Cultivation of opium poppy takes place through four main types of socio-economic relations. These can be characterised as follows:

1. A landowner cultivating on small areas with family and some hired labour for weeding and harvest.
2. A landowner using exclusively hired labour.
3. A landowner sharecropping out land.
4. Contract growing.

Cutting across these four categories is the demand and opportunity for labour, influenced by farm-gate prices for opium and wage labour rates. The work of Mansfield (2002) sets the dimensions for the relative returns on opium poppy cultivation according to social position. Data was not collected here to describe this in detail, but the effects of declining prices and poor yields on employment opportunities in Balkh should be noted.[35] Note must also be made of the available data on land distribution, which indicates the relative proportion of those with and without land. This data is drawn from two sources. First, estimates that can be derived from a WFP Vulnerability Assessment Mapping undertaken during 2002-03[36] and, second, estimates of the distribution of land ownership provided by informants during the fieldwork. The WFP data indicates that 20–35 percent of households are landless, with higher values upstream. Field reports indicate that it is more variable than this. For example in Char28, 90 percent of households were reported to be without land, comparable to the 80 percent value reported for Chim09. In Char08 (Sq05) the proportion of landless households was relatively small, although about 60 percent could only meet 2-3 months requirement of grain from their land in a good year. Both sources thus point to major inequalities in land ownership with a minority of large landowners and a significant number of landless or near landless households that are not grain secure from own production.

No systematic information is available on the distribution of the first category — small-scale production with local employment of labour although it is likely that this was more common in the middle and downstream portions of the Charbolaq canals and the bottom end of the Chimtal canal. In part, this may have been determined by social identities. While it might be acceptable for a Hazara, for example, to work as labour on lands

[35] IWPR (2007) notes farmer comments on the effect of declining prices reducing profitability (Northern Province says 'no' to opium, www.sim.ethz.ch/news/sw/details_print.cfm?id=17718 accessed June 16th, 2007. Mansfield (2007a) also notes the effect of hired labour making returns to opium less than that of wheat, opium and potato in Badakhshan.

[36] Discussed in Pain, 2006, Appendix 1.

upstream, it would be less likely for non-Hazara to work as labour on a Hazara opium crop. Villages in mid and downstream villages, for example, often commented that labour for the crop only came from within the village (Group 2, Char08).

It is clear that labour was systematically organised from downstream and midstream positions to work on the opium crop upstream. Landowners at the top end of the irrigation systems appear to prefer to cultivate with labour and pay in cash, while those in more downstream positions were more likely to have a preference to sharecrop out land and thereby share the risks of cultivation or pay their labour through shares of the crop rather than cash. An informant explains:

> *I used to work as daily labour on poppy farms in many villages, including top end, middle and bottom end and even in our village. The term of my work was getting a portion (one in four) during harvest. In the top-end village I received a daily payment. In villages here in the neighbourhood I used to get advance cash. There were a variety of terms for repayment for daily labour working for a poppy land owner. In villages where the chances of selling was less and the land owner could not process and sell large consignments independently, they paying the daily wage in-kind (opium), usually one quarter of the harvest or whatever is negotiated. In well-connected villages with high trafficking chance, they never pay the daily wage labourers in-kind.* (HH09, Char51)

In the upstream areas, several examples of labour contractors who organised the opium production either for landlords or traders were found, and an example is described in Box 1.[37] As this case shows, there is no doubt of the degree to which the production of opium poppy became commercialised.

The third dimension influencing returns is that of price that can be obtained. The price depends on whether or not you have access to the main traders. For many, access is extremely limited. Note that the first quotation is from a village in the heart of the opium belt in Charbolaq.

> *It is very hard to see the main trader — it is difficult to understand the main buyer, the network is very strong and a lot of people are involved at other levels — we sell through commission agents.* (Group 7, Char62)
>
> *The first harvest we sold to Chim32. In each village of this belt there is a big guest room which receives two to five people from Helmand as guest who ask the middlemen to buy. We mostly sold to them and are not allowed to meet the main dealers because of reasons of trust.* (KI14)

As many observed, selling through the middlemen or commission agents meant that they got a reduced price although it was difficult to get precise figures on how much the differential in prices were between commission agents and the main traders.

These descriptions on market access provide an illustration of how the market is regulated by key actors, and how groups of solidarity often defined by ethnic identities have played a critical and important role in the evolution of opium market within these two districts. This dimension of actors and institutions now need to be considered more specifically, particularly in relation to the expansion of opium poppy cultivation since 2001.

[37] A similar case was reported by an informant from Dawlatabad district of gang masters who organised skilled and unskilled labour for the poppy fields

Box 1. Contractor organising opium production for land owner

HH15 (Chim 14) is a young Hazara, 35 years old and with more than 15 years of farming experience. He has no agricultural land at all, but owns half a *jerib* of land for his house compound where he lives with his wife, two children and his young unmarried brothers. He works for other farmers as a sharecropper, and is usually cultivating 40-60 *jeribs* of both irrigated and rain-fed lands. He seems very experienced in working out sharecropping deals with landowners in the village.

"I always seek good farming lands on a yearly basis and sometime for several years. When I enter into an agreement, I try my best to keep the landowner happy about what I am cultivating and harvesting in terms of quantity and income out of it. Right now, I have a contract for 50 *jeribs* of land as sharecropper. The terms for a sharecropper is here as it is elsewhere: My payment to him is relative to the total harvest. I have 5 other *jeribs* as *hejaraee* (leased) for 4 years. This 5 jeribs are irrigated land located in Khalajee village which is next to Folad aha and I am paying 20,000 Afs a year to land owner. It's an obligation for me to pay him 20,000 Afs and there is no excuse if I get behind in the cultivation plan and cannot grow anything. The land owner just wants his lease amount in cash and I have to manage to provide it'

HH15 explains that he used to get lands on lease before poppy came to the area, but he confirmed that this business rapidly expanded for him when poppy cultivation was introduced. The way he is doing business is hiring other skilled and unskilled farmers and giving them labouring tasks for a certain land area supervised by his brothers and himself.

"I'm responsible for getting fertilizer, seeds and even tools for ploughing and sowing with credit from within the village or cotton traders or opium traders and the team is working for me on a daily basis. In May 2005 I hired 40 labourers including some skilled farmers among them and paid them 107,000 Afs for 10-15 days to work on my poppy fields. Thus, I paid a sum of 20,000 Afs for food items (breakfast, lunch and dinner).

Despite not mentioning the amount of land he cultivated, he talks about a yield of 4-5 kg of opium per *jerib* and if he includes less harvest on some pieces of lands, he takes on average 3 kg *jerib* and an amount of 800,000 Afs ($160,000) as a gross income. He also confirmed when the peak growing years (2002-05) and the huge harvest of that time. In another calculation he says that if the opium harvest goes well, then one day of harvested opium can cover the total cost of fertiliser he used on the lands.

5.3 Actors and Institutions

It should be clear from the discussion on the different phases of opium poppy cultivation that structures of informal power — socially determined, with clear spatial dimensions and associated with both individuals and groups — have been a determining factor. In Phase I the ability of people of Pashtun origin to cultivate opium for a small domestic market, although it is unclear whether that prerogative was exclusive to them, is certainly consistent with the power that had been acquired through deliberate settlement practices upstream in irrigation systems. The conflicts that emerged during the Mujahidin period, which pitted one political party against another, found expression both in violence and in the use of position to cut off irrigation water supplies to those downstream. Those seeds and means of fermenting conflict have lingered on, even among upstream villages.

> *We are not happy and satisfied with the existing water irrigation network. Our village has been well known as a well irrigated area, but there are also power issues affecting the situation and we can't solve this problem within the district and the province. The reason is our previous connection to Hezb-e-Islami party and the western village Char62 is connected to Mahaz Melli and has maintained good relations with provincial authorities onwards.* (KI12, Char65)

Conflicts over access to water were emerging and the control of water was becoming an instrument of power, particularly during the latter years of Phase II, under conditions of acute water scarcity. It does not appear, however, that such power structures were directly coincident or linked with those that regulated both the production and sale of opium. Opium production was highly localised and controlled by one social group.

The transition to Phase III changed that. What brought opium poppy cultivation to scale, and played directly to existing control over irrigation sources, was the way in which informal power structures — which became more broad based with the removal from power of the Taliban — permeated the formal structures at district and provincial level.

On the issue of the taxation benefits from opium poppy that accrued to district authorities the evidence is consistent and specific:

> *It was very strange and ridiculous in 2002, 2003 and 2004 . . . people were walking up and down for opium marketing and dealing freely and even nearby local officials and police were charging their informal taxes . . . and they even earned more than us.* (HH15 Chim13)
>
> *During the opium trade, the district authorities had ten middle men who would organise the opium trade in the bazaar and collect the tax; they would take between $5-10,000 per market day up to 2005.* (KI05)[38]

On the control of the trade and the trafficking of opium out of the district, informant opinions are consistent though details are elusive. The opinions clearly implicate authorities at multiple levels for the control of the trade. Respondents point to particular examples. Reference was made to the son of a local powerful commander (from a village in Sq12) who was well connected into provincial structures. The son became the traffic police security officer for the district, a sinecure to organise opium trafficking out of the district. The son was subsequently killed by coalition forces for his reported connections with Taliban groups.

The following story is indicative:

> *Three years ago there was a district chief of police who was unqualified and he was dismissed in 2004. I saw him again in March 2005 just 15 days before harvest and he seem well dressed. He told me that he had been reappointed and I jokingly asked him what it has cost. He said he had paid $8000 and I learnt later that he had arrested two Kandahari traders with 40 kg of opium and only 2 kg was handed over to provincial authorities, and that he had also got paid for the release of the Kandaharis from jail. At the end of 2005 he was dismissed again and I am told that he is looking again for a new position as chief of police in the province; he has good connections.* (KI10)

Another revealing story about the depth and penetration of the informal into the formal power structures was the account of a dinner to which one informant (KI05)[39] was invited in late 2006, at the time of the opium poppy ban. The dinner, hosted by a key provincial figure, brought together key district figures and there was a "special guest from Kandahar". The guest advised that cultivation should stop this year, but if nothing (in terms of alternatives to opium poppy) happens then he would assure support for next year.

These reports on connections of the control of the opium trade into formal provincial structures from the district upwards are mirrored in the reports on how eradication was practiced up to 2005.

[38] Consistent with what has been reported from Badakhshan and Baghlan, (Mansfield 2007b)

[39] Implicating the informant in opium trade connections.

> *In this district there are 8,000 jeribs of opium; 1,068 have been destroyed by farmers and 2,058 have been eradicated. There have been two campaigns. There was the winter campaign which took place four months ago and is finished. Now there is a spring campaign and we plan to eradicate the balance of 4,500 jeribs.* (District 1 Authority, March 2006)
>
> *There are 12,000 jeribs of poppy; 8,000 will be eradicated this year; 3,000 have already gone and 5,000 remain to be done.* (District 2 Authority, March 2006)
>
> *Last year about 100 jeribs were eradicated in the district.* (District 2, KI Char32, March 2007)
>
> *The government estimates that 7,000 jeribs were eradicated in December and January but we estimate that half that number was eradicated. This year the Agriculture Department reports that there are 43,000 jeribs of opium (last year there was 54,000 jeribs) but we think it is higher than that — there is pretence that it is lower.* (KI17, March 2006)

As the above four contrasting reports indicate, there are different views on how much eradication has taken place. In many ways it is pointless to pursue the numbers because they cannot be readily confirmed or reconciled. The fact that there are disagreements is revealing in its own right, but the eradication figures in themselves say little about the process of implementation, both when it was done and where. Reports from the field point to a problematic process of implementation, both in terms of timing and location of eradication.

Particular attention was drawn to the timing of eradication. Observers (for example KI05) noted that the eradication teams did not appear often until the opium poppy harvest was almost over. One informant (KI11) claimed that local officials recognised the right of farmers to cultivate and therefore they came after harvest. Others (KI05) were more cynical and saw vested interest and the protection of clients as a key factor in the determination of the timing of eradication.

The decision of where to eradicate depended, according to one informant (Char32), on the composition of the eradication team and the influence of the district authorities in the villages. The explanation provided by one informant (KI10) in identifying which villages were visited by the eradication team was clear: "they did not pay to stop eradication". Other informants (Char51) commented that the influence of the *woliswal* (head of the district) was very important in the selection of villages for eradication and they had heard of payments from other villages. Informants in one village (Char08) visited by the eradication team agreed that there were two reasons why they had been chosen. First, the influence of the district authorities on the village selection list, and second, that they did not pay money — "they were asked but had no money". Other villages paid for protection.

A similar set of events was reported during the 2005-06 eradication in Chimtal. During the one reported visit by the eradication team (KI14) during 2006 it was clear that eradication was confined to the Imam Sahib canal and did not take place in the Chimtal canal area for reasons to do with "poor roads, the likelihood of resistance but most probably prior payment" (KI14). Even on the Imam Sahib canal, villages were reportedly treated very lightly as a result of payments. The biggest losers were villages Chim15 and Chim16. KI14 noted that although at the end of the campaign it was claimed that 1,000 *jeribs* had been eradicated, probably in his view much less was actually destroyed, perhaps only 300-400 *jeribs*.

There also appears to have been considerable room for negotiation within the villages although it appears that much depended on the capacity of individuals to pay off the eradication team. One sharecropper, an outsider from village Chim19, was not in a position to do this. He reported how in the previous year (2005) he had cultivated four

jeribs of opium. He had come to the village as a sharecropper after he had married into the village. He had been working as a driver for others and he wanted his own vehicle. So he cultivated opium and hired labour but the eradication team came and he escaped and they destroyed everything. He was now left with major debts.

Whatever the amount of eradication and its effects, it is evident that the implementation process was subject to considerable negotiation and rent seeking. Those targeted by eradication appeared to be those in the weakest position, both in terms of connections to local power structures and ability to pay for protection.

The assertion of power by district authorities, and its deployment along existing identity structures, has not been confined to eradication. According to one informant (KI10), who is in a position to know the details, the implementation of key central government programmes has also been subject to direct interference. Several examples of this were given.

In one village (Sq09), a community development committee (CDC) agreed to the construction of a school building through the National Solidarity Programme (NSP). The proposal was approved by government, land was given through the community, and the money was released. Key representatives of the district authorities came to the village and instructed that the building should be shifted to the *nawared* sub-settlement of the village, despite the fact that there were already UNICEF latrines constructed at the site. Members of the CDC were reportedly beaten and fuel taken for the district vehicles. The project has since been suspended, because the CDC refuses to agree to the change.

5.4 Summary

This section, building on an understanding of settlement histories, ethnic identities and structures of water availability, has developed a set of arguments to help explain the phased development of opium poppy cultivation in Balkh. An understanding of structures and institutions — how these have changed and the effects they have had on the "choices" available to households — is fundamental to understanding where and by whom opium poppy has been cultivated. However, this analysis does not provide an explicit account of the outcomes of this trajectory of change and it is to this issue that the discussion now moves.

6. Outcomes

What have been the effects of the development and growth of the opium economy from 2001 to 2006 and why does this question matter? As will be discussed in section 7, the effective cessation of opium poppy cultivation in Balkh (at least for the 2006-07 season) is likely to have immediate effects on household incomes. While everyone will be affected, the potential poverty effects are likely to be concentrated on particular groups. These need to be understood. But there is also a need to understand both the reasons and means by which opium poppy production has been ended and what the implications are for poverty and vulnerability.

There can be no doubt that the growth of the opium poppy economy in these two districts has been significant and has injected an unquantifiable amount of cash into the district — even if much of the overall value has been transferred out of the districts to trade and processing centres elsewhere. While caution and reservation should be attached to figures and numbers, taking the UNODC area figures from 2001-06 (a cumulative total of 21,750 hectares over these five years) and assuming average yields of 40 kg per hectare and an average price of $75 per kg of opium, an order of magnitude figure of $65 million dollars gross has been injected over this five-year period into the two district's economies at the farm gate level. This does not take account of the undoubtedly higher margins on the trading of opium. If one considers that probably no more than one-third of all the villages in the two districts (40 of about 120) have been intensively cultivating opium poppy over this period, this sum could amount to an average of $1.5 million per cultivating village over this period.

Two issues arise. First, what have been the effects of this cash infusion and how are these benefits likely to have been distributed within the districts according to social position? Second, what have been the effects of the growth of this market on underlying social structures within the district and the capacity of individuals to negotiate these? Has the growth of the opium economy simply consolidated pre-existing structures of identity and inequality, continuing a "path dependent" trajectory? Or has the opium economy had a transforming effect shifting and reconfiguring social alliances and structures? First, the likely effects on household economies need to be considered.

6.1 Effects of opium cultivation on household economies

In looking for effects of opium cultivation, a number of factors need to be taken into consideration. First, potential returns to opium poppy cultivation are set by production levels as influenced by the management and inputs provided, for which location is an effective proxy, and area of cultivation. Second, the distribution of shares of production is determined very much by who you are and the conditions under which you cultivate — as owner cultivator, as sharecropper, or as labour. Third, what is realised from the share of production is set by the price that can be obtained and the settlement of any credit taken for production. Finally, account has to be taken of the duration of cultivation as it is clear that some villages started cultivating opium poppy earlier than others.

None of these issues can easily be addressed with quantitative data. On the question of potential returns, there is likely to be a gradient of yield, reflecting availability of water and resources to provide inputs, combined with duration of cultivation moving from (relatively) high production upstream to relatively low production downstream over the five year period. Second, with better market access and therefore less risk associated with production, landowners upstream have been more likely to use hired labour rather than sharecroppers. The returns to cultivation are therefore likely to have been higher to landowners at the top end rather than at the bottom although there is no data to systematically compare the returns. Sharecroppers are likely to have had lower returns

than landlords (see Mansfield, 2007a). As noted above, the proportion of opium poppy that was sharecropped is likely to be higher downstream, although there is no data on this. Then there are the returns to labour, which are likely to have been variable since there would be a need to take account of the overall labouring income that a person obtained from opium poppy cultivation and how it was distributed between payment in cash and payment in kind. What do the reports from the field have to say on this?

An upstream household (Char65), a landowner, a trader in cotton and possibly a middle level trader in opium reported that in 1994 there had been an earthquake as well as factional fighting in the village. His house had been destroyed and he gave his land on mortgage to be able to get the money to rebuild his house. He was $2,000 in debt at that time and reportedly there were some 100 households in a similar position to him. In the past he had cultivated cotton and hashish, but he has a large household to feed with three brothers, uncles and two cousins living together.

> *In reality the only crop that provides enough income is poppy. Even women members of our family were doing the cultivation and harvesting in the yard. Except for me the rest of these boys (indicating his brothers and cousins) have not married yet. I was planning last year to earn huge money and was prepared to cultivate opium in all 5 jeribs to pay for one of my brothers' wedding this winter. Well-organised poppy cultivation is possible when all elements work together. You have to ensure marketing through its evidence (traders from Nangarhar, Helmand and Kandahar) should appear in the area during sowing, growing and processing; you must agree on cash and kind payment to labourers that we organise for them (outside traders) and feel safe and secure of your environment.* (HH10, Char65)

For a household without land the opium poppy crop also had significant benefits, relative to their position, for the labouring opportunities and improving access to credit that it provided:

> *2001–03 were the best years of income and prosperity and of reserving assets and livestock. Within those years I have been able to buy four goats and one cow and just last summer I sold them to repay my debts and resolve my economic difficulties. I used to work on farms in many villages. The terms of my work was getting one quarter of the harvest. In the top-end village it was daily payment and even in villages like here and the neighbourhood I used to get advance cash to cover my family needs.* (HH09, Char51)

However, as the above quotation shows, while the opportunities to find work clearly improved, the benefits were much diminished compared to landowners. The comments from HH11 (Char65) who has only 0.5 *jeribs* of land illustrates this:

> *I used to work as a senior farmer to supervise the land with poppy cultivation on a credit basis. The land owner gave me authority for supervising other labourers and my family members who are working on the land during processing. Last spring I was supervising 3 jeribs of land with poppy with one quarter share at harvest time. Despite all these realities that I am talking about to you and I acknowledge my involvement in the opium poppy cultivation, still I am in the same economical situation that I was before, it is just like an increase of 15–20 percent to my annual earnings out of all this hard work day and night.*

What does not appear to have taken place, in contrast say to Helmand or Nangarhar, is the emergence of deep opium denominated debt. The whole effect of the opium economy in Balkh on credit relations will be discussed in a separate report,[40] but suffice it to say that the development of the opium poppy cultivation in Balkh largely took place after the

[40] Research on the links between opium and informal credit is currently in progress by AREU.

boom and bust cycle of prices and the structure of credit relations in the districts appear to be rather different from those reported for Nangarhar and Helmand. Mansfield (2007b) found for example, that 75 percent of his sample who moved back into opium poppy cultivation in 2006-07 had an average level of debt of US$1721, nearly 3 times the level of those who had moved out of cultivation in the season. But the evidence from Balkh is that access to trader-sourced credit for opium poppy cultivation has been restricted to those who are well connected (and thus with land and in the most watered areas) and there were not widespread reports of legacies of debt from opium cultivation.

The multiplier effect of opium cultivation on the rural economy was significant. KI05 noted how seven years previous there had only been two motorcycles in the district, and no motorcycle shops. By 2006 there were more than 500 motorbikes and 11 motorbike shops in the district centre. For a carpenter, the house re-building programme fuelled by opium income had significant benefits:

> *The opium poppy cultivation years (2001-06) were good years for the shop with a lot of orders for making windows. Orders were coming everyday to my shop from this and neighbouring villages and I opened up another shop in my home village and sometime was going there for marketing and receiving new orders.* (HH06, Char45)

In sum, benefits from the opium economy were significant and trickled down through the social hierarchy. But as is clear from above (contrast HH10 with HH11 above) the returns between landowner and labour were of a different order of magnitude. The returns between farmers and districts officials and between farmers and traders were even more differentiated.

6.2 The growth of the opium economy and its effect on underlying structures

Much of the argument of this paper has concerned the determinants of opium poppy cultivation, arguing that it has to be understood in terms of underlying structures of inequality of power and access to resources. Given the extent to which it has come to scale from Phase II to Phase III, it is also important to raise the reverse question: How has the growth of the opium poppy economy affected and perhaps changed underlying structures? There is no clear answer to this question, but it will be argued that there are some fairly ambiguous outcomes which hint at potential "transformatory" consequences of the growth of this market.

During Phase II, when cultivation and the markets appear to have been so closely regulated reserving the benefits strictly to those who had control of the market, the more persuasive argument would be that the cultivation of opium served to consolidate existing inequalities and more deeply structure them.

The bringing to scale of opium poppy cultivation since 2001 has possibly done the reverse. The immediate benefits of cultivation have certainly been more widely distributed, although it is clear that this has not been an equitable distribution. The effects of cultivation have possibly been neutral in relation to practices of water distribution within the irrigation system. Cultivation upstream is not likely to have led to even more restrictions on water release for downstream, given that opium poppy is not as water demanding a crop as wheat. The expanded market, through bringing about more interchange between different social groups, may also have subdued conflict — which may or may not have longer term consequences. All this is speculative and serves to question at least the implicit and widespread assumptions about the negative effects of the opium economy.

To reinforce the point that opium cultivation is not all bad, two field observations are offered which indicate the durability and strength of informal institutions and a degree of

accountability of the formal. The first was the opportunity to observe the mediation of a major conflict between two villages of different ethnic identities over water distribution. Collectively the elders had brought the conflict to a respected and influential man in Mazar-i-Sharif and a discussion appears to have led to an outcome that was acceptable to both parties.

The second observation concerns the compulsory purchase of land for a new irrigation structure (designed to improve water distribution between the districts) by the provincial government. The process started in a way that was seen by informants to be an attempt by central authorities to impose compensatory payments on each district based on a land valuation at least five times the market value. This was possibly linked to the fact that one of the affected landowners was well connected to provincial authorities.[41] There were also deep suspicions that the attempt to have the payments handled through the provincial departments was a means for the departments to obtain a share of the money. Combined opposition from the districts, however, led to a reduction of 50 percent in the valuation and to the establishment of a procedure to ensure that the payments were made directly and transparently to the landowners.

The more interesting question concerns the extent to which the growth of the opium economy and the surplus that it has generated has enabled a consolidation of power structures within the province given the extent to which the informal has blended with and consolidated formal institutions. There is evidence to suggest that the relative consolidation of power within Balkh and the relative security it has achieved is more likely to have been built out of the opium economy rather than emerged despite it. The role of predation and illegal networks in the accumulation of capital and state formation processes has a comparative historical basis in the early modern era (Tilly 1985). As Gallant (1999)[42] has argued, "military entrepreneurs" resourced and established through illegal activities can modernise and shift to more legal positions in state building processes. What is happening in Balkh at the moment could possibly be interpreted in this light, but this is not the place to pursue this further as it moves the discussion well beyond the purposes of this report.

[41] Information on this was provided by several key informants (KI01, KI05, KI09 and KI11) who showed documentation and reported on the progress of the dispute over several months.

[42] I am grateful for Jonathan Goodhand for bringing this literature to my attention.

7. The Emergence of Phase IV in Balkh?

How then is the sharp reduction in the cultivation of opium poppy area in the 2006-07 cultivation season to be interpreted? Is the Balkh of 2007 a re-run of Nangarhar in 2005[43] whereby coercive action to reduce opium poppy area and investment in "alternative livelihoods projects" has not led to durable effects across much of the province.[44] UNDOC talks of a "successful awareness campaign against poppy cultivation before the planting season" as the reason for the decline in Balkh.[45] In one sense UNODC is right, there was indeed "an awareness" that opium poppy should not be cultivated, but that awareness had nothing to do with development efforts, opium poppy farmers seeing the sins of their ways, or a credible threat of eradication (as past eradication practice is testimony to).

The parallel to be drawn is with the capacity (and experience) of the Taliban to close down opium poppy cultivation in 2000-01, a parallel which was also drawn with the implementation of the ban in Nangarhar in 2005.[46] Then, the action was interpreted as an indication of the complete control that the Taliban had over the opium economy and it is precisely the same argument that can be made for Balkh in 2006-07. The same people who have been extensively reported to be the key links in the opium economy up to 2005-06 are now exactly the same people who are implementing and enforcing the ban and have the effective force to do so. This gives rise to the question of why has this happened now and not before? A comparative lesson can be drawn from Nangarhar, where the economics of opium poppy cultivation — farm gate price falls, rising labour costs and indifferent yields — shifted the sentiment against cultivation, making it easier to push for total elimination.[47]

The ban may well reflect a commitment by provincial authorities to central government, though a number of informants (KI05,KI09, KI10 and KI11) say that it is equally a consolidation of power and position built out of the opium economy. As KI14 commented:

> *As you may know Chimtal is well known for extensive cultivation and harvest of opium poppy from 2001 onwards and it is hard to be hopeful and optimistic for quick eradication. There are suspicions on government policies and manners . . . for the actual practice of this business, the networks and involvement of local and central authorities play major roles. Otherwise only cultivating cannot guarantee the following steps, you need to ensure the supporters, marketing and trafficking . . . in this particular province the issue of provincial pressure to demonstrate to media, central government and international watchers that they have entire control over the province.*

Will it be a durable cessation of cultivation? While Balkh is not the same as Nangarhar in terms of its underlying structures, there are limits to how long coercion can hold. Various comments from the field reinforce this.

> *Still I often see the middlemen walking around to buy reserved opium if someone has it — then I am thinking about re-cultivation of it in the next 1 to 2 years because I cannot see any alternative and actual measures to prevent it fundamentally.* (HH15, Chim14)

[43] Mansfield, 2006.

[44] UNODC, 2007: 28 talks of "a sharp increase in Nangarhar province, following a 346 percent increase in 2006 as compared to 2005".

[45] UNODC, 2007:32

[46] David Mansfield, personal communication.

[47] Mansfield, 2006

> *We are in terrible trouble now and feeling all routes have been closed in front of us.* (HH19, Chim34)
>
> *It is an alarming time right now, the government declaring that all illicit crop farmers will be given improved seeds, chemical fertilisers and other alternative assistance but I have doubt they could do it and people will turn back to opium.* (HH02, Char23)
>
> *This big family was entirely dependent on opium poppy cultivation since it began 10-15 years ago in this village. This is the first time that I see them with no poppy and very angry and upset.* (Informant, Char65)

Many informants showed a anger, deep cynicism and the view that they would wait and see what would happen — a position similar to those of key actors in the opium trade. All of this points to what is seen as a lack of visible alternatives to opium. This challenges the claims for development efforts having contributed to the "decision" not to cultivate.

What have been the immediate effects of the ban? There is no doubt that there has been a significant downturn in the district economies. Bride prices are reported to have dropped from $10,000 to $4,000 since February 2006 (KI05). Informal credit has rapidly dried up (KI05). A carpenter commented as follows (HH06, Char45):

> *My income out of the carpentry shop declined by 80 percent compared to 2004 and 2005 because I lost customers year by year. From the beginning of 2006 up to now I am borrowing advance money to buy food items for my family consumption and as well as wood and other materials. Today I plan to ask my father-in-law if he can lend me Afs 2,500 because I need cash.*

For those who derived their major income source from labour on the crop, the effect has been immediate and there were consistent reports from most villages of an outward migration of a significant portion of the village labour force to Mazar-i-Sharif in the first instance but also to Iran and Pakistan. It is in the light of these pressures driving labour to migrate that the recent effects of the Iranian authorities to expel at least 30,000 Afghans in late April should be understood.[48]

It is not only farmers and labourers who have lost income but also district authorities. There were consistent reports of more directed forms of rent seeking behaviour by district officials in order to make up for some of the loss of income from informal opium taxation. These have included forms of extortion as well as taxation of food distribution programmes (KI05, KI10, KI11).

None of these reports provide much room for comfort with respect to the durability of the opium poppy ban or its likely consequence for the wellbeing of particular social groups.

[48] Irin, 30 April 2007: Iran deports thousands of illegal Afghan workers. ww.alertnet.org/thenews/newsdesk /IRIN/5d9da73ea1904240dd2fd47961231cab.htm accessed 03/05/2007.

8. Conclusions and Implications

> *We argue that current pressures to persuade people that "abstinence" is a reasonable programme goal are based on misapprehension as to the balance between environmental and contextual factors, and individual choices in determining why and how people [behave]. Continuing insistence on the part of the major prevention programme funds that changing behaviour alone — rather than changing its context — is the main problem, and will result in poor policy choices.*[49]

Based on earlier research, a range of household and key informant interviews and field observations, this report has presented an account of the development of the opium poppy economy in two districts in Balkh. These districts have been the major growing areas for the crop in the province. In these districts, three key phases of opium poppy cultivation development can be identified. Phase I up to 1992 was highly localised to individual farmers, of low intensity and small in area serving a domestic economy. Phase II, from 1992 to 2001 was also localised but as "hot spots" concentrated in a group of villages in a particular location through various restriction mechanisms and serving an external market. Phase III, from 2001 to 2006 was characterised by a general expansion of cultivation but of variable intensity according to location. A possible Phase IV has emerged from 2006 with a sharp decline in cultivation.

An understanding of the determinants of the opium poppy "epidemic" is required in order to explain the characteristics of each phase and how one phase has led to the next. The effect of price changes, changes in technology and skill acquisition have contributed to the shift from one phase to another. However, the behaviour of a farmer — whether he cultivates opium poppy or not — can only be understood in terms of the context within which such behaviour manifests itself. Crucial in locating household social positions has been the effects of settlement history on spatial ethnic identity patterns, layered onto a major irrigation system with structural inequalities reinforced by water scarcity. Household social position has influenced the way in which individuals have engaged with agents and institutions (community, markets) and the behaviour that has resulted from this.

The contrast between Balkh with its opium economy and Kunduz largely without an opium economy needs to be revisited. The effective absence of opium poppy in Kunduz (see Pain 2006) is related to the existence of an irrigation system that did not experience major problems of water shortage, a high incidence of double cropping (rice and cotton), relatively high degrees of food security for most households, and limited landlessness. This stands in sharp contrast to Balkh's water scarcity, limited double cropping, major issues of food insecurity downstream, and significant populations of landless households. While this study has not investigated in detail the social structures and patterns of settlement in Kunduz, it appears that they are not so dissimilar from those of Balkh. Structural determinants and their significance therefore are not absolute but depend on context. The interesting but unanswered — and at this stage unanswerable — question arises whether the development of the opium economy in Balkh and its coming to scale will have contributed more in the long run to the establishment of a stronger and more secure provincial entity than will come about in Kunduz without such an economy.

Underlying much of the evidence building and argument of this report has been an epidemiological perspective that has been employed to build an understanding of the process of diffusion of opium poppy cultivation. Central to this has been an understanding of networks, largely determined by social identities and the role that these have played in regulating resource access, access to markets, the acquisition of skills and technology and

[49] Tony Barnett & Justin Parkhurst, 2005: HIV/AIDS: sex, abstinence, and behaviour change. Lancet Infectious Diseases 5, pp 2-5.

thus the diffusion and spread of opium poppy cultivation. What is not clear at the moment is the extent to which the underlying principles that have been used to develop the phased model of diffusion for Balkh has wider application in building understanding of the history of opium poppy cultivation in other provinces (such as Helmand, Nangarhar and Badakhshan) or at a national level.

There is also a need to consider the practical implications of this analysis. These can be considered from a narrow counter-narcotics perspective — a response to the question of when and where is eradication justified as a policy instrument — as well as a broader one of responding to state and development failure.

From a narrow counter-narcotics perspective, which is concerned with the immediate issue of disrupting the opium market, it should be made clear that an indiscriminate approach of attempting generalised eradication has not worked. It has proved ineffective, there is little evidence that it has ever been effective, and has also served to reinforce rather than challenge the structures that underlie the opium economy. This has been shown both by the action of the provincial administration in Balkh in 2006, and by the Taliban in 2000, that there are other more effective ways of closing down production. While the jury is still out on the durability of the ban in Balkh, it did not last under the Taliban and it has come apart at the seams in Nangarhar.

This report shows, through its identification of key centres of market control, that a surgical counter-narcotics action informed by an understanding of the structures and their location in the opium economy, would do more than any other action to disrupt one of the key centres of activity that regulate the economy. It would certainly challenge the status quo and inject a measure of risk in the right place into the market, in a way that current eradication practices have failed to do. Such an action, of course, does not play to a narrative that seeks quantifiable reduction in area, because direct area reduction effects would be minimal. Nor on its own would it amount to very much unless such actions were brought to scale and became a systematic part of strategy. But such an approach would offer a means of at least checking some of the key drivers of the opium economy, even if it does not address underlying causes.

There is no doubt that for those few that hold the most privileged positions and command over resources — upstream with land and with sufficient water for double cropping — the cultivation of opium poppy represents an income maximisation choice. Such households of course have identifiable exit strategies: they have alternatives to opium, given their good resources and market access. These include shifting to other crops or diversifying from a position of strength to non-farm activities, with the help of windfall profits from opium over these last five years that have positioned them well. But many are not in this position: small landowners and landless labourers in upstream villages, and many downstream villages and households both with and without land, and with restricted access to water. For such households, opium-sourced income has not been so much of a choice but a necessity and means of recovery. For such households, exit out of the opium economy is not so much a choice but an enforced action, indeed if that happens, with considerable negative consequences for wellbeing. As section 5 of this report argued, fundamental to understanding and responding to their condition — the broader one of responding to state and development failure — is to address and reduce the causes and effects of the structural inequalities that shape their lives.

A fundamental part of counter-narcotics strategy must be to address the contextual conditions of inequality that underlie individual household behaviour and welfare outcomes. There are three levels of action for addressing the fundamental structures of inequality:

The first is to identify and focus development efforts and interventions on the most disadvantaged communities and households[50] within these districts. Broadly, these are those that are downstream. This would require a much more analytical approach to understanding poverty and inequality than development practice in Afghanistan has shown so far. It would also have to face existing power structures — field evidence on infrastructure conditions upstream and downstream in these districts illustrates the point — and the way in which resources within districts are distributed. The advantage of such an approach is that it draws attention to particular communities and households. The weakness of this approach is that it merges inequality with disadvantage, so that the structures that have given rise to the inequality simply become a condition to which those on the margins are exposed. The consequences of such an approach is to maintain the status quo — simply mitigating effects — while not challenging the basis of or seeking to reduce the inequalities that determine and reproduce poverty. It could be argued that the social protection agenda is consistent with such an approach.

A second level would again focus on the poorest communities. It would seek not only to provide protection but to invest systematically so that the relative position of the poorer communities — access to public goods for example — was improved relative to that of those that exist for better-off communities. The limitation of this approach is that it focuses on the poorest communities, without addressing the structures that have caused their poverty. The difficulties of doing this are not underestimated.

A third step would be to address the determinants of the structural inequalities that exist. In the case of Balkh, this means first and foremost addressing the way in which water is distributed within the irrigation systems. Only when resources are distributed more equitably between and within districts will some of the structural determinants and the spatial dimensions of inequality be addressed.

[50] Although household targeting has been found to be extremely difficult to do given community practices.

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Annex: Informants

Informants	Village	Notes
Household Interviews		
Hh01	Char19	
Hh02	Char23	
Hh03	Char24	
Hh04	Dawlatabad	
Hh05	Dawlatabad	
Hh06	Char 45	
Hh08	Char 51	
Hh09	Char 51	
Hh10	Char 65	
Hh11	Char 65	
Hh12	Char 65	
Hh13	Char 65	
Hh14	Chim14	
Hh15	Chim14	
Hh16	Chim20	
Hh17	Chim20	
Hh18	Chim34	
Hh19	Chim34	
Hh20	Chim34	
Hh21	Chim34	
Hh22	Chim34	
Hh23	Chim34	
Key Informants		
KI01	Chim	Influential Elder
K102	Chim19	Sharecropper who experienced eradication
KI03	Chim19	Sharecropper
KI04	Chim19	Daily Labourer
KI05	Char	Influential Elder
KI06	Char06	
KI09	Mazar-i-Sharif	Well-known person
KI11	Char	Influential Elder
KI12	Char	
KI13	Char	
KI10	CB	NGO Employee
KI14	Ch	NGO Employee
KI15	Cb	District Official
KI16	Mz	UN Official
KI17	Mz	UN Official
KI18	Cb	District Official
KI19	Mz	Technical Assistance

Group Discussions		
Group 1	Chim09	
Group 2	Chim08	
Group 3	Char41	
Group 4	Char08	
Group 5	Char07	
Group 6	Char01	
Group 7	Char62	
Group 8	Char65	
Group 9	Char42	
Group 10	Char65	
Group 11	Char08	

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Afghanistan Research and Evaluation Unit
House 142, Street 5 (corner of Flower Street)
Shahr-i-Naw, Kabul, Afghanistan
phone: +93 (0)79 608 548 email: areu@areu.org.af website: www.areu.org.af