Restructuring Supply in Afghanistan's Narco-Economy: Farmer Choice

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The Afghan Counter-Narcotics Policy Dilemma

Of the major issues confronting the international community in the reconstruction of Afghanistan, those surrounding Afghanistan's nascent narco-economy are perhaps greatest. How can the trafficking and cultivation of the opium poppy and its derivatives, morphine and heroin, be halted in a low security environment? How can efforts to address trafficking and cultivation avoid perpetuating civil unrest? As Afghanistan produced the majority and a growing share of the world's illicit opium in 2005 [Figure 1], this question has broad implications towards security and development as well as organized crime and drug control policy.[1]

But where do policymakers begin conducting a "war on drugs"? Responses have traditionally been divided into two spheres; demand and supply. Demand-side responses focus on eliminating the demand for drugs among individual users through public education, rehabilitation programs and heavy penalties. On the other hand, supply-side efforts attempt to physically halt the workings of drug production chains. Crop eradication, high penalties and jail-time are designed to incentivize intermediate actors and primary producers to abandon the drug trade. It is the risk premium produced by this effort that results in the enormous profit potential from the drug trade.

Which approach is better able to curtail illicit drug production and use is hotly debated. Advocates of demand-side approaches are quick to criticize the draconian nature, tendency towards military escalation and dubious success record of supply-side

[1] While data regarding the proportion of world opium production can be found in Figure #1, this note refers to the multidimensional treatment of security implications found in Matt Weiner's paper. The dimensions of the Afghan opium problem expand far beyond the borders of Afghanistan into Central Asia and even to the countries of the developed world. Weiner, Matt. *An Afghan 'Narco-State'?: Dynamics, Assessment and Security Implications of the Afghan Opium Industry.* pg. 35-47

wars on drugs. Negative externalities from these measures often promote grassroots resistance by failing to differentiate between intermediate actors and primary producers. Counter to critics, advocates of supply-side approaches note the equally dubious measures of success and the passive nature of demand-side approaches. This perception of passive responses as 'weak' has led to their derision. Making active, supply-side responses an easier political sell, this tension often overshadows the greater utility of a dual approach.

The policy needs of nation-building in Afghanistan and the tendency towards supply-side drug enforcement makes supply-side policies inevitable. Informed formation of supply-side policies requites a thorough knowledge of the Afghan drug trade. This information can help create targeted policy measures that differentiate primary producers (the Afghan opium farmer) from intermediate actors (opium buyers, traffickers, local criminal elements, etc.). The fixed nature of primary producers makes them the ideal target for policy. Understanding their motivations for involvement in opium cultivation is paramount in intelligent policy.

The central question of this thesis is the following: Why do Afghan farmers choose to grow Opium as opposed to other crops? As this is economic analysis, the question can be further refined. What factors provide incentives or disincentives for individual Afghan farmers to cultivate opium? How significant are these factors in driving farmer choice?

A Question of Motivation

A number of factors have already been suggested as significant in determining farmer choice. Two positions prevail in the contemporary policy debate. The first

position is that Afghan farmers make the choice to cultivate of their own free will. Rational actors judge the profitability of opium to exceed that of the alternatives and engage in cultivation. The second position represents the opposite of the first. Afghan opium farmers are forced into opium cultivation through coercion by local warlords or criminal elements. The threat of property destruction and death outweigh the risks of opium cultivation meaning rational actors will cultivate.

Though both positions have an intuitive logic, questions regarding the extent of validity remain. Are profits from sale alone sufficient to make Afghan farmers cultivate opium? Does minimal state presence eliminate all disincentives to grow opium? Is coercion from intermediate actors along the production chain responsible for farmers' choices in opium cultivation? What other factors or cycles contribute to farmer choice? These further questions will be used to address the central question.

Plan of Analysis

Before answering why Afghan farmers cultivate opium, a plan of approach must be provided. First, the systemic features of "war-economies" on individual economic choices require some review. These recognized patterns will help frame and define behaviors seen among Afghan farmers and other actors.

An explanation of Afghan history and opium cultivation will follow. Knowledge of recent Afghan history is necessary to understand the rise of the Afghan drug trade. Complimenting this, a description of the average Afghan opium farmer, opium cultivation techniques and the processing of raw opium into salable form promote a holistic appreciation of the intricate trade.

Enumeration and justification of the factors shaping Afghan farmer choice will pick up where this background leaves off. These factors draw from the conditions presented in the background and theoretic review. Amongst the major factors, profitability, cycles of rural debt, religious prohibitions and the reach of the state are of importance. Determining the significance of factors shaping choice is the next step. By better understanding the degree of importance each factor has with respect to farmer choice, restructuring incentive schemes for Afghan farmers can be made more effective.

Lastly, policy prescriptions targeting significant factors can be suggested. Ordering the factors by significance can help in optimizing the positive effects of feasible policy measures. The hope of this analysis is to understand how farmer incentives can be structurally reoriented to discourage illicit opium production. If supply of raw opium can be minimized, all further actors along the chain will feel pressure to reorient their economic activities away from narcotics production and distribution. Removing the root of the problem is thus the only viable way of controlling the Afghan narco-economy and limiting its domestic and international externalities.

Factors Shaping Decisions in a War Economy

Chronic conflict experienced in Afghanistan has created unique economic conditions for all actors in local markets. These conditions have affected many of the assumptions underlying rational choice. Drawing from the writings of economist Paul Collier of the World Bank and Anke Hoeffler, the systemic forces of “war-economies” on individual economic actors can be better understood.

Intuition and empirical study points to the high costs of civil conflict. Paul Collier estimates that economies contract an average of 2.2% per annum for each year of civil

conflict. Though not significant in a single year, the prolonged nature of civil as opposed to interstate wars means that over a decade, the income of a country engaged in civil war can decline by 24%.

However, civil wars also afford opportunities to profit not available during peacetime. Incentives to engage in high-risk, high profit activities of an illegitimate nature proliferate. Paul Collier divides these opportunities into four distinct categories - opportunistic behavior, criminality, profiteering and rent-seeking predation. Making peace elusive, cycles of violence benefit actors involved in these activities.

First, civil wars shorten time horizons. The unpredictability of conflict means that economic actors will discount the future more. Opportunistic behavior increases in likelihood as the value of reputation declines. Therefore, opportunities to profit in the present are valued over opportunities to profit in the future.

Second, criminality increases under conditions of civil war. Central governments and regional authorities increase military spending and decrease spending on constabulary forces. With less manpower and material at their disposal, police represent less of a threat. This lowers the potential costs of engaging in criminal activity, increases criminality and further spreads thin the resources of police.

The primary criminal activity in civil war is theft. Widespread theft reduces asset-holding through two processes. Vulnerability to theft means individuals are less likely to invest in assets that can easily be seized and removed. Even for ‘thieves’, the lack of proper title endangers their control of stolen assets. For these two reasons, assets are often moved outside of national boundaries and liquidated.

Third, civil wars disrupt the normal functioning of all markets. Civil wars drive up marketing margins, increase the cost of information and raise barriers to entry. Those actors seeking to enter the market are less likely to have trustworthy, reputable contacts. This contributes to a decrease in competition, increase profit margins among incumbents and an increase in the cost of living for consumers. Traders may seek to maintain these high profit margins by instituting illegal barriers to market entry. Market behavior becomes increasingly monopolistic. The volume of trade may decrease, but sufficient increases in margins can raise profitability.

Fourth, rent-seeking predation increases among all actors capable of violence. Government officials are no less culpable in engaging in these behaviors. By using the threat of violence, government or rebel forces can extract steady rents from trade. Primary commodity exports are the easiest trade from which to extract rents.

Still, maintaining consistent streams of rent requires monopolistic or duopolistic behavior by actors. Competitive predation can spell death for rent-revenues by killing off a trade. If every local rebel commander or government official demands payment for the transit of a good across their territory, export of the product may become unprofitable. Unprofitable trade means that actors will disengage from trade, eliminating the opportunity for loot-seeking. Centralized and coordinated rent extraction therefore depends on a collusive relationship between rebel and government forces.

Summary of Modern Afghan History

Recent Afghan history has been marked by chronic civil war. Since the political upheaval of the 1978 communist coup d'etat, regional actors have engaged in conflict with the apparatus of the central state. This chronic conflict has led to impoverishment of

the largely rural, Afghan population and the near extinction of state authority. Divided into two parts, this period has seen the genesis of the Afghan opium trade.

Soviet Invasion (1979-1988)

Afghan opium cultivation for export is a relatively recent practice. Though historic records note opium local production and consumption, no wide scale production for export began until after the December 1979 Soviet Invasion.[2] Involved in the client-state politics of Afghanistan, the Soviet Union ostensibly intervened to prevent factional fighting within the Afghan Communist party. However, the Soviet presence soon precipitated a US-Pakistan backed rural insurgency that would drag on past the Soviet withdrawal in 1988 until the fall of the Najibullah Regime in 1992.[3]

During this period, Soviet and Afghan Government counterinsurgency tactics relied upon the elimination of rural support for the insurgency. Destruction of rural property in the form of livestock, food supplies, wells, irrigation projects and the mining of agricultural lands were all intended to starve the Mujahadeen insurgency and undermine rural support. The ultimate effect of these tactics was to further alienate rural populations from the urban bound central government, disrupt traditional agricultural practices, minimize productive lands and force mass migration of rural populations to the poverty of refugee camps in neighboring states. [4]

[2] Coincident with the 1979 Soviet invasion would be the 1979 Iranian Islamic Revolution. Part of the so-called 'Golden Crescent' which stretches from Turkey to India, Iran was a major producer of opiates. While the initial chaos of the Islamic Revolution led to growth in the production of Iranian opium, this trend was quickly reversed following the rise of the conservative Islamic Republic of Iran. *Ibid*, pg. 19-20
[3] The cessation of the insurgency brought about by the abdication of power by Mohammad Najibullah and his ruling PDPA (People's Democratic Party of Afghanistan) for a UN brokered transitional government led to only a brief cessation in violence. With the fall of the DRA central government, Mujahadeen factions struggling for power within the new order quickly initiated a civil war which would continue unabated until the US invasion in October 2001. Millen, Raymond A. *Afghanistan: Reconstituting a Collapsed State*. pg. 1
[4] The effects of counter-insurgency techniques can be measured as follows: prior to the war, 85% of the population was rural. Between 1979 and 1989, two thirds of all villages were bombed, 70% of all livestock

The Afghan insurgent groups fighting Soviet occupation and the DRA (Democratic Republic of Afghanistan) puppet government were highly factionalized and regionally bound with a unique relationship to their Pakistani and American patrons.[5] While they received aid in the form of firearms and supplies, these organizations required cash to maintain bureaucracies and pay fighters.[6] To supplement their organizational incomes and expand liquidity, these factions began to promote opium poppy cultivation among farmers remaining in Afghanistan. [Figure 2] Mujahadeen logistics trains began to feed heroin manufacturers in Pakistan by transporting opium on return trips from Afghanistan. These practices were overlooked by American CIA and Pakistani ISI (Inter Services Intelligence) liaisons as the illicit activities of Afghan resistance groups were secondary to defeat of the Soviets.[7]

Post Soviet Withdrawal and Civil War (1988-2001)

With Soviet withdrawal and the descent of Afghanistan into factional civil war, US interest and funding of the Mujahadeen ceased. Unreliable sources of outside funding and the inability of any faction to assert control beyond regional powerbases began the era of warlordism. Funding of warlord militia forces began to rely on the taxation of local economic activities (irrespective of legality) in return for protection.[8] This feudal

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were killed, 25% of all irrigation systems were destroyed and grain production by 1989 was at less than half of its 1979 levels. Weiner, Matt. pg. 20.

[5] At the height of the insurgency, there were seven distinct Mujahadeen organizations recognized by Pakistan conducting operations within Afghanistan.

[6] Much of this pay went to supporting families in refugee camps in either Pakistan or Iran where they were beyond the reach of DRA revenge attacks. The population driven from the country was measured at 5.5 million. Millen, Raymond. pg. 1.

[7] Involvement by ISI agents reaching up to high levels has also been supposed with the use of official vehicles and personnel to transport opium, morphine and heroin. During the 1980s the DEA was aware of 41 separate heroin syndicates operating in Pakistan but never once initiated legal proceedings. Weiner, Matt. pg. 21-22.

[8] Without a degree of control extending beyond the regional level, Warlords are unable to tap into national customs duties. This necessitates the taxation of farmers as well as taxation and involvement in illegal activities like heroin production, smuggling, gunrunning and extortion. Millen, Raymond. pg. 11.

relationship still extends over most of Afghanistan's rural population. The localized monopolies on force and taxation give warlords wide room for exercising influence over the production choices of farmers.

When placed in a national context, opium currently generates a significant portion of Afghan GDP. In absolute numbers, licit GDP in Afghanistan was measured at $5.2 billion in 2005. UN estimates put the revenues from the Afghan opiate industry at 61% of licit GDP in 2004 and 52% in 2005. When broken down between farmers and traffickers, farmers' income from opium represented 11% of 2005 GDP while traffickers' income represented some 41% of 2005 GDP.[9] This vast pool of resources outside the hands of a legitimate government represents a significant threat to present efforts towards the creation of a stable and effective state.

Opium Farming and Production

Opium farming and production in Afghanistan are a function of the units of production (farmers and their lands), environmental conditions and the processes of opium production. Understanding how the farmer interacts with his environment and other parts of the opium production chain is integral to understanding incentives and disincentives towards production.

Characteristics of Opium Farmers

Farmers who have chosen to cultivate opium poppies and their surrounding environs show a number of similarities across districts. A study conducted in neighboring

[9] UNODC Summary Report on Opium Trends in Afghanistan, pg. 19-20.

Pakistan's Federally Administered Tribal Areas (FATA) by Amir Zada Asad in 2003 outlined common features in opium producing regions.[10] They:

- Lack geographic accessibility and communications links.
- Lack alternative economic opportunities.
- Are characterized by large family units.
- Have subsistence agriculture based off small and irregular land plots.
- Have surplus labor, given the lack of alternative economic opportunity.
- Score high on most measures of poverty.

In Afghanistan, these conditions are confirmed by UNODC surveys. Opium farmers generally have smaller holdings than non-opium farmers. [Figure 3, Figure 4] Larger families mean that greater portions of income go to consumption rather than savings. The need to maximize the earning potential of limited agricultural land should logically push small scale farmers to cultivate proportionally greater quantities of opium.

This trend is confirmed by examining income distribution between poppy and non-poppy farmers. As can be seen, the highest proportion of poppy farmers (31%) earn only between US$200 and US$500 per year while the highest proportion of non-poppy farmers (29%) earn between US$500 and US$1000 per year. [Figure 5] If higher profits are made from opium cultivation, lower income must signify opium farmers are generally constrained by smaller plots.[11]

Patterns of debt among opium farmers are also quite fascinating. On average, poppy farmers had greater personal debt than non-poppy farmers. When asked how they

[10] The FATA lies entirely along Afghanistan's eastern border. The territory shares geographic, meteorological, linguistic and cultural with most of the major opium producing regions inside Afghanistan. For this reason, many of the patterns observed in the FATA are present in Afghanistan and vice versa. Asad, Amir Zada and Robert Harris. Pg. 120-121

[11] While there exists a real possibility for systemic underreporting of rural income from opium poppy cultivation, the claim of smaller landholdings among opium growers remain. Reporting higher levels of personal income can result in higher taxes. However, taxes are not calculated based on the amount of land owned but the product of that land. Earlier reporting of lesser property ownership therefore buttress claims of lower absolute income.

intended to pay down their debt, 56% responded that they intended to expand their opium production in the following year.[12]

Cultivation of Opium Poppy

Opium is the coagulated latex extracted by 'milking' unripe seedpods from the poppy *papaver somniferum*. The active ingredient which makes opium so valuable is the alkaloid morphine. Morphine, codeine and related alkaloids constitute 10-15 percent of opium by weight. Perceived morphine content determines the value of opium and its derivatives. Yet many misconceptions still surround the cultivation of *papaver somniferum* and opium.[13]

The major misconception is that the *papaver somniferum* can grow anywhere and at any time. Although highly tolerant of environmental conditions, *papaver somniferum* must be grown in specific conditions to maximize opium yields and morphine content. Precipitation, temperature, and soil type all help determine yield and morphine content.

Precipitation is the primary determinant. When grown on rain fed lands, *papaver somniferum* can survive on as little as 15 inches of rainfall annually. Although yields are lower in dry conditions, over-watering raises yields at the expense of morphine content. Entire crops can be ruined by excessive rainfall which dilutes morphine content. Irrigated lands allow farmers to avoid dependence on rain fed cultivation, better control yields and morphine content.[14]

Papaver somniferum is relatively resistant to swings in temperature. Though the poppy requires temperatures of at least 3-6 degrees C to germinate, *papaver somniferum* can tolerate below freezing temperatures. However, collection of opium must be done

[12] "Afghanistan: Farmer's Intentions Survey 2003/2004." UN Office on Drugs and Crime. pg. 44-46.
[13] Asad, Amir Zada and Robert Harris, pg. 34
[14] Ibid, pg. 24

before sunrise. Sunlight raises the temperature and accelerates the coagulation of opium latex, making collection difficult.[15]

Soil type is also important for opium cultivation. The high moisture content and retention of water makes clay unsuitable for farming. On the other hand, sandy soil is drought prone and lacks the necessary nutrients. Overly compact soil complicates germination by making it difficult for seedling to reach the surface. For this reason, fields must be well tilled. Small plots and the high cost of tractors or draft animals mean that much of this tilling must be done manually. Ideal soil conditions are sandy loam with manure added for nutrients.[16]

Given these factors, planting season for opium begins in mid-October to late-November. Plants germinate by the end of December and through December and January weeding, hoeing and thinning of seedlings is the order of business. By mid-April, the plant is ready for milking. The collected latex is then dried, pressed into bricks and sold ready for the market.[17]

Incentives and Disincentives: Evidence from Rural Surveys

Incentives for Cultivation

In trying to undercut the supply of opium to the illicit production chain, the reasons for farmers to grow opium must be examined. The two primary motivations for opium cultivation mentioned earlier are too simple and convenient to explain opium cultivation in as complex an environment as Afghanistan. Coercion and profitability, while plausible explanations, are unlikely to entirely capture the causal roots or cost-benefit framework of Afghan opium cultivation.

[15] Ibid, pg. 24
[16] Ibid, pg. 25
[17] Ibid, pg. 25

Survey data collected by the UN Office on Drugs and Crime (UNODC) provides insights into the rural decision making structure. In the *Afghanistan Farmers' Intentions Survey 2003/2004* and *Summary Findings of Opium Trends in Afghanistan, 2005*, a battery of questions was posed to Afghan farmers. Conducted across all geographic regions and income strata, these surveys asked in depth questions regarding why farmers had or had not chosen to cultivate opium. Additionally, the survey questioned those farmers who had engaged in opium cultivation if and why they would change the amount of opium under cultivation in the coming year. The results provide a much richer understanding of the costs and benefits from opium production for the individual farmer.

Opium Cultivation: Why?

Allowing a single response [Figure 6], the UNODC's 2003/2004 survey asked the main reason for opium cultivation among the sample. The top five reasons cited were poverty alleviation (31.4%), the high sale price of opium (30.5%), the accessibility of credit (18.4%), the purchase of luxury items (6.5%) and lastly expected compensation from crop eradication programs (5.9%). Totaling 92.3% of responses, these reasons indicate the strength of financial incentives for cultivation. Only 1.9% of respondents indicated external pressure as the root of their choice.[18]

Nevertheless, the reliance of the 2003/2004 survey on a single response denies a multidimensional understanding. This deficiency has in part been compensated for by the UNODC's 2005 survey. Although coming from a smaller sample and posing the question, *"why do you intend to **increase** opium cultivation in the coming year"*, the results are indicative of direction. [Figure 7] The top five responses were higher sale price (42.4%), maintaining level of personal consumption (33.8%), high cost of wedding

[18] "Afghanistan: Farmer's Intentions Survey 2003/2004." UN Office on Drugs and Crime. pg. 15-18.

(25.8%), higher demand from traffickers (23.8%) and expected compensation from eradication programs (11.9%). Access to credit (9.3%) and external pressure (3.3%) were outside of the top five.[19]

These surveys indicate that the wealth generation capability of opium cultivation vastly outpaces coercive behavior in explaining widespread cultivation. The direct financial gains from opium cultivation relative to other crops appear the main driver of choice. Yet the access to credit, allowing higher levels of consumption, also appears to be an important factor needing justification.

Price Comparison and Profitability: Wheat vs. Opium

In terms of benefit from growth, proceeds from the sale of opium vastly outweigh those from a traditional staple crop such as wheat. While figures regarding the taxation of opium production by local warlords, fixed costs of production and other incidental costs are difficult to quantify, a comparison of farm-gate prices provides a clear picture.[20]

In the UNODC's survey of Afghan opium production in 2005, the national average farm-gate price of opium amounted to US$138 per kg. Given average yields per hectare, this resulted in potential earnings of around US$5,400 per ha. The earnings on a hectare of wheat were US$390 per ha. The vast disparity between these two choices is indicative of the incentives for farmers to grow opium poppy. While much of this gap is accounted for by a risk premium as opium production is illegal and much of the surplus income consumed by higher taxation, the income potential from poppy remains substantially greater than alternatives.

[19] "Summary Findings of Opium Trends in Afghanistan". UN Office on Drugs and Crime. pg. 12.
[20] Taxation by warlords seems to average around 10% of total production. This reflects traditional practice regarding tribal tribute. However, this figure varies depending on region as well as when ethnic cleavages exist between warlords and farmers. In these cases, reports of 40% taxation have been recorded. Millen, Raymond. pg. 36.

Coercion

Although coercion by landlords or local warlords purportedly plays a major part in farmers' decisions to cultivate opium in contemporary developmental literature, this pattern doesn't hold in the survey data. Why? Either respondents are afraid to report coercion or coercion is insignificant. The logic of the coercion argument rests upon the monopoly on force and taxation held by local warlords. Through threats and outright demands, these actors are capable of dictating production in their areas of control. As rational actors, they should seek to maximize taxes by pressuring farmers to produce high value crops.

This dynamic has not manifested itself in any UNODC data collected on a national scale. Among opium farmers, 87% reported that it had been their own decision to cultivate opium poppies with 77% reporting that they were aware of a government ban. Only 9% of all opium farmers reported the decision to plant opium was made by another party. [Figure 8] While this does not preclude the possibility that a coercive relationship could develop in the future, coercion can be thrown out as a significant factor explaining farmer choice.

Rural Debt

More subtle than the 'carrot-and-stick' examination of choice in opium cultivation, the effect of rural debt on farmer choice whether or not to grow opium poppy shows interesting relational ties. Like in all agrarian societies, seasonal harvests lead to uneven streams of income across the fiscal year. The need to access capital outside of harvest time necessitates access to credit for survival or investment.

Years of civil war have completely eliminated any form of official lending or credit institutions.[21] Since Islam forbids usury or the charging of interest, private creditors generally enter into so called *salaam* agreements with debtor farmers. *Salaam* agreements entail the current sale of future harvests at a discount in return for immediate access to cash.[22] Other forms of loans exist such as the delayed payment of services or goods rendered at a higher price on a future date. Also, interest free loans from immediate family members and the marriage of daughters for cash dowries allow access to capital.

However, the cultivation of opium plays an important role in determining creditworthiness. Evidence shows a strong correlation between the taking out of loans and poppy growing activity. In 2003, 50% of all poppy farmers reported having taken out loans while only 32% of all non-poppy farmers reported having taken out loans. [23] Moreover, the loans taken out by poppy growers were on average larger than those taken out by non-poppy growers. [Figure 9] Poppy farmers had an average of US$740 in outstanding loans while non-poppy growers had an average around US$456. When examined in terms of creditors, poppy grower loans were more likely to be held by parties involved in the opium production. All of this information points to a positive correlation between debt and the cultivation of opium poppy.

Disincentives for Cultivation

Though asking why Afghan farmers cultivate poppy is useful for understanding the Afghan opium dilemma, this disregards the complementary question. Why do many

[21] Under Taliban rule, the national reserve of Afghanistan was contained in a number of tin boxes carried by the entourage of Mullah Omar for distribution to subordinates.
[22] In the UNODC Report on Farmer Intentions 2003-2004, interviews suggested that future harvests were sold at 50%-60% of the current market price. The equivalence in terms of interest rate would be somewhere between 66-100% over a period of six to seven months. “Afghanistan: Farmer’s Intentions Survey 2003/2004.”. pg. 41.
[23] In 2003, 50% of all poppy farmers reported having taken out loans while only 32% of all non-poppy farmers reported having taken out loans. *Ibid*, pg. 45.

Afghan farmers choose not to cultivate opium poppy? Is it the condition of their lands, the threat of eradication and jail or are there other disincentives which prevent even broader cultivation? Using data from the 2003/2004 and 2005 UNODC surveys, we can understand the other side of the issue.

Opium Cultivation: Why Not?

According to the 2003/2004 survey [Figure 10], the top five reasons for not cultivating opium were opium being *haram*[24] (24.1%), the legal ban against opium (23.0%), fear of eradication (17.2%), fear of imprisonment or fines (16.2%) and climactic or soil conditions (11.0%). Comprising 91.5% of respondents, this survey indicates the importance of religious sanction to engaging in opium cultivation.[25] Given conservative rural leanings, the primacy of Islam in preventing cultivation seems logical.

Further evidence of this trend can be found in the 2005 UNODC survey. [Figure 11] Allowing multiple responses, the top five reasons for farmers choosing to not cultivate or cultivate less opium poppy were fear of eradication (70.4%), fear of imprisonment (39.9%), opium being *haram* (31.7%), fines from legal violations (31.1%) and lower sales prices (9.9%).[26]

While *haram* remains at a similar level across the 2003/2004 and 2005 survey, the jump in concerns over government punishment are dramatic. These can be accounted for by two possible explanations. First, the nature of the 2005 survey allows respondents to express secondary reasons for cutting cultivation. Not captured in the earlier survey, a widespread but minimal angst regarding the potential for the government punishment exists given a low government presence. Secondly, the expansion of government

[24] *Haram* or forbidden by Islam, generally through a clerical *fatwa* or decree.
[25] "Afghanistan: Farmer's Intentions Survey 2003/2004." UN Office on Drugs and Crime. pg. 44-46.
[26] "Summary Findings of Opium Trends in Afghanistan, 2005". UN Office on Drugs and Crime. pg. 11.

presence between the two surveys could be increasing perceptions of government reach and potential for punishment.

Crime and Punishment

With the establishment of a national government under international supervision, Afghanistan has instituted a legal ban on the cultivation of opium poppy. Fines, imprisonment and crop eradication are all consequences within the new legal framework.[27] However, the credibility of this threat in rural areas is doubtful. The limited resources of the new constabulary forces of national government mean enforcement is irregular if not absent outside of urban centers.

Most noticeably in the 2005 survey, farmers expressed the greatest concern that their crop would be eradicated if they chose to cultivate opium poppy. Fear of fines and imprisonment were much less. This situation points to a greater concern with the economic rather than criminal consequences of disobeying the government ban. Cessation of compensation for eradication schemes in 2002 means that loss of income for a year is a much more credible threat to disincentivize opium cultivation.

Yet government eradication schemes coupled with weak perceptions of state enforcement have promoted rural backlashes. Two farmers were killed and eleven wounded after a gun battle between counter-narcotics police and opium farmers in May 2006 outside of Sari-Pul in northern Afghanistan.[28] Similar confrontations have been documented across Afghanistan. While isolated incidents of violence do not represent a serious threat to concerted anti-drug efforts, the potential for rebel and warlord elements

[27] "Afghanistan Counter Narcotics Law Enforcement: Update 4." UN Office on Drugs and Crime. February 2005.
[28] "Drugs police clash with Afghan poppy farmers, two killed." Agence France Presse. Kabul, May 10 2006.

to gain support from poppy farmers against a weak central government makes reliance on draconian enforcement of criminal codes a dangerous policy measure.

Islam and Opium

Though outside of the state's power, Islamic prohibitions on opium growth have a marked effect on rural choice in deterring opium poppy cultivation. Afghanistan is an overwhelmingly Sunni country (80%).[29] Although there is a sizeable Hazara minority which follows Shiism, Sunni Islam generally cuts across ethnic lines. By declaring opium consumption as *haram* and against the tenets of Islam, religious sanction has a bearing on the rural costs associated with opium cultivation.

It is worth noting that the power of Islamic prohibition varies depending on region. Respondents from northern eastern (33.3%), north western (31.1%) and central (28.8%) regions consistently responded that opium was contrary to Islam at a higher rate than respondents in southern (19.0%) and eastern (12.8%) regions.[30] This likely corresponds to ethnic lines as the southern and eastern regions are heavily populated by ethnic Pashtuns while the north and central regions are populated by ethnic Uzbeks, Tajiks and Hazara. Though the link between ethnicity and religiosity is unclear, this is the best, cursory explanation available.

Rural Policies for Tackling Opium Poppy Cultivation

Prescribing effective policies to alter the cost and benefit structure of opium production for the Afghan poppy farmer requires a multifaceted approach never attempted in a supply sided counter-narcotics activities. Not only must the failures of past

[29] "Country Profile: Afghanistan." CIA World Factbook 2006.
[30] "Afghanistan: Farmer's Intentions Survey 2003/2004." UN Office on Drugs and Crime. pg. 20

anti-drug efforts be avoided, but innovative new methods and alternatives must be explored to arrive at a reasonable outcome.

Past Practices, Past Failures

The term 'Drug War' conjures images of aerial crop-spraying, police and military action and judicial proceedings. Such a strategy is untenable in Afghanistan unless sufficient central control can be exerted beyond the center. Given the poor security situation beyond urban locales and a history of repression by the center, forceful attempts at crop eradication and interdiction are bound to failure. The likely result of Colombia type counter-narcotics operations would be resistance by farmers and local actors leading to a downward spiral of militarization and rural insurgency.

Sensing such a result, early strategy by the international community to contain the expansion of poppy cultivation in the power vacuum left by the Taliban relied on paying compensation to poppy farmers to till under their crops. This created a moral hazard dilemma. With compensation by the international community being a certain stream of income opposed to relying upon favorable weather conditions for a bumper opium crop, farmers with no history of planting poppy began to cultivate sizeable quantities.[31] These programs were halted after 2002 due to this effect.[32] However, they have only led to greater opium production as rumors of compensation clearly persist across the 2003/2004 and 2005 UNODC Surveys.

Food aid programs have also helped undermine the incentive to grow alternative crops to opium poppy. The UN Food Program policies of importing wheat into urban centers following the fall of the Taliban led to a depression of market prices. The

[31] Millen, Raymond. pg. 8-9
[32] "Summary Findings of Opium Trends in Afghanistan, 2005". UN Office on Drugs and Crime. pg. 12.

availability of free wheat through aid programs undercut demand for local grain making opium poppy an attractive alternative to many farmers.[33]

Alternative Practices, Alternative Livelihoods

Due to the infeasibility of heavy reliance on repressive measures and compensation schemes, alternative policies have been proposed. A number of plans for alternative agricultural production have been undertaken. Faced by the ever present problems of Afghanistan's security dilemma and the high market price of opium, these plans face an uphill battle in implementation and providing the necessary incentives for Afghan farmers to reorient activities.

The growth of high-value agricultural goods for export has been suggested by a number of international firms. Rapanelli Fioravante, a leading Italian olive oil firm using the high quality cold-press method has invested $7-8 million in the cultivation of a 20,000 hectare orchard. Still, selling at only $9 per liter, olive oil seems unlikely to replace the incentives for small landholders to grow opium poppies. On top of this, the time required to deliver such alternative crop programs can be counted in years. Locating sources for heavy outside investment also seems likely to complicate similar plans. The likelihood of farmers taking to such a program is slim.[34]

More intriguing is a proposal set forward by the Senlis Council. Proposing that the Afghan government create a licensing system for legal production of opium, the Senlis Council seems to solve two problems in Afghan redevelopment. First, the diversion of opium from an illegal to a legal production chain would offer farmers prices

[33] *Ibid*, pg. 8-9.
[34] The main thrust of such alternative crop projects is to deprive prime agricultural lands from use in opium cultivation. However, in a state the size of Afghanistan, there exists ample space to relocate production. "Italian Businessman in Afghan Olive Oil Project as Alternative to Opium Crop." BBC Worldwide Monitoring.

much closer to those received for illicit production than alternatives. Second, the taxation of legal opium production and licensing fees would provide a much needed source of revenue for the pauper central authorities. While vague on details, requiring trade openness to Afghan pharmaceutical products (morphine and codeine), subsidization and subject to the Afghan security dilemma, this plan seems to have potential.[35]

Reviving Formal Credit Institutions

Revival of formal, rural credit institutions is necessary to free some farmers from the cycle of seasonal debt which perpetuates opium production. Transparency and dissolving exploitative loan systems are needed to keep farmers from poppy cultivation. While effective macroeconomic regulation of Afghanistan is currently a fantasy and government finances are in disarray, organization and accessibility of credit in rural Afghanistan could do much to undercut opium production.

Firstly, the transparency provided by official and open lending institutions rather than private lenders can effectively set interest rates much lower. Since the majority of loans demanded by farmers are classified as micro-loans (<US$1000), the chances of abuse made by making credit easily available are lessened. The marginalization of informal, *hawala* type banking presents great opportunity for Afghan poppy farmers.

Secondly, severing the linkage between opium cultivation and creditworthiness could be accomplished by government sanctioned credit institutions. By calculating creditworthiness separate of the cultivation of opium, credit institutions could give added

[35] There exists significant demand for affordable painkillers throughout the developed world. 77% of all morphine and codeine is consumed in the developed world by only about 24% of the world's population. By restricting supply and trade openness through lobbying, pharmaceutical companies have kept painkiller prices unnaturally high. Such a plan could rectify this disjuncture between supply and demand. "Feasibility Study on Opium Licensing in Afghanistan for the Production of Morphine and other Essential Medicines." The Senlis Council: Drug Policy Advisory Forum.

incentive not to commit to opium production. Favorable lines of credit can then be offered to farmers who refrain from opium production.

Islamic Prohibitions

Labeling the cultivation of opium as un-Islamic can impose a social cost on opium production. Difficult to quantify, such a cost can have a significant impact on cost-benefit analysis among the conservative, rural population. However, a number of complications arise in implementing such a policy.

First, the central government does not have the religious authority to support such a ban. Religious authority lies predominantly with local religious leaders. A 36% literacy rate and limited communications means that rural communities are unlikely to be receptive to government arguments about the un-Islamic nature of opium poppy cultivation.[36] Though radio can substitute for this deficiency, local religious leaders are still likely to be more influential in remote areas.

Second, the lack of ecclesiastical structure in Sunni Islam makes the uniform pursuit of this policy difficult. The relative independence of local religious figures to interpret and preach Islamic values means that efforts to promote non-cultivation on religious grounds will be complicated. Dependent and answerable to their communities, these leaders are likely to side with local demands as opposed to government dictates. Convincing religious leaders of the benefits of compliance will be important to assuring their cooperation.

[36] CIA World Factbook 2006.

Delivering the Goods

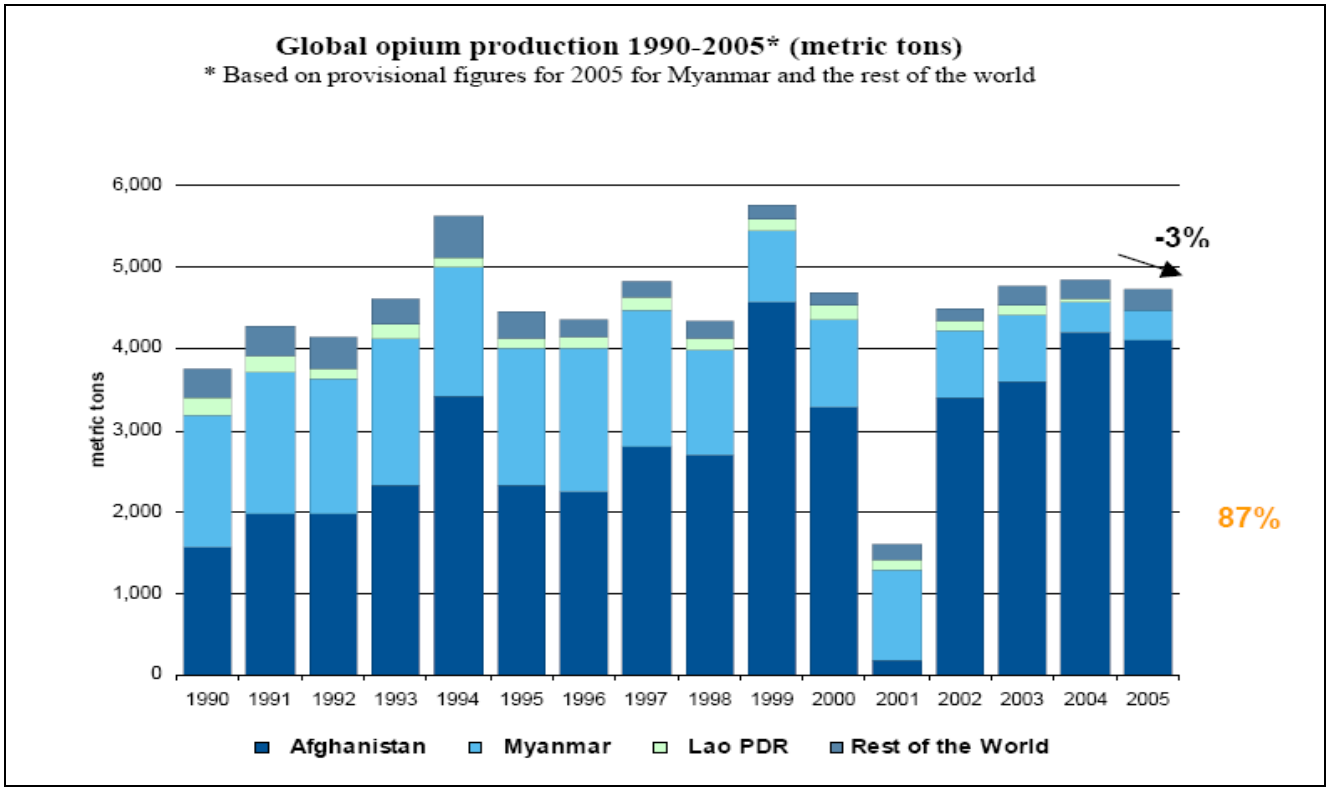
The reorganizing of incentives and disincentives for Afghan farmers must be the goal of policies to address the burgeoning narco-economy. Providing incentives such as viable economic alternatives and access to credit offset by disincentives such as religious prohibitions and legal threats, policymakers can convince the primary producers to reorient their land and labor to legally tolerable activities. While the question of pressuring other actors on the supply chain remains unanswered, that question is beyond the scope of this limited survey.

Yet this policy prescription relies on one key feature; delivering the goods. While promises are always welcome, the failure to provide the alternative incentive schemes will result in long-run failure. Funds for alternative livelihoods in 2005/2006 were $490 million US dollars.[37] While this is a substantial sum, the results of its allocation have yet to be seen. [Figure 12] Large investments in infrastructure, though necessary for the expansion of commerce and effective governance, can promote a more militant counter-narcotics strategy.

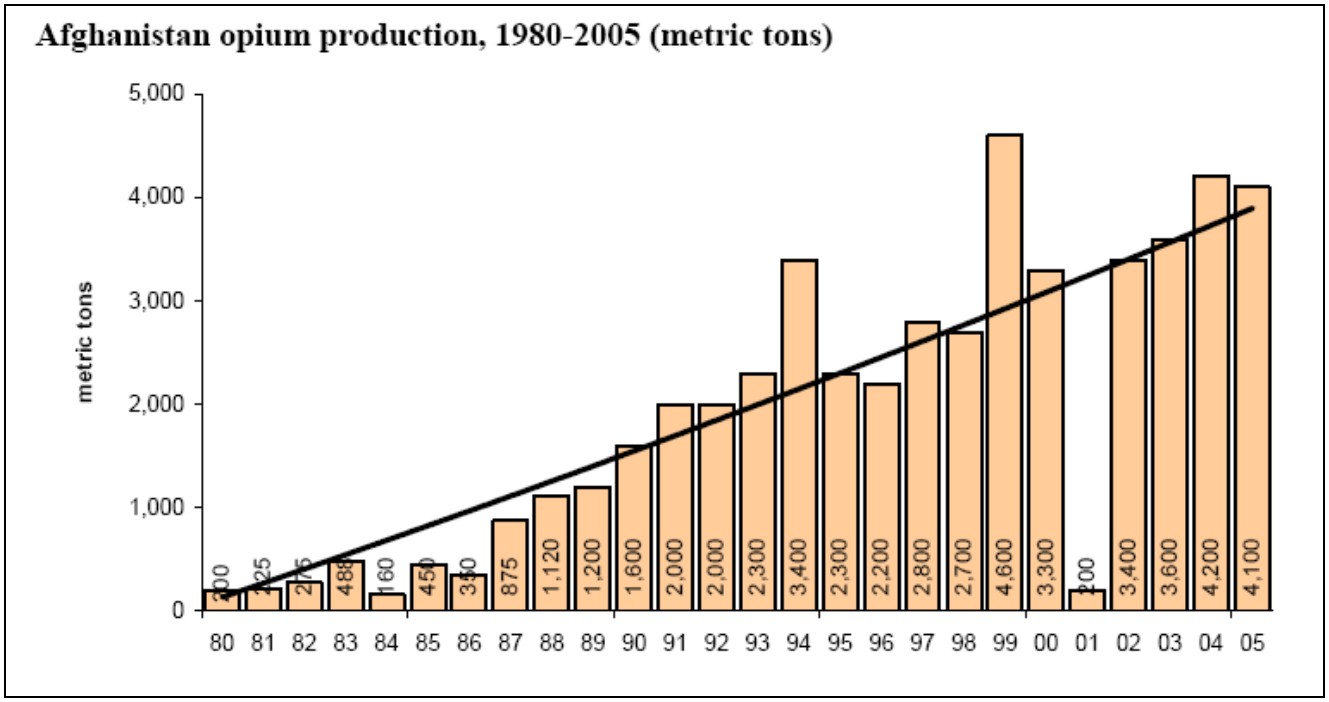
Whatever the final prescription for long term Afghan counter-narcotics policy, such a path should not rely solely on traditional supply sided action.[38] A long term rural insurgency would surely end hopes of establishing a viable Afghan state. Only structural change can rehabilitate Afghanistan and end the ill effects of its conflict driven narco-economy.

[37] "Summary Findings of Opium Trends in Afghanistan, 2005". UN Office on Drugs and Crime. pg. 13.
[38] A fine example of what not to do would be found in international efforts in the Nangahar province. Internationally funded eradication efforts have yielded a 96% drop in hectarage under cultivation. However, this has coincided with a 60-90% contraction in the province's economy. "Not What the Doctor Ordered; Afghanistan." The Economist.

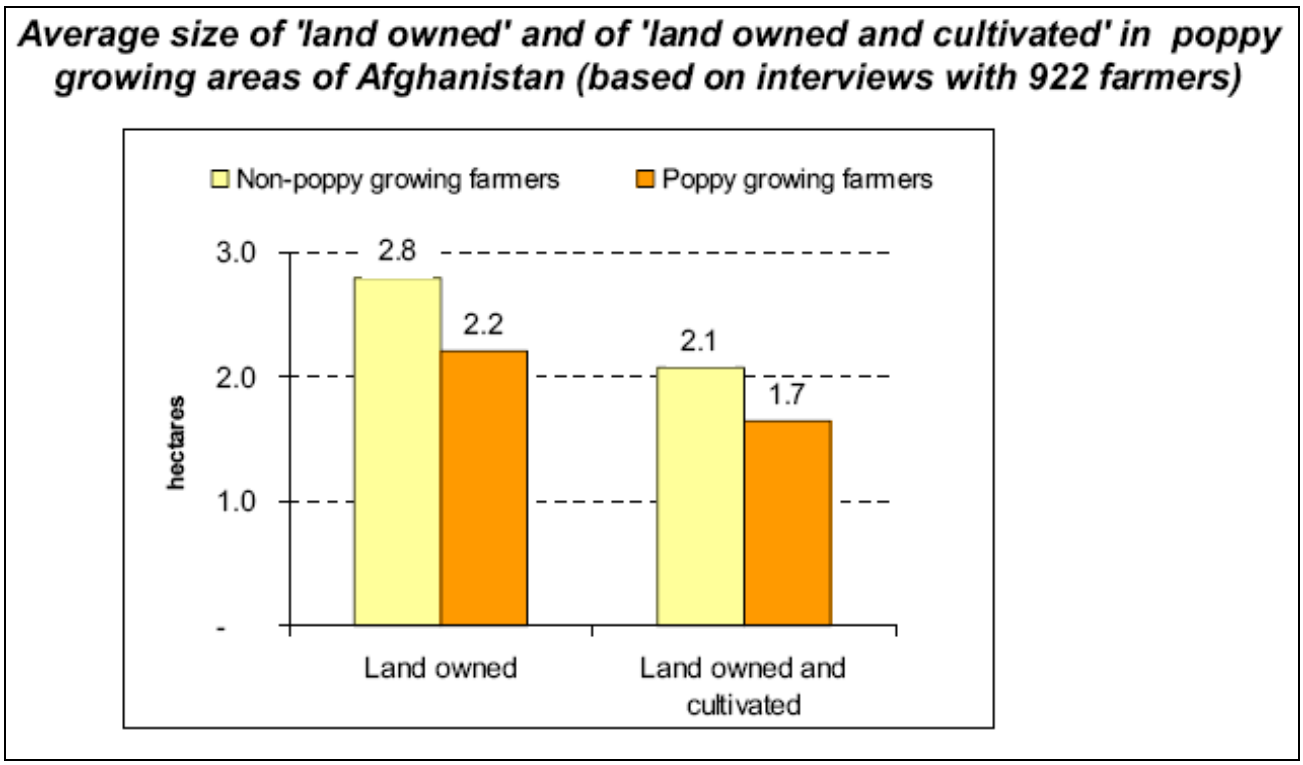
[Figure 1]: "Summary Findings of Opium Trends in Afghanistan, 2005." UNODC



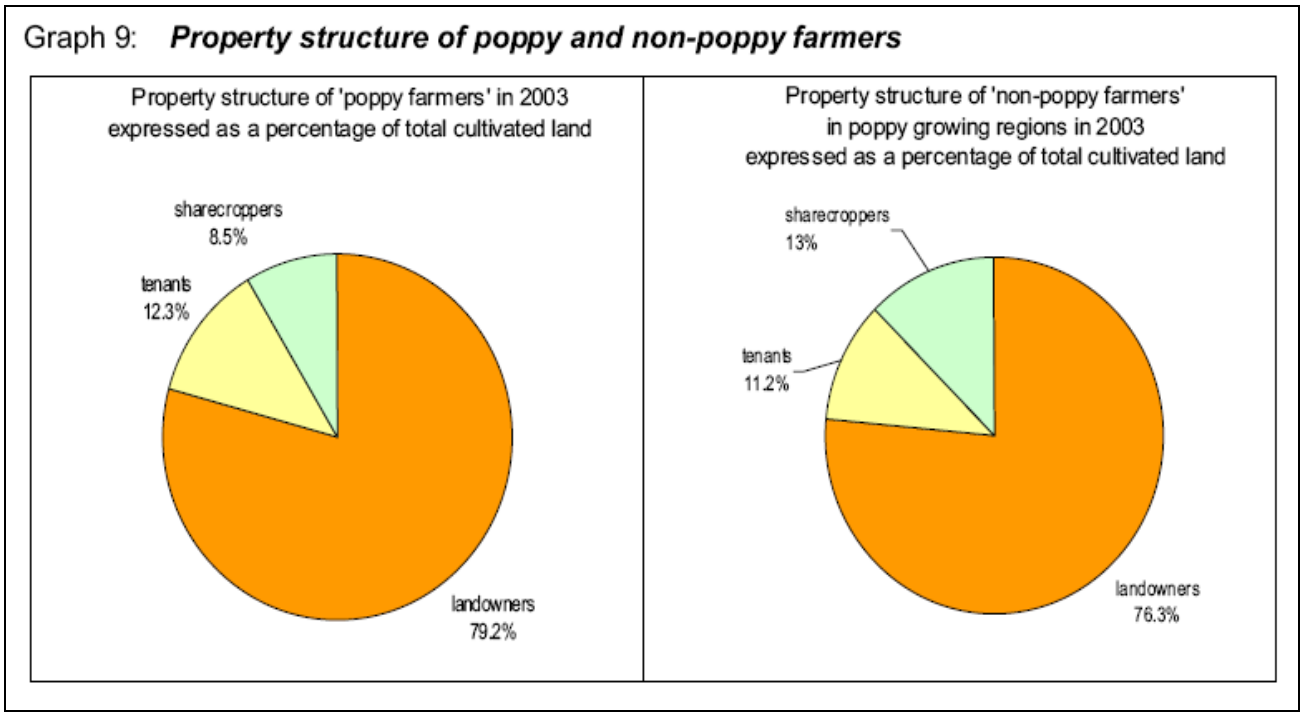
[Figure 2]: "Summary Findings of Opium Trends in Afghanistan, 2005." UNODC



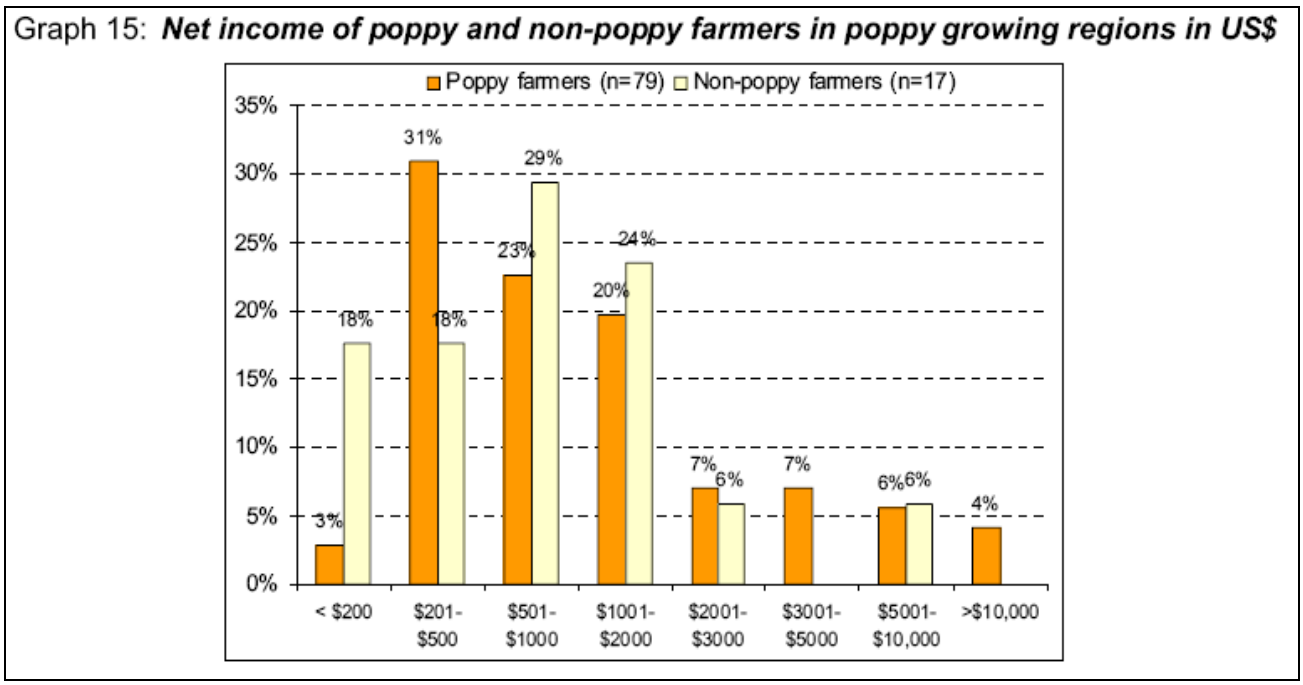
[Figure 3]: "Afghanistan: Farmer's Intentions Survey 2003/2004." UNODC



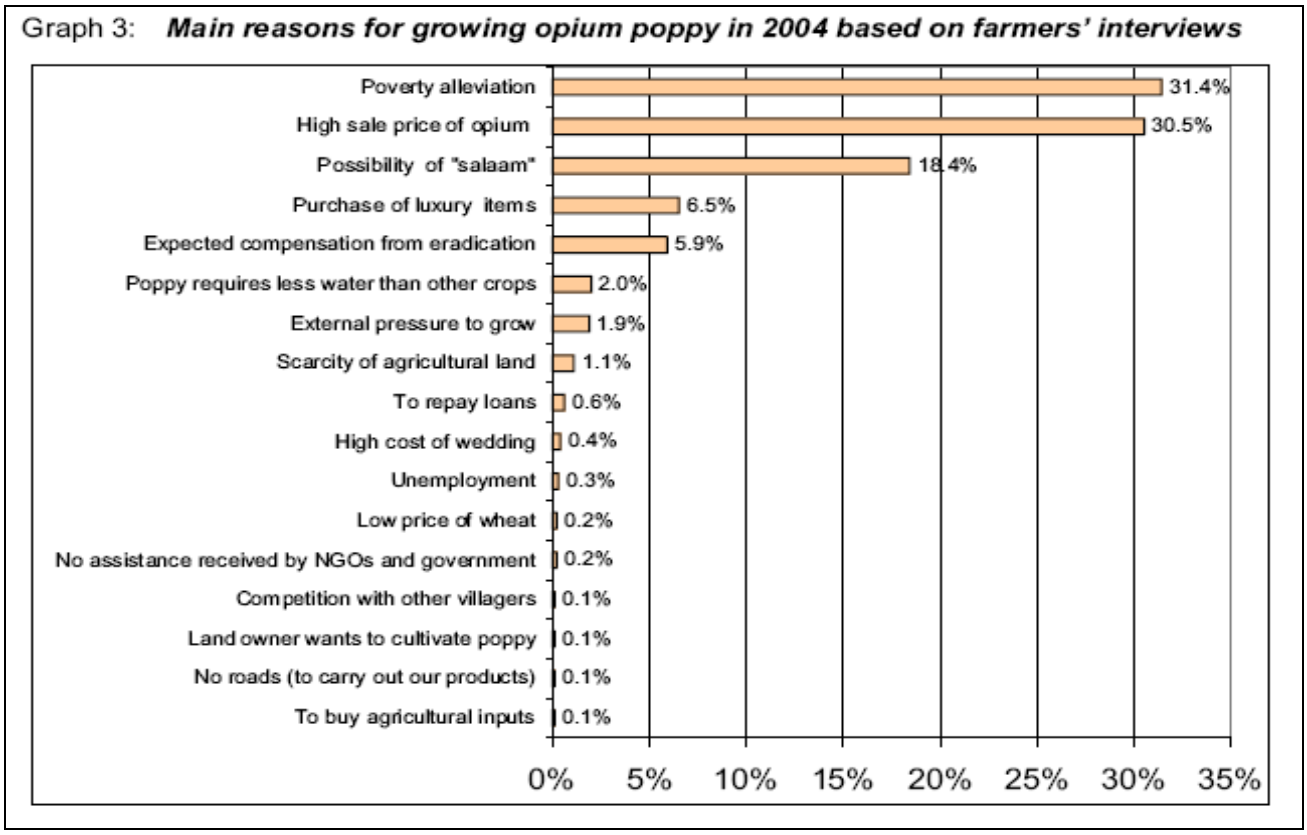
[Figure 4]: "Afghanistan: Farmer's Intentions Survey 2003/2004." UNODC



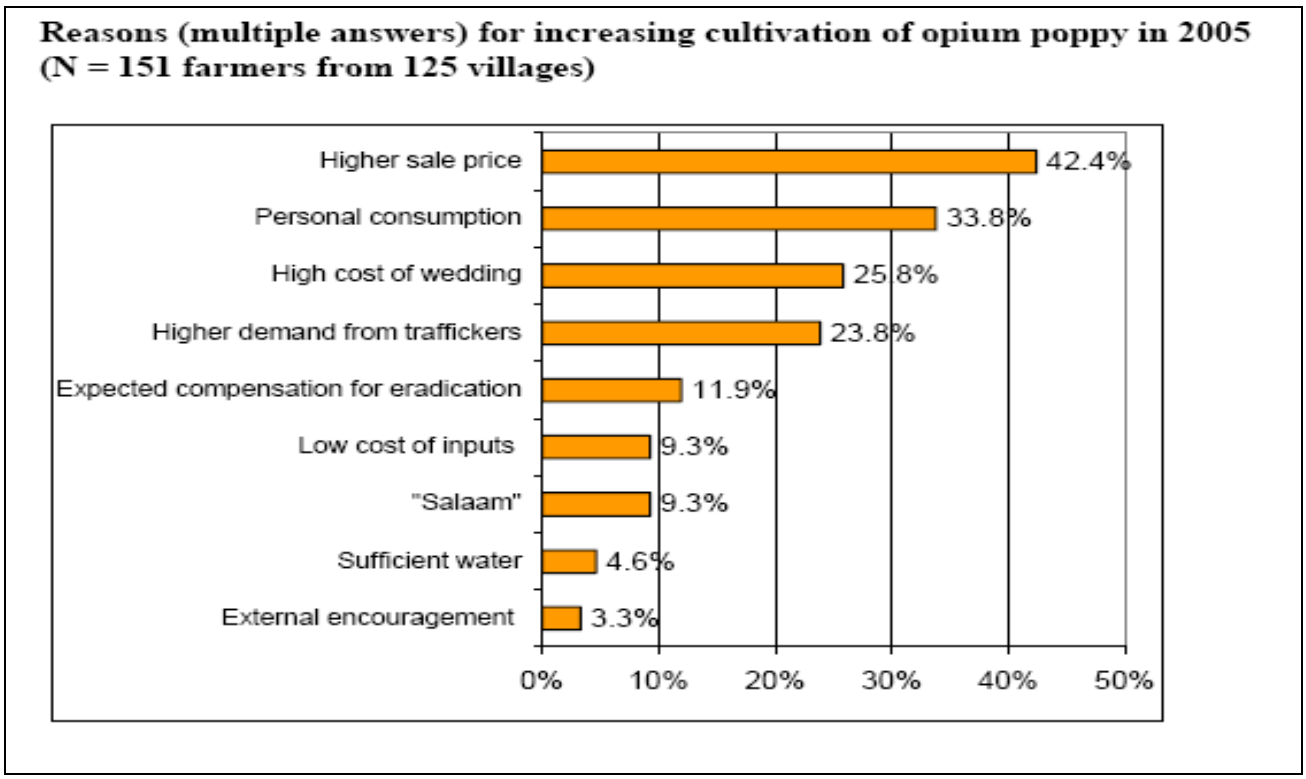
[Figure 5]: "Afghanistan: Farmer's Intentions Survey 2003/2004." UNODC



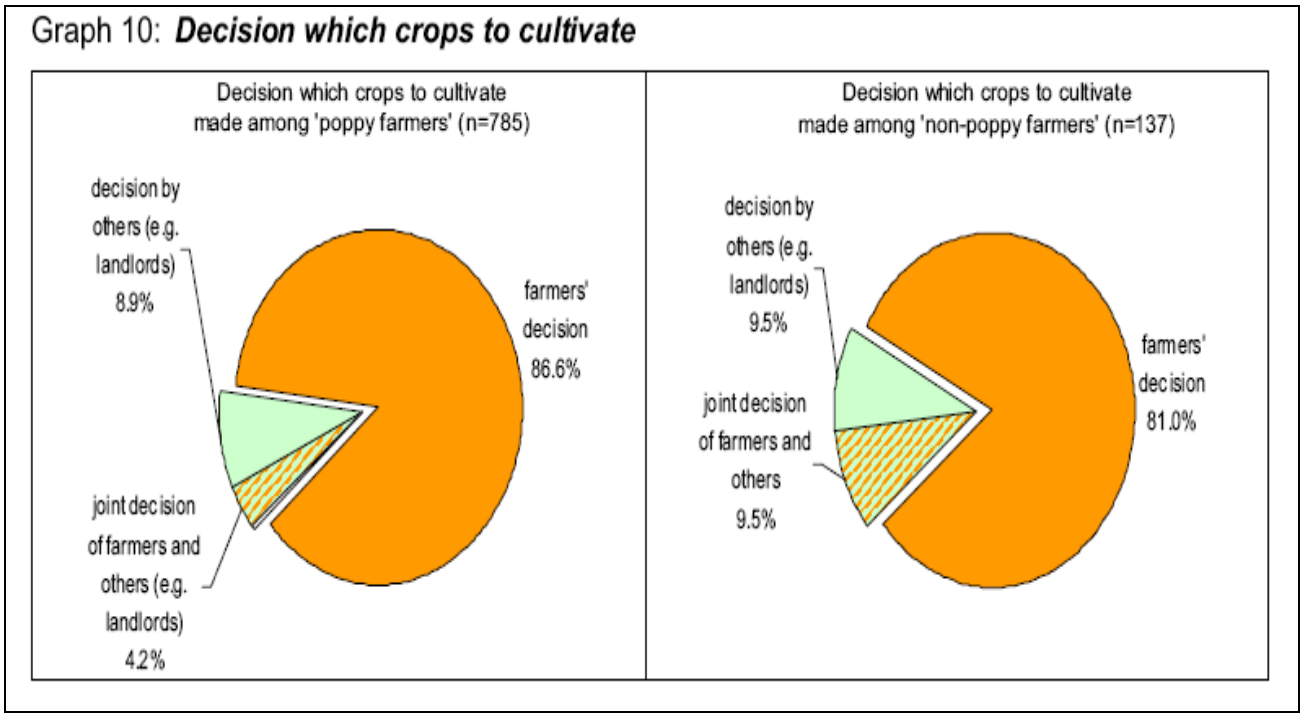
[Figure 6]: "Afghanistan: Farmer's Intentions Survey 2003/2004." UNODC



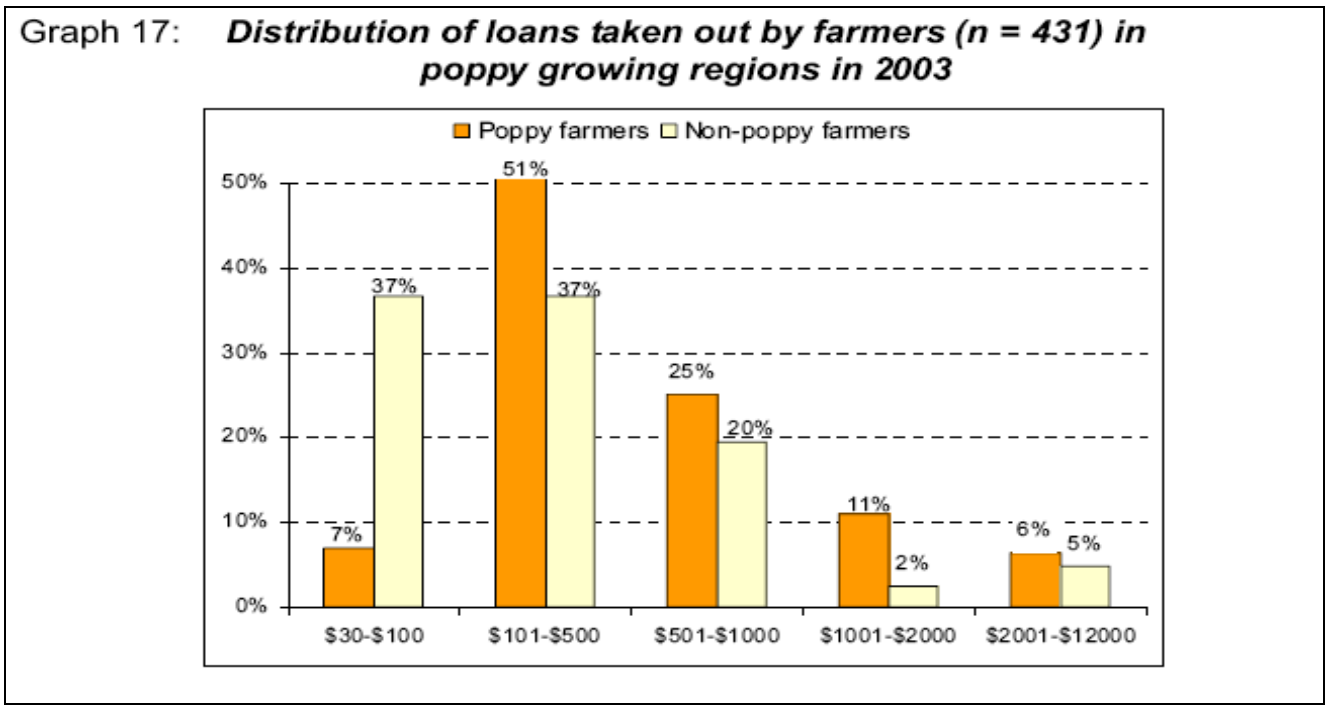
[Figure 7]: "Summary Findings of Opium Trends in Afghanistan, 2005" UNODC



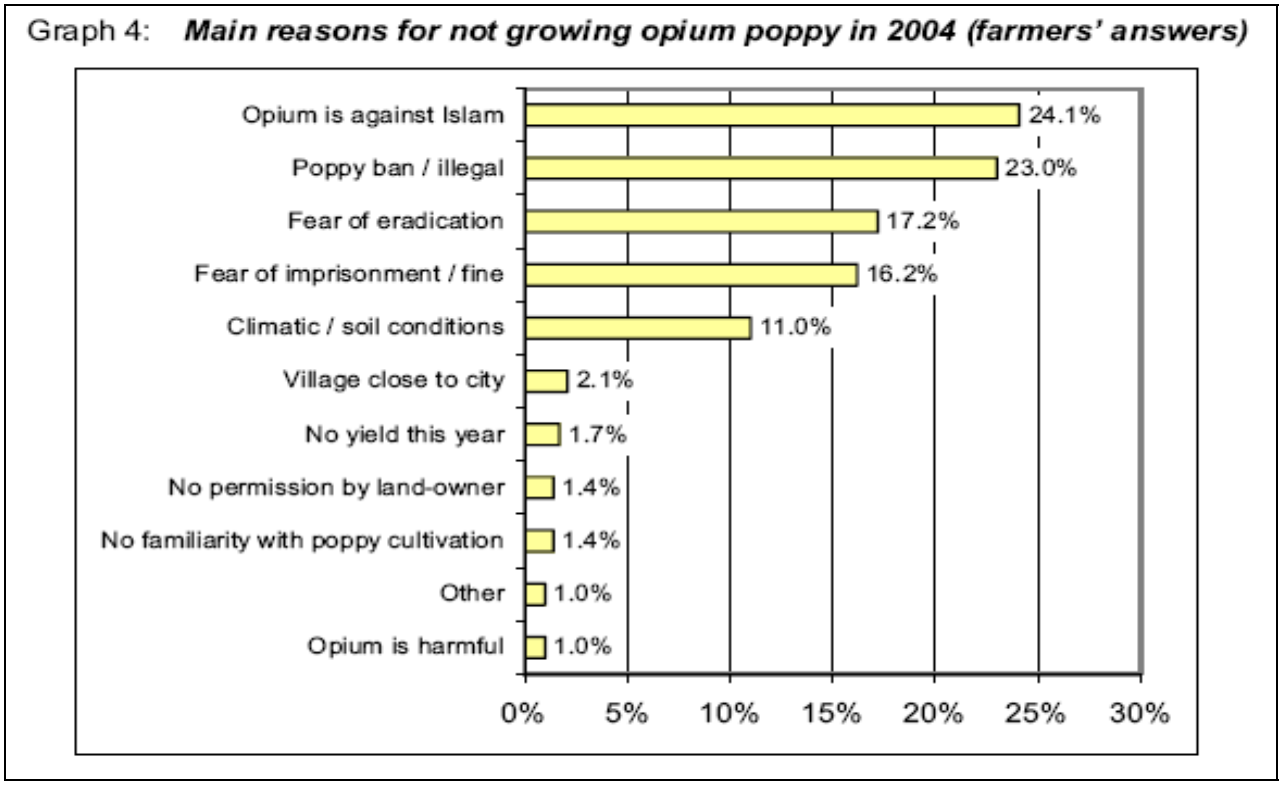
[Figure 8]: "Afghanistan: Farmer's Intentions Survey 2003/2004." UNODC



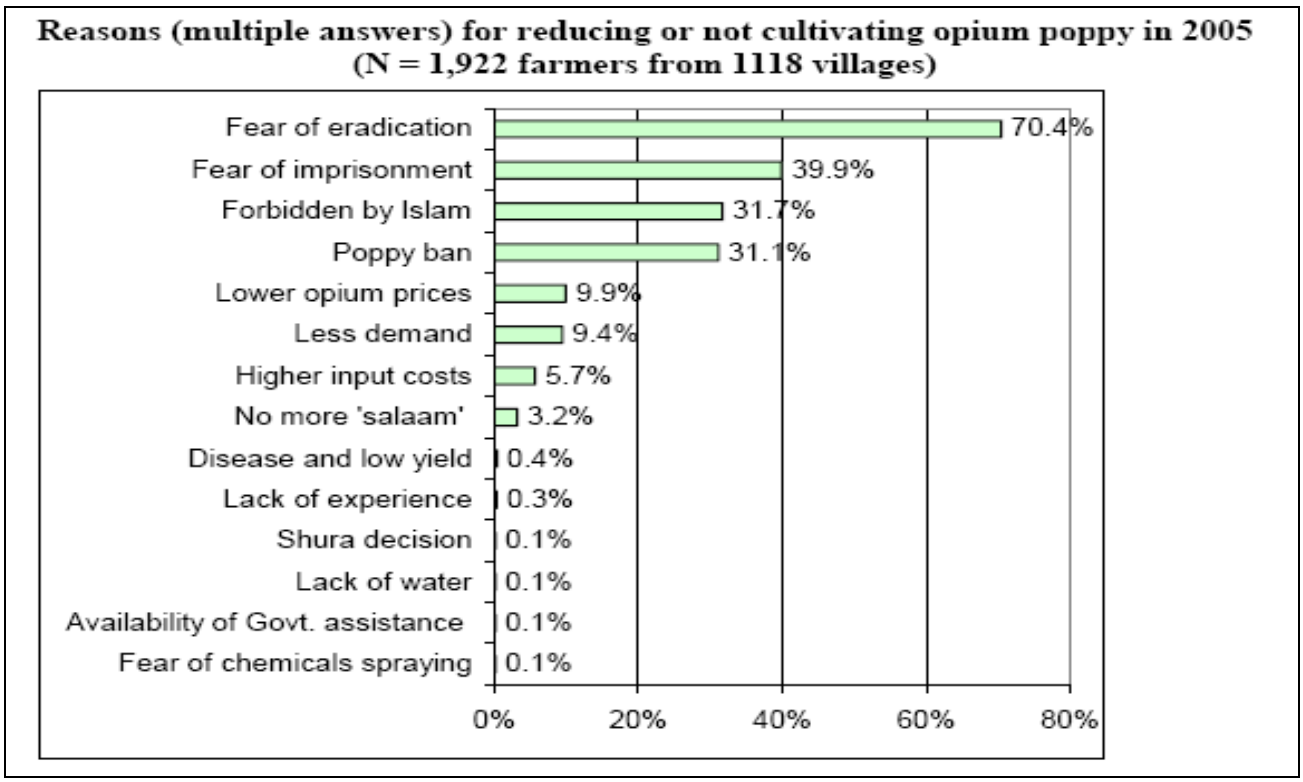
[Figure 9]: "Afghanistan: Farmer's Intentions Survey 2003/2004." UNODC



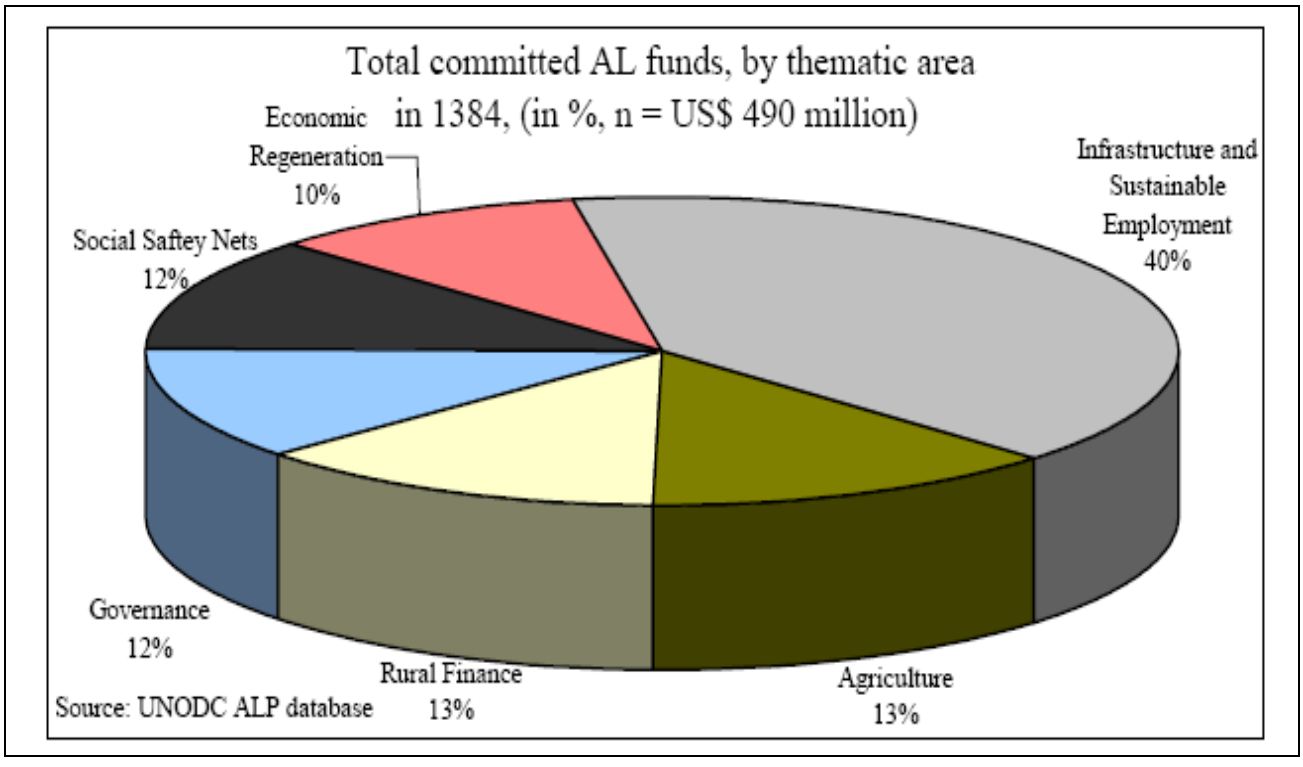
[Figure 10]: "Afghanistan: Farmer's Intentions Survey 2003/2004." UNODC



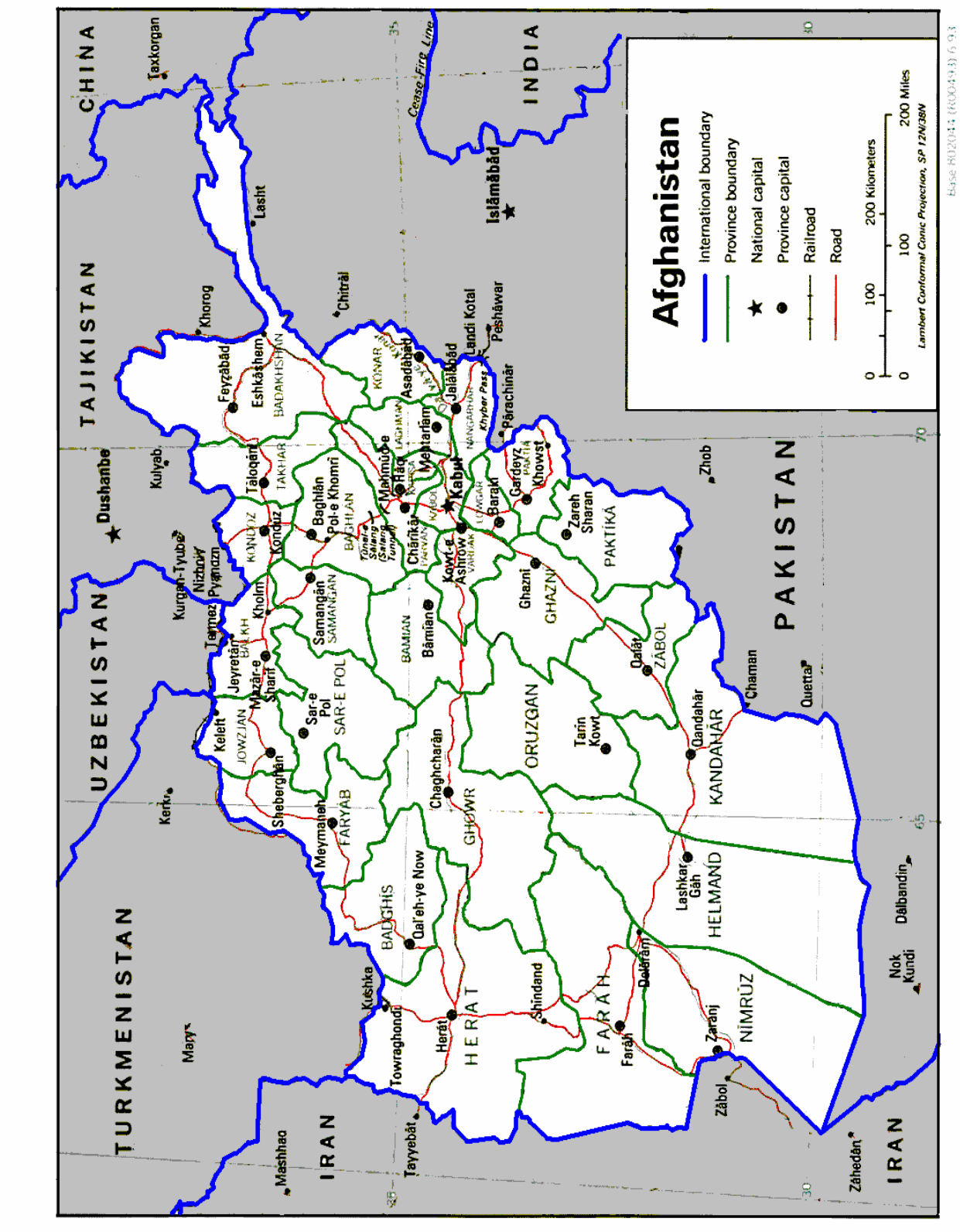
[Figure 11]: "Summary Findings of Opium Trends in Afghanistan, 2005." UNODC



[Figure 12]: "Summary Findings of Opium Trends in Afghanistan, 2005." UNODC



Political Map of Afghanistan (Courtesy of Federation of American Scientists)



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5/27/2006

Bibliography

1. Asad, Amir Zada and Robert Harris. *The Politics and Economics of Drug Production on the Pakistan-Afghanistan Border*. Ashgate Publishing, 2003.

2. "Afghanistan Counter Narcotics Law Enforcement: Update 4." UN Office on Drugs and Crime. February 2005. http://www.unodc.org/pdf/afg/2005CounterNarcoticsLawEnforcementUpdate4.pdf

3. "Afghanistan: Farmer's Intentions Survey 2003/2004." UN Office on Drugs and Crime. February 2004. http://www.unodc.org/pdf/afg/afg_fis_report_2003-2004.pdf

4. "Afghanistan: Opium Survey 2004." UN Office on Drugs and Crime. November 2004. http://www.unodc.org/pdf/afg/afghanistan_opium_survey_2004.pdf

5. Collier, Paul. "Doing Well out of War," in Mats Berdal and David M. Malone (eds.), *Greed and Grievance: Economic Agendas in Civil Wars*, Lynne Rienner Publishers, 2000.

6. "Drugs police clash with Afghan poppy farmers, two killed." Agence France Presse. Kabul, May 10 2006.

7. "Feasibility Study on Opium Licensing in Afghanistan for the Production of Morphine and other Essential Medicines," The Senlis Council: Drug Policy Advisory Forum, September 2005. http://www.drug-policy.org/modules/afghanistan_initiatives/feasibility_study/fs_study/1

8. "Italian Businessman in Afghan Olive Oil Project as Alternative to Opium Crop," BBC Worldwide Monitoring, August 29, 2005.

9. Millen, Raymond A, *Afghanistan: Reconstituting a Collapsed State*, Strategic Studies Institute of the US Army War College, April 2005. http://www.strategicstudiesinstitute.army.mil/pdffiles/PUB600.pdf

10. "Not What the Doctor Ordered; Afghanistan." The Economist. October 8, 2005.

11. "Summary Findings of Opium Trends in Afghanistan, 2005." UN Office on Drugs and Crime. September 2005. http://www.unodc.org/pdf/afg/2005SummaryFindingsOfOpiumTrendsAfghanistan.pdf

12. Weiner, Matt. *An Afghan 'Narco-State'?: Dynamics, Assessment and Security Implications of the Afghan Opium Industry.* Strategic Studies and Defense Studies Centre of the Australian National University. 2004.