

The Role of Narcotics (Opium) in the Local Economy of Afghanistan

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Abstract

This study illustrates the role of narcotics (opium) in the local economy of Afghanistan, a landlocked country, stricken by decades of conflict, and prolonged periods of drought. However, poppy (opium) cultivation is a major strategy for as much as 10% of the rural population. Thus, Afghanistan has re-emerged as one of the largest poppy (opium 90%) producers in the world following the fall of the Taliban in 2001. In 2004, the narcotics economy equaled more than half of Afghanistan's Gross Domestic Product (GDP). The wealth from the narcotics economy, however, is shared among only a small number of people, and the trade is protected by armed groups and tied to powerful international drug traffickers' networks. The narcotics economy supports warlords and their militias, as well as fuelling corruption among Afghan government and security officials, and it therefore poses a real threat to the ongoing state-building process and sustainable peace in the country.

I. Introduction

This study concisely reviews the scale and nature of the narcotics (opium) role in the local economy of Afghanistan. By briefly analyzing the historical consequences of Afghanistan's political instability, it seeks to uncover the role of opium in the Afghan local economy. The study is based on the question that, what is the role of narcotics (opium) in the local economy of Afghanistan? Afghanistan is the poorest country of the world, the last three decades a horrible strife is lasting in Afghanistan. The World Bank report (2004) stated that, '9% of the population was killed in just a decade, and a large part of the population fled the country. In farming areas, assets were ruined and food production fell by almost half' (The World Bank, 2004, 16). In the situation of anarchy and poverty, poppy cultivation spread quite rapidly over the last twenty years in Afghanistan.

However, the World Bank report also indicated that poppy farm income, which was only 3% of Afghanistan's GDP as recently as 1990, was equivalent to more than half (53%) of the country's licit GDP in 2007. Mostly, opium is now processed into heroin and morphine (derivatives of opium) within Afghanistan. Due to desperation and opportunism, opium has become major commodity of Afghan local economy and dominates on other exports. The opium trade, with substantial involvement of criminal elements from outside of Afghanistan has fed warlord(ism) in an infernal exchange between drugs and guns, and has spawned a gigantic criminal activities.

This study analyzes the multiple factors of narcotics' role in the local economy, which are forcing Afghan farmers to switch from other means of livelihood to poppy cultivation. However, second section of this study describes the overview of Afghanistan's history with demographic and geographical view, as well as it defines the overall Afghan economy from 1960 to present along with the comparison of neighboring countries economic growth. Also, it covers the linkage of deteriorated irrigation infrastructure with high poppy cultivation in Afghanistan. The section three reviews the studies and projects related to the narcotics' role in the local economy by other sources. Specifically, the United Nation Office on Drugs and Crime (UNODC) surveys and researches, which contributed significantly to the issue of narcotics in Afghanistan, will be reviewed. The section four analyzes the previous sections' findings and information to further illustrate the main issue of this study. It includes the opium-poppy diversity, profitability, and high labor intensity with the less cost of labor. The last section summarizes the overall findings to answer the main question of this study. It also proposes that Afghanistan's socio-economic development requires financial and social assistance from developed nations in order to solve the issue of high poppy cultivation and extreme poverty of Afghanistan.

II. Background

This section briefly examines, first the Afghanistan demographic and geographic overview along with the tragic wars and unstable political and economical history of Afghanistan. Second, it covers the general overview of Afghan economy from 1960 to present and economic growth in comparison with its neighboring countries. Lastly, it elaborates about water resources and deteriorated irrigation infrastructure, and its links with high poppy cultivation.

The Central Intelligence Agency (CIA)-The World Fact Book defines that Afghanistan is a landlocked country with the area of land 647,500 square kilometer (sq.km) divided into 34 provinces. Specifically, Afghanistan has along border with Pakistan, which lies towards the south and on to the east around 2,430 km, and 936 km with Iran on to the west, towards the north 1,206 km border with Tajikistan, 744 km with Turkmenistan, 137 km with Uzbekistan and 76 km with China in the northeast.

According to the CIA-The World Fact Book (2010), Afghanistan's population is 29,835,392 and 77% of the population lived in rural area. Comprehensive demographics of Afghanistan points out to the fact that inhabitants are consisted of different ethnic groups, and Afghan nation made up of several different races and ethnicities. In Afghanistan, there are various major ethnic groups such as Pashtun, Tajik, Uzbek, Nuristani, Baloch, Aimak, Turkmen, Hazara, Kirghiz, Pashai, and Persian. However, Dari and Persian languages are widely spoken about 50%, followed by Pashto 35%, Uzbek and Turkmeni about 11%, and other 30 minor languages covers 4% including Hazaragi, Nuristani, Brahui, Balochi and Pashai etc. Afghanistan's 99% of population adheres to Islam an estimated 80% of the population is Sunni (a sect in Islam), following the Hanafi (sect) and 19% is Shi'a (sect).

1. Overview of the History of Afghanistan

In the history of Afghanistan many empires formed and demolished on its land. Since the earlier times, the country has been under the formidable influence of Persians, Arabs, Turks, and Mongols from time to time. Afghanistan became a battleground between Britain and Russia in the 19th century, in order to control Central Asia. A question arises that what is the historical context of Afghanistan's political and economic instability? On the land of Afghanistan 'three Anglo-Afghan wars in 1839 to 1842, 1878 to 1880, and 1919 did not end conclusively. In 1919, Afghanistan got independence from Britain. After British rule, Emir Amanullah Khan was the first ruler, founded an Afghan monarchy in 1929' (Meredith, 2007, 12).

Amanullah had centralized the power and became king in 1923. He was replaced by Habibullah (Bacha Saqqo), "son of water carrier", the Tajik warlord of Kohistan, ruled Kabul for just under a year. Habibullah was defeated in October 1929 (and executed the following month) by Pushtoon tribal army led by the former commander Mohammad Nadir Shah of Amanullah's army. Nadir Shah became king and founded the dynasty that ruled over Afghanistan from 1929 until 1933. Subsequently, after Nadir Shah in 1933, as table 1 indicates constitutional monarchy, began by king Mohammed Zahir Shah, who started to rule from 1933 until 1973.

Under Zahir Shah's rule, various socio-economical reforms such as close ties with Soviet, receiving extensive economic assistance was achieved by Afghanistan. In the 1960s, the Soviet Union intensified its effort to penetrate Afghanistan even

Table 1. Afghan Periods and Rulers, 1919-1979 (until Soviet invasion)

Period	Date	Ruler
1. Early independence	1919-1929	Amanullah Khan
2. Civil war	1929	Habibullah (Bacha Saqqao)
3. Nadir Shah interlude	1929-1933	Mohammad Nadir Shah
4. Constitutional monarchy	1933-1963	Mohammad Zahir Shah
5. Democratic experiment	1963-1973	Mohammad Zahir Shah
6. Daoud republic	1973-1978	Mohammad Daoud (First President)
7. Pro-Soviet	1978-1979	Noor Taraki
8. Pro-Soviet	1979	Hafizullah Amin

Source: Goodson, L. P. (2001). *Afghanistan's endless war: state failure, regional politics, and the rise of the Taliban*, 46.

further by attempting to manipulate the Afghan political process. It was the use of this method that led to 1978 coup and the ultimate Soviet invasion of Afghanistan. Zahir Shah was replaced in 1973 by his cousin Mohammed Daoud, who was the first president of Afghanistan. He was assassinated in 1978, and then Noor Taraki took power, during in his period People Democratic Party of Afghanistan (PDPA) was heavily supported for massive social reforms by the Soviet Union.

After Taraki, who was executed in September 1979, Hafizullah Amin became president, but he was killed in the December. On the same year in 1979, the Soviet Union launched a full-scale invasion of Afghanistan and appointed Babrak Karmal as president. The devastating firepower of Soviet forces caused the destructiveness of the modern combat to Afghanistan. In addition to the atrocities and horror, it created refugees. A huge surge in refugees occurred within two years after the Soviet invasion, 'when more than 4 million fled to Pakistan and Iran had 2.4 million refugees, and more than 2 million people were internally displaced in Afghanistan' (Goodson, 2001, 61).

The Soviet, and the pro-Soviet Afghan government, 'began to face venomous resistance from local group forces, called (Mujahedeen or freedom fighter), declared a jihad (holy war) to expel the Soviet' (Meredith, 2007, 65). Those guerrillas' armed forces with sophisticated weapons became a focus of the United States (US) Cold War strategy against the Soviet Union. The CIA began providing military training to the Mujahedeen through Pakistan military intelligence Inter-Services Intelligence (ISI) (Prados, 2002, 466-471). After offensive and gradual resistance of Mujahedeen, the Soviet military became discouraged. The CIA kept increasing and updating the Mujahedeen's supply of weaponry. The Saudi Arabia and Persian Gulf Emirates contributed billions of dollars to them, and thousands of Arabs responded to the Mujahedeen's call for jihad, against the secular Soviet.

In 1986 Karmal resigned, and was replaced by Mohammad Najibullah. In April 1988 the Soviet Union, Afghanistan, US, and Pakistan signed agreement calling for an end to foreign support to the warring factions. As a result, Soviet withdrawal took place in February 1989, but the pro-Soviet government of Communist President Najibullah was left in the capital, Kabul. After four years, in April 1992 Najibullah was replaced, soon after Soviet withdrawal, those various rebel groups began fighting with each other for Kabul control. As Tarzi stated that upon ending the Soviet invasion, US, Pakistan and other aid providers stopped supporting Afghanistan financially (Tarzi, 1991, 492-493). Therefore, the local warlords were not able to continue their war activities. They found the opium as an alternative and reliable way for financing their war activities (Prados, 2002, 469).

In the early 1990s, a chaotic situation of competing factions, a group calling itself the Taliban (young Islamic students) drawn from hundreds of Madrasa (Islamic theology schools) from Pakistan, were recruited and trained in Afghan refugee camps in Pakistan. They seized control of Kabul in September 1996. In 1998, the Taliban controlled about 90% of the country without having any experience to run government institution. Only three countries, Pakistan, Saudi Arabia, and the United Arab Emirates (UAE), recognized the Taliban as Afghanistan's legitimate government (Ghufuran, 2001, 477-478).

2. Overview of the Economy of Afghanistan

Afghanistan is one of the most impoverished, war-torn, and the most ravaged nation. Afghan's deteriorated economic condition is due to long history of wars and political insatiability. In addition, insecurity, lawlessness and landlocked geographic location are the reasons of its extreme poverty. A question arises here that, what is the historical overview of Afghan economy to present? Afghanistan is highly dependent on foreign aid, agriculture, and trade with neighboring countries. Its economic output based on agriculture, a major part of this production is cereals and wheat, produced for domestic consumption. In 1960, total exports were US\$50 million, the value increased steadily and in 1969 it was US\$81 million. However, trade balance was almost positive, as imports could not increase as much as exports. Indirect taxation from 1962 to 1969, accounted on average for 50% of all domestic revenues, with import duties provided about 30% (Fujimura, 2004, 110).

In 1970s, the fourth five-year plan from 1973 to 1978 was proposed. As with previous plans, Afghan program of development depended on assistance from the Soviet Union. In July 1973 coup distorted its planning procedures, and the actual program planning changed to an annual basis. Until late 1970s, a modest degree of economic development was seen in Afghanistan (Fujimura, 2004, 111). As Fujimura (2004) indicates that from 1975 to 1979 the average GDP growth rate was 2.3 %, and between 1970 and 1978 the export value increased from US\$81 million to US\$314 million. In the same period, imports increased from US\$72 million to US\$328 million, resulting in mostly positive trade balance, but ranging between US\$45 million and US\$43 million.

In 1978, during and after the conflict and war against the Soviet, the ratio of poppy cultivation before 1978's annual production of opium was about 250 tons. In the early 1980s, while the government had difficulty in raising revenues, domestic revenues rose somewhat. Indirect taxes constituted about 50% of the revenues, and direct taxes about 10%, natural gas contributed in revenue, at 20 to 30%. However, toward the mid to late 1980s, violence, insecurity, and lawlessness in the

country brought economic downturns effected the tax collection.

In 1990s, internal war among warlords made very tragic situation to govern Afghanistan. The war made it impossible for the government to control or continue the production of natural gas, which consequently eliminated the export duty on gas to the former Soviet Union countries. The new Mujahedeen government that came into power in April 1992 pleaded for economic support for budgetary reconstruction, but failed to gain much attention. The donors were reluctant due to the opening civil war in Afghanistan. In 1995, the United Nations (UN) issued an appeal to nations and donor organizations to contribute humanitarian assistance. In 1996, 52% of the targeted US\$124 million was given to Afghanistan.

Meanwhile, discontinuation of foreign aid and international assistance caused new coping strategies before and after Taliban period for the warlords and rural Afghans, to increase in poppy cultivation. In 1994, Afghanistan became the world's largest opium producers with 3,400mt production of opium. United Nations Office on Drugs and Crime Prevention (UNDCP) report stated that in 1995 yearly production amounted to 2,000-3,000mt. After the fall of the Soviet Union and the opening of the country's borders to Central Asia, smuggling through Afghanistan rose sharply (UNDCP, 2001, 16).

It is problematic to analyze the Afghanistan economic growth due to the lack of reliable statistics. Moreover, long history of wars and political instability degraded Afghanistan economic growth and became major factors for poverty in the region. A question arises that what is economic condition of Afghanistan when is compared with its neighboring countries? Long wars had also increased the rural Afghans migration to Pakistan and Iran, further disrupting agricultural sector. Afghan economy is highly dependent on foreign aid of little more than subsistence farming and cross border trade with neighboring countries. As the World Development Indicators (WDI) illustrates in figure 1, from 2001 to 2008 Afghanistan's annual GDP growth, specifically, in 2003, 2005, 2006, and in 2008 was comparatively and significantly larger than neighboring countries. Comparatively, the high GDP of Afghanistan is due to the high economic dependence on foreign aid and funds by international society.

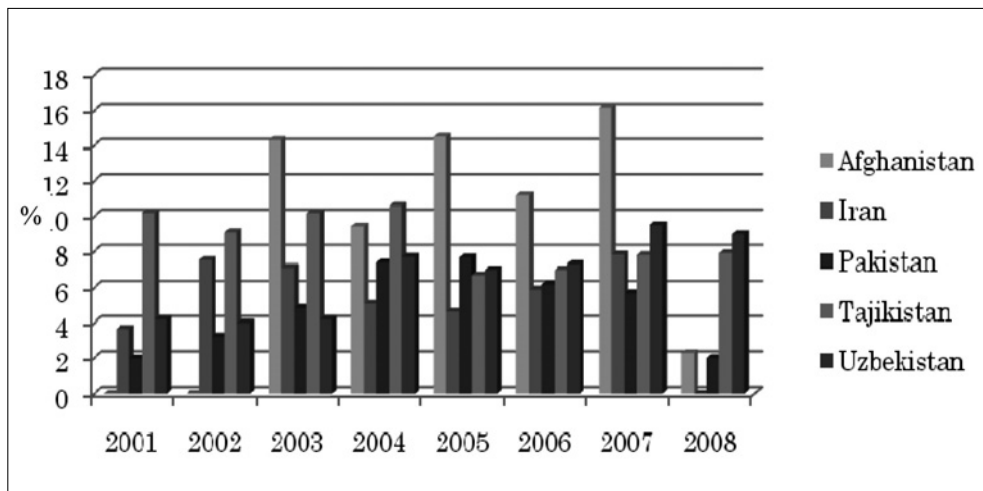


Figure 1. The GDP comparison of Afghanistan with Iran, Pakistan, Tajikistan and Uzbekistan (Annual growth % from 2001-2008)

Source: World Development Indicators 2010, calculated.

3. Overview of the Water Resources and Irrigation Infrastructure

Three decades of war in Afghanistan has had a devastating effect on infrastructure and socio-economic structure of the country. Specifically, the collapse of irrigation infrastructure has become one of the reasons of high poppy cultivation and massive internal population displacement. The lack of predictable rain and limited irrigation diminishes the possibilities for farmers to cultivate other crops. Poppy requires significantly less water than replacement crops such as wheat and cereals.

However, water has a crucial importance in agriculture sector. Without proper water availability, and irrigation infrastructure agriculture cannot exist. A question arises that: does collapsed irrigation infrastructure cause the high poppy cultivation? Surely, yes it does, because improper usage and demolished irrigation infrastructure is disable to utilize for agriculture purposes. According to the United Nations Food and Agriculture Organization (FAO) comparison of annual per capita water availability of Afghanistan is approximately 2,500meter cubic (m^3) with other neighboring countries such as Iran

Table 2. Afghanistan water potential for irrigation Billion Cubic Meters/ year (BCM/year)

Water Resources	Capacity	Current use	Balance	Future use	Balance
Surface Water	57	17	40	30	27
Ground Water	18	3	15	5	13
Total	75	20	55	35	40

Source: Food and Agriculture Organization 2010, *Afghanistan Water Resource Statistics*.

Table 3. River Distributions under Five River Basins and in Afghanistan

Name of the river basins	Provinces which are under cover in every River basin	Area (%)	Water (%)	Water storage capacity (billion m ³)
Amu Darya Basin	Kunduz, Takhar, Badakhshan, Baghlan, Bamiyan	14	57	24
Helmand river basin	Uruzgan, Ghazni, Zabul, Kandahar, Helmand	41	11	6.5
Western river basin	Ghor, Farah, Nimroz	12	4	2.5
Kabul river basin	Kunar, Laghman, Kapissa, Parwan, Nangarhar, Kabul, Logar, Wardak, Khost, Pktika	11	26	22
North river basin	Badghis, Faryab, Sare Pul, Jawzjan, Balkh, North river	11	2	N/A
Non-drainage area		11	0	55
Total		100	100	55

Source: Food and Agriculture Organization (AQUASTAT, 2010) Afghanistan.

1,400m³/capita/year and Pakistan 1,200m³/capita/year. It indicates that Afghanistan's water resources are still largely underused. The table 2 indicates that, there is a huge potential of water availability for irrigation.

The effects of war and neglect on these systems have not been systematically assessed. Crops like wheat and cereals are staples and dominant crops, but comparatively these are more water-intensive than poppy. While, poppy is drought-resistant and does not require proper water for irrigation, therefore, Afghan farmers are heavily reliant on poppy cultivation. Afghanistan has enough water for agriculture purpose. Indirectly, long wars and internal conflicts destructed the irrigation infrastructure of Afghanistan. As Qureshi stated that in Afghanistan long wars and internal conflicts caused a large migration of farmers to other countries leaving behind the irrigation schemes unattended (Qureshi, 2002, 16).

The FAO (2010) estimates in (*Afghanistan Water Resource Statistics*) that the long-term water availability in Afghanistan is about 2,800m³/capita/year, enough to irrigate 5 million (hector) ha. This is significantly higher than the current 2.6 million ha area. Afghanistan's land is divided in 5 large basins, such as Amu Darya Basin, Helmand river basin, Western river basin, Kabul river basin, and North river basin. The table 3 indicates that some rivers such as Amu Draya in Kabul have water storage capacity that is comparatively higher than others but their contribution to irrigated land is lesser than other rivers. This indication leads to deteriorated irrigation infrastructure, which results a huge amount of water wastage in Afghanistan.

Qureshi argues that although Afghanistan is located in half deserted atmosphere, it is still rich in water resources mainly due to the series of high mountains such as Wakhan, Hindu-Kush, and Baba covered by snow. He also points out that these ranges function as natural reservoirs of water in form of snow during winter and thus support perennial flow in all major rivers by snow melt during summer. Afghanistan acquires more than 80% of the country's water resources from these mountain ranges (Qureshi, 2002, 23).

As FAO (AQUASTAT, 2010) has estimated that the current irrigation system in Afghanistan is running at a very low efficiency rate about 25%, which indicates the considerable scope for water wastage is controllable and high possibility for increase in irrigated area. However, in Afghanistan the most reliable and commonly used method of irrigation system is canal irrigation system. This irrigation system is completely silted, breached and not working as in the past. Quershi (2002) stated that 'about 85% of all crops in Afghanistan are grown under canal irrigation system, where canals irrigate nearly 75% or 1.9 million ha of land. Therefore, there is big water loss due to about 46% of the canal irrigation structures are damaged and 88% of the irrigation structures are based on traditional methods. This causes 40% of the total water loss' (Quershi, 2002, 13-16). Therefore, Afghan farmers are unable to cultivate the staples and dominant crops, which are highly water intensive. However, the demolished irrigation infrastructure makes them to rely on poppy cultivation for their livelihood.

III. Research Review

This section reviews and focuses on research projects, surveys and studies done by UNODC as a part of global Illicit Crop Monitoring Program (ICMP) and other researchers, who specifically focused on the poppy. In light of these surveys and researches this section describes that how did opium become important commodity for Afghan's livelihood? To answer this question, at first this section defines that, what are the factors of high opium production from the Soviet war period to present in Afghanistan? Historically, Afghanistan was not opium exporting country. The cultivation of the poppy in a large scale started in the last three decades, early 1980s when Turkey, Iran, and Pakistan strictly banned on opium production.

As a result, ban pushed up the world price of the opium. Meantime, Afghan government was gradually losing control over the rural areas (UNODC, 2003, 39). While international demand for opium was drastically increased. Therefore, lawlessness and state instability, flourished the poppy cultivation in Afghanistan. It shares in world production grew from 20% in 1980 to 50% in 1995, just prior to the Taliban take over, 79% in 1999, and 90% in 2000 (Goodhand, 2000, 191-216).

However, during the Soviet invasion (1979-1989), opium production was not the main source of finance, because Afghans were receiving million of dollars as foreign aid. Meanwhile, at very low level some local Afghan warlords and government officials were involved in opium production and smuggling. In 1989 after the Soviet withdrawal, a power vacuum was created. Various warlords started fighting against each other for power and to rule Afghanistan. According to UNODC (2003) survey opium production increased eight times from 1986 to 1994 until Taliban period. Also, it jumped from triple digit to four digits, meaning in 1986 it was in 875mt, which increased to 3,416mt in 1994 (UNODC, 2003, 7). The discontinuation of foreign aid from the US and other major international supporters and donors became a major reason of opium boom. Fujimura indicates that the 'following the breakdown of the Soviet Union and the opening of the country's borders to Central Asia, smuggling through Afghanistan rose sharply' (Fujimura, 2004, 119).

During the 1990s, Afghanistan firmly established itself as the largest source of opium and its derivative (heroin), in the world. As UNODC (2003) survey stated, by the end of the 1990s, Afghanistan provided about 70% of global illicit opium production (UNODC, 2003, 31). However, in April 1992 new Mujahedeen government came into power pleaded for economic support for budgetary reconstruction, but failed to gain much attention. The donors were reluctant due to the opening of a civil war. Warlords started poppy cultivation at a big scale to finance their military existence.

According to the table 4, a vital change in the cultivation trends occurred in 2001, when the production fell drastically from the previous year 3,278mt, bringing down the total to 185mt. This sudden decrease was due to Taliban's new policy of banning opium cultivation issued on 27 July 2000, ahead of the 2001-planting season.

However, the Taliban ban policy has different aspects. In March 2001, the UN and the US acknowledged that the Taliban had prevented any poppy from being cultivated in the growing season and several countries pledged direct aid to thousands of farmers, who had lost everything because they have no seed or fertilizer to grow alternative crop. Nevertheless, opium stocks from previous years continued to be smuggled into neighboring countries and between 2000 and 2001 the price of opium rose tenfold. Whilst, it is also can not be undermine Taliban deliberately reduced production in the face of an abundant stockpile from the previous two record damp harvests and the dropping price (Rashid, 2002, 15).

Moreover, in 2001 a drastic decrease in opium production resulted a massive rise of opium prices in that year. Just very small portion of the total cultivation took place in the north Baghlan and Faryab, northeast Badakhshan and east Kapisa. However, the average gross income/ha sharply rose from about US\$1,100 in 2000 to US\$7,400 in 2001, a seven-fold increase in just one year (UNODC, 2002, 12). UNODC (2006) estimated that the 2006 harvest was the order of 6,100mt, 33 times its production levels in 2001 in Taliban period (3,200% increase in 5 years) (UNODC, 2006, 12).

This dramatic increase from 2002 to 2007 arises a question that, why does Afghan framers prioritize poppy cultivation over others crops? This is because opium's high profitability makes them to cultivate poppy rather than other crops. According

Table 4. Opium Poppy Cultivation in Afghanistan

Year	Cultivation in hectares (ha)	Production in metric tons (mt)
1994	71,000	3,416
1995	54,000	2,335
1996	57,000	2,248
1997	58,000	2,804
1998	64,000	2,693
1999	91,000	4,565
2000	82,000	3,278
2001	7,606	185
2002	74,100	3,400
2003	80,000	3,600
2004	131,000	4,200
2005	104,000	3,800
2006	165,000	6,100
2007	193,000	8,200
2008	157,000	7,700
2009	123,000	6,900
2010	123,000	3,600

Source: UNODC (2001-2010) data collected from annual opium surveys.

Table 5. Income of poppy growing and non-growing farmers (2006)

Region	Average annual income of poppy growing farmers in (US\$)	Average annual income of non- poppy growing farmers in (US\$)
Central	2,357	2,674
Eastern	1,817	1,753
North-eastern	1,970	2,290
Northern	2,270	1,862
Southern	6,194	3,382
Western	2,895	2,273
Overall	5,055	2,370

Source: UNODC (2009). *Addiction, Crime and Insurgency: The transnational threat of Afghan opium*, 96.

to the table 5, UNODC's 2006 statistics indicate a significant difference of income between poppy growing and non-growing farmers. Just in central and northeastern regions, where poppy growing farmers' income is lesser than non-growing farmers. Because, in central and northeastern Afghanistan non-poppy growing farmers enjoy higher returns. This is due to the spike in wheat prices and a decrease in opium prices and poppy cultivation. While, in other regions of the country have relatively big numbers of difference in poppy income. UNODC (2006) survey indicated that 'in 2004 poppy production per hectare was valued at US\$4,600 compare to wheat was US\$390' (UNODC, 2006, 18). It requires provision of incentives to farmers to grow wheat instead of poppies.

Moreover, another income gap comparison can be an example to understand how much opium is profitable and favorable for Afghan farmers? UNODC (2007) statistics compare a quite significant income gap between opium farmers with unskilled labor. In a case, possible increase in the average income of unskilled labor to about US\$1.4/day or US\$500/year, the opium farmer's average income would have been equivalent to about 12 times the average income of unskilled labor (UNODC, 2007, 33). It indicates that there is a very strong incentive for farmers to continue cultivating poppy.

However, this has been criticized by Chouvy, saying that poppy is a high-risk crop. Despite the short-term orientation of the benefits, individual farmers have been attracted to cultivate poppy. Here the question arises that, is poppy cultivation an

appropriate way for Afghan farmers to earn financial credits for their livelihoods? The poppy cultivation is not the appropriate way for their stable livelihood. Including some other undeniable factors can affect poppy, such as crop failure, due to drought, pest infestation, or lack of affordable labor during harvest season and eradication risk (Chouvy, 2010, 141).

In case of price comparison with other crops, there is a higher risk of fluctuation of prices, as these prices can be speculative manipulation by illegal opium market. For instance, in 1990s, just before the Taliban rule, 'when opium prices were under US\$50/kg, opium production looked like a desperate coping strategy for a chronically impoverished countryside' (Byrd & Doris, 2004, 132). The Figure 2 illustrates that despite the fact that high opium share is competing with cereals production, while cereals are still viable source of income. Also, it shows that opium can not be solely a dominating crop in all circumstances. Thus, poppy is not necessarily a profitable crop in all circumstances. Due to high insecurity and in lawlessness environment poppy cultivation is clearly one of appealing options.

Moreover, there are also some negative impacts of drug industry have on micro and macro economy of Afghanistan. However, opium economy has quite enormous negative impact on many of the poor farmers, particularly those who borrowed opium-related debt from warlords or opium traffickers. In addition, illicit opium economy is a massive source of corruption and gravely undermines the credibility of the government and its local representatives (Byrd & Doris, 2004, 1-9).

There is another significant contradiction pointed out by UNODC (2003) that opium has very negative concerns on heroin, an extremely dangerous drug, more than 100,000 people in the countries neighboring Afghanistan are already infected by the Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) virus, and the number is rising rapidly (UNODC, 2003, 194). The negative impacts of opium derivatives on rural Afghans are quite high. It is adversely affecting the Afghan poor society. UNODC surveys mention that the rural population and micro-economy just have some short-run economic benefits from opium production. On the other hand, it has major adverse effects on security, political normalization, and state building, as well as on sustainable longer-term economic development.

The above mentioned facts and figures of high opium production arises the question that where is the market for opium and who buy it? As a lucrative way of illicit income for Afghan farmers, since opium became financial source for Afghans, they are generating every year billions of US dollars from its smuggling. UNODC (2006) estimated that in 2003 Afghan farmers earned about US\$1 billion and US\$1.3 billion for traffickers, equivalent to over half of Afghanistan national incomes (UNODC, 2006, 13). In 2004, its opium traffickers acquired US\$2.2 billion, which increased just within a year. A significant amount of income comes from different part of world, where millions of heroin users use it.

Kimberley argues that Afghanistan's opiates are consumed in an increasing number of countries and regions. Due to the geographical shift, drug consumption markets also changed. Specially, Afghan opiates were smuggled westward (Europe) in ever-increasing proportions, reaching the ever-growing Western European consumption markets through Iran and Turkey (Kimberley, 2007, 99).

Moreover, in terms of demand and supply ratio, UNODC (2009) survey on Afghan opium trade estimates that there are about 11.3 million heroin users in the world. A vast majority of these users are in China, around 2.2 million, and 0.81 million are in India covered by Myanmar's production. There are approximately 7.2 million users, who use Afghan heroin production. A major part of Afghan heroin is used by 3.1 million heroin users of Europe. Within Europe, 1.5 million users belong to the Russian Federation, while the remaining 1.6 million users are distributed among other European countries. Hence, 1.5 million Afghan heroin users belong to the US and Canada (UNODC, 2009, 54-62).

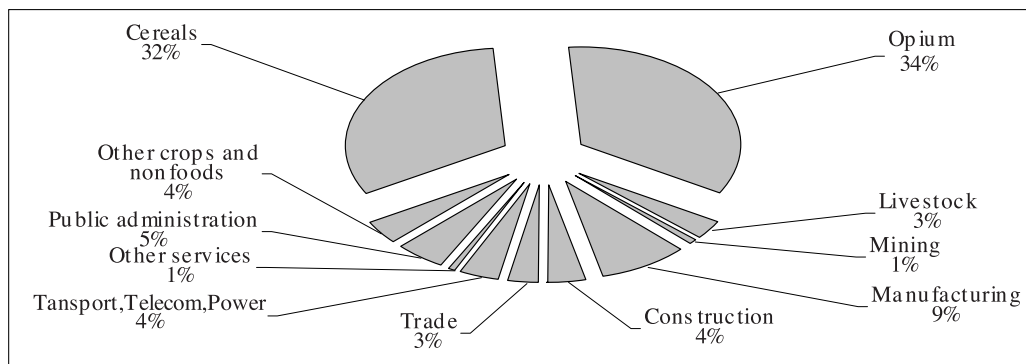


Figure 2. Different sectors of Afghan informal economy (2003)

Source: Byrd, W. (2005). *Afghanistan-State Building: Afghanistan-State Building, Sustaining Growth, and Reducing Poverty*, 7.

Kimberley also stated that in 2004 Afghanistan had produced approximately 420 tons of heroin overwhelming majority of which was consumed by Europe. Over 80% of heroin consumption in China has been of Burmese origin and approximately 20% from Afghanistan. Europe, the former Soviet Union, Iran, Pakistan, and 20% of China jointly consume the major part of Afghanistan exports, but even high estimates of consumption in these countries would not exceeded a need for 250 to 320 tons of heroin (Kimberley, 2007, 99).

Undoubtedly, Afghanistan is the largest producer with the share of 90% of the whole opium production of the world (UNODC, 2009, 7). As indicated in the figure 3 a large portion of it is consumed in Asia, which is about 57% of the total. Another big part of its users belongs to Europe about 22% of the total users. Subsequently, other remaining share of total opium used by Americans, Africans, and very small portion of it, about 0.5%, is used by Oceanians. Comparatively, the Western Europe markets are financially more lucrative than Asian markets. Therefore, Afghanistan's opium goes via Iran and Pakistan along the Balkan route towards Western Europe and its periphery, and remaining portion of opium goes through the Silk route or North route (Pakistan) to Middle East (UNODC, 2008, 57).

With the passage of time, opium chemical conversion in other form of drugs such as heroin, codeine, and morphine, etc increased its demand. Especially, heroin demand increased very quickly at large scale in Europe and Middle East. Simply, in order to understand the heroin worth, as UNODC world drug report assumed that 10kg of opium are equivalent to 1kg of morphine and 1kg of heroin. Comparatively, heroin is the most expensive derivatives of opium (UNODC, 2009, 41).

Therefore, according to Kimberly (2007), Western Europe is a major destination for Afghan opiates, 'with 1.5 million addicted consuming approximately 40 to 60 tons a year. It is also known as the most lucrative market, with heroin prices US\$100,000/kg, in terms of quantity, however, the consumption in Iran, Russia, and Pakistan is equally important' (Kimberly, 2007, 99). The above statistics indicate that large numbers of Afghan heroin users are widely spread throughout the world. Opium traffickers and traders networks are quite active and organized in order to supply continuously to its user.

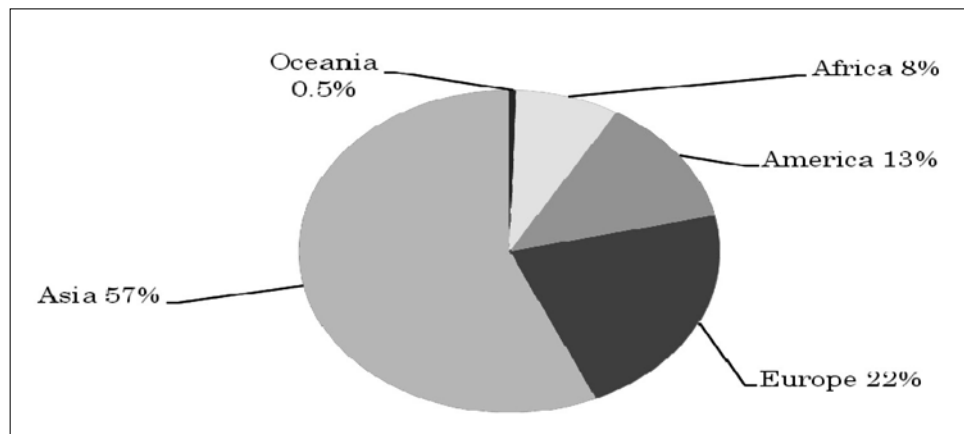


Figure 3. Opium users worldwide.

Source: UNODC (2008), *World Drug Report 2008*, 57.

IV. Analysis

This section analyzes the previous chapters' findings and information to help solve the main issue of this study: what is the role of narcotics (Opium) in the local economy of Afghanistan? Previous sections reviewed all historical and socio-economical consequences behind the high poppy cultivation in Afghanistan. This section illustrates the different motivations and factors that influence Afghan farmers' higher dependency on poppy cultivation. It highlights that how poppy cultivation became a need for livelihood. In addition, the multi-functional role that poppy plays in their livelihood strategies.

The first section, explains diversity in opium poppy cultivation. It elaborates the unassailable profitability of poppy provide little rationale for the scale and nature of poppy cultivation at the household, regional, and national level of Afghan economy. Second, it focuses on how the traditional land arrangements and informal credit systems (*Salaam*) have been modified in order to support those households without or insufficient land to fulfill their basic needs from poppy cultivation. Lastly, it illustrates gross and net income from opium production and how that income distributed across with own land and

capital to those who without. In addition, poppy farmers can acquire high returns by using their family members in order to reduce labor cost. It depicts how, without using family members, poppy cultivation is not profitable for the poor farmers. Also, opium is negatively affecting Afghans' life in terms of dangerous drug addictions. Other major adverse impacts on security, political normalization, and state building, as well as on sustainable long-term economic development covered in this section.

1. Divers Poppy (opium) Cultivation in Afghanistan.

Poppy cultivation is now expended throughout the Afghanistan. UNODC survey (2007) estimates that Afghanistan has 144,000ha area for permanent crops, only 9.23% of the land or 7.91 million ha, is arable. From that, 2.3% of arable land is under poppy cultivation is estimated at 70,000ha (UNODC, 2007, 33). Here a question arises that how much area is using for poppy cultivation in Afghanistan? According to UNODC estimation, about 1.7 million rural people, around 7% of Afghanistan's population are directly dependent on poppy cultivation. However, high profitability caused the diversity of poppy in cultivation in the Afghanistan. A steady increase found of poppy cultivation in the number of provinces, from 18 to 23 provinces in 1999 to 2000 up to 24 to 28 provinces in 2003 out of a total of 34 of Afghanistan. In almost 90% of the provinces, poppy is cultivated, with an increase of over 50% in 4 years (Ward & Byrd, 2004, 17).

UNODC also estimates that most of poppy cultivation has taken place in 24 of 34 provinces, in the fertile south, east and north of Afghanistan, as the table 6 also indicates. Where such as Helmand in the south, with nearly 30,000ha, in the east Nangahar shared about 20,000ha, while Badakshan in the north of the country, contributed about 8,000ha, in the south/central Uruzgan about 5,000ha, and other about 4,000ha covered by Kandahar in the south. These five provinces covered 90% of the country's geographic area under cultivation and 89% of the country's total opium production.

Moreover, the intensity of poppy cultivation also differs considerably by provinces. The table 6 indicates that most of the south, east, and northern provinces are highly concentrated on poppy cultivation, such as in south Helmand, where land holdings are small and access to both irrigation water and markets is more problematic. Thus, the high profitability of poppy increases the proportion of household land exceeds 70% of arable land and is dedicated to poppy cultivation due to its mono cropping.

In reality, poppy became highly reliable and integral to the livelihood strategies of Afghans. Indeed, under US and North Atlantic treaty Organization (NATO) forces control in 2007 cultivation was at its height, poppy increased by 17% in 2007, from 165,000ha in 2006 to 193,000ha. Especially, a sharp increase has seen in the south and southwest of Afghanistan. As UNODC (2007) survey indicated that 80% poppy cultivation of Afghanistan in 2007 was located in Helmand, Kandahar, Uruzgan, Day Kundi, Zabul, Farah, and Nimroz (154,981ha from 193,000ha) due to deteriorated security conditions (UNODC, 2007, 4).

Diversity in poppy cultivation tends to suggest that its cultivation in Afghanistan is highly dependent on socio-economical factors. Indeed, Afghan's social and religious norms are reluctant to cultivate un-Islamic poppy. Economically, some important driving factors are behind its cultivation such as access to land, water for irrigation, and highly low paid labor. There is an important motivation for Afghan farmers to acquire financial credits for their livelihoods. As UNODC surveys suggest that poppy is not necessarily a profitable crop in all circumstances. In current situation of Afghanistan, it does not even profitable to poor farmers. However, according to UNODC study about the motivations behind opium poppy cultivation, there are some vital reasons/motivations for poppy cultivation as lack of rule of law, insecurity, lack of off farm employment, and lack of water and agricultural infrastructure. Also, survival-provision of basic needs, external pressure from traffickers and traders, and exaggerated expectations of bilateral assistance through alternative livelihood activities along with lack of coping strategies without opium poppy income are major motivations (UNODC, 2009, 97).

Table 6. Poppy cultivation and production major provinces of Afghanistan (2002)

Province	Cultivation (in ha)	% country total	Production (in mt)	% country total
Helmend	29,950	40%	1,300	38%
Nangahar	19,780	27%	1,030	30%
Badakshan	8,250	11%	300	9%
Uruzgan	5,100	7%	230	7%
Kandahar	3,970	5%	180	5%
Country	74,000	90%	3,400	89%

Source: UNODC (2002) data collected from, *Afghanistan Opium Survey*, 10.

2. The Poppy (opium) Profitability

Apparently, poppy cultivation is an appealing option for Afghan farmers in current environment. Opium is ideally suited to the Afghanistan's war-torn physical infrastructure. As a non-perishable, low weight, easy to smuggle and high source of income, including higher guaranteed market, compare to other agriculture products. The research review section of this study analyzed the poppy profitability in a detail manner. Which has been suggested that the poppy cultivation is not profitable in all circumstances, but a question arises: why do farmers cultivate if it is not profitable? Because of socio-economical needs made a vicious cycle for the poor farmers, to obtain basic necessities of life require credit and to obtain credit requires poppy cultivation. Therefore, opium became a part of poor Afghan farmers' life as well as their unwilling dependency on opium makes their life more crucial.

Poppy profitability can be determined by some factors those involve in its cultivation. Poppy cultivation has integrated within the political and socio-economic structure of Afghanistan. As discussed in the previous section, the vital reasons/motivations for poppy cultivation such as lack of off farm employment, and provision of basic needs, external pressure from traffickers and traders makes poor farmers to cultivate it.

Therefore, the poor farmers who lack land and agriculture inputs get involve with the rich source, those who have enough land, enough financial resources, such as landowners, opium traffickers, etc in order to cultivate poppy. Poppy profitability based on their symbiotic relation between poor farmers and rich source. However, poor farmers who do not have land and sufficient resources to purchase the agriculture inputs, they preferred to offer their labor. Poppy cultivation is quite labor intensive and quite attractive within local agriculture system for them to be involved as tenant or sharecropping arrangements.

Mansfield (2001) illustrates that sharecropping is a very common practice in poppy cultivation in Afghanistan. The poor farmers commonly adopt sharecropping method. Generally, the distributions of returns are determined by five inputs in agriculture production between sharecropper and landowner such as labor, seed, farm power, land, and water. Mostly, four out of five inputs provides by rich sources, while farmers are just able to provide labor. Therefore, farmers just receive one-fifth share of the final production (Mansfield, 2001, 5).

Moreover, the cultivation of poppy provides to farmers access to land, financial credit, in order to support their livelihoods. The table 7 supports this argument that annual household income of opium growing farmers is relatively higher than non opium poppy growing farmers in Afghanistan. However, it seems, only poppy cultivation is an appealing option to acquire financial credits to fulfill their needs.

Another driving factor behind opium production is informal credit systems (*Salaam*). This credit system in Afghanistan is usually used to obtain as an advance payment on a fixed amount of agricultural production. Whilst, opium is very favored crop by lenders, to some extent majority of farmers households utilize this system to cultivate poppy in Afghanistan. After contracting with *Salaam* system farmers are not free to decide by themselves to cultivate any kind of crop. It will be decided by the loan provider, in the most cases, they ordered to cultivate poppy, due to their outstanding debts. However, 'the *Salaam* system helps and provides the poor with the means of survival to obtain advanced payments on their opium crop to purchase basic necessities of their life' (Koehler & Zuercher, 2007, 64).

3. The Poppy (opium) Net Income and Labor Cost

According to a general perception by UNODC survey, the total value of the opiate market is estimated at US\$65 billion,

Table 7. Annual household incomes in Afghanistan (2006)

Region	Average annual income for poppy growing farmers US\$	Average annual income for non poppy growing farmers US\$	% difference between poppy growing and non poppy growing farmers
Central	1,897	1,487	22%
Eastern	2,187	1,818	17%
North-eastern	2,134	1,134	47%
Northern	2,690	1,851	31%
Southern	3,316	2,480	25%
Western	2,258	1,721	24%
Overall	2,747	1,754	36%

Source: UNODC (2007) *Afghanistan Annual Opium Poppy Survey*, 16.

or 20% of the US\$320 billion global illicit drug trade. It also estimates that 11.3 million heroin users pay around US\$56 billion to drug dealers per year. Here a question arises that on what extent opium financially benefits to the Afghan poor farmers? In Afghanistan, the annual gross returns on poppy, assumed by UNODC from 1994 to 2000 average prices at harvest time, have fluctuated between a low of US\$23/kg and a high of US\$40/kg. In 1995 to 2001 until poppy ban there was a gradual increase of income from opium production. In 2001, gross income/ha opium prices increased from US\$7,321.2 to US\$16,207.6 and 738,211 more people worked in 2002 (UNODC, 2003, 102-221).

However, as UNODC estimation indicates that the actual net return received by the sharecropper (farmers) is substantially lower than the figures cited. Most of the sharecroppers might receive very low returns on opium crop, because they sell their entire crop under *Salaam* system in advance at rates that is often around half the harvest price (UNODC, 2003, 62). While, rich source acquire more worth by selling opium off the season. Also, landowners buying strategy at harvest rates from sharecroppers' works very well, they have dual incentives from one crop.

For instance, analyzing the landowner's share in input, by providing fertilizer, farm power and other needs for crop cultivation are marginal. At a rough estimation by UNODC survey approximately US\$170/ha, a landowner would spend on poppy by using his initial input. Thus, he can receive a net return on, of the equivalent of US\$1,957.5/ha compared to just US\$212.75/ha for a sharecropper. This estimation illustrates the net income from poppy cultivation insufficient to meet the basic needs of 13 members of an average household. Only one factor influence to involve in poppy cultivation is the cost of the family labor, in other words sharecropping household is loss in opium poppy cultivation.

However, in terms of net income as surveys of UNODC estimated that Afghan poppy farmers earned about US\$6.4 billion between 2002 and 2008. On the other hand, Afghan opium traffickers acquired about US\$18 billion from local opium processing into its derivatives heroin, morphine, etc and its smuggling. Due to the high margin in terms of cost of labor, where family labor perceived to be free and its use would reduce the labor cost, that makes poppy profitable. Therefore, it is one of the major reasons for high poppy cultivation in Afghanistan. However, International Monetary Fund (IMF) country report (2003) estimated that on one hectare of poppy cultivation requires, on average about 350 person/day compares with 41 person/days for wheat or cereals. It is an important consideration for farmers supporting a large household in relation by using family free labor (IMF, 41). Traditionally, Afghans tend to marry with more than one wife, an average family members are 13-14 people. Just provide food to a large family in Afghanistan is quite hard. Therefore, poppy cultivation is only attractive source, where use of household labor has become a common strategy in poppy producing regions.

However, poor Afghan farmers' primary strategy is to minimize the cost of labor and maximize the use of family member, in different varieties of poppy serves to increase the amount of land that can be cultivated. Meanwhile, Afghan farmers' second strategy is to use staggered planting. It allows households to spread the demand for family labor and reduce the risk of crop failure.

V. Limitations

This study has some limitations, with respect to the background section (the first and second sub questions of economic overview). It has encountered the lack of previous studies and periodic data by independent variables such as WDI. In addition, this study lacks some of required data of the past in water resource and irrigation infrastructure. Moreover, lack of reliable and actual data in the analysis section is a significant limitation to analyze the actual profitability and the real income of Afghan farmers by poppy cultivation. However, in analysis section net income and actual returns to traders or traffickers and farmers are based on UNODC perceptions. This study merely seeks to present some baseline analyses that can contribute to further and more rigorous research endeavors to analyze the net returns from opium production.

VI. Conclusion

The last three decades of Afghanistan's history, long war against Soviet invasion and internal conflicts among various warlords in order to sole control of Kabul, are the crucial factors behind lasting poverty. Where long war and internal conflicts destroyed the whole infrastructure in Afghanistan, there also made the largest producer of the illicit opium. Opium is banned in the world, while Afghanistan is producing 90% of illicit opium of the world. However, this study analyzed the role of opium in the local economy of Afghanistan. As this study has illustrated, opium role is decelerator in the local economy, it does not change the poor Afghan farmers' life standard.

Nevertheless, opium brings billion of dollars to Afghans, but a substantial proportion of Afghans population struggles to survive on less than US\$1/day. The average per capita GDP is estimated to be about US\$300 for 2005 and 2006. This extreme

poverty is also reflected in the country's very low human development rank in the 2007 United Nations Human Development Index (HDI) report 2009, (181 out of 182 countries, HDI<0.352) although in 2004 HDI ranking was (173 out of 178 countries, even higher than current one. In 2004 opium production was 4,200mt cultivated on 131,000ha area, while, in 2007, opium production was 82,00mt it cultivated on 193,000ha. Thus, HDI ranking suppose to be higher in 2007 compare to 2004, its HDI value of 0.352 falls at the bottom of the list of low human development countries. However, the increase of poppy cultivation is decreases more the licit economic growth and more negatively affect of poor Afghan farmers' life standard.

Moreover, the opium is also causing very dangerous addiction of heroin, which has been already penetrated throughout the Afghanistan. Due to this addiction, everyday numbers of poor Afghans are falling in incurable disease such as HIV and AIDS. In addition, it has major adverse effects on security, political normalization, and state building, as well as on sustainable longer-term economic development.

Undoubtedly, insecurity, lawlessness, political and economical instability along with high opium production is the major reasons of Afghans' poverty. Although, Afghanistan has plenty of water resource for irrigation purpose for its agriculture sector, but collapsed irrigation infrastructure is also one of those driving factors behind poppy cultivation dependency. As long as large-scale opium production exists in Afghanistan, the threat to poverty, insecurity, lawlessness and other social-economical problems will remain in Afghanistan and its neighboring countries.

Combating drug production requires a good understanding of farmers' motivations and constraints as well as the development of measures that can address those motivations and constraints. It is necessary to provide a credible alternative to the decision to cultivate poppy. Even though, the Afghan government, US, and NATO forces are committed to control opium production and trade in Afghanistan, in reality weak institutional capacity, political insecurity, lawlessness, and ongoing fights against Al-Qaida do not provide the best framework for promoting the socio-economic and governance conditions that will be essential to eliminating illicit poppy cultivation and trade.

Lastly, there is a need to develop an understanding of the processes by which poor households move from illicit to licit livelihoods. International community's role can be found in the initiative for sustainable development and poverty reduction. After discussing both positive and negative aspects of poppy cultivation, to conclude this study with a question for further research: why counternarcotics strategies are not successful in Afghanistan?

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