

United States Marine Corps
Command and Staff College
Marine Corps University
2076 South Street
Marine Corps Combat Development Command
Quantico, Virginia 22134-5068

MASTER OF MILITARY STUDIES

TITLE:

POPPY ERADICATION IN AFGHANISTAN:
WHY ISN'T IT WORKING?

SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF MILITARY STUDIES

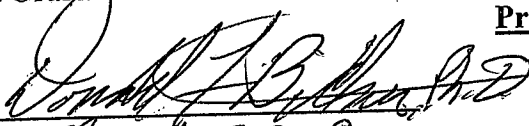
AUTHOR:

Special Agent Sharon L. Firewicz
Drug Enforcement Administration

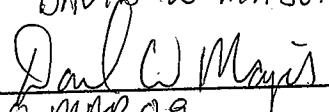
March 17, 2009

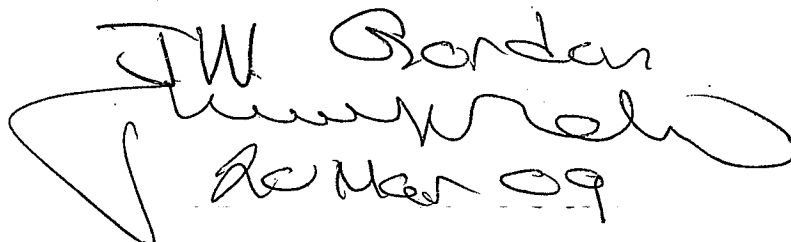
AY 08-09

Mentor and Oral Defense Committee Member: Donald F. Bittner, Ph. D.
Professor of History

Approved: 
Date: 20 March 2009

Mentor and Oral Defense Committee Member: _____

DAVID W MAJOR LTC
FACAD
Approved: 
Date: 20 MAR 09


JW Gordon
20 Mar 09

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE 17 MAR 2009		2. REPORT TYPE		3. DATES COVERED 00-00-2009 to 00-00-2009	
4. TITLE AND SUBTITLE Poppy Eradication in Afghanistan: Why Isn't It Working?				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) United States Marine Corps,Command and Staff College, Marine Corps Combat Dev,Marine Corps University, 2076 South Street,Quantico,VA,22134-5068				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 45	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

DISCLAIMER

THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF EITHER THE MARINE CORPS COMMAND AND STAFF COLLEGE OR ANY OTHER GOVERNMENTAL AGENCY. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT.

QUOTATION FROM, ABSTRACTION FROM, OR REPRODUCTION OF ALL OR ANY PART OF THIS DOCUMENT IS PERMITTED PROVIDED PROPER ACKNOWLEDGEMENT IS MADE.

Executive Summary

Title: POPPY ERADICATION IN AFGHANISTAN: WHY ISN'T IT WORKING?

Author: Special Agent Sharon L. Firewicz, U. S. Drug Enforcement Administration

Thesis: Poppy eradication in Afghanistan is not working. Despite the millions of dollars spent annually by the United States government, non-government agencies, and a variety of international partners, Afghanistan continues to be the global leader in the production of this illicit crop.

Discussion: Decades of war and political instability are making any attempts at eradication of the opium poppy in Afghanistan virtually meaningless. This landlocked and mountainous country, which has experienced years of drought, possesses limited ability to successfully produce most cash crops. Corruption and a lack of infrastructure make exportation difficult for replacement crops such as wheat or saffron, which can grow in this arid environment. Farmers drowning in debt are forced to plant poppy just to survive. The southwest, which contains the greatest concentration of poppy plants, is controlled by the Taliban. This violent terrorist group is utilizing funds from the sale of opium to support their reign of terror.

Recognizing that our supply-side focus in the war on heroin is a failure, a partial change to the demand-side must be examined. Dissemination of information through education would be much less expensive and could prove beneficial. Embarking on a program to utilize Afghan poppy for the licit production of morphine for world wide consumption would aid the country in several ways: First, by improving the economic conditions of the people of Afghanistan; second, by engaging the tribal leaders at the local level to coordinate this program; and, finally, by helping to alleviate the world's growing demand for morphine-based pain medicines.

Conclusion: Afghanistan has become the global leader in the production of opium poppy due to the failure of eradication. Alternatives to eradication, including replacement crops and the licit production of medicinal opium, must be explored.

TABLE OF CONTENTS

	Page
PREFACE	v
INTRODUCTION	1
HISTORY	1
THE POPPY PLANT	3
HEROIN PRODUCTION	3
ERADICATION BEGINS	5
AFGHANISTAN THE COUNTRY	9
CHANGES IN AFGHANISTAN	10
ALTERNATIVE CROPS	14
ALTERNATIVES TO ERADICATION	15
INDIA AND TURKEY	16
CONCLUSION	21
ENDNOTES	23
BIBLIOGRAPHY	26
APPENDIX A - A Brief History of Heroin	30
APPENDIX B – Basic Facts about Heroin	32
APPENDIX C – Photographs of Heroin	33
APPENDIX D – Opium Production in Afghanistan Chart	34
APPENDIX E – Map of Production in Afghanistan by province	35
APPENDIX F - Map of Processing labs in Afghanistan	36
APPENDIX G – List of Afghanistan Agencies	37
APPENDIX H - Personal Interview	38
APPENDIX I – Political Cartoon	39

PREFACE

I have been a Special Agent with the Drug Enforcement Administration (DEA) for over 20 years. As a law enforcement officer, I have found that initiating investigations, arresting drug traffickers, and testifying to put these criminals behind bars is a very time and emotionally consuming experience. There isn't much time to consider how and why these people exist. Contemplating the current and future operations in Afghanistan naturally led me to consider the source of a huge drug problem in the United States – the production of heroin from the poppy plant. The focus of this paper is to examine why the efforts to eradicate opium poppy in Afghanistan are failing. Although poppy is grown in other countries, I will limit my examination to the supply side in one country - Afghanistan. Future students may wish to investigate the demand side or poppy production in other countries.

I utilized sources from the DEA and the Central Intelligence Agency (CIA) because both have been involved extensively in intelligence gathering and active operations in Afghanistan. I also utilized personal interviews to validate some of the government conclusions, as well as appropriate secondary and other primary sources.

I would like to acknowledge first and foremost my family who have provided me with support, love, and patience throughout this endeavor. I would also like to thank my mentor, Dr. Donald F. Bittner, and CIA Chair James Davis, at the Command and Staff College, for all of the assistance and enthusiasm.

Contemporary Issue

The topic of this paper is central to the current state of affairs in Afghanistan and to the pending deployment of the United States Marine Corps to the area. The Marine Corps will be simultaneously fighting the Taliban, deteriorating security conditions, government corruption, and poppy eradication. There have been numerous newspaper articles about Afghanistan and the ongoing battle against opium poppy, some written as recently as February and March 2009. Most agree that it will be a difficult fight and that some tough decisions will have to be made. Here are several examples:

- Jim Landers, *Dallas Morning Star*, in an article that appeared in the *St. Louis Post-Dispatch*, 8 February 2009, discusses how the Texas National Guard's Agribusiness Development Teams are working with farmers in Afghanistan on wheat-seed farm project.
- Joel Brinkley, a professor of journalism at Stanford University, in an article that appeared in the *Fredericksburg (VA) Free Lance-Star*, 15 February 2009, suggests an ultimatum to President Hamid Karzai – immediate eradication of poppy or you can forget continued support from the United States.
- Jeff McCausland, a senior fellow at the Carnegie Council for Ethics in International Affairs (New York), in an article that appeared in the *Fredericksburg (VA) Free Lance-Star*, 5 March 2009, focuses on massive government corruption continuing the poppy trade, and emphasizes that the military must utilize community –based security to provide the people with protection.

INTRODUCTION

The Islamic Republic of Afghanistan is a country in turmoil. It has been involved in numerous civil wars, invasions, and occupations for millennia. With few natural resources, this landlocked state is further plagued with a harsh climate and a rough terrain. Most of it consists of extreme desert and high mountainous conditions. Decades of fighting have left the country desperate for a legitimate government and strong economy. This paper will address the efforts put forth by the United States and other international partners committed to assisting Afghanistan in the eradication of the opium poppy. Despite multi-national and multi-million-dollar endeavors toward eradication, training, and security, Afghanistan remains the largest producer of **illicit** opium in the world. There are a number of reasons for the failure of this supply-side eradication program which will be discussed. This paper will also provide information on the transformation of two countries – India and Turkey – which moved away from the illicit production and toward the **licit** production of opium for medical use. Finally, it will offer suggestions on what needs to be accomplished in Afghanistan before the control of opium can be accomplished.

HISTORY

In December 1979, the Soviet Union invaded Afghanistan, to attempt to preserve stability on its southern border and support a fragile communist government. What began as an invasion soon became a counterinsurgency against the mujahideen (Freedom Fighters). It was during this period that the Afghans began using what little resources they possessed to help themselves: They began trading opium and heroin for weapons to fight the Soviets.¹ Afghan drug dealers targeted the Russian soldiers during the invasion,

intentionally supplying them with drugs in the hope of creating addicts. Not only did this create future customers for the drug dealers, but such action also temporarily took the effected Russian soldiers out of the fight. Once the Soviets finally withdrew their troops in 1989, the power vacuum provided an opportunity for another coup.

This time the Taliban, a fundamentalist Sunni Islamist movement, took over the government in 1996. Originally against the cultivation of opium, the Taliban soon discovered that opium could provide a significant source of much-needed revenue. The Taliban placed a 10-20% zakat or tax on the cultivation and processing of poppy.² Thus, the Taliban actively encouraged farmers to grow poppy and openly provided tips on how to increase production levels.³ The Taliban then used the money earned from the poppy to fund their ongoing terrorist activities.⁴ However, in July 2000, the Taliban declared a ban on poppy cultivation, proclaiming it was against the Qur'an and the principles of Islam. More likely, the Taliban had several years' worth of opium in storage warehouses. Since both heroin and raw opium can be stored for years without losing potency, the Taliban could continue making money without cultivating new plants. It is further speculated that the Taliban declared the ban to decrease international pressure on them and increase the price of opium.⁵ Because of this ban, opium production dropped dramatically from 3,300 metric tons in 2000, to 200 metric tons in 2001. Unfortunately, production skyrocketed to 3,400 metric tons in 2002. Why? The United States and its allies drove the Taliban out of power in October 2001, but debt-laden farmers needed to make money. Opium poppies were the very lucrative, time tested way to do just that.⁶

(See Appendix D)

THE POPPY PLANT

Opium has been a part of history for thousands of years. (See Appendix A)

The scientific name for the opium poppy is *papaver somniferum*, Latin for “sleep-inducing poppy.” It is an innocent looking flower until the resin within the pod is removed and processed into the highly addictive and often deadly drug called heroin.

(See Appendix B) Heroin, which has no medical use in the United States, is listed by the Drug Enforcement Administration as a Schedule I narcotic.⁷ In the United States, it is a felony to sell, manufacture, distribute, possess, or use heroin. Before 1942, opium poppies were grown in the United States for ornamental purposes. In that year, Congress passed the Opium Poppy Control Act, which made the possession of the opium poppy plant illegal in the United States.⁸

For decades, cultivation of the opium poppy was predominantly in Southeast Asia (SEA), in what became known as the “Golden Triangle” – Burma (now Myanmar), Laos, and Thailand. Beginning in the 1990’s, production in Southwest Asia (SWA) rapidly increased. Afghanistan, Pakistan, and Iran, called the “Golden Crescent,” now is the source of majority of the world’s **illicit** opium.⁹ **Licit** opium poppies are grown on government regulated farms in several countries, including India, Turkey, and Australia.

HEROIN PRODUCTION

Opium flourishes in dry and warm climates. The poppies can grow in a variety of soils, but the best is sandy loam, which has good moisture retention. The plant requires long days and short nights to develop flowers. The flowers bloom about three months after planting. Inside each of the flowers is an egg-shaped pod that contains a white-milky substance. To harvest this substance, which is commonly referred to as “sap”, the

pod is lanced. The sap that oozes out turns into a dark brownish-black shade and thickens to a gum-like consistency. This is raw opium. The raw opium is then shipped to a refinery or laboratory. For many years, the raw opium was transported into Pakistan via trucks to be processed into heroin. Most of the labs were located in the Northwest Frontier Province. (NWFP)¹⁰

Today, about 80% of the opium is now processed inside Afghanistan, mostly in the south, in laboratories protected by the Taliban. There are two main reasons for this change in the processing location. Most significantly, Pakistan began increasing its law enforcement efforts against drug production and trafficking. Also, moving production into Afghanistan was not only safer but also put the labs closer to the source of the opium. This resulted in more opium being processed in less time, with less risk, and at a lower cost. In an illegal laboratory, raw opium is first converted into morphine base. This morphine base is then further processed into heroin by distilling it with several dangerous chemicals. The conversion process is relatively simple and does not require sophisticated equipment.

The conversion rate of morphine base into heroin is 1:1. Cooks can set up large labs which can be camouflaged, or they can utilize small and mobile labs.¹¹ The color of the heroin depends on the impurities remaining after the processing and any additives that the cook may utilize. Most heroin will either be white (**See Appendix C**) or one of three grades of brown. DEA chemists have the ability to associate a sample of heroin with a specific production process or "signature" unique to a particular geographic source area. They classify SWA heroin by three production signatures:

1. SWA-A – is medium dark brown in color, and is usually smoked or mixed with lemon juice and injected

2. SWA-B – is pure white or light cream in color, highly refined, and is usually injected or snorted
3. SWA-C – is tan in color, less refined, and is usually injected or snorted¹²

ERADICATION BEGINS

In October 2001, the forces of the North Atlantic Treaty Organization (NATO) ousted the Taliban. In December 2001, at the Bonn Conference, an interim government was set up in Afghanistan. This occurred after Afghanistan requested international assistance from the United States and Great Britain (UK). The goal was to combat the ongoing poppy cultivation. The UK was designated as the leader for international counter-narcotic assistance and policy in Afghanistan under the United Nation Assistance Mission in Afghanistan.¹³ There were three decrees issued by the Bonn Conference:

1. January 2002 – banned opium poppy cultivation, heroin production, trafficking, and drug use,
2. April 2002 – began eradication program to destroy the poppy crop, and
3. September 2002 –enforcement measures of the bans spelled out ¹⁴

In spring of 2002, British officials began focusing on eradication efforts. There are two types of eradication: negative and positive. **Negative eradication** is the forcible removal of the poppy plant. It can be accomplished through manual or aerial means. **Positive eradication** is the use of crop substitution programs.¹⁵ To date, all efforts in Afghanistan have been through manual ground-based-negative eradication. Utilizing sickles to cut down the plants or heavy machinery to uproot them, the poppy plants are then destroyed by burning. This process of ground-based eradication is physically and financially costly due to poor road infrastructure and ongoing security threats. Violence is initiated not only by the Taliban members protecting their financial interests, but also

by poppy farmers who feel their livelihood threatened. Their fear is two-fold: they do not want to lose their livelihood and they oppose another foreign outsider occupation similar to those of the past. The United States has strongly advised that aerial eradication would be much more effective and less costly.

Unfortunately, both the Afghan government and Afghan farmers are against aerial methods. Afghan President Hamid Karzai, elected in 2004, has said, "If we don't eliminate drugs, drugs will eliminate us."¹⁶ Karzai vows to break the grip that opium has on his country. He emphasizes ground-based-negative eradication and the use of alternative crops, such as wheat, maize, and barley. Amidst this, President Karzai, despite intense urging from the United States, has refused to allow aerial eradication. He has stated that spraying could result in the indiscriminate killing of all plants – not just the poppy plant. This would create even more hardship for an already desperate economy. Furthermore, aerial eradication could potentially contaminate the water supply and could produce harmful effects to the environment and public health.¹⁷

A number of agencies within the United States Government are involved with Afghanistan in this fight. These include the Department of Defense (DOD), United States Agency for International Development (USAID), and the Drug Enforcement Administration (DEA). The lead agency is the International Narcotic and Law Enforcement Bureau (INL), which falls under the State Department. INL coordinates all counter-narcotic programs for the United States, with the UK, in Afghanistan. The United Nations Office of Drug Control (UNODC), located in Afghanistan, monitors these programs and issues annual reports on the progress. It should be noted that the NATO International Security Assistance Force (ISAF) does not engage directly in eradication or

interdiction operations. Despite requests by both the United Nations and the government of Afghanistan for NATO troops to assist, NATO has stated that its mission does not permit for that.¹⁸ However, NATO forces have provided support in the form of intelligence and by providing training to Afghan forces. Obviously, the government of Afghanistan has the final say in all efforts. The countries of Italy and Germany also assist in providing non-military funds and training. Originally, United States military units, outside of the NATO command, did not play a role in eradication. However, in 2005, their role was expanded to include training the Afghan police and limited interdiction mission support.¹⁹

In 2003, the interim Afghan government developed the National Drug Control Strategy (NDCS) in consultation with experts and officials from the UK, the United States, and the UNODC. The NDCS set very lofty goals, which it quickly realized would never be achieved, namely to decrease cultivation by 70% by 2008 and eliminate cultivation and drug trafficking by 2013. In 2006, they updated their strategy and reworded their plan. It found that setting firm dates for eradication was unrealistic based on the lack of success of the program, which resulted in an increase in production. (See **Appendix D**) Based on lessons learned, the NDCS amended the wording to “secure sustainable decrease.”²⁰

The NDCS has stated that eradication will be by manual or mechanical ground-based negative means only. The NDCS refuses to allow aerial eradication in Afghanistan, citing the same concerns as President Karzai – risks to health and the environment. It believes that the numbers prove that ground-based approach is working. In 2008, according to the State Department, 29 of the 34 provinces are now poppy-free or have low levels of

production, which they categorize as less than 6000 hectares (one hectare = 10,000 square meters.) In 2006, only six provinces were poppy-free; in 2008, a total of 18 are now considered poppy-free, as opposed to simply having low levels of production.²¹

The Political Counselor for the Embassy of Afghanistan, Ashraf Haidari, stated that opium production “funds global terrorism and the Taliban’s brutal terrorist activities in Afghanistan and Pakistan.”²² He credits the successes in reduction across his country as a result of getting the governor of a province and the district leaders involved at the local level. By providing a reward system to the farmers, they are encouraged to abandon poppy and plant alternative crops. This is an example of the **positive eradication** method described earlier. The rewards utilized are additional resources and supplies which help increase their standard of living.

However, most declines in production have occurred in the northern and central provinces. The Taliban still maintain control over the southern and western provinces which are the center of all poppy cultivation. In fact, 93% of all opium poppies are grown in only five provinces – Helmand, Kandahar, Uruzgan, Nimroz, and Farah.²³ (See **Appendix E**) Helmand alone produces 60%. Prior to 1999, Burma produced the majority of the world’s opium. In 1999, Afghanistan surpassed Burma and became the world’s largest producer of opium poppies.²⁴ Currently, approximately 60% of the country’s gross domestic product is obtained from the illegal sale of opium. Despite the United States having spent millions of dollars to eradicate the opium poppy, cultivation in Afghanistan is still out of control. In 2008, Afghanistan produced 93% of the world’s illicit opium.²⁵ The UNODC estimates that in 2007, between the imposed tax and

revenue from the processing and trafficking of opium, the Taliban raised approximately \$270 - \$470 million.²⁶

AFGHANISTAN – THE COUNTRY

Why do drugs flourish in a country like Afghanistan? Decades of unemployment, underdevelopment, and war have resulted in desperate conditions. A lack of governance and the presence of a violent terrorist group like the Taliban have made the nominal nation weak.²⁷ Afghanistan is a pseudo state. It has the outward structure of a central government that is also weak and corrupt. Furthermore, the government is not recognized nor respected outside of Kabul. Hence, it lacks both power and authority.²⁸ Thus Afghanistan can be viewed as a truly failed nation state with numerous ethnic groups and languages which exist together in one place. The government does not provide what a government is expected to provide to its people, namely, goods and services, law and order, security, and stability. The true authority in Afghanistan is tribal, which works at the local level.

In a country with few options, opium is the answer. It is easy to grow in this mountainous, arid environment. With the breakdown of law enforcement and ongoing corruption, there is little chance of facing any penalties for growing opium. The lack of predictable rain and limited irrigation diminishes the possibilities for farmers to plant other products. Opium requires significantly less water than replacement crops such as wheat.²⁹ Afghanistan experienced a severe drought from 1998- 2001, which created massive debt for farmers. Rather than experiment with a replacement crop, which might or might not grow and have been profitable, opium was a proven, quicker, and more predictable source of income. Ultimately, there is no crop more lucrative than illicit

drugs. Although, the farmer makes significantly less money than the landowner - who makes less than the drug dealer - the amount of risk frequently determines the payback. The farmer in Afghanistan faces little to no chance of prosecution; the dealer, depending on the amount of drugs seized and if he is apprehended, can face a mandatory sentence of life in prison in a country like the United States.

Who is more affected by Afghanistan heroin? In the 1970's and early 1980's, the main source of supply for heroin in the United States came from Southwest Asia (SWA), including Afghanistan and Turkey.³⁰ With eradication and licit opium production successful in Turkey, that country was no longer a source country for illicit production. Afghanistan then became the main source of supply for other countries, including Russia, China and Great Britain. Today, 90% of the heroin produced from Afghanistan poppies is transported into Europe and central Asia to supply addicts in those countries.³¹ The biggest consumers of heroin in the world are North America and Western Europe. DEA has two programs, the Heroin Signature Program and the Heroin Domestic Monitor Program, which involve the in-depth chemical analysis of heroin to determine, among other things, the purity and geographic source area.³² The United States consumes less than 10% of Afghan heroin; the other 90% is supplied by South America.³³ Still, results indicate that SWA heroin can be found mainly in large metropolitan areas of the United States, including Atlanta, Chicago, Detroit, New York, and Washington, DC.

CHANGES IN AFGHANISTAN

In Afghanistan in late 2002, the Ministry of the Interior established the Counter-narcotic Directorate (CND) order to consolidate and coordinate poppy eradication efforts. The CND looked at a variety of issues which were hampering the success of the program

nationwide. They determined that simply focusing on eradication was not working. The interim government of Afghanistan decided to adopt a five pillar strategy for poppy eradication:

1. Judicial reform
2. Law enforcement/interdiction
3. Alternative livelihood
4. Demand reduction/eradication
5. Public awareness/information

In 2004, the CND was transformed into the Ministry of Counter-narcotics (MCN) in Afghanistan, which remains part of the Ministry of the Interior. All counter-narcotic and law enforcement agencies in Afghanistan are supervised by the Ministry of the Interior. (See Appendix G) Historically, the Afghan government has lacked the ability to efficiently execute nationwide demand reduction campaigns, due to its lack of power and authority. A new focus, involving religious leaders and local communities, may be more effective than past efforts to raise awareness because they are recognized as the real sources of power and influence in Afghan society.

A lack of trained judges and facilities in the past has caused the prosecution of drug traffickers to be a low priority. Working in cooperation with INL and the U. S. Department of Justice, the Afghan government now has judges specially trained for complex and high profile drug cases. The DOD, outside of the NATO command, provided support to the Afghans to build a secure court facility and a maximum security prison near Kabul. These measures will greatly assist the much needed judicial reform pillar. As for the alternative livelihood pillar, the United States Government along with

USAID have provided education, micro-credit lending, supplies, irrigation canals, seeds and fertilizer. USAID distributed corn and peanut seed, because of the high returns currently being received for these crops across the world.³⁴ All of this is being distributed to farmers through local tribal leaders to aid farmers and decrease the poppy.

China successfully eradicated opium by means of mass executions and imprisonment. However, such methods are not approved by the international community. Some countries, such as Thailand, utilized general economic development, alternative crops, and increased law enforcements efforts to significantly decrease production. Utilizing international donor support, Thailand undertook extensive road construction in order to bring these alternative crops to market. It took more than a decade, but the program has been relatively successful.³⁵

In August 2004, the general Council of Ulema, the Islamic Clergy of Afghanistan, issued a fatwa, a religious ruling, forbidding the cultivation, production, and consumption of drugs in Afghanistan.³⁶ The Taliban blatantly ignores this ruling. They justify their involvement in poppy cultivation, heroin production, and heroin trafficking by exporting the drug to other countries. Consumption of heroin by non-Muslim and non-Afghan individuals and countries is not their concern. The heroin traffickers provide the Taliban with proceeds from drug sales, which the Taliban uses to fund their insurgency and purchase weapons.³⁷ The Taliban then provides the traffickers and farmers with protection for their poppy fields, drug routes, and personnel. Most importantly, the Taliban provides protection from interference by the government to disrupt this profitable arrangement.³⁸

The six countries that border Afghanistan – Iran, Pakistan, Turkmenistan, Uzbekistan, Tajikistan and China have provided safe havens not only for drugs and drug traffickers. They also provide the precursor chemicals necessary to produce heroin. According to Haidari, “most precursor chemicals come in and drugs go out of Afghanistan **through** Pakistan.”³⁹ Counter narcotic officials in Afghanistan would like to see more cooperation from their neighbors to support the United Nations Security Council Resolution 1817, passed in July 2008. This resolution calls upon all member states to curb the flow of precursor chemicals into and the export of narcotics out of Afghanistan.

A precursor is a chemical that is essential to the production of a controlled substance; without the precursor, the drug could not be manufactured. China, which has a large licit chemical industry, has become one of the largest producers of precursor chemicals. The main precursor in heroin production is acetic anhydride, which is not produced in Afghanistan and has no legal use in that country. Therefore, it must be imported. There are reportedly 167 unofficial border crossings between Afghanistan and the neighboring countries, including China. (See Appendix F) The tremendous amounts of acetic anhydride required to make heroin can come directly from China into Afghanistan. The UNODC has stated that barrels imported into Afghanistan labeled “machinery oil” may account for a considerable amount of the precursors imported from China. Limited enforcement abilities, corruption, and a lack of training have made the problem even worse.⁴⁰

The United States has been a large contributor in efforts to curb all aspects of the drug trade through DEA initiated programs such as Operation Containment. Begun in 2002, this operation was a large scale multi-national law enforcement effort which focused on

high value targets. These targets are identified utilizing intelligence from all members and prioritized based on input from each. High value targets are usually viewed as the most dangerous/violent groups or the organizations moving the largest amounts of narcotics. DEA led the operation which consisted of 19 member countries from Central Asia, the Caucasus, Europe, and Russia. It resulted in significant seizures of precursor chemicals, opium, heroin, and money. During the execution of Operation Containment, the largest seizure of morphine base was made in Turkey, a total of 7.4 tons.

Two main drug trafficking routes have been identified by the UNODC which involve several of Afghanistan's neighbors. One runs from Tajikistan and Kyrgyzstan, through which heroin moves from Northern Afghanistan into Russia and Europe. The other goes through Turkmenistan and the Caspian Sea into Russia.⁴¹ The goal is to choke off the flow of drugs and chemicals before they can spread to border markets.

ALTERNATIVE CROPS

Saffron, which can be used for herbal medicine, food seasoning, perfume, and dye, is one replacement crop currently being grown in western provinces of Afghanistan, for example in Herat.⁴² Saffron comes from the saffron crocus, a purple flower, which grows well in the soil and climate of Afghanistan. Saffron is very expensive. One hectare of saffron can produce approximately 12 kilograms which would sell for \$1,500 US per kilogram locally and as much as \$2,200 US per kilogram in western countries.⁴³ Another alternative and rather profitable crop is pomegranate. This fruit tree also grows well in the Afghan climate and it can survive considerable drought. The pomegranate only needs to be planted one time and will grow for years, unlike many vegetables which need to be replanted every year and require irrigation. The fruit is rich in anti-oxidants, which is

very popular in the United States and other health-conscious countries.⁴⁴ A major problem with most replacement crops, including saffron and pomegranates, is exportation. The lack of infrastructure presents insurmountable issues when trying to transport perishable crops to market. Afghanistan is severely lacking in transportation and storage facilities for these perishable items. A majority of the product can then be ruined before it makes it to the profitable markets that are in the United States and Europe.⁴⁵ A solution to this problem would be to build cold-storage facilities to enhance survivability of the product and utilization of refrigerated shipping containers.

ALTERNATIVES TO ERADICATION

The International Council on Security and Development (ICOS), formerly known as The Senlis Council, is a European drug policy research institution. ICOS is against poppy eradication, especially in Afghanistan. It proposes that six wealthy countries (the United States, France, Canada, UK, Germany, and Australia) consume more than 80% of the world's supply of morphine - while developing countries, which account for more than 80% of the world's population, use only 5%. Affordability is the reason for this disparity.⁴⁶ Morphine, which is derived from the opium poppy, is used to treat a variety of illnesses, including chronic pain, cancer-related pain, and HIV/AIDS. As the occurrences of these diseases are on the rise across the world, so is the demand for morphine.

ICOS advocates the **cultivation of licit poppy** in Afghanistan through a program entitled Poppy for Medicine. There are a number of problems that would need to be addressed before such a program could be implemented, namely, a strong government, removal of the Taliban, and a stable and secure country. However, the idea is based on

two key elements that already exist in Afghanistan: a surplus of poppy and a strong village-based system. The concept behind Poppy for Medicine would be to license farmers to legally cultivate poppy which would then be converted into morphine tablets right in the same village. Government regulation and monitoring would be conducted by the local officials, which garner more respect than the unstable central government. The entire process and profits would remain within and be controlled by the village.

This is certainly a valid concept and one worth pursuing. It would require significant military commitment to remove the Taliban and secure the area. It would also demand extensive international cooperation and funding to initiate and maintain. However, if the ultimate goal is to stabilize Afghanistan this avenue should be explored.

INDIA AND TURKEY

ICOS cites two countries that have had success with similar programs. India has been licensing poppy farmers since 1947.⁴⁷ By regulating the licit poppy cultivation and enacting stringent penalties for drug abuse, India was able to decrease illegal consumption and increase the amount of poppy legally manufactured into medicine.⁴⁸

The harvests of all licensed farmers are sold directly to the Indian government, which then controls the production of pharmaceutical grade morphine and other opiates. Strict controls are in place to assure the purity. This medicine can then be distributed within their country or exported around the world. India earns an estimated \$40 US million per year in this program. India is the only country that exports raw opium; all of the other authorized countries export poppy straw, which is defined as all parts of the opium poppy except the seeds.⁴⁹

In the 1960's, Turkey was one of the world's largest producers of illicit opium. Approximately 80% of all heroin entering the United States at that time originated in Turkey.⁵⁰ The United States needed to do something drastic to stop this flood of narcotics, which was creating significant political problems between the two countries.⁵¹ Washington wanted Turkey to eradicate all poppy cultivation in Turkey. The Turkish government was very much against such a policy because poppy was a large part of their culture, as the Turks utilize poppy for both food and medicine. Items like poppy seeds and poppy oil were a part of their daily life. A main city in Turkey is Afyon, which means opium.⁵² The idea of removing the only source of income for thousands of farmers was unrealistic. The United States threatened to stop all aid to Turkey unless Ankara agreed to a ban on all opium production. Turkey reluctantly agreed. In 1972, Turkey banned all cultivation and production of opium poppy.⁵³ The result was a worldwide shortage on medical opium.

After years of negotiations, Turkey and the United States finally came to an agreement. Turkey moved from the out-of-control illicit production of poppy to the licensed, regulated, and government-controlled production of morphine, codeine, and other opiates. This program has now been in place for over 30 years. The Turkish government inspects the poppy fields and monitors cultivation and production of the morphine. There are strict penalties for any violations or shortages in the harvest, including long jail sentences and banishment for life from being licensed to legally cultivate poppy. Turkey exports 95% of the morphine produced, from which they earn and estimated \$60 US million per year.⁵⁴

In 1981, the DEA entered into an agreement with Turkey and India, under 21 CFR 1312 – Authorized Sources of Narcotic Raw Materials.⁵⁵ This agreement, commonly referred to as the 80/20 rule, provided both countries with “special protected market status.” This rule states that the United States must purchase at least 80% of the narcotic raw materials entering this country from Turkey and India. It is still in effect today and is strictly enforced to ensure that both countries maintain production of licit poppy only. Although Turkey and India are considered the “traditional suppliers” of these raw materials, five other countries have been afforded the “non-traditional” status by the United States – France, Poland, Hungary, Australia, and Spain. These countries produce much less licit opium than the traditional sources. According to the agreement, the United States cannot purchase more than 20% of the narcotic raw materials from those five countries. Yugoslavia was on the list at one time, but was replaced by Spain in January 2008 due to low production levels and presumably, the demise of the unified Yugoslavian state.

Under the United Nations, the Single Convention on Narcotics was passed in 1961. It was a noble concept, but it lacked enforcement provisions due to compromises made to protect various interests.⁵⁶ This convention set forth the criteria for the control of cultivation, production, possession, distribution, and trade of **licit opium** and its derivatives for medical and scientific use. The convention also seeks to limit the amount of licit drugs being diverted for illicit means. Any country which cultivates poppy for medical use must do so according to the rules set forth by this convention. Due to the fact that there were a number of different countries seeking to grow poppy, and all had their own various treaties and agreements, the International Narcotics Control Board

(INCB) was established in 1968. The INCB integrated all of the different national treaties into one internationally accepted agreement. The INCB provides supervision and guidance, but no enforcement, to balance the worldwide legal demand for opium with the worldwide supply.

According to the INCB, a recognized state government agency must be responsible for the establishing, licensing, purchasing, importing, exporting, trading, and maintaining stock of the opium. In Turkey, the government agency in charge of the licit opium is the Grain Marketing Board, which is part of the Ministry of Agriculture. Turkey has only one opium factory. In India, the government agency is the Central Bureau of Narcotics, which is part of the Ministry of Finance. India has two opium factories.⁵⁷

The success of Poppy for Medicine in Turkey is often used as an example of what could happen in Afghanistan. This has occurred because of a number of superficial similarities between the two countries. Like Afghanistan, eradication was attempted in Turkey but failed miserably. The culture and economy were too deeply entrenched in poppy to simply stop the cultivation. Turkey also had an unstable government and a significant portion of its population had no source of income without poppy cultivation.⁵⁸ Both are largely rural countries, with weak economies mainly based on an illicit product.

There are several notable differences between Turkey and Afghanistan. Afghanistan lacks a recognized, strong, and stable government. The lack of security in Afghanistan, due to the presence of the Taliban, is also a significant problem. Until the basic challenges of law and order, security, and stability are achieved in Afghanistan, such a program could not be initiated there.

Although there has been a decrease in the number of provinces which cultivate poppy in Afghanistan, the actual rate of production has increased. With only five southern provinces cultivating, Afghanistan is still producing over 93% of the global supply of illicit opium. Much more needs to be done to decrease that figure, a difficult challenge considering the presence of the Taliban in the area.

Both the United States and the UK are against transforming Afghanistan's illicit poppy cultivation to licit medical use poppy.⁵⁹ According to the State Department, between the presence of the Taliban and the limited regulation capacity of the government Afghanistan, any attempt at **licit opium production** would quickly revert back to illicit production. One significant condition that historically and continually has hampered all efforts at eradication or any other program to deal with opium in Afghanistan: the lack of security. The presence of the Taliban constantly threatens the security and stability of the entire country. The Taliban must be permanently removed and a competent and stable government installed. That will be a difficult task to achieve considering the current pseudo state and tribal culture. Recent history has shown what a weak government and a terrorist organization can do to a country. The extensive corruption found throughout both the government and the police force must be eliminated. Until the people of Afghanistan and the international community can trust and respect those in authority, terrorists will reign. A program like Poppy for Medicine, which requires extensive and close supervision could not be implemented until these efforts are achieved.

CONCLUSION

This paper addresses only the basic production/supply-side of opium poppy in one country – Afghanistan. There is no magic bullet or quick fix to solve the overwhelming problem of illicit poppy cultivation in Afghanistan or the many other problems that face this war-torn devastated country. Although the United States government and the society it represents always prefer immediate gratification, it is not possible in this case. A multi-faceted and long-term approach is the only program that will succeed in ending the overwhelming supply of opium being exported from Afghanistan to the rest of the world. The United States' focus on only the supply side through means of forced negative eradication has failed.

Currently, 100% of Afghan poppy is illicit. Even if only one province could transform to licit production, that will be an accomplishment. Any licit production immediately reduces the illicit production, which is the ultimate goal. Once the farmers and village leaders see that the process is working and the revenue continues, the introduction of replacement crops could then be revisited. High value crops such as pomegranates and saffron can successfully grow there. Of course, this will require development of the infra-structure necessary to get these products to market: roads, cold storage, and refrigerated shipping, are a must. The populace would be more accepting of such programs that would add to their community and not just remove their livelihood. Communities would discover that they can survive without the Taliban and would be more likely to support a strong, honest, and stable government than the terrorists. These changes must be instituted from the tribal level, i.e. bottom and then up. Any association with foreign governments or Kabul would immediately be rejected. They would be more

receptive to education and demand reduction rather than simply fearing the terrorists and loss of income caused by unwanted foreign entities ripping up their only source of income.

One of the recommendations made by the 9/11 Commission in its Final Report was that "the United States and the international community should make a long term commitment to a secure and stable Afghanistan."⁶⁰ The key phrase in that statement is "international community." Currently, the United States and the UK have been shouldering most of this burden. Both countries have provided financial assistance, equipment, troops and other personnel, and extensive training to the government of Afghanistan. Utilizing the diplomatic element of national power, the United States and the UK must convince more NATO members to become involved and follow through with commitments previously pledged.⁶¹

Certainly, if these extensive and expensive measures are taken to improve and stabilize Afghanistan and poppy production is significantly decreased, there is always the possibility that one of the other countries within the Golden Triangle, the Golden Crescent, or elsewhere, could dramatically increase production. That is a future possibility, but right now the focus should be on providing the people of Afghanistan with the security and stability they desperately need from legitimate sources of income and removing the stranglehold that both the Taliban and opium poppy have on the country.

NOTES

- ¹Paul B. Stares, *Global Habit: The Drug Problem in a Borderless World*. (The Brookings Institute, Washington, DC, 1996), p 34.
- ²Vanda Felbab-Brown, *Afghanistan: When Counternarcotics Undermines Counterterrorism* (The Washington Quarterly. Washington, DC, Autumn 2005), p 56.
- ³Brown, p 55.
- ⁴Stares, p 54.
- ⁵Brown, p 57.
- ⁶Moises Naim, *Illicit* (Anchor Books, New York, 2006) p 69.
- ⁷The Drug Enforcement Administration (DEA), which enforces the drug laws of the United States, under the authority of the Controlled Substances Act of 1970, classifies controlled substances according to their medical usage and propensity for addiction and abuse. Heroin is classified as a Schedule I narcotic because it has no medical use in the United States, has a high potential for addiction and abuse.
- ⁸DEA, p 5.
- ⁹Blanchard, p 29.
- ¹⁰Stares, p 42.
- ¹¹Stares, p 66.
- ¹²DEA, p 2.
- ¹³Brown, p 55.
- ¹⁴Christopher M. Blanchard, *Narcotics and United States Policy* (Congressional Research Service Report for Congress #RL30588. Washington, DC, December 6, 2007), p 32.
- ¹⁵Stares, p 64.
- ¹⁶Department of State, States News Service, *Progress In Afghanistan: United States Releases New Poppy Cultivation Data* (October 27, 2008) p 1.
- ¹⁷Blanchard, p 100.
- ¹⁸Vincent Morelli and Paul Belkin, *NATO in Afghanistan: A Test of the Transatlantic Alliance*. Congressional Research Service Report for Congress #RL33627. Washington, DC, January 23, 2009), p 9.
- ¹⁹Blanchard, p 32.
- ²⁰Blanchard, p 33.
- ²¹States News Service, p 3.
- ²²States News Service, p 3.
- ²³States News Service, p 3.
- ²⁴Department of State, International Narcotics and Law Enforcement Affairs. *International Narcotics Control Strategy Report (INCSR)* (Washington, DC, March 2000.) p 251.
- ²⁵United Nations Office on Drug and Crime, *2008 World Drug Report* (Washington, DC, June 26, 2008), p 44.
- ²⁶United Nations Office on Drugs and Crime, *Afghanistan: Opium Survey 2008* (Washington, DC), November 2008, p2.
- ²⁷Stares, p 6.
- ²⁸Stares, p 85.

- ²⁹ VOA Afghanistan Service, *The Business of Opium in Afghanistan: Nangahar Poppies* (Voice of America, Nangahar Province, Afghanistan, May 27, 2008) p 1.
- ³⁰ According to the United Nations, Turkey is considered part of Southwest Asia. According to the State Department, which issues the International Narcotics Control Strategy Report (INCSR), Turkey is considered part of Central Asia.
- ³¹ Blanchard, p 45.
- ³² Drug Enforcement Administration, Intelligence Production Unit, *Drug Intelligence Brief – Southwest Asian Heroin – Selected Data*. (Washington, DC, March 2002.) p 1.
- ³³ National Drug Intelligence Center, *The Availability of Southwest Asian Heroin in the United States: A Market Analysis* (United States Department of Justice, Johnstown, PA, March 2007.) (Document #2007-R0912-001) p 1.
- ³⁴ USAID/Afghanistan, *USAID Distributes Corn and Peanut Seed to Helmand Farmers*, USAID Press Release, June 12, 2008, p 1.
- ³⁵ Stares, p 67.
- ³⁶ States News Service, p 9.
- ³⁷ Bureau of International Narcotics and Law Enforcement, *Afghanistan Report* (US Department of State, March 2008), p 1.
- ³⁸ Stares, p 6.
- ³⁹ States News Service, p 8.
- ⁴⁰ The Paris Pact Initiative United Nations Office on Drugs and Crime, *Illicit Drug Trends in Afghanistan* (Washington, DC, April 2008.) p 29.
- ⁴¹ Svante E. Cornell, *Stemming the Contagion: Regional Efforts to Curb Afghan Heroin's Impact* (Georgetown Journal of International Affairs, 23, Winter/Spring 2005), p 26.
- ⁴² United Nations Office for the Coordination of Humanitarian Affairs, *Afghanistan: Can Saffron Replace Poppy?* (IRIN, August 6, 2008.), p 1.
- ⁴³ IRIN, p 2.
- ⁴⁴ Barry Newhouse, *Afghanistan Promotes Crop More Profitable Than Poppy* (Voice of America. Kabul, Afghanistan, December 3, 2008.) p 2.
- ⁴⁵ Brown, p 57.
- ⁴⁶ International Council on Security and Development, *P4M: Poppy for Medicine* (March 4, 2004.) p 4.
- ⁴⁷ Romesh Bhattacharji, *India's Experiences in Licensing Poppy Cultivation for the Production of Essential Medicines* (The Senlis Council, June 2007), p 8.
- ⁴⁸ Bhattacharji, p 11.
- ⁴⁹ INCSR, pp 259 & 463.
- ⁵⁰ Dorian Jones, *Government-Controlled Opium Production is a Way of Life in Turkey* (Voice of America (Afyon, Turkey, July 1, 2008), p 2.
- ⁵¹ Jorritt Kamminga, *The Political History of Turkey's Opium Licensing System for the Production of Medicines: Lessons for Afghanistan* (Senlis Council May 2006), p1.
- ⁵² Jones, p2.
- ⁵³ Kamminga, p 8.
- ⁵⁴ Kamminga, p 4.
- ⁵⁵ Kamminga, p 9.
- ⁵⁶ Stares, p 24.

⁵⁷ Bhattacharji, pp 8 & 14.

⁵⁸ Kamminga, pp 5 & 7.

⁵⁹ Bureau of International Narcotics and Law Enforcement Affairs, *Fighting the Opium Trade in Afghanistan: Myths, Facts, and Sound Policy* (US Department of State, March 11, 2008) p 1.

⁶⁰ National Commission on Terrorist Attacks upon the United States, *The 9/11 Commission Report- Final Report* (W. W. Norton & Company, New York) p 370.

⁶¹ National Commission, p 371.

BIBLIOGRAPHY

Primary Sources

Most of the primary sources utilized for this paper were documents produced by various United States government agencies. These sources provided a great deal of information, especially detailed statistics, charts, and maps. Most were rather lengthy and had to be reduced to hand written notes in order to be utilized effectively. All were valuable sources.

CIA: The World Fact Book. *Afghanistan*, Washington DC, May 10, 2007.

Department of State, International Narcotics and Law Enforcement Affairs. *International Narcotics Control Strategy Report*, Washington, DC, March 2000.

Department of State, International Narcotics and Law Enforcement Affairs. *International Narcotics Control Strategy Report*, Washington, DC, March 2008.

Department of State, International Narcotics and Law Enforcement Affairs. *Afghan Report*, Washington, DC, March 2008.

Department of State. *Background Note: Afghanistan*. Bureau of South and Central Asian Affairs, Washington, DC, November 2008.

Department of State. International Narcotics and Law Enforcement Affairs, *Fighting the Opium Trade in Afghanistan: Myths, Facts, and Sound Policy*. Washington, DC, March 11, 2008.

Department of State, States News Service. *Progress In Afghanistan: United States Releases New Poppy Cultivation Data*, Washington, DC, October 27, 2008.

Drug Enforcement Administration, Intelligence Production Unit. *Drug Intelligence Brief – Southwest Asian Heroin – Selected Data*. Washington, DC, March 2002.

Drug Enforcement Administration, Intelligence Division. *Opium Poppy Cultivation and Heroin Processing*. Washington, DC, September 1993.

Library of Congress, Federal Research Division. *Country Profile: Afghanistan*. Washington, DC, May 2006.

National Commission on Terrorist Attacks upon the United States. *The 9/11 Commission Report- Final Report*. W.W. Norton & Company, New York.

National Drug Intelligence Center. *The Availability of Southwest Asian Heroin in the United States: A Market Analysis*. United States Department of Justice, Johnstown, PA, March 2007. (Document #2007-R0912-001)

The Paris Pact Initiative, United Nations Office on Drugs and Crime. *Country Office Afghanistan*, Washington, DC, April 2008.

The Paris Pact Initiative, United Nations Office on Drugs and Crime. *Illicit Drug Trends in Afghanistan*, Washington, DC, April 2008.

United Nations Office for the Coordination of Humanitarian Affairs. *Afghanistan: Can Saffron Replace Poppy?* IRIN, August 6, 2008.

United Nations Office on Drug and Crime. *2008 World Drug Report*. Washington, DC, June 26, 2008.

United Nations Office on Drugs and Crime. *Afghanistan: Opium Rapid Assessment Study*, Washington, DC, March 2005.

United Nations Office on Drugs and Crime. *Afghanistan: Opium Survey 2008*, Washington, DC, November 2008.

United Nations Office on Drugs and Crime. *Opium Economy in Afghanistan: An International Problem*. Washington, DC, February 2004.

USAID/Afghanistan. *USAID Distributes Corn and Peanut Seed to Helmand Farmers*. USAID Press Release, June 12, 2008.

Secondary Sources

The secondary sources utilized for this paper were interesting to read and extremely informative. They frequently referenced the primary sources listed above to validate their conclusions. I found them to be relevant to the topic and provided a good knowledge base to expand my own personal experience in the field of drug law enforcement.

Bhattacharji, Romesh. *A Losing War*. Frontline, August 2008.

Bhattacharji, Romesh. *India's Experiences in Licensing Poppy Cultivation for the Production of Essential Medicines*. The Senlis Council, June 2007.

Blanchard, Christopher M. *Narcotics and United States Policy*. Congressional Research Service Report for Congress #RL30588. Washington, DC, December 6, 2007.

Booth, Martin. *Opium: A History*. Simon & Shuster, Ltd., London, 1996.

Caulkins, Jonathan P. *Modeling Drug Market Supply Disruptions: Where Do the Drugs Not Go?* Journal of Policy Modeling 30, (2008) p 251-270.

Charles, Robert B. *Afghanistan: The Narcotics Situation and Strategy*. Department of State, Washington, DC, February 2004.

Cohen, Sidney. *The Drug Dilemma*. McGraw-Hill, Inc., New York, 1969.

Cornell, Svante E. *Stemming the Contagion: Regional Efforts to Curb Afghan Heroin's Impact*. Georgetown Journal of International Affairs, 23, Winter/Spring 2005.

Davenport-Hines, Richard. *The Pursuit of Oblivion: A Global History of Narcotics*. W.W. Norton & Company, Inc., New York, 2002.

Felbab-Brown, Vanda. *Afghanistan and Opium*. Boston Globe, December 18, 2005.

Felbab-Brown, Vanda. *Afghanistan: When Counternarcotics Undermines Counterterrorism*. The Washington Quarterly. Washington, DC, Autumn 2005.

Gall, Carlotta. *United Nations Warns of Huge Crop of Afghan Opium Poppies*. New York Times, February 6, 2008.

Grare, Frederic. *Narcotics in Afghanistan: Anatomy of a Fallacy*. The Senlis Council, February 2008.

International Council on Security and Development. *P4M: Poppy for Medicine*. March 4, 2004.

International Council on Security and Development. *Political History of the Poppy Licensing in Turkey*. May 2006.

Jones, Dorian. *Government-Controlled Opium Production is a Way of Life in Turkey*. Voice of America. Afyon, Turkey, July 1, 2008.

Kamminga, Jorritt. *The Political History of Turkey's Opium Licensing System for the Production of Medicines: Lessons for Afghanistan*. Senlis Council May 2006.

Keteyian, Armen. *Inside The Afghan Poppy Wars*. CBS News. Washington, DC, June 25, 2008.

Kirschke, Joseph. *Pushing Aerial Poppy eradication in Afghanistan*. World Politics Review. Washington, DC, February 29, 2008.

Lee, Matthew. *Afghanistan Poppy Cultivation Skyrockets*. Washington Post, Washington, DC, August 4, 2007.

Morelli, Vincent, and Paul Belkin. *NATO in Afghanistan: A Test of the Transatlantic Alliance*. Congressional Research Service Report for Congress RL#33627. Washington, DC, January 23, 2009.

Naim, Moises. *Illicit*. Anchor Books, New York, 2006.

Newhouse, Barry. *Afghanistan Promotes Crop More Profitable Than Poppy*. Voice of America. Kabul, Afghanistan, December 3, 2008.

Smith, Sandra Lee. *Heroin*. The Rosen Publishing Group, New York, 1993.

Stares, Paul B. *Global Habit: The Drug Problem in a Borderless World*. The Brookings Institute, Washington, DC, 1996.

Szalavitz, Maia. *Let a Thousand Licensed Poppies Bloom*. New York Times, July 13, 2005.

VOA Afghanistan Service. *The Business of Opium in Afghanistan: Nangahar Poppies*. Voice of America. Nangahar Province, Afghanistan, May 27, 2008.

Werb, Daniel, Thomas Kerr, Julio Montaner and Evan Wood. *The Need for an Evidence-Based Approach to Controlling Opium Production in Afghanistan*. Journal of Public Health Policy 2008, Vol. 29, No. 4, pp 440-448.

Woodward, John. *Afghanistan: Opposing Viewpoints*. Thomson Gale, 2006.

Young, Jeffrey. *Eradicating Afghanistan's Opium Poppies*. Voice of America. Washington, DC, June 24, 2005.

APPENDIX A

A Brief History of Heroin

Opium has been used throughout the world for thousands of years. Morphine, codeine, and heroin are derived from the opium poppy plant. The following time line is provided:

- 3400 BC** - Sumerians cultivate **opium poppy** in lower Mesopotamia; refer to it as Hul Gil, which means "joy plant", which was consumed orally; passed the plant on to the Assyrians and Babylonians
- 460 BC** - Hippocrates, the Father of Medicine, identifies the opium poppy as a narcotic
- 330 BC** - Alexander the Great introduces the opium poppy to Russia and India
- 300 BC** - Used by Arabs, Greek, and Romans as a sedative and soporific
- 400 AD** - Used by Egyptians and introduced to China by Arab traders
- 1300 AD** - Catholic Church outlaws opium; opium disappears from Europe
- 1500 AD** - Portuguese initiate **smoking** opium while trading along the East China Sea
- 1527 AD** - Paracelsus re-introduces opium to Europe as **laudanum** (opium mixed with alcohol; used as a pain killer)
- 1600 AD** - Opium is used recreationally in Russia and India; used for trade in England with China
- 1753 AD** - Linnaeus, the Father of Botany, classifies the opium poppy - *papaver somniferum*, "sleep inducing poppy," in his book, Genera Plantarum
- 1800 AD** - Laudanum is cheaper than alcohol and easy to obtain in the United States and Europe; used on children and for pain; limited recreational usage
- 1827 AD** - E. Merck and Company of Darmstadt, Germany begins commercial manufacture of **morphine**
- 1832 AD** - **Codeine** is extracted from opium for the first time
- 1839 AD** - First Opium War between China and Britain
- 1843 AD** - New method for administering morphine - hypodermic needle is invented by Scottish physician Alexander Wood- injection is instantaneous and more potent than orally

1856 AD – Second Opium War between China and Britain

1874 AD – C.R. Wright, an English researcher, synthesizes heroin (diacetylmorphine) by boiling morphine on a stove

1890 AD – United States imposes a tax on opium and morphine; this was the first time a narcotic is legislated

1895 AD – Heinrich Deser, working for The Bayer Company, Elberfeld, Germany, dilutes morphine with acetyls, producing a drug without the side effects of morphine; he coins the name “**heroin**” to represent a female warrior in the war on pain

1898 AD – Bayer Company commercially produces heroin as a substitute for morphine

1905 AD – United States Congress bans opium

1914 AD – Harrison Narcotic Act requires doctors and pharmacists to register and pay tax on opium prescriptions

1923 AD – United States Treasury Department Narcotics Division becomes the first federal drug enforcement agency and bans all illegal narcotic sales

1924 AD – Heroin Act makes the manufacture and possession of heroin illegal in the United States

1942 AD – Opium Poppy Control Act makes the possession of the opium poppy plant illegal in the United States

1970 AD – Controlled Substances Act, which sets regulations and penalties for the manufacture, distribution, sale, possession, and use of narcotics, is passed in the United States

1973 AD – On July 1, 1973, President Richard M. Nixon signs the Executive Order #11727, which creates the Drug Enforcement Administration (DEA), under the Department of Justice, to consolidate federal powers of drug enforcement in a single mission agency

The following sources were utilized for this timeline:
Booth, Martin. *Opium: A History*. Simon & Shuster, Ltd: London, 1996.

Opium Throughout History. Frontline, 1998.

McCoy, Alfred W. *The Politics of heroin: CIA Complicity in the Global Drug Trade*. New York: Lawrence Hill Books, 1991.

APPENDIX B

Basic Facts about Heroin

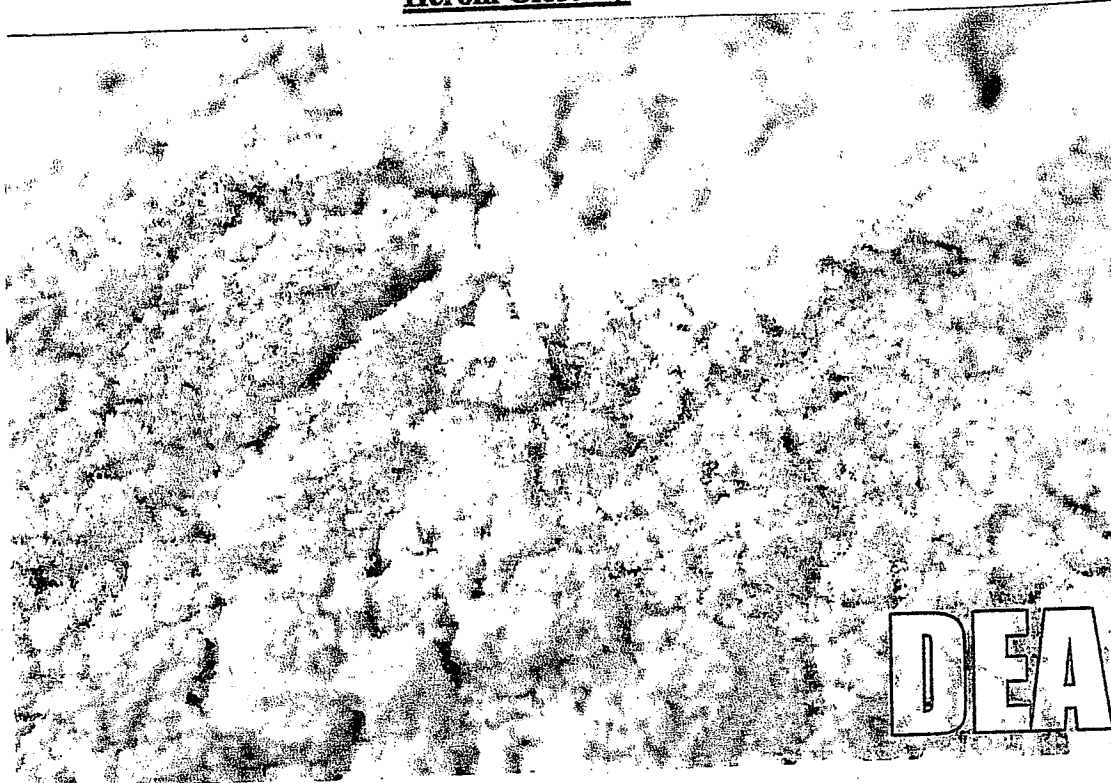
- Chemical name: diacetylmorphine
- Considered an opiate which depresses the central nervous system; other common opiates are morphine and codeine
- Common street names: H, Horse, Smack
- According to the Controlled Substances Act, Heroin is listed as a Schedule I Narcotic (see note below)
- Can be taken orally, smoked, or injected
- Creates a psychological dependence which is a craving for the euphoric sensations produced by the drug
- Physical signs that someone is using heroin: track marks (if injected), constricted pupils, runny nose, tearing eyes, muscle twitching
- Withdrawal symptoms: cramps, aches, chills, gooseflesh, vomiting, diarrhea, convulsions, fever
- Complications from intravenous use: infections from contaminated needles, hepatitis, TB, tetanus, pneumonia, bacterial endocarditis

NOTE:

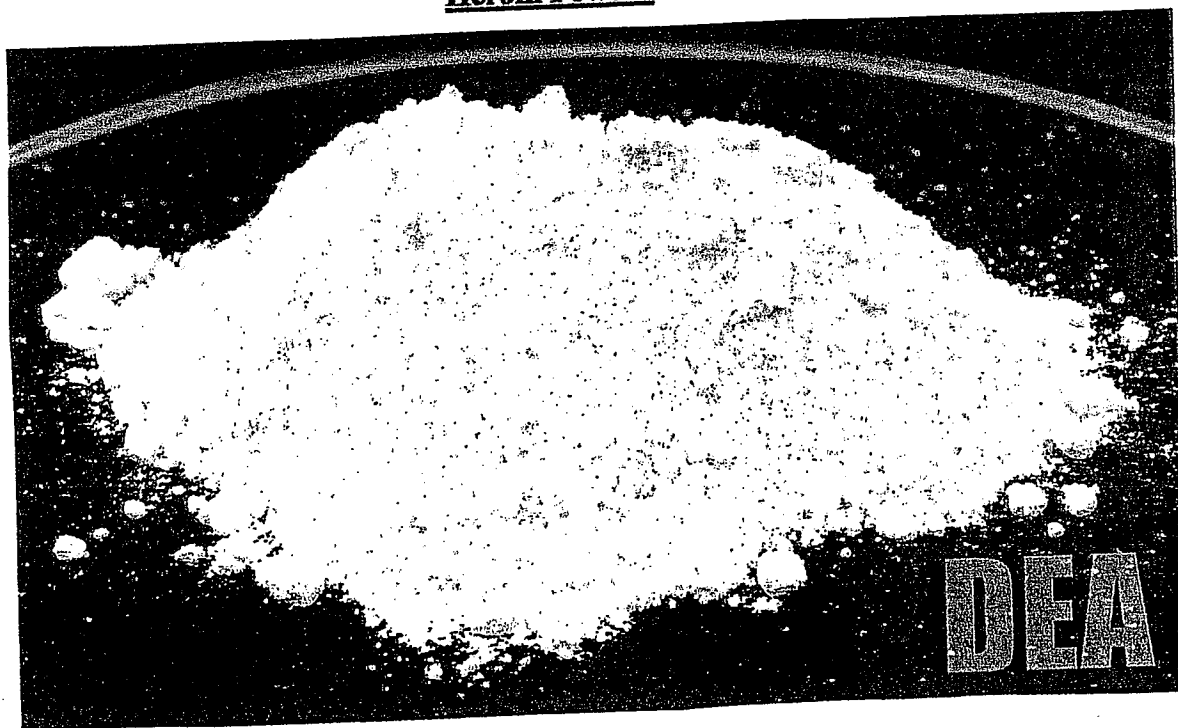
The Controlled Substances Act is part of Title II of the Comprehensive Drug Abuse Prevention and Control Act of 1970. The purpose is to regulate the manufacture, importation, possession, and distribution of certain drugs in the United States.

APPENDIX C

Heroin Close Up



Heroin Powder



Source: www.usdoj.gov/dea/photos/heroin

APPENDIX D

Opium Production in Afghanistan 1980 - 2007

<u>Year</u>	<u>Metric Tons*</u>
1980	200
1981	225
1982	275
1983	488
1984	160
1985	450
1986	350
1987	875
1988	1,120
1989	1,200
1990	1,600
1991	2,000
1992	2,000
1993	2,300
1994	3,100
1995	2,300
1996	2,200
1997	2,800
1998	2,700
1999	4,800
2000	3,300
2001	200 (Taliban ban)
2002	3,400
2003	3,600
2004	4,200
2005	4,100
2006	6,100
2007	8,200

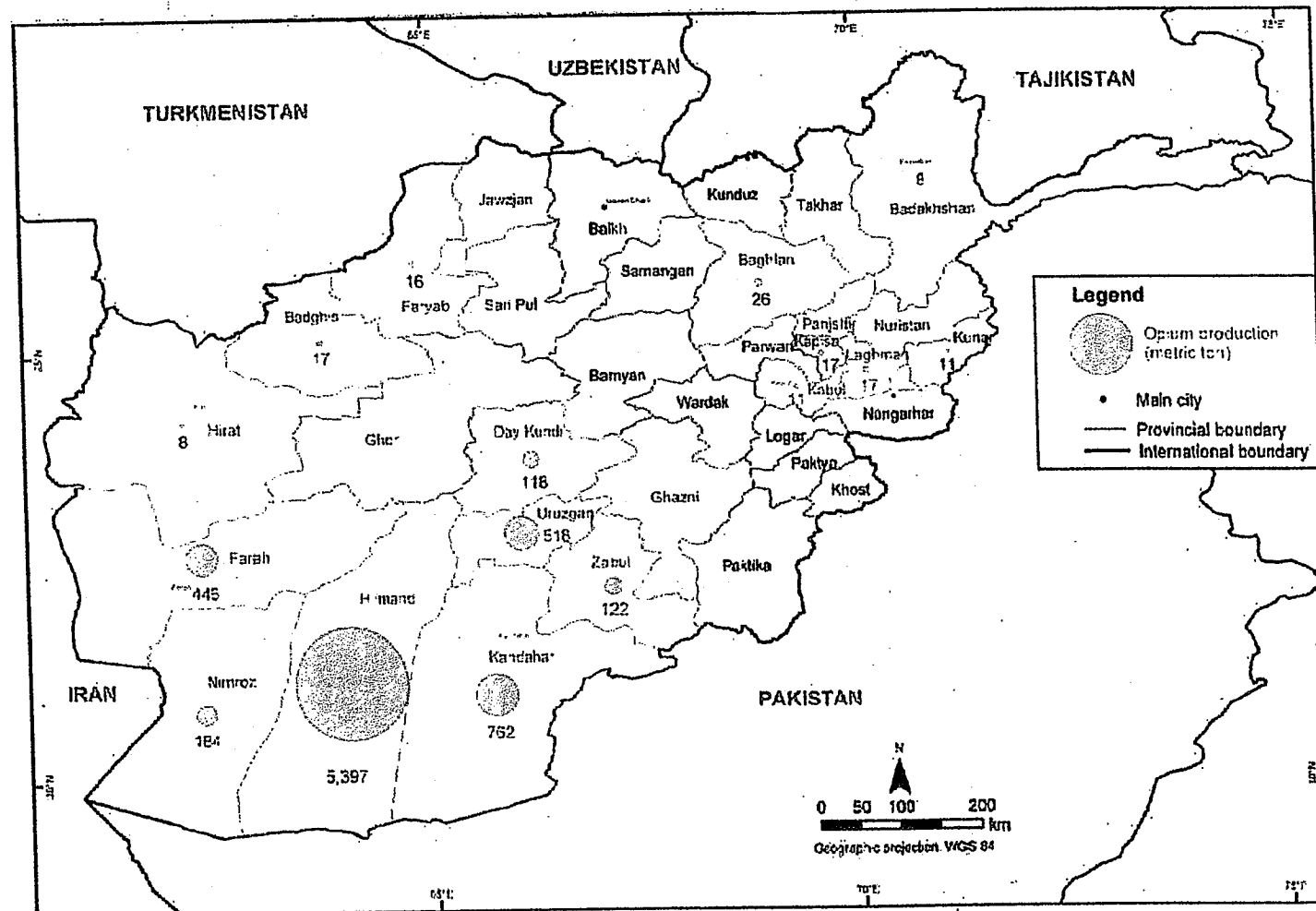
* one metric ton = 2,200 pounds

Sources

The information on this page was obtained from multiple years of the United Nations Office on Drugs and Crime, Afghanistan Opium Survey reports.

APPENDIX E

Opium Production in Afghanistan by province (mt) 2008

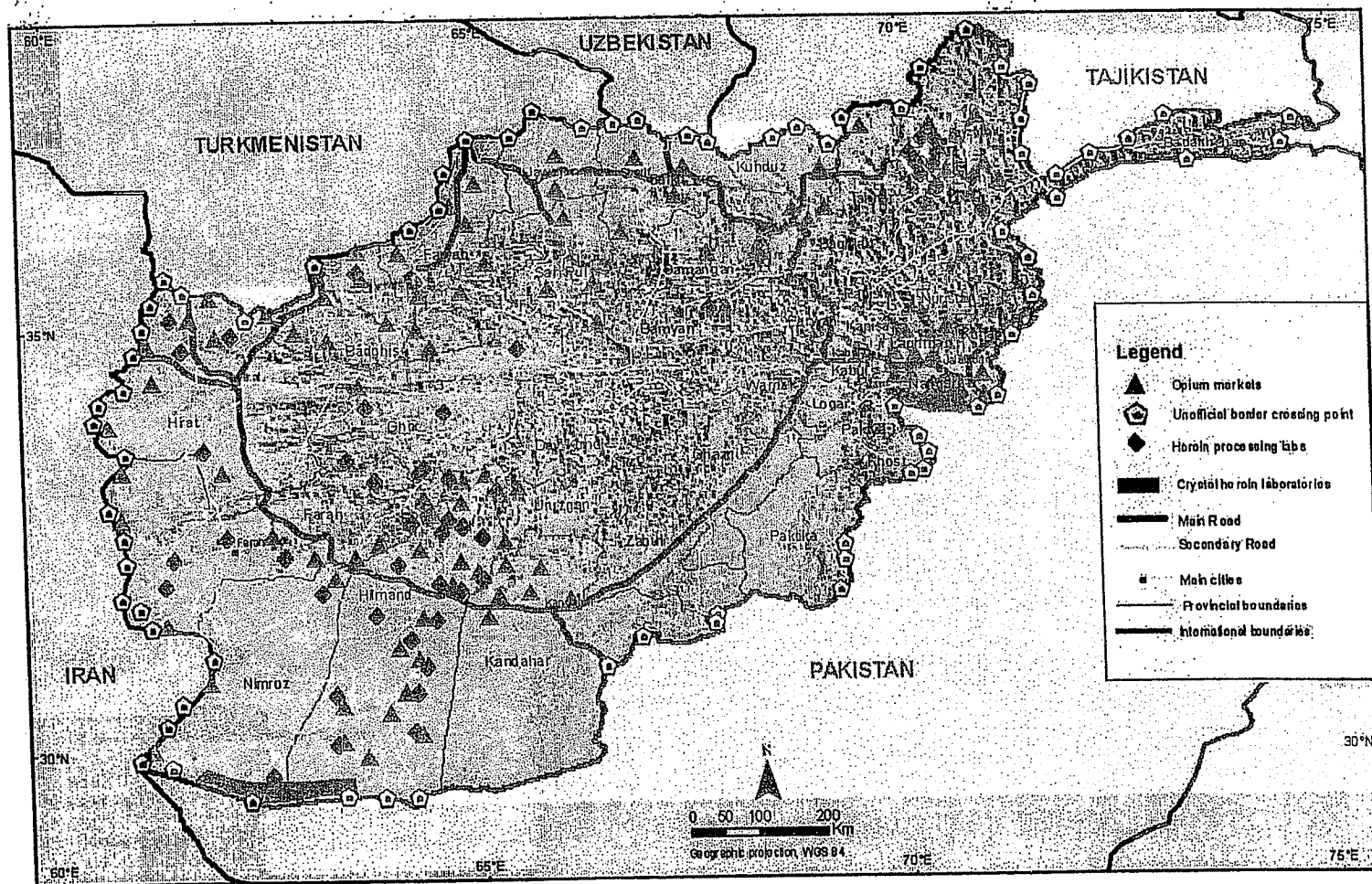


Source

United Nations Office on Drugs and Crime. *Afghanistan: Opium Survey 2008*, Washington, DC, November 2008, p 38.

APPENDIX F

Locations of Opium Markets, Heroin Processing Labs and Unofficial Border Crossings



Source

The Paris Pact Initiative, United Nations Office on Drugs and Crime. *Illicit Drug Trends in Afghanistan*, Washington, DC, April 2008, p 30.

APPENDIX G

Afghan Counter-narcotic and Law Enforcement Agencies Involved in Poppy Eradication

1. Counter-narcotic Police-Afghanistan (CNP-A) - This law enforcement agency receives support from the United States and training and assistance from both the United States and Great Britain (UK).
2. National Interdiction Unit (NIU) - This is an elite law enforcement unit, part of the CNP-A, which receives training and support from the United States. This unit works in cooperation with the Drug Enforcement Administration's Foreign Advisory Support Teams (FAST).
3. Central Eradication Planning Cell – This counter-narcotic agency is supported by the UK. The mission is to gather intelligence to target poppy cultivation and monitor the success of eradication operations.
4. Afghanistan Eradication Force (AEF) – This counter-narcotic agency is supported by the United States. Its mission is to conduct ground based eradication of poppy crops, based on information and intelligence provided by the CPEC.
5. Afghanistan Special Narcotic Force (ASNF) – Also known as “Force 333” – This law enforcement unit has received training from the British military. Its mission is to interdict high value targets and conduct eradication in remote and unsecured areas. The United States military provides this unit with intelligence and some air lift support.
6. Other agencies, such as the Border Police, National Police, and Highway Police have been provided with training and support from the United States, in addition to training, communications, and equipment from the UK and Germany.

Source

Blanchard, Christopher M. *Narcotics and United States Policy*.
Congressional Research Service Report for Congress #RL30588.
Washington, DC, December 6, 2007, p 34.

APPENDIX H

MMS Personal Interview

On 8 November 2008, I traveled to the residence of Sultana Salam, in Richmond, Virginia. Mrs. Salam is a psychologist who was born and raised in Afghanistan. Mrs. Salam's father, Mohammed Nader Ayubi, joined us for this interview.

The purpose of this interview was to obtain background information about the country of Afghanistan from native born citizens. Sultana utilizes the name "Su," while her father is known as "Agha." They graciously invited to me their home for breakfast. We discussed many aspects about Afghanistan, including: culture, terrain, weather, religion, poppies, the Taliban, and the people. Much of the basic information that they provided corroborated additional research conducted for this paper. The following notes were most applicable:

- Poppy cultivation originally only took place in the northeast of the country, but later spread south.
- Conversion laboratories were always in Pakistan until the early 1990's when labs were established inside Afghanistan.
- Farmers are simply trying to make a living and get out of debt; the distributors are the ones who make enormous amounts of money from the illicit drug trade.
- The Muslim religion prohibits the use of drugs and alcohol.
- Afghans have used opiates, including opium and hash, for centuries for pain and to calm children; it is a part of their culture.
- The majority of the people in Afghanistan do not want the United States or any other country eradicating poppy from their country; Afghans want to be able to take care of their own country and their own problems without outside ideas and influence trampling on their religion and culture.

APPENDIX I

Political Cartoon



Source: Fredericksburg (VA) Free Lance-Star, 11 February 2009