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DRUG ABUSE: GLOBAL VS SOUTH ASIAN TRENDS WITH SPECIAL REFERENCE TO INDIA AND PAKISTAN

SYED IMRAN SARDAR

INSTITUTE OF REGIONAL STUDIES ISLAMABAD

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SYED IMRAN SARDAR*

Introduction

Drug abuse poses serious risks to human health. It is a leading cause of infectious diseases such as HIV, Hepatitis B, and Hepatitis C with the sharing of contaminated syringes, and eventually leads to short-term or permanent disability. In case of overdose, premature deaths could also occur. A recent study 'Global Burden of Disease' reveals that drug dependence alone is responsible for almost 3.6 million years of life lost due to premature death and 16.4 million years of life lived with disability, both equal to 20 million years of disability-adjusted life years (DALY) in 2010.[1] Moreover, in 2012 around 183,000 drug-related deaths were reported, and between 162 million and 324 million people of age 15-64 used illicit drugs mainly cannabis, opioid, cocaine, and amphetamine-type stimulant (ATS).[2]

Despite wide acknowledgment of substance abuse's risks to human health and social life, drug abuse is on the rise. Strict laws and massive seizure of illicit

* Syed Imran Sardar is Research Analyst at the Institute of Regional Studies.

drugs every year did not serve the purpose. Smugglers and addicts are discovering modern ways to skirt around legal constraints. These discoveries are also giving rise to a shift in patterns of drug use worldwide. Most of the people are now switching to synthetic drugs. These drugs are made by altering the composition of legal chemicals while retaining their psychoactive effects. These altered chemicals are hard to identify, hence easily evade psychoactive substances lists. This shift is largely because of financial constraints as synthetic drugs are cheaper than organic drugs like cocaine and heroin and can be made easily in the kitchen from ephedrine, hydrochloric acid, car battery fluids, and ethanol. This shifting trend in patterns of drug use is a matter of serious concern, particularly for a region like South Asia, which is a victim as well as a source of illicit drugs.

South Asia is highly vulnerable to organic drug abuse as well as the emerging trends as it is arrested between the largest heroin and opium producing regions of the world—the Golden Crescent (consisting of Afghanistan, Pakistan, and Iran) and the Golden Triangle (referring to the triangular zone in Southeast Asia that overlaps Burma, Thailand and Laos). Apart from extensive organic (plant-based) drug dependence in the region, a number of people use liquor for which they rely on local illicit distilleries. Most of the distilleries are working in remote and slum areas and offer cheap liquor. Those who cannot afford even locally made liquor, try preparing it at home and often adopt wrong techniques. For instance, to enhance its potency, liquor is spiked with deadly chemicals (methanol, sleeping pills, cough syrups, and even pesticides) which creates serious emergency conditions. A number of deaths are reported every year due to homemade tainted liquor, such as ‘tharo’, ‘kuppi’, ‘moonshine’, and the list goes on. Similarly, middle and affluent class university and college students, and even schoolchildren are tilting towards the synthetic drugs adventure that is leading to retardation, poor performance, and drug dependence among them. Hence, there is a dire need for a holistic drugs control policy that would deal with the emerging dynamics of organic and synthetic drugs.

Moreover, governments and civil society on their part must initiate awareness programmes focusing on the consequences of new classes of drugs. In line with this thinking, this study deals with the existing and emerging trends in illicit drug use and its implications for South Asia. It begins with highlighting prevalent organic drug abuse from a global as well as South Asian perspective, particularly, India and Pakistan. Facts and figures for illicit drug consumption are also presented. Trafficking networks and major drug production spots along with their supply routes in and out of South Asian region are also discussed in this section. Section two discusses the emerging synthetic drugs including Amphetamine-type Stimulants (ATS) drugs abuse in the same pattern given in the first section. In line with this thinking the study draws implications and suggestions for South Asia. The paper concludes that in South Asia, particularly Pakistan and India, already grappling with endemic organic drug abuse, the rise of synthetic abuse is grave and alarming. It is posing serious challenges for illicit drug control. There is a dire need to initiate awareness campaigns about the dangers of these chemicals so that their misuse can be avoided. Both India and Pakistan, being the largest states in South Asia should think out of the box. They must realize the gravity of this issue and proceed in a cooperative framework.

Organic drug abuse

Organic drugs are plant-based drugs. Cannabis, coca bush, and poppy are nature's addictive plants. Cannabis is obtained from hemp, cocaine from the leaves of coca bush, and opium is extracted from the poppy plant. These plants contain significant quantities of psychoactive ingredients. Since the beginning of the recorded history, these drugs have been used for medicinal and surgical purposes (their therapeutic effects helped reduce severe pain and also served as anti-diarrhoeal). Later on, the psychoactive ingredients of these plants proved highly addictive as a number of people became intolerant to these stimulants. Its usage for mood-alteration such as to have a feeling of extreme euphoria and elation grew

alarmingly with the passage to time.

Prevalent trends—global view

Opium

The opium poppy is a hard, drought-resistant plant. The word poppy is derived from Latin that means ‘sleep inducing’. Opium is classified as Papaver Somniferous that produces mainly two products: opium and seeds. Former is acquired from the sap or latex produced inside the pod also called capsule (see Figure 1). It is highly addictive as it yields many alkaloids, however, its seeds are quite harmless and used in cooking to enhance flavour. The raw opium contains some twenty alkaloids, of which morphine is the most active substance, named after Morpheus, the Greek ‘god of dreams’. Other notable psychoactive substances are codeine, baine, papaverine, and noscapine. It can be drunk, swallowed, or smoked. In Third World countries, it is mostly consumed in traditional means; eating and smoking.[3] Heroin is derived from morphine, which is two to three times more potent and highly addictive. Its common names are Smack, H, Ska, Black Tar, Dope, and Junk. It is sold in white or brownish powder form in the market. The white crystalline form is a pure form and cut with other substances such as sugar, starch, powdered milk, quinine, and somewhere, with strychnine or other poisons. The consumer is on high risk as he/she does not know the actual strength of the drug or its contents which can be fatal in case of overdose. It exhibits a surge of euphoria (rush) and clouded thinking followed by alternatively wakeful and sleepy states.[4] Overdose of heroin poses serious health problems; for instance, suppression of breathing and lack of oxygen supply to the brain may lead to a condition called hypoxia. It has short- and long-term neurological effects on the body such as comma or permanent brain damage.[5] It is mostly injected, but it may also be smoked and snorted, used as a suppository, or orally ingested. Smoking and snorting do not produce rush as instantly as intravenous injection or suppository route do. Through any route it is considered highly addictive and

placed in the Schedule I drugs (see Annex for Schedule I, II, III, IV and V drugs). The intravenous route is more risky due to sharing of contaminated needles that lead to HIV/AIDS and Hepatitis among the abusers.

Figure 1

Opium Capsule

Source: John Glaze, 'Opium and Afghanistan: Reassessing US Counter Narcotics Strategy', Strategic Studies Institute, U.S. Army War College, Carlisle, PA, October 2007.

Opium poppy plant has a long history. It was first cultivated in Southwest Asia, around 3400 B.C., where the Sumerians[6] named this plant 'Hul Gil' meaning 'a joy plant'. Its demand grew alarmingly as the people learned of the power of this plant. Its cultivation spread across the Silk Road, from Mediterranean to Asia, which led to the emergence of 'Golden Crescent' and 'Golden Triangle', the two major illicit drug production spots. Now, it is also cultivated in Eastern Europe, and North and South America. The area of Golden Crescent consists of Afghanistan, Pakistan, and Iran; and Golden Triangle region refers to the triangular

zone in Southeast Asia that overlaps Burma, Thailand, and Laos. In the early 1990s heroin became a leading illicit drug and 80 per cent of heroin in Europe and 20 per cent in the United States was supplied through the Golden Crescent region.[7] Afghanistan became its primary producer in 1991 with a yield of 1,782 metric tons (US Department of State estimates), surpassing Myanmar, once world's top producer.[8] According to Jeffrey Steinberg in the *Executive Intelligence Review* journal:

> Since 1980, Afghanistan has been the source of half of the heroin sold in Europe and North America. Some opium was grown in areas under Soviet control, but most of the production was in the Helmand Valley in southwest Afghanistan, and along the Afghanistan-Pakistan border northeast of Kabul, areas controlled by the mujahideen and the Pakistan Army. Hundreds of heroin labs were set up in the nearby frontier areas in Pakistan. Heroin was routed to the world market via Iran, India, the Asiatic republics of the U.S.S.R., and by Arabian Sea routes to Turkey.[9] (See Map 1 below)

Map 1

Golden Crescent Heroin Route

Source: *Executive Intelligence Review*, Vol.22, No.41, 1995.

The opium poppy cultivation in Afghanistan alone in the Golden Crescent Region was estimated at 224,000 hectares (ha) in the year 2014, a 7 per cent increase from 2013. The average opium yields were estimated at 28.7 kilograms per hectare (kg/ha) in 2014, which was a 9 per cent increase as compared to previous year's figure of 26.3 kg/ha. In terms of the overall potential opium production, it stood at 6,400 tonnes in 2014 which too was on an upward trend of around 17 per cent increase from previous year (5,500 tonnes). [10] Much of these drugs are traded via Iran, Turkey, and the Balkans route. It seems to be a major trading route for the transit of Afghan heroin to the Western and Central European markets. Another route, adopted after the Iranian sanctions on heroin production, is through Fergana Valley (spread across eastern Uzbekistan, southern Kyrgyzstan, and northern Tajikistan) towards Russia and the Baltic States.

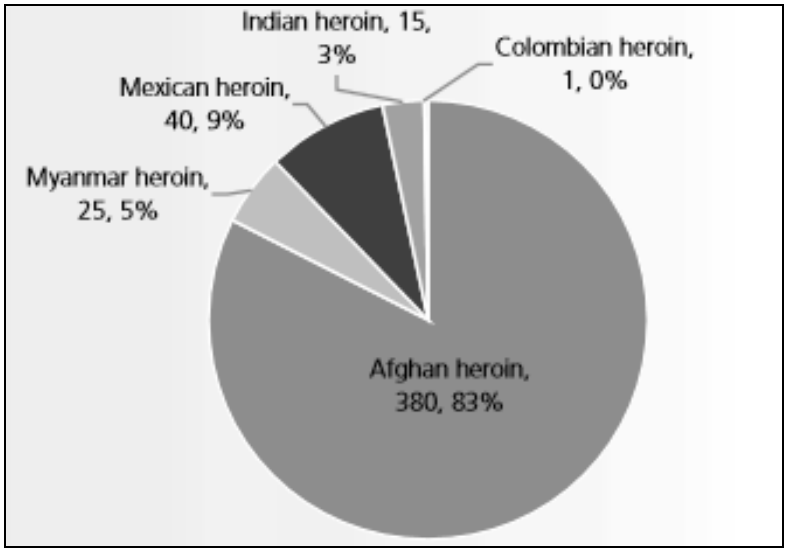
Recently, Afghan heroin has started reaching new markets, such as

Oceania and Southeast Asia, which had been supplied from the Golden Triangle Region for decades. Heroin is also smuggled through the southern route, from the south of Afghanistan to Europe via the Near and Middle East, and Africa. The two major seizures of more than 100 kilograms of heroin by Kenya and United Republic of Tanzania in the year 2011, disclosed the rise of the African route. Earlier, it was considered as a cost-effective trafficking route, but no major seizure was reported.

Since the 1990s, Myanmar's opium production is on decline as Afghanistan is approaching East Asian markets and filling the gap. Afghan heroin is increasingly trafficked even to China, but the level of trafficking is dependent on Mayanmar's opium production.[11] Overall, the Afghan heroin dominates the world market as compared to other four heroin producing countries: Mexico, Myanmar, India, and Colombia (see Figure 2 below).

Figure 2

Global Heroin Production



Source: *Global Afghan Heroin Trade: A Threat Assessment,* UNODC, 2011.

Opium poppy cultivation in the Golden Triangle, on the other hand, is

again gaining momentum, although it is far behind Afghanistan. According to United Nations Office on Drugs and Crime (UNODC) Opium Survey, in Myanmar and Laos, cultivation increased again for the eighth consecutive year, nearly tripling the amount harvested in 2006.[12] It increased to 63,800 ha in the year 2014 from 61,200 ha in 2013. Myanmar remains Southeast Asia's top producer and world's second largest after Afghanistan. The survey further reveals that the countries produced an estimated combined total of 762 tonnes of opium in 2014 and that most of the opium refined into heroin used smuggled precursor chemicals like acetyl anhydride. The total amount of heroin after processing is estimated at 76 tonnes which is trafficked to neighbouring countries and outside the region. It has become a profitable business for the translational crime groups because of increasing demand for heroin. There is a two-way trade going on in which chemicals are coming in and heroin is going out of the Golden Triangle.[13] The major chunk of heroin goes to China that accounts for nearly 70 per cent of heroin users in Asia and is the largest single heroin market in the world. Between 2007 and 2013, the number of heroin users in China increased by approximately half a million, and is currently estimated to be over 1.3 million. Besides China, heroin remains a primary drug of concern in Malaysia, Singapore and Vietnam. Overall, there were more than 3.3 million opiates users in East and Southeast Asia in 2014 (See Table 1). Globally, the opioids (including heroin and prescription painkillers) users were estimated between 28.6 million and 38 million in the year 2013, concentrated in Oceania and North America, particularly in the United States. The opiate (heroin and opium) users on the other hand are concentrated in Southwest Asia, Eastern and South Eastern Europe, and Central Asia and Transcaucasia.

Table 1

Estimated number of opiate users and prevalence in Southeast Asia

	Estimated number of opiate users	Prevalence (%)	Year of estimate
China	1,930,000	0.19	2012
Viet Nam	342,806	0.53	2011
Myanmar	293,583	0.80	2010
Malaysia	187,771	0.94	2009
Indonesia	174,652	0.11	2010
Thailand	96,284	0.20	2007
Taiwan, Province of China	34,604	0.20	2005
Philippines	20,880	0.04	2011
Lao People's Democratic Republic	14,863	0.37	2008
Singapore	12,488	0.32	2010
China, Hong Kong SAR	10,674	0.20	2006
China, Macao SAR	4,978	1.12	2003
Cambodia	3,312	0.04	2007
Korea (Republic of)	357	0.00	2004
Estimates for other Member States[17]	210,711		
Total estimated number and prevalence of opiate users	**3,337,962**	**0.21**	

Sources: *Southeast Asia Opium Survey 2014*, UNODC, p.5.

Overall, global area of opium cultivation including Golden Crescent and Golden Triangle stood at 296,720 hectares in the year 2013, the largest area since 1998. With a huge production and consumption, the opiates and opioids ranked top

on the list of problem drugs worldwide.

Coca bush

Coca is also nature's highly addictive plant in the family of Erythroxylaceae. It is native to the Andes Mountains of South America including Colombia, Peru, and Bolivia. Like opium poppy plant, it also yields many alkaloids. Some notable alkaloids are methylecgonine cinnamate, benzoylecgonine, truxilline, hydroxytropacocaine, tropacocaine, ecgonine, cuscohygrine, dihydrocuscohygrine, nicotine, cocaine, and hygrine. Cocaine, a crystalline alkaloid is obtained from the leaves of coca plant (see Figure 3 below). It is a highly addictive central nervous system stimulant and placed in Schedule II drug category. Its common names are Coke, Snow, Flake, or Blow. It is snorted, smoked, and injected. Mostly, Crack, a form of cocaine, is used to smoke. It is hydrochloride powder that has been processed to form a rock crystal which is then heated to produce vapours that reach the blood stream via lungs. While heating, it produces a crackling sound; therefore, it is called 'crack'.[14] It produces short-term euphoria, alertness, and feeling of competence and sexuality. Its effects on the body depend on the method of intake, usually lasting for 15-30 minutes. In addition to alertness, it is potentially dangerous as it increases heart beat and blood pressure that can be fatal in case of overdose or first-time use. A number of cases of heart attacks and strokes have been reported among the people who use cocaine for the first time. Overdose also causes paranoia in which people may become violent.

Figure 3

Coca plant

Source: BBC.com

Historically, it has been used to relieve pain, combat altitude sickness, and as a stimulant for around 4,000 years. It has also been used as an anaesthetic medicine. In the late 18th century, cocaine was used as a primary ingredient in Coca Cola for flavour, however, in early 19th century, the use of cocaine in its crude form in the soft drink was stopped and extract of coca leaves (a de-cocainized version) was adopted for flavouring Coca Cola manufactured in the United States. For most of the South American countries (Peru, Bolivia, Ecuador, Colombia, Argentina, and Chile) this plant has strong religious cosmological value and is considered a 'sacred plant'. Andean people used to chew the leaves of coca plant or brew into tea. Similar to opium, it is cut with substances such as sugar and baking soda or with local anaesthetics that enhance its potency and weight. It has made cocaine more injurious to health though. After opium, cocaine is ranked second top problem drug in the world. Its cultivation is limited to Bolivia, Colombia, and Peru that meet the world demand of the drug. Americas (North and

South), Europe, and Oceania are the top users of cocaine, but it is most problematic in Americas. Due to maritime seizures, its use is found to be declining in North America. In South America, however, both trafficking and consumption have become more prominent. Western and Central Europe are the second largest market of Bolivia-Colombia-Peru's cocaine.

According to latest estimates, the coca bush cultivation is steadily declining. As of December 2012, it was 133,700 ha, the lowest since 2003. In terms of global usage, it is estimated between 14 million and 21 million. North and South America are leading in cocaine users, while in Western and Central Europe its usage is found to be declining. A number of factors contributed to the overall decline in cultivation and consumption, particularly in Western Europe such as the shifting trends in the use of illicit drugs worldwide and the emergence and rise of synthetic drugs. This shifting trend has serious implications for the South Asian countries as well, and will be discussed later in this paper.

Cannabis

Cannabis is the third naturally addictive plant. Numerous cannabis strains have been discovered and are still being discovered. The best known strains are cannabis sativa, cannabis indica, and cannabis ruderalis. Among these, cannabis sativa is the most popular and powerful strain. It grows wild throughout many tropical and humid parts of the world. Cannabis was first discovered in China around 6,000 years ago and then in India, Middle East, Africa, Mexico, and South America. The common names of cannabis are Ganja, Hashsih, Hemp, Joint (English), Bhangh, Charas (Indian), marijuana (Mexican), pot, weed, and 420 (see Figure 4 below). The delta-9-tetrahydrocannabinol (THC) found in cannabis is potentially addictive hence it is placed in Schedule I drug category. Higher the level of THC, greater the impacts would be. Recent biotechnological advances have made it possible to achieve higher level of THC up to 15 per cent and more. Permitted concentration, however, is below 0.4 per cent.[15] THC is mainly found in

the resin secreted by the flowering top. There is also a distinction between male and female plant, a female plant is shorter than male plant and contains higher levels of THC as compared to male. The dried leaves and the flowers are known as marijuana or herbal cannabis. It can be smoked through pipe, hand-rolled into a joint, or eaten. The resinous part of the cannabis plant is called hashish or hash. It contains high level of THC, and is obtained from the dried resin of the plant and compressed to form balls, cakes etc. Around 45 to 75 kilograms of cannabis produces one kilogram of hash that is sold in brown or black pieces in hard or soft consistency.[16] The oily extract of the plant is refined to obtain hash oil that contains approximately 15 per cent THC. It is mixed with the dried leaves of marijuana and smoked. The fibrous part of the plant is called hemp, which originated in Central Asia, Middle East, and India, where it had significant ritual value. Later, it made its way to Europe and Americas. Hemp and marijuana are both used in the preparation of many products such as cereals, candies, coffees, and teas.

Figure 4

Cannabis Plant

Source: *Telegraph*, UK.

Cannabis products are widely trafficked throughout the world. Almost every country is affected by cannabis trafficking. Herbal cannabis, marijuana, is virtually everywhere, while the resin cannabis, hashish, is found in as many as 65 countries, most concentrated in North Africa and Southwest Asian countries, particularly, Afghanistan and Pakistan. In terms of production of hashish, Africa is leading. Most of the seizures reported in Europe were of hashish trafficked from Morocco (world's largest cultivation site). Afghanistan ranked second in the production of hashish. Lebanon had also been a leading hashish supplier. Marijuana production is concentrated in American continent that accounted for some 55 per cent of global production in the year 2006, followed by Africa at 22 per cent.[17] Most of herbal cannabis produced in the continent is confined to domestic usage or export to neighbouring countries. International trafficking in this regard is rather limited as compared to hashish; however, growers have been able to achieve more potent forms of cannabis through exclusive cultivation of female plant. Currently, indoor production of Sinsemilla (female plant) is going on in many countries.

Cannabis affects the body within minutes of intake. It reaches its peak within thirty minutes and lasts for two to three hours. The THC target specific site in the brain, called cannabinoid receptors, kicks off a series of cellular reactions that lead to euphoria, distorted perception, increased sight, hearing, and taste with low to moderate doses. In chronic users, marijuana adversely impacts on learning and memory that can last for several days. Overdose may result in sedated feelings and toxic psychosis, in which the user temporarily loses consciousness and forgets who he or she is? Recent research by a Pakistani scientist, Dr. Shakeel Raza Rizvi, reveals that youngsters who regularly use marijuana before reaching puberty usually end up around four inches shorter than their non-smoking peers. He argues that "marijuana use may provoke a stress response that stimulate onset of puberty but suppresses growth rate."[18] According to latest estimates, between 125 million and 227 million people are reported to have used cannabis (marijuana and

hashish), corresponding to 2.7 per cent to 4.9 per cent of world population aged 15-64 years. West and Central Africa, North America, Oceania, and to a lesser extent, Western and Central Europe are found leading in global average. In North America, over the last five years, cannabis consumers are steadily on the rise. In the United States alone, between 2006 and 2010, around 59 per cent increase was reported in cannabis related emergencies and 14 per cent increase in admissions for cannabis related treatment.[19]

Prevalent trends in South Asia

Historically, the subcontinent has been exposed to notably two types of narcotics: opium and cannabis. Opium was carried to India and China by Arab traders in the 9th and 10th centuries. During the time of Mughal Emperors, opium was cultivated as a cash crop. Later, under the British rule, poppy cultivation further boosted to generate revenue through domestic and international trade, particularly to China—the largest market of Indian opium. With the passage of time, British maintained a monopoly over opium and cannabis. The Second World War disturbed the trading pattern, however, and most of the opium was diverted to medicinal usage in treating the war victims.[20]

Illegal cultivation is still rampant in South Asia. The region is home to one of the world's largest illicit opium production zones—the Golden Crescent. It is also affected by illicit drug trafficking via the south-eastern route, the Golden Triangle. In both scenarios, India and Pakistan are the sandwiched states. Both are the victims as well as the source of illicit drugs. In both states opium and cannabis are commonly used. The cocaine produce from coca bush is not native to this region, however, recent reports claim its presence as smuggled from Latin America.

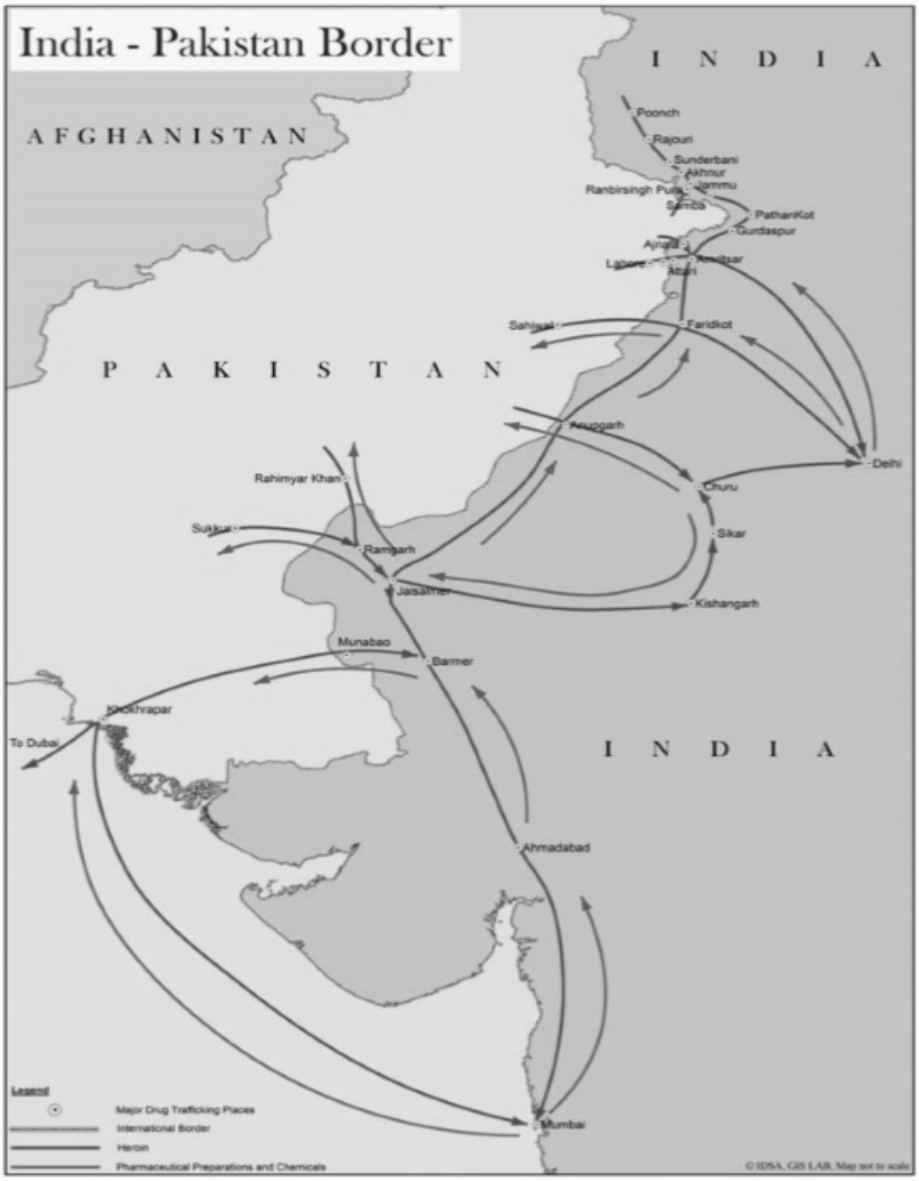
Opium

Opium is widespread in rural India, but the trend in urban population is different. A study 'Ethnographic account of traditional opium use in India' reveals

that opium is consumed in broadly two forms: the nugget and the powder form. The nugget is dissolved in water, filtered, and then the extract is drunk. In contrast, the powder is smoked.[21] Throughout the Indian border state of Punjab, opium is prevalent, refined as heroin or other illegal substances. Most of the addicts are aged between 15 and 35. Its abuse is common among the school-going boys as well. They eat small black balls of opium paste with tea. There are around 8,000 government liquor stores operating in the Indian Punjab state alone. The liquor consumption in the Punjab rose to 59 per cent in five years between 2005 and 2010.[22] According to the 2004 estimates there were around 1.4 million opiate abusers in India. According to 2010 estimates, the number of abusers rose to 1.54 million (heroin 871,000 and opium 674,000). Today, almost 18 per cent of India's population aged 15-64 is exposed to opiates originating between Southwest Asia and East Asia. Over the past three decades, India has become a transit hub as well as the destination for heroin and hashish production of Golden Crescent and Golden Triangle. It is observed that heroin of Southwest Asia reaches India via the India-Pakistan border and is then trafficked to Europe, the United States, and Southeast Asia. It is mainly traded via Gujarat, Rajasthan, Punjab, and Jammu and Kashmir. There is a two-way trade going on, as the heroin and hashish coming in and precursor chemicals such as ephedrine, pseudo-ephedrine, and acetic anhydride going out of India (see Map 2 below).

Map 2

India and Pakistan cross-border drug trafficking



Source: Institute for Defence Studies and Analysis, *IDSA*, Occasional Paper No.24

In contrast to Southwest Asian route, the heroin produced in the Golden Triangle is being trafficked into India through India-Myanmar border into the

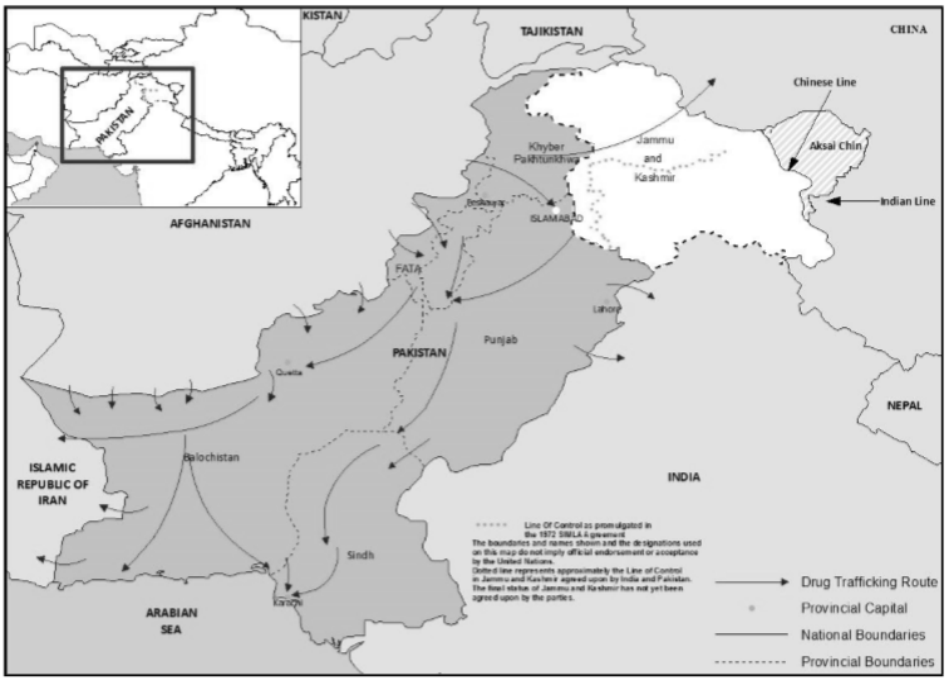
states of Mizoram, Manipur, and Nagaland from Bhamo, Lashio, and Mandalay. Besides smuggled opium, a small amount of illicit opium cultivation is reported in India, particularly in Himachal Pradesh, Kashmir, Uttaranchal Pradesh, Arunachal Pradesh, and to some extent in Karnataka.[23] India is the only country that has allowed domestic opium gum production, a portion of which also goes into illicit channels and is then converted into heroin. The heroin production in India is evident from the latest world drug report which states, "the share of the heroin of Southwest Asian region as proportion of total heroin seizures in India in the year 2011 was estimated at 45 percent, while most of the remaining around 54 percent originated in India itself."[24] It is being smuggled to bordering states such as: Bangladesh and Sri Lanka. Besides, it has reached North American and Canadian markets. The Canadian authorities continue to identify Indian as well as Pakistani origin of heroin in its market. The US and Indian state authorities indicated that there was a flow of heroin from the latter to the former.

In Pakistan, opium poppy is cultivated mainly in three types of administratively diverse areas: settled districts of Khyber-Pakhtunkhwa (KPK); merged areas or the Provincially Administered Tribal Areas (PATA), and the Federally Administrated Tribal Areas (FATA). Poppy cultivation in FATA and PATA accounts for almost all the production in Pakistan. In 2003, poppy cultivation was first reported in Balochistan province and in the same year poppy cultivation was reported at 6,703 ha in the country.[25] Pakistan is more vulnerable as compared to India as it shares border with Afghanistan, which is the world's largest opium producer. Five provinces of Afghanistan that account for almost 70 per cent of the total opium production of the country share border with Pakistan. These are: Kandahar, Nimroz, Nangarhar, Badakhshan, and Helmand. Pak-Afghan border is largely porous, which facilitates trafficking of Afghan drug to Pakistan and then to various parts of the world. The areas in Balochistan like Zhob, Chaman, Taftan, Mand, and Makran coast serve as dumping sites before it is trafficked to Turkey and Western Europe.[26] Map 3 below highlights reported

opium trafficking routes in Pakistan.

Map 3

Opium trafficking routes in Pakistan



Source: *Drug Use in Pakistan 2013*, UNODC and Ministry of Interior and Narcotics Control, Government of Pakistan.

According to the 2006 National Assessment Survey, conducted by UNODC, there were around 628,000 opiates abusers in Pakistan, of which 482,000 were heroin users. An estimated 125,000 Injecting Drug Users (IDUs) were also identified among the addicts (see Table 2 below).[27]

Table 2

Opiate users in Pakistan, province-wise

	Prevalence of Opiate Use (*Percentage of Population*)	**Prevalence of Opiate Use** (*In Number of Users*)	**Injecting Drug Users Prevalence** (*Percentage*)	**Injecting Drug Users** (*In Number of Users*)
NWFP	0.7	90,000	0.06	8,000
Punjab	0.4	200,000	0.2	100,000
Sindh	0.4	87,000	0.2	44,000
Baluchistan	1	45,000	0.1	4,500
Pakistan	0.7	628,000	0.14	125,000

Source: 'Illicit Drug Trends in Pakistan', UNODC, April 2008, p.15.

The annual prevalence showed in the above table has risen to 1.0 per cent from 0.7 per cent due to which there are currently 860,000 or 0.8 per cent regular heroin users and 320,000 or 0.3 per cent opium users. Combined there are 1.06 million opiate users in the country, according to UNODC's Drug Use in Pakistan 2013 Survey.[28] Highest prevalence of both heroin and opium users are found in the provinces of Balochistan and KPK. It is estimated that 1.6 per cent of the whole population of Balochistan is opiates abuser, while in KPK it is around 7.2 per cent of the whole adult population for opioids and opiates.[29] The Injecting Drug Users (IDUs) prevalence has also increased. It is estimated that 28.8 per cent of the people who injected drugs in the Southwest Asia are living with HIV, reflecting the high prevalence of HIV among the IDUs in Pakistan. China, Russian Federation, the United States, and Pakistan, account for around 62 per cent of the

global total of IDUs living with HIV. There are currently, 430,000 IDUs in Pakistan. Among those 430,000 addicts, around 73 per cent are reported to be sharing syringes. Punjab, due to large population, has the largest number of substance abusers and IDUs, around 2.9 million and 260,000, respectively. In Sindh, an estimated 570,000 people used opioids in the 2012.[30] The situation in India is not good at all. There are between 0.18 million to 1.1 million IDUs in the whole country. It was first concentrated in north-east of the country, but rapidly growing in Punjab (as stated above) and other states in north-west. Female and male ratio is 20 and 80 per cent respectively. Sixty-six per cent of females (out of 20 per cent of total IDUs) are found engaged in sex work in exchange for drugs in India.[31]

Cannabis

Cannabis is also very popular and widely used in India. The way coca plant was sacred to the Andeans, the cannabis plant also has religious cosmology for the Indians. It is mentioned in the Hindu text, the Vedas. In the year 2000, estimated number of cannabis abusers in India was 2.3 million or some 3 per cent of the whole population. According to the International Narcotics Control Board India Report 2005, there were approximately 8.7 million cannabis abusers in the country though.[32] Like poppy, it is also illicitly cultivated in the states of Jammu and Kashmir, Himachal Pradesh, Uttar Pradesh, Andhra Pradesh, Tamil Nadu, Kerala, and Manipur. It is used in India as well as in Pakistan in three forms: Bhang, Ganja, and Charas. Bhang is composed of matured leaves; Ganja is derived from the flowering top of the female plant, while Charas is the resinous exudation secreted by the leaves, young flowers and fruit of the female cannabis as well as bark of the stem. Ganja and Charas are usually smoked and Bhang is drunk after processing. Bhang usage is a well-established social custom in many parts of East and North India, while Ganja smoking is rampant in the Uttar Pradesh and Bihar.

Cannabis in Pakistan is popular and common too; around 3.6 per cent of

the whole population is addicted to cannabis (which is higher than India according UNODC estimates).[33] The reasons of its popularity are low price and easy availability. Charas is the most prevalent form of cannabis used in Pakistan. Bhang usage is also very common. The cannabis plant grows wildly in many parts of the country, particularly in mountainous northern tribal areas of Pakistan where it is openly sold in the bazaars. Although it is illegal in Pakistan, its possession is not penalized, except in the regions such as Islamabad, and Lahore. Like opium, most of the cannabis is trafficked to Pakistan through Afghanistan, but it tends to be processed in Orakzai and Kurram agencies of Pakistan. Geographically, these areas are complex and inaccessible. From these areas, it is then transported by caravan throughout the border areas of KPK to reach Balochistan, where it is trafficked out of Pakistan via Makran Coast and Karachi seaport.[34]

Apart from the traditional organic drug abuse in India and Pakistan, the synthetic drug abuse is also on the rise. It is increasingly replacing the traditional usage. The worldwide shift in patterns of drug abuse is the catalyst behind this drive. One of the main reasons for the surge in synthetic drugs abuse is that it is less expensive and easily made. The following section will describe the emerging trends in patterns of drug abuse worldwide in general and in India and Pakistan in particular. The main purpose of highlighting emerging trends is two-pronged: to draw attention towards this emerging class of drugs, and to infer recommendations for formulating effective policy against the illicit drug menace.

Emerging trends: Implications

Synthetic drugs are chemical-based drugs. These are designed to achieve similar effects as of marijuana and cocaine but they are not derived from cannabis plant or coca bush. With the inclusion of different chemicals, their effects on the body are more severe than marijuana and cocaine, including severe paranoia, self-mutilation, hallucinations and elevated heart rate. It is important to note here that mostly, the consumer does not exactly know the chemicals used in these drugs,

which compounds the health risk. Cannabis-based synthetic drugs are called Cannabinoids, while cocaine-based are called cathinones. Former is best known as K2 or Spice, while the latter is known as Bath Salts. In 2011, in the United States alone, there were around 28,531 emergency room visits of cannabinoid-affected patients. According to the latest estimates by UNODC, the worldwide organic (plant-based) drugs markets are stable or declining, while the synthetic drugs abuse is increasing. Apart from cannabinoids and cathinones, Fentanyl usage is also on the rise. It is a powerful synthetic opiate. It is more potent than morphine (derived from opium). To enhance its potency, it is usually mixed with local heroin or cocaine that makes both extremely injurious to health. Recently, the United States and Canada have issued warnings against Fentanyl, as a number of deaths have been reported due to its usage. Another homemade cheap but more potent substitute of heroin is Krokodil, extensively used in Russia. It gets its name from the scaly skin that forms at injection site. E-cigarettes are also getting popularity worldwide. It is a battery operated device used as an alternative to traditional smoking. It is also found in India and Pakistan, however, its usage is negligible. E-cigarettes deliver nicotine, which is highly addictive.

The Amphetamine-type Stimulants (ATS) market is also booming. ATS refers to the group of drugs that include amphetamine, methamphetamine, methcathinone, fenetylline, ephedrine, and 3,4-methylenedioxy-methamphetamine (MDMA) also called Ecstasy or Molly. ATS is rapidly gaining popularity because of its affordability. It is also convenient in use. For instance, taking pills avoid the hassle of injection and smoking. ATS is often associated with modern lifestyle as well. A significant surge of ATS was observed in North America, particularly Canada, and in the East and Southeast Asia, particularly in Myanmar. More than 94 million pills were seized in the year 2009 in Southeast Asian region. The seizures were around 32 million pills in 2008. From Myanmar, it is being trafficked to Thailand, and Laos. ATS, mostly methamphetamine is reported to be trafficked to Asia and Oceania through Iran. Turkey also reports that the

methamphetamine in the country is smuggled from Iran and then trafficked further to East and Southeast Asia by air. ATS is also expanding in Europe. This shifting trend in pattern of drug abuse has also been observed in Afghanistan. In a country like Afghanistan, one can surely expect to find drugs like opium, hashish, and heroin but the situation is somewhat changing with the advent of ATS (methamphetamine). In 2008, the first methamphetamine seizure was reported of around four grams. Currently seizures have increased sharply to some 17 kilograms in 14 provinces out of the country's 34. Recent seizure data reveals that two types of methamphetamines are being used in the country: first is the crystal meth (called Shisha in Dari that means 'glass pane') and the second is tablets. Former is seized mostly in the western Afghan provinces of Herat, Farah, and Nimroz (probably originating from neighbouring Iran) while the latter was captured in Kabul and Kunduz (probably trafficked from Central Asia). According to Dr. Khalid Nabizada[35] the rate of methamphetamine samples analyzed in the laboratory of Counter Narcotics Police of Afghanistan (CNPA) is increasing gradually. In 2011, only 16 samples were analyzed. In 2012 and 2013 it rose to 99 and 93 samples, respectively. In 2014, around 146 cases were tested positive for methamphetamine, and they stood at 206 in 2015.[36] According to the Afghan National Drug Survey 2015, there are between 70,000 and 90,000 ATS users in the country. The ATS use is relatively very low as compared to opiates, but its gradual rise is not only alarming for Afghanistan itself but for the neighbouring countries as well.

In this grim scenario, South Asia is highly at the risk. Recent reports claim that the region is affected by methamphetamine trafficking taking place in Southeast Asia and Central Asia via Afghanistan. India and Pakistan, both are vulnerable to these trends as India is having some of the largest chemical industries in the world. It exports ephedrine and pseudoephedrine. Both chemicals are used in manufacturing of methamphetamine. In 2003, the first known illicit ATS laboratory was dismantled in Kolkata. Similarly, in 2006 another laboratory was

seized in Hyderabad. In 2009, India seized 1.2 metric tonnes of ephedrine. In 2010, two more laboratories were discovered and a large amount of ephedrine and pseudoephederine was seized. The country is reported to have become a significant source of Ketamine (legally manufactured in India). It is smuggled to East and Southeast Asian markets. It is often sold as Ecstasy in these markets.[37]

Pakistan on the other hand is a known destination and transhipment hub for precursor chemicals such as: acetic anhydride, ephedrine, and pseudoephedrine. It is amongst the countries that had the highest estimates of pseudoephedrine, according to the 2011 ATS survey. In global comparison for legitimate ephedrine requirement, Pakistan is ranked fourth largest country in the world. Its legitimate requirement has reached 22,000 kilograms, behind China, United States, and Republic of Korea. According to the 2006 National Assessment Report on Problem Drug Use in Pakistan, only two types of ATS were reported to be used in 2006, Ecstasy and benzodiazepines. Former is smuggled, as mentioned above, and the latter is either imported or locally manufactured. Its availability and affordability is now in the range of the common man as similar kinds of locally made pills are also available in the black market. As mentioned above, mostly the abusers do not know the kinds of chemicals used in the preparation. Dearth of drug-testing facilities in both India and Pakistan, further add to the worries. Already grappling with endemic organic drug abuse, the rise of synthetic drugs in India and Pakistan is certainly posing serious challenges for illicit drug control. There is a dire need to initiate awareness campaigns about the dangers of these chemicals to avoid their misuse.

The surge of synthetic drugs use is grave and alarming. Comprehensive policy with an effective implementation to curb the prevalent and emerging illicit drug menace is necessary. It is observed that Indian and Pakistani authorities are more concerned with opiates (heroin and opium) and cannabis (hashish or charas). Much of the focus is on the seizure of illicit drugs; however, no strict measures are being taken to control synthetic menace and rampant prescription abuse in both

states. There is a need to establish drug-testing facilities, so that actual types and trends of ATS can be determined.

The addicts on the other hand, are maligned and considered untouchables in the society, and their rehabilitation has never been a priority. In Pakistan, KPK and Balochistan are reported to be highest drug-dependent provinces. Special attention is required to deal with this issue and to provide long-term treatment and care for drug dependents. Similarly, in Punjab the injecting drug users are comparatively higher, posing serious health problems not only for themselves but for their family members and the society as well. Cocaine use is negligible (around 2,300 people used cocaine in the year 2012, particularly in Azad Kashmir and some limited number of its abusers were reported to be treated at Modern Addiction, Treatment and Rehabilitation Centre (MATRC), Karachi. Its presence in the region is a matter of serious concern though. In India, injecting drug use is rising. The country is a large manufacturer of pharmaceuticals and it is observed and reported that IDUs are closer to the abuse of licit pharmaceuticals than to illicit. This pharmaceutical drug abuse is the catalyst behind the surge of IDUs and HIV/AIDS patients in the country.

Hardly, any government-sponsored institute provides complete rehabilitation facilities to drug addicts. Mostly non-governmental organizations and private institutes within their limited resources are performing this job. State intervention in this regard is highly required. Moreover, it is suggested that drug education should be included in school syllabi and teachers, doctors, social workers, and community health workers should be trained in a manner to provide early remedial action. Both states also need to strengthen counter narcotics surveillance on borders.

Annexure

Schedule I, II, III, IV and V drugs

Schedule I: A highly addictive drug. It has no safe, accepted medical use in the United States (US), such as heroin, marijuana, LSD, PCP, and Crack cocaine

Schedule II: A highly addictive drug, but has safe and accepted medical use in the US. These drugs can cause severe psychological or physical dependence. These drugs include certain narcotic, and stimulant and depressant drugs. Some examples are morphine (Percodan), methylphenidate (Ritalin), dextroemphetamine (Dexederine), oxycodone and cocaine.

Schedule III, IV or V: These are addictive but less than Schedule II. They have safe and accepted medical use in the US. These drugs include those containing smaller amount of narcotic and non-narcotic drugs, anti-anxiety drugs, tranquilizers, sedatives, stimulants and non-narcotic analgesics. Examples include acetaminophen with codeine (Tylenol No.3), paregoric, hydrocodone with acetaminophen (Vicodin), diazepam (Valium), alparzolam (Xanax), propoxyphene (Darvon), and pentazocine (Talwin).

Notes and References

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