

**A DISSERTATION ON
LEGALIZATION OF NARCOTIC AND PSYCHOTROPIC SUBSTANCES
FOR MEDICOLEGAL PURPOSES WITH SPECIAL REFERENCE TO
CANNABIS IN INDIA.**



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DECLARATION

I hereby declare that I Dhaval Patel (19ML008) have prepared this dissertation titled “**Legalization of narcotic and psychotropic substances for medicolegal purposes with special reference to cannabis in India**” under the guidance of prof. Dr. G.V.N Rao and prof. Neeraj Kumar Gupta for grant of LL.M Degree. This text reported in this dissertation is the outcome of my own efforts and no part of this report has been copied in any unauthorized manner and no part in it has been incorporated without due acknowledgement.

Place: Ahmedabad

Date: 05/08/2020

Dhaval Patel

19ML008

CERTIFICATE

This is to certify that this thesis work title, “**Legalization of narcotic and psychotropic substances for medicolegal purposes with special reference to cannabis in India**” submitted to Institute of law, Nirma University, Ahmedabad by Dhaval Patel (19ML008) towards the fulfillment of the requirement for the award of LL.M degree is a bonafide record of work carried out by him under our supervision and guidance. To the best of our knowledge and belief, it contains no materiel previously published or written by another person nor material which has been accepted for the award of any degree or diploma of the university or other institute of higher learning, except where due acknowledgment has been made in the text.

Place: Ahmedabad

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CHAPTER 1

1.1 Introduction

The Narcotic Drugs and Psychotropic Substances Act, which was set up in 1985 is generally known as the NDPS Act. An act of the Parliament of India, it forbids an individual from cultivating or manufacturing or producing, selling, possessing, transporting, purchasing, consuming, or storing any psychotropic substance or narcotic drug¹. Cannabis plays a vital role in the NDPS act. Cannabis plants are considered as one of the oldest cultivated plants in the history of mankind. The first hint of the importance that it could be used as a medicinal purpose was founded in China but never reached that level as it did in India. Various uses of cannabis could be done taking into consideration the social, cultural, economic and medicinal aspects. Hemp fibers are a multibillion-dollar industry which could be beneficial for the Indian economy if done legal. Various legal amendments have been taken place in India since the time of independence, where it was considered legal before but due to some circumstances it is now considered to be illegal. This dissertation discusses the current stand of the judiciary system in India towards legalization of psychotropic and narcotic materials. This is discussed with reference to the advances made in medical research that prove the vast medical relief offered to the sick through the use of psychotropic sources. The industrial benefits and the economic boost that result from removing judiciary bottlenecks through legalization is explored. The judiciary system of India at present, through the legal framework of the NDPS Act, 1985 criminalizes the possession, sale, cultivation, and usage of psychotropic and narcotic materials, except for a few. The strides taken on the global front that have influenced the subsequent amendments are also traced. The study in particular

¹Pinto, R. "Narcotics Drugs and Psychotropic Substances Act, 1985: A Commentary." Indian Journal of Social Work 50, no. 1 (1989): 118-124.

intends to prove the pros of legalizing the plant cannabis sativa. The economic, social, and medical benefits of decriminalization in context of the current global trends and the economic viability of cultivating the cannabis plant, due to it being native to the Indian subcontinent. It also highlights the necessity to embrace the global trend towards a broader minded acknowledgement of the medicinal properties of this ancient plant for the prevailing diseases of the modern century.

1.2 Statement of Problem

The use of cannabis and the impact that creates socially economically for its cultivation pose serious threats to mankind. Given its adverse nature, medicolegal uses should be reviewed properly to make legalizing possible. The latest legal provisions that are setup by the legislation with reference to cannabis in India could be modified and adopted for the purpose of growth of the country. This is because there are many countries that have noticed a drastic change after legalizing cannabis. Hence, there is a huge necessity to embrace the global trend towards a broader minded acknowledgement of the medicinal properties of this ancient plant for the prevailing diseases of the modern century. Demand for drug legalization is gaining support and recognition throughout the world now. Research studies have shown cannabis to have chronic pain relief properties amongst a myriad number of medical benefits. There are numerous advantages and disadvantages associated with it, which must be critically examined.

1.3 Literature Review

Cannabis finds its history and origin in Central Asia. It migrated to Europe between 2000 BC to 1400 BC². Hemp, a variety of cannabis was used by the French. The project traced how cannabis

²Zuardi, Antonio Waldo. "History of cannabis as a medicine: a review." *Brazilian Journal of Psychiatry* 28, no. 2 (2006): 153-157.

travelled from Asia to Europe. Ancient China used it for treating gout and rheumatism. Use of cannabis is spun into the rich fabric of the Indian history. The Atharva Veda, dating back to CA 2000-1400 BC has the earliest reference to ‘bhang’, a traditional drink made from the dried leaves, seeds, and stems of the cannabis plant. Bhang is still offered to Lord Shiva during worship on Shivaratri (A Hindu festival). It is then consumed by devotees³. The Buddhist’s holy book, Mahakala Tantra refers to Cannabis in a medical preparation. In Sikhism, Bhang is considered a war drink, said to have been prepared by Guru Gobind Singh to motivate soldiers going into battle.

Internationally, cannabis is widely prohibited till around 2018. In October of 2018, Canada legalized recreational cannabis use. This was controversial at the time. Since then, there have developed many proponents of legalization who quote the vices of black market and underground drug marketeering dealings. Legalization is advocated as a way to eradicate the illegal trading and risks of adulterated substances⁴. Proponents also show the potential for increasing state revenues through taxes, improving quality and safety controls and better utilization of marijuana for researched medical benefits. Critics warn against legalization pointing to the obvious problem of drug abuse and other health complications resulting from drug overdose, effects of cannabis on pregnancies and underage users.

The Opium Act was formed to consolidate the legal framework in the cultivation and manufacture of poppy and opium. It dealt with the appointment of officials, assistant opium officers and other

³Balhara, Yatan Pal Singh, and Shachi Mathur. "*Bhang-beyond the purview of the narcotic drugs and psychotropic substances act.*" Lung India: official organ of Indian Chest Society 31, no. 4 (2014): 431.

⁴Basin Bhavya. Legalization of cannabis in India, Asian law and Pacific policy review, a creative connect international publication, (2018). ISSN 2581 6551(Volume 3)

designations to superintend the provisions of the Act. Duties and powers of the officers are prescribed in the Act. Licensed cultivation of poppy is harvested under the supervision of the officers and procured exclusively by the Government. Penalty for illegal and unlicensed cultivation of poppy is chalked out.

The Dangerous Drug Act, 1930 was ratified by the Indian Government, to honour its obligations given in the International Opium Convention 1925, in Geneva. It prohibited people to import, export, divert, or transship dangerous drugs except through the port of Suva in Fiji. The following are indicated by the Act as 'dangerous drugs': raw opium, coca leaf, Indian hemp and resin. Persons found guilty of possession or trafficking these shall be convicted and sentenced to imprisonment according to the Third Schedule of this Act.

The NDPS Act, 1985 was set up to fortify the existing legal framework for drug abuse, within the country. It was brought forth primarily in sync with the U.N.'s Single Convention. This Act criminalizes cultivation and sale of psychotropic and narcotic materials.

With the gaining global acceptance of cannabis as a recreational and medical aid, a growing lobby of support for decriminalization is building⁵. A more liberal view on cultivation, possession and sale of cannabis for medicinal, recreational and research purposes is sought. The benefits in terms of economic, industrial as well as in Governmental revenues through taxes are discussed. A certain level of licensing has been issued of late to IIIM in collaboration to cultivate cannabis for research purposes.

⁵Pongratz, Miklos. "Constitutional Law-Medical Marijuana and the Medical Necessity Defense in the Aftermath of *United States v. Oakland Cannabis Buyers' Cooperative*." W. New Eng. L. Rev. 25 (2003): 147.

The debate over drug legalization is creating a widening interest around the world and receiving increasing support from the western worlds⁶. Narcotics is a drug that primarily aims to give pain relief through drowsiness and stupor. Psychotropic substances are drugs that stimulate the central nervous system, are sedative, sleep inducing and hallucinogenic in nature. Psychotropic drugs are a composition that interferes with the normal functioning of the brain and results in alteration in perception, mood, and cognitive behaviour. In the right hands it is a boon to society. As with any object of man's creation, in the wrong hands, it creates havoc. These substances are, therefore, naturally subject to various degrees of Governmental control in trade, manufacture, distribution and use. It is essential to maintain a fine balance between therapeutic administration and risks of addiction. The wrongful use of substance becomes a health risk and a social problem of abuse.

1.4 Aim of the study

The aim of the dissertation is to identify that how legalizing cannabis again at this particular point of time would be beneficial for the country taking into consideration the medical, social, and economic aspects. Apart from this, it is intended to generate awareness regarding the uses and importance of cannabis through cannabis through which they are connected in their day to day lives. This will further explore enhancing the debate for legalizing cannabis and prove its constitutionality by examining the decision exercised in the name of the betterment of society.

1.5 Significance of the study

The significance of the study would be to help in growing the economy of the country, how

⁶Stern, Ruth C., and J. Herbie DiFonzo. "The End of the Red Queen's Race: Medical Marijuana in the New Century." *QLR* 27 (2009): 673.

could it be helpful. Legally what steps could be taken into consideration for the purpose of legalizing cannabis in India. What would be the future of the country if it is legalized and point out the differences between the countries that made it legal, with taking into consideration thee before and after scenario.

1.6 Hypothesis

Upon decriminalization from the legal framework, cannabis, a narcotic drug can be leveraged for the socio-economic development of the country in an impactful manner.

1.7 Research Methodology

This research is largely exploratory in nature and hence relies substantially on the literature review. A large number of primary as well secondary sources had been availed during this course of the entire data and information collection process. The primary sources used were direct interviews with relevant sources and secondary sources were journal articles, books, and research papers, to name a few. The information gathered from these sources form a reference for the conclusions in this research. Proper accreditation has been given to the sources of data to ensure that no plagiarism issues emerge up at the later stages.

Chapter 2: Genesis of Cannabis

2.1 Genesis of Cannabis

2.1.1 History of Cannabis

Cannabis is one of the first cultivated plants known to the history of humanity. It is indigenous to

Central Asia and Southeast Asia. Steppes of Central Asia were expected to be its point of origin. It has been used as a medicine and a way of achieving trance since ancient times. It's commonly known as *Cannabis sativa*, indigenous to Europe. Another species known as *Cannabis indica* is indigenous to India.

2.1.2 Originated in Central Asia

Cultural and archaeological evidence from the Neolithic culture in China confirm its origin as those found in areas of southern Siberia and Mongolia. Its first use was found in China around 5000 years ago. It gained importance in the world due to its commercial, medicinal, and spiritual value. Zuardi⁷ wrote that the Chinese in their ancient times, made use of the entire plant, i.e., root and seeds in the form of medicines; leaves and flowers as source of intoxication; and stem as a source of textile, paper, and rope. The cannabis seeds found their use as the prime grains in ancient China. In 2737 B.C., it was known to be used during the reign of Emperor Shen Nung for treating rheumatism and gout. It was also known that the Hua T'o, the creator of Chinese surgery, in the initial phase of the Christian era, used a recipe, made from wine and hemp, called Ma-Yo to anaesthetize patients before surgeries. Its medicinal uses were compiled in the Chinese Pharmacopeia by Emperor Shen Nung.

However, Cannabis's medicinal applications didn't gain significant importance in China as it did in India. Researchers believe that when natural events accidentally burned the plant led to the discovery of its psychotropic nature. Cannabis, also called as Marijuana, as a psychoactive was known in China during the period when Shamanism, an oldest spiritual practice, was practiced in

⁷Zuardi, Antonio Waldo. "History of cannabis as a medicine: a review." *Brazilian Journal of Psychiatry* 28, no. 2 (2006): 153-157.

Central Asia. As Shamanism practice gradually got restricted during the Han dynasty, Cannabis disseminated to other parts of Asia and India.

From China, it spread to Korea in 2000 B.C. It was known to have landed in the South Asian subcontinent when invaded by Aryans, who spoke an archaic Indo-European language. The oral tradition grew along with the Aryan religion and gave birth to the 4 Vedas, the sacred Hindu texts. From 2000 to 1000 B.C, it finds an extensive history in India. It was believed that Lord Shiva, post an angry discussion with his family members, wandered off into different fields and fell asleep under a leafy plant. Upon waking up, he sampled the leaves of the plant out of curiosity, and then found himself instantly rejuvenated⁸. It was well known in India for preparations like Bhang, Ganja, and Charas. Bhang is a drink made from boiling dry leaves with milk. Made out of female plant's flowers, Ganja is stronger than bhang. But Charas is the strongest of all, which is produced from blooming flowers and contains a resin as well. Hashish and Charas are used in communal smoking using Chullium, an earthenware pipe. Because of its deep-rooted connection with religion, it is widely spread in India. Bhang continues to persist in India in religious ceremonies like Holi. Sadhus and Indian ascetics use it to seek spiritual freedom.

In Tibet, it was considered sacred. It was widely used in Tantric Buddhism to facilitate meditation. It was used for both medicinal and religious purposes. It was more famous for having been used for medicinal purposes because of the following reasons: olden medicines in Tibet stemmed from Hindu medicine, it's availability in abundance, botanical drugs were given more importance in Pharmacopoeia.

⁸Gumbiner, J. History of Cannabis in Ancient China. Retrieved July 7, 2020, from [From psychologytoday.com: https://www.psychologytoday.com](https://www.psychologytoday.com)

Since the ninth century, before Christ through the Aryans, Assyrians also were aware of the Cannabis' potential psychoactive impacts. It was used in religious ceremonies as Qunubu to enter into a trance.

Persians were well aware of the biphasic effects of Cannabis-initial Euphoric and late dysphoria effects, since the Christian era. Hashish was quite popular in Persia back then.

2.1.3 From Asia to Europe

From Asia, it was migrated to Europe in the middle between 2000 B.C. to 1400 B.C. by "Scythians, Nomadic-Indian-European" group⁹. The Aryans introduced Cannabis to Scythians. Historical and archaeological evidence like charred seeds found near Scythian tombs in Siberia and Germany proved its usage for ritualistic and euphoric purposes. It was used in Germany some 2800 years ago. It was believed to have been used by Greeks in 200 B.C. for curing earaches and inflammation. In mid-1500 A.D., it was introduced to the world by Spanish for growing Hemp. Spanish and English colonies imported botanical varieties for Hemp.

The plant's medical application was found in 700 B.C in the Middle East. It was believed to have been known in Arabia in 1000 A.D. Hashish began to spread from Persia to the Arab world. It was introduced to Iraq during the reign of Caliph by Bahraini ruler's entourage. Hashish was known to have been introduced by some Islamic travelers from Syria. During Napoleon's invasion of Egypt in 1798, in lieu of alcohol, the troops resorted to Hashish. It was taken to France from Egypt (M.E. to Europe) by Napoleon in 1799 A.D. for investigations on pain relief and sedation

⁹Blaszczak, By. "*Marijuana's History: How One Plant Spread Through the World.*" *Live Science* October 17 (2014).

qualities.

It was introduced by Arab traders in the 15th century to Africa. Smoking pipes unearthed in Ethiopia were found to have traces of Cannabis. It was known to South Africa by the indigenous Khoisan and Bantu.

2.1.4 To South America

It was introduced to other parts of the world through Africa. African slaves from Angola transported to Brazil brought Cannabis with them in 1600 A.D. Reports support the fact that it was used in religious rituals, especially the ‘Catimbo.’

2.1.5 To North America

Hemp a cannabis variety was highly used for the production of cloth and rope in 1700. A.D. By 1890, Hemp had been put back by cotton, but it was not grown for their psychoactive properties. Marijuana reached North America in 1900 A.D. during the Mexican revolution with immigrants fleeing to the U.S¹⁰. It was listed in U.S. pharmacopoeia also from 1850 until 1941 owing to their medicinal benefits.

2.2 Development of Cannabis

In the mid 18th century Swedish botanist Carl Linnaeus identified that the psychoactive Cannabis sativa or Cannabis plant, known as Marijuana in other words is composed of psychoactive properties The Cannabis’ subspecies recognized as Cannabis sativa L, termed as Hemp as well, is

¹⁰ Tackett, B. *History of Marijuana*. (2019). Retrieved July 7, 2020, from Recovery.org.

the Cannabis' non-psychoactive form.

Later, Jean-Baptiste Lamarck, a French Biologist identified cannabis India as a species of Cannabis indigenous to India. In the early “20th century”, the third classification of Cannabis was identified by D.E. Janischevisky, a Russian botanist, as cannabis ruderalis. A unique trait that C. ruderalis possess is ‘auto-flowering’. Pure strains of Indica or Sativa are rarely available these days with the influx of wide varieties of crossbreeds.

THC and CBD are the two psychoactive compounds of the Cannabis plant known to be cannabinoids. The main psychoactive element found in Cannabis is Tetrahydrocannabinol (THC). The most important cannabinoid after THC that is found in Cannabis is CBD (cannabidiol). THC and CBD balance influence the high, while the other natural compounds in the plant Flavonoids and Terpenes also play their role.

The developments of Cannabis on a broader historical scale:

2.2.1 In Ancient Times

Over a period, millennia cannabis varieties have been used as sources of food, cloth and paper, analgesics, anti-inflammatories, antiepileptics and Euphoriant.

2.2.2 As a crop for food and textile

Desjardins (2018) mentioned that in 4000BC., it was one of the widely cultivated food crops and was one of the grains in China. In 2737 BC, Emperor Shen-Nung recognized it as a medicinal drug that could be used for treating ailments like Rheumatism, Malaria, and Gout

2.2.3 As a Euphoriant

Between 2000-1400 BC, Scythians discovered the healing properties of Cannabis. In the period between 2000-1000 BC, in ancient India, Cannabis was depicted as a 'Joy-giver' in Atharva Veda. Some believed it as a 'gift from the gods.' Its preparation, known as Bhang, was used for its anesthetic and anti-phlegmatic properties. Cannabis was used to treat fevers and dysentery in ancient India. Exploration of medicinal benefits started in this period paving the way for treating epilepsy, rabies, anxiety, and bronchitis.

2.2.4 As an Anti-inflammatory

Its Anti-inflammatory properties were first mentioned in Egyptian medical knowledge notes called Papyrus. In the subsequent years, it was used as an anti-inflammatory by Egyptians. In Middle east it was recognized as the most important of the 10,000 medicinal plants. Greeks and Romans used it for curing earaches and inflammations. It was published in the book Materia Medica in 70 AD by roman physician predacious Dioscorides. In 600BC it gained popularity in the Indian Ayurvedic medicine as a cure for leprosy.

2.2.5 As an Analgesic

In 207 AD, Hua T'o first recorded its analgesic properties.

2.2.6 As an Antiepileptic

In 1000AD Arab scholars regarded it to be capable of treating epilepsy in an efficient manner. Avicenna, in 1025 AD Avicenna published Cannabis to be proficient in treating oedema, Gout, severe headaches, and infectious wounds. His work laid a significant effect on western medicine.

After reaching the African islands, cannabis was further used in the treatment of asthma, malaria, dysentery, and fever. Americans were introduced to it by the Spanish for Hemp fibres. Its psychoactive and medicinal properties were known to Americans much later Napoleon brought Cannabis back from Egypt to France in 1799 for carrying out investigations on its analgesic and sedative qualities¹¹.

2.2.7 Heading West

Until the mid-1800s, people in the west were unaware of the Cannabis' medicinal uses. It was only after the works of "Irish Physician William Brooke" O' "Shaughnessy" that Cannabis' therapeutic uses got introduced to the western world, and western medicine reacted promptly to his research. He worked with the Britishers in Calcutta, India for several years. O' Shaughnessy performed several experiments and evaluated the toxicity on animals and later on patients with different pathologies. He published a comprehensive study establishing a panorama of uses of this wonder plant in treating a variety of ailments like rabies, rheumatism, cholera, tetanus, cramps, and delirium tremens. With his work, Indian Hemp gained a foothold in European Medicine. The cannabis' presence as extracts proliferated rapidly in over-the-counter medications. Cannabis was registered as a treatment option for nearly hundred symptoms in the US pharmacopoeia by 1850¹².

Until the early 1900s, Marijuana was not used on a large scale for recreational purposes in the US Mexico revolution's immigrants, who fled into the US, introduced this recreational practice to the

¹¹ procon.org. Historical Timeline. Retrieved July 7, 2020. (2019). from medicalmarijuana.procon.org: <https://medicalmarijuana.procon.org>

¹² researchgate.net. History of medical cannabis. Retrieved July 7, 2020. (2016, January). from researchgate.net: <https://www.researchgate.net>

Americans. Anxiety towards the drug started to develop throughout the 19th century, which led to the imposition of restrictions and taxes.

Discovery and synthesis of the molecular structure of THC, the main psychoactive component of Cannabis, by DR. Raphael Mechoulam in 1964 led to growing interests in scientists to research in the plant.

In 1970, it was discovered that Cannabis could reduce Intraocular pressure and hence can be used in treating Glaucoma. In cancer chemotherapy, where conventional antiemetics fail, Cannabis was proven as a boon to such patients. Because of the antiemetic and appetizer properties of the drug. Cannabis and its derivatives were categorized under Schedule 1 drug in the US, restricting further research. Its uses in cancer chemotherapy led to the discovery of Marinol, a synthetic drug of THC. The proven results of Marinol forced rescheduling it into Schedule II drug while leaving the natural THC extracts still in Schedule I.

The climax of the Cannabis' medical applications reached in the late nineteenth century due to the below reasons:

- Difficulty in obtaining the replicable effects when administered in dosage forms like extracts or tinctures whose power was dependent on various elements.
- The active components THC wasn't yet isolated at that time.
- Vaccines were being developed for multiple infections.
- Availability of more efficient analgesics.
- Cannabis being a water-insoluble preparation was not easily injectable and hence saw a decline as injections started to surge.

Lastly, several imposed legal limitations confined its medical research and application on

Cannabis

Cannabinoid receptors CBD1 & CBD2 were discovered in the brain in 1988. The most recent and significant discovery since ancient times is the endogenous cannabinoid system. With the renewed scientist's interest, its therapeutic effects are once again being evaluated with more precise and accurate scientific methods¹³ (Zuardi, 2006).

2.3 Legal aspects of Cannabis

The medical and psychoactive uses of Cannabis have been known through the time millennia remains a topic of controversy. Jurisdictions across the world banned Cannabis at various times.

The legal aspects associated with Cannabis for recreational and medicinal applications differ from country to country and with regards to the cultivation, possession and distribution. The mode of consumption and for what medical conditions it can be used varies as well. "Three United Nations treaties" that govern the policies regarding the legalization of cannabis in most of the countries are as follows:

1. Single Convention on Narcotics Drugs (1961)
2. Convention on Psychotropic Substances (1971)
3. Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988)

Cannabis' application is banned in almost all the countries Despite this, few countries have formulated a policy of decriminalization to allow possession of small quantities, a non-criminal

¹³Zuardi, Antonio Waldo. "History of cannabis as a medicine: a review." Brazilian Journal of Psychiatry 28, no. 2 (2006): 153-157.

offence. Holding a small quantity is still rendered a punishable offence in some countries in Asia and the Middle East.

2.3.1 Marihuana Tax Act

Cannabis' introduction in the western medicine can be found amid the 19th century. Until the early 1900s, the U.S. was not known for using marijuana for hedonistic purposes. Americans were introduced to this recreational practice by the immigrants from Mexico revolution who had then fled into the U.S.

Harry Aslinger took up the charge as the first commissioner of the Federal Bureau of Narcotics in 1930 and made numerous efforts for making marijuana illegal in the state. He ignited the flames by advocating racism and Cannabis insanity to help sway public opinion towards the prohibition. Cannabis has been put under the Marijuana Tax Law of the Drug Enforcement Agency. Its criminalized possession of the plant throughout the country.

By imposing heavy excise taxes on sale, possession, or transportation the government was able to ban cannabis. Anyone who was using the plant must register and pay taxes following the usage under this Act, if meant for medical purposes or other uses. The severe punishments and the extensive paperwork associated with the law while dealing with the plant made its use tougher. The Supreme Court conferred the right upon the state to handle commercial transactions of Cannabis in the entire U.S. territory. Following the law, all the Cannabis preparations listed were removed from the U.S. pharmacopoeia in 1941.

The LaGuardia Committee formed to look into the Marijuana problem in New York and reported that the two qualities of marijuana euphoria-producing action and appetite-stimulating action,

which may have useful responses in humans. It also mentioned that the reported crimes and violence that were linked with marijuana were not substantial.

By the mid 20th century it gained immense social importance as a result of its utilization for recreational uses. Young adults' percentage of that had consumed Cannabis at least one time in their lives escalated from 5% in 1967 to 44% in 1971, 49% in 1975, 68% in 1980, and 63% in 1982¹⁴.

2.3.2 As a Schedule I drug

As a part of the 'War on Drugs', the Controlled Substances Act, led by President Richard Nixon, repealed the Marijuana Tax Act by 1970. This was listed in Schedule I as pharmaceutical items which have no proven therapeutic benefit and strong misuse risk. It led to the curtailing of marijuana in 1970.

The two new significant uses of the drug were discovered soon after the law was passed. Its ability to reduce intraocular pressure helped to treat patients with Glaucoma. Robert Randell, a schoolteacher, suffering from Glaucoma, was using Cannabis to prevent himself from going blind¹⁵. He was arrested in this regard but fought back to get permission from the government to use the drug. He was the first legal smoker in the U.S. since 1937. The second use discovered was its antiemetic properties. Reports suggested that patients who had smoked the drug before the chemotherapy helped them control the vomiting and make them hungry. 94% of patients who use

¹⁴Zuardi, Antonio Waldo. "History of cannabis as a medicine: a review." *Brazilian Journal of Psychiatry* 28, no. 2 (2006): 153-157.

¹⁵medicalcannabis.com. *Medical History Timeline*. (n.d). Retrieved from medicalcannabis.com: <https://medicalcannabis.com>

medical marijuana have chronic pain. Prior to its restriction, it was prescribed for several medical conditions. And also, being a Schedule I drug, it became harder for those wishing to pursue research on its medicinal properties.

The proven results of Cannabis in alleviating the horrifying toxic side effects of Cancer Chemotherapy led to the marketing of its synthetic drug, Marinol. It got rescheduled into Schedule II drug while the plant and the natural THC extracts remained still in Schedule I. Despite the Federal Government's limitations in 2009, the U.S. Attorney General Eric Holder declared: having legal marijuana for medical purposes was not the first choice. He made a clear distinction between illicit drug users and patients who are abiding by Local and State laws.

In 2011, in order to reprogram marijuana, the Drug Enforcement Administration (DEA) dismissed a motion arguing that no medical or scientific evidence was sufficient to support this move. The Justice Department that allowed marijuana to be marketed, cultured or distributed is in breach of federal law. Such disciplinary actions often include the individuals involved in these operations.

With the advent of the cannabinoid receptors CBD1 & CBD2, and endogenous cannabinoid system scientists are renewed with interest in finding accurate results with more precise mechanisms. Despite these restrictions still being in force at the Federal level only, forbidding its application for any other reasons, few states have allowed the legalization of cannabis.

There are countries that have made recreational use of Cannabis legal. Their names include:

- Georgia
- South Africa
- Few states of the USA

- Canada

There are countries that have made medical application of Cannabis legal. Their names include:

- Brazil
- Argentina
- Chile
- Australia
- Canada
- Czech Republic
- Columbia

Owing to the proven benefits of cannabis, few countries have permitted the usage of synthetic THC derivatives like Marinol but with restrictive laws in place.

Chapter 3: International perspective of legalization of Cannabis

3.1 Introduction

Since the past five decades, cannabis has emerged as a new hope for the global market. Though it is considered as the most illicit drug used, people are searching for ways to give the right perception through medical, recreational, political, economic or social platforms. The use of narcotic and psychotropic substance prevalence is in high trend in the developed country. In most of the countries, at mid-teenage, when the psycho or socio aspects are not fully developed, the use of drugs begins which continue further and result in cannabis used disorder (CUD). However, up to some extent cannabis's medical property is helpful to treat certain medical conditions under 'Medical cannabis Law' (MCL). It is observed that states that follow MCLs contributed to higher

cannabis use in adults, even though it is uncertain if that results in increased cannabis use disorder and risky cannabis use behaviour. The use of cannabis influenced people for recreation purposes. To control the increased use and demand, the need for 'recreational cannabis law' had emerged. Since the past few years, the significant increase is found in the consumption of narcotic substances. As per Bahji et al.¹⁶, World States, the United Kingdom. The Alcohol and Delinquency Office, the global population is projected at 192 million. The age average used was 289.7 for every 100000 population aged between 15 and 64 years (95% Uncertainty Interval (UI) 248.9–339.1), and 22.1 million people were under the impact (95% UI 19.0–25.9 million) in 2016 In 2017, according to an estimation of The Global Burden of Disease study, the UK, In Canada, the incidence of CUDs and cannabis uses has risen in recent years, and Canada is estimated to have the highest age defined level of Cannabis Disease (CUD) in the world, legalization was pushed through legal and political references. In 2017, More than 4 million Canadians above 15 years of age were said to have cannabis use for years 1.5 million reported daily or near-daily use, and 6.8% met criteria for CUD

The inconclusive research for medical or recreational use of cannabis creates heterogeneity among the various countries' national jurisdiction. The present research explores one dimension of the public health interest in the impact that medical and recreational regulation on cannabis (RCL) has on cannabis usage as well as on the use of tobacco and opioids, three substances that generate substantial societal costs

¹⁶Bahji, Anees, and Callum Stephenson. "International perspectives on the implications of cannabis legalization: a systematic review & thematic analysis." *International journal of environmental research and public health* 16, no. 17 (2019): 3095.

3.2 Implications of Medical Cannabis Law

cannabis was first used medicinally around 400 A.D. In the 19th and early 20th centuries, cannabis was widely used to treat patients in the U.S. Since decades, it is used for relieving insomnia, anxiety, spasticity and pain to treat potentially life-threatening conditions. To optimize the perceptible demand of cannabis, in 1937 the Federal government intervened and implemented the first law as the ‘Marijuana Tax Act’. Besides criminalization, these legal efforts resulted in creating limitations on research by limiting the procurement of cannabis for academic uses. While prohibition has been the prime control over the consumption of cannabis, there is a significant increase in the countries to implement reforms in the legalization frameworks. The Federal Government with several high court decisions was forced to implement ‘Medical cannabis Law’ for therapeutic use. The use of medical cannabis has garnered much interest among the medical physicians

As per Mouhamed et al.¹⁷ report, a document for general practitioners' educational purposes, was set out by Health Canada in 2013. It helped as a tool and brought more insight about the potential of cannabis to treat some acute medical conditions of patients. The document gained much attention to explain the patient who may be interested in using marijuana as an alternative therapy. Certain laps in the document proved to be a challenge as it was inconclusive and tricky. However, the document was updated later. The aim of the document was to provide critical and concise updates on the recent research about the potential of the use of Marijuana. Canadian medical colleges provided recommendations to consider certain parameters before legalizing Medical

¹⁷Mouhamed, Yara, Andrey Vishnyakov, BessiQorri, Manpreet Sambi, SM Signy Frank, Catherine Nowierski, Annol Lamba, Umrao Bhatti, and Myron R. Szewczuk. "Therapeutic potential of medicinal marijuana: an educational primer for health care professionals." *Drug, healthcare and patient safety* 10 (2018): 45.

Marijuana in terms of its use, production and surveillance. The document also mentioned to consider the use of marijuana as an option as well as the patient's consent prior to the treatment.

For physicians, there are some protocols to Sign a medical form approving a certain volume of cannabis for patients. According to MCL It is believed that this medical document is a prescription which is different from the regular prescription. As the dosage varies in regard to patients and treatments, the usage report remains inconclusive. That inspires black marketing of the substance. The production and consumption of cannabis also left discrepant under the government regulations. That resulted in loss of control of substance with no accepted medicinal use, concerns for dependence, deliberate negligence in safety to use and supervise with medical references, and high abuse potential That had opened opportunities for other narcotic psychotropic substances. In the health outcome perspective, cannabis use has increased among people aged around 26 and older after the enactment of MCL. Though young adults remained less responsive to the substance in medical concerns. As per Swift et al.¹⁸, the consistent consumption and regular medical cannabis use has been reported for multiple medical conditions like:

- Depression (56%)
- Chronic pain (57%)
- Arthritis (35%)
- Persistent Nausea (27%)
- Weight loss (26%)

¹⁸Swift, Wendy, Peter Gates, and Paul Dillon. "Survey of Australians using cannabis for medical purposes." Harm Reduction Journal 2, no. 1 (2005): 18.

Many clinical diseases and medical symptoms are taken into consideration by state legislatures to make that eligible for the use of cannabis for medical purposes. The state recommends using medical cannabis to relieve certain critical illnesses like cancer, immunodeficiency syndrome and glaucoma. Many states have adopted comprehensive public medical cannabis drives.

26 States have up to now legalized medical marijuana use and a further 16 countries embrace CBD only legislation which provides for safety for medicinal use of only limited strains of marijuana¹⁹

As per the report by Bahji et al.²⁰, on health implications on pregnant women, infants or children, the use of cannabis is persistent with the knowledge of its adverse impact on health. Though the report has a mixed review, pregnant women are comparatively less responsive to the use of marijuana. The levels of drug usage rose among pregnant women and parents following the legalization of marijuana. There is not much evidence whether it affects the low birth weight. However, it encourages the young children and so the entire family.

The DEA is tracking the enforcement of the medication policy and any modifications²¹. President Richard Nixon set up the DEA in 1973 to support the contributions of the federal government “a full-scale attack on the problem of drug abuse in America”. Nixon created five types of schedules as per the potential of medicinal use and potential for dependency and abuse. Schedule I is considered as a list of drugs which have high potential value for abuse and cannot be used under

¹⁹Pacula, Rosalie Liccardo, and Rosanna Smart. "Medical marijuana and marijuana legalization." *Annual review of clinical psychology* 13 (2017): 397-419.

²⁰Bahji, Anees, and Callum Stephenson. "International perspectives on the implications of cannabis legalization: a systematic review & thematic analysis." *International journal of environmental research and public health* 16, no. 17 (2019): 3095.

²¹N.A. What Is Schedule I and Why Is Marijuana on the List, Anyway? (2017). GreenEntrepreneur. <https://www.greenentrepreneur.com/article/296559>

medical practices. In this schedule the drugs comprise heroin, marijuana, ecstasy, LSD, peyote, and methaqualone. Schedule II refers to the high potential abuse drugs but can be used for medical purposes. The drugs included were cocaine, vicodin, methadone, methamphetamine, fentanyl, oxycodone, Adderall, Ritalin, and Dexedrine. According to DAE norms, under schedule I, patients cannot reimburse Medical cannabis expenses through the government. However, in schedule II and V, a non-practitioner researcher is willing to access cannabis to conduct research on the substance, he has to register with DEA.

The UK had encountered little different issues in concern of medical law. Despite the shift from schedule I to Schedule II, NHS England Forced people to access cannabis under traditional medicine type. NHS England and specialist societies have issued recommendations for prescription cannabis usage for sexual treatment by licensed practitioners. According to the rules, cannabis items that have not been legally licensed as medical drugs are not eligible through NHS in what have been referred to as 'specials.' Such services are only allowed by consultants²²

3.3 Implications of Recreational Cannabis Law

Legalization can be understood as laws that prohibit monetary and criminal penalties for possession. The access to use and supply of cannabis for recreational purposes is considered illegal. Medical cannabis law brought major awareness about the substance and its availability. The illicit production and cultivation made the demand more feasible. This led to an increase in consumption as it elevates appetite, euphoria, and self-confidence. Use of cannabinoids also uplifts mood,

²²Sumnall, H. Medicinal cannabis: Legalised yet impossible to access. (2019). <https://www.independent.co.uk/life-style/health-and-families/health-news/medicinal-cannabis-legalised-access-marijuana-nhs-a8903051.html>

relieves stress and improves sleep disorder. The perspective of people began to transit in favor of cannabis use. Considering the great demand, proponents put forward the beneficial aspects of using cannabis in national favour on political ground.

In the 1970s, legislative decriminalization measures were implemented following federal law prohibition. However, regulations restricting patient access to care facilities are enforced. The 1990s and since then States have dealt with the legalization of the recreational market. It has contributed to an inconsistency in United States policies on liberalization in marijuana and is still not fully understood and taken into consideration when analyzing recent legislative reforms²³

Bahji et al.²⁴ stated that in October 2018, Canada legalized the recreational use of cannabis. Though it was highly debated and had created many controversies. It has become an argumentative issue among the legalization enthusiasts and the opponents. The enthusiasts' arguments are economic and politics centric. Their vision is to tame the black market and establish great control through improved quality and implementing safety measures. According to their assumptions, legalization is in favor of the economy through increased tax revenue. Legalization may aid to improve availability of medical cannabis. Through systematic regulations, drug related crimes and violence can be controlled. Opponents of legalization have arguments over cannabis' addictive potential, second-hand cannabis exposure, potential exacerbation of underlying and established mental illnesses concerns

²³Pacula, Rosalie Liccardo, and Rosanna Smart. "Medical marijuana and marijuana legalization." *Annual review of clinical psychology* 13 (2017): 397-419.

²⁴Bahji, Anees, and Callum Stephenson. "International perspectives on the implications of cannabis legalization: a systematic review & thematic analysis." *International journal of environmental research and public health* 16, no. 17 (2019): 3095.

According to Perry et al.²⁵, South Africa is the first country in Africa to decriminalize the use of cannabis in a positive context. Since the conducive climate of South Africa facilitates quality and growth of cannabis, the ConCourt allowed to make cannabis available on an agricultural level. Despite the risk of aggressive marketing, prevalence of high-potency cannabis extracts or weak law enforcement that could affect public health outcomes, the South African Govt prioritize to control unemployment.

The recreational Cannabis Laws reflected long-term consequences such as addiction, altered brain development, cognitive impairment. It impacts on life satisfaction and achievement. Dependents mostly encounter road accidents, suicidal tendencies, or extreme paranoia. With the development of legalization regimes in many nations, experts in public health gradually summarize decades of experience from other policy fields to shape successful drug policy.²⁶

To see the effects of recreational cannabis, an assessment was conducted among school students, college students and adults in some of the states in the US. There was a diverse result found. It showed increased prevalence in youth in Washington and Oregon as compared to Colorado. While adults were found less responsive. The research seems ineffective and manipulative in nature as the assessment dates are estimated from the effective law. Whereas the retail stores were opened up after two years. The entire regulation depends on research which is relatively doesn't match with the enactment date and the market stabilization period. However the average finding shows that there is a significant increase in cannabis consumption after the implementation of Recreational Cannabis Law. So far, Oregon, Washington, and Colorado have large consumer

²⁵Parry, Charles, Bronwyn Myers, and Jonathan Caulkins. "Decriminalisation of recreational cannabis in South Africa." *The Lancet* 393, no. 10183 (2019): 1804-1805.

²⁶Englund, Amir, Tom P. Freeman, Robin M. Murray, and Philip McGuire. "Can we make cannabis safer?." *The Lancet Psychiatry* 4, no. 8 (2017): 643-648.

services are in operation, so among the first movers the definition of an acceptable reference category is as significant as the time taken to determine its effects. Though for other countries, it's not advisable to adopt these states regulatory measures as it may vary in terms of population, consumption, home cultivation and demand²⁷.

3.4 Regulatory Measures

Since the past two decades, many countries are looking forward to generalizing regulatory standards. The challenges occur with the diverse population, demand and supply aspects, or political interference in terms of tax revenue. Geographic area also matters for some countries in regard to the cultivation. Beyond every issue the fring issue is a diverse opinion about the use of cannabis that restricts the impact of legalization. Cannabis use is only legal in certain countries. It includes Netherlands, Uruguay, Canada, and some of the states of the US. Though there has been no particular review, according to some of the recent research, use of Cannabis prevalence assumes an upward graph. Ongoing debate whether to regulate medical cannabis law or recreational cannabis law, all the more delays the process.

As per Belackova et al.²⁸, more and more knowledge is being obtained from the “not-for-profit”. This model grows on the principles of harm-reduction, self-organization, and self-supply. Those drugs have been engaging for decades based on these principles itself. The fate of a consumer-based model with regard to tackling these challenges may be disclosed by Spain’s CSC

²⁷Cerdá, Magdalena, Melanie Wall, Tianshu Feng, Katherine M. Keyes, Aaron Sarvet, John Schulenberg, Patrick M. O’malley, Rosalie Liccardo Pacula, Sandro Galea, and Deborah S. Hasin. "Association of state recreational marijuana laws with adolescent marijuana use." *JAMA pediatrics* 171, no. 2 (2017): 142-149.

²⁸Belackova, Vendula, and Chris Wilkins. "Consumer agency in cannabis supply—Exploring auto-regulatory documents of the cannabis social clubs in Spain." *International Journal of Drug Policy* 54 (2018): 26-34.

federations' codes of conduct These codes of conduct elucidate the not-for-profit objectives and CSC administration's rules. Further, they also explain the conditions of collective cultivation, security, and membership The themes overlapped in the codes of conduct with cannabis regulatory areas as outlined internationally In the codes of conduct, the focus over the potential and price was absent The CSC model's strengths are creating a safe environment for peer-delivered harm reduction price, quality control, preventing illicit drugs, increased consumer responsibility, and shifting economic surplus to the consumers Its restrictions are disguised motives, high threshold, under and over-regulation risks, and tax revenue.

CSCs provide an incentive to improve government protection and transparency. Diverse user groups reserve the ability to supply themselves with psychoactive drugs. However, it is important that authorities offer a structure to ease this voluntary organization, along with maintaining minimum standards in public safety and health.

3.5 Public Opinion about the legalization of cannabis

A critical input into the political process, public opinion is something that governments adhere to when devising drug policy²⁹. It has been certified by a large group of policy research that public policy and public opinion are inter related on several things. The problem of illegal substances is a particularly important global concern that is therefore subject to considerable popular attention that controversy as it seeks to amend the narcotics laws. The 16th most significant topic is narcotics and alcohol, according to a new survey undertaken by the Australian National University. In this

²⁹Makkai, Toni, and Ian McAllister. "Public opinion and the legal status of marijuana in Australia." *Journal of Drug Issues* 23, no. 3 (1993): 409-427.

scenario, just 1.9 percent of the survey described it as Australia's most important question. For democratic forums and conversations, popular sentiment is key. This is normal for legislators or writers, though, to make statements regarding the existence of popular opinion without sufficient proof. An incorrect understanding of public opinion confuses and hinders the process. Accurate research on public opinion is therefore paramount. In the context of regulatory measures, public opinion aims to review and analyze a wide group of illicit drug opinion surveys conducted in Australia, and other countries.

In Uruguay, there are vague views in regard to legalization of cannabis. People believe that legalization would bring definite life threats and apprehension. People anticipate that cannabis liberalization may lead to amphetamines or opioids and eventually would develop devastated health conditions. Miguel et al.³⁰ stated that a national law was passed in Uruguay that controls the sale, consumption, and production of recreational marijuana. In spite of this, among the entire Uruguayan public two-thirds of them have shown their opposition towards the new policy of the government and also exhibited the importance of political ideology. The government took steps to legalize the decision on recreational cannabis in response to increased concerns regarding the growth of organized crime in Uruguay and its impact on public protection. However, most Uruguayans have shown no eagerness to introduce new regulations. -- 2013 public opinion found that at least two of the three Uruguayans rejected the selling of legal weed and development bill³¹ Even after two years of the law having passed, the maximum proportion of the Uruguayan population has remained against the liberalization of cannabis

³⁰Cruz, José Miguel, Maria Fernanda Boidi, and Rosario Queirolo. "Saying no to weed: Public opinion towards cannabis legalisation in Uruguay." *Drugs: Education, Prevention and Policy* 25, no. 1 (2018): 67-76.

³¹Garat, Guillermo. "Uruguay: A way to regulate the cannabis market." In *Drug Policies and the Politics of Drugs in the Americas*, pp. 209-226. Springer, Cham, 2016.

In Australia, a mixed public opinion is reviewed in the legalizing use of cannabis. A discussion was held up towards 'how the perspective of drug users meaning fully included in the policy deliberation'. A diverse argument about legalization, and a range of harm reduction and treatment interventions couldn't lead to any conclusion³².

Drugs have become a question of concern in many countries now. The impact of cannabis use disturbs people's lives. The current policies are authenticated and inconclusive. The logical sense behind these are a complex regulatory system, negligence towards statistics of data, loopholes in metaanalysis, and lax approach in decision making. The analysis on short-term and long-term use of medical cannabis and recreational cannabis is not adequate. Public health outcome, prevention measures and law enforcement are not being taken into consideration as a primary agenda.

Chapter 4: Legislative framework on narcotic drug and psychotropic substances in India

4.1 The Opium Act 1857

4.1.1 The events leading to the Act

Opium was introduced in India in the eighth century AD through Arabs who used it as a medicinal commodity. Its use was soon adapted in India's medical practices with mentions of it being made in the medical treatises. One such example would be 'Bhavapraksha' a medical treatise of the tenth

³²Lancaster, Kari, Rachel Sutherland, and Alison Ritter. "Examining the opinions of people who use drugs towards drug policy in Australia." *Drugs: education, prevention and policy* 21, no. 2 (2014): 93-101.

century AD. Like cannabis, it was also used recreationally, but only by a very small percentage of the population.

It was with the advent of the East India Company and its bottomless greed that opium was converted into a massive revenue making business, regardless of the fact that it destroyed the lives of farmers, forced by the Company to cultivate poppy and manufacture opium, as well as the end-users of the drug. Opium became the principal revenue crop of colonial India³³. The East India Company monopolized the trade in Indian opium with the revenues being directly funneled back to Britain.

The opium monopoly was promulgated in India by the Opium Act of 1857; the monopoly of manufactured drugs was established by the “Opium Act” of 1878 (I of 1878)³⁴.

4.1.2 About the Act

The Preamble: The Preamble states the objective of the Act as “to consolidate and amend the law relating to the cultivation of the poppy and the manufacture of opium.”³⁵. The legislation aimed at stopping illicit pappy growth and restricting opium output and exchange.

Section 1 of the Act refers to its short title and extent

Section 2 Concerning a prohibition on production and manufacturing of opium. The Opium Act of 1878 abolished it

³³ Nandini V. Journal of Pain and Symptom Management. (2017)

³⁴ Asthana, S. N. "The cultivation of opium poppy in India." Bull Narcotics 6, no. 3-4 (1954): 1-10.

³⁵ The Preamble of India

Section 3 of the Act empowers the “Central Government” to appoint Agents, Deputy Agents, and officers to superintend provision of opium. It also directs that the Collector of the district would be the Deputy Agent of his district unless the central Government decides otherwise. It leaves the onus of prescribing the power and duties of the officers on the considerations of the Central Government.

Section 4 of the Act declares that Opium Agents and their subordinate officers are amenable to the “civil courts” for all acts that they do in their “official capacity” and no suit can be brought against any of the Agents or officers without the aggrieved person having applied for redress to the Agent himself.

Section 5 states that the Opium Agents will need sanction from the Central Government before instituting any suit in a Civil Court in their official capacity.

Section 6 enables the Central Government to take up, or depute to a suitable officer, the prosecution or prosecution to some crime or judicial subordinated to the government or an individual, or to some other person, may be engaged.

Section 7 empowers the Central Government to set limitations on licensees for poppy farming and prices to be paid to farmers.

Section 8 details the issuance of licenses. It decrees that any license issued to a cultivator should specify the area of land he is authorized to cultivate, and the cultivator has to give a counter-engagement in conformity with the terms on the license.

Section 9 gives the cultivator an option to choose to cultivate or not. It states that any officer forcing the cultivator to engage can be dismissed. It also states any officer has the option of

withholding a license of any cultivator if he sees any proper reason in which case the cultivator can apply to the Agent for redressal. The Agents decision shall be final

Section 10 lays down the penalty for any cultivator who has not “cultivated the full area of land” for which he has received an advance as three times the amount of advance received.

Section 11 directs that all produce of poppy shall be delivered to duly authorised officers or wherever the Agent directs. It further states that no part of the opium can be attached by anyone as arrears or rent by any creditor of a cultivator, but the sum due to the creditor may be attached from the amount to be paid to the cultivator by order of Court.

Section 12 directs that the opium submitted by the cultivator will be “weighed and classified” by the “district opium officer” in the presence of the cultivator.

Section13 of the Act states that the weighing and “examination of the opium” will be done at the Sadar factory.

Section 14 says that any opium that is found to be adulterated shall be immediately seized and sealed.

Section 15 gives direction on the weights and scales to be used for the measuring of opium.

Section 16 directs any balance pending from the cultivator may be recovered by sale of the property of the defaulter.

Section 17 sets the maximum penalty for any officer of the department taking bribes as dismissal from office and a fine.

Section 18 states that in case a cultivator is asked to pay extra cess by his zamindar then a suit may be constituted against him, and a penalty exacted.

Section 19 sets down the “penalty for embezzlement of opium” by the cultivator.

Section 20 decrees the “penalty for illegal purchase of opium” from the cultivator.

Section 21 sets the proper punishment in case of any unlicensed or illegal poppy cultivation.

Section 22 states any landholders or property managers who knowingly withheld information of illegal poppy cultivation will be punished accordingly.

Section 23 exhorts all policy officers, officers and employees to be vigilant about illegal cultivation of poppy and sets the maximum amount of penalty in fines if they knowingly fail to do so.

Section 24 details the procedure to be followed by the “police or abkari daroga” in case of receiving intelligence of illegal “poppy cultivation”.

Section 25 allows managers of the land and landholders to attach any illegally grown poppy.

Section 26 states that all the Magistrate shall give the Magistrate the information of the Deputy Agent penalties and confiscations prescribed by the Act.

Section 27 says that in case a person defaults on payment of fine, he may be imprisoned for up to six months or till the time the “fine is paid”.

Section 28 states the penalty for a continuation of the offence as imprisonment up to 6 months.

Section 29 decrees that the place of imprisonment on account of any of the offences mentioned in the Act shall be the “civil jail”.

Section 30 decides on the lifting of the “fines and forfeitures” collected from the offenders and says that these should be equally distributed between the apprehender and the informer.

Section 31 allows for the Central Government permit free or unlicensed poppy cultivation and opium output in any region. However, the poppy or opium so produced has to be sold to the government agencies only.

4.1.3 An Overview of the Act

We can see clearly that the objective of the Act was to bring the “cultivation”, “manufacture”, and “sale of opium” entirely under the control of the “Central Government” with measures such as harsh fines and imprisonment. What mattered was the fiscal revenue coming into the coffers. No measures were taken in this Act to address the use of opium in India.

The Opium Act of 1857 was amended on 9th January, 1878.

4.2 The Opium Act, 1878

The Preamble of the Act of 1878 states that its objective is to amend the law relating to opium.

Section 4 of the Act prohibits the “possession”, “transport”, “import”, “export”, or selling of “opium” by any person not authorized by the Act.

Section 5 of the Act shows the respective State Governments to make new rules regarding duties, taxes, or levies on the sale, import, export, possession, or transportation of opium after due notification in the Official Gazette.

Section 5A states that excise duty has to be paid on any opium produced in the state of Uttar Pradesh.

Section 5B states that any opium imported into the state of Uttar Pradesh will carry a countervailing duty notified by the State Government.

Section 7 grants the State Government the right to open a store for any opium purchased lawfully.

Section 8 empowers the State Government to levy “fees for warehousing”, removal, or disposal of opium.

Section 9 decrees prohibiting incarceration, which could stretch to three years with or without a penalty for ownership, storage, manufacture, export or selling of opium.

Section 10 states that all the opium that an accused is unable to account for shall be presumed as part of the opium in respect of which he has been charged.

Section 11 states that if any illegal opium is found while being transported or in the possession of a person then the opium along with the vessel, or animals, or conveyance being used to transport such opium will be liable to be confiscated.

Section 12 grants the Magistrate the power to confiscate any opium under dispute even if the person accused in any respect of the opium has been acquitted.

Section 13 grants the Collector or the Deputy Commissioner the power to confiscate any opium which is deemed illegal even if the offender is not known or absconding.

Section 14 grants any officer of the “Central Excise”, “Narcotics”, “Drugs Control”, “Police”, “Customs”, “Revenue” department who is above the rank of a peon or constable the power to enter, arrest and seize any place, person or opium he believes to be connected to illicit opium.

Section 15 empowers any said officers of the said departments the power to seize in any open place the power to seize opium or any other thing that he thinks is liable to confiscation. He also has the power to arrest, search, or detain any person and his companions, who he believes to be, guilty of any offence under the law

Section 16 states that all searches under Sections 14 and 15 are to be made as per the Code of Criminal Procedure.

Section 17 directs the officers of the mentioned departments to cooperate with and support each other to enforce the Act's requirements.

Section 18 states that if any officer uses the provisions of the Act for vexatious or unnecessary search, confiscation, or arrest, then he is liable to be fined for the act.

Section 19 states that the Collector, Deputy Commissioner or any officer authorized by the “State Government” can issue an “arrest warrant” for any person who is believed to have dealt with or connected to unlawful opium.

Section 20 decrees that every person arrested or thing seized under Sections 14 and 15 of the Act shall be forwarded to the police station and every person or thing arrested or seized warrant.

Section 21 directs that any officer who makes an arrest or seizure has to, within 48 hours; give a full report of the said activity to his superior officer.

Section 23 says that any arrear from fees, duties, or revenue due to the State is recovered, if the case is land revenue, from the person mainly responsible or his security.

Section 24 states that a farmer of opium can make an application to the Collector or other such officer for any amount that is due to him by license.

Section 25 states that if a person gives a bond in compliance with any rule of the Act, it shall be deemed a public duty, In case of a breach of such a bond, the whole sum would be recovered from him akin to an arrear of land revenue.

Both the Opium Act of 1857 and 1878 were repealed under Section 82.

4.3 A Perspective on Opium in Indian Society in the 19th Century

The prime objective of the “Opium Act of 1857” and the “Opium Act of 1878” was to bring opium cultivation, manufacture, and trade under the administrative control of the Government of India.

The British, however, did examine the possibilities and outcome of banning opium consumption in its totality in India. In 1813, the first Bengal Regulation was passed with the government emphasizing its policy of restricting the consumption of opium to its narrowest possible extent by maximum revenue for minimum consumption.

The 1895 “Royal Commission on Opium’s” report stated that in India opium as a vice did not exist. Its use was primarily for medical and quasi-medical purposes. The medical and non-medical use of opium were so interwoven that it was impracticable to draw a clear distinction between the

two for the purpose of sale and distribution of opium. It advised that the Government of India need not use State machinery to enforce a ban on the drug as Indians have inherited centuries of experience that has taught them discretion in the use of opium. Its misuse in Indian society is a negligible feature³⁶.

It is remarkable that despite not being banned across the country, opium uses never became extensive or a danger to society. The explanation is obviously the old cultural norm structure and punishments that have promoted mild use. Opium was used in quasi-scientific medical devices, specific rituals, and even for social bonding. There was no anti-opium policy so opium or its users were never stigmatized.

Thus, substance use leads to abuse when a person uses substances with adverse effects, even if the person is not suffering from physical ailment but succumbs to the obsessive habit of seeking drugs, knowing its harmful consequences. The distinction between drug use and drug abuse is ambiguous for the mere fact that behaviour that leads to the ramification in one society or culture may not cause them in another or not to the same severity. The pattern of usage of substances is well known for its capability to alter over time. Evidence demonstrates that both legal and illegal substance use account for severe health risks. According to the research publications in the Indian Journal Psychiatry, there is a need for an exhaustive guideline to focus on the extent of issues arising and prevention of these health risks due to substance use in India.

Mills³⁷, in his article published in The Journal of Asian Studies, examined that the market of cocaine in India had flourished in the early 20th century and the “colonial state” had to put in a lot

³⁶Richards, John F. "Opium and the British Indian Empire: The Royal Commission of 1895." *Modern Asian Studies* 36, no. 2 (2002): 375-420.

³⁷Mills, James H. "Drugs, consumption, and supply in Asia: The case of cocaine in colonial India, c. 1900-c. 1930." *The Journal of Asian Studies* (2007): 345-362.

of work and vest in power to control the substance use. The British authorities circulated laws and decrees as early as 1900. Indian society was rapidly developing demand for such products.

4.4 The Dangerous Drug Act, 1930

4.4.1 About the act

Several laws have been passed to govern the buying and selling of illicit substances since the British rule in India. The government of India under the British control endorsed the Geneva Dangerous Drugs Convention in 1925 and under the obligations taken by the government, it decided to enact a Central Dangerous Drug Act since the existing laws governing the traffic in dangerous drugs were baffling. A two-way obligation was undertaken by the government; regulation of international traffic in all the substances mentioned in the convention and control of the manufacture of drugs and internal transportation.

(Act, 1930) - The dangerous drug act in 1930 was executed to consolidate and entrust the Governor-General in Council and administer charge over certain dealings related to the traffic of illicit and hazardous substances. The Act rendered uniformity throughout British India and increased the penalties for offences relating to such operations. Several prohibitions and controls were exercised in the Act; offences and penalties were decided upon for the offenders along with the procedures to penalise the offenders.

4.4.2 Mandates and Regulations

- **Calculations of percentages in liquid preparations**

It is suggested in Section 3, Chapter I that a guideline can be established that no more than 0.1 percent of cocaine can contain any combination with or without inert content, opium or any such

drug. It was further stated that till the time, such a rule was not made, the percentage of drugs in any preparation should be 1 % of the substance used.

- **Prohibition of certain operations**

It is mentioned in Section 7 (2), Chapter II, that the government of India was permitted to grow coca plants to experiment and manufacture cocaine for proper medicinal use.

Section 4, Chapter II, mentions that except for the government, the general public was prohibited from cultivating coca plant/leaves. Manufacturing and transporting of cocaine in and out of the country were restricted except for those working on behalf of the government.

As mentioned in Section 5 and Section 6 of Chapter II, the central government exerted power of poppy planting, production and supply of opium. The State has exercised the freedom to issue a license to cultivate cocoa and opium. Opium sold from factories operated by the government or chemical producers has been licensed and governed by regulations. Furthermore, the control over the manufacture of controlled drugs was exerted on the Central government. The overall control over production and traffic of opium, cocaine and manufactured drugs was invested upon the Governor-General in Council along with the control over the operations at land and sea frontiers.

- **Control over the traffic of licit and illicit substances**

It is mandated in Section 7, Chapter II that other than prepared opium, the Governor General in Council was approving rules enabling and controlling imports and exports of dangerous drugs to and from British India and the transfers of them.

The local government is authorized to control over the internal traffic of manufactured drugs, coca leaves and poppy in Section 8, Chapter II. It has been banned to produce or distribute prescription opium or any preparation of morphine or cocaine, in interprovincial, distribution, storage or selling of imported products, other than powdered opium or coca leaves if not authorized or licensed by the government or lawfully entitled to possess.

It is administered in Section 9, Chapter II that the local government possessed control over external dealings in dangerous drugs. It was repeated that nobody would exchange or regulate any harmful drug acquired outside British India and supplied outside British India to anyone, other than those who had an agreement and granted a license by and at the discretion of the Local Government.

4.4.3 Offences and Penalties

Sections 10 – 14, Chapter III, classified various offences and established punishments for the offenders. The cultivation of coca plant, poppy, manufacture of cocaine, opium, possession of manufactured opium, cocaine and other manufactured drugs, “import into and export” outside British India, import and export inter-provincially or transport of these substances other than by those who were in accordance with the Local Government or Governor-General in Council or those who were not granted the license for manufacture of these substances for medicinal purposes decreed a punishable offence.

The Section 15, Chapter III administered that allowing and knowingly permit the use of personal premises fall under the bracket of punishable offence. If convicted, offenders could face 2 years imprisonment with or without fine, or both.

Sections 16 and 17, Chapter III represents increased penalty for repeat criminals for such offences after prior arrest for incarceration of four years, with or without fine or both.

Section 18, Chapter III moreover, if a person were convicted of a criminal crime, the bond will be provided for the amount proportionate to his means of abstaining from such an offense.

Section 19, Chapter III dictated that involvement, or seeking to regulate any transaction involving hazardous narcotics was punishable by a penalty that could equate to 1000 rupees except if it was imported outside British India and delivered to someone outside British India rather than in compliance with government or a license holder.

Section 20 and 21, Chapter III imposed that whoever attempted or tried to abet the offences, punishment provided for the offense should be punishable under this chapter or caused the offense to be committed, and did not act in such a way as to commit or be engaged as a result of that offence. Any offence perpetrated in British India in regard to dangerous substances was a criminal offense under this Act and the Act has been properly enacted into law.

4.4.4 Procedures

Section 22, Chapter IV grants the right to issue warrants to an officer, Collector authorised by Local authority, a Magistrate of the second class, and a Magistrate of the first class or Presidency Magistrate, particularly empowered by the Local authority for all the punishable offences under Chapter III.

Section 23, Chapter IV vested the right of search, seizure, arrest, and entry without a warrant upon officers of the “Department of Police, Excise, Customs, Salt, Revenue, or Opium,” higher in position to a constable or peon, sanctioned by the Local authority for all the punishable offences mentioned under Chapter III.

Section 24, Chapter IV entrusted the power of seizure of illicit substances in a public place or transit and arrest or detaining of offenders in public places.

The Dangerous Drugs Act in 1930 was executed under the obligations initiated by Colonial India and coveted to broaden and reinforce drug control obtained out of cannabis, poppy plants, and coca leaves through administration of the possession and plantation, marketing, synthesizing, both international and domestic traffic via permissions as well as punishing unlicensed activities. But zero penalties or offences were attributed to consumption of drugs or cannabis. The constitutional statute and the enforcement of the laws of statute between the federal government and the state governments now control the Dangerous Drug Act system.

4.5 The NDPS Act 1985

4.5.1 Introduction

Cannabis has been devoured as medicine, recreational benefit, and for religious or divine aspirations in India right from the ancient era. The earliest record that indicated this was the use of cannabis back to 2000 B.C. Post-colonization, an effort was made by the Britishers for administering it via tariff mandates. These mandates involved licensed plantation along with formulating taxes on buying and selling cannabis but the laws were not executed properly.

India is associated with three UN drug pacts – “Illicit Traffic in Narcotic Drugs and Psychotropic Substances”, 1988; “Convention on Psychotropic Substances”, 1971; and “Single Convention on Narcotic Drugs”, 1961. “Narcotic Drugs and Psychotropic Substances Act”, 1985 was passed by the Parliament of India and came into existence on 14 November 1985 with the Gazette of India’s notification. The Act was speedily and carelessly executed without much discussion and replaced the existing acts.

NDPS Act, 1985 forbids plantation, manufacture, possession, trafficking, barring the exception of medicolegal applications in agreement by the law. Abetting and attempting to commit certain

felonies, being an accessory to crimes and felonious plotting and scheming appeal to the same punishment as the primary offence³⁸ mentioned in her paper that the NDPS Act was executed to postulate sufficient sentences for buying and selling of illicit substances, make more forceful administrative powers, enforce international agreements, and impose controls over psychotropic substances. The Act broadly includes three classes of substances: psychotropic substances, controlled substances, and narcotic drugs used to manufacture narcotic drugs or psychoactive materials. The first Act had 83 sections spread over six chapters. Another two chapters – II-A and V-A were subsequently introduced through amendments in the Act in the years 1988 and 1989. The Act was revised in 1989, 2001 and recently in 2014.

4.5.2 Preliminary

Chapter I or the Preliminary chapter is dedicated to introduction as well as definitions concerning miscellaneous psychotropic substances and narcotic drugs including cannabis (hemp), cannabis plant, coca leaf, poppy plant, and their derivatives.

4.5.3 Authorities and Officers

Chapter II covers the appointment of authorities and officers created under the NDPS Act who are to exercise power and perform functions under the Act. It is reiterated in the Act that the Central Government holds the authority to appoint a Narcotics Commissioner or any other officers which it deems to fit.

The Narcotics Commissioner or any such other officers appointed under sub-section (1) of section 5 of the Act by the Central Government has the authority to delegate all or any of his powers.

³⁸Tandon, Tripti, and Lawyers Collective. "Drug policy in India." IDPC briefing paper, February (2015).

The Narcotics Commissioner or any such other officers appointed under sub-section (1) of “section 5” of the Act by the state to exercise the powers of their subordinates.

4.5.3.1 National Fund for Control of Drug Abuse

As per Chapter II A, the constitution of a Fund to be used for control of illicit substance use and abuse. The Fund would also take care of the expenditures incurred for the measures taken for the control of drug abuse.

4.5.4 Prohibition, Control and Regulation

Chapter III administers the opium poppy cultivation and production of opium and poppy straw.

It regulates the cultivation, manufacture, sale, purchase, transportation, and possession of the cannabis plant, opium poppy or cocoa plant by anybody save the Central and State governments.

It prohibits all both International as well as Inter-State smuggling of those substances. The chapter also sheds light upon regulation of controlled substances which may create narcotic drugs and includes clauses which permit scenarios under which cannabis plant, opium poppy or cocoa plant can be cultivated legally

4.5.5 Offences and Penalties

Chapter IV, allocated to the offences and penalties, is mandated to control the traffic of psychotropic substances and narcotic drugs. In 2001, an amendment overhauled this chapter. Before 2001, all the offences carried a single category of the sentence. The 2001 amendment divided the offences into three categories and graded the punishments based on the quantity of drugs seized. Section 31A was introduced, which had provisions for the Death penalty in case of

repeat offenders. This has however been contested in court, and in 2014, the wordings for Section 31A were amended to make the death sentence optional.

Punishment pronounced for any violation that involves manufacture, possession or trafficking of a small quantity of the illicit material is severe detention for a term This may reach up to six months, both with and without penalty, which is likely to be 10,000 or both

Every punishment pronounced for the offenders in which the violation covers a quantity that is lesser than attributed as commercial quantity, is severe detention for a term that is likely to reach up to ten years, both with and without fine, which is likely to be 1 lakh rupees or both

In cases, wherein violation comprises commercial quantity, severe detention may reach to twenty years, without or with fine which is likely to reach up to rupees two lakh or both are pronounced for offenders.

4.5.6 Procedure

A first-rate or first-rate Magistrate of the Metropolitan or any criminal from the Gazette is allowed to grant an armed and paramilitary warrant and the power of inspection, capture or imprisonment with or without a warrant in cases of arrest and arrests, of information, of drugs or of any other department of central government.

To combat the demand and control the addiction of psychotropic substances and narcotic drugs, the Indian Government devised the Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985, equips present foundation for the legislative framework to prohibit and control the traffic of these illicit substances in and out of the country. The Act manages the reduction of consumption and supply of psychotropic substances, namely, cannabis, cocaine and opium. Nevertheless, alcohol is missing from the list of psychotropic substances, which is surprising for the mere fact

that specialists believe alcohol is a psychoactive substance that leads to numerous social, legal, economic and medical complexities.

Murthy et al.³⁹ stated in their article that the UNODC's rapid situation assessment in 2002 of about 4648 substance consumers displayed that cannabis (40%), opioids (15%), and alcohol (33%) were the main substances they consumed. Another RSRA revealed that among 5800 male substance consumers, around 76% opium consumers took shots of buprenorphine, 76% injected heroin, 64% were using propoxyphene, and 70% chasing.

Several researchers believe that the drug-related crisis has not been appropriately considered in the Indian scenario and regret the absence of a clear policy. The data published in Drug Policy in India indicate that in 2015, there were around 200,000 drug abusers in the country out of which 7.14% injected drugs. Though the NDPS Act prohibits the cultivation and consumption of cannabis resin and flowers, it allows the usage of cannabis leaves and seeds. The legalities of cannabis use are still not apparent to the majority of people in India. When it comes to the question of legalization of cannabis use, there is a considerable gap in society as not being acquainted with the term "medical marijuana". A vast majority does not favour the legalization of cannabis use.

In all these debates, the fact that the cannabis plant has numerous medicinal qualities is being overlooked. Scientific studies have proven that the chemicals present in the unprocessed cannabis plant or essential extracts from the plant help treat various illnesses. The Government of India should encourage and fund the ongoing research and experiments to extract the medicinal value from the cannabis plant and thus use it for the treatment of complicated medical conditions. Once

³⁹Murthy, Pratima, N. Manjunatha, B. N. Subodh, Prabhat Kumar Chand, and Vivek Benegal. "Substance use and addiction research in India." *Indian journal of psychiatry* 52, no. Suppl1 (2010): S189.

done, this may then lead to the legalisation of cannabis usage for medicinal purpose and not recreational benefit.

Chapter 5: Decriminalization of Cannabis in India for medicolegal purposes

5.1 Introduction

Cannabis (*Cannabis Sativa*), cultivation and usage is an offence under the NDPS Act, 1985. Cannabis has several medicinal and industrial uses. However, there is also a high probability of drug abuse and trafficking in the commodity. Hence, India was obligated to pass the NDPS Act, in concert with the UN's Drug Conferences.

Under the "NDPS Act", "Section 8" states that, "No person shall cultivate opium, poppy or any cannabis plant, except for medical or scientific purposes in the manner and to the extent prescribed by the Act". As per Section 20, the cultivation or production or purchase or sale of any forms of cannabis will command imprisonment for up to ten years and a fine extending up to two lakh⁴⁰.

On this account, in 1988, the PITNDPS Act (Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act) came to enforce criminalization and prosecution of lawbreakers.

Under Sec-2 (iii), cannabis is defined as the separated resin, refined or crude, out of the cannabis plant, including, oil extracts, or drink prepared there from. The definition excludes seeds and leaves when not accompanied by the top half of the plant. Prepared out of cannabis leaves, Bhang is a traditional plant that is not covered by the NDPS Act, 1985.

However, medical and scientific research in marijuana is legal in India as per this section. Within the section 10, which is read with section 8 the State Government has the power to grant license

⁴⁰NDPS Act, 1983

for marijuana's use in scientific and medical fields. Thus, any cultivation for medical and research purposes requires a State license. At present medical use of cannabis in spite of the extensive research data published, is still confined to alternative medicines such as homeopathy and ayurveda.

5.2 Difference between legalization, decriminalization and medical marijuana

Legalization is where penalties passed by law, for possessing or using, formerly stipulated drugs are removed.

Decriminalization is the elimination of arrests and prison time for the possession of substances like marijuana. However, penalties and fines remain, for possession or sale of substances beyond the decriminalization limit.

Medical marijuana is when the doctors are legally allowed to prescribe marijuana-based medicines for the treatment of a health condition or chronic disease, for example, marijuana is said to help conditions like pain, nausea and inflammatory bowel disease.

5.3 The case for decriminalization

" Sec 14 of the NDPS Act of 1985 offers the Central government the power to allow for cannabis' cultivation exclusively for use in industries and horticulture". However, as per National Policy on NDPS Act, the Central Government does not grant permission to use cannabis for horticultural and industrial purposes. The state government has not been issuing licenses for the cultivation of cannabis for research. This brings to light the discrepancies between the NDPS Act and its implementation. It bears consideration in light of the growing international interest among scientists to explore the medical benefits of cannabis in cancer pain amelioration amongst other pain relief (Hall & Degenhardt, 2003).

Research has brought to light that people arrested on charges of possession of cannabis, spend years in jail before their cases come up for judicial hearing. (Annuradha, 2001)

This is the notorious result of the Indian judiciary system's slow pace of functioning. In some instances, arrests made for possession of small quantities of narcotic drugs were acquitted after spending many years in jail. (Charles & Bewley- Taylor, 2005)

5.4 Uses and effects of cannabis

Cannabis when consumed is observed to have both psychoactive and physiological effects. In humans, even chronic cannabis use has documented scarce adverse health effects.

5.5 Psychoactive drugs

When used as a psychoactive drug, cannabis finds uses in treatments such as anti-depressant and hallucinogens.

5.6 Medical Use

Research on cannabis has documented clinical benefits. Among these are nausea and vomiting pacifiers; appetite stimulants in chemotherapy and AIDS patients. It was found to lower intraocular eye pressure in glaucoma treatment. It also has a general pain relief and analgesic effect. Researchers have also found uses in cannabis as a cure for cholesterol. (FusarPoli, 2009).

5.7 Uses in obesity treatment

Research has shown cannabis administration lead to raised metabolic rates in rats, resulting in lower fatty liver and reduced cholesterol levels. Other animal testing consistently showed that cannabis impacts the body's fat storage levels and positively impacts response to insulin hormone.

A 2011 study published found cannabis users to have lower obesity symptoms. Research is being conducted to investigate how cannabis based drugs affect human metabolic related diseases. (Strat, 2011). In light of the global obesity crisis and chronic metabolic disorders resulting from obesity, cannabis might prove to be the answer..

5.8 Effect on Memory, Intelligence and Learning

In a research that took place in the “University of California”, “San Diego School of Medicine”, it was presented how long-term cannabis’ use resulted in negligible effect on memory and learning. Neither was there any effect found on allied functioning’s such as attention, language, reasoning, reaction time, perception or motor skills.

5.9 Studies on Addictiveness:

In a study conducted by the National Institute of Drug Abuse, cannabis was shown to be the least addictive of six substances, namely, Caffeine, Cocaine, Alcohol, Heroin, Nicotine and Cannabis.

5.10 Controversial effect:

In PNAS, October 2012, a thirty-five yearlong longitudinal study was published It demonstrated that consistent marijuana uses in age groups less than 18 years did result in some damage to intelligence, attention, memory and some neurological harm.

Drug Abuse is essentially a bio-psycho-socio problem. India is logistically located between the Golden Triangle, (An area of land bordering Myanmar, Burma, and Laos), Asia’s second biggest narcotic drug producing and trafficking area in the world.

With the herald of the Single convention on narcotic drugs in 1961, under the auspices of the UN, in India, the legal cultivation of narcotic plants for medicinal purposes is carried out in selected

regions, within the ambit of strict licensing conditions. The Single Conventions were only a start of the “Global Drug Prohibition Regime”, whose purpose was to craft a framework of control to contain the global drug violation problem⁴¹.

5.11 India’s cannabis market

Cannabis cultivation and use remains illegal in India despite its usage from historical times. The NDPS Act, 1985, allows some power to the State and Central government to grant licenses for research purposes. However, very few research organizations are equipped with licenses. Uttar Pradesh and Uttarakhand are the only places to have received licenses to cultivate cannabis. Many court petitions have been filed by activists and NGOs demanding legalization and decriminalization of cannabis. The reasons cited are:

- The medical benefits
- Benefit to farmers
- India holds the most suitable climatic conditions for cultivation of cannabis
- Creation of millions of jobs
- Scope that presents for development of Indian economy

The Great Legalization Movement (GLM), an NGO, has filed a public interest writ petition in 2019 seeking decriminalization of cannabis under the NDPS Act. The petition argues that cannabis should not be grouped with other chemical drugs.

Politically also, officials like Menaka Gandhi (a well-known Animal Rights activist and

⁴¹Andreas, Peter. "Illicit international political economy: the clandestine side of globalization." *Review of International Political Economy* 11, no. 3 (2004): 641-652.

Humanitarian) and Tathagata Satpathy are in favour of decriminalizing.

In November 2019, Madhya Pradesh Government stated that it is determined to legalize cannabis cultivation for industrial and medical purposes, with the view to uplifting the economy of the State. In February 2020, the Government of Manipur also considered legalizing cannabis for industrial and research purposes.

On the business front, a number of start-ups have entered the domestic market to explore the uses of cannabis in medicines, cosmetics, textiles, accessories, and foods. The biggest of these, BOHECO (Bombay Hemp Company) is agro-based. It aims to explore the Indian agricultural market for procuring supply of raw material for the textile industry through hemp cultivation. The company has received extensive support from International Organizations.

HempStreet is an Indian healthcare company that managed to raise USD\$ one million in funding. Its focus is research on the uses of cannabis for formulating ayurvedic medicines, technological development based on the results and launch of the products. The company promises to use blockchain technology for tracing the ‘seed to sale’ movement of cannabis raw material procured, to eliminate risk of substance abuse. HempStreet forecasts a huge market demand for chronic pain treatment by 2025, a demand it hopes to fulfill.

It is noteworthy that 1973 saw America's first state decriminalization of cannabis laws. In 1975, the first patient was successfully treated using cannabis-based medications. This has culminated in 11 states following decriminalizing possession of marijuana. Research is imperative to study the chemical composition and breeding of the Indian variety of canines to ensure its suitability for the pharmaceutical industry.

For the cultivation of cannabis leading to it finding its use in the research of medical and scientific

fields, IIIM (Indian Institute of Integrative Medicine) gained a license focused upon the cancer research and the treatment of paediatric epilepsy.

As of February 2020, IIIM and CSIR (council of Scientific and Industrial Research) have collaborated with a Canadian based cannabis research company, IndusCann, on a cross border agreement for research and development.

5.12 Cannabis based Medicines

Medicinal cannabis clinics specialize in offering tablets and oils made from cannabis. This mirrors the growing trend and market for cannabis around the world.

In modern medicine, the applications and capabilities of cannabis is limited by the outdated cannabis laws of India. Two new cannabis-based medicines, Epidyolex and Sativex have been approved for the treatment of epilepsy and multiple sclerosis in England by the NHS⁴².

In an interview with the pioneer, Dr. Ram Vishwakarma, the director of IIIM, says that the Institute is actively researching to develop similar products like Epidiolex and Setivax in India. This is because importing these medicines will be prohibitively costly for the common man. Dr. Ram says the IIIM is licensed for the cultivation of cannabis that further finds its application in the medical and scientific domains. The CSIR, ICMR and the department of Biotechnology are in collaboration in the research work. For the plant to be used for making medicine, it needs to have two key ingredients; CBD and THC. Cannabis grows all over the country like a weed. There is a lot of cross pollination. A lot of research is required to study the chemical properties and breeding of the local plant before it's suitability for pharmaceutical preparations can be determined. Unfortunately,

⁴² Walsh F. Cannabis-based medicines: Two drugs approved for NHS. BBC. (2019). Retrieved from: <https://www.bbc.com/news/health-50351868>

after the 1985 Act, no research has been done due to the difficulty in procuring licenses and burdensome red tapism.

Dr Ram explains that the cannabis plant being indigenous to India, the medicines will be affordable for the common man. The manufacturing cost of the drug is expected to be a \$10billion market, with huge benefit for stockholders and farmers.

5.13 Past experiences with prohibition.

Observing from past experience of prohibition in the US through alcohol consumption fell initially, subsequently alcohol became the epicenter of organized crime. No measurable gains were seen through Prohibition. It only resulted in loss of a significant source of tax revenue and increased Government spending on law enforcement. Research also shows that formatting stringent laws do not deter people from using cannabis.

In the U.S., eighteen states have passed laws allowing a degree of marijuana for medicinal use. !4 of these states have decriminalized possession of marijuana. This means possession entails confiscation or fine and not imprisonment.

The economic argument put forth by the States is that by the States legalizing cannabis cultivation and sale, will help generate substantial income from tax revenues. It also entails reduction in the cost of maintaining law enforcement systems.

Economist Milton Friedman has calculated the income from taxation will generate 6.2 billion dollars annually and a savings in State and federal expenditure to enforce Prohibition to the tune of 7.7 billions dollars per year⁴³.

Colorado and Washington States in the U.S. have laws that legalized marijuana for the population

⁴³ Thornton T. Quarterly Review 1983. (2016). Retrieved from:file:///C:/Users/computer/Desktop/qr741.pdf

above 21 years of age. This is similar to the tobacco and alcohol laws of the state. These states further, permit growing marijuana. But a holding limit is placed on the number of cannabis plants that can be grown in a place. Similarly, limits are placed on the quantity of marijuana an individual may have in his keeping. Stricter laws and penalties are in place for visitors from other states regarding possession and use of marijuana.

Decriminalization of marijuana is found to have little impact on the rate of usage. While the rate of use increased in those states that previously had stricter laws forbidding marijuana use.

5.14 Agriculture Potential of Cannabis

Indian economy is still primarily agricultural and 60% of the population is dependent on agriculture for sustenance. Agricultural revenues account for 18% of India's GDP as of 2014. While hemp cultivation is legal in India, under licensing, it is a laborious process to acquire license for it. This discourages farmers from reaping the economic benefits of cultivating cannabis. Hemp is used in the manufacture of paper, textiles, food, and in the cosmetic industry. It is used in the manufacture of biodegradable plastics. Cannabis seeds produce oil⁴⁴.

North America has licensed cultivation of cannabis varieties that have established low levels of THC, for industrial use of its fibres. The cannabis fibres are used in fabric manufacture and in biomass⁴⁵.

5.15 Studied Benefits of Cannabis

A study conducted by the Journal of American Medical Association (JAMA), showed no

⁴⁴Degenhardt, Louisa, Wayne Hall, and Michael Lynskey. "Testing hypotheses about the relationship between cannabis use and psychosis." *Drug and alcohol dependence* 71, no. 1 (2003): 37-48.

⁴⁵Cherney, Jerome H., and Ernest Small. "Industrial hemp in North America: production, politics and potential." *Agronomy* 6, no. 4 (2016): 58.

correlation between lung function impairment and exposure to marijuana, It was shown that cannabis, contrary to the effect of tobacco and alcohol, was not a cause for lung damage even though it has similar noxious ingredients. This was due to the presence of anti-inflammatory properties like THC in cannabis⁴⁶.

The prime chemical cannabinoids that are generally present in cannabis are Cannabidiol (CBD) and Tetrahydrocannabinol (THC) THC causes the sought after “high” in recreational use of cannabis. Research studies indicate benefits from THC in treatment of the following symptomatic diseases:

- Multiple sclerosis
- Side Effects of chemotherapy
- Lessening of tremors in spinal injuries
- Chronic pain
- Nausea and vomiting
- Digestive health
- HIV/AIDS
- Inflammation

CBD, though having similar chemical composition as THC, does not produce the inebriated state of tHC. This is due to the different chemical arrangement of the atoms. Research studies indicate the varied benefits of CBD in the treatment of diseases such as

- Neuropathic, cancer related pain
- Epilepsy

⁴⁶O'Connor, A. Moderate marijuana use does not impair lung function, study finds. (2012)NYTimes.com. Retrieved on 29/01/13:
[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(19\)30011-X/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(19)30011-X/fulltext)

- Multiple sclerosis
- Parkinsons
- Inflammation
- Acne
- Dyskinesia
- Psoriasis
- Broken bones
- Mad cow disease
- Depression
- Bacterial infections
- Diabetes
- Rheumatoid arthritis
- Nausea
- Anxiety
- ADHD
- Heart disease
- Substance abuse/ withdrawal
- Irritable bowel syndrome
- Schizophrenia

NDPS Act of 1985 culminated as a result of U.N.'s pressure on India. Namely, the threat of trade sanctions, halt of foreign investment and other economic sanctions. Today extensive research has proved beyond doubt the usefulness of cannabis as a medicine. The western world has understood the manifold wonders of cannabis and have started manufacture of medicines, medicines that will

be too expensive for the common man to import. The Indian climatic conditions are ideally suited to cultivation of cannabis. Indian cannabis is also believed to be of superior quality. This presents much economic benefits to our dying farmers.

In light of the varied medical benefits and economic benefits it is high time that the NDPS Act is revamped to give place to an economically and socially viable policy framework.

Chapter 6: Conclusion and Suggestions

Cannabis, a plant known to mankind for decades, which was termed as ‘gift from God’ has now become an epicenter of controversies. A wonder plant that has never ceased to puzzle those who have been curious to know more about it. Unfortunately, the multifold benefits hidden in the whole plant are yet to be unleashed through research to know what it has more to offer to mankind.

It has been used for centuries as a grain, medicine, textile base, and euphoriant. But as the recreational use of it got introduced to the world the popularity of the drug rose. This was linked with the rising crime, violence, and anti-social behaviour, which led to the curtailing and prohibition of cannabis across the world.

The first ones to legalize recreational use of Marijuana were Colorado and Washington. It meant public sales of marijuana weren't a criminal offence anymore. Following this, other states too have geared up and got added to the list. Although medical marijuana has been legalized by twenty states, all of them are yet to take the recreational problem into consideration. A lot of states have announced different forms of marijuana use to be legal. On the other hand, a few states and the federal government, even now stand clear on its prevention. Those who have adopted legalization can provide numerous benefits. The Federal government and states that have not yet decriminalized or legalized the medical as well as recreational sales and use of marijuana are even

now facing a large number of disadvantages.

The western countries are moving ahead in research to synthesize and market cannabis-based medicines. The recent breakthrough in research is the identification of neuroreceptors in the brain and the endogenous cannabinoid system. India is lagging due to the limitations posed by the outdated laws to conduct efficient research, despite having the favourable climate for its domestication. Research is imperative in understanding and developing medicines. Incorporating scientific advancement with the decades of traditional knowledge can transform the mode of research. Given the complexity and number of different compounds in cannabis, it will take some time and careful research to fully understand the various critical active compounds for treating specific ailments. With the advancement in technology, India can develop medicines that are affordable, cutting the burden of importing the same at higher prices.

The legalization of marijuana will either put the black-market dealers out of business and end the criminal behaviour. Once the cannabis dispensaries are registered, sales are recorded, taxes collected and are regulated the black market will be gone completely. A group of standards for safety and quality control will be created upon legalization of marijuana. The risks attached with the overdosage, inferior quality or adulteration can be addressed with improved quality and safety measures. Waving off the restrictions would make the cannabis products available to patients in treating an array of ailments. It elevates the health of the public and results in a reduction of drain on the healthcare system. It improves the tax inflow, staggering of public funds being available for building up the infrastructure of the country. Making cannabis legal can reduce the violence erupted due to gang disputes. It not only helps them who are involved in such conflicts but also the innocent public at large. Due to the slow pace of functioning of the Indian Judiciary, the overcrowded prisons and overburdened public servants in such cases can be relieved to some

extent. Police and courts can allot more time in attending severe violent crimes. Sometimes, individuals who get imprisoned due to mere possession of cannabis spend years in jail before their case comes for hearing due to delay in the system. It can benefit farmers. Help thrive the pharmaceutical industry in India. It can create more employment opportunities.

The below are some of the arguments proponents place to oppose legalization or decriminalization:

Many believe that cannabis can lead to addiction if taken for a longer time. More research needs to be done to determine the efficacy of the same. Non-smokers are likely to have lung problems as a result of second-hand smoke from marijuana. Prolonged use of marijuana might lead to schizophrenia and depression. Still there is no evidence to support these assertions. Marijuana smokers take smoke deep into their lungs and for a longer time which increases the risk of lung cancer. It can alter perception, cognitive ability and impairs judgement. Individuals who try marijuana are more susceptible to consuming more harmful and high-dose drugs like heroin and cocaine. More number of individuals might try once it gets legalized.

Decriminalization of cannabis in countries is found to have no significant increase in consumption rate. While the rate of use increased in those states that previously had stricter laws forbidding marijuana use. A complete tightening with restrictions and stringent laws in place can't deter people from drug abuse. So, it's better to strike a proper balance between both to curb the problem from grassroot level while making it available to patients to treat the ailments.

It was already a known fact that cannabis extracts can wean people off opiate addiction and help patients dealing with the horrifying toxic side effects of Cancer chemotherapy and yet we continue to ignore the science because of the politics.

There is a lot to be done to cover the gaps between law and its implementation. It is high time to work towards crafting a viable framework of policies for the legalization of cannabis leaving the apprehensions behind. Addressing the loopholes in the law, evaluating the ambiguity, by following data-analytic approach to collect reliable data, facilitating the proper implementation of the law, understanding the legalization regimes of other countries and assessing and avoiding the past mistakes are some of the critical issues to be considered while framing policies. By encouraging and adopting technologies like blockchain makes the decriminalization a worthy step forward. It eliminates risk of substance abuse by tracking the 'seed to sale' movement of cannabis raw materials procured. Having such vigilant technologies in place the very purpose of decriminalizing marijuana can be achieved.

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