

**General Article****CANNABIS RESEARCH: NEPAL HAVE AN ADVANTAGE****Krishna Kaphle, PhD.**Associate Professor, IAAS, TU, Nepal  
krishnakaphledr@gmail.com, +977-9845046734**Introduction**

Prehistoric use of cannabis is narrated in various ancient texts related with Nepal. This Hindu Kingdom (constitutionally something else) have been abode of Yogis and various shakti piths have emerged here. This land blessed by Nature have always been the abode of medicinal plants that even confused divine power yielding Hanuman from the Holy Ramayan character. He had to take a mountain with him back to Lanka as every plant on it had miracle life saving properties. The extended Kailash ecosystem has been selected by the God of Gods i.e. Mahadev to be his retreat. It is here that He is depicted chilling with a pipe, a conch shell, trident, consort and ride. One among the trio supreme force in nature worshipping Sanatan dharma, He is associated with use of recreational cannabis and assigned the role of a destroyer. Was witness to event unfolding October 17, 2018 when Canada become the second country after Uruguay to legalise consumption of marijuana—a move that could make it much easier to study how cannabis affects the body and the brain, the socio-economic dimension to society that is quickly transforming to natural ways. Milloy MJ makes note of the cautionary medical approval that continues to pour in—“*cannabis has risks and maybe benefits*”. It has now been easier to access specimen for research which under prohibition hampered the attempt to figure out what those risks and benefits in an open way. The hope is that legalization of cannabis will take the shackles off scientific inquiry and will allow researchers to ask and answer the sort of questions we should have been asking twenty, thirty, forty years ago. In many nations it is next to impossible to study the physiological effects of cannabis in humans. Like in Canada researchers have to apply for an exemption from the Controlled Drugs and Substances Act. Famous sociologist Hathaway A, of the University of Guelph laments that funding hasn't been easy to come by either, making cannabis research the “poor second cousin of alcohol studies”. But with legalization on the horizon,

studies into its effects on health are even more critical, and funders apparently agree, infusing more money into cannabis research. The trouble is that while consumers will be able to easily buy pot, scientists still face restrictions on how they can study it. In Nepal, the culture of research is in poor state and with controlled substance and procession it becomes even trickier. However, given the natural distribution of various species of cannabis, the differences in the bioactive compounds due to extreme ecological alterations in short physical distance makes Nepal a unique natural laboratory.

**A legacy of restricted research on marijuana-Canadian experience**

Despite widespread use and anecdotal evidence to support marijuana's benefits, researchers don't have a concrete grasp on how exactly cannabis interacts with the chemistry and physiology of the brain. Basic research on the endocannabinoid system got the boost with its understanding in the 1980s. Researchers are going deep in the whole system research and beyond in sphere of social and biological implications. The illicit nature of cannabis however, has limited our knowledge of the effects of cannabis as a whole. In the States too it is difficult for scientists to study the plant and its various phytochemical. In Europe, Dutch, French, English and Swiss researchers are doing their part mostly concentrated in genetic improvement of the plant to manipulate its bio active compounds. The decision of Canadian government to decriminalise cannabis has been possible from strong lobby by scientists who collectively said that—Substantial knowledge gaps remain related to the potential consequences of legalized cannabis use. They argued that the government needed to develop avenues for researchers to “produce, possess, and use cannabis and cannabinoids for research purposes”. They sought to create and support dedicated and distinct funds for medical and non-medical cannabis research. The response from the

Government of Canada was encouraging as it modified its regulation of medical marijuana, making it easier to access. However, the same could have been done for research, but it didn't happen. Some high profile scientists by their sheer force of personality have been able to do preliminary studies on cannabis use, particularly for treating pain and for managing HIV infections. These researchers have added to the knowledge on the endocannabinoid system that plays an important role in appetite, mood, and memory. Huge gap still remains in terms of our understanding of cannabis effects on brain development, mental health, or other health outcomes. The proven benefits of cannabis in bone repair and pain management is another area that needs larger clinical studies. The application in pet care and overall veterinary usage is another raw area to venture. It is still-early days, there is so much to know about cannabis and its components' complicated relationship with our bodies and minds than what we do know. With other recreational substances, alcohol and tobacco included, we have reams of top-level public health research — studies that dissected the habits of billions of users, giving scientists an accurate, big-picture focus on those drugs' impacts on our health. In Canada in spite of legalization, research regulations haven't changed. Scientists still have to apply for an exemption to conduct cannabis research. Health Canada, the national public health agency is updating its regulations and loosening requirements to grow, process, and possess cannabis, although the rules apply mainly to agricultural science, not public health and basic research.

The economics of the black market of cannabis and the urgent need to tackle synthetic opioid crisis were the tipping factors in deciding its legalisation. Analysts estimate that a legal cannabis market could become a \$5-billion to \$6-billion industry in Canada, with some of that money streamed toward research. Millions of dollars continue to be pumped in to research now as the focus enters on understanding how recreational legalization will influence public health, including exposure to second-hand marijuana smoke and the effects of use during pregnancy. New pockets of money are opening, says Hathaway, who has been surveying marijuana users of Canada for over two decades, trying to understand the different populations of people who use the drug. The drawback of big scale funding is that it is being awarded to

multidisciplinary teams, which could squeeze out researchers working in the field on a smaller scale, or those seeking answers about the cultural ramifications of cannabis use or other topics not directly related to public health.

Another worry is that corporate research will also enter the arena, which could lead to conflicts of interest for scientists taking company money. Like in pharmaceutical researches corporate tend to encroach on academic integrity and freedom hence government agencies should be on strict watch.

Despite the concerns about the research to come, legalization has pushed more and more investigators to join the field. Canada is aiming to be a world leader in cannabis research and opening up to colleagues outside Canada, in the U.S., England, in France and Uruguay.

Nepal once famous as the hippie destination still caters to cannabis lovers around the world. The voice to decriminalise cannabis use is growing louder as democratic generation want their government to stop interfering on an individual's choice of what goes into their body as long as it does not harm others. When sex tourism is mooted as one avenue for revenue generation, cannabis have huge potentiality to bring in much needed hard cash. It is not hidden to administration that *purple haze* continue to pull nature loving tourists and like its rivers a huge cache continues to flow downstream. Federal structure of the nation have made it an expensive governance experience but it has also made local government strong and functional. Thus regulating licensed growing facilities or household plant quota in specific parts of the country will help tackle the growing gap of rich and poor. Likewise, as international researchers seek to collaborate in the name of North-South or East-West exchanges, Nepal have a sound footing and strong advantage. Relatively lower overhead cost, non existent or softer ethics/regulations and inviting visa options makes Nepal an ideal hub for such research. Availability of fresh graduates to serve as young researchers from diverse fields, some advance facilities, strong medical research history, established and mushrooming universities and most important the initiation of brain gain, makes Nepal at an advantageous position to contribute for global cannabis research. The government land at Nagarkot set aside to produce the "*Trisul*" brand meant to be distributed among Sadhus visiting Pasupatinath for Shivaratri can continue doing so for research.

Thus in conclusion it can be said that Nepal have always made blunders by blindly following the West, the realised ones there are pursuing the ways of life back to where Nepal was several decades ago. Implications of cannabis control came with huge cost to the nation as it became one of the major cause for the armed rebellion and unaccounted economic loss. We should not wait for someone to come from abroad and initiate the legalisation as we got dictated to criminalise it in the past. It is high time we understand that the extremely developed and self realised section of the Western society is opting the ways of lifestyle our grandparents used to have in rural Nepal though with better infrastructure and medical facilities. Nepal needs to assess its national and international legal bindings and work towards loosening cannabis research hurdles.

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