

The Hump before Hemp: Time for a policy

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There is confusion about Cannabis. The multiplicity of Cannabis species and the borrowed vocabulary from other languages may have contributed to some ambiguity. There is also a bit of controversy over whether Cannabis indica and Cannabis sativa are distinctive species or if their morphological variations are just because of the environment in which they grow. Ganja (Marijuana), Bhang, and Charas are all Hindi words, while Hashish and Afeem (Opium) are Arabic, and some, of these words, have crept into the English language with new nuances – so the misunderstanding is further compounded. I am writing this article to clear the clutter about Cannabis, which is Hemp, and seek a discussion on introducing or otherwise, this crop in Meghalaya. I stress that whenever I use the word Hemp, I only mean the cultivated variety of Cannabis sativa, also known as Hemp, for medicinal and scientific purposes and not the other kinds of Hemp (some of which are likely wild in Meghalaya).

First, the basics. Cannabis is a tall flowering plant of the family Cannabaceae, cultivated for its tough bast fibre, edible seeds, and oil. The genus has at least three known species C. Sativa, C. indica and C. ruderalis. Of the three, C. sativa is taller and loosely branched, indica is shorter but densely branched, and ruderalis is the shortest. The cultivated variety of Hemp (C.sativa) is of interest to us – a low-maintenance crop that typically grows between 6 to 15 feet in height, and grain can be harvested within 110-140 days. An acre of Hemp yields up to 300 Kgs. of grain, which can be pressed into about 75 litres of oil and 200 Kgs. of oil cake (valued in the animal feed industry). In addition, 500 Kgs. of fibre will result from the 2 tonnes of straw/acre. A vast range of cannabis derivatives arises from the plant's flowers, leaves, resin, fruit, and bark. Production technology changes when Hemp is grown solely for medicinal purposes. Hemp can remediate degraded soils, so growing this crop in the mine-degraded lands of East Jaintia Hills may be a worthwhile idea. However, let me not jump the gun yet!

Now the crux – Hemp is chemically different from other species of Cannabis in that it possesses micro quantities (0.03%) of the psychoactive substance, known as THC (Tetrahydrocannabinol) and very high levels of the medicinal alkaloid called Cannabidiol (CBD). Thus, contrary to the popular image, Hemp is not a narcotic. Marijuana, a prohibited drug, is extracted out of the wild relatives of Hemp, which have a high THC content (10%).

The World Health Organization (WHO) published a report in 2017 that confirms the utility of Cannabidiol in the health industry. The Report, among other things, asserts that the “CBD exhibits no effects indicative of any abuse or dependence potential and that it has been demonstrated as an effective treatment of epilepsy in several clinical trials”. As a result, the USFDA (Food and Drugs Administration) approved EPIDIOLEX in 2018 (the brand name for the pharmaceutical grade cannabidiol oil produced by Greenwich

biosciences, USA) to treat two rare and severe forms of epilepsy. The WHO report also asserts that there has not been “any evidence of recreational use of CBD or any public health-related problems associated with the use of pure CBD”. According to the WHO, CBD may have therapeutic benefits for various mental disorders, migraines, depression, anxiety, seizures, epilepsy, Alzheimer’s, Parkinson’s, Multiple Sclerosis, Psychosis, Anxiety, Depression, Cancer, Rheumatoid Arthritis, Cardiovascular diseases, and diabetic complications.

Interestingly, Atharva Veda (2000-4000 ? BCE) (Chapter XI 6.15) mentions Cannabis to be one of the five sacred plants and highlights cannabis leaves as the ‘guardian angel’. Furthermore, Ayurveda explicitly recognizes the use of cannabis leaves in the manufacture of its medicines. It is legal to cultivate Hemp in most countries, including the U.S., UK, Canada, Denmark, Netherlands, New Zealand, etc. CBD is classified as an agricultural commodity in the USA. Canada’s Cannabis Act legalizes the cultivation, possession, acquisition and consumption of Cannabis and its by-products. CBD is not subject to the Narcotics Act in Switzerland because it does not produce any psychoactive effects.

However, our state has not yet evolved any policy for cultivating and processing Hemp. Uttarakhand, Uttar Pradesh, Odisha, Rajasthan have already permitted the cultivation of Hemp. The question therefore is – should it or not? There are several reasons why we should examine the cultivation of Hemp in Meghalaya: (1) Its cultivation is ecologically sustainable – it leaves no carbon footprint (2) Extracted edible oil, fibre, oil cake are useful in the cosmetics and animal feed industry (3) The fibre is used in pulp and paper industry, automobiles, insulation material and textiles (4) Several kinds of tea and infusions are made out of the leaves that possess pharmaceutical properties (5) The leaves and flowers are useful for extraction of Cannabidiol which has several therapeutic properties (6) Since it is a short duration crop it can be used as an inter-crop or a rotation crop between the seasons (7) Organic Hemp fetches a better price, and Meghalaya is a low per capita fertilizer consumption state.

Let us examine the legal framework at this stage. The national law concerning Hemp is the Narcotic Drugs & Psychotropic Substances Act, 1985 (NDPS Act). Under Section 2(iv) of the Act, a ‘cannabis plant’ is defined as any plant of the genus Cannabis, and Section 8 (b) of the Act expressly prohibits cultivating any Cannabis plant except for medical or scientific purposes. The Act gives power to the State governments under Section 10 (iii) to make such rules to permit and regulate the cultivation of any cannabis plant, production, manufacture, possession, transport, import inter-State, export inter-state, sale, purchase, consumption of use of Cannabis (excluding Charas). In other words, what we need in Meghalaya today is a consensus, a final political view that we will proceed with Hemp cultivation given its advantages. Be that as it may until the State Government makes a policy and frames the rules in exercise of the powers vested in it under Section 10(iii) of the NDPS Act, 1985, anyone cultivating or selling or transporting

Cannabis is liable to be imprisoned for up to ten years and a fine up to one lakh rupees. Most State Governments in India are reluctant to issue a license to cultivate and grow Cannabis, even though the NDPS Act empowers them. Possibly, there is a fear that unscrupulous people may grow wild Hemp after taking a licence for industrial Hemp and process it to make Marijuana that fetches a higher price. Further, if the regulating officials are compromised or come under extraneous influences, the whole game can change to wild Hemp in the name of Industrial Hemp. However, these fears are unfounded because the state can determine the specific boundaries and geo-tag the licenced area within which the cultivation is permitted and ensure that the processing of Hemp is done only by the licenced pharmaceutical companies, which must set up their units in Meghalaya.

Further, since it will be a contract farming model, details of all the farmers who cultivate will be on the record, along with the area they cultivate Hemp in. Violations, if any, will make the company liable, so the rigour should be maintained. Therefore, the Government of Meghalaya should invite the corporate entities directly, and the cultivation should be monitored by the Agriculture Department. The global market for Hemp-based products is about Rs. 75 lakh crores. Certain pharmaceutical companies are very keen to procure anything up to 20,000 M.T. per month from our state. 100% Export Oriented Indian Companies are willing to set up units in Meghalaya to facilitate the entire process, subject to a favourable policy environment. The process will call for establishing one or more 100% export-oriented pharmaceutical units in Meghalaya, with the end product being CBD Isolate (99% pure CBD) and CBD Broad Spectrum Oil. The corporate entity will have to provide the best quality seeds of Hemp to the farmers along with a Certificate of Analysis indicating the THC content as <0.03%. 100% buy-back at such prices as would be pre-determined by the Government will be a part of the contract agreement. If the current price of Rs.1000/- kg. of dried Hemp is anything to go by, the gross income to the farmers can be as high as Rs.1.3 lakh per acre. (@1300 Kgs of dried Hemp per acre). Let us look at a production of one lakh metric tonnes of dry Hemp every year from the state – a Rs. 10,000 crore business, and the state GST @5% itself will be Rs. 500 crore every year. Farmers will be better off, the government is richer, the global health care improves, and no one will complain – But where is the policy?