

Bangladesh, Ganja (*cannabis sativa* L.), Ganja society, Socio-Economic Contribution: Past and Present Context

SOCIO-ECONOMIC CONTRIBUTION OF GANJA (*CANNABIS SATIVA* L.) IN BANGLADESH

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ABSTRACT

The history of commercial cannabis cultivation in Bangladesh has disappearing day by day due to lack of perpetuation while many countries are considering the usefulness of cannabis commercializing its cultivation. This ethnographic study basically summarizes the agronomic records of cannabis cultivation in Bangladesh, the establishment history of Ganja cultivation cooperative society and the role of this association in socio-economic development and its current status. Interviews were conducted among knowledgeable farmers of different ages (30-70) in Naogaon district to know the agronomic history of cannabis cultivation in Bangladesh. Moreover, various types of written documents and records have been cross-checked to reveal the correct information. In addition, several field trips were made for the documentation of statistical records during October to November 2017, August to September 2018 and February to March 2019 in Bangladesh. The results showed that cannabis was cultivated in the protected environment in Naogaon district of Bangladesh. The saplings were produced in late August to September. The seedlings were planted in late September-October if suitable. Seedlings were planted followed by this method Line gap 25-28 inches & plant to plant 1 feet). After seven-eight months, when the cannabis clusters were ripe, the farmers would cut the roots of the trees and store them in the designated place and thresh them. Prior to the licensing system, farmers produced cannabis at will and at will and sold the cannabis themselves. Initially, cannabis growers stockpiled cannabis and sold it through brokers. This would have deprived the cannabis growers of real value. Intermediary brokers plunder the value of the farmers in various ways. Therefore, an organization known as Ganja Cultivators Co-operative Society Ltd. was born in 1917 to ensure fair price to the cannabis growers and contributed directly in various social and public welfare activities in this local area.

KEY WORDS: Bangladesh, Agronomic, Ganja Society, Socio-Economic Development, Naogaon

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I. INTRODUCTION

Cannabis sativa L. which has multipurpose application since it is a source of fiber, oil and a narcotic drug (Albert, 1972). *Cannabis sativa* L. is one of the earliest domesticated and most resourceful plants which has used in a wide range of products (Roberts et al. 2014). Central Asia is the possible location for the origin and/or early domestication of *cannabis* (Clarke and Merlin, 2016; Robinson, 1996). *Cannabis* has various names in different countries for example-Ganja; Indian subcontinent, Marijuana; European countries, Marihuana; American countries and Hashish; Middle East and North African countries (Banglapedia, 2014). In Greek, the *ganja* plant is known as *kannabis*, while in Latin *cannabis*, in English *hemp* and Danish *hamp*. Its botanical name is *Cannabis* L. *Sativa* (Haq, 2000).

In consequence Ganja is common and familiar name of *Cannabis* in Bangladesh. Cannabis is one of the major agricultural products of the Indian subcontinent. It is reported that by 1722 the first cultivation of

cannabis was started in Muradpur village of Naogaon Sadar Upozilla (major sub-district). On the other hand many say cultivation of *cannabis* was started during the East-India company. However, because of the more profitable crop compare to others it's became popular in these area by 1877(Ali, 2014). In 1876 the British government introduced licensing system for the production, management and control of *cannabis* (Rahman, 2018, Das, 1987). Any farmer who cannot produce cannabis/ Ganja without land mentioned in the license and forbids the cultivation without license (In Bengal the law section 5 of Bengal Act VII of 1878). Later in 1917 the cooperative association, named ‘ ‘ **Naogaon Ganja Cultivators Co-Operative Society Limited**’ ’ was registered with the cannabis farmers in Naogaon district for the purpose of cultivation, processing, conserving-warehousing and marketing of Ganja.

At that time there was a no more profitable agricultural crop like Ganja. It was an unimaginable profitable crop. The legend goes on to say that after selling the Ganja in the past; *Zarif Mandal* and some prominent cultivators from *Dhopaipur* used to bring the money by the cow carriage. It is not unbelievable because during that time there was no paper note; so it was not possible for people to carry around four or five thousand silver coins (Khansaheb, 2007). Furthermore, *Cannabis sativa* L. was one of the important trade items as a medicine in Europe during British era in Bengal (Watt.1885; 1908; Milburn, 1813). Bengal means the area of Bengal covered currently straddles Bangladesh and the state of West Bengal in India which were 27 districts in total ((Thomas.Y. F et al, 2008). It has also various traditional uses such as fiber and roasted seeds eaten as a food (Clarke and Merlin, 2016). The history and tradition of Cannabis cultivation in Bangladesh is not too old but it is totally unknown not only the new generation but many others also in Bangladesh. Ganja was a lucrative and commercial crop and many establishments were established base on this tradition. *Ganja (Cannabis)* and Ganja society play an important role for the socio-economic development of this area.

It is notable that no significance work has been done on this issue. However, partial work has been done on Ganja (*cannabis*) in Bangladesh but these are not sufficient for academic research in future. A lot of dissimilar statements are existed among those works. In addition the life span of these works is limited and written by native (Bengali) languages. Furthermore, no initiative has been taken yet to restore and preserve this traditional customs. As a result day by day the tradition and history of ganja (*cannabis*) farming in Bangladesh disappearing. Additionally, there are many misconceptions about Ganja (*cannabis*) in Bangladesh. They have no idea about the distinction of ganja (*Cannabis sativa* L.). Therefore, this research has been conducted to drive out the misconception and compiling an accurate history and ritual of Cannabis farming in Bangladesh.

This study is concentrate on agronomic history of *cannabis sativa* L. (*Ganja*) as an economic crop in Bangladesh; formation and development history of Ganja society and socio-economic contributions to the society. The main objectives of this study are identifying the past agronomic history in field at Naogaon, past and present status of Ganja society for socio-economic development in Naogaon.

II. MATERIALS AND METHODS

Literature survey

Relevant hand written documents and records collected from Ganja society's office; few books that is written in local language as well as some magazine, news paper reports has been analyze each one (break it down and identify the important information in it) and then synthesize those collections as a primary source. However, as secondary source appropriate textbooks, ancient literature, archives, review articles has been checked and investigated carefully when field survey was carried out to discover the important information.

Documentation of Statistical Records

Several field trips were made for the documentation of statistical records during November to October 2017, August to September 2018 and February to March 2019 in Bangladesh. The information documented included Past Agronomic Practices in the field, cultivated land and production of Ganja, exported country and quantity, history of price and trading as an economic crop.

Interview Survey

Extensive interviews were conducted of knowledgeable farmers of hemp growers in Naogaon with the help of semi-structure questionnaire. A total of 60 farmers having an age range 30-70 years were interviewed using semi-structured interviewed method. The basic method followed was the guided field work as mentioned by (Martin, 1995). The information collected included production and stock history of Ganja, price history, grading system and policy. Participatory rural appraisals method also considered as an important tool for documenting plant based traditional knowledge. In addition an open ended questionnaire was followed to get the real information. Furthermore, group discussion was conducted to collect information on traditional knowledge.

III. RESULTS

Bangladesh and Cannabis

Since; ancient time cannabis has been grown in the wild in India subcontinent. However, the period when cannabis cultivation started in Bengal is unknown. In the report of the collector of the district of Jessore in 1809 mentioned that *Ramchandrapur* and *Taragunia parganas* in Jassore a district of southern part of Bangladesh Ganja was widely cultivated (Haq, 2000). Of these *Keshabpur*, *Fakirhat*, *Noyapara* and *kushtia* were famous for cannabis cultivation. At that time annually about 2000-2400 tons cannabis was produced. It is unknown exactly when the cannabis cultivation began in Jessore but suppressed in 1875 (Kaplan.J, 1969). However, cannabis cultivation began to grow spontaneously in the first decade of the eighteenth century (Ali, 2014). In the initial stages cannabis seeds were binging in Naogaon from Jessore for trial purposes. And the first initiative was taken for cultivation of cannabis at *Pachupur* village in Naogaon. But due to the weather and soil characteristics of *Pachupur* was not suitable for cultivation of cannabis, where the plan for cultivation of cannabis was cancelled. Later the cannabis cultivation started in *Baluvara* village in Naogaon sub-division. Since it was a profitable than other crops as a result spread out this practices in the following areas *Naogaon*, *Mahadevpur*, *Badalgachi* and *Adamdighi* by tern under the Naogaon sub-division. The commencement place of hemp plant cultivation for manufacturing three narcotic drugs known as ganja, Charas and Bhang was *Muradpur* village at Naogaon in 1722(Ali, 2014). Jessore despite being a cultivator of cannabis but due the environment cannabis cultivation was shifted to Naogaon from Jessore. The cultivation was banned in 1987, and the sale banned in 1989 in Bangladesh. It has recently been reported that cannabis is clandestinely cultivated in some areas of Jamalpur and Sherpur districts (Banglapedia, 2014).

Agronomic history in field at Naogaon

There are variations in cannabis cultivation base on the time and region; such as Shimla district in Himachal Pradesh, India time of sowing in March- April and Harvesting in October or early November. Other crops are also grown and cultivated with cannabis. On the other hand cannabis was sown in late September and harvesting in February-March in Bangladesh without mixing any other crops. Once upon a time cannabis was being cultivated commercially in Bangladesh. But the agronomic information is unknown to many areas in Bangladesh only exclusion of Naogaon. Even from Naogaon, the history of commercial cannabis cultivation is slowly disappearing due to lack of conservation. This ethno-botanical study tries to restore that agronomic information from the knowledgeable farmers at Naogaon. **Table-1** showed the past agronomic practices in the field at Naogaon in details. On the other hand **Table- 2** will give a clear idea about the expenses of manufacturing ganja per bigha(1 bigha is equal to 0.160 hectares). The annual out-turn was 5 maunds 20 sers to 9 maunds 20 sers per bigha(1 maunds = 40kg and 1 ser=1kg) and the value per maunds were Rs. 15 . Total cultivated lands was 1100 to 1200 bighas and total produce 9000 to 10000 maunds and the number of men was engaged in the cultivation at 1300 or 1400.

Table-1: Past Agronomic Practices in the field at Naogaon according to the farmers

Activities	Remarks
Prepare seed beds.....	Late August to September
Time and Method of Sowing.....	Late September. Direct sowing on the seed beds
Germination and transplanting duration.....	Germinated within 4-5 days; after 25-30 days plants heights 6-8 inches perfect for transplant.
Transplanting time and Method.....	October (Line gap 25-28 inches & plant to plant 1 feet)
Cropping Pattern.....	Mono crop Pattern
Weeding.....	2-3 times during the whole cultivation period
Irrigation.....	3-4 times during the whole cultivation period
Fertilizers.....	Composed fertilizers (Cow-dung at the time of land preparation and oilcake 30 days later after transplantation.)
Initiation of Flowering.....	Within 2-3 month
Harvesting Time and Method.....	Within 1-2 month find out male plant; removed from the field and Keep only female plant. February-March , Cut the plant pile up and drying it 15/20 days by the sun heat
Processing method of narcotic and seeds	Take out the sticky bud manually from female plants and collect seeds manually by hands thrashing.

Table-2 Estimated production expenses incurred in a Bigha (0.160 hectares) at late eighteen

Materials	Quantity in Maunds	Expenses incurred in (Rs.)
Cow-dung	10 (Equal to 0.3732 tons)	1-14
Oilcake	10	12-2
Fresh earth added	--	2
Irrigation	--	6
Labor cutting and threshing	--	12
Rent	--	2
Total		36 Rs. Or £10 16s

Ganja Society

In the early stages the farmers used to sell the produced cannabis by the brokers. Therefore, the farmers did not get the real value. The middleman who helps the farmers to sell their cannabis would be actual beneficiaries. As a result, with the generous and progressive efforts of some individuals who had the generous and progressive thinking of Naogaon to ensure the value paid to the farmers for producing cannabis; in 1917 with the help of government a large cooperative organization called ‘**Naogaon Ganja Cultivators Co-operative Society Ltd.**’ was formed the purpose of the society was cultivation, processing, conserving-warehousing and marketing of Ganja. During the formation of the association the number of executive members was 18. In 1965 the numbers of executive committee was 12 as amended by the society. By this time the committee also correction the society name as a ‘**Naogaon Ganja Growers Co-operative Society Ltd.**’. The exact names of those who were the organizers of this association is unknown but the names of those who were members of the committee from 1919-1920 were recorded in tribute. **Table- 3** is showing that 6 members were being selected from each circle for the formation of executive committee of Naogaon Ganja society.

Table-3 Executive Committee Members since 1919-20 from the three Selected Circle

Kirtipur Circle	Gobindopur Circle	Muradpur Circle
Momin Uddin Mandol	Moulobi Tarif Mohammad	Munshi Rahim Uddin Sarkar
Lalmon Sardar	Jarif Mohammad	Donai Mondal
Elahi Box Sardar	Nafor Uddin Sardar	Kader Box Sardar
Mir Box Sardar	Hanif Mondal	Badruddin Mondal
Babu Sardakanto Sarkar	Tahir Mondal	Ayub Hossain Khan
Munshi Misratulla	Dewa Mahor Sikdar	Birumoddin Mondal

Socio-Economic contribution of the Ganja Society in the past

Naogaon Ganja Producer Cooperative Society Limited participates directly in various social and public welfare activities **Table-4** might be give an idea about the functional activities of Ganja society in various sectors in Naogaon. In addition **Fig.1** representing the details list of infrastructural development in Naogaon that was supported by the ganja society since late eighteen to 1989.

Table-4 Functional activities of Ganja society in Naogaon

Social welfare	Cultivation& Production
Educational support	Selection the cultivated land per year
Medical support.....	Issued New License
Infrastructural development.....	Issued shares
Veterinary hospital.....	Monitoring the cultivation & production process
Introduced banking facilities	Calculate the hemp price per year collaboration with Tax revenue department
Emergency fund for local people.....	Sales cannabis to 17 agents in different location

By the financial support of this society a bridge locally known as Liton Bridge was build up on the river Jamtuna in the middle of the city of Naogaon in 1923. During the Bengal famine in 1943 the society plays an important role to addressing the famine by bought rice worth BDT. 2 lakh from the society's funds. The first cooperative society was formed to protect the poor farmers and cooperative banks were established to provide

financial support to the societies. The role of Naogaon ganja producing cooperatives in the field of education was particularly significant. The educational institutions such as Chakla in 1916, Kirtipur and Chakatitha in 1921, and Paharpur high school in 1936 was established by this association. In addition to the educational institutions mentioned above around 500 hundred students from eleven schools in Gaza Mahal 7 colleges 5 Islamic madrasas was used to get financial support from the Naogaon Ganja society per year. Besides, the expenditure of various development works including repairing of roads, construction and repair of ganja mahal irrigation dams in the area of the association was contributed from the Ganja society funds.

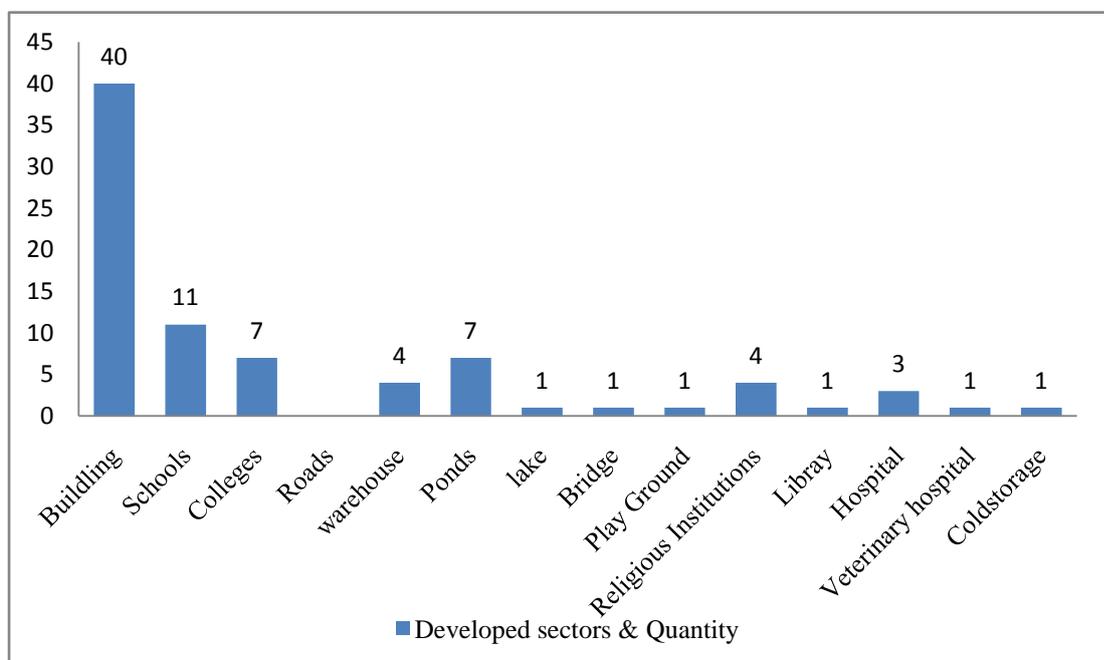


Fig.1 List of infrastructural development in Naogaon supported by Ganja society

Moreover, three charitable medical centers were established in 1917-18 for the wellbeing of Ganja cultivators and their family members **Table-5** indicating the name of the clinic along with all staffs those were used to serve the people of this area. On the other hand **Fig.2** showing the wages structure of the employees was high compare to others which proved that the financial stability of organization was very strong.

Table-5 Lists of medical centre and employees

Circle name	Employees	Positions
Kirtipur	Dr. Nazibor Rahman	Medical officer
	Dr. Abdul Mannan	Medical officer
	Mostafizur Rahman	Peon
	Deluar Hossain	Peon
	Azim Uddin	Night guard
	Taytory Bashfor	Cleaner
Gobindopur	Dr. S.M Ibrahim khalil	Medical officer
	Shoyleschandra saha	Peon
	Abdus Sattar	Peon
	Abdul khalek	Night guard
	Anukul Basfor	Cleaner
Muradpur	Dr. Abu Taher Golam Rabbani	Medical officer
	Badesh Ali	Peon
	Azibar Rahman	Peon
	Abu Taher	Night guard

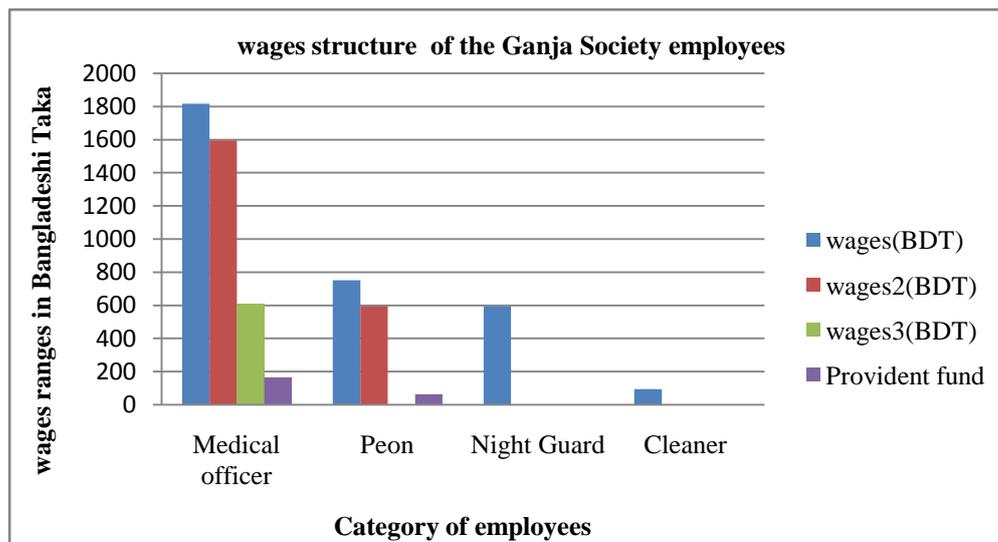


Fig.2 wages structure of the Ganja Society employees

There were 1 doctor, 1 compounder, 1 guard, 3 office assistants and 3 sweepers were used to work. Furthermore, there were 1 mosque and 1 temple all the expenditure was paid from the funds of the association. A veterinary center was established at Kirtipur to facilitate the residents of Ganja - Mahal. Finally, the contribution of “Naogaon Ganja Producers Co-operative Society Limited” is immense at the root of the prosperity and prosperity of Naogaon city. Asia’s oldest and largest cooperative society “ **Naogaon Ganja Cultivators Co-operative Society Ltd.** ” is almost on the verge of extinction. The golden days of the Ganja Mahal are now just memory. The glorious days of the Ganja producer cooperative are being pushed to the pages of history.

Present Status

The golden days of the ganja mahal are no more. Bangladesh signed the anti-narcotics treaty at the Geneva Convention in 1974. According to the agreement; there was a condition of stopping the cultivation of cannabis within 10 years. As per the condition cultivation of cannabis in Bangladesh was stopped in 1984. From then on non-existent situation has been created of Naogaon cannabis producing cooperatives Ltd the traditional oldest and largest organization. Due to lack of proper management the activities of this organization become more complex. The following points have further shifted the scope of the organization’s activities to a halt.

Stalemate: In 1993 the activities of the association began with the by-laws aimed at the rehabilitation of cannabis farmers. 132 members were elected by vote out of total members 6600 and the management committee started the activities. But the elected committee did not take any wellbeing initiative for the farmers. After taking over the power the executive committee gave more attention on its huge quantity of property. As a result such kind of intention of the committee further facilitated the non-stop movement of the association.

Litigation Issue: There are many litigation issues arose base on the interests of individuals or associations itself. The total number of cases related to the interest of the association is 5 out of 10. Rests of the cases are against the decision of the association.

Irregularities: Due to the litigation, the activities of the association became irregular; which takes the association stagnation one step further. One of the most irregular tasks is non-mutation of member’s posts and shares of deceased members. Not holding of election of management committee. Moreover, the general meeting of the association and the annual budget are supposed to be held every year under the law, but this could not be done. As a result the activities of the association were further slowed down.

Administrative complexity: An interim management committee was formed in the year 2007. Additional deputy commissioner became the president of the association. As a senior officer, he did not give much importance to the direction of the district co-operative office. As a result it is not possible for the district co-operative office to hold any administratively effective role.

Commercial cannabis cultivation started in Bangladesh in the eighteen century. Bangladesh signed the Anti-Narcotics Treaty at the Geneva Convention in 1974. According to condition, cannabis cultivation in Bangladesh has stopped within 10 years that’s mean all kind of activities in relation to cannabis postponed in 1984. At the same time the activities of Naogaon ganja producers’ cooperative society involved with the production of cannabis were slowed down. History of traditional cannabis cultivation in Bangladesh over time;

the oldest and largest institution Nagaoan Ganja Cultivators co-operative society has its old heritage today on the way to disappear. The agronomic history of *cannabis sativa* (Ganja) as an economic crop in Bangladesh; the formation and development history of Ganja society and socio-economic contributions to the society is totally unknown to young generation not only the local area but also many places in Bangladesh.

Traditional uses

Cannabis is one of the most exceptional plants which have multipurpose uses (Robert *et al.* 2014). *Cannabis sativa* has been various traditional uses in Bengal (Watt, 1885; 1908). Such as leaf and seeds used for Insomnia, narcotic, mucus, coughs, sex stimulant in Rajshahi district (Nawaz *et al.*, 2009). Getting relief from dandruff headache and asthma leaf and resin is being using in Natore (Sultana *et al.*, 2017). On the other hand, leaf is used for the treatment of schizophrenia like psychotic episodes (Ahmed and Azam, 2014). However, *cannabis sativa* is a unique plant which is being using for multipurpose **Fig. 3** is showing that how the different parts of this plant serves for multi-use.

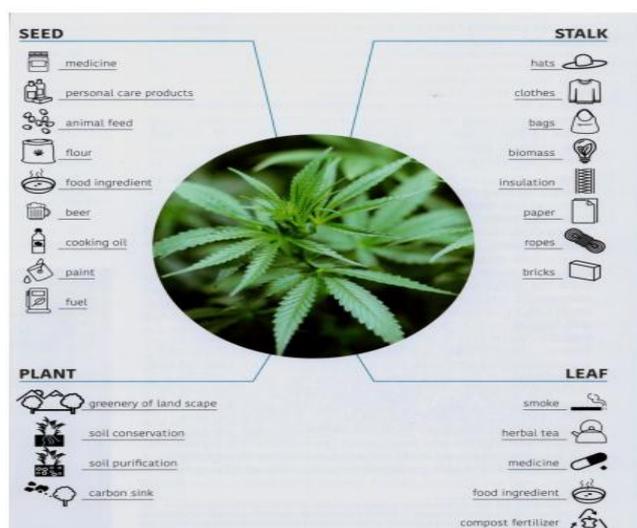


Fig.3 Different part of *cannabis sativa* serves multipurpose (Dipak R.Pant, 2016)

IV. DISCUSSION

Once upon a time Cannabis was an important commercial crop but day by day became a conventional crop in Bangladesh. As a result the agronomic characteristics is not available like others ordinary crop in Bangladesh. This ethno-botanical studies tried to restore the agronomic characteristics of this traditional crop just before the final disappeared. The socio-economic contribution of cannabis producing cooperative is immense. It was only for the cultivation of cannabis that the city of Naogaon was able to develop so rapidly. There was a no bank in Naogaon before the partition of the country. At that time all the transactions of the country were handled through the State bank of Calcutta. During that time the first co-operative societies for the poor farmers were formed and co-operative banks were set up to provide financial assistance for the people of Naogaon area. Co-operative societies can make a significant contribution to socio-economic development. The Naogaon Ganja producer co-operative society is an excellent example. But its activities have also changed with the passage of time. Unable to keep pace with the time the co-operative society is now immersed in various complications. In a word, its tradition is now in the last stages of extinction. This study basically attempted to collect and compiled the socio-economic significance of the society. However, although there are differences in sowing and harvesting time in different regions, there are many similarities with different areas in terms of traditional uses such as in ancient China hemp seed used as a food, snack and oil (Fei- Hu Liu *et al.*, 2017) while in India seed also used as a sources of food, oil and medicine (Suman, 2012). Hemp can be planted in rotation system with millet, wheat, beans etc whereas Shimla district of Himachal Pradesh, India hemp cultivated with Amaranthus and maize (Fei- Hu Liu *et al.*, 2017; Suman, 2012). *Cannabis sativa* L. is a unique plant that is consumption in various ways **Fig.2** actually showing how the different part of this plant serves multipurpose and strong evidence to drive out the delusion about this plant existed in Bangladesh.

V. CONCLUSION

This ethno-botanical study tried to restore and accumulated past agronomic practices in the field at Naogaon according to literature and the farmer's information. On the other hand the socio-economic contribution of Naogaon Ganja Society has been depicted in this study in details. However, cannabis has three major species such as *cannabis indica*, *cannabis sativa* and *cannabis ruderalis*. Cannabis serves many purposes **Fig.3** illustrated the useful aspect of *cannabis sativa*, industrial (construction, paper, fiber, textile), medical (pharmaceutical), cosmetics (cream, oil etc) and recreational used as smoke, vapor, herbal drink or sweet (Dipak, 2016). While many countries around the world have legalized cannabis but our society has misconception about *cannabis sativa*. From perspective this research paper will provide useful information regarding cannabis cultivation and play an importance role in the context of false belief and perception.

The Ganja society and the central co-operative bank still cherish the economic prosperity and cooperative tradition of Naogaon district. Although the turning point of the cooperative trend towards the 21st century has been changed, the original cooperative society of Naogaon is still considered as an example of real cooperation. Since the Bangladesh cooperative academy is considered to be the promoter of the cooperative concept; but Naogaon district is the pioneer of the cooperative movement in Bangladesh. Even though Naogaon district is the initial institute of cooperation of Bangladesh; but the history and heritage of this cooperative is present still a neglected name. However, recently many people obtaining cannabis for medicinal and recreational purposes from illegally unsafe supply chain. This system has played a vital role to develop a criminal activity in the society. Ordinary authentic consumers of cannabis are really under the risk of being exposed to criminal exploitation and law breaking (Dipak, 2016). May be legalization of cannabis again let Bangladesh government to put on control over production and trade and that would helped to keep its consumption safe, open, taxable and transparent. Furthermore, currently the regulated global market of cannabis booming from this perspective it may be good source of revenues and new job market for local people.

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