

A Comparative Study Of Jute Production In Maynaguri Block, Jalpaiguri, Wb

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ABSTRACT:

Assessment of enhanced jute production by modern technology in Jalpaiguri district has been made in this paper. The special emphasis has been given on the jute production of 16 Muja of Maynaguri Block in Jalpaiguri district. Crop combination processes also have discussed & lastly the socio-cultural reasons behind the production disparity have also been mentioned. Thus the overall changing pattern of Jute production has been analyzed in this paper.

KEY WORDS:

Land preparation, Production, Problems, Use of modern technology, Prospects.

INTRODUCTION:

Jute has been used since ancient times in Africa & Asia to provide weaving fiber from the stem and food from the leaves. Jute is one of the important natural golden fibers used since ancient times. It requires high temperature varying from 24 to 35 degree C & heavy rainfall of 120 to 150 cm with 80% to 90% RH during growth period & rainfall 2.5-7.5cm in a month during sowing period.

85% of the world's jute cultivation is concentrated in Ganga Delta & W.B tops the jute producing state with 8075 thousand bales (1bale=180kg) in 2015-16 in Maynaguri, within 970kg (approx) capsular.

IMPORTANCE OF JUTE:

Jute is the cheapest natural fiber and second only to cotton in respect of production.

It is bio-degradable in nature, thus eco-friendly.

Jute absorbs huge quantity of CO₂.

Jute crop add huge organic manure to the soil in the form of leaf fall, improves soil health.

The leaves are also used as vegetables which contains high quantities of antioxidant.

PROBLEMS:

1. Environmental Factor
2. Output of the old machines are very low compared to the modern sophisticated machines.
3. Technology Adoption
4. Post Harvest Operation/ Retting And
5. Crop Competition & marketing

AIMS & OBJECTIVS:

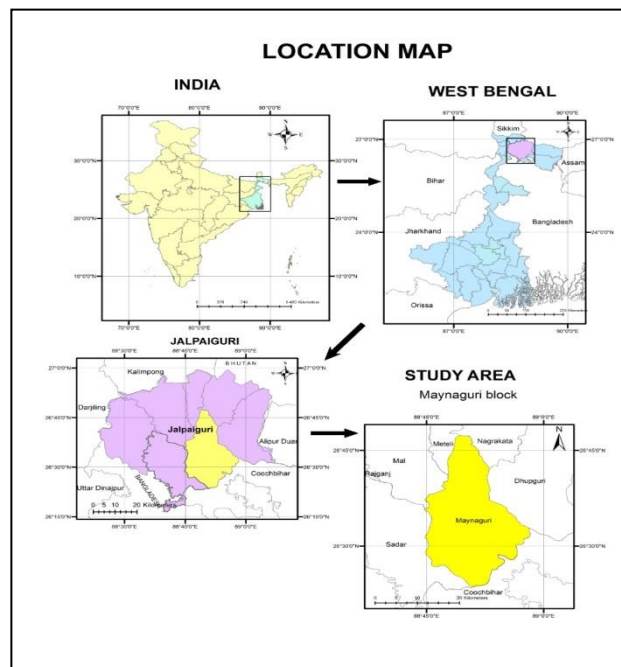
To enhance the yield of jute production in Maynaguri blocks with the help of modern technology and grow interest on the local people to produce jute production.

To overcome the dependency on monsoon & promotes the significance of rainwater harvesting.

To **aware** the farmers about the various developmental plan & policy taken by the administration, such as, loan facility, ICAR, ISAPM, NABARD, MSP etc.

STUDY AREA:

Maynaguri is a CD block of Jalpaiguri District in West Bengal. Maynaguri is known as the “Gate Way of Dooars”. The average elevation of Maynaguri is 84m or 275ft from sea-level and about 10km North-East of Jalpaiguri. The latitudinal and longitudinal extension is 26.57° N and 88.82° E respectively. The main highway of this area is NH31 and Maynaguri lies in the North-East frontier Railway Zone of the Indian Railway. We have selected 16mouzas of Maynaguri to use the modern technology for enhancing the jute production



METHOD; Arc-GIS

METHODOLOGY:

PRE-FIELD:

In the pre field stage, secondary data, maps & relevant diagrams will be collected.

Field:

This stage involves the field survey of some selected areas that have been chosen on the basis of simple random sampling.

POST- FIELD:

The post field work mainly includes computation & representation of the collected data by cartographic, Statistical techniques and GIS.

LITERATURE REVIEW:

A large part of this section includes an updated literature survey. It is relevant to the present study. Different aspects of jute industry like agriculture, productivity, marketing, modern technology etc. are reviewed in this part.

According to Md.Bayezid Islam, improvement of compressive strength of soil by using Jute Fiber Waste is very important. Kabir explained the causes of low productivity of jute plants and also suggests some remedy.

LAND PREPARATION:

The land should preferably be well drained in nature having high organic matter content. The field should be ploughed for 2 to 3 times to get fine tilt, depending on soil texture.

The land should be properly leveled using laddering as available and a field ditch (8"x 12") should be connected to a safe outlet to provide drainage to avoid early water logging stress. Fertilizer dose: N: P: K: : 60:30:3.Elemental sulphur at 30kg/ha (soil, 20 kg sulphur)

TRADITIONAL VS MODERN TECHNOLOGY ON SOWING METHOD:

Broadcasting is the most important technique of jute sowing. Treated seeds" at 5 to 6kg /ha should be sowed in prepared jute field criss-cross wise for uniform seed distribution & desirable plant stand.(2)

Nail Weeder is used for simultaneous composite weed control, thinning, automatic line development and mulching for moisture conservation. On the other hand, the traditional method is also time consuming which is one of the most important problems for today's competition-market. After sowing, the plucking of the jute

Traditional Vs Modern Technology



Fig: At 45hrs after sowing in jute field

source: W.B agriculture Department., Maynaguri

plants should be done scientifically.

After 35days of sowing by CRIJAF Nail Weeder, we will get healthy jute plant of 35 cm & without Nail weeder the jute plants are 11cm in height.



Source: Maynaguri Agricultural Department

MAJOR FINDINGS:

Jute cultivation in Maynaguri is characterized by small scale farming. There are three varieties of jute, viz. Tosca, Mesta & White. Normally, the Tosca is produced in Maynaguri.

The farmers faced some problems for environment because of our dependency on monsoon climate.

In Maynaguri, there are 16 mouzas & near about in all mouzas, jute cultivation is occurred. Women members of the family take a part in weeding, separating the jute fiber & drying.

Especially the best quality of jute cultivated in Kalamati area of Amguri, which is the 2nd famous area after Balakoba in North Bengal. In 2018, near about 40,000 Mon jute has produced in Amguri.

Female labors also have engaged in weeding, separating the jute fiber and drying. Generally the jute cultivation is traditional .Recent year; he jute price is 40-50/kg.

Recent, the farmers are not interested about jute production because of very minimum profit compare with other crops. Sometimes they have not returned their basic which influenced them to produce maize, sunflower, nut etc which are more profitable than jute.

On the other hand, today to avail the insurance facility (for demurrage of jute production by any causes like environmental or marketing) is not very easy for the common people as 2015(approx). This is the main cause of less interest in jute production. With climate, financial problem also effects on jute cultivation.

The expenditure is near about Rs1600 /Mon and they have to profit only Rs. 50 to 65 per Mon (1Mon= 40Kg).To compare with tea, maize, paddy, it is too minimum or less profitable to the farmers in recent. But in 2014, farmers had not returned their basic expenditure also and get loss about 200/40kg.

Jute production(Quintal) in Maynaguri Block

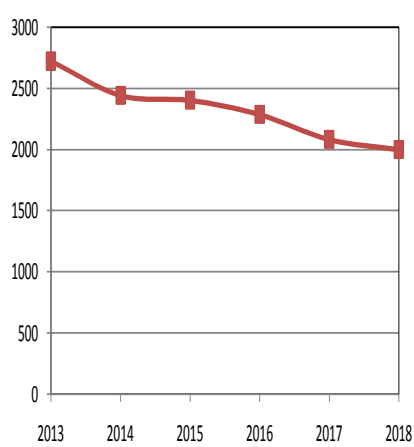
| MOUZAS | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|-------------------|-------|-------|-------|-------|-------|-------|
| Barnesh | 3600 | 3480 | 3120 | 3440 | 3200 | 2800 |
| Maynaguri | 1680 | 1600 | 1200 | 1648 | 1440 | 1280 |
| Churabhandar | 1560 | 1480 | 1120 | 1280 | 1280 | 1200 |
| Madhabdanga(I+II) | 6600 | 6400 | 5520 | 6240 | 6120 | 6000 |
| Padamati(I+II) | 2720 | 2440 | 2400 | 2284 | 2080 | 2000 |
| Dharmapur | 2480 | 2400 | 2392 | 2200 | 2072 | 1960 |
| Ramsai | 288 | 260 | 193.2 | 220 | 181.2 | 164 |
| Amguri&Panbari | 17200 | 16080 | 15280 | 16800 | 16000 | 15200 |
| Domohani(I+II) | 2680 | 2404 | 2080 | 2484 | 2320 | 2000 |
| Khagrabari | 1200 | 1084 | 980 | 1280 | 1004 | 800 |
| Saptibari | 5680 | 5080 | 4356 | 5292 | 4800 | 4000 |

Source: Transient Literature.

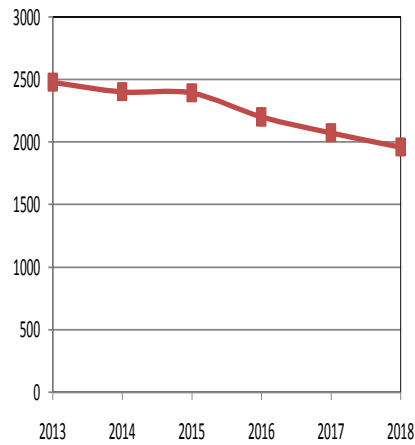
Result & Discussions:

According to the data, the highest jute production found in Amguri and panbari mouzas but the production has decreased from 2013 to 2018, not only this area but also all the mouzas have faced same problems, decreasing jute production. In Madhabdanga, Amguri & Panbari mouzas there are highest decreasing rate is found in 2015.

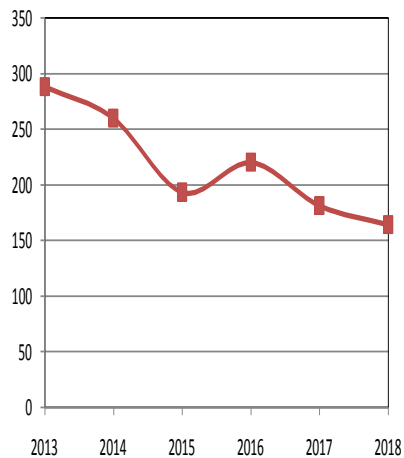
Year wise Jute Production (in Quintals)



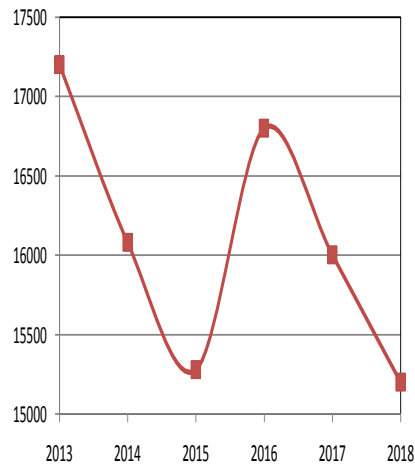
Padamati (I+II)



Dharmapur

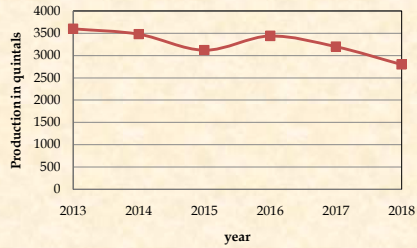


Ramsai

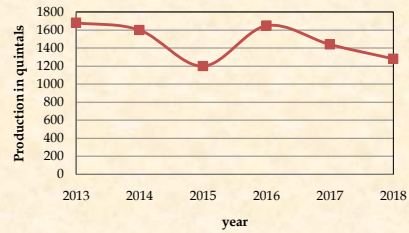


Amguri & Panbari

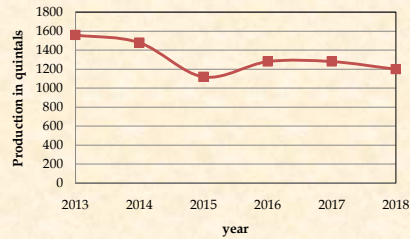
Year wise Jute Production



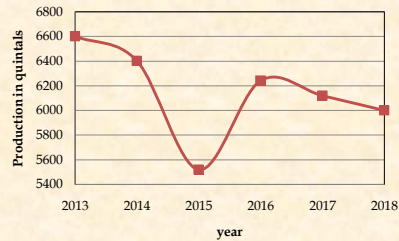
Barnesh



Maynaguri



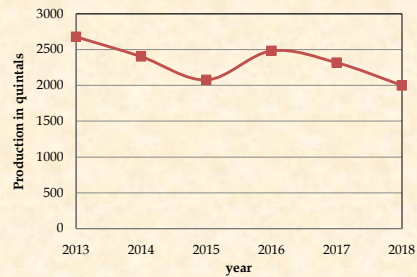
Churabhandar



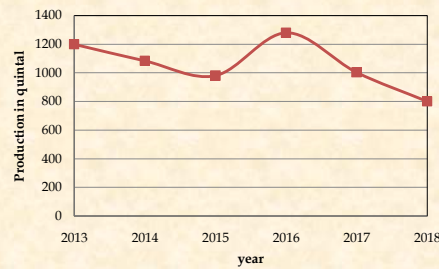
Madhabdanga (I+II)

Source: Transient literature.

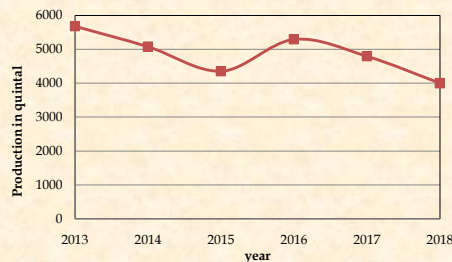
Year wise Jute Production



Domohani (I+II)



Khagrabari



Saptibari

Source: Transient literature.

PROSPECTS

The above analysis reveals that there is a big chance to enhance the jute production by using modern technology by Nail Weeder, line sowing method etc. This Nail Weeder machine is very light weight which will be handled by women also.

Jute-ICAR (2005), the pilot project will be applied for enhanced the yield of jute. This has resulted in increased returns to jute farmers.

The load facility should be given to the farmers as impartial.

To overcome the dependency on monsoon, conservation of water by rainwater harvesting & management of surface flow is needed.

Insurance facility should be given on jute production by the Govt. without bias and grow interest on jute production to the local people of Maynaguri Block.

COMPARATIVE ANALYSIS :

After sowing by use of modern technology, the plucking should be done to cover the jute seeds.

The advantages of line sowing method are:

- Increase net return.
- The quality may be good enough.
- Produces uniform jute plant.
- Reduces seed requirement from 5-6kg/ha to 3kg/ha and also reduces the labor requirement.

CRIJAL 4 row seed drill will prepare the optimum spacing of 25cm×5/7cm and requires. Optimum plant population is pre-requisite for proper growth & development. The first thinning should be done within 15 to 21 days 2nd at 35 days. The retting duration can be reduced by 6 to 7 days compared to conventional retting.

Women also will take a part in jute cultivation by modern nail weeder machine because this machine is very light weight to handle.

CONCLUSION:

It can be calculated that modern technology will be enhanced the jute production and quality. It should reduce the labor cost as well as production cost. If all the development plans like Jute- ICAR(JUTE: Improved Cultivation and Advanced Retting Exercise) ISAPM (Incentive Scheme for Acquisition of Plants and Machinery)NABARD,MSP (Minimum Support Pries) are put in action, there is open a new phase for the jute producer in respect of jute productivity in Maynaguri Block.

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