

Production, export and domestic consumption of jute industry in India-An analysis

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Abstract - Jute is a natural fiber which is also known as Golden Fiber. As it is a natural fiber, it has many advantages like low extensibility, high tensile strength moderate heat and fire resistance and long staple vegetable fiber that can be spun into strong, coarse thread, Jute is mainly crop of Ganga Delta. Jute is not only a major textile fiber but also a raw material for nontraditional and value added non-textile products. Jute is used extensively in the manufacture of different types of traditional packaging fabrics, manufacturing Hessian, sacking, carpet backing, mats, bags, tarpaulins, ropes etc. so Jute industry make a large contribution to Indian economy as a large no of people are engaged to either producing it or in the jute industry. So, Jute Industry is labour intensive and as such its labour-output ratio is also high in spite of various difficulties being faced by the industry. Also Many rural and urban unemployed and underemployed women and men are involved in a large number of jute development programs and projects are being implemented by various institutions and Government of India with UN agencies as UNDP to modernize the jute industries and it's all round development. The notable institutions in India, promoting, providing every assistance, R&D in the field of jute are: Indian Jute Industries Research Association (IJIRA), National Jute Board of India, Jute Manufacturing Development Council (JMDC), National Centre for Jute Diversification (NCJD) etc. Objective of this paper to depict the scenario of jute industry in terms of its production, volume of export & volume of domestic consumption. Study of this paper is based on the secondary data & information.

Key Words: Jute, production, export, domestic consumption, growth, trend

1. INTRODUCTION

The Jute Sector has been playing an important role in the economy of the country, especially of the eastern region. About 4 million families are dependent on cultivation of jute and mesta and about 2 lakh workers get direct employment in the jute industry. Two successive bumper crops of raw jute including mesta during the year 2001-02 at 105 lakh bales and estimated 110 lakh bales during 2002-03 have a dampening impact on the raw jute market. In the backdrop of surplus supply of raw jute, the lower demand from jute mills has made raw jute prices lower touch crores. A number of innovative steps have been taken by the Government of India for giving a

boost to exports. Minimum Support Price level. However, the active price support operations of JCI along with its agent Cooperative Societies has arrested the decline in prices. In the manufacturing sector, performance of jute sector during the year has not been encouraging. Failure of rainfall in some parts of the country has led to lessening of demand of jute goods as packaging material by domestic buyers. However, export market of jute goods has displayed a notable turnaround and as per present indication it is expected that value of export of jute goods may touch Rs.950 crores as against export target fixed at Rs.1000. With this background, this paper has attempted to study the production and export performance of jute industry in India, for the period of 24 years from 1990-91-2013-14.

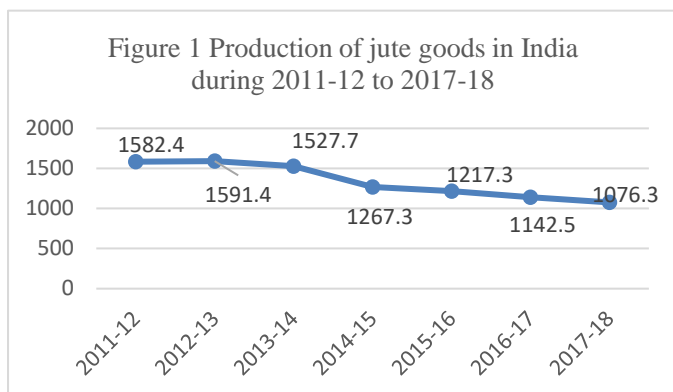
Objectives of the study are i) to examine the trend of production of jute goods in India during 2011-12 to 2017-18, ii) to examine the trend of export of jute in India during 2014-15 to 2017-18 and iii) to examine the trend of domestic consumption of jute good during 2010-11 to 2017-18.

Methodology: The present study is based on the secondary data. The data have been collected from production of jute goods, volume of export of jute and domestic consumption of jute goods in India from 2011-12 to 2017-18. For the analysis of the study, we used exponential growth rate the logarithm value of jute goods production, volume of jute goods exported and domestic consumption of jute goods. We run regression taking log (volume of jute good production, export) as dependent variable and time period as independent variable. Same procedures are followed for export volume of jute goods and domestic consumption of jute goods.

2. Body of Paper

1. Time series data for Production of jute goods in India (2011-12 to 2017-18)

For the analysis of production of jute goods in India we used the line diagram during the period 2010-11 to 2017-18. It was found that there is a gradually decreasing trend in production of jute goods from the year 2013-14. It is due to the substitute of jute goods emerged in one hand and the rise of production of jute in Bangladesh.



Now we have taken the logarithm on the volume production of jute goods (Y) to find out the exponential growth rate. Here we consider 2011-12 (1), 2012-13(2) and so on upto 2017-18(7). Here $t=1,2,\dots,7$, where t is time period. Then we run regression taking $\log(\text{volume of jute goods production})$ as dependent variable and time period as independent variable

Our model can be represented as follows-
 $\log Y_t = a + bt + \mu$

Where Y_t = volume of jute goods production at t -th period.
 a, b are parameters.
 μ is a disturbance term with usual assumption.

Now we run regression by OLS method. The estimated model is as follows-

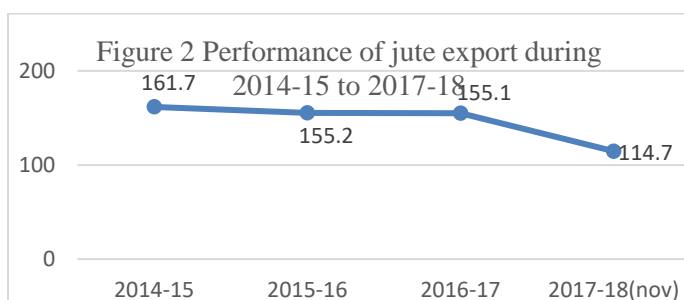
$$\log \hat{Y}_t = 3.236953 + (-0.02652)t$$

(189.788) (-7.61624)

From the output sheet of regression we see that the value of R^2 is 0.920644. We can note here that the annual compound growth rate of jute goods production is declining by 2.652% level and the rate is statistically highly significant.

2. Time series data for Export performance of jute in India (2014-15 to 2017-18):

Here we analysed the export performance of jute in India by using line diagram. The study also found that there is a decline in jute goods production upto 2017-18.



Now we have taken the logarithm on the volume of export of jute (Y) to find out the exponential growth rate for 2014-15—2017-18. Here we consider 2014-15(1), 2015-16(2), 2017-18(4). Here $t=1,2,\dots,4$, where t is time period. Then we run regression taking $\log(\text{volume of export of$

jute) as dependent variable and time period as independent variable.

Our model can be represented as-

Our model can be represented as follows-
 $\log Y_t = a + bt + \mu$

Where Y_t = volume of export of jute at t -th period.
 a, b are parameters.
 μ is a disturbance term with usual assumption.

Now we run regression by OLS method. The estimated model is as follows-

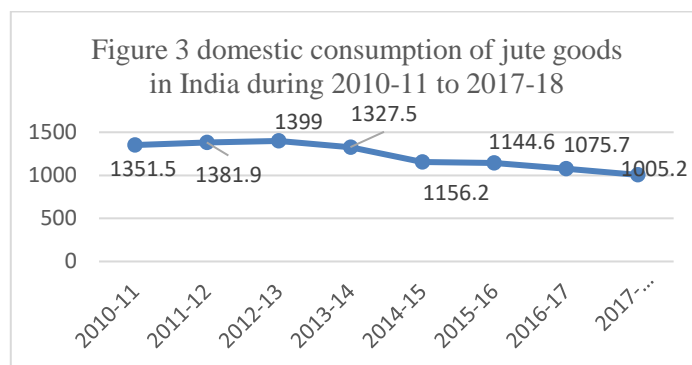
$$\log \hat{Y}_t = 2.274374 + (-0.04477)t$$

(40.02619) (-2.15784)

From the output sheet of regression we see that the value of R^2 is 0.699532. We can note here that the growth rate is declining by 4.477% level and the rate is statistically insignificant.

3. Time series data for Domestic consumption of jute goods in India (2010-11 to 2017-18):

Finally we consider the data of domestic consumption of jute goods in India (2010-11---2017-18). From the line diagram which is obtained from original data, we find that the volume of jute consumption is increasing upto 2012-13. After that it declines continuously.



Now we have taken the logarithm of domestic consumption of jute goods (Y) to find out the exponential growth rate. Here we consider 2010-11(1), 2011-12(2), 2017-18(8). Here $t=1,2,\dots,8$, where t is time period. Then we run regression taking $\log(\text{volume of domestic consumption of jute goods})$ as dependent variable and time period as independent variable.

Our model can be represented as-

$$\log Y_t = a + bt + \mu$$

Where Y_t = volume of domestic consumption of jute goods at t -th period.
 a, b are parameters.
 μ is a disturbance term with usual assumption.

Now we run regression by OLS method. The estimated model is as follows-

$$\log \hat{Y}_t = 3.181545 + (-0.02102)t \\ (195.9193) \quad (-6.53529)$$

From the output sheet of regression we see that the value of R^2 is 0.876822.

We can note here that the growth rate is declining by 2.102% level and the rate is highly statistically significant

3.CONCLUSIONS

The Jute industry occupies an important place in the national economy of India. It is one of the major industries in the eastern region, particularly in West Bengal. Jute, the golden fibre, meets all the standards for 'safe' packaging in view of being a natural, renewable, biodegradable and eco-friendly product..But the result of the study of the paper shows that the production of jute goods,export of jute goods & domestic consumption of jute goods had decreasing over the considered time period.It indicates that demand for jute product decreases both in domestic market as well as in the international market over the time, though jute industry or jute has many importance, both economical & environmental.

ACKNOWLEDGEMENT

The heading should be treated as a 3rd level heading and should not be assigned a number.

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