Price Policy for

Jute

2024-25 Season

सत्यमेव जयते

Commission for Agricultural Costs & Prices

Department of Agriculture & Farmers Welfare
Ministry of Agriculture & Farmers Welfare
Government of India, New Delhi
October 2023

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Preface and Acknowledgements

It is a great honour and privilege for me to submit the report of **"Price Policy for Jute: 2024-25 Season"**. The report contains recommendations on Minimum Support Price (MSP) and non-price policy measures for jute. I hope the recommendations will incentivise jute farmers and jute mills for adopting new technologies, modernisation and diversification to improve productivity, quality and competitiveness of the Indian jute sector.

Summary of Recommendations is followed by an overview of jute economy in Chapter 1. Chapter 2 discusses demand-supply situation, price trends and procurement operations of jute. Trends in productivity and drivers of growth in productivity are analysed in Chapter 3. The trade performance and patterns and domestic and world prices are discussed in Chapter 4. Costs, returns and inter-crop parity issues are analysed in Chapter 5. The price and non-price policy recommendations are given in the Chapter 6.

I would like to express my sincere gratitude and thanks to jute farmers, farmers' representatives/ associations, Jute Corporation of India, office of the Jute Commissioner, Ministry of Textiles, jute millers, jute industry associations, officers from Central and State Governments, research institutions, and various other stakeholders for providing valuable inputs during the meetings and in preparation of this report. Special thanks to the Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare for providing timely data on cost estimates for raw jute production.

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15th October 2023 **(Vijay Paul Sharma)**

Contents

List of Tables

List of Charts

List of Annex Tables

Acronyms

Acronym	Description
A_2	Paid out cost
A_2+FL	Paid out cost plus imputed value of family labour
ATUFS	Amended Technology Upgradation Fund Scheme
BIS	Bureau of Indian Standards
BYOB	Bring Your Own Bag
C_2	Paid out cost plus imputed value of family labour plus rental value of owned land plus interest on fixed capital
CACP	Commission for Agricultural Costs and Prices
CAGR	Compound Annual Growth Rate
CBC	Carpet Backed Clothing
CHCs	Custom Hiring Centers
CIPI	Composite Input Price Index
CoC	Cost of Cultivation (per hectare expenses incurred in cultivating a crop)
CoP	Cost of Production (per quintal expenses incurred in producing a crop)
CS	Comprehensive Scheme
DGTR	Directorate General of Trade Remedies
DNFI	Discover Natural Fibres Initiative
ESE Division	Economics, Statistics & Evaluation Division
FAO	Food and Agriculture Organization
FASAL	Forecasting Agricultural output using Space, Agro-meteorology and Land based observations
FLDs	Front Line Demonstrations
FOB	Free on Board
FPOs	Farmers Producer Organizations
GIS	Geographic Information System
GVO	Gross Value of Output
HSD	High Speed Diesel
HYVs	High Yielding Varieties
ICAR	Indian Council of Agricultural Research
ICAR-CRIJAF	ICAR-Central Research Institute for Jute and Allied Fibres
ICAR-NINFET	ICAR-National Institute of Natural Fibres Engineering and Technology
IJIRA	Indian Jute Industries' Research Association
IJMA	Indian Jute Mills Association
JAC	Jute-stick Activated Carbon
JAF	Jute and Allied Fibres
JCI	Jute Corporation of India
JDP	Jute Diversified Products
JDRC	Jute Design Resource Centre
JPDS	Jute Product Diversification Scheme
JPM	Jute Packaging Materials

Acronym	Description
JRCPCs	Jute Resource Cum Production Centers
JRMB	Jute Raw Material Bank
JRO	Jute Retail Outlets
Jute-ICARE	Jute-Improved Cultivation and Advanced Retting Exercise
LDC	Least Developed Country
MSME	Micro, Small & Medium Enterprises
MSP	Minimum Support Price
NFSM-CC	National Food Security Mission-Commercial Crop
NFSM-CC-Jute	National Food Security Mission - Commercial Crops - Jute
NINFET	National Institute of Natural Fibres Engineering and Technology
NJB	National Jute Board
NJDP	National Jute Development Programme
PLI	Production Linked Incentive
RoDTEP	Remission of Duties and Taxes on Exported Products
SAARC	South Asian Association for Regional Cooperation
SAFTA	South Asian Free Trade Agreement
SAPTA	SAARC Preferential Trading Arrangement
SHGs	Self Help Groups
SUR	Stocks-to-use ratio
TE	Triennium Ending
UNCTAD	United Nations Conference on Trade and Development
WGC	Wilhelm G. Clasen
WPI	Wholesale Price Index

Summary of Recommendations

Price Policy Recommendations

S.1 Considering all the relevant factors and consultations with various stakeholders, the Commission recommends that the Minimum Support Price (MSP) of raw jute (TDN-3 equivalent to earlier TD-5 grade) be fixed at ₹5,335 per quintal for the 2024-25 Season. This is 5.6 percent increase over the MSP of ₹5,050 per quintal for 2023-24 Season. The weighted all-India average A_2+FL cost of production is estimated at ₹3,237 per quintal in 2024-25, and the modified A_2+FL cost, which includes transportation costs, marketing charges and insurance premium is estimated at ₹3,314 per quintal. The recommended MSP would provide 64.8 percent margin over the A_2+FL cost of production and cover the cost of production in all major jute producing States.

Non-Price Policy Recommendations

Address the Issue of Divergence in Jute Production Estimates

S.2 There is high divergence in jute production estimates by the Ministry of Agriculture and Farmers Welfare and Expert Committee on Jute, Ministry of Textiles. The Commission recommends that this issue of divergence in production estimates should be addressed on priority as it would help both policy makers and industry in understanding the market dynamics and effective decision making.

Yield Improvement

S.3 Large yield gaps and inter-State variations in jute productivity levels are major concerns for the jute economy. The Commission recommends a holistic approach with special focus on availability of quality seeds of new high yielding varieties to farmers at affordable price, modern retting and extraction techniques, adequate credit facilities, easy access to modern farm machinery and implements and dissemination of scientific knowledge among farmers.

Promote Efficient Water Management

S.4 Jute is predominantly a rainfed crop and thus, erratic rainfall pattern and low availability of fresh water resources affect its yield and fibre quality. The Commission recommends creating awareness and promoting rain water harvesting, efficient water management and irrigation systems among jute farmers.

Strengthen Extension Services

S.5 Government of India and the State Governments have been implementing various programmes and schemes namely, Jute-ICARE (Improved Cultivation and Advanced Retting Exercise for Jute) and National Food Security Mission - Commercial Crops - Jute (NFSM-CC-Jute) to promote certified seeds, package of scientific methods of jute cultivation and retting technologies through front line demonstrations and training for improving fibre quality and productivity, reduce cost of production and increase farmers income. The Commission recommends that the programmes be intensified significantly with enhanced outlay and the extension agencies should be equipped with new advancements in technologies and package of practices to popularize them amongst jute farmers.

Promote Farm Mechanization

S.6 Jute is a labour-intensive crop and therefore, farm mechanization is required to reduce cost of production and improve profit margins. Farm implements like jute seeder, weeder, bast fibre extractor, power ribboner, tractor driven multi-crop seed drill, etc. can help in improving efficiency and reducing cost. The Commission recommends that farm machinery and implements should be made accessible to small and marginal farmers through custom hiring centres and their use may be promoted through demonstration and training programmes.

Improved Retting Technologies

S.7 Quality of jute fibre is adversely affected as majority of jute farmers still use traditional methods of retting. Research institutions have developed improved techniques of retting like in-situ retting technology and application of microbial consortium - CRIJAF-SONA and NINFET-Sathi & IJIRA-SUBHRA. The Commission, thus, recommends that concerted efforts should be made to popularize these improved retting methods among farmers and encourage them to adopt these technologies.

Review the JPM Act, 1987

S.8 JPM Act has created assured demand for jute sacking but it has also acted as a barrier to technological advancements and product diversification. The Commission reiterates its earlier recommendation to review the JPM Act, 1987 to reduce the mandatory packaging requirements in a phased manner so as to ensure adequate supply of raw jute for other diversified jute goods.

Modernize Jute Value Chain

S.9 Various value added products can be made from different parts of jute plant and are gaining popularity. The Commission recommends that, in order to make jute cultivation more viable and self-reliant, it is imperative to diversify the jute value-chain by exploiting full potential of jute fibre, sticks and short length waste fibre. Mass media campaigns like “Bring Your Own Bag” (BYOB) to create behavioral change and promotion of “Jute Mark India” labels to provide collective identity and popularize jute products would help in promotion of jute products as well as in reducing pollution and the carbon footprint on the planet.

Strengthen Procurement Operations and Infrastructure

S.10 The Jute Corporation of India (JCI) has taken various initiatives to expand procurement operations but still there is a need to further strengthen the procurement network and infrastructure. The Commission recommends that JCI should make efforts to strengthen network of procurement centres and storage facilities and leverage technology to widen reach of procurement, especially in remote areas.

Popularize New Grading System

S.11 Despite Bureau of Indian Standards (BIS) notification of 5 new grades for jute in December 2020, majority of the trade takes place in the old 8 grades system. The instrumental methods are available for scientific assessment of certain important characteristics of jute fibre but traditional "hand and eye" method is used for assessing the quality for commercial purposes and farmers are often deprived of remunerative price. The Commission, thus, recommends that objective instrumental methods should be used for assessment of quality parameters and availability of grading instruments must be ensured in jute-growing areas. The mass awareness campaigns to educate farmers and traders about the new grading system should be organized.

Incentivize High-Quality Fibre

S.12 India mainly produces low grade jute primarily used for sacking purpose. There is a need to increase availability of high grade jute to meet the rising demand for jute diversified products. The Commission recommends that the Central and State Governments and jute industry should provide necessary infrastructural support like retting tanks, adequate water storage facilities and improved retting technologies to farmers for producing high grade jute.

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CHAPTER 1

Overview

1.1 Jute is an important natural fibre crop and provides livelihoods for millions of farmers and industrial workers in India. Jute fibre contributed ₹10,462 crore (0.4 percent) to the value of output from crop sector during 2021-22 (at current prices), an increase of 35 percent over 2020-21 as per National Accounts Statistics 2023. In 2021-22, exports of raw jute and jute products touched ₹4,011 crore (38.3 percent of its total value of output) signifying the potential of jute sector in the country. However, jute exports declined by 7.7 percent in 2022-23 to ₹3,702 crore. The potential of jute sector can be further improved by increasing the share of Jute Diversified Products (JDPs) in its product portfolio, which is currently dominated by jute sacking due to captive domestic market for packaging of foodgrains and sugar in jute bags under the Jute Packaging Materials (Compulsory Use in Packing Commodities) Act, 1987 (JPM Act).

1.2 The main commercial species of jute grown in India are Tossa jute and White jute. Tossa jute produces finer fibres than White jute, but the yield of Tossa jute is lower. Tossa jute accounts for about 91 percent of jute production in India, while White jute accounts for 5 percent and the remaining 4 percent is mesta.

Global Production Scenario

1.3 India is the largest producer of raw jute in the world with a 49.7 percent share in global production in 2021 closely followed by Bangladesh with 48.6 percent share. However, Bangladesh has the largest area under jute cultivation (50%) in the world, followed by India (48.4%). Jute is also cultivated in China, Nepal, Uzbekistan, Thailand, Myanmar and Bhutan but their share is very meagre. India has higher yield (26.1 qtl/ha) than the global average (25.4 qtl/ha) and Bangladesh (24.7 qtl/ha) but is significantly lower than Uzbekistan (107.4 qtl/ha) and China (40.1 qtl/ha). Among the top five jute producers, Bangladesh has experienced the highest surge in production with a compound annual growth rate of 1.92 percent during 2011-2021, attributed to a substantial increase in yield (1.93%). Conversely in case of India, despite an increase in yield (0.92%), a corresponding (-)2.45 percent decline in acreage resulted in an overall decline of (-)1.55 percent in production during the period. These contrasting trends between India and Bangladesh underscore the diverse dynamics within jute cultivation landscape.

1.4 As per FAO jute, kenaf, sisal, abaca, coir and allied fibres Statistical Bulletin 2022, India is also the leading jute goods producing country in the world, accounting for about 70 percent of world production but Bangladesh is the leading exporter of both raw jute and jute products. It

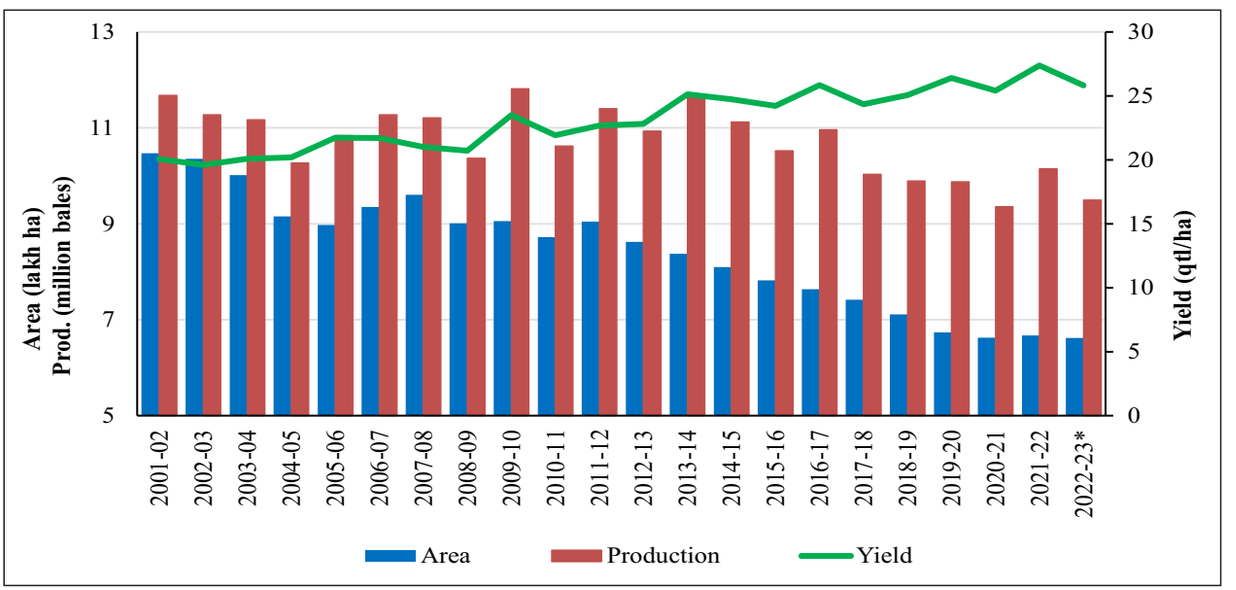
accounted for 72.5 percent in global exports of raw jute and 79.3 percent of global exports of jute products in TE2021-22, which indicates that Bangladesh jute sector is heavily dependent on the world markets, while India has large domestic market for jute and jute products.

Domestic Scenario

1.5 Production of raw jute and area under jute cultivation has recorded a steady decline during the last two decades with wide inter-year fluctuations. Chart 1.1 depicts the trends in area, production and yield of jute and mesta in India from 2001-02 to 2022-23. Production of jute and mesta in India, which remained largely stagnant at around 11 million bales of 180 kg each during the 2000s, showed a declining trend during the last ten years with inter-year fluctuations. The lowest output was recorded in 2020-21 at 9.4 million bales due to cyclone *Amphan* and excessive rainfall throughout the growing season. The rate of deceleration in area increased from (-)1.8 percent in 2000s to (-)3.4 percent in 2010s, while in case of production it increased from (-)0.4 percent to (-)2.2 percent during the period. There has been a marked improvement in jute productivity with an overall increasing trend during the last two decades. The area, production and yield of jute and mesta recovered in 2021-22 from the after effects of cyclone *Amphan* but are estimated to significantly decline in 2022-23 as per the Third Advance Estimates.

1.6 Production of jute in India is concentrated in the traditional Gangetic delta areas of West Bengal, Bihar and Assam. Chart 1.2 illustrates the State-wise shares of area and production of jute and mesta for TE2022-23. West Bengal accounted for 83.4 percent of total jute production in the country, followed by Assam (8.2%) and Bihar (7.2%). In terms of area under jute cultivation, West Bengal accounts for 80.7 percent followed by Assam (10%) and Bihar (7.6%). West Bengal also has the highest yield among the States at 27.6 quintal per hectare as against the all-India average of 26.7 quintal per hectare.

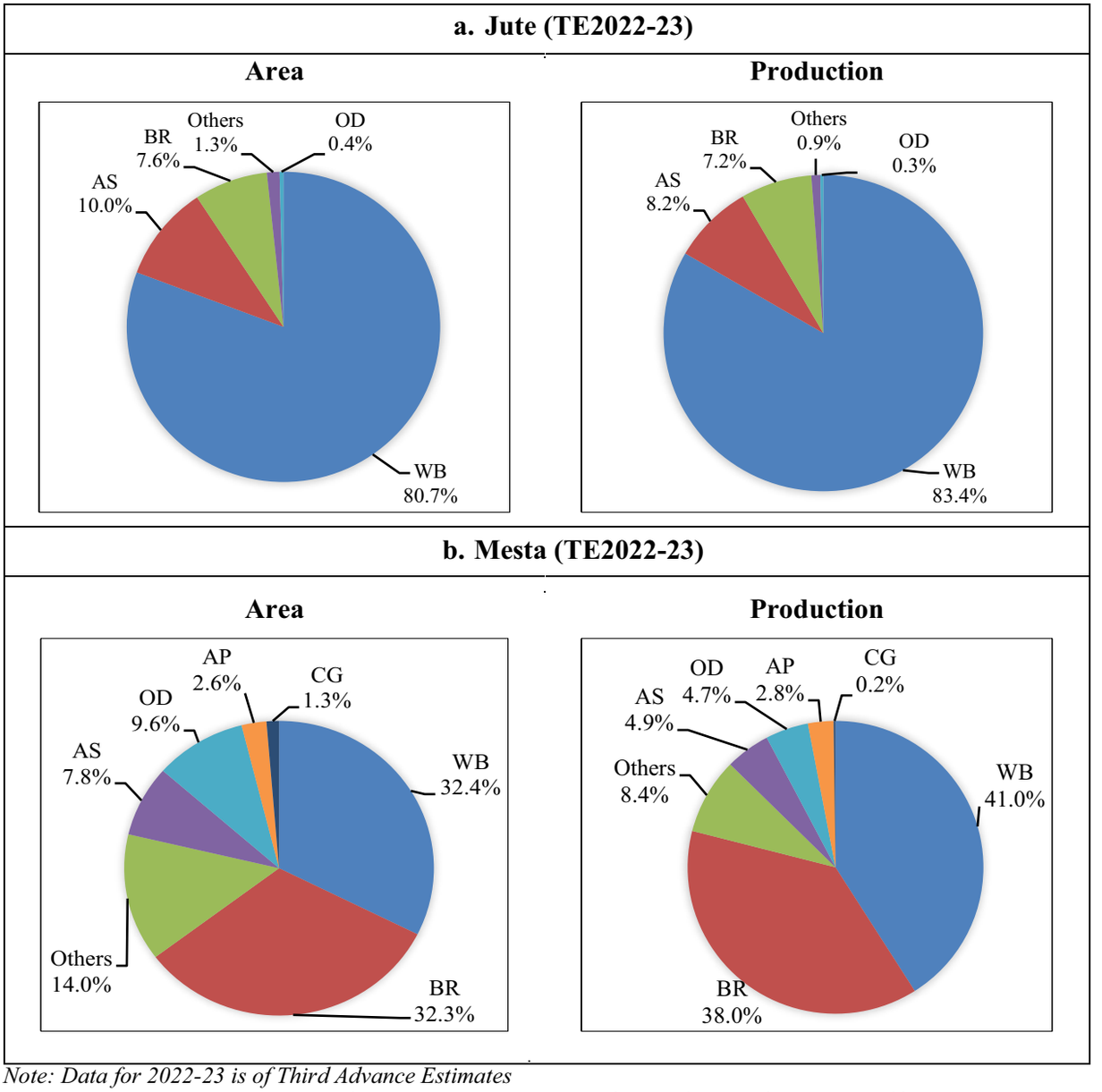
Chart 1.1: Trends in Area, Production and Yield of Jute and Mesta in India



*Note: * Third Advance Estimates*
Source: Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

1.7 In the case of mesta (Chart 1.2 (b)), West Bengal is a leading producer contributing 41 percent of the total production and accounting for 32.4 percent of the cultivated area in TE2022-23. Bihar is the second largest producing State with 38 percent share in production and 32.3 percent in area under cultivation. West Bengal leads the country in mesta yield with 23 quintal per hectare, followed by Bihar at 21.4 quintal per hectare, and Andhra Pradesh at 19.6 quintal per hectare. The area, production and yield of jute and mesta in major producing States from 2011-12 to 2022-23 are given in Annex Tables 1.1 to 1.3.

Chart 1.2: Share of Major States in Area and Production of Jute & Mesta



Note: Data for 2022-23 is of Third Advance Estimates
Source: Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

Divergence of Jute Production Estimates

1.8 Jute production estimates increasingly influence policy and business decisions, with potentially far-reaching effects on producer and market prices as well as policies. However, jute production estimates from different agencies vary substantially, as is evident from Annex Table 1.5. There is significant difference in production estimates provided by Expert Committee on Jute, Ministry of Textiles and Ministry of Agriculture & Farmers Welfare, Government of India and the divergence varied from 12.8 percent in 2021-22 to 61.9 percent in 2015-16. However, the variation in estimates was much lower (4.3%) during 2022-23. The large variations in these estimates arise from different methodologies and sources of data used by the agencies. This divergence has several important consequences. First, it makes it difficult to get reliable estimates of demand-supply situation of the crop, which is an important factor in determining Minimum Support Price (MSP) of jute. Secondly, the divergence in estimates create uncertainty for jute-based companies and, therefore, poses a challenge for a wide range of decision-making.This calls for greater attention to how the production estimates are generated by both agencies. In the last few years satellite remote sensing and GIS technologies have emerged as viable alternatives for crop estimation. Government of India has also launched Digital Crop Survey to get real time crop area estimation.These initiatives would help in addressing these challenges and facilitate in reconciling them.

Jute Yield and Fibre Quality

1.9 Jute and mesta registered a marginally lower compound annual growth rate of 1.2 percent in productivity at all-India level during the decade of 2010s compared to 1.4 percent per annum observed during the decade of 2000s. The jute yield in the country is significantly lower (15-35%) than the potential yield with large inter-State variations. The average yield varied from 22 quintal per hectare in Assam to 27.5 quintal per hectare in West Bengal in TE2022-23. Non-availability of quality seed, poor management practices and climatic variability adversely affect the crop yield. India lags behind Bangladesh in the production of high-quality jute fibre. Raw jute produced in India is predominantly of lower grade (TDN-3 to TDN-5), which is suitable for manufacture of jute sacking bags for packaging. The non-availability of sufficient water for retting, and improved retting technologies are major constraints in improving fibre quality.

1.10 The ICAR- Central Research Institute for Jute and Allied Fibres (ICAR-CRIJAF), ICAR-National Institute of Natural Fibre Engineering and Technology (ICAR-NINFET) and Indian Jute Industries' Research Association (IJIRA) have developed improved jute retting technologies. The "Improved Cultivation and Advanced Retting Exercise for Jute" (Jute-ICARE) programme was launched in 2015 to popularize better agronomic practices and microbial-assisted retting among farmers and is being implemented by National Jute Board (NJB) in collaboration with Jute Corporation of India (JCI), ICAR-NINFET and ICAR-CRIJAF. According to the Indian Jute Mills Association (IJMA), about 15- 20 percent of the total area under jute cultivation is covered under the Jute-ICARE programme. Therefore, efforts should be made to ensure timely availability of quality seed, disseminate improved jute production and retting technologies among farmers and scale up Jute-ICARE to improve crop yield and fibre quality.

Mechanization in Jute Cultivation

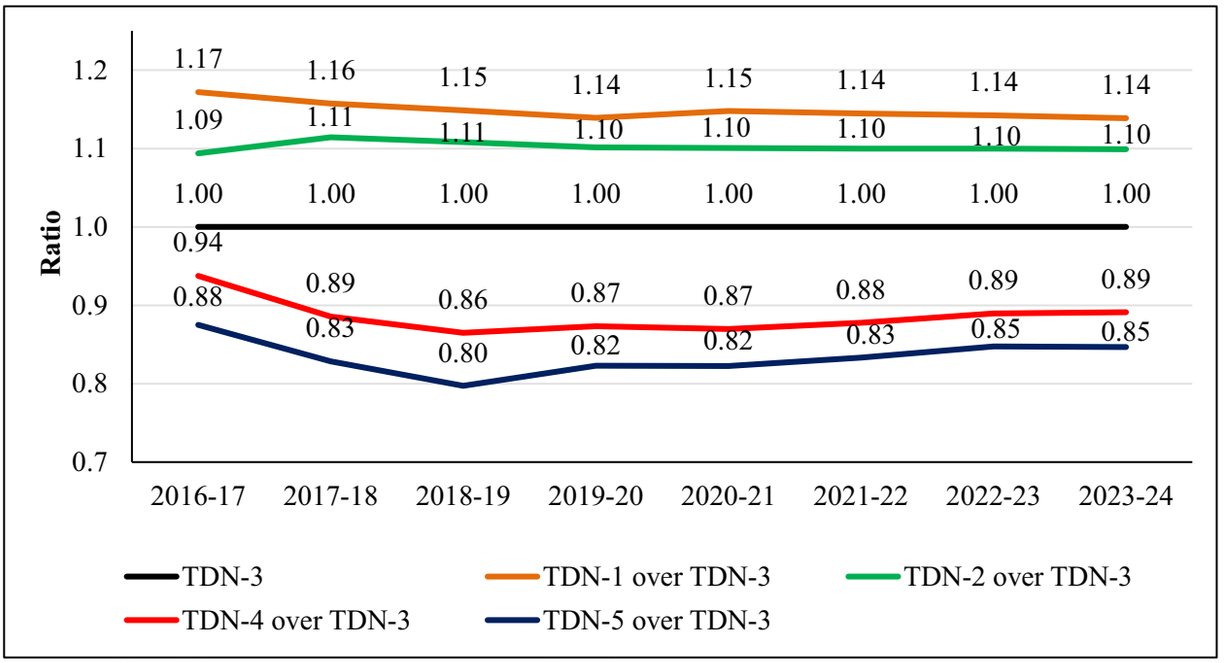
1.11 Jute cultivation is labour-intensive and the cost of labour in the cultivation of raw jute ranged from nearly 65 to 77 percent of total operational cost per hectare in major producing States during TE2021-22. Conventional fibre retting and extraction are also labour-intensive and require large volume of water. Mechanization of jute cultivation can play an important role in reducing production cost and drudgery while increasing jute fibre production. The ICAR-CRIJAF has developed many farm implements such as multi-row seed drill, nail weeder, single wheel jute weeder, herbicide applicator, fibre extractor, etc. However, adoption of farm machinery by jute farmers is very low as majority of jute growers are small and marginal. Therefore, there is a need to make farm implements and machines accessible and affordable for the small and marginal farmers by adopting group model such as establishment of Custom Hiring Centers (CHCs), Farmers Producer Organizations (FPOs), Self Help Group (SHGs), cooperatives, etc.

Market Prices and Price Support Operations

1.12 The wholesale prices of raw jute (TDN-3/TD-5) have increased since 2018-19, and in June 2021 they were at their highest historical level. The jute prices exhibited a downward trajectory since October 2022 but remained above the MSP. Since the market prices remained above the MSP, there was very low procurement by the Jute Corporation of India (JCI) under the Price Support operations. However, most jute growing areas witnessed a drought like situation during 2022-23, which adversely affected the quality of jute crop and lower grade production increased. Consequently, market prices hovered around or below the MSP for most of the season and JCI had to intervene to procure lower grade raw jute. The JCI procured approximately 2.4 lakh bales of raw jute, with a total value of approximately ₹188 crores at MSP.

1.13 The Commission recommends MSP for TDN-3/TD-5 grade of jute, the Office of the Jute Commissioner fixes MSP for different grades of jute and mesta (higher price for superior grades) in order to encourage production of better-quality premium grades of jute. The MSP for the premium grades viz. TDN-1 and TDN-2 has been around 10-15 percent higher during the last five years, while MSP for lower grades (TDN-4 and TDN-5) was around 12-17 percent lower than TDN-3 MSP. However, market price premium for higher grades has been lower than the MSP premium. For promoting product diversification and value-addition, the price differential between low and high grades of jute needs to be increased so as to discourage production of lower quality jute fibre.

Chart 1.3: MSP Ratio of TDN-1, TDN-2, TDN-4 and TDN-5 over TDN-3



Source: Office of the Jute Commissioner, Ministry of Textiles

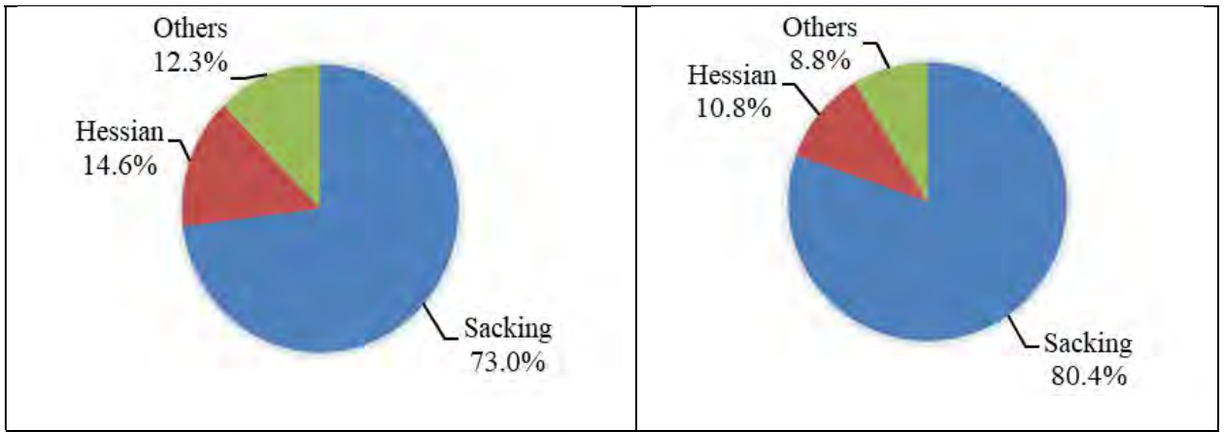
Overview

Modernization and Diversification in Jute Industry

1.14 The Indian jute sector is heavily dependent on Government demand for foodgrains and sugar packaging. The compulsory packing of foodgrains in jute packaging material was increased from 90 percent to 100 percent w.e.f 30th November 2018 under JPM Act, 1987 and the requirement of Government for jute sacking bags has increased significantly due to higher production and procurement of foodgrains. It is evident from Chart 1.4 that the share of sacking in total jute consumption has risen from 73 percent in TE2012-13 to 80.4 percent in TE2022-23, while share of hessian and other jute-manufactured products has declined significantly during the period. The continued high reliance on sacking by jute mills has been a major impediment to diversification, modernization and technological upgradation of the jute industry. Therefore, to revitalize the jute sector and enhance income to jute farmers, it is essential to gradually reduce the compulsory packaging of foodgrains and sugar, thereby freeing up capacity for the production of value-added diversified products.

Chart 1.4: Pattern of Jute Goods Production in India (Percentage Share)

(a) TE2012-13 **(b)TE2022-23**



Source: Office of the Jute Commissioner, Ministry of Textiles

1.15 The Government has taken several initiatives to promote production and exports of Jute Diversified Products. Government announced the Production Linked Incentive (PLI) Scheme for providing financial support to the jute mills and Micro, Small & Medium Enterprises (MSME) and the Amended Technology Upgradation Fund Scheme (A-TUFS) for the upgradation of existing machinery and installing modern looms. National Jute Board (NJB) is implementing Jute Product Diversification Scheme (JPDS) under National Jute Development Programme (NJDP), an Umbrella Scheme of the NJB for developing Jute Diversified Products (JDPs) during 2021-26. Various other interventions such as setting up of Jute Resource Cum Production Centers (JRCPCs), Jute Raw Material Bank (JRMB), Jute Retail Outlets (JRO), Jute Design Resource Centre (JDRC) etc. as well as domestic and export market development activities have been launched by the Government. Many large jute mills have announced significant capacity additions and investment in technology upgradation and product diversification.

Trade in Raw Jute and Jute Products

1.16 World exports of raw jute and jute products are dominated by Bangladesh, accounting for over three fourth of the total volume. India ranks among the major importers of jute and jute products from Bangladesh. The import of raw jute is primarily of high grade fibre for manufacturing of value-added diversified products. Bangladesh has cost advantage due to lower wages, sufficient availability of water and subsidies and other incentives to promote exports. However, imports from Bangladesh adversely affect the domestic jute industry, mills and growers. Government of India has taken several initiatives including anti-dumping duties on 'Jute Products,' including various jute yarn/twine types, hessian fabrics, and jute sacking bags originating in or exported from Bangladesh and Nepal. Despite these measures, India's imports of jute and jute products increased by about 42 percent, from ₹1,303 crore in 2020-21 to ₹1,850 crore in 2021-22 and about 29 percent in 2022-23 at ₹2,382 crore. Therefore, there is a need to monitor imports and take corrective measures such as review of import duty structure to restrict subsidized imports of jute and jute products.

New Jute Grading System

1.17 Based on the recommendation of Commission for Agricultural Costs and Prices (CACP), Government of India had reduced number of grades from eight (TD1-TD8) to five (TDN-1 to TDN-5) from the crop year 2015-16 and TDN-3 as basis for MSP recommendations. The Indian Standard (Fifth Revision) was adopted by the Bureau of Indian Standards (BIS) in December 2020. However, actual trade practices are still largely based on the earlier 8 grade system and daily price quotations continue to be published for grades TD-3 to TD-7. As per the BIS notification, hand and eye method may be used for assessing the qualities for commercial purposes but traditional "hand and eye" method is subjective. The instrumental methods are also available for scientific assessment of certain important characteristics but jute grading machines have not been upgraded or properly calibrated to scientifically assess these new grades and availability of such grading machines and instruments remains a major challenge. The requirement of each individual quality characteristic in case of each of the 5 grades for "hand and eye" method is given in Annex Table 1.6 and "instrumental grading" method in Annex Table 1.7.

Outlook of Jute Sector

1.18 According to the Third Advance Estimates, jute and mesta production is estimated at 95 lakh bales in 2022-23, decline of 6.4 percent compared to 2021-22, while as per Expert Committee on Jute, production is estimated at 91 lakh bales. The production is forecast to rise by 9.7 percent in 2023-24 to 105.1 lakh bales as per Forecasting Agricultural output using Space, Agro-meteorology and Land based observations (FASAL) of Ministry of Agriculture and Farmers Welfare, while production is forecast to remain unchanged and pegged at 91 lakh bales in 2023-24 by the Expert Committee on Jute. With substantially high ending stocks in 2022-23, total supply is estimated at 119 lakh bales in 2023-24, while total demand for mill consumption, domestic/industrial consumption and exports is estimated at 95 lakh bales, resulting in 24 lakh bales ending stocks in 2023-24. The higher availability and ending stocks might exert downward pressure on raw jute prices but with growing awareness about adverse environmental effects of plastic and ban on single-use plastics from 1stJuly 2022, are likely to boost the domestic demand and exports of raw jute and value-added jute products in the coming years.

Structure of the Report

1.19 The report comprises of six chapters covering different aspects of the Indian jute sector. Chapter 2 discusses the dynamics of demand-supply, price trends and procurement operations. Chapter 3 focuses on the trends in crop productivity and key factors affecting the crop yield. In Chapter 4, trade patterns, domestic and international price trends and trade policies to improve competitiveness are examined. Chapter 5 analyses the costs, returns, inter-crop parity issues and overall profitability of jute cultivation. Drawing insights from these analyses, Chapter 6 presents a set of price and non-price policy recommendations for jute for the Season 2024-25.

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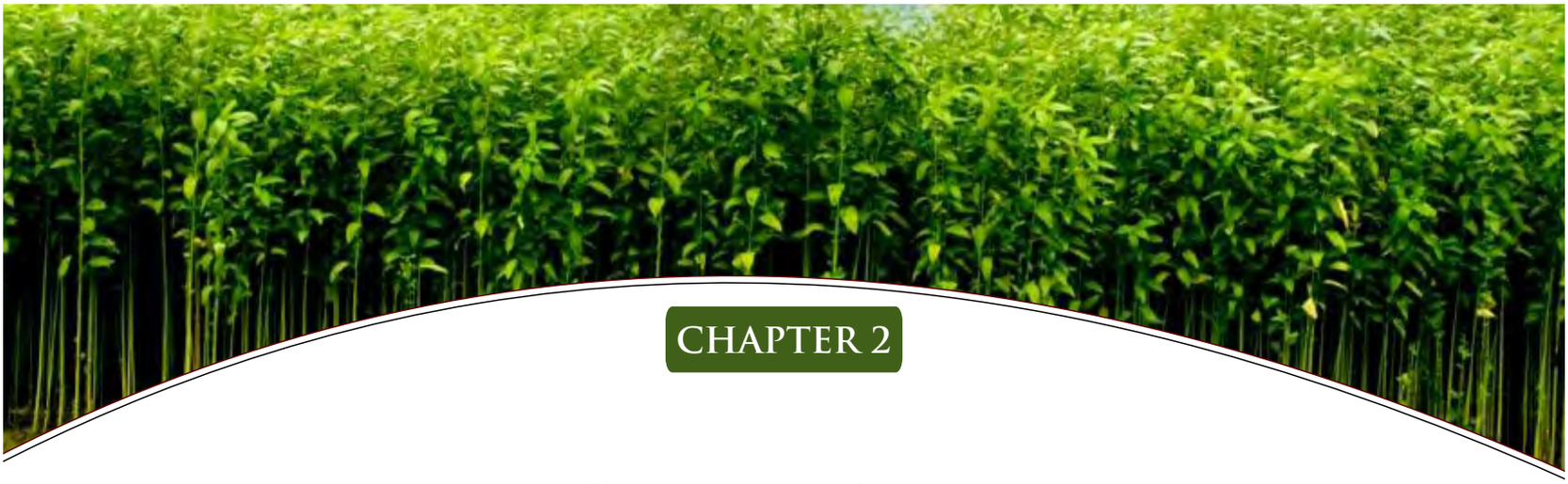


CHAPTER 2

Demand-Supply, Price Trends and Procurement Operations

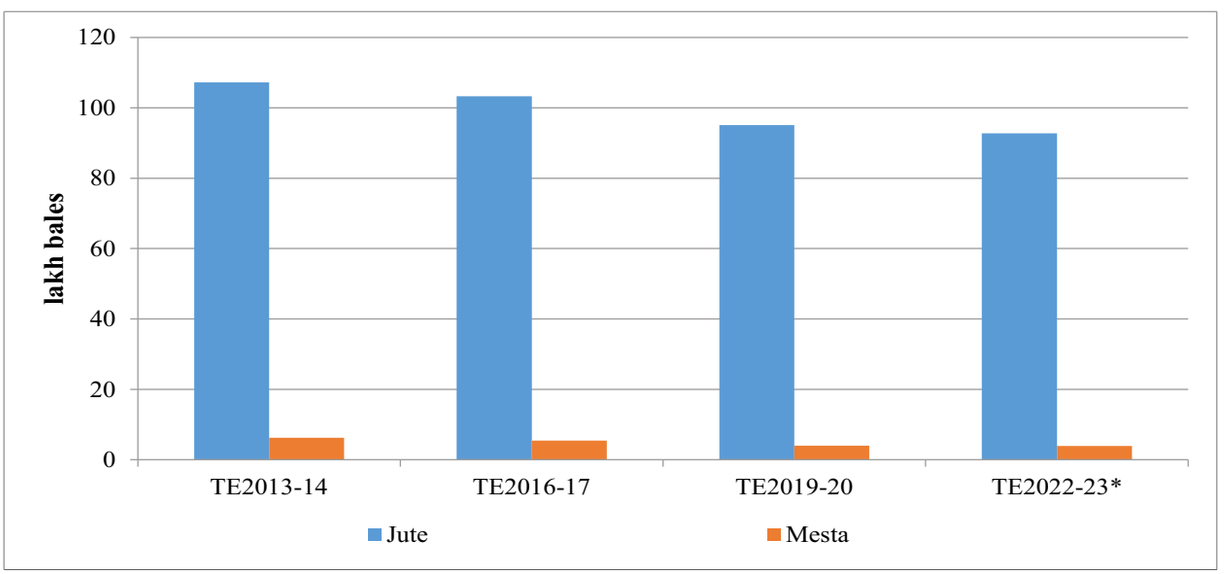
2.1 Jute is an important natural fibre and has emerged as a multipurpose raw material for diversified applications such as textile and paper industries, floor covering, soil saver, furnishing materials, handicrafts etc. This chapter analyses the domestic demand-supply situation of jute, trends in market prices vis-à-vis MSP and procurement operations of jute.

Domestic Demand-Supply Situation

Raw Jute

2.2 Trends in jute and mesta production during the last ten years are presented in Chart 2.1. Jute production in the country showed a steady decline during the last 10 years. The production of jute was 107.2 lakh bales in TE2013-14, which reduced to 103.3 lakh bales in TE2016-17, a decrease of around 3.6 percent. Jute production witnessed further decline in the subsequent years, from 95.1 lakh bales in TE2019-20 to 92.7 lakh bales in TE2022-23, a decline of 2.5 percent. Mesta production has also recorded a steady decline, from 6.2 lakh bales in TE2013-14 to 3.9 lakh bales in TE2022-23.

Chart 2.1: Production of Jute & Mesta in India



*Note: * Third Advance Estimates 2022-23*

Source: Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

2.3 According to Food and Agriculture (FAO) Statistical Bulletin, world production of jute is estimated to increase from 153.7 lakh bales in 2020-21 to 170.7 lakh bales in 2021-22, an increase of 11 percent {Table: 2.1(A)}. Imports of jute are forecast to increase from 4.4 lakh bales in 2020-21 to 5.1 lakh bales in 2021-22, an increase of 16 percent while exports are estimated to increase from from 7.5 lakh bales to 9.8 lakh bales during the same period. Both mill consumption and village consumption are also estimated to increase in 2021-22 as compared to 2020-21.

Table 2.1 (A): Estimated Supply, Domestic Requirements and Trade of Jute in Major Producing Countries

(lakh bales of 180 kg each)

S. No.	Particulars	2018-19	2019-20	2020-21	2021-22
1	Opening Stocks	43.4	51.9	-	-
2	Production	161.6	149.0	153.7	170.7
3	Imports	5.7	6.5	4.4	5.1
4	Total Supply (1+2+3)	210.7	207.4	-	-
5	Mill Consumption	136.1	110.3	117.6	122.1
6	Village Consumption	11.8	13.3	13.4	14.7
7	Closing Stocks	52.9	73.7	-	-
8	Exports	9.9	10.2	7.5	9.8

Source: FAO Statistical Bulletin 2020, 2021 and 2022 for Jute, kenaf, sisal abaca, coir and allied fibres

2.4 Table 2.1 (B) shows the balance sheet of supply, distribution and stocks scenario for raw jute for the last five years and estimates for 2023-24. Total supply of raw jute was 116 lakh bales in 2022-23, which was 17.2 percent higher as compared to 2021-22, and is estimated to further increase to 119 lakh bales in 2023-24. On the demand side, mill consumption increased by about 15.2 percent in 2022-23 to 76 lakh bales in comparison to 66 lakh bales in 2021-22, and is forecast to touch 78 lakh bales during 2023-24. The domestic/industrial consumption increased from 12 lakh bales during 2021-22 to 15 lakh bales during 2022-23 and is likely to remain at the same level in 2023-24 as well. As a result of higher opening stocks, higher production and increase in imports, the ending stocks of raw jute recorded an increase of about 21 percent in 2022-23 over 2021-22. The ending stocks in 2023-24 are estimated to touch 24 lakh bales, 4.3 percent higher than 2022-23 and 30.7 percent higher than last five year average. The stocks-to-use ratio (SUR) is estimated to go up from 24.7 percent in 2022-23 to 25.3 percent in 2023-24.

Table 2.1 (B): Domestic Supply, Distribution and Stock of Raw Jute

(lakh bales of 180 kg each)

S. No.	Particulars	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24*
1	Opening stocks	22.4	18.4	18.0	5.0	19.0	23.0
2	Production (Jute and Mesta)	72.0	68.0	60.0	90.0	91.0	91.0
3	Imports	3.0	4.0	2.0	4.0	6.0	5.0
4	Total Supply (1+2+3)	97.4	90.4	80.0	99.0	116.0	119.0
5	Mill consumption	69.0	54.0	62.0	66.0	76.0	78.0
6	Domestic/industrial consumption	10.0	10.0	8.0	12.0	15.0	15.0
7	Exports	0.0	0.0	5.0	2.0	2.0	2.0
8	Total Use (5+6+7)	79.0	64.0	75.0	80.0	93.0	95.0
9	Ending Stock (4-8)	18.4	26.4	5.0	19.0	23.0	24.0
10	Stocks-to-Use Ratio (%) (9/8)	23.3	41.3	6.7	23.8	24.7	25.3

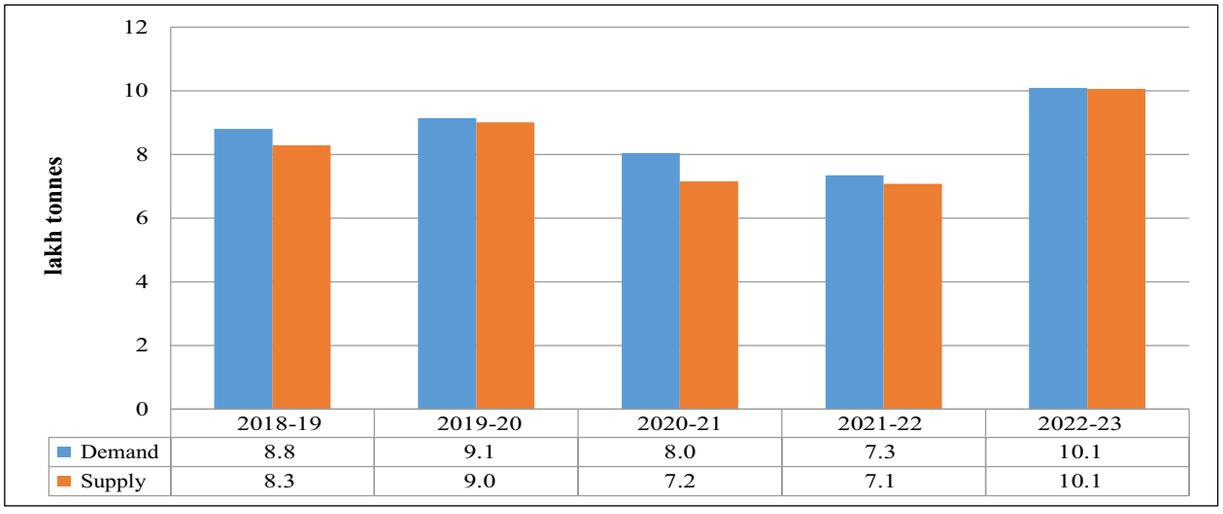
*Note: * estimated*

Source: Expert Committee on Jute, Ministry of Textiles

Jute Products

2.5 With expected increase in demand for the use of biodegradable materials after ban on single-use plastics in 2022 in the country and higher demand for jute packaging material due to rising procurement of foodgrains by Food Corporation of India (FCI) and 20 percent reservation for packaging of sugar in jute bags, demand for raw jute is expected to rise. During the last five years, demand for B.Twill sacking by Government agencies varied from 8 lakh tonnes in 2020-21 to 10.1 lakh tonnes in 2022-23, while supply/lifting ranged from 7.1 lakh tonnes in 2021-22 to 10.1 lakh tonnes in 2022-23 (Chart 2.2). There was decline in both demand and lifting of B.Twill jute bags during 2020-21 and 2021-22 due to lower procurement of foodgrains.

Chart 2.2: Demand and Supply/Lifting of B.Twill Jute Bags (Sacking) by Government agencies during 2018-19 to 2022-23



Source: Office of the Jute Commissioner, Ministry of Textiles

2.6 Table 2.2 shows the production of jute goods over the last decade. It is observed that the production of jute goods during TE2022-23 declined (1096.4 thousand tonnes) by around 30 percent as compared to TE2013-14 (1567.2 thousand tonnes). Production of hessian declined by 45.5 percent, sacking by 25.1 percent and other jute goods fell by around 42.9 percent during the same period. The share of sacking in total jute goods registered a steady rise from 73.5 percent in TE2016-17 to about 80.4 percent in TE2022-23, while the share of hessian and other jute goods declined during this period due to mandatory use of jute in foodgrains and sugar packaging under Jute Packaging Materials (Compulsory use in Packing Commodities) Act, 1987.

Table 2.2: Trends in Production of Jute Goods in India

('000 tonnes)

Period	Sacking	Hessian	CBC	Others	Total
TE2013-14	1177.9	217.5	3.3	168.5	1567.2
TE2016-17	888.4	195.5	1.0	124.1	1209.0
TE2019-20	912.8	149.5	0.0	105.8	1168.1
TE2022-23	881.8	118.5	0.0	96.2	1096.4

Note: CBC: Carpet Backing Cloth

Source: Office of the Jute Commissioner, Ministry of Textiles

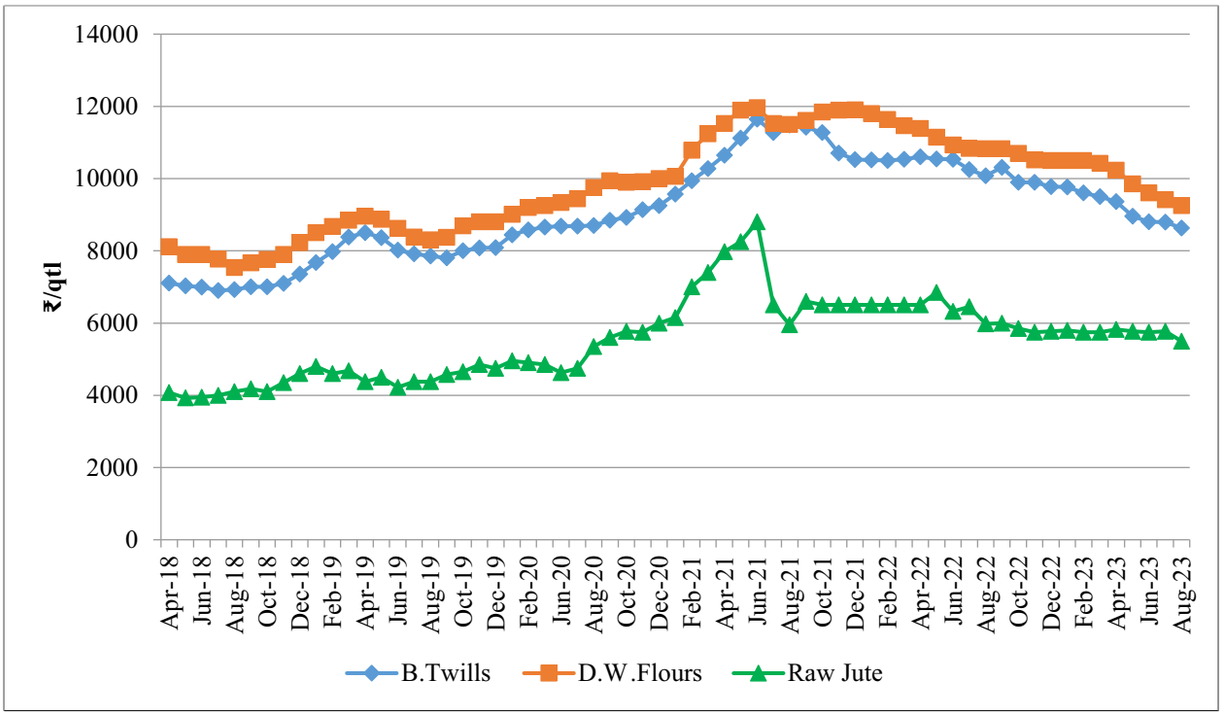
Price Trends

2.7 The price trends of B.Twill, D.W. Flours and raw jute over the past five years have been depicted in Chart 2.3 (A). It is observed from the Chart that prices of B.Twill increased from ₹6,928 per quintal (qtl) in August 2018 to ₹8,500 per qtl in April 2019 before falling to ₹7,800 per qtl in September 2019. Wholesale prices exhibited an increasing trend from ₹8,000 per qtl in October 2019 to ₹11,642 per qtl in June 2021. The period between July 2021 and October 2021 saw minor fluctuations in the wholesale prices of B.Twill. Wholesale prices exhibited a downward trajectory between April 2022 (₹10,600 per qtl) and August 2023 (₹8,628 per qtl).

2.8 Wholesale prices of D.W. Flours jute cloth fell from ₹8,113 per qtl in April 2018 to ₹7,540 per qtl in August 2018. Thereafter, prices picked up from ₹7,667 per qtl in September 2018 to ₹8,958 per qtl in April 2019 before falling to ₹8,300 per qtl in August 2019. Wholesale prices of D.W. Flours jute cloth increased from ₹8,370 per qtl in September 2019 to ₹9,895 per qtl in October 2020. In the months of November and December 2020, prices hovered at ₹10,000 per qtl. Subsequently, wholesale prices exhibited an increasing trend from ₹10,061 per qtl in January 2021 to ₹11,962 per qtl in June 2021 before falling to ₹11,500 in August 2021. There was an uptick in prices of D.W. Flours jute cloth from ₹11,612 per qtl in September 2021 to ₹11,905 per qtl in December 2021. Thereafter, prices showed a decreasing trend from ₹11,800 per qtl in January 2022 to ₹10,824 per qtl in August 2022. Prices increased marginally to ₹10,831 per qtl in September 2022 before exhibiting a downward trajectory till August 2023 (₹9,252 per qtl).

2.9 Wholesale prices of raw jute decreased from ₹4,800 per qtl in January 2019 to ₹4,225 per qtl in June 2019 before increasing to ₹4,850 per qtl in November 2019. Prices again exhibited a downward trend from ₹4,950 per qtl in January 2020 to ₹4,625 per qtl in June 2020 before touching ₹6,000 per qtl in December 2020. Thereafter, raw jute prices increased from ₹6,150 per qtl in January 2021 to ₹8,800 per qtl in June 2021. Subsequently, prices crashed to ₹5,950 per qtl in August 2021. Between October 2021 and April 2022, prices of raw jute remained constant at ₹6,500 per qtl. Wholesale prices of raw jute have decreased from ₹6,850 per qtl in May 2022 to ₹5,775 per qtl in December 2022, with minor fluctuations in between that period. Raw jute prices have remained constant at ₹5,750 per qtl in February 2023 and March 2023. Subsequently, prices decreased from ₹5,825 per qtl in April 2023 to ₹5,500 per qtl in August 2023.

Chart 2.3 (A): Wholesale Price Trends of Raw Jute and Other Jute Goods



Note: Raw Jute (TD-5) Kolkata, West Bengal

Source: 1. Office of the Jute Commissioner, Ministry of Textiles

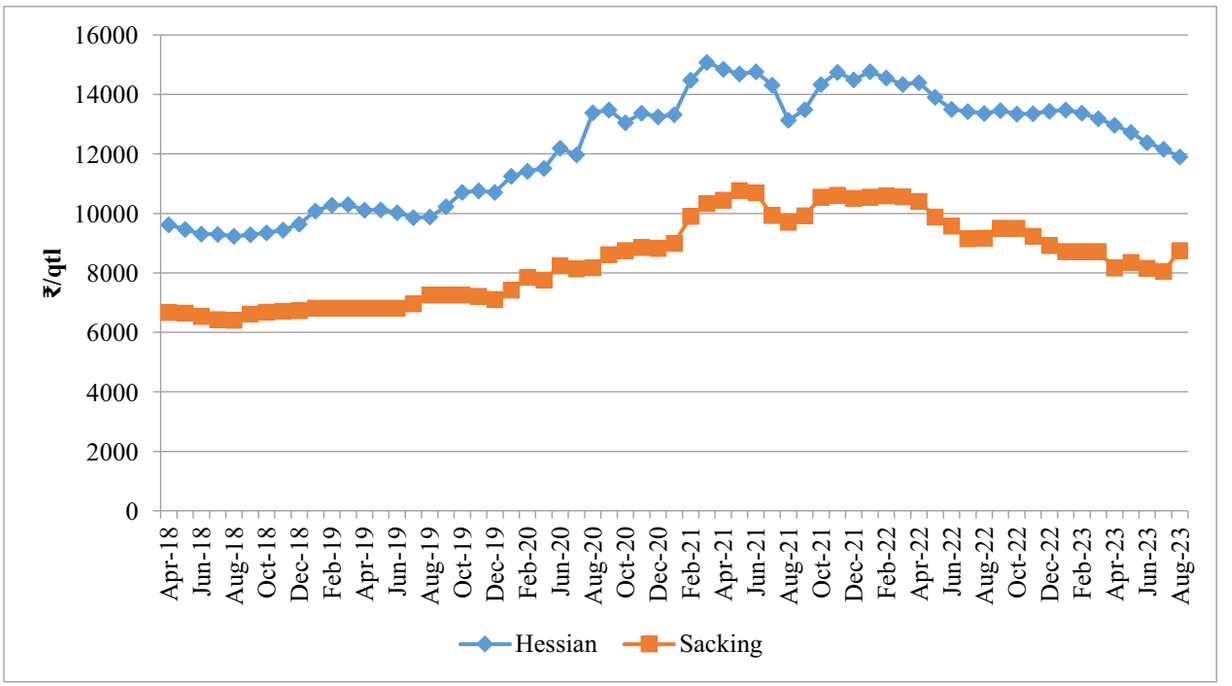
2. Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

2.10 The price trends of Sacking and Hessian over the past five years have been depicted in Chart 2.3 (B). It is observed from the Chart that prices of Hessian fell from ₹9,623 per qtl in April 2018 to ₹9,230 per qtl in August 2018. Thereafter, prices witnessed an uptick from ₹9,288 per qtl in September 2018 to ₹10,300 per qtl in March 2019. Prices momentarily dropped from ₹10,125 per qtl in May 2019 to ₹9,860 per qtl in July 2019 before recovering to ₹10,764 per qtl in November 2019. Prices exhibited an upward trajectory from ₹11,249 per qtl in January 2020 to ₹13,482 per qtl in September 2020. Between January 2021 and March 2021 prices went up from ₹13,326 per qtl to ₹15,078 per qtl. Hessian prices exhibited a downward trajectory from ₹14,845 per qtl in April 2021 to ₹13,134 per qtl in August 2021 with minor fluctuations

between that period. Prices of Hessian decreased from ₹14,769 per qtl in January 2022 to ₹14,341 per qtl in March 2022, momentarily increased to ₹14,396 per qtl in April 2022 before dipping to ₹13,368 per qtl in August 2022. Prices exhibited a downward trajectory between January 2023 (₹13,481 per qtl) and August 2023 (₹11,903 per qtl).

2.11 Wholesale prices of Sacking decreased from ₹6,667 per qtl in April 2018 to ₹6,407 per qtl in August 2018. Prices thereafter increased from ₹6,616 per qtl in September 2018 to ₹6,735 per qtl in December 2018. Between January 2019 and June 2019, Sacking prices have remained constant at ₹6,814 per qtl and between August 2019 and October 2019 prices have remained constant at ₹7,255 per qtl. Prices of Sacking exhibited an upward trajectory from ₹7,429 per qtl in January 2020 to ₹8,854 per qtl in November 2020 and touched ₹10,330 per qtl in March 2021. Sacking prices went down from ₹10,771 per qtl in May 2021 to ₹9,925 per qtl in September 2021 before recovering to ₹10,614 per qtl in November 2021. Prices thereafter went down from ₹10,556 per qtl in January 2022 to ₹9,149 per qtl in July 2022. Prices continued to exhibit a downward trajectory from ₹9,510 per qtl in October 2022 to ₹8,170 per qtl in April 2023. Wholesale prices of Sacking increased from ₹8,353 per qtl in May 2023 to ₹8,753 per qtl in August 2023.

Chart 2.3 (B): Wholesale Price Trends of Hessian & Sacking



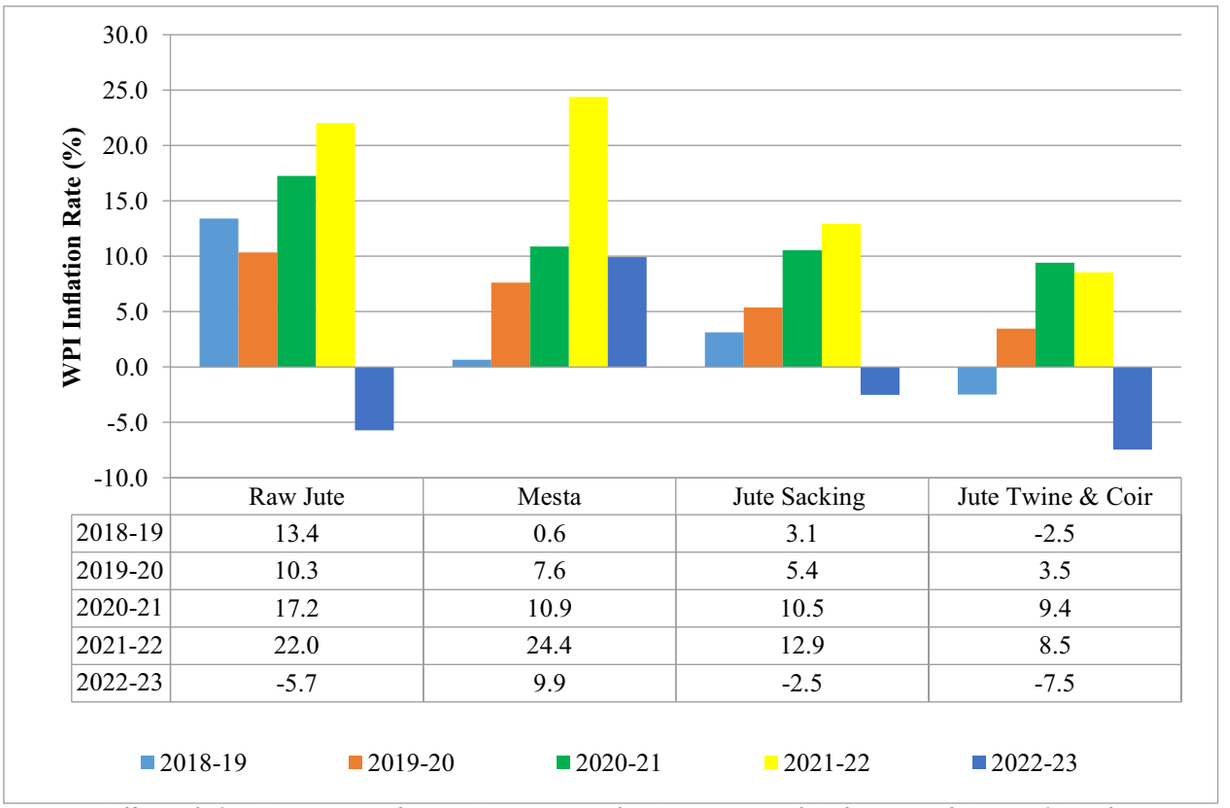
Source: Office of the Jute Commissioner, Ministry of Textiles

Inflation Trend in Jute and Jute Products

2.12 Chart 2.4 shows the annual WPI inflation rates for the period 2018-19 to 2022-23 for jute, mesta, jute sacking and twines of jute and coir. Wholesale inflation in case of raw jute increased from 13.4 percent in 2018-19 to 22 percent in 2021-22 but declined to (-)5.7 percent in 2022-

23. The wholesale inflation for raw jute, mesta and jute sacking reached their peak at 22 percent, 24.4 percent and 12.9 percent respectively during 2021-22. Raw jute, jute sacking and jute twine & coir exhibited negative inflation at (-)5.7 percent, (-)2.5 percent and (-)7.5 percent respectively during 2022-23.

Chart 2.4: Annual Rate of Inflation, based on WPI (Base 2011-12), for Jute and Jute Products



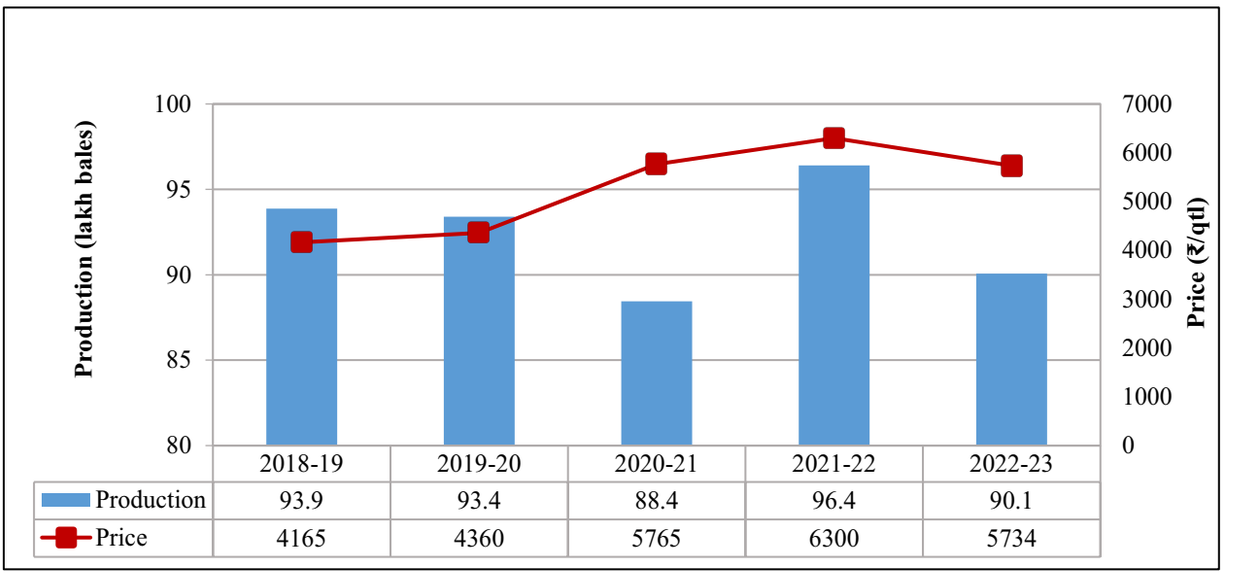
	Raw Jute	Mesta	Jute Sacking	Jute Twine & Coir
2018-19	13.4	0.6	3.1	-2.5
2019-20	10.3	7.6	5.4	3.5
2020-21	17.2	10.9	10.5	9.4
2021-22	22.0	24.4	12.9	8.5
2022-23	-5.7	9.9	-2.5	-7.5

Source: Office of the Economic Advisor, Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry

Production and Wholesale Prices

2.13 Inter-year price fluctuations of jute are shown in Chart 2.5. During 2018-19 to 2020-21, as production declined from 93.9 lakh bales to 88.4 lakh bales, market prices increased from ₹4,165 per qtl to ₹5,765 per qtl. However, as production decreased from 96.4 lakh bales during 2021-22 to 90.1 lakh bales in 2022-23, prices also fell from ₹6,300 per qtl to ₹5,734 per qtl. The fall in prices can be attributed to the drought-like situation witnessed in jute growing areas during 2022-23, which adversely affected the quality of jute crop and consequently, inferior grade jute was produced.

Chart 2.5: Trends in Production and Prices of Jute in Assam, Bihar and West Bengal



	2018-19	2019-20	2020-21	2021-22	2022-23
Production	93.9	93.4	88.4	96.4	90.1
Price	4165	4360	5765	6300	5734

Note: 1. Annual Wholesale Price (July-June) is calculated taking average of prices of major markets of Assam (Nagaon), Bihar(Gulabbagh and Purnea) and West Bengal {Barahampur, Belakoba, Chowrahat (Dinhata), Dhupguri, Kalna, Kasim Bazar, Katwa, Kolkata, Matabhanga, Pundibari, Raiganj and Toofanganj}

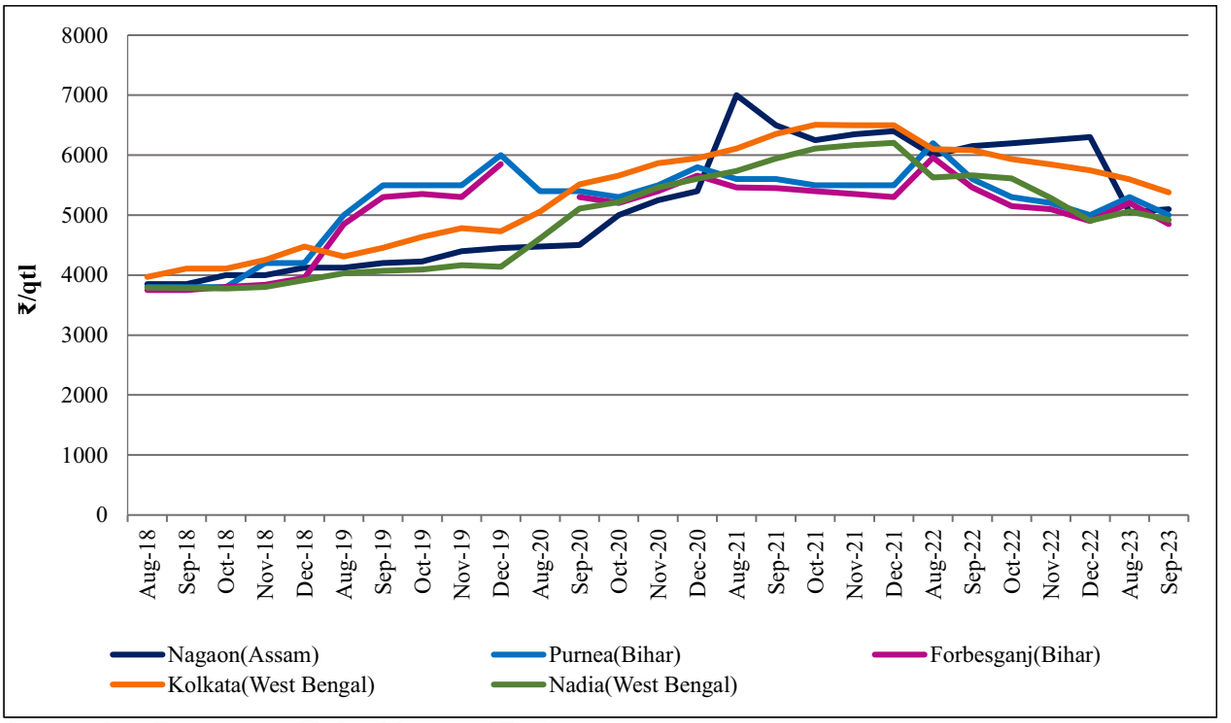
2. Production as per Third Advance Estimate, 2022-23

3 Assam, West Bengal and Bihar together contribute 98.8 percent of total raw jute production

Source: Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

2.14 The wholesale market prices of raw jute during procurement season (August-December) reported at major markets of Nagaon in Assam, Forbesganj and Purnea in Bihar and Kolkata and Nadia in West Bengal have been presented in Chart 2.6. During marketing season 2018-19, prices were highest in Kolkata as compared to all other major markets. However, during marketing season 2019-20, wholesale prices were highest in markets of Purnea and Forbesganj followed by Kolkata, Nagaon and Nadia. During 2020-21, wholesale prices of raw jute were highest in Kolkata followed by Purnea and Forbesganj. Nagaon saw lowest prices during marketing season 2020-21. During marketing season 2021-22, in the months of August 2021 and September 2021, prices of raw jute were highest in Nagaon followed by Kolkata. However, during the remaining months of the marketing season, prices ruled higher in Kolkata as compared to Nagaon. Wholesale prices of raw jute during marketing season 2022-23 have been highest in Nagaon followed by Kolkata during September 2022 to December 2022.

Chart 2.6: Wholesale Market Prices of Raw Jute at Major Markets of Assam, Bihar and West Bengal

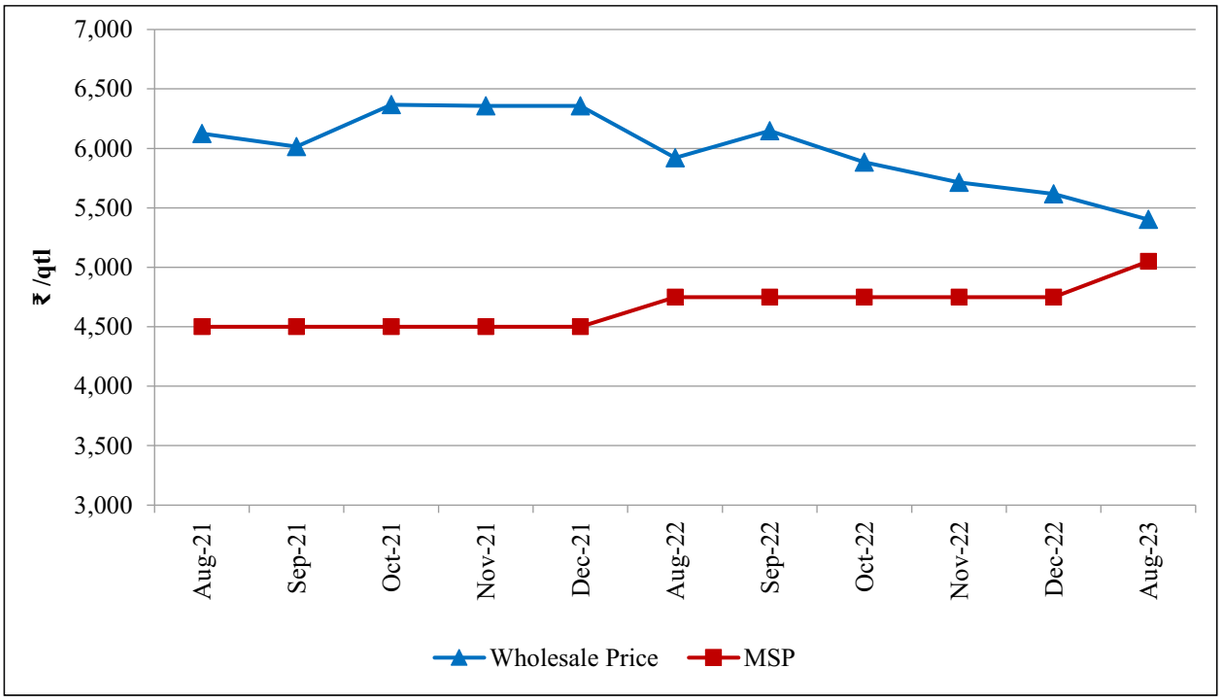


Source: Jute Corporation of India, Ministry of Textiles

Market Price vis-à-vis MSP

2.15 Comparison of domestic wholesale price and the MSP are shown in Chart 2.7. It is evident that domestic price of jute (TDN-3/TD-5) remained above the MSP during August 2021 and August 2023. After attaining an all-time high of ₹6,367 per qtl during October 2021, jute prices marginally fell to ₹6,356 per qtl in December 2021. Thereafter, prices momentarily increased from ₹5,920 per qtl in August 2022 to ₹6,148 per qtl in September 2022 before falling to ₹5,618 per qtl in December 2022. Wholesale price of raw jute was ₹5,402 per qtl in August 2023, marginally higher than the MSP.

Chart 2.7: Trends in MSP and Market Price of Raw Jute (TDN -3/TD-5)



Note: 1. Wholesale Prices for jute procurement season (August-December)

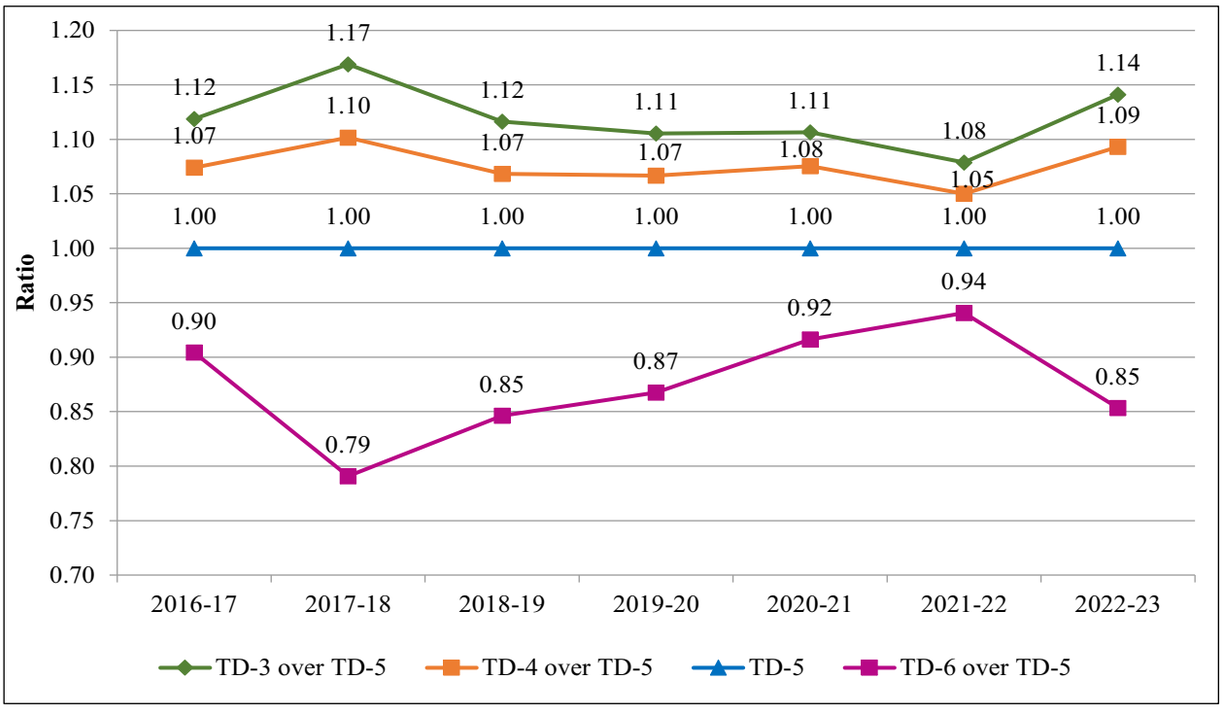
2. Wholesale Price is calculated taking average of prices of major markets of Assam (Nagaon), Bihar(Gulabbagh and Purnea) and West Bengal {Barahampur, Belakoba, Chowrahat (Dinhata), Dhupguri, Kalna, Kasim Bazar, Katwa, Kolkata, Matabhanga, Pundibari, Raiganj and Toofanganj}

Source: Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

Grade-wise Market Price of Raw Jute & Jute Goods

2.16 The MSP for TDN-3 (equivalent to TD-5 as per old grading) grade of raw jute is fixed by the Government of India and MSP for different varieties and grades of raw jute is fixed by the office of The Jute Commissioner, Ministry of Textiles. While fixing prices of different grades, production of higher grades of jute is incentivized and lower grade production is discouraged. Chart 2.8 shows the price movements of different grades of raw jute over the past seven years collected at the wholesale market of Kolkata. It is observed that price incentive for better grade TD-3 has not been very high and varied from 12 percent in 2016-17 to 14 percent in 2022-23. Further, price incentive for TD-4 has also not been very high and varied between 7 percent to 9 percent during the same period.

Chart 2.8: Spot Rate Ratio of TD-3, TD-4 and TD-6 over TD-5



Note : Average spot rate of raw jute (landed at Kolkata) for West Bengal
Source: Office of the Jute Commissioner, Ministry of Textiles

2.17 It is observed from Table 2.3 that price incentive under MSP for better grades TDN-1 vis-à-vis TDN-3 was not very high and varied between 16 percent in 2017-18 and 14 percent in 2023-24. Similarly, price incentive under MSP for grades TDN-2 vis-à-vis TDN-3 ranged between 11 percent and 10 percent in 2017-18 and 2023-24. Low premium for better quality jute (TDN-1 and TDN-2) do not incentivize farmers to produce superior quality jute.

Table 2.3: Ratios of MSP of Raw Jute for Various Grades

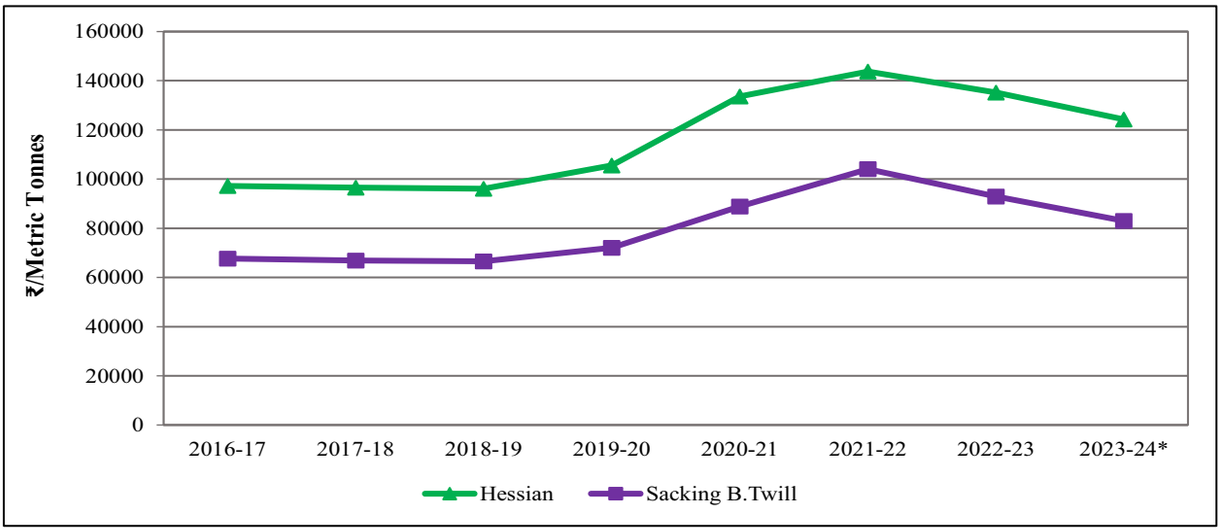
Ratios	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
TDN 1 to TDN 3	1.16	1.15	1.14	1.15	1.14	1.14	1.14
TDN 2 to TDN 3	1.11	1.11	1.10	1.10	1.10	1.10	1.10
TDN 4 to TDN 3	0.89	0.86	0.87	0.87	0.88	0.89	0.89
TDN 5 to TDN 3	0.83	0.80	0.82	0.82	0.83	0.85	0.85

*Note: * MSP for TDN-3/(TD-5) is declared by the Government of India*
Source: Office of the Jute Commissioner, Ministry of Textiles

2.18 The price movements of Hessian and Sacking B.Twill, which are major jute goods, for the last 8 years is shown in Chart 2.9. The price of Hessian registered negative growth from 2016-17 to 2018-19, subsequently registered positive growth during 2019-20 till 2021-22. The highest growth of 26.5 percent was reported in 2020-21, followed by a growth of 7.6 percent in 2021-22. Thereafter, prices of Hessian fell by 5.9 percent in 2022-23 and by 8 percent in 2023-24. The price of Sacking B.Twill registered negative growth from 2016-17 to 2018-19,

subsequently registered positive growth between 2019-20 and 2021-22. Prices of Sacking B.Twill increased by 17.1 percent in 2021-22 but registered negative growth in 2022-23 and 2023-24.

Chart 2.9: Market Price of Major Jute Goods



*Note: Hessian 40x10 oz; Sacking B-Twill 2.25, * till August 2023*
Source: Office of the Jute Commissioner, Ministry of Textiles

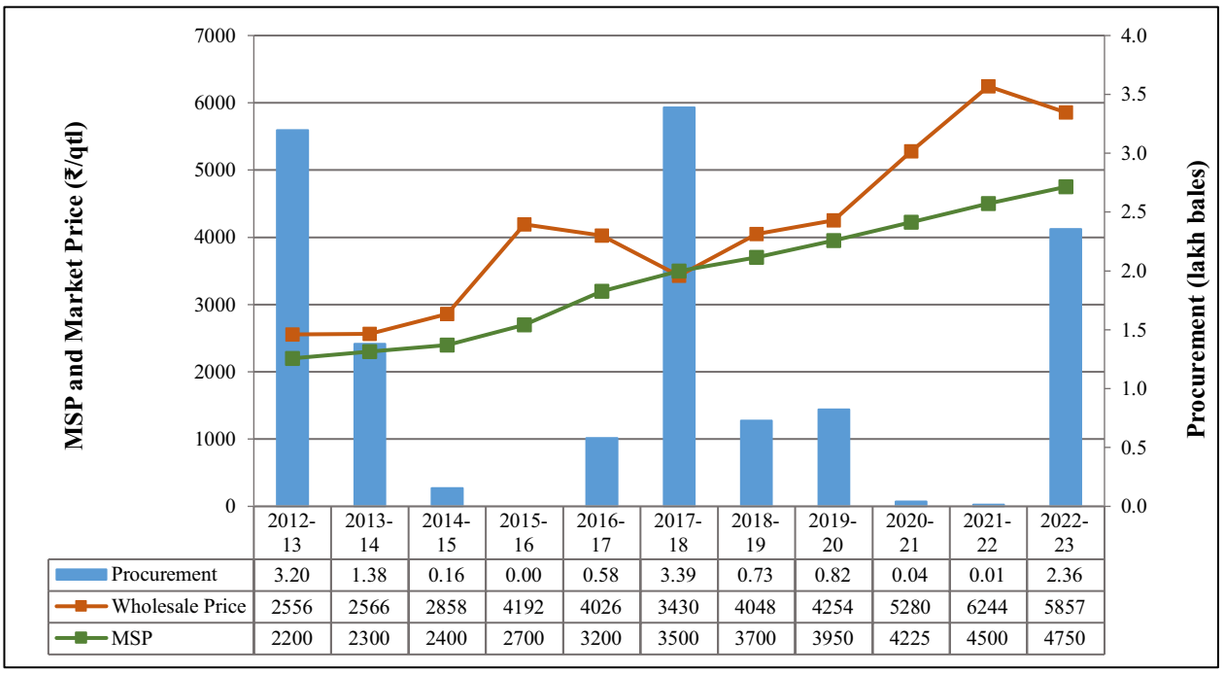
Procurement Operations

2.19 The Jute Corporation of India (JCI) is the nodal agency for procurement of raw jute and undertakes procurement of jute from the farmers to ensure minimum support price whenever market prices fall below MSP. A comparison of the MSP declared by the Government and market price during the procurement period along with the quantity of jute procured at MSP during 2012-13 to 2022-23 is given in Chart 2.10. The Chart shows that market prices of raw jute have generally been higher than the MSP and therefore procurement of jute by JCI was low. However, JCI undertook procurement of about 3.4 lakh bales of raw jute in 2017-18 as market prices were low during marketing season 2017. During the subsequent years, procurement was low as market price stayed well above the MSP. Higher market prices during 2020-21 are attributed to lower production of jute due to natural calamities like cyclones and weather-related problems in jute growing areas. Market prices during 2021-22 witnessed a sharp rise due to large-scale hoarding of jute and manipulative practices of traders who are not regularly involved in raw jute trading. As a part of the drive to halt skyrocketing prices of raw jute statutory Reasonable Price for raw jute (Maximum Price) had been fixed at ₹6,500 per qtl at Ex-West Bengal and ₹6,800 per qtl at Ex-Other States. However, market prices fell to ₹5,857 per qtl in 2022-23 from ₹6,244 per qtl in 2021-22. Accordingly, JCI intervened and undertook procurement of 2.4 lakh bales in 2022-23.

2.20 Due to shortage of sufficient number of purchase centres and storage facilities, jute farmers, especially in the far flung areas, are more vulnerable to marketing problems and are deprived of benefits of MSP. JCI uses the android-based JMAP application for farmer registration and disbursement of payment. Arrangements have been made for mobile purchases to reach out to

maximum number of farmers in the interior areas. In order to further expand procurement operations JCI should actively involve cooperatives and Self Help Groups (SHGs) and make concerted efforts to have active participation of concerned State governments and other organizations.

Chart 2.10: MSP, Market Price and Procurement of Jute in India



	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Procurement	3.20	1.38	0.16	0.00	0.58	3.39	0.73	0.82	0.04	0.01	2.36
Wholesale Price	2556	2566	2858	4192	4026	3430	4048	4254	5280	6244	5857
MSP	2200	2300	2400	2700	3200	3500	3700	3950	4225	4500	4750

Note: 1. Wholesale Prices for jute procurement season (August-December)

2. Wholesale Price is calculated taking average of prices of major markets of Assam (Nagaon), Bihar (Gulabbagh and Purnea) and West Bengal {Barahampur, Belakoba, Chowrahat (Dinhata), Dhupguri, Kalna, Kasim Bazar, Katwa, Kolkata, Matabhanga, Pundibari, Raiganj and Toofanganj}

Source: 1. Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

2. Jute Corporation of India

Recapitulation

2.21 Total supply of raw jute and mill consumption is estimated to increase in 2023-24 as compared to 2022-23. In 2023-24, domestic/industrial consumption is estimated to remain at the same level as 2022-23. Raw jute, jute sacking and jute twine & coir exhibited negative inflation during 2022-23. Domestic price of jute (TDN-3/TD-5) has remained above the MSP during the last two years. Existing network of procurement centres should be expanded with the help of cooperatives and SHGs. JCI should leverage technology to widen reach of procurement, particularly in remote areas so that jute growers are able to reap the benefits of MSP.

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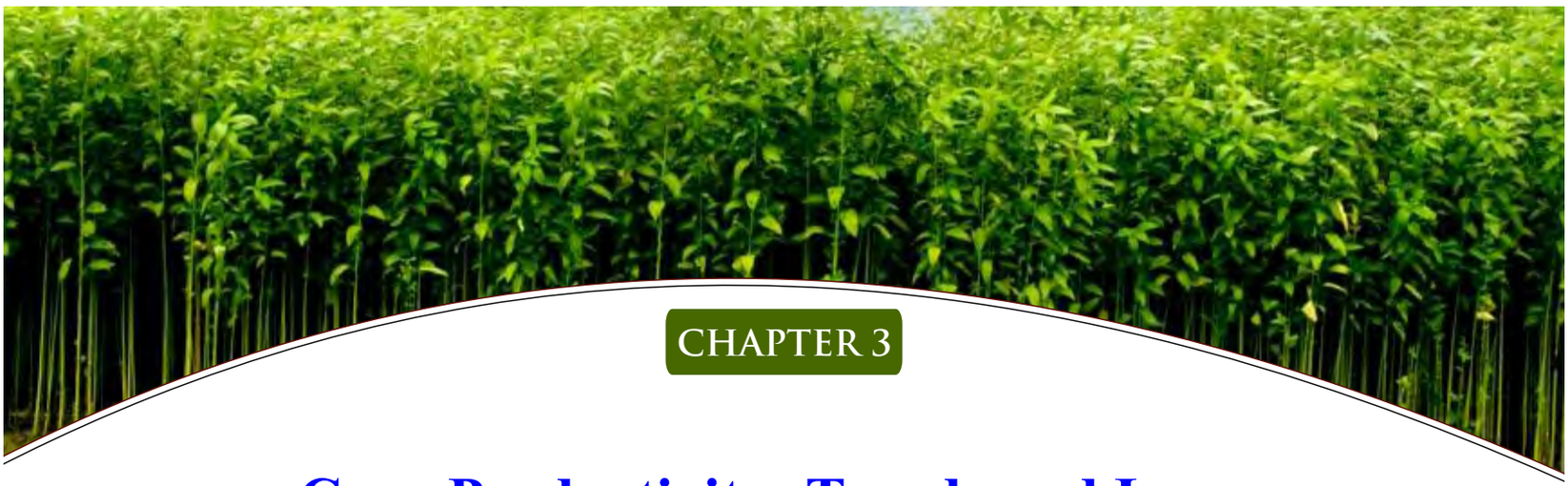


CHAPTER 3

Crop Productivity: Trends and Issues

3.1 Jute, the golden fibre, is the 2nd most important fibre after cotton in India. It has bio-degradable and renewal properties, hence it is considered crucial for maintaining the environment and ecological balance. As per Food and Agriculture Organization (FAO), India holds 1st position in jute production with 49.7 percent of world production and 48.4 percent of world's total jute acreage in 2021. West Bengal, Assam and Bihar are major jute growing States in the country, which account for more than 98 percent of the country's jute area and production. Being a natural fibre, it has some inherent properties like silky shine, high tensile strength, considerable heat resistance, long staple length etc., which makes it more suitable than synthetic fibre.

3.2 The chapter analyses growth trends in area, production and yield of jute at all-India level and also in major producing States. In order to assess country's performance at the global level, it also presents comparison between India and Bangladesh in term of area, production and yield of jute. Furthermore, the chapter also discusses the major issues and initiatives for the growth and development of jute sector in the country.

Growth in Area, Production and Yield

3.3 Table 3.1 presents trends in area, production and yield of jute and mesta during the last five decades. It can be seen that area under jute witnessed a significant decline during 2010s, which continued in 2020s as well. However, a consistent increase in yield was observed over the decades under consideration. As a result, production also saw an increase until 2010s, although it saw a decline in 2020s due to huge decline in jute acreage. As far as mesta is concerned, a declining trend has been observed in terms of area and production under the reference periods, whereas a steady increase in yield has been observed during the same period.

Table 3.1: Trends in Area, Production and Yield of Jute and Mesta in India

	Jute					Mesta				
	1980s	*1990s*	*2000s*	*2010s*	*2020s*	*1980s*	*1990s*	*2000s*	*2010s*	*2020s*
Area ('000 ha)	811	805	815	728	625	288	202	146	68	39
Production (lakh bales#)	69.9	85.6	101.2	101.7	92.7	13.4	11.4	9.3	5.4	3.9
Yield (qtl/ha)	15.6	19.1	22.4	25.2	26.7	8.4	10.1	11.4	14.8	18.3

Note : 1. 1980s, 1990s, 2000s, 2010s and 2020s denote decadal periods from 1980-81 to 1989-90, 1990-91 to 1999-00, 2000-01 to 2009-10, 2010-11 to 2019-20 and 2020-21 to 2022-23

2. #1 Bale=180 kilograms

Source: Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

3.4 Table 3.2 presents decadal trends and Compound Annual Growth Rates (CAGR) in area, production and yield of jute. At all-India level, the area recorded an increase in 2000s, followed by a decline in subsequent decades. The area under jute declined in West Bengal and Bihar during 2010s, while it increased in Assam. The CAGR in Bihar during 2010s was (-)8.9 percent showing very steep decline in acreage under jute cultivation. During 2020s, all three major producing States recorded a decline in area, resulting in total area falling to 625 thousand hectares at the all-India level. On the contrary, an increasing trend in jute yield has been observed in major States that resulted in improvement in yield at all-India level during the decades under consideration.

3.5 It is a matter of concern that the decline in jute area has adversely affected jute production, which has declined in the current decade despite steady improvement in yield levels. Availability of cheaper alternatives, competition from other remunerative crops, low availability of water for retting, inadequate retting facilities, rising labour costs etc. have been primary reasons for the steep decline in the area under jute cultivation. Therefore, there is a need for policy intervention to arrest decline in the area of jute.

Table 3.2: Decadal Trends and CAGR in Area, Production and Yield of Jute in Major Producing States

States	1990s	2000s	2010s	2020s	1990s	2000s	2010s
	Area ('000 ha)				*CAGR (%) Area*		
Assam	89	63	68	62	-2.0	-1.4	0.6
Bihar	137	136	97	47	1.7	-1.6	-8.9
West Bengal	555	605	548	505	2.7	-0.7	-1.8
All India	**805**	**815**	**728**	**625**	**1.5**	**-0.9**	**-2.5**
	Production (lakh bales of 180 kg each)				*CAGR (%) Production*		
Assam	8.3	6.3	7.3	7.6	-2.6	-0.1	3.8
Bihar	10.6	11.3	12.4	6.6	0.5	1.2	-6.1
West Bengal	64.4	82.8	81.0	77.4	4.0	0.7	-1.1
All India	**85.6**	**101.2**	**101.7**	**92.7**	**2.3**	**0.7**	**-1.2**
	Yield (qtl/ha)				*CAGR (%) Yield*		
Assam	16.8	17.9	19.4	22.0	-0.6	1.4	3.3
Bihar	13.9	15.0	23.5	25.3	-1.2	2.8	3.0
West Bengal	20.8	24.6	26.6	27.6	1.3	1.3	0.7
All India	**19.1**	**22.4**	**25.2**	**26.7**	**0.8**	**1.5**	**1.3**

Note : 1990s, 2000s, 2010s and 2020s denote decadal periods from 1990-91 to 1999-00, 2000-01 to 2009-10, 2010-11 to 2019-20 and 2020-21 to 2022-23

Source: Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

3.6 The growth trends in area, production and productivity of mesta across major producing States have been presented in Table 3.3. As is evident from the Table, a declining trend is observed in the average area of mesta in all the major producing States, except West Bengal and Meghalaya. As far as mesta production is concerned, it showed a decline in Andhra Pradesh, Assam and Odisha, whereas an increase was observed in West Bengal. Meghalaya saw an increasing trend in mesta production except in 2000s, while Bihar saw an increasing trend until

2010s and thereafter a declining trend in 2020s. At the all-India level, production declined over the decades under reference, due to steep reduction in area under mesta despite gradual increase in yield.

Table 3.3: Decadal Trends and CAGR in Area, Production and Yield of Mesta in Major Producing States

States	1990s	2000s	2010s	2020s	1990s	2000s	2010s
	Area ('000 ha)				*CAGR (%) Area*		
Andhra Pradesh	80.5	57.9	10.4	1.0	-1.3	-10.3	-23.6
Assam	6.0	5.0	4.2	3.0	-3.9	0.2	-6.1
Bihar	21.6	19.0	16.9	12.5	-1.6	-2.8	-2.1
Meghalaya	4.4	4.0	5.8	6.7	-1.6	-0.5	7.2
Odisha	31.8	23.2	10.1	3.7	-0.9	-3.7	-13.2
West Bengal	9.5	8.9	9.2	12.5	-1.1	-5.1	9.3
All India	**202.5**	**146.5**	**67.9**	**38.7**	**-2.5**	**-6.0**	**-9.0**
	Production (lakh bales of 180 kg each)				*CAGR (%) Production*		
Andhra Pradesh	6.0	4.9	0.9	0.1	-0.1	-10.2	-21.7
Assam	0.3	0.2	0.2	0.2	-2.8	-0.6	-4.3
Bihar	1.4	1.5	2.1	1.5	-1.7	1.0	-2.5
Meghalaya	0.2	0.2	0.2	0.3	-0.5	-1.8	5.4
Odisha	1.7	1.0	0.5	0.2	-8.0	-2.3	-12.8
West Bengal	0.7	0.9	1.1	1.6	2.6	-0.1	9.1
All India	**11.4**	**9.3**	**5.4**	**3.9**	**-2.1**	**-5.6**	**-5.0**
	Yield (qtl/ha)				*CAGR (%) Yield*		
Andhra Pradesh	13.4	15.2	16.1	19.6	1.2	0.1	2.5
Assam	8.7	8.9	10.6	11.4	1.1	-0.8	1.9
Bihar	12.0	14.2	22.6	21.4	0.0	3.9	-0.4
Meghalaya	8.9	9.1	7.4	7.1	1.1	-1.2	-1.7
Odisha	9.7	7.7	8.9	9.0	-7.1	1.5	0.4
West Bengal	14.3	18.5	22.0	23.0	3.7	5.3	-0.1
All India	**10.1**	**11.4**	**14.8**	**18.3**	**0.4**	**0.4**	**4.4**

Note : 1. 1990s, 2000s, 2010s and 2020s denote decadal periods from 1990-91 to 1999-00, 2000-01 to 2009-10, 2010-11 to 2019-20 and 2020-21 to 2022-23

2. For Meghalaya, information for 2022-23 is not available

Source: Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

Annual Growth Rate

3.7 The trends in area, production and yield of jute and mesta at all-India level over the last five years have been presented in Table 3.4. The area and production of jute witnessed a continuous decline from 2018-19 to 2020-21, however, an increase was observed in 2021-22, followed by a decline in 2022-23. On the other hand, a fluctuating trend has been observed in yield in these years. In case of mesta, area demonstrated a declining trend in last five years. As far as production is concerned, it recorded an impressive growth of 7.5 per cent in 2019-20, mainly due to 10.2 percent increase in yield, while area recorded a negative growth of 1.5 percent. After showing improvement in 2019-20, mesta production saw a decline in 2020-21 and 2021-22, while yield witnessed continuous improvement with the highest growth of 10.8 per cent in 2018-19.

Table 3.4: Area, Production and Yield of Jute and Mesta during Last Five Years

Year	2018-19	2019-20	2020-21	2021-22	2022-23*
Jute					
Area ('000 ha)	665.3 (-3.0)	628.4 (-5.5)	621.9 (-1.0)	629.2 (1.2)	624.6 (-0.7)
Production (lakh bales#)	95.0 (-0.9)	94.5 (-0.5)	89.5 (-5.3)	97.6 (9.1)	91.1 (-6.7)
Yield (qtl/ha)	25.7 (2.1)	27.1 (5.4)	25.9 (-4.4)	27.9 (7.7)	26.3 (-5.7)
Mesta					
Area ('000 ha)	45.6 (-18.6)	44.9 (-1.5)	40.6 (-9.6)	38.0 (-6.4)	37.4 (-1.6)
Production (lakh bales#)	4.0 (-9.1)	4.3 (7.5)	4.0 (-7.0)	3.9 (-2.5)	3.9 (0.0)
Yield (qtl/ha)	15.7 (10.8)	17.3 (10.2)	17.8 (2.9)	18.3 (2.8)	18.6 (1.6)

*Note : *Third Advance Estimate, # 1 bale =180 kg*
Figures in parenthesis are annual growth rate
Source: Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

Yield Trends: All-India and Major Producing States

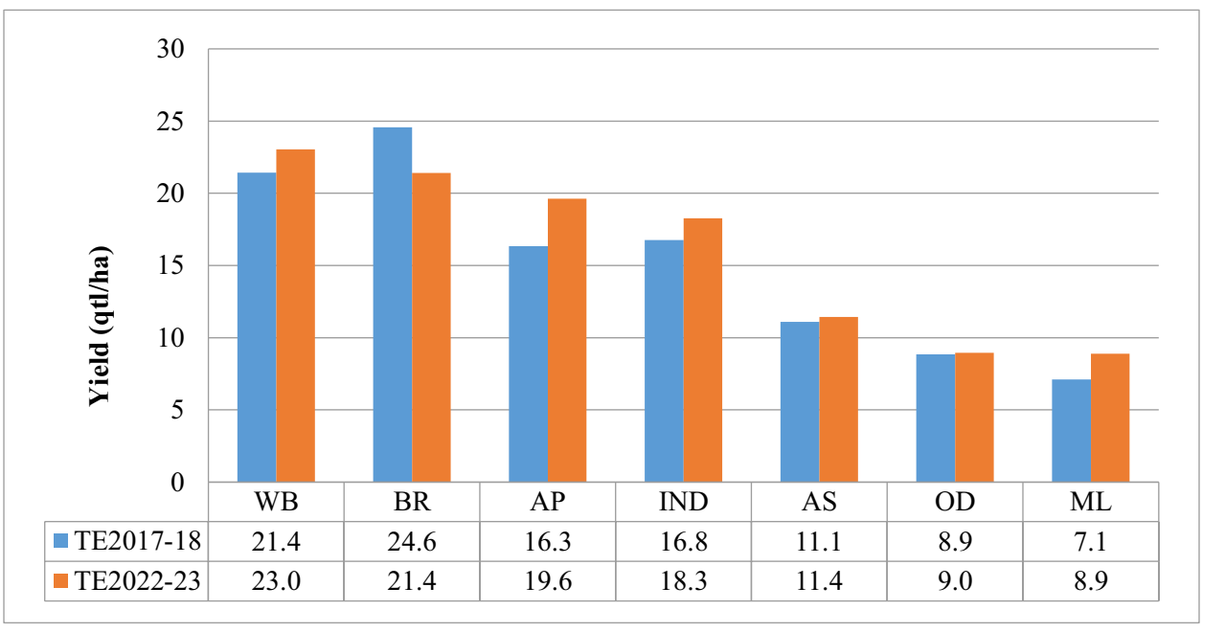
3.8 Yield levels of major jute producing States, namely West Bengal, Bihar and Assam have been compared for the periods TE2017-18 and TE2022-23 in Chart 3.1. It is clear from the Chart that yield level in West Bengal showed an improvement of 3.8 percent in TE2022-23 as compared to TE2017-18. Similarly, Assam witnessed a significant improvement of 5.8 percent while average yield remained almost stagnant in Bihar. Improvement in crop yield in major producing States resulted in a significant increase (5.1%) in yield at the all-India level.

Chart 3.1: Yield of Raw Jute in Major Producing States

Source: Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

3.9 Chart 3.2 displays the comparison of yield levels of mesta in major producing States, namely West Bengal, Bihar, Andhra Pradesh, Assam, Odisha and Meghalaya between TE2017-18 and TE2022-23. Except Bihar, an improvement in the yield levels was observed in all other States during TE2022-23. Bihar, which had the highest yield in TE2017-18, lost its position to West Bengal due to a steep decline (-13%) in yield during TE2022-23. West Bengal recorded the highest yield with an improvement of 7.5 percent over previous period. Among major States, the highest increase in yield during the current period was recorded in Meghalaya (25.4%), followed by Andhra Pradesh (20.2%). Improvement in yield has also been seen in Odisha and Assam. As a result, the average yield at all-India level increased by 8.9 percent.

Chart 3.2: Yield of Mesta in Major Producing States



	WB	BR	AP	IND	AS	OD	ML
TE2017-18	21.4	24.6	16.3	16.8	11.1	8.9	7.1
TE2022-23	23.0	21.4	19.6	18.3	11.4	9.0	8.9

Note : For Meghalaya, information for 2022-23 is not available

Source: Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

District Level Productivity Trends

3.10 In order to assess the performance of jute productivity at district level in major producing States during two time periods (TE2011-12 and TE2021-22), share of area under different yield bands (<15 qtl/ha, 15-25 qtl/ha and ≥25 qtl/ha) have been analyzed in this section. Only the districts, which have more than one percent share in total production of the State, have been considered for this analysis. Table 3.5 shows the changes in area share under different yield bands in Assam, Bihar and West Bengal under two time periods. It can be clearly seen that the area share in the highest yield band has increased in all three major States, indicating better yield performance in TE2021-22 as compared to TE2011-12.

3.11 In Assam, an increase in the lower band was observed between the two time periods under consideration, while the share of area in the middle yield band declined during the same period. In case of Bihar, share of area increased in the highest yield band from 7.6 percent in TE2011-12 to 38.7 percent in TE2021-22, whereas it showed a decline in low and middle bands. As far as West Bengal is concerned, area share under the highest yield band, increased from 67.1 percent in TE2011-12 to 95.8 percent in TE2021-22. Thus, district level yield trends clearly indicate that shift in area towards highest yield band was mainly due to adoption of high yielding varieties and improved package of practices, etc.

Table 3.5: Area and its Share in Districts under Different Yield Bands in Jute Producing States

('000 hectare)

Year	<15 qtl/ha	15-25 qtl/ha	≥25 qtl/ha
Assam			
TE2011-12	6.35 (9.9)	56.89 (88.4)	-
TE2021-22	8.48 (13.2)	26.48 (41.1)	27.37 (42.4)
Bihar			
TE2011-12	67.21 (52.8)	50.29 (39.5)	9.64 (7.6)
TE2021-22	16.19 (35.6)	11.65 (25.6)	17.58 (38.7)
West Bengal			
TE2011-12	-	182.06 (30.7)	398.48 (67.1)
TE2021-22	-	13.87 (2.7)	484.50 (95.8)

Note : Figures in parenthesis show the area share

Source: Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

3.12 Table 3.6 presents the districts with highest and lowest yield in the selected States during TE2011-12 and TE2021-22. In Assam, Goalpara had the highest yield during TE2011-12 and was replaced by Nagaon in TE2021-22. In Bihar, Supaul recorded the highest yield of 29.3 quintal per hectare in TE2011-12 and lost its position to Katihar, with comparatively higher yield (43.9 qtl/ha), area share (16.8%) and production share (33%). As far as West Bengal is concerned, North 24 Parganas was at the top position in TE2011-12, but lost its position to Hooghly during TE2021-22.

3.13 This analysis clearly shows that there exists a huge variation in yield level within States, indicating substantial potential for increasing yields at the State level, by reducing yield differences among districts within the State.

Table 3.6: District with Highest and Lowest Productivity in Jute Producing States

	TE2011-12		TE2021-22	
	Highest	*Lowest*	*Highest*	*Lowest*
Assam				
District	Goalpara	Sonitpur	Nagaon	Biswanath
Yield (qtl/ha)	23.4	14.5	29.5	14.4
Area (%)	4.9	3.6	14.7	1.5
Production (%)	6.3	2.9	19.7	1.0
Bihar				
District	Supaul	Madhepura	Katihar	Kishanganj
Yield (qtl/ha)	29.3	11.7	43.9	9.8
Area (%)	7.6	3.7	16.8	35.6
Production (%)	12.4	2.4	33.0	15.6
West Bengal				
District	North 24 Paraganas	Cooch Behar	Hooghly	Alipurduar
Yield (qtl/ha)	34.4	21.0	38.1	23.3
Area (%)	9.0	13.6	2.5	2.7
Production (%)	11.8	10.9	3.4	2.3

Note : Only those districts having more than 1 percent share in State's total production have been considered for this analysis.

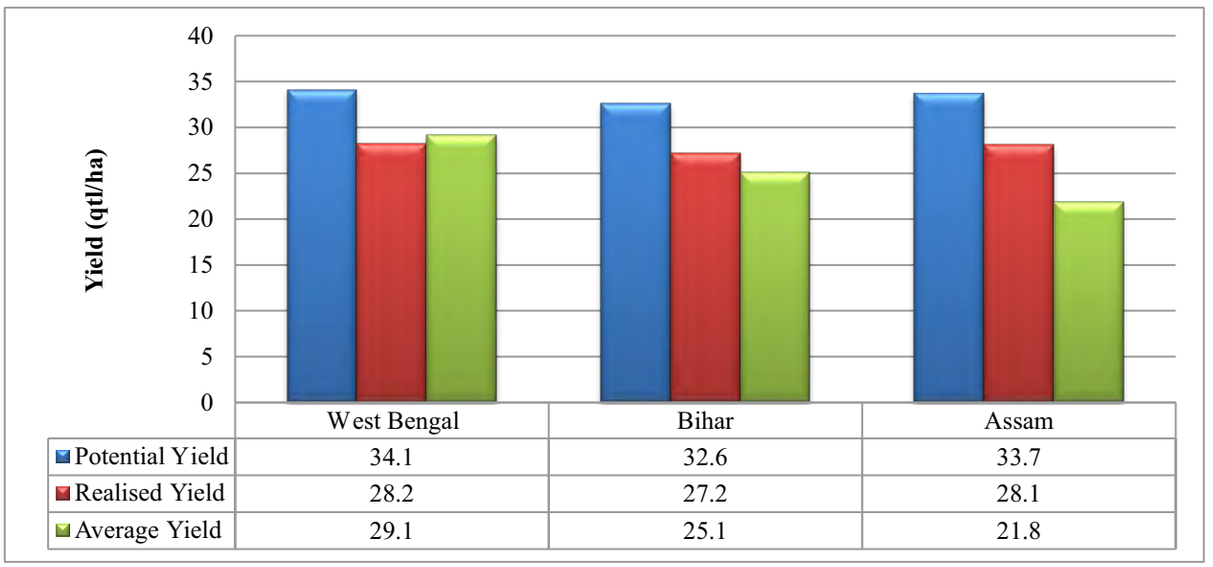
Source: Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

Yield Gap Analysis

3.14 This section presents yield gap analysis in major producing States in the country. Two types of yield gaps namely, Yield Gap (A) and Yield Gap (B) have been considered for this analysis. Yield Gap (A) is computed by taking difference between potential farm yield (yield achieved under Front Line Demonstrations (FLDs) where best scientific and management practices are followed) and realized farm yield under farmers' practices, while Yield Gap (B) compares State average yield with potential yield achieved under FLD.

3.15 Chart 3.3 compares the potential, realized and State average yields of jute in selected States. West Bengal has the largest yield gap A (17.3%) and Assam has the highest yield gap B (35.3%). In Bihar and Assam, yield gap A was 16.6 percent while yield gap B was 23 percent in Bihar and 14.7 percent in West Bengal. There exists substantial scope for improvement in yield by reducing yield gaps. With strengthening of extension activities, gap between potential yield and actual yield can be narrowed.

Chart 3.3: Comparison of Potential Yield, Realized Yield and State Average Yield of Jute in Major Producing States, 2021-22



	West Bengal	Bihar	Assam
Potential Yield	34.1	32.6	33.7
Realised Yield	28.2	27.2	28.1
Average Yield	29.1	25.1	21.8

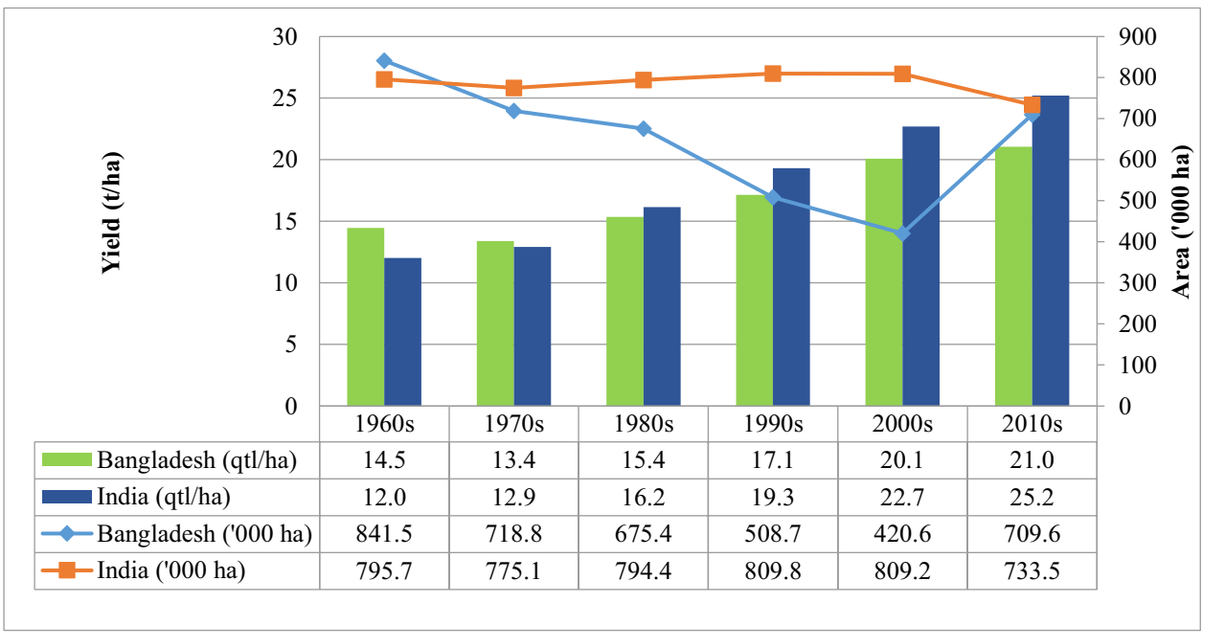
Source: 1. ICAR - Central Research Institute for Jute and Allied Fibre (ICAR-CRIJAF) Annual Report, 2022
2. Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

Benchmarking Productivity: India vis-à-vis Bangladesh

3.16 Chart 3.4 shows decadal trends in area and yield of jute in India and Bangladesh, two major producers of jute in the world, accounting for more than 98 percent of world jute production. With an objective to compare the yield levels of these countries, decadal average has been computed. During the 1960s and 1970s, Bangladesh was ahead of India in terms of yield levels. Subsequently, India overtook Bangladesh in the 1980s and maintained its position in the following decades. As far as area is concerned, except in the 1960s, area under jute cultivation in India has been higher than Bangladesh. However, India witnessed a decline in area during the 2010s, while Bangladesh recorded a steady decline in area during 1970s to 2000s but increased significantly during 2010s.

3.17 Recent trends clearly show that the difference in area between these two nations has reduced. Therefore, there is an urgent need to make serious efforts to arrest the reduction in area under jute. Furthermore, there is a need to focus more on improving the quality of jute fibre to gain advantage in the global market.

Chart 3.4: Decadal Trends in Area and Yield of Jute in India and Bangladesh



	1960s	1970s	1980s	1990s	2000s	2010s
Bangladesh (qtl/ha)	14.5	13.4	15.4	17.1	20.1	21.0
India (qtl/ha)	12.0	12.9	16.2	19.3	22.7	25.2
Bangladesh ('000 ha)	841.5	718.8	675.4	508.7	420.6	709.6
India ('000 ha)	795.7	775.1	794.4	809.8	809.2	733.5

Note : 1960s, 1970s, 1980s, 1990s, 2000s and 2010s denote decadal periods from 1961 to 1970, 1971 to 1980, 1981 to 1990, 1991 to 2000, 2001 to 2010 and 2011 to 2020, respectively

Source: Food and Agricultural Organization

Factors Affecting Jute Productivity and Quality

3.18 There are several factors such as availability of high yielding varieties, farm mechanization, retting facilities, etc., which affect jute productivity and quality in the country. This section discusses these factors and also highlights important initiatives taken in this regard.

High Yielding Varieties

3.19 High Yielding Varieties (HYV) play an important role in enhancing productivity. Research institutes have developed several varieties with higher yield potential and better fibre quality. Among various varieties, three tossa jute varieties namely JRO-204 (17%), CO-58 (20%) and JROB-2 (15%) are the most popular varieties, accounting for 52 percent of the total area. White jute accounts for only 5.5 per cent of the jute area and JRCJ-11, JRC-212 and JRC-9057 are the popular varieties. Many of these varieties are also suitable for rainfed conditions and tolerant to various pests and diseases. The high yielding varieties of jute and mesta developed in the last five years have been shown in Annex Table 3.1 and 3.2. The potential productivity of these varieties with good fibre quality ranges from about 30 to 40 quintal per hectare but actual yield is much lower. Efforts should be made to popularize these varieties among farmers for attaining better yield and quality of fibre.

Scientific Methods of Jute Cultivation and Retting: Jute-ICARE

3.20 Combined with scientific agronomic practices, improved retting of jute has a great potential to improve yield and fibre quality. In order to popularize scientific methods of jute cultivation and

retting methods for improving fibre quality, National Jute Board (NJB) in association with ICAR-Central Research Institute for Jute and Allied Fibres (ICAR-CRIJAF), ICAR-National Institute of Natural Fibre Engineering and Technology (ICAR-NINFET), Indian Jute Industries' Research Association (IJIRA) and Jute Corporation of India (JCI) are implementing Jute-Improved Cultivation and Advanced Retting Exercise (Jute-ICARE) project. Under the project, farmers are supplied certified seeds, seed driller, nail weeder, CRIJAF-SONA, NINFET-SATHI, IJIRA-SUBHRA, use of modern tools and retting technologies are demonstrated to jute growers.

3.21 The coverage of project has increased from four blocks and 12,331 ha area in 2015-16 to 170 blocks covering about 1.9 lakh ha area in 2022-23, which is about 30 percent of total area under jute. The number of farmers covered under the project has increased from 21,548 in 2015-16 to about 4.2 lakh in 2022-23.

Efficient Water Management

3.22 Jute requires about 50 cm water for its growth and development and only 15 percent of jute area in India is irrigated. The main reason for low yield in rainfed areas in the country is irregular rainfall distribution along with improper management practices. Given the climate change scenario and low availability of freshwater resources for irrigation, water-efficient irrigation systems are the need of the hour. As per study conducted by ICAR-CRIJAF, sprinkler irrigation resulted in significantly better root growth as well as increase in plant height, basal diameter during the growing period of jute and higher fibre yield than flood irrigation. Moreover, it also has many advantages like uniform water application, higher water use efficiency, better fibre yield, etc. Therefore, farmers should be educated and motivated to adopt such efficient method of irrigation.

Farm Mechanization

3.23 Jute is a labour-intensive crop and requires more labour for various operations in jute cultivation and fibre extraction. The increase in labour cost has been a major factor in high cost of production of jute and making it less remunerative than competing crops. Therefore, it is essential to increase the level of mechanization in jute cultivation to reduce the production cost and improve profitability of jute. The research institutes have developed various farm implements like jute seeder, weeder, bast fibre extractor, power ribboner, tractor driven multi-crop seed drill to reduce the drudgery and improve the work efficiency of jute farmers. However, level of mechanization in jute cultivation is still very low.

Extension Services

3.24 Extension programmes play an important role in disseminating the information about latest farm technologies, Government schemes and programmes to farmers. ICAR-CRIJAF has developed mobile apps like JAF-Safe, Jute-Agri in order to disseminate newly developed technologies among farmers. The scientists of the Institute are also conducting on-site demonstration of advanced technologies and crop-cutting experiments in various States under

Jute-ICARE programme. Apart from this, the State agriculture departments are also disseminating information about latest technologies to the farmers through their extension network.

3.25 West Bengal, the largest producer has been implementing Intensive Jute Development Programme under State Plan through which jute-green gram intercrop and latest retting technologies are being demonstrated to the farmers. Similarly, other jute growing States are also promoting improved package of practices and latest technologies in their respective States through different extension tools and e-governance. Apart, latest technologies developed by ICAR-CRIJAF, ICAR-NINFET and IJIRA are being demonstrated under Centrally sponsored programme like NFSM-CC (Jute) and Jute-ICARE. National Jute Board, Jute Corporation of India and Office of the Jute Commissioner are also making efforts for sensitizing the farmers about latest farm and retting technologies.

Retting Operations

3.26 Retting is one of the crucial operations, which affects the quality of fibre. A large volume of water is required in the conventional method of retting and in the absence of sufficient rainfall or delay in monsoon, jute cultivators face acute shortage of flowing water. Low availability of water affects the retting process and quality of fibre as well. Keeping this problem in mind, research institutes have developed some new techniques of retting. For instance, ICAR-CRIJAF has developed new retting technologies, namely, in-situ retting technology and application of microbial consortium-CRIJAF-SONA, for enhancing retting. ICAR-NINFET and IJIRA have also developed retting technologies called NINFET-SATHI and IJIRA-SUBHRA, respectively for rapid retting of jute.

3.27 These technologies have been helpful in reducing the retting time using less water as well as improvement in the quality of fibre and fibre recovery. These improved retting systems help in reducing the labour cost and enhancing income of the farmers. Hence, more sensitization programmes should be organized to spread awareness about these technologies among the farmers and efforts should be made to make technologies cost effective.

National Food Security Mission-Commercial Crops (Jute)

3.28 The Government has been implementing crop development programme on jute under National Food Security Mission-Commercial Crops (NFSM-CC) for enhancing production and productivity from 2014-15. Under this programme, thrust is on transfer of technology through front line demonstrations and training, promotion of certified seeds and improved technologies, mechanization, retting technologies and creation of retting tanks, etc.

3.29 During the last five years, the allocation of Central Share under NFSM-CC (Jute) has ranged from ₹12.9 crore in 2020-21 to ₹19.3 crore in 2018-19 and was ₹18.4 crore in 2022-23. However, actual expenditure has been very low, about 54.2 percent of total allocation in 2020-21 to 71.4 percent in 2022-23. Therefore, States should take appropriate action to fully utilize the funds allocated under the programme.

Recapitulation

3.30 During 2010s, India witnessed a steady decline in both area and production of jute despite improvement in crop yield. There are large variations in productivity levels across States and within the States. On the contrary, an increasing trend in area, production and yield has been observed during the 2010s in Bangladesh, main competitor. In addition, the quality of jute fibre of Bangladesh is better than India due to availability of sufficient and good quality of water for retting. Therefore, there is an urgent need to take necessary steps towards increasing the area and productivity of jute in the country.

3.31 Availability of cheaper alternatives, competition from other remunerative crops, less availability of water for retting, rising labour costs, etc. are prominent reasons for decline in the area under jute cultivation. Therefore, there is a need to pay attention to these issues. Availability of quality high yielding varieties seeds, improved cultivation methods, mechanization, modern retting technologies and effective extension services are important factors for increasing the productivity of jute in the country. Jute-ICARE and NFSM-CC (Jute) have been playing an important role in addressing major issues confronting jute sector but these programmes need to be scaled up and implemented in effective manner with involvement of all stakeholders.

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CHAPTER 4

Global Trade in Jute and Jute Products

4.1 Jute, also known as the golden fibre due to its biodegradable and eco-friendly nature, is prominently grown in Asian countries like India, Bangladesh, China, Uzbekistan and Nepal. According to Discover Natural Fibres Initiative (DNFI), the world natural fibre production is estimated at 33.7 million tonnes in 2022, about 1.9 percent higher than 2021. However, world production of natural fibres is forecast to decline by 3.9 percent in 2023, from 33.7 million tonnes in 2022 to 32.4 million tonnes in 2023. Among various natural fibres grown, cotton accounted for the largest share of 76.4 percent, followed by jute (9.2%), coir (3.4%) and wool (3.1%) in 2022. World production of jute, kenaf and allied fibres is forecast to decline from 3.1 million tonnes in 2022 to 2.7 million tonnes in 2023, a steep decline of 12.8 percent. As per Jute Market Report (July 2023) from Wilhelm G. Clasen (WGC), raw jute production in both Bangladesh and India is expected to decline in 2023 due to hot weather and lack of sufficient rains during July. This chapter analyzes dynamics of global jute production, trade, domestic and international prices, as well as recent changes in jute trade policy.

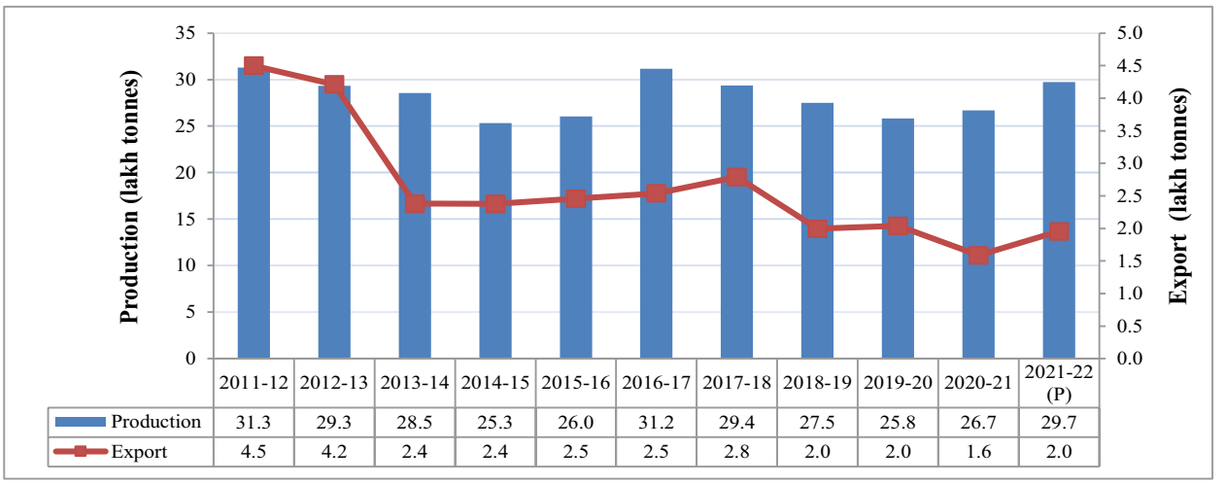
Global Scenario

Raw Jute/Jute Fibre Production

4.2 Chart 4.1 depicts the trends in global production and exports of jute fibre during the period 2011-12 to 2021-22. It can be seen that world jute fibre production was at 31.3 lakh tonnes in 2011-12 and thereafter followed a downward trajectory till 2014-15. Subsequently, world production of jute fibre rebounded and reached at 31.2 lakh tonnes in 2016-17. Thereafter, with consecutive fall for three years, it reached at 25.8 lakh tonnes in 2019-20. However, world production of jute fibre has witnessed an upward trend from 2019-20. In 2021-22, world production of jute fibre increased by 11.5 percent over previous year to 29.7 lakh tonnes. Out of this total production of jute fibre, in 2021-22, 6.9 percent was traded globally.

4.3 Global trade in jute fibre experienced a declining trend during the last decade. Jute fibre exports constitute a small percentage of total world production. The global production of jute fibre varied from 25.3 lakh tonnes in 2014-15 to 31.3 lakh tonnes in 2011-12, while exports varied from 1.6 lakh tonnes in 2020-21 to 4.5 lakh tonnes in 2011-12. During 2011-12 and 2021-22, global production and exports of jute fibre declined at a Compound Annual Growth Rate (CAGR) of 0.6 percent and 7.7 percent respectively. This indicates that larger share of production is consumed in the domestic market in major producing countries.

Chart 4.1: Global Production and Exports of Jute Fibre (in volume), 2011-12 to 2021-22



	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22 (P)
Production	31.3	29.3	28.5	25.3	26.0	31.2	29.4	27.5	25.8	26.7	29.7
Export	4.5	4.2	2.4	2.4	2.5	2.5	2.8	2.0	2.0	1.6	2.0

Note: (P): Preliminary

Source : Jute, kenaf, sisal, abaca, coir and allied fibres statistical bulletin 2016, 2020, 2022, Food and Agriculture Organization

4.4 Table 4.1 shows the major producers of jute fibre during the period 2012-13 to 2021-22. It can be seen that world production of jute fibre has been dominated by Bangladesh and India. In last decade, besides moderate fluctuations, world production of jute fibre has hovered around an average of 2795.2 thousand tonnes. It is observed that between 2012-13 and 2013-14, India was the largest producer of jute fibre in the world. However, 2014-15 onward (except 2016-17), Bangladesh has continued to be the major producer of jute fibre in the world. Further, in 2020-21, India recorded its lowest level of jute fibre production at 980 thousand tonnes. It is pertinent to note that, in 2021-22, although Bangladesh continues to be the largest producer of jute fibre in the world but witness a decline of 9.7 percent over previous year against a growth of 47.8 percent in case of India in jute fibre production. It can also be seen that Nepal and Myanmar, the other two small producers of jute fibre in the world, have witnessed a downward trend from 2012-13 to 2021-22.

Table 4.1: Major Producers of Jute Fibre, 2012-13 to 2021-22

(*in thousand tonnes*)

Year	Bangladesh	India	Myanmar	Nepal	World
2012-13	1363.0	1554.0	1.0	15.0	2933.0
2013-14	1338.5	1500.0	0.4	15.7	2854.6
2014-15	1350.9	1166.0	0.5	16.0	2533.4
2015-16	1530.0	1060.0	0.3	12.5	2602.9
2016-17	1549.0	1556.0	0.3	11.6	3116.9
2017-18	1655.8	1268.0	0.3	11.6	2935.7
2018-19	1543.7	1196.0	0.4	11.2	2751.2
2019-20	1448.1	1124.0	0.4	10.6	2583.1
2020-21	1677.2	980.0	0.2	10.2	2667.6
2021-22(P)	1514.5	1448.0	0.1	10.5	2973.1

Note: (P): Preliminary

Source: Jute, kenaf, sisal, abaca, coir and allied fibres statistical bulletin 2016, 2020, 2022, Food and Agriculture Organization

Global Trade in Jute

Raw Jute, Kenaf and Allied Fibres

4.5 Table 4.2 shows the major exporters of jute fibre from 2012-13 to 2021-22. As per Food and Agriculture organization (FAO), Bangladesh was the largest exporter of jute fibre with 73.8 percent share in world exports in 2021-22, while India was the distant second largest exporter of jute fibre with 16.3 percent share, driven by huge domestic demand mainly due to mandatory use of jute in packaging of foodgrains and sugar leaving limited exportable surplus. Jute fibre exports are highly concentrated as Bangladesh and India together account for about 90 percent of globally traded supply.

4.6 It is observed that world exports of jute fibre have experienced a falling trend during the last decade. World exports of jute fibre which were 420.8 thousand tonnes in 2012-13 have declined by 53.6 percent to 195.4 thousand tonnes in 2021-22. Bangladesh has been the prominent exporter of jute fibre in the world followed by India. It is pertinent to note that during this period, Bangladesh has recorded significant fall of 61 percent in exports of jute fibre, from 370.1 thousand tonnes in 2012-13 to 144.2 thousand tonnes in 2021-22. Albeit, with a modest volume of exports of jute fibre, India too experienced a fluctuating and declining trend during 2014-15 to 2021-22.

Table 4.2: Major Exporters of Jute Fibre, 2012-13 to 2021-22

(*in thousand tonnes*)

Year	Bangladesh	India	Other	World
2012-13	370.1	-	50.7	420.8
2013-14	177.1	-	60.6	237.7
2014-15	181.4	37.8	18.5	237.7
2015-16	204.8	25.2	15.6	245.6
2016-17	219.7	18.7	15.4	253.8
2017-18	232.6	27.3	19.0	278.9
2018-19	150.0	25.9	23.6	199.5
2019-20	156.4	21.8	25.7	203.9
2020-21	104.2	30.6	23.9	158.7
2021-22(P)	144.2	31.9	19.3	195.4

Note : (P) : Preliminary

Source : Jute, kenaf, sisal, abaca, coir and allied fibres statistical bulletin 2016, 2020, 2022, Food and Agriculture Organization

4.7 Table 4.3 shows the major importers of raw jute, kenaf and allied fibres from 2012 to 2021. It can be seen that South-East Asian countries are the major importers of raw jute. Pakistan, India, Nepal, China and Brazil together accounted for 83.7 percent of raw jute, kenaf and allied fibres imports in 2021. It is worth noting that India, the second largest producer, is also the second largest importer of raw jute, kenaf and allied fibres in the world with a substantial share of 24.5 percent in global imports in 2021.

4.8 It is also observed that world imports of raw jute, kenaf and allied fibres witnessed a falling trend during 2012 to 2021. World imports of raw jute, kenaf and allied fibres which were 475.2 thousand tonnes in 2012 declined to 215.6 thousand tonnes in 2021, a fall of 54.6 percent. While all importing countries have recorded a gradual decline in import volume from 2012 to 2021, Brazil has registered an increase of 88.6 percent in its imports of raw jute, kenaf and allied fibres. However, a drastic decline of 78.7 percent and 64.4 percent in imports of raw jute, kenaf and allied fibres has been registered in case of China and India respectively. It is also observed that India imported record high volume of raw jute, kenaf and allied fibres in 2012 (148.8 thousand tonnes) and 2016 (136.6 thousand tonnes) with a world import share of 31.3 percent and 45.9 percent respectively.

Table 4.3: Major Importers of Raw Jute, Kenaf and Allied Fibres, 2012 to 2021

(in thousand tonnes)

Year	Pakistan	India	Nepal	China	Brazil	Others	World
2012	93.9	148.8	50	100.6	3.5	78.4	475.2
2013	84.9	53	50.5	60.5	1.6	64.8	315.3
2014	73.6	48.8	41.8	33.7	6	60.4	264.3
2015	66.6	76.7	31.5	23.8	8	54.7	261.3
2016	47.1	136.6	38.1	23.8	5.6	46.2	297.4
2017	78.3	65.9	41.4	31.1	3.5	66.5	286.7
2018	90.7	62.6	38.7	32.9	5.5	45.8	276.2
2019	44.4	76.2	40	28.9	8.1	43.7	241.3
2020	67.3	41.3	37.2	25.8	6.5	34.9	213
2021	62.2	52.9	37.3	21.4	6.6	35.2	215.6

Source: Jute, kenaf, sisal, abaca, coir and allied fibres statistical bulletin 2016, 2020, 2022, Food and Agriculture Organization

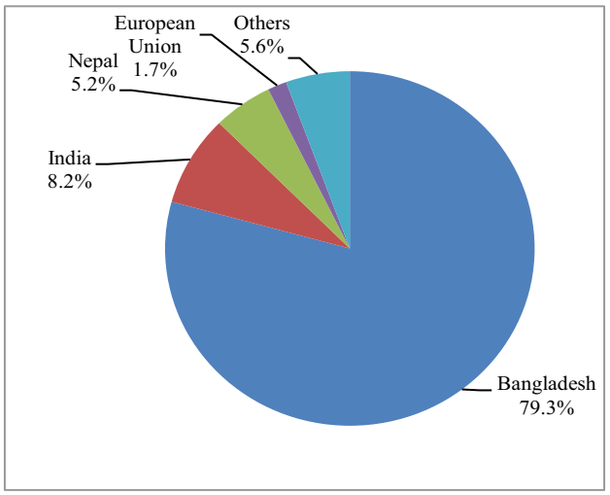
Jute Products

4.9 Chart 4.2 depicts the share of major exporters and importers of jute products. In TE2021-22, with a share of 79.3 percent, Bangladesh was the leading global exporter of jute products followed by India (8.2%), Nepal (5.2%) and European Union (1.7%). Over the years, Bangladesh has reaped the benefits of comparative advantage in exports of jute products due to lower cost of production driven by lower wages and power tariffs as well as better quality of fibre and cash incentives for exports of jute products.

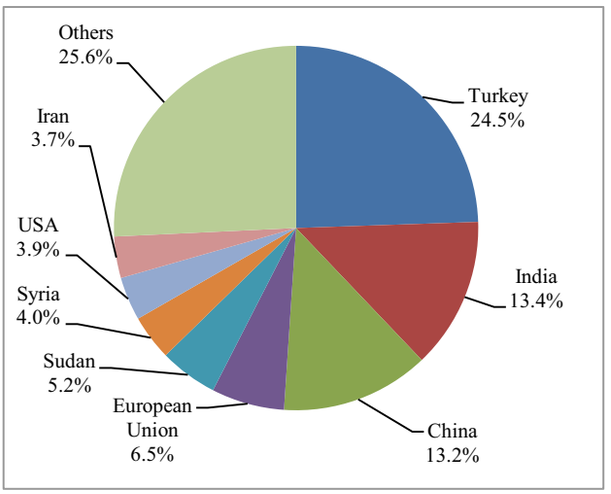
4.10 India is the second largest producer of jute fibre but in order to meet large domestic demand, the country imports large volumes of jute products, mostly from Bangladesh. The imports of jute goods from Bangladesh to India, which attracts zero custom duty under South Asian Free Trade Agreement (SAFTA) are competitively priced and give tough competition to domestically produced jute goods in India. It is observed from Chart 4.2 (b) that India was the second largest importer with 13.4 percent of the global imports of jute goods in TE2021 after Turkey (24.5%). The exports of jute products are also geographically more concentrated than imports.

Chart 4.2: Major Exporters and Importers of Products of Jute, Kenaf and Allied Fibres

(a) Exporters (TE2021-22)



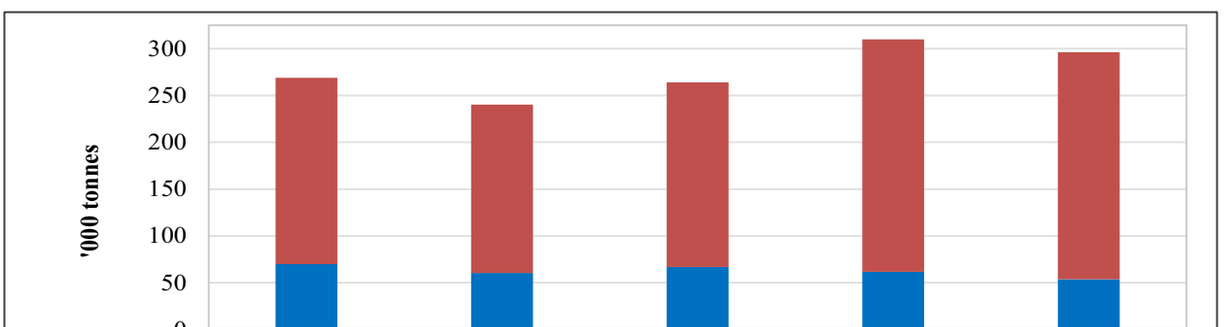
(b) Importers (TE2021)



Source: Jute, kenaf, sisal, abaca, coir and allied fibres statistical bulletin 2022, Food and Agriculture Organization

4.11 Bangladesh is the largest exporter of raw jute and jute products in the world. Chart 4.3 depicts the trends in exports and internal consumption of jute products in Bangladesh during the period 2017 to 2021. More than 70 percent of total production of jute products in Bangladesh is exported and about 20 percent is used for domestic consumption. Total exports increased at an annual growth rate of 5.9 percent during the last four years, while internal consumption registered a negative growth of 5.9 percent. Exports increased from 180 thousand tonnes in 2018 to 248.4 thousand tonnes in 2020 but declined to 242.5 thousand tonnes in 2021. Production of jute products increased at a CAGR of 2.3 percent during the last five years, from 287.2 thousand tonnes in 2017 to 319.6 thousand tonnes in 2020 but marginally declined in 2021.

Chart 4.3: Trends in Exports and Internal Consumption of Jute Products in Bangladesh (in volume), 2017 to 2021



	2017	2018	2019	2020	2021
Exports	199.1	180.0	197.1	248.4	242.5
Consumption	69.9	60.2	66.9	61.6	53.7

Note: There is a large variation in data presented in this Chart and Jute Price Policy Report for 2023-24 as data from Bangladesh Jute Mills Association (2020-21) has been used to maintain consistency

Source: Bangladesh Jute Mills Association (2020-21)

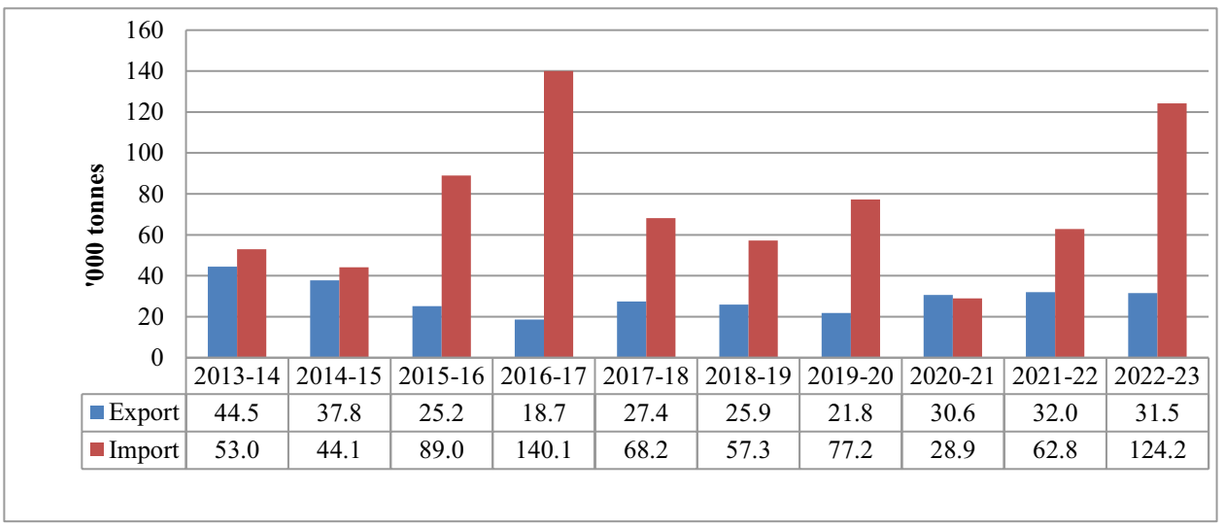
India's Trade in Jute and Jute Products

4.12 The Jute Packaging Material (Compulsory Use in Packing Commodities) Act, 1987 provides for 100 percent reservation for packaging of foodgrains and 20 percent reservation for packaging of sugar in jute bags. Therefore, large share of raw jute produced in the country is used to meet growing domestic demand for mandatory packaging of food commodities. The trends in India's trade in raw jute and jute products are discussed below.

Raw Jute

4.13 The trends in volume of exports and imports of raw jute in India are shown in Chart 4.4. As observed in the chart, during the period 2013-14 to 2022-23, India has been a net importer of raw jute, except in 2020-21, when the country witnessed a steep decline in raw jute imports, from 77.2 thousand tonnes in 2019-20 to 28.9 thousand tonnes in 2020-21 caused by COVID-19 led supply disruptions in international trade in 2020 followed by rise in prices of raw jute in 2021(Q1). In 2021-22, raw jute exports increased by about 5 percent, from 30.6 thousand tonnes in 2020-21 to 32 thousand tonnes. However, imports of raw jute more than doubled from 28.9 thousand tonnes in 2020-21 to 62.8 thousand tonnes in 2021-22. In 2022-23, raw jute exports saw a marginal decline of 1.7 percent while imports increased by 97.8 percent over 2021-22 and were 124.2 thousand tonnes. The increase in imports was mainly due to lower production of higher grade of raw jute primarily due to draught like situation in most raw jute growing areas during harvest season 2022.

Chart 4.4: India's Exports and Imports of Raw Jute (in volume), 2013-14 to 2022-23



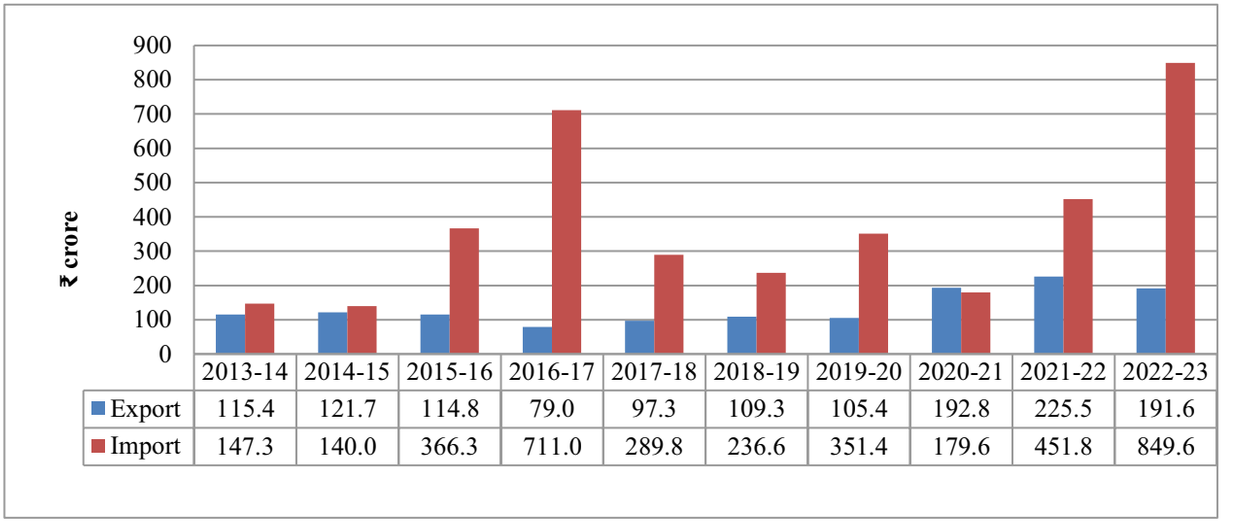
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Export	44.5	37.8	25.2	18.7	27.4	25.9	21.8	30.6	32.0	31.5
Import	53.0	44.1	89.0	140.1	68.2	57.3	77.2	28.9	62.8	124.2

Source: Directorate General of Commercial Intelligence and Statistics, Ministry of Commerce and Industry

4.14 The trends in exports and imports of raw jute in India, in value terms, during the period 2013-14 to 2022-23, are depicted in Chart 4.5. Being a net-importer of raw jute, the country typically had a trade deficit during 2013-14 to 2022-23, except in 2020-21, when India had trade surplus due to drop in imports. In 2021-22, export earnings from raw jute increased by 17 percent

compared to previous year, while the import bill for raw jute more than doubled during the same period. In 2022-23, export earnings declined by 15 percent, from ₹225.5 crore in 2021-22 to ₹191.6 crore in 2022-23 while export volume declined by only 1.7 percent. The import bill increased substantially by 88 percent, from ₹451.8 crore in 2021-22 to ₹849.6 crore in 2022-23, leading to 2.9 times rise in trade deficit from ₹226.3 crore to ₹658 crore.

Chart 4.5: India's Exports and Imports of Raw Jute (in value), 2013-14 to 2022-23



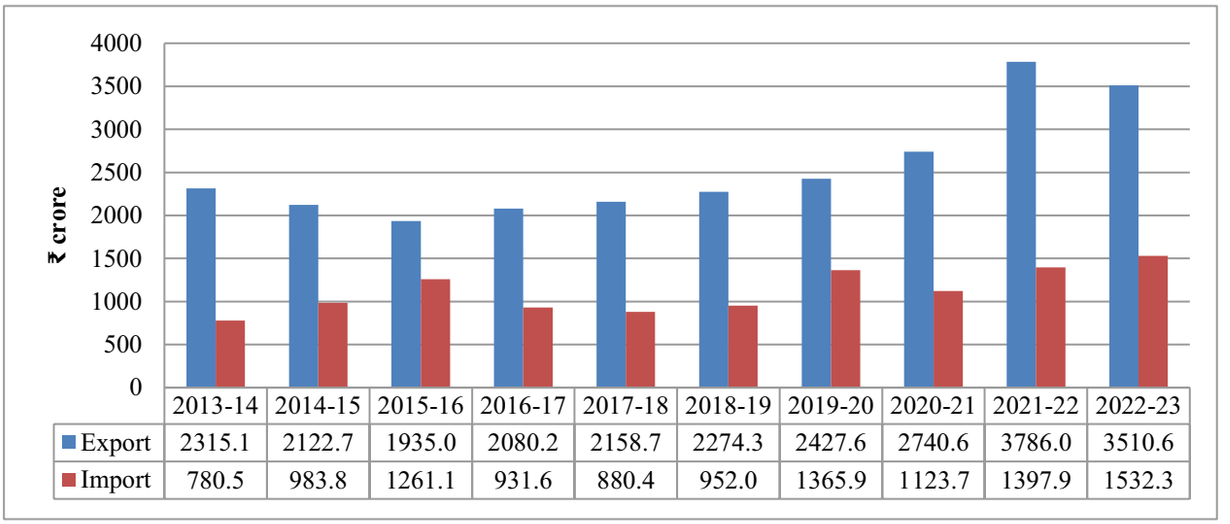
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Export	115.4	121.7	114.8	79.0	97.3	109.3	105.4	192.8	225.5	191.6
Import	147.3	140.0	366.3	711.0	289.8	236.6	351.4	179.6	451.8	849.6

Source: Directorate General of Commercial Intelligence and Statistics, Ministry of Commerce and Industry

Jute Products

4.15 With growing domestic as well as international demand for various ready-to-use and diversified products of jute like carpets, jute bags, jute hessian, jute sacking and textiles, India consistently has trade surplus in jute goods. The trends in trade of jute products during the period 2013-14 to 2022-23 are depicted in Chart 4.6. Being a net exporter of jute products, India's trade surplus has increased from ₹1,535 crore in 2013-14 to ₹1,978 crore in 2022-23. While growth of imports of jute products has been volatile, exports of jute products have grown steadily from 2015-16 to 2021-22. It is also observed that India recorded highest ever earnings from exports of jute products at ₹3,786 crore in 2021-22, about 38 percent increase over previous year. Similarly, India's imports of jute products have also increased by about 24 percent in 2021-22 over previous year. Moreover, exports of jute products, which earlier followed an upward trend, declined by 7.3 percent in 2022-23 over previous year, while imports continued to increase by 9.6 percent during the period. Annex Table 4.1 shows the trend of India's trade in raw jute and jute products taken together.

Chart 4.6: India's Exports and Imports of Jute Products (in value), 2013-14 to 2022-23



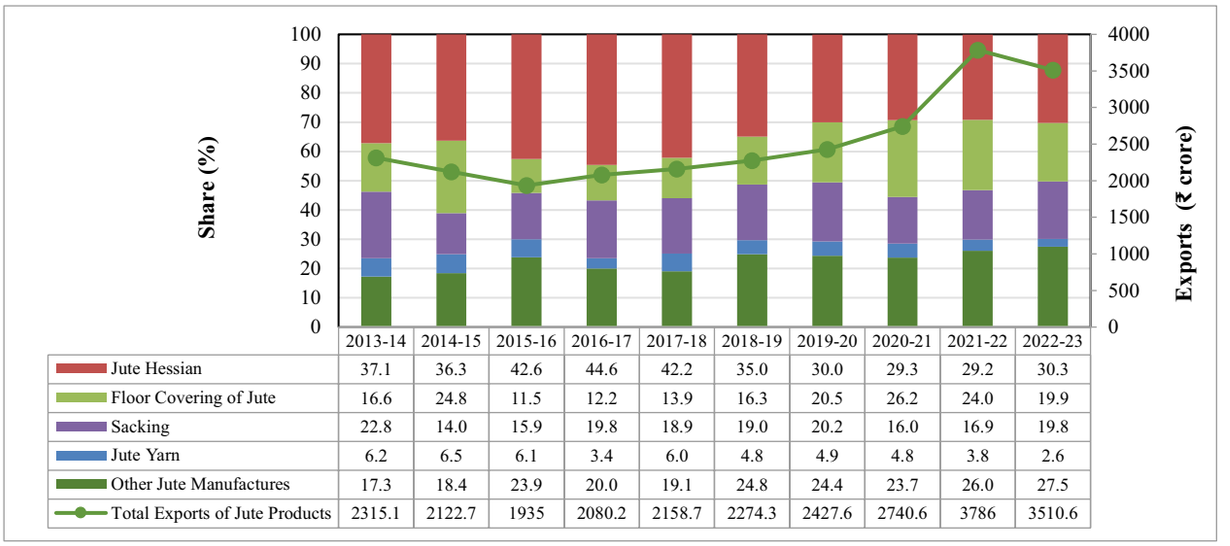
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Export	2315.1	2122.7	1935.0	2080.2	2158.7	2274.3	2427.6	2740.6	3786.0	3510.6
Import	780.5	983.8	1261.1	931.6	880.4	952.0	1365.9	1123.7	1397.9	1532.3

Source: Directorate General of Commercial Intelligence and Statistics, Ministry of Commerce and Industry

Composition of India's Exports of Jute Products

4.16 To understand the changing share of jute goods, it is imperative to examine the composition of exports of jute products from India. The changes in composition of India's jute products export from 2013-14 to 2022-23 are shown in Chart 4.7. It is observed that though jute hessian has a dominant share in exports of jute products but its share has declined during last 5-6 years. On the other hand, the share of floor covering of jute has shown a steady rise. The share of sacking has been fluctuating around an average share of 18.3 percent during 2013-14 to 2022-23. The share of jute yarn in total exports of jute products from India has been gradually declining from 6.2 percent in 2013-14 to 2.6 percent in 2022-23. Fall in the share of jute yarn in total exports is attributed to growing demand of jute yarn from synthetic and man-made fibres. In recent years, the traditional buyers of jute yarn for manufacturing carpets, like Middle-East countries, have largely shifted to synthetic fibres. The share of other jute manufactures, comprising of products like jute shopping bags, decorative items, wall coverings, bouquets, soil saver, canvas, jute-based handicrafts etc. has increased from 17.3 percent in 2013-14 to 27.5 percent in 2022-23. Among other jute manufactures, jute hand/shopping bags is the largest exported item accounting for a share of more than 80 percent. The overall slowdown in exports of jute products in 2022-23 is due to recession in Europe and USA.

Chart 4.7: Composition of India's Exports of Jute Products, 2013-14 to 2022-23



	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Jute Hessian	37.1	36.3	42.6	44.6	42.2	35.0	30.0	29.3	29.2	30.3
Floor Covering of Jute	16.6	24.8	11.5	12.2	13.9	16.3	20.5	26.2	24.0	19.9
Sacking	22.8	14.0	15.9	19.8	18.9	19.0	20.2	16.0	16.9	19.8
Jute Yarn	6.2	6.5	6.1	3.4	6.0	4.8	4.9	4.8	3.8	2.6
Other Jute Manufactures	17.3	18.4	23.9	20.0	19.1	24.8	24.4	23.7	26.0	27.5
Total Exports of Jute Products	2315.1	2122.7	1935	2080.2	2158.7	2274.3	2427.6	2740.6	3786	3510.6

Source: Directorate General of Commercial Intelligence and Statistics, Ministry of Commerce and Industry

4.17 The ban on plastic materials by many countries, combined with biodegradable nature of jute products, is the key driver of global demand for jute shopping bags, jute-based home furnishings, floor cover, decorative items, jute-based handicrafts etc. In the coming years, demand for such products is expected to grow further in the international market outpacing the growth in traditional jute products. As the global trade in jute products is in nascent stage, innovations in designing and branding for ready-to-use diversified jute products will enhance the earning potential of this segment. Thus, promoting jute product diversification is the key to make the Indian jute value chain more viable and reduce dependence on captive demand for jute.

4.18 In order to meet the growing demand of diversified jute goods in the domestic and international market and improve export earnings, there is an urgent need to review the JPM Act, 1987 and reduce compulsory jute packaging requirements in a phased manner, so as to ensure that the captive demand for jute sacking does not crowd out the supply of raw jute for other diversified jute goods. There is a need to focus on diversification in jute products to capture the emerging markets for expanding Indian jute economy.

4.19 Table 4.4 shows the comparative picture of India's exports of major jute products to top destinations in 2012-13 and 2022-23. It can be seen that India exported 22 percent of jute hessian and 48.3 percent of jute floor covering to USA in 2022-23. In the case of jute yarn, Belgium was the top destination with a share of 26.8 percent in total exports, while Ghana (22.7%) was the prime destination for India's exports of other jute manufactures. It is interesting to note that the share of top five importers has declined for all major jute products between 2012-13 and 2022-23. Further, three among the top five export destinations for these

jute products in 2022-23, were also among the top export destinations in 2012-13, which indicates strong preference for India's jute products in global market. In 2022-23, the share of top five export destinations in total exports of jute hessian is 52.5 percent, jute yarn 64.2 percent, floor covering of jute 70.5 percent and other jute manufactures 56.5 percent, indicating concentrated demand.

Table 4.4: Top Destinations for India's Exports of Major Jute Products

(a) 2012-13

Total and Country-wise Exports (₹ crore)	**Jute Hessian**	**Total and Country-wise Exports (₹ crore)**	**Jute Yarn**	**Total and Country-wise Exports (₹ crore)**	**Floor Covering of Jute**	**Total and Country-wise Exports (₹ crore)**	**Other Jute Manufactures ***
Total Exports	876.7	*Total Exports*	221.2	*Total Exports*	179.0	*Total Exports*	717.8
U S A	150.1	Saudi Arab	53.7	U S A	118.7	Thailand	156.9
Thailand	149.7	Belgium	34.1	U K	13.0	Ghana	122.1
Netherland	86.4	Turkey	33.3	South Africa	6.7	U K	67.5
Germany	60.1	Indonesia	30.8	Australia	6.1	U S A	66.3
UAE	33.9	Egypt	19.0	Germany	4.7	Saudi Arab	21.8
Share of Top-5 Countries (%)	**54.8**		**77.3**		**83.3**		**60.5**

(b) 2022-23

Total and Country-wise Exports (₹ crore)	**Jute Hessian**	**Total and Country-wise Exports (₹ crore)**	**Jute Yarn**	**Total and Country-wise Exports (₹ crore)**	**Floor Covering of Jute**	**Total and Country-wise Exports (₹ crore)**	**Other Jute Manufactures***
Total Exports	1062.5	*Total Exports*	90.8	*Total Exports*	699.4	*Total Exports*	1657.9
U S A	234.1	Belgium	24.4	U S A	337.7	Ghana	376.0
Netherland	109.0	Indonesia	12.8	Germany	44.2	France	222.7
Cote D' Ivoire	101.0	Algeria	11.2	Australia	38.0	U S A	150.8
Germany	69.1	Turkey	6.0	France	36.6	Cote D' Ivoire	99.6
U K	44.1	Germany	3.9	U K	36.4	U K	87.3
Share of Top-5 Countries (%)	**52.5**		**64.2**		**70.5**		**56.5**

Note: ** includes sacking*

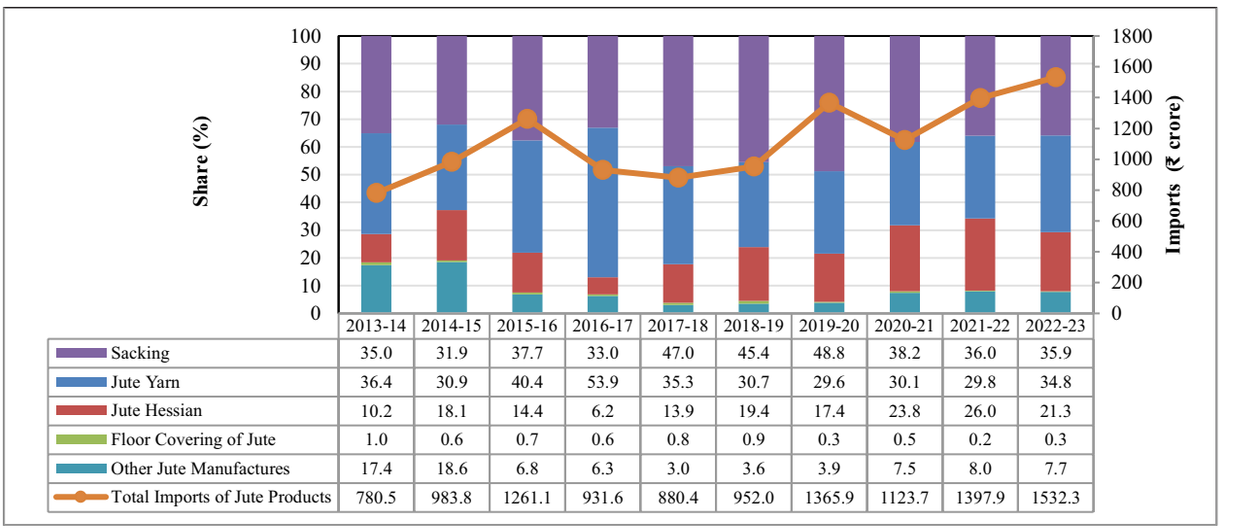
Source: Directorate General of Commercial Intelligence and Statistics, Ministry of Commerce and Industry

4.20 Parts of jute plant, which were earlier neglected and considered as an agricultural waste, are now used to prepare some value-added products. The jute-stick activated carbon (JAC) prepared from jute sticks is low-cost alternative to largely imported Petroleum Graphitized Carbon Black. In the long run, tapping global markets for niche products like activated carbon can be very beneficial for jute industry. Moreover, jute sticks are also potential raw materials for production of paper, paper boards, viscose rayon, crockery, cutlery and even bricks. To make jute cultivation more viable and self-reliant, it is prudent to diversify the jute value-chain by exploiting the potential of jute fibre and sticks.

Composition of India's Imports of Jute Products

4.21 The changes in composition of India's imports of jute products during the period 2013-14 to 2022-23 are depicted in Chart 4.8. It is observed that the share of jute sacking in the total imports of jute products has increased from 35 percent in 2013-14 to 48.8 percent in 2019-20. Thereafter, the share has started declining and reached 35.9 percent in 2022-23. The high demand of jute sacking for internal consumption is attributed to the mandate of compulsory packaging of foodgrains and sugar in jute bags. Jute yarn (34.8%) and jute hessian (21.3%) are other major import items in jute import basket of India, together accounting for more than half of jute products imports in 2022-23. It is observed that in 2013-14, other jute manufactures accounted for 17.4 percent of the total imports of jute products in India, which has declined to 7.7 percent in 2022-23.

Chart 4.8: Composition of India's Imports of Jute Products, 2013-14 to 2022-23



	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Sacking	35.0	31.9	37.7	33.0	47.0	45.4	48.8	38.2	36.0	35.9
Jute Yarn	36.4	30.9	40.4	53.9	35.3	30.7	29.6	30.1	29.8	34.8
Jute Hessian	10.2	18.1	14.4	6.2	13.9	19.4	17.4	23.8	26.0	21.3
Floor Covering of Jute	1.0	0.6	0.7	0.6	0.8	0.9	0.3	0.5	0.2	0.3
Other Jute Manufactures	17.4	18.6	6.8	6.3	3.0	3.6	3.9	7.5	8.0	7.7
Total Imports of Jute Products	780.5	983.8	1261.1	931.6	880.4	952.0	1365.9	1123.7	1397.9	1532.3

Source: Directorate General of Commercial Intelligence and Statistics, Ministry of Commerce and Industry

Comparative Trends in Jute Goods Production and Exports from India and Bangladesh

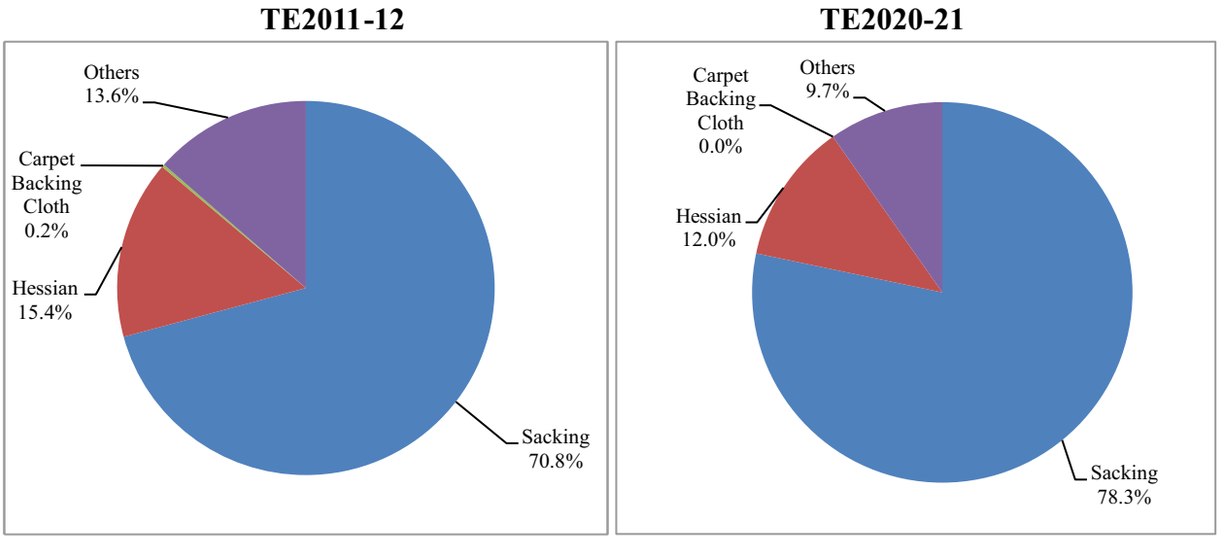
4.22 Chart 4.9 (a) depicts the change in composition of production of jute goods in India from TE2011-12 to TE2020-21. It is observed that the jute products are highly skewed towards production of jute sacking, followed by hessian. The jute sacking, which accounted for around two-third of the production of jute goods in India in TE2011-12, has more than three-fourth share in jute goods production in TE2020-21. The prime reason behind such significant growth is the captive demand for sacking under JPM Act, 1987. On the other hand, the share of jute hessian in jute goods has declined from 15.4 percent in TE2011-12 to 12 percent in TE2020-21.

4.23 Chart 4.9 (b) depicts the change in composition of jute goods production in Bangladesh from TE2011-12 to TE2020. It can be seen that jute sacking which accounted for 65.7 percent of jute goods production in TE2011-12 has declined to 44.8 percent in TE2020. Similarly, the share of

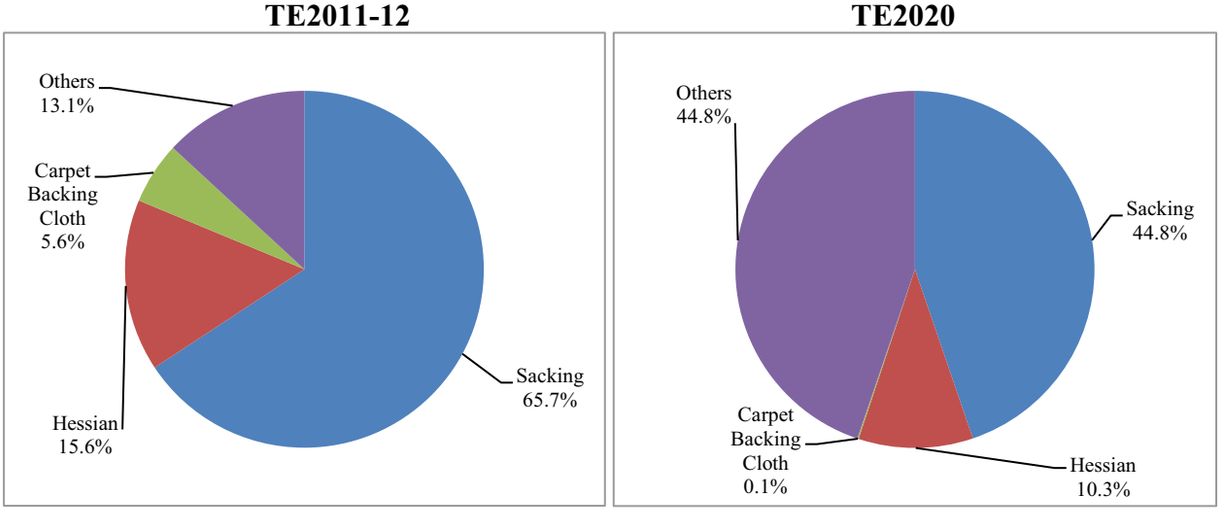
jute hessian has also decreased from 15.6 percent in TE2011-12 to 10.3 percent in TE2020. With a share of 5.6 percent in TE2011-12, carpet backed clothing has declined to 0.1 percent in TE2020. However, it is pertinent to note that 'others' in the jute goods category has registered most significant growth from 13.1 percent in TE2011-12 to 44.8 percent in TE2020.

Chart 4.9: Production of Jute Goods by Category in India and Bangladesh

(a) India



(b) Bangladesh



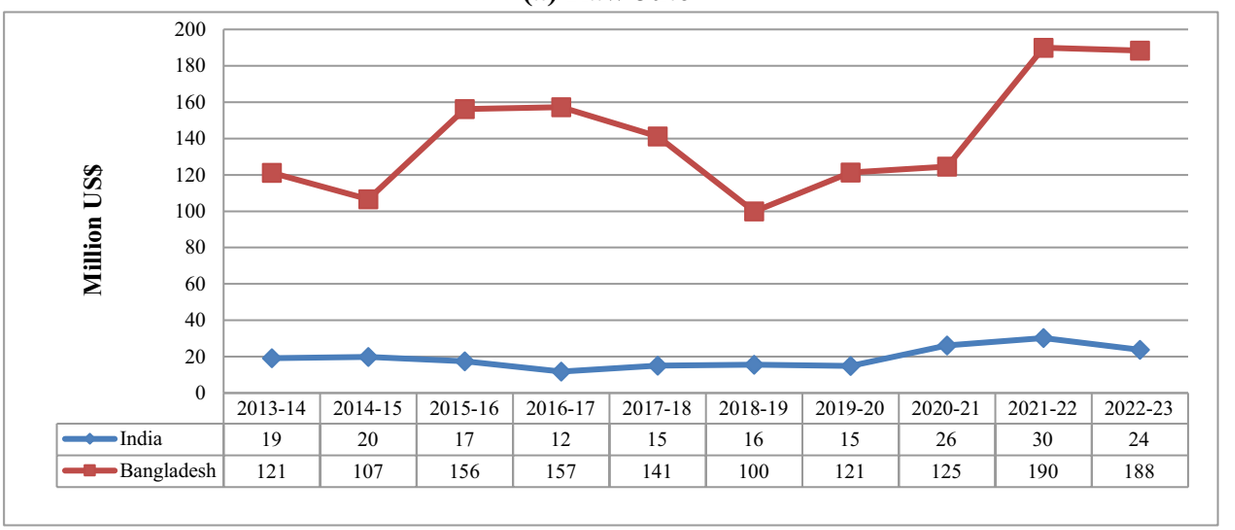
Source: 1. Annual Report 2012-13, Ministry of Textiles for India's Production for TE2011-12
2. Indian Jute Mills Association for TE2020-21
3. Bangladesh Jute Mills Corporation, Statistical Pocketbook 2014, for Bangladesh's Production TE2011-12
4. Bangladesh Jute Mills Association for TE2020

4.24 Chart 4.10 shows the comparative trends in exports of raw jute and jute goods from India and Bangladesh during the period 2013-14 to 2022-23. It is observed that value of raw jute exported by Bangladesh in last ten years has been consistently higher (roughly 8 times) than that of India. During the period 2013-14 to 2022-23, export earnings from raw jute grew at average annual growth rate of 6.3 percent in India and 2.7 percent in Bangladesh. However, export earnings from raw jute marginally declined during 2022-23 in both the countries.

4.25 Similarly, in case of jute goods, export earnings of Bangladesh have been more than double than that of India during the last ten years, despite the fact that India is the largest producer of both raw jute and jute goods in the world. This is mainly attributed to the compulsory jute packaging requirement mandated under JPM Act, 1987. In 2022-23, the export earnings from jute products declined by around 23 percent in Bangladesh and about 14 percent in India as compared to 2021-22. During the period 2013-14 to 2022-23, export earnings from jute goods increased at an average annual growth rate of 2.7 percent in India and 0.1 percent in Bangladesh.

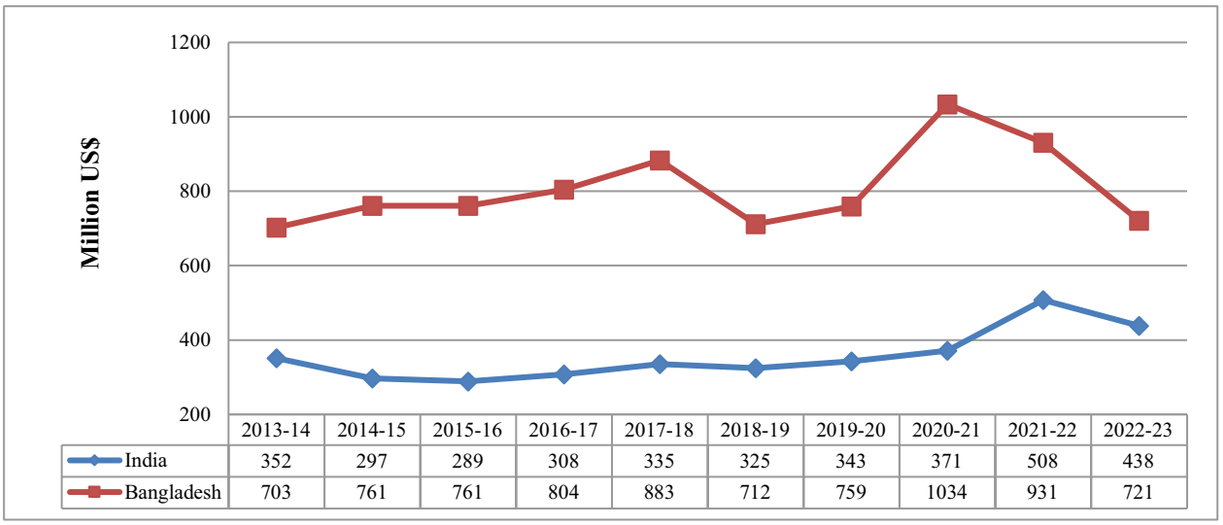
Chart 4.10: Comparative Trends in Jute Exports from India and Bangladesh, 2013-14 to 2022-23

(a) Raw Jute



	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
India	19	20	17	12	15	16	15	26	30	24
Bangladesh	121	107	156	157	141	100	121	125	190	188

(b) Jute Goods



	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
India	352	297	289	308	335	325	343	371	508	438
Bangladesh	703	761	761	804	883	712	759	1034	931	721

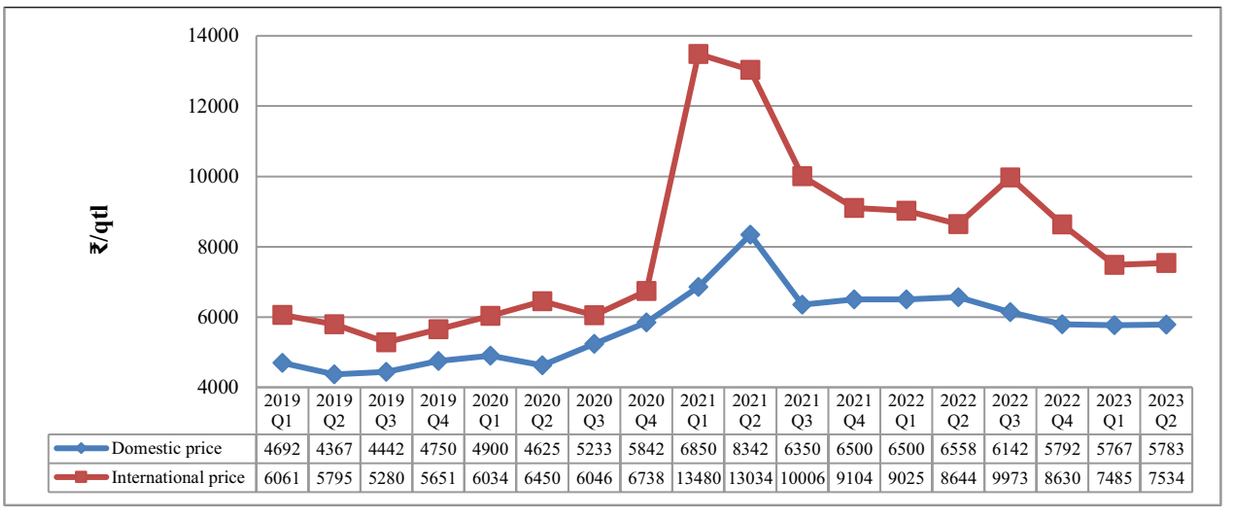
Source: 1.Directorate General of Commercial Intelligence and Statistics, Ministry of Commerce and Industry for India's Exports
2. Indian Jute Mills Association (data from Export Promotion Bureau, Bangladesh)

Domestic and World Prices of Jute

4.26 Chart 4.11 presents trends in domestic wholesale price of raw jute (TD-5 grade, in Kolkata market) and international price of raw jute (Bangladesh, White D, F.O.B. Mongla port) during the period from 2019 to 2023 (Q2). It can be seen that domestic prices of raw jute have stayed below the international prices during the period, indicating competitive edge to jute exports from India but poor quality of fibre is a major constraint in the country. It is pertinent to note that with a correlation coefficient of 0.9, the movement between the domestic and international prices of raw jute has been highly correlated. The domestic prices of raw jute witnessed an upward trend during the period 2020(Q2) to 2021(Q2) while international prices showed a steady rise during the period 2020(Q3) to 2021(Q1). However, the international prices of raw jute more than doubled in 2021(Q1) from previous quarter due to COVID-19 led supply disruptions in international trade.

4.27 It is also observed that from 2021(Q2) to 2021(Q3), the domestic prices of raw jute declined by 24 percent and since then hovered around ₹6,174 per quintal till 2023(Q2). Similarly, except 2022(Q3) and 2023(Q2), international prices of raw jute have also declined steadily since 2021(Q1) and a sharp fall of 23 percent was recorded between 2021(Q2) and 2021(Q3). The average mark-up between the two prices was ₹2820/qtl in 2022 which narrowed to ₹1735/qtl in 2023.

Chart 4.11: Domestic and International Prices of Raw Jute, 2019-2023(Q2)



	2019 Q1	2019 Q2	2019 Q3	2019 Q4	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2022 Q4	2023 Q1	2023 Q2
Domestic price	4692	4367	4442	4750	4900	4625	5233	5842	6850	8342	6350	6500	6500	6558	6142	5792	5767	5783
International price	6061	5795	5280	5651	6034	6450	6046	6738	13480	13034	10006	9104	9025	8644	9973	8630	7485	7534

Source: 1. UNCTAD for International Price
2. Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare for Domestic Wholesale Price of Kolkata (TD-5) grade of raw jute

Trade Policy for Jute

4.28 Traditionally, India and Bangladesh are two leading producers of raw jute in the world, so trade policies of these two countries have direct ramifications on international trade of jute. The preferential import duty of 2.5 percent on raw jute and 4 percent on jute products imported to India from SAARC countries (including Bangladesh) was applicable till March 2008. Subsequently, imports of these products from Bangladesh, Bhutan, Maldives and Nepal were made duty-free. Currently, an applied tariff of 5 percent is charged on imports of raw jute, while 10 percent import duty is charged on imports of jute yarn, hessian bags and sacking bags, and 20 percent on jute hessian and sacking fabrics.

4.29 In order to protect the domestic jute farmers as well as jute industry, Government of India had imposed an anti-dumping duty on imports of 'Jute Products' viz. jute yarn/twine (multiple folded/cabled and single), hessian fabric and jute sacking bags from Bangladesh and Nepal for a period of five years in January 2017. Consequently, the imports of jute sacking cloth from Bangladesh increased while undermining the remedial effect of existing anti-dumping duty imposed by India on jute sacking bags. As a result, the scope of this anti-dumping duty was expanded to include jute sacking cloth, as per the notification dated 18th June 2019. Thereafter, Government of India further widened the scope of anti-dumping duty on imports of jute yarn and jute sacking bags from Bangladesh in November 2019 under the domain of anti-dumping duties.

4.30 A sunset review investigation was initiated afterwards for continuation of the anti-dumping duties beyond January 2022 by Directorate General of Trade Remedies (DGTR), at the request of Indian Jute Mills Association (IJMA), vide notification dated 28th June 2021. The objective of the investigation was to review the need for continued imposition of these duties on jute yarn/twine, hessian fabrics, jute sacking cloth and jute sacking bags from Bangladesh and Nepal. Although the findings of this sunset review investigation were awaited, the anti-dumping duties on the jute products were extended till 31st December 2022 vide notification dated 16th September 2022. Based on the final findings of the investigation (vide notification dated 30th September 2022), Government extended the anti-dumping duties for another five years vide notification dated 30th June 2023.

4.31 To promote trade in raw jute and jute products in the international market, the exports of raw jute and jute products are at present freely allowed from India. Similarly, Remission of Duties and Taxes on Exported Products (RoDTEP), which is an export-incentivizing scheme, has stipulated the rates for duty remission/export incentive for various jute products exported from India. The Scheme facilitates exports of raw jute from India with duty remission at the rate of one percent on Free on Board (FOB) value. Additionally, one percent duty remission/export incentive on exports of jute yarn, jute hessian and jute sacking fabrics are also allowed, while a higher duty remission/export incentive (1.2%) on FOB value is allowed on jute hand-bags and shopping bags.

4.32 It is pertinent to note that export incentives for jute provided by Bangladesh, which is India's close competitor in global jute trade, are much higher as compared to India. Presently, Bangladesh provides cash subsidy of 12 percent on the exports of jute hessian, sacking and carpet-backed clothing, 7 percent cash subsidy on export of jute yarn/twine and 20 percent cash subsidy on export of various diversified products of jute. Such high rates of export incentives provide a competitive edge for jute exports from Bangladesh in the world market. Moreover, Bangladesh, as a signatory to SAARC Preferential Trading Arrangement (SAPTA) and its status as a Least Developed Country (LDC), has duty free quota free access to Indian market and has resorted to dumping of jute goods.

Recapitulation

4.33 Bangladesh and India continue to dominate the global market for jute and jute products. Bangladesh remains the world leader in jute exports. The primary pillars of export-oriented jute economy of Bangladesh are low cost of production due to cheap labour, superior quality of jute fibre, large surplus owing to lower domestic demand and attractive export incentives by the government. On the other hand, huge domestic captive demand under the JPM Act 1987 and shortage of good quality jute fibre are major constraints for India's export potential in the emerging global jute market. Besides synchronization of domestic demand for jute and exportable surplus, the jute economy of India ought to emphasize on adoption of modern

technology and better R&D in manufacturing of export-oriented diversified jute products. This requires a phased reduction in compulsory jute packaging requirement under JPM Act, 1987 as well as taking appropriate trade policy measures to restrain Bangladesh against disrupting India's jute trade by resorting to dumping of jute goods (under SAPTA). This would provide better prospects for Indian jute sector in the global trade.

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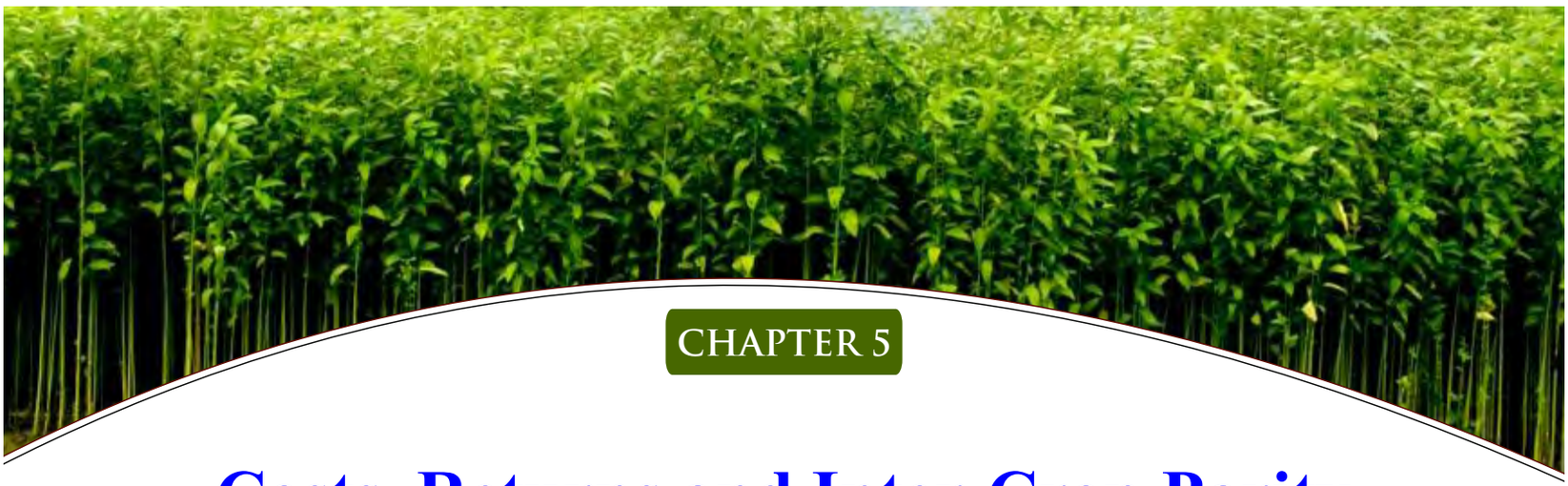


CHAPTER 5

Costs, Returns and Inter-Crop Parity

5.1 The Commission has considered cost of production of jute, demand, supply and price trends of jute and jute products in domestic and international markets, inter-crop parity, terms of trade between agriculture and non-agriculture sector, likely effect of the price policy on users of raw jute and jute-products, and rest of the economy, rational utilization of land, water and other production resources, and a minimum of 50 percent as the margin over cost of production, while recommending the MSP of jute for the Season 2024-25.

5.2 The Commission uses State-wise cost estimates provided by the Economics, Statistics & Evaluation Division (ESE Division), Ministry of Agriculture and Farmers Welfare, Government of India compiled under 'Comprehensive Scheme (CS) for studying the Cost of Cultivation of Principal Crops in India'. Since CS data for jute is available upto 2021-22, it needs to be projected for crop season 2024-25. Based on CS data, State-wise projections of cost of cultivation (CoC) are made for the ensuing season.

5.3 The projected CoC estimates of jute for crop year 2024-25 for three major producers, Assam, Bihar and West Bengal are based on three-year actual estimates available for latest triennium ending (TE) 2021-22. The estimates of projected CoC of jute capture changes in overall input cost separately over each of the past three years, viz. 2019-20, 2020-21 and 2021-22, for each of the projected States. An assessment of likely changes in farm input costs of jute for the crop year 2024-25, with reference to each of three consecutive years ending with 2021-22, has been made by constructing the Composite Input Price Indices (CIPIs) (base 2011-12), for each State. The CIPIs are based on latest prices of major farm inputs like human labour, bullock labour, machine labour, fertilisers, manures, seeds, pesticides and irrigation, as per data available from Labour Bureau, Ministry of Labour and Employment, State Governments and Office of the Economic Adviser, Ministry of Commerce and Industry. Based on CIPIs, the Commission projects CoC A_2, A_2+FL and C_2 per hectare of jute for each State.

5.4 The cost of production (CoP) A_2, A_2+FL and C_2 of jute for a State are derived from respective projected CoC estimates using projected yield and ratio of 'value of main product' to 'gross value of outputs (GVO)'. Subsequently, all-India estimates of CoP A_2, A_2+FL and C_2 are derived based on State-wise CoPs and their production shares in total jute production of projected States. The Commission considers these projected all-India estimates of CoP while formulating price policy recommendations of raw jute.

5.5 The Commission has undertaken cost projection exercise under certain implicit assumptions. Firstly, it is assumed that fixed cost components of jute, in all likelihood, would not undergo

any significant change in the intervening period between 2021-22 for which actual cost estimates are available, and the crop year 2024-25 for which cost projections are made. Secondly, since jute yield varies from year to year due to multiplicity of factors, three-year average yield has been taken to smoothen out fluctuations in yield and consequently in CoP of a State. However, due to wide fluctuations in the crop yield in Assam and West Bengal, Olympic average yield[1] has been used.

Costs and Returns of Jute during TE2021-22

5.6 The average CoC A_2 and A_2+FL, gross returns and percent returns over CoC A_2 and A_2+FL of jute during TE2021-22 based on actual cost estimates for Assam, Bihar, West Bengal and all-India are given in Table 5.1. It is pertinent to mention that gross value of output (GVO) has been estimated at prevailing market prices of main product and by-products during harvest season in village/cluster of villages, where jute crop was grown and harvested. The year-wise CoC A_2, A_2+FL, GVO, gross returns over CoC A_2 and gross returns over CoC A_2+FL for States and at all-India level are given in Annex Table 5.1.

Cost of Cultivation

5.7 All-India average CoC A_2 and A_2+FL of jute during TE2021-22 was ₹49,028 per hectare and ₹75,196 per hectare, respectively. The average cost of cultivation per hectare varied widely among States and these variations were driven by differences in yields and farm input costs. Per hectare average A_2 (₹25,403) and A_2+FL (₹31,968) costs during TE2021-22 were lowest in Bihar, followed by Assam at ₹35,744 and ₹64,313, respectively, and highest in West Bengal at ₹52,899 and ₹80,585, respectively.

5.8 The all-India average CoC A_2 registered a decreasing trend during period 2019-20 and 2021-22 but A_2+FL cost showed an increasing trend. In Assam, costs showed declining trend due to rapid decline in cost of family labour, bullock labour, fertiliser and manure, while in Bihar, costs increased during 2020-21 over 2019-20 but decreased during 2021-22 over 2020-21. In West Bengal, the highest producer of jute in country, CoC A_2 registered a decreasing trend, whereas, A_2+FL cost showed an increasing trend on account of substantial rise in cost of family labour during 2020-21 and 2021-22.

Gross Value of Output and Returns

5.9 All-India GVO of jute during TE2021-22 was at ₹1,28,487 per hectare. The GVO was the highest in West Bengal (₹1,35,181/ha), followed by Assam (₹1,07,446/ha), and lowest in Bihar at ₹84,049 per hectare. Per hectare GVO at all-India level showed an increasing trend during the period 2019-20 and 2021-22. For Assam, per hectare GVO increased in 2020-21 mainly due to rise in jute prices, but decreased in 2021-22 owing to substantial decline in yield. In Bihar, GVO marginally decreased in 2020-21 but increased substantially in 2021-22 due to significant rise in prices. In case of West Bengal, an increasing trend in GVO has been observed on account of significant rise in jute prices during 2020-21 and 2021-22.

[1] Olympic average yield is calculated by dropping the highest and the lowest yield from latest five-year yields and calculating the average of the remaining three-year yields

Table 5.1: All-India Average Costs and Gross Returns over Actual Cost of Cultivation of Jute during TE2021-22

State	CoC A_2	CoC A_2+FL	GVO	Gross Returns over CoC A_2		Gross Returns over CoC A_2+FL	
	₹/ha			₹/ha (Col.4 - Col.2)	Percent (Col.5 / Col.2)*100	₹/ha (Col.4 - Col.3)	Percent (Col.7 / Col.3)*100
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Assam	35744	64313	107446	71701	200.6	43133	67.1
Bihar	25403	31968	84049	58646	230.9	52081	162.9
West Bengal	52899	80585	135181	82282	155.5	54595	67.7
All-India	**49028**	**75196**	**128487**	**79459**	**162.1**	**53292**	**70.9**

Note: All-India CoC, GVO and gross returns of jute are weighted average of respective CoCs, GVOs and gross returns of projected States

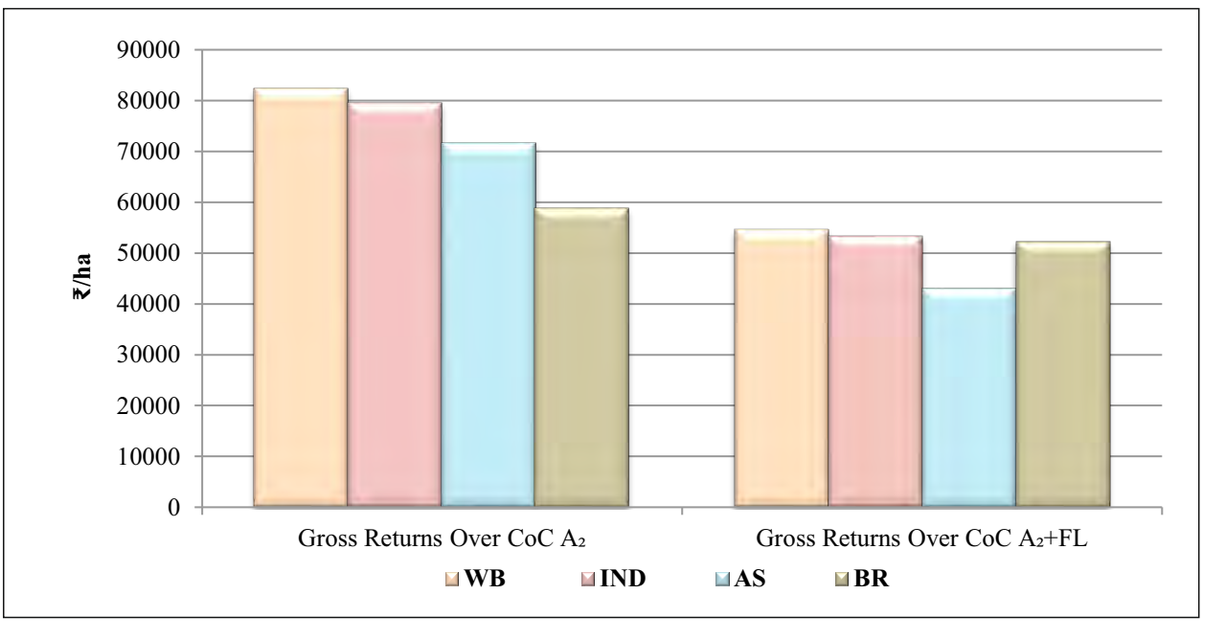
Source: CACP Calculations using CS data

5.10 The average gross returns over actual CoC A_2 and A_2+FL of jute during TE2021-22 for Assam, Bihar, West Bengal, and all-India level have been presented in Chart 5.1. All-India per hectare average gross returns over CoC A_2 and A_2+FL during TE2020-21 were ₹79,459 and ₹53,292, respectively. Per hectare returns over CoC A_2 were highest at ₹82,282 in West Bengal due to highest yield and prices, followed by Assam (₹71,701/ha), and lowest in Bihar (₹58,646/ha) mainly due to low prices. Returns over CoC A_2+FL were highest in West Bengal at ₹54,595 per hectare, followed by Bihar (₹52,081/ha), and lowest in Assam (₹43,133/ha) mainly due to low yield.

5.11 At all-India level, average gross returns over CoC A_2 and A_2+FL of jute have shown an increasing trend during 2019-20 and 2021-22. For Assam, returns over A_2 and A_2+FL costs increased in 2020-21 over 2019-20 mainly due to rise in prices, but declined in 2021-22 over 2020-21 due to significant reduction in yield. In case of Bihar, returns over A_2 and A_2+FL costs decreased in 2020-21 over 2019-20 owing to decline in prices and rise in cost of cultivation, but increased in 2021-22 over 2020-21 because of increase in yield and prices and reduction in cost of cultivation. The increasing trend in returns over A_2 and A_2+FL costs has been observed in West Bengal mainly due to increasing trend of jute prices during period 2019-20 to 2021-22.

5.12 In terms of percentage, average gross returns at all-India level during TE2021-22 over A_2 cost were 162.1 percent and over A_2+FL cost were 70.9 percent. Returns as percent of CoC A_2 were highest in Bihar, followed by Assam, and lowest in West Bengal, whereas, returns as percent of CoC A_2+FL were highest in Bihar, followed by West Bengal, and lowest in Assam.

Chart 5.1: Average Gross Returns in Major Jute Producing States, TE2021-22



Note: All-India CoC, GVO and gross returns of jute are weighted average of respective CoCs, GVOs and gross returns of projected States

Source: CACP Calculations using CS data

Movement in Agricultural Wages and Prices of Farm Inputs

Growth in Daily Wage Rates of Agriculture Labour

5.13 Average annual growth in daily wage rates of agricultural labour in major jute producing States and at all-India level in nominal and real terms (2023=100) during jute season (March to September) for the years 2021 and 2022, and for March to July for the year 2023, over corresponding previous years, is given in Table 5.2. Average annual daily wage rates of agricultural labour during the season at constant prices (real wages) are derived by using average annual daily wage rates of agricultural labour during the season at current prices and deflator derived by average annual Consumer Price Index for Agricultural Labourers. At all-India level, agricultural labour wages increased by 3.2 percent in 2021, 6.4 percent in 2022 and 6.6 percent in 2023, at current prices, while real wages increased by 0.1 percent in 2021, decreased by 2 percent in 2022, and increased by 0.6 percent in 2023.

5.14 The highest increase in average daily wage rate (at current prices) in 2023 over 2022 was recorded in Odisha at 8.9 percent, followed by Assam (8.1%), Bihar (7%), Madhya Pradesh (6.2%), and lowest in West Bengal (4.9%); whereas at constant prices, increase in average daily wage rate was highest in Assam at 7.2 percent, followed by Odisha (5%), while it recorded a decline in Bihar, Madhya Pradesh and West Bengal.

Table 5.2: Growth in Average Daily Wage Rates of Agricultural Labour in Major Jute Growing States and at All-India Level during Jute Season

State	Growth (%) at Current Prices			Growth (%) at Constant (2023=100) Prices		
	2021	2022	2023	2021	2022	2023
Assam	-1.8	5.0	8.1 (8.6)	-5.8	0.3	7.2 (6.9)
Bihar	1.7	7.7	7.0 (7.4)	0.5	-2.3	-0.5 (-0.8)
Madhya Pradesh	-1.3	6.6	6.2 (6.9)	-6.4	-0.4	-1.2 (-1.4)
Odisha	6.6	10.9	8.9 (10.6)	2.5	4.3	5.0 (5.9)
West Bengal	6.8	2.9	4.9 (5.8)	2.9	-5.3	-0.1 (0.03)
All-India	**3.2**	**6.4**	**6.6 (7.4)**	**0.1**	**-2.0**	**0.6 (0.6)**

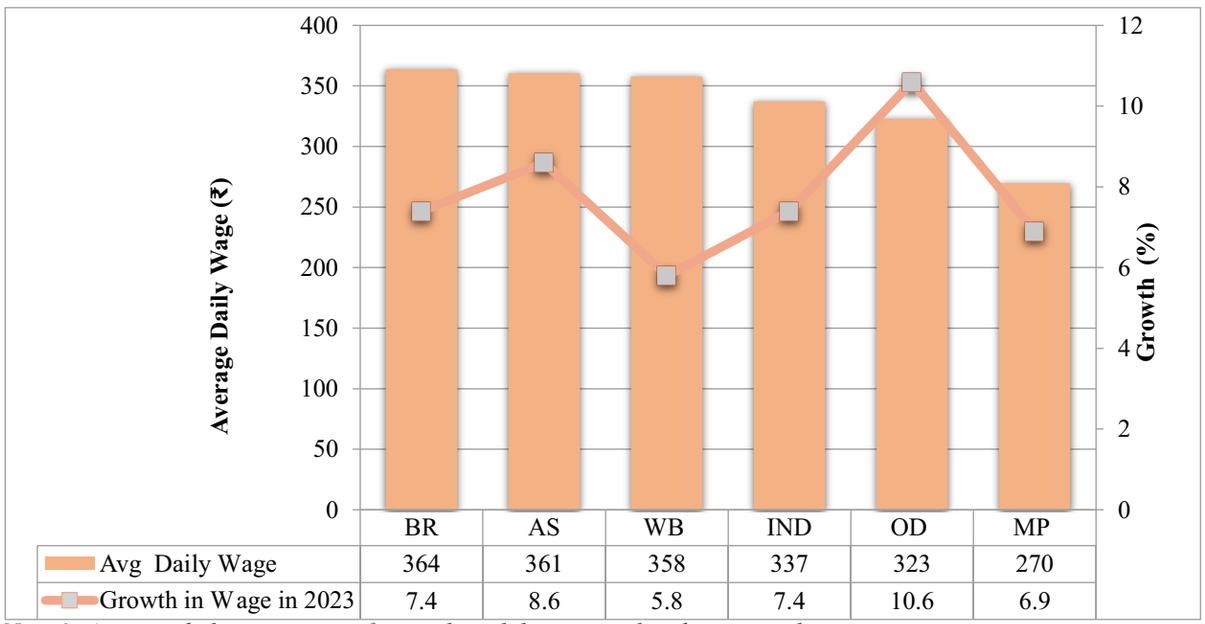
Note 1: Average daily wage rates of agriculture labour are related to man only
2: Growth is derived from the average taken for the period from March to September for 2021 & 2022, and March to July for 2023
3: Figures in bracket show percentage change during March to July 2023 over March to July 2022
4: All-India daily wage rate is weighted average of daily wage rates of States mentioned in Table
Source: Labour Bureau, Ministry of Labour and Employment, Government of India and CACP Calculations

Daily Wages of Agriculture Labour

5.15 Chart 5.2 depicts average daily wages of agricultural labour during March-July in 2023 and changes in average daily wages during March-July in 2023 over March-July in 2022 at current prices. There are variations in agricultural wage rates among major jute producing States. The all-India weighted average daily wage rate of agricultural labour of major jute producing States was ₹337 in 2023, whereas, highest daily wages were registered in Bihar (₹364), followed by Assam (₹361), West Bengal (₹358), Odisha (₹323), and lowest in Madhya Pradesh (₹270). Assam, Bihar and Odisha recorded higher growth in average daily wage rate than all-India average, while Madhya Pradesh and West Bengal registered lower growth than all-India level in 2023 over 2022.

5.16 The increase in wages in most of the jute producing States has resulted in increase in the human labour cost, which resulted in higher cost of cultivation. Therefore, it is necessary to promote mechanization in jute farming to reduce cost of cultivation/production and enhance profitability of farmers. The 'monthly average of daily wage rates for agricultural labour at current prices' and 'monthly Consumer Price Index for Agricultural Labourers (CPI-AL)' for major jute producing States from 2020 to 2023 are given in Annex Table 5.2 (a) and Annex Table 5.2 (b), respectively.

Chart 5.2: Average Daily Wage Rates and Growth in Wages of Agriculture Labour in Selected States during Jute Season in 2023 over 2022



	BR	AS	WB	IND	OD	MP
Avg Daily Wage	364	361	358	337	323	270
Growth in Wage in 2023	7.4	8.6	5.8	7.4	10.6	6.9

Note 1: Average daily wage rates of agriculture labour are related to man only

2: Growth is derived from the average taken for the period from March to July

3: All-India daily wage rate is weighted average of daily wage rates of States mentioned in Chart

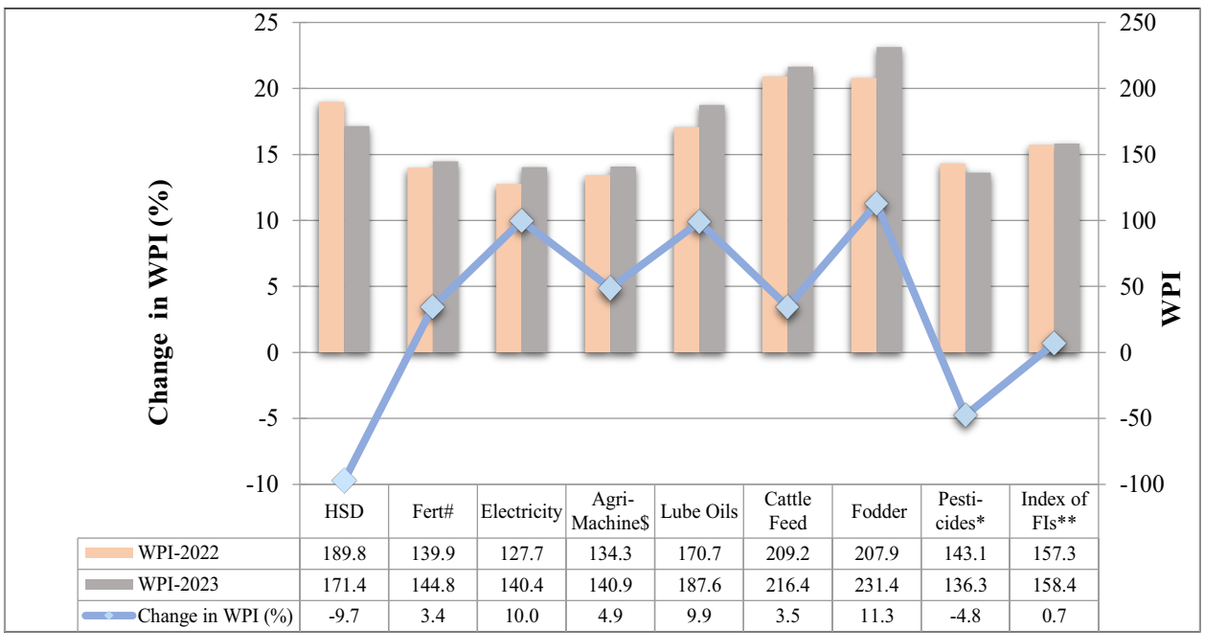
Source: Labour Bureau, Ministry of Labour and Employment, Government of India and CACP Calculations

Movement in Farm Input Prices

5.17 The movement of the Wholesale Price Index (WPI) for various farm inputs (Base 2011-12) during March to July 2023 over March to July 2022 is presented in Chart 5.3. The index for High Speed Diesel (HSD) decreased from 189.8 in 2022 to 171.4 in 2023, registering a decline of 9.7 percent. Among other farm input indices, highest increase was registered in index of fodder at 11.3 percent, followed by electricity (10%), lube oils (9.9%), manufacture of agricultural and forestry machinery[2] (4.9%), cattle feed (3.5%), and fertiliser and nitrogen compounds (3.4%), while it declined for pesticides and other agrochemical products by 4.8 percent. The weighted index of above-mentioned selected farm input prices registered an increase of 0.7 percent. The month-wise indices of various farm inputs from 2022 to 2023 are given in Annex Table 5.3.

[2]Manufacture of agricultural and forestry machinery consists of 'agricultural tractors', 'harvesters', 'agriculture implements', 'threshers' and 'soil preparation & cultivation machinery (other than tractors)'.

Chart 5.3: Movement in Wholesale Price Index (WPI) of Farm Inputs during March to July in 2022 and 2023



	HSD	Fert#	Electricity	Agri-Machine$	Lube Oils	Cattle Feed	Fodder	Pesti-cides*	Index of FIs**
WPI-2022	189.8	139.9	127.7	134.3	170.7	209.2	207.9	143.1	157.3
WPI-2023	171.4	144.8	140.4	140.9	187.6	216.4	231.4	136.3	158.4
Change in WPI (%)	-9.7	3.4	10.0	4.9	9.9	3.5	11.3	-4.8	0.7

Note 1: WPI of a farm input shown in chart is average of monthly WPIs from March to July of the farm input

2: WPI of farm inputs is weighted average of WPIs of farm inputs mentioned in Chart

 # : Fertilizers and nitrogen compounds

$: Manufacture of agricultural and forestry machinery

**: Pesticides and other agrochemical products*

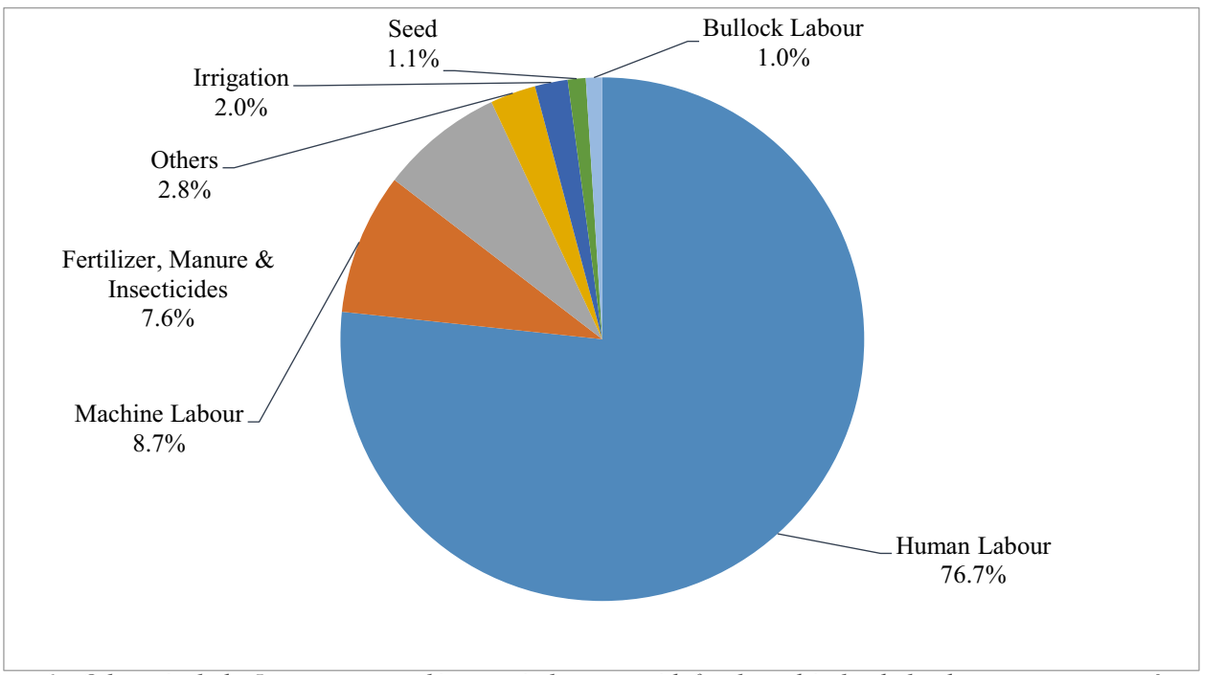
*** : Index of farm inputs*

Source: Office of the Economic Adviser, Ministry of Commerce and Industry, Government of India and CACP Calculations

Share of Farm Inputs in Cost of Production

5.18 The share of various farm inputs in A_2+FL cost of production for jute during TE2021-22 has been presented in Chart 5.4. The largest expenditure for jute production was on human labour (76.7%), followed by machine labour (8.7%), fertiliser, manure and insecticides (7.6%), irrigation (2%), seed (1.1%) and bullock labour (1%). Thus, it is evident that most of the operations in jute farming are dominated by human labour and farmers follow labour-intensive traditional cultivation and retting practices. As labour costs have significant influence on cost of cultivation, it is necessary to promote mechanization in ploughing, weeding, harvesting and retting operations. This would help in reducing cost of cultivation/production and improve profitability of jute cultivation.

Chart 5.4: Share of Farm Inputs in Actual All-India Cost of Production (A_2+FL) of Jute, during TE2021-22



Note 1: Others include Interest on working capital, rent paid for leased-in-land, land revenue, cesses & taxes, depreciation on implements & farm buildings, and miscellaneous expenses

2: All-India total cost of production of jute is weighted average of total costs of production of projected States

Source: CACP Calculations using CS data

Cost Projections of Jute for Crop Season 2024-25

Cost of Production

5.19 Based on actual farm input price indices and farm input weights up to 2021-22, and prices of farm inputs up to 2022-23, the Commission has projected composite input price indices (CIPIs) up to crop season 2024-25. Using State-wise actual cost estimates up to 2021-22 and projected CIPIs, State-wise estimates of CoC A_2, A_2+FL and C_2 of raw jute for each State were projected for crop year 2024-25. Using these estimates of CoC, ratio of 'value of main product' to GVO during TE2021-22 and projected yields, State-wise CoP A_2, A_2+FL and C_2 of jute have been projected for crop year 2024-25. Subsequently, all-India weighted average projected CoP A_2, A_2+FL and C_2, with weights being the respective share of the State in total production of jute of projected States during TE2022-23, have been worked out for crop year 2024-25.

5.20 The break-up of actual cost of cultivation estimates of jute from 2019-20 to 2021-22 and growth in costs during the period for Assam, Bihar and West Bengal are given in Annex Tables 5.4 (a) to 5.4 (c). The projected all-India and State-wise cost of production (CoP) A_2, A_2+FL and C_2 per quintal for raw jute for the crop year 2024-25 and production share of jute during TE2022-23 are presented in Table 5.3.

5.21 All-India A_2, A_2+FL and C_2 costs per quintal for jute are projected at ₹2,127, ₹3,237 and ₹4,374, respectively for crop year 2024-25. The projected CoP A_2 for raw jute during crop season 2024-25 is lowest for Bihar at ₹1,807 per quintal owing to substantial lower cost of casual labour and machine labour, followed by Assam (₹2,034/qtl), and highest for West Bengal at ₹2,163 per quintal due to significantly higher cost on casual labour, machine labour, fertiliser, insecticides and irrigation. Per quintal projected A_2+FL (₹2,271) and C_2 (₹2,740) costs for jute are lowest for Bihar, followed by West Bengal at ₹3,279 and ₹4,483, respectively, and highest for Assam at ₹3,656 and ₹4,686, respectively.

5.22 The cost of transportation, marketing and insurance premium for jute during jute season 2024-25, has been projected at ₹77 per quintal based on available information from State Governments, Jute Corporation of India and Office of the Economic Adviser, Ministry of Commerce and Industry. The transportation cost at all-India level is based on average growth rate of 3.8 percent derived by using weighted average Wholesale Price Index (WPI) of 'Transport Equipment and Fuels' constructed by the Commission from the selected WPIs published by the Office of the Economic Adviser, Ministry of Commerce and Industry, and information provided by State Governments (details in Annex Table 5.5). The marketing charges at all-India level were based on information provided by Jute Corporation of India, whereas, crop insurance premium at all-India level was based on information furnished by State Governments. The per quintal all-India modified CoP A_2, A_2+FL and C_2 inclusive of transportation cost, marketing charges and insurance premium for jute are projected at ₹2,204, ₹3,314 and ₹4,451, respectively for jute season, 2024-25.

5.23 The growth in projected CoP A_2 of jute during crop season 2024-25 over 2023-24 was lowest for West Bengal at 0.1 percent, followed by Bihar (9.5%), and highest for Assam (23.4%), while growth in A_2+FL cost was lowest for Assam (3.5%), followed by West Bengal (4.9%), and highest for Bihar at 5.2 percent. The growth in C_2 cost of jute during crop season 2024-25 over 2023-24 was lowest for Assam (4.2%), followed by Bihar (4.5%), and highest for West Bengal at 8.2 percent. The all-India CoP A_2, A_2+FL and C_2 of jute during crop season 2024-25 over 2023-24 increased by 2.2 percent, 4.6 percent, and 7.5 percent, respectively. The State-wise projected CoP estimates for crop season 2023-24 and 2024-25 and growth in 2024-25 over 2023-24 are given in Annex Table 5.6.

Table 5.3: Projected Cost of Production of Jute for Crop Season 2024-25

State	Projected CoP of Jute for Crop Season 2024-25 (₹/qtl)			Production Share (%) during TE2022-23
	A_2	A_2+FL	C_2	
Assam	2034	3656	4686	8.3
Bihar	1807	2271	2740	7.2
West Bengal	2163	3279	4483	84.4
All-India	**2127**	**3237**	**4374**	**100**

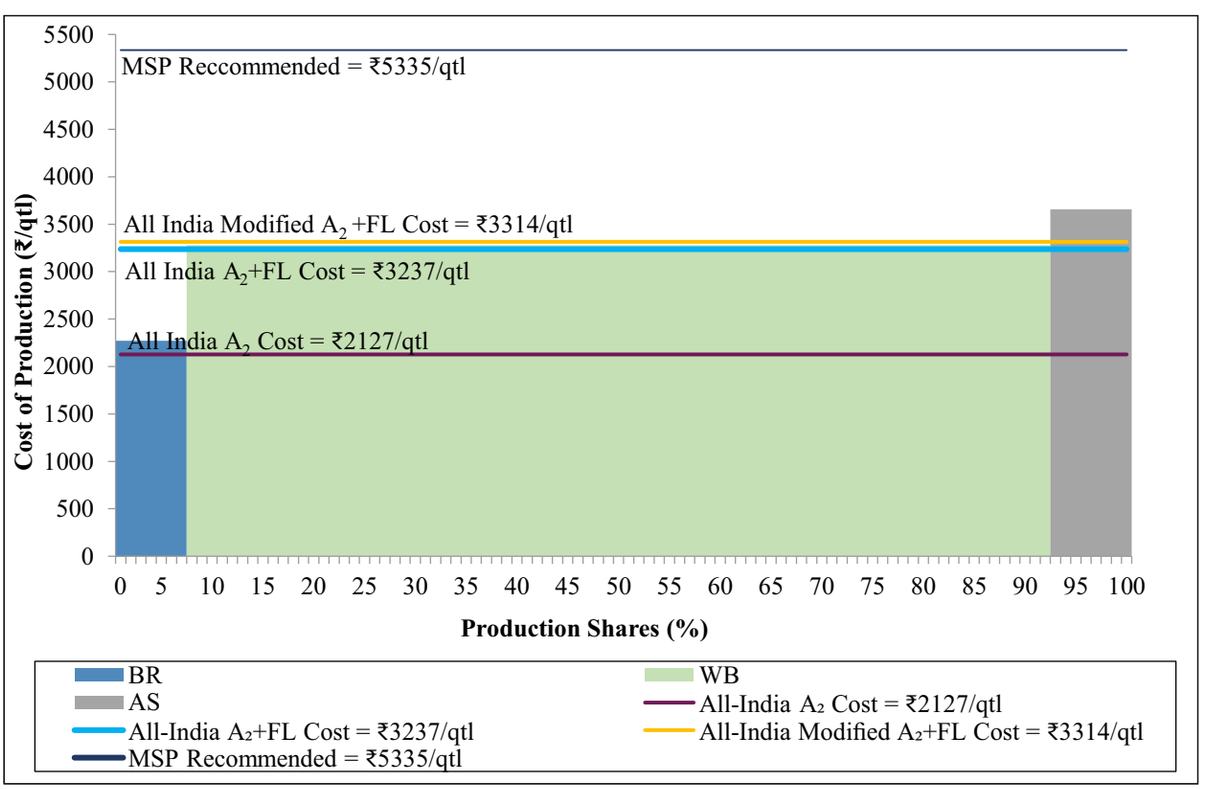
Note 1: Production shares are related to production of jute of projected States
2: All-India CoP of jute is weighted average of CoPs of projected States
Source: CACP Calculations using CS data

Production vis-a-vis Cost Projections

5.24 Chart 5.5 shows supply curve[3] for CoP A_2+FL for raw jute by States in ascending order with their corresponding relative shares in total production. It is evident from supply curve that projected A_2+FL CoP for jute in Bihar was lower than projected all-India mainly due to lower cost of cultivation in the State compared to other States, whereas, projected cost in Assam was higher than projected all-India CoP, because of lower yield and higher cost on family labour in Assam. The projected A_2+FL cost for West Bengal was marginally higher than projected all-India cost.

5.25 Year-wise projected cost of production, minimum support price (MSP), margin in MSP over cost of production and growth in MSP of jute from crop year 2020-21 to crop year 2024-25 are given in Annex Table 5.7. Supply curve reveals that all three major States would cover A_2+FL and C_2 cost of production at MSP of ₹5,335 per quintal recommended for jute season 2024-25. At all-India level, MSP margin over A_2+FL would be 64.8 percent and margin would be highest for Bihar at 134.9 percent, followed by West Bengal (62.7%) and lowest (45.9%) for Assam.

Chart 5.5: Supply Curve and Projected Cost of Production (A_2+FL) for Jute Season, 2024-25



Note 1: Production shares are related to production of jute of projected States mentioned in Chart
2: All-India CoP of jute are weighted average of CoPs of projected States mentioned in Chart
Source: CACP Calculations using CS data

Inter-Crop Parity in Returns

5.26 Inter-crop parity is an important factor for determination of MSP, therefore per hectare average gross returns of different competing crops in major jute producing States are compared. The basic idea is that area allocation amongst different crops be such that their respective per hectare returns are more or less balanced and help in developing a production pattern keeping in view changing demand patterns. Table 5.4 and Chart 5.6 present relative average gross returns measured in percentage terms over CoC A_2+FL for various competing crops with respect to jute, which shows that jute has higher returns as compared to other competing crops.

5.27 Annex Table 5.8 presents State-wise average gross returns over CoC A_2 and A_2+FL and relative average gross returns measured in percentage terms over CoC A_2 and A_2+FL for major competing crops with respect to jute for 2019-20, 2020-21 and 2021-22. After analysing average gross returns measured in percentage terms over A_2 and A_2+FL costs at all-India level, it is observed that jute has more than 1.2 times higher returns than paddy, 1.5 times higher than maize, 1.3 times higher than groundnut, and 2.9 times higher than sesamum. At all-India level, gross returns for jute registered an increasing trend, while relative returns of each competing crop registered a declining trend, during period 2019-20 and 2021-22.

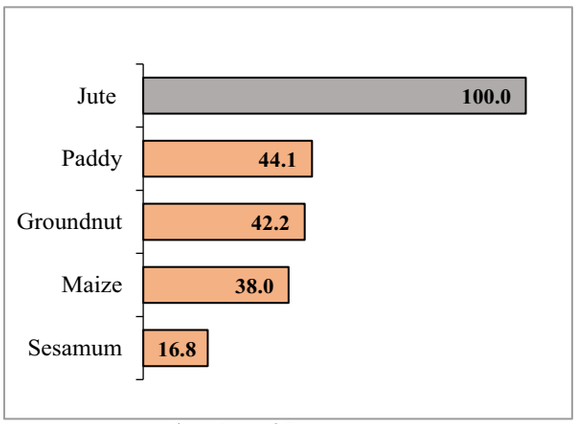
5.28 The comparison of relative returns of jute with other competing crops in Annex Table 5.8 shows that jute has higher relative returns over A_2 and A_2+FL costs than other competing crops at all-India level during period TE2021-22. Relative returns for jute over A_2 and A_2+FL costs during period TE2021-22 were higher than competing crop paddy in Assam, paddy and maize in Bihar, and paddy and sesamum in West Bengal. The yearly relative returns over A_2 and A_2+FL costs and average relative returns over A_2+FL cost for jute in West Bengal during period TE2021-22 were higher than competing crop groundnut. Thus, jute was most profitable crop in all States as returns were higher than all competing crops.

5.29 Although, jute is more profitable than competing crops in all major jute producing States, yet area under jute has either declined or remained stagnant due to inadequate marketing infrastructural facilities, traditional system of cultivation and retting, inadequate availability of fresh water for retting, lack of modern retting facilities, etc. Therefore, there is a need for development of assured marketing, mechanisation on a large scale, improved availability of water for retting and retting facilities/methods and higher productivity, to reduce the cost of cultivation and improve profitability of jute cultivators.

Table 5.4: Relative Average Gross Returns (%) with Respect to Jute during TE2021-22

Crop	Relative Average Gross Returns over A_2+FL with respect to Jute
Jute	100.0
Paddy	44.1
Maize	38.0
Sesamum	16.8
Groundnut	42.2

Chart 5.6: Relative Average Gross Returns (%) with respect to Jute during TE2021-22



Note: All-India gross returns are weighted average of respective gross returns of projected States
Source: CACP Calculations using CS data

Comparison of Projected CACP Costs with State Estimates

5.30 State Governments of Andhra Pradesh, Assam, Bihar, Meghalaya, Odisha, Tripura and West Bengal have provided the estimates of cost of production along with suggestion for minimum support price (MSP) for jute for season 2024-25. CACP cost projections and projected yields, cost of production and yield along with suggested MSP provided by States for jute for crop season 2024-25 are given in Annex Table 5.9. There are variations in cost estimates provided by the States and CACP estimates owing to different methodologies and cost concepts used by the States and CACP.

5.31 The cost estimates provided by State of Bihar were higher than CACP projections as State had included 10 percent risk cost, 1.7 times higher cost on labour (human, bullock, machine), 82.5 percent higher cost on seed, fertiliser, insecticides and irrigation, and 3 times higher cost on interest on working capital and fixed capital. The cost estimates provided by Assam and West Bengal were lower than CACP projections. The comparison of cost estimates provided by other States could not be carried out, as cost projections for these States have not been undertaken by CACP due to non-availability of cost data under Comprehensive Scheme.

Recapitulation

5.32 Average CoC A_2+FL during TE2021-22 was ₹75,196 per hectare at all-India level, and varied from ₹31,968 per hectare in Bihar, to ₹64,313 per hectare in Assam, and ₹80,585 per hectare in West Bengal. Average gross returns over CoC A_2+FL were at ₹53,292 per hectare at all-India level, and ranged from ₹43,133 per hectare in Assam to ₹54,595 per hectare in West Bengal.

5.33 The average daily wages of agriculture labour at all-India level, at current prices, registered a growth of 7.4 percent, whereas, weighted index of selected farm input prices registered a growth of 0.7 percent in 2023 over 2022. Jute is a labour intensive crop as share of human labour in total cost of production during TE2021-22 was very high (76.7%), and rise in average

daily wages in major jute producing States adversely affected crop profitability. Hence there is need for promotion of mechanisation to reduce cost of cultivation/production and enhance profitability of jute farming.

5.34 The all-India A_2+FL cost of production of jute for season 2024-25 is projected at ₹3,237 per quintal, registering an increase of 4.6 percent over the previous season. The projected A_2+FL cost of production varied from ₹2,271 per quintal for Bihar to ₹3,656 per quintal for Assam. All-India modified CoP A_2+FL inclusive of transportation cost, marketing charges and insurance premium is projected at ₹3,314 per quintal.

5.35 During TE2021-22, jute was more profitable over A_2+FL cost than competing crops at all-India level as well as for all States. All three major jute producing States would cover A_2+FL and C_2 cost of production at MSP of ₹5,335 per quintal recommended for the year 2024-25. At all-India level, MSP margin over CoP A_2+FL would be 64.8 percent and varies from 45.9 percent in Assam to 134.9 percent in Bihar.

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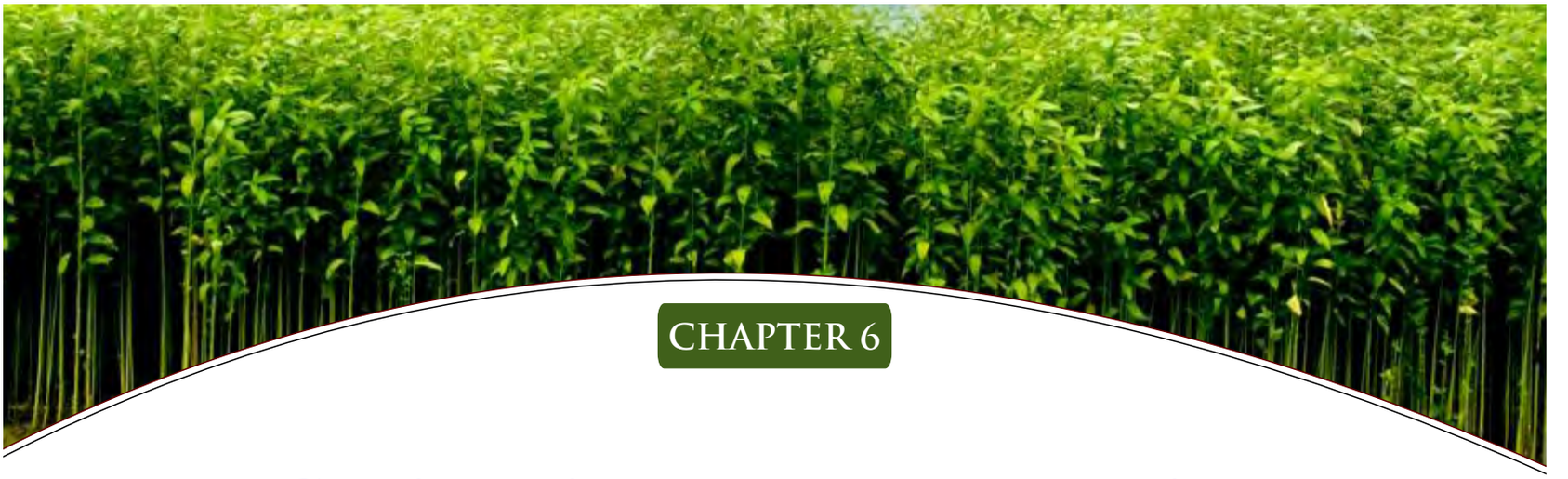

CHAPTER 6

Considerations and Recommendations for Price Policy

6.1 The Commission, as per its mandate, has recommended the MSP of raw jute for the Season 2024-25 after considering the cost of production of raw jute, overall demand-supply and price situation of raw jute and jute products in domestic and international market, inter-crop parity in crop returns, terms of trade between agriculture and non-agricultural sectors, likely impact of recommended MSP on major user industries, and a minimum of 50 percent margin over cost of production. The cost estimates furnished by the Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare under "Comprehensive Scheme for Studying the Cost of Cultivation of Principal Crops in India" were used for estimating cost of production. Extensive consultations with State Governments, Central Ministries/ Departments, farmers/farmers' representatives, industry representatives/associations and other stakeholders were held before finalizing the recommendations.

Demand-Supply Situation

6.2 Jute and mesta production in India have been exhibiting a declining trend over the last few years. Jute production stood at 92.7 lakh bales and mesta production was 3.9 lakh bales during TE2022-23. The total supply of raw jute is estimated to increase to 119 lakh bales in 2023-24 from 116 lakh bales in 2022-23.The domestic/industrial consumption was 15 lakh bales in 2022-23 and is forecast to remain at the same level in 2023-24.The stocks-to-use ratio (SUR) is estimated to marginally increase from 24.7 in 2022-23 to 25.3 percent in 2023-24.

Trade Performance

6.3 Exports of raw jute increased during 2017-18 to 2021-22 except in 2019-20. However, exports declined to ₹191.6 crore during 2022-23 from a high of ₹225.5 crore during 2021-22, while imports were ₹849.6 crore in 2022-23, leading to trade deficit of ₹658 crore. Export of jute products declined by 7.3 percent in 2022-23 to ₹3,510.6 crore, while imports continued to increase and were ₹1,532.3 crore during 2022-23. India has a trade surplus for jute products and has increased from ₹1,535 crore in 2013-14 to ₹1,978 crore in 2022-23. India exported 22 percent of jute hessian and 48.3 percent of jute floor coverings to USA in 2022-23, while in case of jute yarn, Belgium was the top destination with a share of 26.8 percent in total exports. Ghana (22.7%) was the prime destination for India's exports of other jute manufactures.

Trends in Domestic and World Prices

6.4 During 2021-22 the annual WPI inflation rate for raw jute and mesta was over 20 percent and jute sacking was 12.9 percent, while jute twine & coir recorded 8.5 percent inflation rate. However, during 2022-23, raw jute, jute sacking and jute twine & coir witnessed a negative inflation at (-)5.7 percent, (-)2.5 percent and (-)7.5 percent, respectively.

6.5 Domestic prices of raw jute remained above the MSP from January 2021 to August 2023. After reaching an all-time high of ₹7,139 per quintal in June 2021, raw jute prices exhibited a downward trajectory with intermittent ups and downs and touched ₹5,402 per quintal in August 2023. Global prices of jute reached a high of ₹9,973 per quintal during 2022 (Q3) but there has been a considerable fall in world prices during 2023. For the period 2019 to 2023 (Q2), domestic prices of raw jute stayed below the international prices but domestic and international prices of raw jute are highly correlated.

Productivity of Raw Jute

6.6 Over the last four decades, yield of jute and mesta has witnessed an increasing trend, while area under cultivation has declined. The yield of jute for the year 2022-23 is estimated at 26.3 quintal per hectare, 6 percent lower compared with 2021-22, while mesta yield is estimated to increase by 1.8 percent at 18.6 quintal per hectare in 2022-23. Among the major jute producing States, West Bengal (3.8%) and Assam (5.8%) have shown improvement in yield in TE2022-23 over TE2017-18, while average yield remained almost stagnant in Bihar during the period. Yield levels of mesta during TE2017-18 and TE2022-23 in major producing States namely West Bengal, Andhra Pradesh, Assam and Odisha have shown a positive trend, while Bihar registered a significant decline of 13 percent. There exists a significant gap between potential and actual yield level, which needs to be bridged.

Jute Procurement

6.7 Raw jute procurement was very low during 2020-21 and 2021-22 as market prices stayed well above the MSP. However, during 2022-23 JCI procured about 2.4 lakh bales.

Cost of Production and Inter-Crop Parity

6.8 The all-India A_2+FL cost of production (CoP) of jute for Season 2024-25 was projected at ₹3,237 per quintal, registering an increase of 4.6 percent over 2023-24 Season. The all-India modified CoP A_2+FL inclusive of transportation cost, marketing charges and insurance premium was projected at ₹3,314 per quintal. During TE2021-22, jute crop was more profitable than all major competing crops at all-India level as well as in major producing States, Assam, Bihar and West Bengal.

Non-Price Policy Recommendations

Address the Issue of Divergence in Jute Production Estimates

6.9 There is high divergence in jute production estimates by Expert Committee on Jute, Ministry of Textiles and the Ministry of Agriculture and Farmers Welfare, which needs to be addressed. The satellite remote sensing, GIS and various other technologies have emerged as viable alternatives for crop estimation. Therefore, there is a need to use technology to have more reliable estimates of jute production. Convergence of production estimates will help policymakers and businesses to understand the jute market dynamics and to make effective business and policy decisions.

Yield Improvement

6.10 There is a substantial improvement in average productivity of jute in the country, but there exists a significant gap between potential and actual yield and inter-State variations in productivity levels. For the crop to be economically profitable and encourage its production, it is crucial that the yield levels be improved. Many new high yielding varieties of jute have been developed by various research organizations. The Commission recommends a holistic approach with special focus on providing famers with quality seeds of new high yielding varieties suitable to different agro-climatic regions at affordable price, modern retting and extraction techniques, adequate credit facility, easy access to modern tools and machines, disseminating scientific knowledge among jute farmers and modernization of jute mills.

Promote Efficient Water Management

6.11 Only about 15 percent of jute area in India is irrigated and majority of jute farmers are mainly dependent on rainfall. Given the climate change, climate variability and low availability of freshwater resources for irrigation, rainwater harvesting and water-efficient irrigation systems are the need of the hour. Hence, the Commission recommends popularization of rain water harvesting and water-efficient irrigation systems for healthy and steady growth of jute.

Strengthen Extension Services

6.12 Extension programmes play an important role in disseminating information about latest farm technologies to the farmers, improve productivity and thus, enhance income. Government of India has been implementing Jute-ICARE (Improved Cultivation and Advanced Retting Exercise for Jute) and National Food Security Mission - Commercial Crops - Jute (NFSM-CC-Jute) to promote certified seeds, package of scientific methods of jute cultivation and retting technologies through front line demonstrations and training for improving fibre quality and productivity, reducing cost of jute production and increasing farmers income. However, coverage of the programmes is limited. The ICAR-CRIJAF has developed mobile apps like JAF-Safe, Jute-Agri in order to disseminate newly developed technologies among the farmers. The State Governments are also implementing various programmes and schemes for promoting jute cultivation.

6.13 The Commission recommends that Jute-ICARE and NFSM-CC-Jute programmes be intensified significantly with enhanced outlay and new advancements in technologies and package of practices should be popularized among jute farmers. These interventions will go a long way in enhancing productivity and farmers' income and reducing cost of production whilst producing quality jute fibre.

Promote Farm Mechanization

6.14 Jute is a labour-intensive crop, requiring labour for various operations in jute cultivation and fibre extraction. In recent years, constant rise in labour cost has been the major factor in increasing cost of production of jute, thus making it less remunerative. Therefore, mechanization in jute cultivation needs to be enhanced to reduce the unit cost of production, thereby increasing profit margins. Various research institutes have developed farm equipments like jute seeder, weeder, bast fibre extractor, power ribboner, tractor driven multi-crop seed drill etc. to improve efficiency and productivity. The Commission recommends that modern equipments be made accessible to small and marginal farmers through custom hiring centres and their use be promoted through demonstration and training programmes.

Improved Retting Technologies

6.15 Retting is an important step of jute cultivation as it greatly influences the strength, color, texture and the overall quality of the fibre. Majority of jute farmers still use traditional methods of retting, thus adversely impacting the quality of fibre. Research institutes have developed modern techniques of retting like in-situ retting technology, application of microbial consortium - CRIJAF-SONA and NINFET-Sathi & IJIRA-SUBHRA. These improved technologies help in reducing retting time and usage of water as well as improve quality and quantity of fibre. The research institutions and extension agencies should scale up their efforts towards promotion and adoption of these techniques by the farmers. The Commission, thus, recommends that efforts should be made to popularize these improved techniques among farmers and encourage them to adopt these technologies.

Review the JPM Act, 1987

6.16 The demand for diversified jute goods such as jute shopping bags, jute-based home furnishings, floor cover, decorative items, jute-based handicrafts etc. has been increasing in domestic and international markets. Though JPM Act has created assured demand for jute sacking, it has also acted as a disincentive for technological advancements and product diversification. The Commission reiterates its earlier recommendation to review the JPM Act, 1987 to reduce the mandatory packaging requirements in a phased manner so as to ensure that the captive demand for jute sacking does not crowd out the supply of raw jute for other diversified jute goods. There is also a need to emphasize on diversification in jute products and modernize jute mills to capture the emerging markets, both nationally and internationally.

Modernize Jute Value Chain

6.17 Various parts of jute plant, which were earlier considered as agricultural waste, are now used to prepare value-added products. Jute-stick Activated Carbon (JAC) is considered as very low cost alternative to largely imported Petroleum Graphitized Carbon Black. In the long run, tapping global markets for niche products like activated carbon can be very beneficial for the jute industry. Moreover, jute sticks are also potential raw materials for production of viscose rayon, crockery, cutlery and even bricks. The Commission recommends that, in order to make jute cultivation more viable and self-reliant, it is imperative to diversify the jute value-chain by using full potential of jute fibre and sticks. Mass media campaigns like "Bring Your Own Bag" (BYOB) to create behavioral change and promotion of "Jute Mark India" labels to provide collective identity and popularize jute products would help in promotion of jute products as well as in reducing pollution and the carbon footprint on the planet.

Strengthen Procurement Operations and Infrastructure

6.18 The Jute Corporation of India (JCI) is the nodal agency for procurement of raw jute and undertakes procurement of jute from the farmers to ensure minimum support price. However, there is a shortage of purchase centres, manpower and storage facilities and jute farmers especially in the remote areas are deprived of benefits of MSP. JCI has taken various initiatives to expand procurement operations by engaging outsourced agencies such as cooperatives, Self-Help Groups (SHGs), etc., setting up mobile purchase centres and additional storage capacity. The Commission recommends that JCI should take timely efforts to strengthen procurement network and leverage technology to widen reach of procurement, especially in remote areas.

Popularize New Grading System

6.19 The Bureau of Indian Standards (BIS) adopted the Indian Standard (Fifth Revision) in December 2020 and reduced classification of jute grading from 8 to 5 grades. However, actual trade practices are still largely based on the earlier 8 grades and daily price quotations continue to be published for old grades TD-3 to TD-7. The traditional "hand and eye" method is used for assessing the quality characteristics for commercial purposes, while instrumental methods are available for scientific assessment of certain important characteristics. The "hand and eye" method is subjective and lacks transparency and farmers are generally deprived of remunerative price based on grade. The Commission, thus, recommends adopting an objective instrumental method for assessment of quality parameters, ensuring availability of grading instrument in jute-growing areas and mass awareness campaigns to educate farmers and traders about the new grading system.

Incentivize High-Quality Fibre

6.20 The Commission has noted that despite being the largest producer of raw jute in the world, India produces predominantly low grade (TDN-3 to TDN-5) jute, which primarily supports manufacture of sacking goods. India lags behind Bangladesh in production of high-quality jute fibre. To meet the increasing demand for jute diversified products, it is imperative to take suitable measures to improve fibre quality and incentivize quality jute production. The Commission recommends that the State Governments should provide farmers with necessary

infrastructural support like retting tanks, adequate water storage facilities and retting accelerators during the retting period, which would help in reducing reliance on imports of high-grade jute fibre for manufacturing of value-added diversified products.

Minimum Support Price (MSP) Recommendation

6.21 The Commission recommends that the MSP for raw jute (TDN-3 equivalent to earlier TD-5) be fixed at ₹5,335 per quintal for the 2024-25 Season. The recommended MSP will give a margin of 64.8 percent over the A_2+FL cost of production and is 5.6 percent higher than the MSP for the 2023-24 Season.

(Vijay Paul Sharma)
Chairman

(Naveen Prakash Singh)
Member (Official)

(Ratan Lal Daga)
Member (Non -Official)

(Anupam Mitra)
Member Secretary

Annex Tables

Annex Table 1.1: Area under Jute and Mesta Cultivation in Selected States

('000 ha)

Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23*
Andhra Pradesh	26.0	15.0	9.0	7.0	5.0	7.0	5.0	3.0	2.0	1.0	1.0	1.0
Assam	71.6	69.6	74.3	75.0	76.4	78.7	73.4	69.1	67.5	66.0	64.5	66.0
Bihar	149.1	140.7	121.1	111.2	110.4	107.7	104.2	85.1	62.1	55.3	63.7	60.2
Chhattisgarh	1.4	1.4	1.2	1.1	1.2	1.1	1.1	1.1	1.0	0.7	0.5	0.4
Karnataka	1.0	NA	NA	1.0	NA	0.1	NA	NA	NA	NA	NA	NA
Madhya Pradesh	4.4	2.9	3.4	8.0	8.0	8.0	8.0	NA	1.0	NA	NA	NA
Maharashtra	15.0	20.0	22.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Meghalaya	7.6	8.0	10.8	11.1	11.1	11.1	11.1	11.2	11.2	11.2	11.2	NA
Nagaland	4.6	4.8	4.9	4.9	4.9	5.0	5.0	5.0	5.0	4.4	0.1	NA
Odisha	18.2	15.5	14.7	12.8	9.9	7.1	7.2	6.3	4.8	4.5	7.2	6.2
Tripura	1.3	7.3	1.5	1.3	1.3	1.2	1.1	1.1	1.1	0.7	0.7	NA
West Bengal	604.5	576.7	574.8	576.1	554.1	536.2	525.4	529.0	517.7	518.6	518.5	516.3
All India	**904.7**	**862.5**	**837.7**	**809.7**	**782.3**	**763.4**	**741.8**	**710.9**	**673.3**	**662.5**	**667.3**	**661.9**

*Note: * Third Advance Estimates*

Source: Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

Annex Tables

Annex Table 1.2: Production of Jute and Mesta in Selected States

('000 Bales of 180 kg each)

Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23*
Andhra Pradesh	202.0	128.0	84.0	50.0	44.0	63.0	47.2	30.3	21.3	10.4	11.0	11.3
Assam	638.8	583.1	746.6	793.2	894.1	824.1	861.5	781.4	811.7	794.2	761.5	790.0
Bihar	1738.8	1717.7	1745.1	1637.1	1630.0	1571.0	1280.0	1084.5	802.1	787.5	852.1	799.5
Chhattisgarh	3.0	2.6	2.2	2.1	2.3	1.9	2.1	2.1	1.9	1.3	0.9	0.6
Karnataka	1.0	NA	NA	1.0	NA	0.1	NA	NA	NA	NA	NA	NA
Madhya Pradesh	2.1	1.8	2.5	8.6	6.0	7.0	11.0	NA	2.2	NA	NA	NA
Maharashtra	19.0	31.0	35.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Meghalaya	50.4	53.2	89.9	92.5	94.5	94.7	94.8	94.9	95.0	95.0	95.1	NA
Nagaland	8.5	7.7	7.8	7.8	7.9	7.9	44.3	44.5	44.6	38.1	0.9	NA
Odisha	101.2	83.8	82.3	68.4	56.8	32.8	44.2	32.4	25.2	28.9	67.3	51.2
Tripura	10.7	87.9	12.4	10.6	11.2	10.3	10.0	10.0	5.3	6.2	6.5	NA
West Bengal	8623.0	8228.2	8882.4	8453.7	7776.8	8349.6	7637.9	7815.5	8067.4	7592.8	8353.6	7745.5
All India	**11398.6**	**10930.1**	**11690.2**	**11125.1**	**10523.6**	**10962.4**	**10032.9**	**9895.6**	**9876.8**	**9354.4**	**10148.9**	**9495.7**

*Note: * Third Advance Estimates*

Source: Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

Annex Table 1.3: Yield of Jute and Mesta in Selected States

(kg/ha)

Year	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23*
Andhra Pradesh	1398	1536	1680	1286	1584	1620	1700	1820	1918	1879	1978	2030
Assam	1605	1509	1810	1904	2106	1885	2114	2036	2165	2166	2127	2155
Bihar	2099	2198	2594	2651	2658	2626	2211	2293	2325	2561	2409	2389
Chhattisgarh	386	334	330	344	345	311	347	349	357	357	352	320
Karnataka	180	NA	NA	180	NA	180	NA	NA	NA	NA	NA	NA
Madhya Pradesh	86	112	132	193	135	158	248	NA	393	NA	NA	NA
Maharashtra	228	279	286	NA	NA	NA	NA	NA	NA	NA	NA	NA
Meghalaya	1197	1194	1493	1504	1529	1531	1532	1532	1532	1532	1533	NA
Nagaland	332	289	289	289	289	289	1600	1597	1594	1552	2039	NA
Odisha	1003	976	1008	958	1033	826	1105	925	938	1147	1695	1489
Tripura	1515	2156	1494	1496	1583	1585	1642	1560	909	1579	1603	NA
West Bengal	2568	2568	2781	2641	2526	2803	2616	2659	2805	2635	2900	2700
All India	**2268**	**2281**	**2512**	**2473**	**2421**	**2585**	**2435**	**2506**	**2641**	**2542**	**2738**	**2582**

*Note: * Third Advance Estimates*

Source: Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

Annex Tables

Annex Table 1.4: Share of Jute and Mesta in Area and Production

Year	Area (lakh ha)			Share (%)	
	Jute	Mesta	Jute & Mesta	Jute	Mesta
2000-01	8.3	1.9	10.2	81.4	18.6
2001-02	8.7	1.7	10.5	83.4	16.6
2002-03	8.6	1.7	10.4	83.5	16.5
2003-04	8.5	1.5	10.0	84.8	15.2
2004-05	7.7	1.4	9.2	84.5	15.5
2005-06	7.6	1.4	9.0	84.6	15.4
2006-07	7.9	1.4	9.4	84.8	15.2
2007-08	8.1	1.5	9.6	84.8	15.2
2008-09	7.9	1.2	9.0	87.2	12.8
2009-10	8.1	0.9	9.1	89.6	10.4
2010-11	7.7	1.0	8.7	88.7	11.3
2011-12	8.1	1.0	9.0	89.4	10.6
2012-13	7.8	0.9	8.6	90.0	10.0
2013-14	7.6	0.8	8.4	90.3	9.7
2014-15	7.5	0.6	8.1	92.6	7.4
2015-16	7.3	0.5	7.8	93.1	6.9
2016-17	7.1	0.6	7.6	92.5	7.5
2017-18	6.9	0.6	7.4	92.4	7.6
2018-19	6.7	0.5	7.1	93.6	6.4
2019-20	6.3	0.4	6.7	93.3	6.7
2020-21	6.2	0.4	6.6	93.9	6.1
2021-22	6.3	0.4	6.7	94.3	5.7
2022-23*	6.2	0.4	6.6	94.4	5.6

Year	Production (million bales)			Share (%)	
	Jute	Mesta	Jute & Mesta	Jute	Mesta
2000-01	9.3	1.2	10.6	88.3	11.7
2001-02	10.6	1.1	11.7	90.6	9.4
2002-03	10.3	1.0	11.3	91.1	8.9
2003-04	10.3	0.9	11.2	91.8	8.2
2004-05	9.4	0.9	10.3	91.5	8.5
2005-06	10.0	0.9	10.8	92.0	8.0
2006-07	10.3	1.0	11.3	91.5	8.5
2007-08	10.2	1.0	11.2	91.2	8.8
2008-09	9.6	0.7	10.4	92.9	7.1
2009-10	11.2	0.6	11.8	95.0	5.0
2010-11	10.0	0.6	10.6	94.2	5.8
2011-12	10.7	0.7	11.4	94.2	5.8
2012-13	10.3	0.6	10.9	94.6	5.4
2013-14	11.1	0.6	11.7	94.8	5.2
2014-15	10.6	0.5	11.1	95.4	4.6
2015-16	9.9	0.6	10.5	94.5	5.5
2016-17	10.4	0.5	11.0	95.2	4.8
2017-18	9.6	0.4	10.0	95.6	4.4
2018-19	9.5	0.4	9.9	96.0	4.0
2019-20	9.4	0.4	9.9	95.6	4.4
2020-21	9.0	0.4	9.4	95.7	4.3
2021-22	9.8	0.4	10.1	96.2	3.8
2022-23*	9.1	0.4	9.5	95.9	4.1

*Note: * Third Advance Estimates*

Source: Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

Annex Table 1.5: Production Estimates for Jute and Mesta by various Agencies
(lakh bales, 1 bale = 180 kg)

Year	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23*	2023-24**
Jute Advisory Board/ Expert Committee on Jute[@]	72.0	65.0	92.0	76.0	72.0	68.0	60.0	90.0	91.0	91.0
Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare	111.3	105.2	109.6	100.3	99.0	98.8	93.5	101.5	95.0	NA
Forecasting Agricultural output using Space, Agro-meteorology and Land based observations (FASAL)	98.7	100.0	103.0	102.0	92.0	89.3	94.9	98.3	95.9	105.1

Note: ***Estimated*
**Ministry of Agriculture and Farmers Welfare Data for 2022-23 is Third Advance Estimates*
@ Upto 2019-20 estimates by Jute Advisory Board (JAB) and thereafter by the Expert Committee on Jute constituted by Ministry of Textiles

Source: 1. Office of the Jute Commissioner, Ministry of Textiles
2. Economics, Statistics & Evaluation Division, Ministry of Agriculture and Farmers Welfare

Annex Tables

Annex Table 1.6: Requirements of Fibre Quality Characteristics and Scoring Scheme for Different Grades of WHITE, TOSSA and DAISEE Jute for Hand and Eye Method

(Figures in parenthesis indicate score marks)

S. No.	Grade	Strength	Defects	Root Content	Fineness	Colour*	Total Score
i)	Reference	Need strength to break the fibre and sharp audible sound at the time of breakage (Excellent 30)	Free from major defects but 10 percent minor defects may be allowed (25)	< 05 percent length wise (20)	Very Fine (15)	Light creamy to reddish yellow with lustre (10)	100
ii)	TD-1/ W-1	Need less strength to break the fibre and sound will be available at the time of breakage (Good 23)	90 percent free from major defects but 20 percent minor defects may be allowed (17)	> 05 percent -08 percent length wise (15)	Very Fine (15)	Light creamy to reddish yellow with lustre (10)	80
iii)	TD-2/ W-2	Need less strength to break the fibre and sound will be available at the time of breakage (Good 23)	80 percent free from major defects and 30 percent minor defects may be allowed (09)	> 08 percent - 10 percent length wise (08)	Fine (10)	Light creamy to reddish yellow with lustre (10)	60
iv)	TD-3/ W-3	Need less strength to break the fibre and feeble sound at the time of breakage (Average 13)	80 percent free from major defects and 30 percent minor defects may be allowed (09)	> 08 percent - 10 percent length wise (08)	Coarse (05)	Reddish / brownish with some light grey (05)	40
v)	TD-4/ W-4	Easily break the fibre and no sound at the time of breakage (Poor 04)	70 percent free from major defects (05)	> 10 percent length wise (03)	Coarse (05)	Light grey to dark grey (03)	20
vi)	TD-5/ W-5	Entangled or any other jute not suitable for any of the above grades but of commercial value					

Notes: * *For WHITE jute colour description is different and for W-1 and W-2, light creamy to white, for W-3, Brownish to reddish white with some light grey and for W-4 color description is Grey to dark grey*

1 *The minimum reed length should be 150 cm, or the effective reed length should not be less than 100 cm except for TD5.*

2 *Jute should be in dry storable condition.*

3 *Jute should be free from HUNKA, mud and other foreign materials.*

4 *Natural dust may be allowed in grades TD3 to TD4 with proportionate discount.*

5 *Root content will include hard barky croppy ends.*

6 *A parcel of jute which would not secure full marks for a particular grade shall still be considered for that grade with suitable discount to be settled between the buyer and seller, provided its score is not less, by 50 (or more) percent of the difference, between the maximum scores for that and the next lower grade. When the score is less by 50 (or more) percent of the difference, the buyer will have option to reject or settle with a suitable discount. Scores on the table may be taken as guidance for determining the discount.*

7 *For instrumental determination of various characteristics like strength, defects, root content, fineness, etc, reference to the relevant part of IS 7032.*

Source: Bureau of Indian Standards IS 271:2020

Annex Table 1.7: Requirements of Fibre Quality Characteristics and Scoring Scheme for Different Grades of WHITE, TOSSA and DAISEE Jute for Instrumental Grading

(Figures in parenthesis indicate value range and brackets indicate score marks)

S. No.	Grade	Strength (g/tex)	Defects (Weight Percent)	Root Content (L percent)**	Fineness* (tex)	Colour (Whiteness)	Total Score
i)	Reference	Excellent [30] (≥ 25)	(≤ 0.5) [25]	(< 05) [20]	Very Fine [15] (≤ 2)	Good [10] (≥ 56)	100
ii)	TD-1/ W-1	Good [23](< 25 – 20)	(> 0.5 – 1.0) [17]	(05 – < 08) [15]	Very Fine [15] (≤ 2)	Good [10] (≥ 56)	80
iii)	TD-2/ W-2	Good [23] (< 25 – 20)	(> 1.0 – 1.5) [09]	(08 – < 10) [08]	Fine [10] (> 2 – 3)	Good [10] (≥ 56)	60
iv)	TD-3/ W-3	Average [13] (< 20 – 15)	(> 1.0 – 1.5) [09]	(08 – < 10) [08]	Coarse [05] (> 3)	Average [05] (< 56 – ≥ 31)	40
v)	TD-4/ W-4	Poor [04] (< 15)	(> 1.5) [05]	(>10) [03]	Coarse [05] (> 3)	Poor [03] (< 31)	20
vi)	TD-5/ W-5	Entangled or any other jute not suitable for any of the above grades but of commercial value					
Method of Test, Ref to		IS 7032 (Part 7)	IS 7032 (Part 4)	IS 7032 (Part 3)	IS 7032 (Part 8)	*See* Note 8	

*Notes: * For WHITE jute air flow fineness value range: Very Fine (≤1.8) tex, Fine (>1.8 -3) tex, Coars (>3) tex, '** 'L' denotes reed/streak length*

NB: Bulk Density parameter has been omitted and merged with fineness

1 *The minimum reed length should be 150 cm, or the effective reed length should not be less than 100 cm except for TD5.*
2 *Jute should be in dry storable condition.*
3 *Jute should be free from HUNKA, mud and other foreign materials.*
4 *Natural dust may be allowed in grades TD3 to TD5 with proportionate discount.*
5 *Root content will include hard barky croppy ends.*
6 *A parcel of jute which would not secure full marks for a particular grade shall still be considered for that grade with suitable discount to be settled between the buyer and seller, provided its score is not less, by 50 (or more) percent of the difference, between the maximum scores for that and the next lower grade. When the score is less by 50 (or more) percent of the difference, the buyer will have option to reject or settle with a suitable discount. Scores on the table may be taken as guidance for determining the discount.*
7 *For instrumental determination of various characteristics like strength, defects, root content, fineness, etc, reference to the rele vant part of IS 7032.*
8 *Value of the corresponding parameters, mentioned in Instrumental method, was optimized using the standard instruments developed by ICAR-NINFET (erstwhile NIRJAFT).*

Source: Bureau of Indian Standards IS 271:2020

Annex Table 2.1: Wholesale Price Index of Jute and Jute Products (Base 2011-12)

Month	Raw Jute	Mesta	Jute sacking cloth/Gunny and hessian cloth	Cordage/ropes/twines of jute and coir
Apr-14	127.6	120.5	107.3	127.4
May-14	133	122.5	110.5	128.3
Jun-14	134.1	122.9	111.2	128.8
Jul-14	128.6	124.2	111.5	128
Aug-14	123.7	123.4	111.3	126.6
Sep-14	124.3	119.3	110.4	129.7
Oct-14	128	121	111	128.1
Nov-14	133.8	122.5	110.7	132.4
Dec-14	137.1	128.1	113.4	131.5
Jan-15	136.8	129.8	116	137.3
Feb-15	140.8	130	118	136.3
Mar-15	141.6	133.1	120.5	137.9
Apr-15	141.1	135.6	119.8	141.3
May-15	142	136.8	120	140.3
Jun-15	159.7	138.2	123	141.6
Jul-15	161.9	138.6	128.5	141.2
Aug-15	160.1	139.9	131.5	143.8
Sep-15	167.2	139.9	135.4	143.7
Oct-15	181	140.5	141.2	144.7
Nov-15	195.9	144.7	143.5	148.1
Dec-15	204.5	158	147.9	147.6
Jan-16	217.3	173.2	148.6	149.1
Feb-16	221.7	173.9	148.9	149.2
Mar-16	225.8	170.7	152.5	148.5
Apr-16	229.4	170.7	155.6	146.3
May-16	231.5	172.3	154.7	148.1
Jun-16	251	170.7	155	148.7
Jul-16	242.9	168.1	158	146.9
Aug-16	196.8	159.3	155	148.9
Sep-16	194	153.6	150.4	144.7
Oct-16	194.2	153.1	147.6	142.8
Nov-16	196.7	147.6	146.9	144.7
Dec-16	190.2	147.4	144.2	146.3
Jan-17	190.2	127.9	145.2	147.7
Feb-17	190.6	126	146.2	149.2
Mar-17	188.3	129.1	146.9	148.9
Apr-17	168.9	130.6	145.6	149.1
May-17	163.5	128.1	144.1	149.3
Jun-17	163.3	128.6	144.5	150
Jul-17	158.1	129.9	144.2	146.1

(Contd...)

Month	Raw Jute	Mesta	Jute sacking cloth/Gunny and hessian cloth	Cordage/ropes/twines of jute and coir
Aug-17	154.6	129.1	142.1	145.3
Sep-17	159.9	130.2	143	146.5
Oct-17	158	126.6	144.6	146.6
Nov-17	152.4	124	145	144.5
Dec-17	154.4	113.6	144.3	141.8
Jan-18	159.5	107.9	143.1	141.9
Feb-18	166.8	116.9	145	142
Mar-18	165.8	122.9	145.3	141
Apr-18	166.1	123.2	145.8	139.8
May-18	166.3	118.3	146.2	140.1
Jun-18	166.9	120.1	146	140.7
Jul-18	170.2	122.1	146.6	141.6
Aug-18	172.7	124	146.5	141
Sep-18	181.7	121.4	146.7	143
Oct-18	182.8	122.6	147.4	143.6
Nov-18	184.8	122.6	147.9	145.9
Dec-18	189.3	128.1	149.9	142.6
Jan-19	198.5	128.5	151.3	143.4
Feb-19	201.3	132.8	154.7	140.7
Mar-19	202.6	133.9	155.1	138.3
Apr-19	197.3	130.6	156.5	142.2
May-19	199.8	132.3	156.3	142.6
Jun-19	197.2	135.3	155.4	142.8
Jul-19	191.4	131.5	153.8	143.6
Aug-19	191	132.9	152.8	144.1
Sep-19	194.6	133.3	152.7	145.4
Oct-19	199.3	133.3	154.4	146.3
Nov-19	204.1	133.3	156.7	149.9
Dec-19	203.4	136.6	158.4	149.5
Jan-20	207.1	138.6	159.7	151.1
Feb-20	212.4	137.2	161.8	149.8
Mar-20	210.2	136.6	162.3	151.7
Apr-20	209.1	136.6	165.4	151.2
May-20	210.9	136.6	167.6	153.9
Jun-20	206.6	136.2	164.9	153.5
Jul-20	208.4	135	165.6	154.3
Aug-20	213.9	133.3	166.8	153.1
Sep-20	230.6	132.6	168.1	159.5
Oct-20	238.5	133.5	171.6	161.7
Nov-20	252.5	133.9	173.6	162.8
Dec-20	253.1	157.2	178.4	164.8
Jan-21	253.8	183.2	181.3	165.8

(Contd...)

Annex Table

Annex Tables

Month	Raw Jute	Mesta	Jute sacking cloth/Gunny and hessian cloth	Cordage/ropes/twines of jute and coir
Feb-21	263	181.5	185.5	170.9
Mar-21	282.6	186.8	189.4	173.1
Apr-21	289.9	189.7	193.4	176.5
May-21	298.6	188.9	196.2	178.6
Jun-21	309.3	185.9	199.3	177
Jul-21	295.8	179.4	200.7	174.2
Aug-21	262.4	181.2	201	173.2
Sep-21	270.4	182	193.3	173.2
Oct-21	279.3	183.4	191.9	175.5
Nov-21	284	181.1	192	176.4
Dec-21	282.7	183.2	192.9	172.4
Jan-22	289.4	187.9	193.8	173.2
Feb-22	291.2	192	196	171.2
Mar-22	291.6	187.6	196.4	167.3
Apr-22	291.4	195.4	196.2	171.2
May-22	289	205.1	195	172.6
Jun-22	284.7	206.9	194.1	167.7
Jul-22	277.1	208.2	193	166.5
Aug-22	269.2	209.5	193.3	165.4
Sep-22	276.6	211.9	192.5	165.5
Oct-22	274.1	212.6	192.4	160.4
Nov-22	259.5	212.8	189.3	155.6
Dec-22	257.5	211.1	188	155.7
Jan-23	257.4	201.5	186.5	153.2
Feb-23	257	192.8	184	151.1
Mar-23	255.6	175.2	183.7	148.5
Apr-23	257.1	156.9	182.2	146.2
May-23	254.9	155.4	180.5	143.1
Jun-23	245.5	158	180.3	142.6
Jul-23	249.6	161.6	179.4	143

Source: Office of the Economic Advisor, Department for Promotion of Industry & Internal Trade

Annex Table 2.2: Annual Average Wholesale Price Indices and Inflation Rates (Base 2011-12)

Commodity Name	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24*
Wholesale Price Indices											
Raw Jute	120.9	132.5	181.5	208.0	160.4	181.9	200.7	235.3	287.1	270.7	251.8
Mesta	119.1	124.8	149.2	152.2	124.0	124.8	134.3	148.9	185.2	203.6	158.0
Jute sacking cloth etc.	106.0	112.7	136.7	150.5	144.2	148.7	156.7	173.2	195.6	190.7	180.6
Ropes/twines of jute and coir	118.9	131.0	144.9	146.9	145.3	141.7	146.6	160.4	174.1	161.1	143.7
Wholesale Inflation Rate											
Raw Jute	9.61	9.59	36.98	14.60	-22.88	13.40	10.34	17.24	22.01	-5.71	
Mesta	12.57	4.79	19.55	2.01	-18.53	0.65	7.61	10.87	24.38	9.94	
Jute sacking cloth etc.	2.71	6.32	21.30	10.10	-4.19	3.12	5.38	10.53	12.93	-2.51	
Ropes/twines of jute and coir	9.59	10.18	10.61	1.38	-1.09	-2.48	3.46	9.41	8.54	-7.47	

*Note: * up to July 2023*

Source: Office of the Economic Advisor, Department for Promotion of Industry & Internal Trade

Annex Tables

Annex Table 2.3: Trends in Wholesale Market Prices of Raw Jute at Major Markets of West Bengal

(₹ /qtl)

Month	Barahampur	Belakoba	Chowrahat (Dinhata)	Dhupguri	Kalna	Kasim Bazar	Katwa	Kolkata	Pundibari	Raiganj	Toofanganj	Average Market Price	MSP
Jan-20	4300	4000	5200	4000	4400	4300	4500	4950	5200	5000	5000	4623	4225
Feb-20	4200	4000	5100	4000	4500	4200	4500	4900	5000	4900	5000	4573	4225
Mar-20	4150	4000	5125	3900	4500	4300	4500	4850	5000	4900	5000	4566	4225
Apr-20			5000						5000			5000	4225
May-20			5000						4875			4938	4225
Jun-20	**4000**		**4875**			**4050**		**4625**	**4875**		**5000**	**4571**	**4225**
Jul-20	4100		5000			4000	4300	4750	4875	4700	4750	4559	4225
Aug-20	4800		5500			4800	4400	5350	5400	5500	4700	5056	4225
Sep-20	5100		5700			5100	5000	5600	5600	5700	5000	5350	4225
Oct-20	5400		6250			5500	5000	5775	5500	6200	6200	5728	4225
Nov-20	5300		6500			5300	5100	5750	6200	6300	6250	5838	4225
Dec-20	5500		6500			5500	5000	6000	6500	6200	6250	5931	4225
Jan-21	5600		6500		4900	5600	5000	6150	6250	6200	6250	5828	4500
Feb-21	6800		6500		4900	6800	5100	7000	6250	7100	6250	6300	4500
Mar-21	7100		7500		5000	7100	5200	7400	7000	8000	7200	6833	4500
Apr-21	7300		7500		5000	7300	6000	7975	7500	8000	7500	7119	4500
May-21	7300		8000		5600		6100	8250	8000	8000	8000	7406	4500
Jun-21	**7500**		**8000**		**6000**		**6200**	**8800**	**8000**	**8500**	**8000**	**7625**	**4500**
Jul-21	6000		7500		6700	6000	6500	6500	7000	7500	7000	6744	4500
Aug-21	5900		7000		6000	5900	6100	5950	7000	5900	7000	6306	4500
Sep-21	6100		6500		5500	6100	6000	6600	6500	6500	6500	6256	4500
Oct-21	6300		7000		6000	6300	6100	6500	7000	7000	7000	6578	4500
Nov-21	6300		7200		5800	6300	6200	6500	7200	6500	7200	6578	4500
Dec-21	6500		7000		5800	6500	6000	6500	6750	6600	6750	6489	4500
Jan-22	6600		7000		5000	6600	6000	6500	6800	6800	6800	6456	4500

Month	Barahampur	Belakoba	Chowrahat (Dinhata)	Dhupguri	Kalna	Kasim Bazar	Katwa	Kolkata	Pundibari	Raiganj	Toofanganj	Average Market Price	MSP
Feb-22	6500		7000		5000	6500	6000	6500	7000	6800	7000	6478	4750
Mar-22	6600		7000		5000	6600	5900	6500	6750	7000	6750	6456	4750
Apr-22	6600		7200		5000	6600	5900	6500	7000	7200	7000	6556	4750
May-22	6400		7000		5000	6400	5900	6850	7000	6200	7000	6417	4750
Jun-22	**5900**		**7000**		**5000**	**5900**	**5900**	**6325**	**6850**	**6200**	**7000**	**6231**	**4750**
Jul-22	6100	6500	6250	6450	4900	6100	5500	6450	6000	5900	6000	6014	4750
Aug-22	5600	6500	6250	6450	4900	5600	5400	5975	6250	6000	6250	5925	4750
Sep-22	5500	6800	7000	6750	4850	5500	5700	6000	7000	6100	7000	6200	4750
Oct-22	5200	6800	6250	6750	4850	5200	5400	5850	6000	6000	6250	5868	4750
Nov-22	5000	6300	6000	6250	4900	5000	5400	5750	5800	5700	6000	5645	4750
Dec-22	5000	6300	5800	6250	4900	5000	5200	5775	5500	5500	5800	5548	4750
Jan-23	5000	5900	6000	5850	5200	5000	5200	5800	6000	5700	6000	5605	5050
Feb-23	5000	5900	5850	5850	5200	5000	5200	5750	5800	5700	5850	5555	5050
Mar-23	5100	5900	5750	5900	5200	5100	5200	5750	5750	5600	5750	5545	5050
Apr-23	5300	5600	5750	5600	5200	5300	5200	5825	5700	5600	5750	5530	5050
May-23	5300	6200	5600	6200	5200	5300	5200	5775	5600	5300	5600	5570	5050
Jun-23	**5300**	**5200**	**5100**	**5200**	**5200**	**5300**	**5200**	**5750**	**5100**	**5600**	**5100**	**5277**	**5050**
Jul-23	5300	5400	5500	5400	5200	5300	5200	5775	5250	5400	5500	5384	5050
Aug-23	5100	5600	5200	5600	5200	5100	5200	5500	5200	5300	5200	5291	5050

Source: Economics, Statistics & Evaluation Division, Ministry of Agriculture & Farmers Welfare

Annex Table

Annex Tables

Annex Table 2.4: Average Spot Rate of Raw Jute at Kolkata

(₹/qtl)

Grade	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
TD 3	3033	3166	3532	5403	4374	4318	4873	5135	7125	7045	6728
TD 4	2821	2964	3338	5187	4199	4069	4663	4955	6925	6857	6445
TD 5	2638	2798	3120	5025	3910	3694	4366	4645	6440	6530	5896
TD 6	2404	2566	2923	4852	3536	2921	3694	4030	5900	6143	5032

Source: Office of the Jute Commissioner, Ministry of Textiles

Annex Table 2.5: Market Price of Major Jute Goods

(₹/M.T.)

Year	Hessian 40x10 oz	Sacking B.Twill 2.25	B.Twills 50kgs 580gm	D.W.Flours 2.5 LBS
2016-17	97260	67693	77311	82304
2017-18	96568	66925	68270	78109
2018-19	96086	66567	72866	80668
2019-20	105580	72119	81917	87709
2020-21	133592	88829	92005	100368
2021-22	143736	104045	109700	117129
2022-23	135195	92939	100629	107579
2023-24*	124281	82967	89092	96723

*Note: *Upto August 2023*

Source: Office of the Jute Commissioner, Ministry of Textiles

Annex Table 3.1: High-yielding Varieties of Jute Developed in the Last Five Years

A. Tossa Jute			
Variety Name	**Developed by**	**Area of adoption**	**Salient features**
JROMU-1	ICAR-CRIJAF (2020)	West Bengal, Assam, Bihar, Odisha	Suitable for adapted jute growing belt for cultivation, average dry fibre yields 32.9 qtl/ha, tolerant to stem rot, apion, semi-looper, BHC and yellow mite.
JROB-2	ICAR-CRIJAF (2021)	West Bengal, Odisha, Bihar, Assam, Uttar Pradesh and Tripura	Suitable for both biomass (59.1 t/ha) and fibre (32.1 qtl/ha) production. Fine fibre (2.60 tex), less root content (5.0%) and resistance to BHC and stem weevil.
Bidhan Pat 13 (BCCO-13)	BCKV, West Bengal (2022)	West Bengal	Suitable for: upland and medium lands for sowing in mid-March to mid–April. Average yield 32.0 qtl/ha. Fibre maturity: 120 days, seed maturity: 170-175 days. Fine fibre variety (fineness -2.96 tex).
JROBA-3 (Mukunda)	ICAR-CRIJAF (2023)	West Bengal, Assam, Odisha and Bihar	Green stem variety, resistant to premature flowering and suitable for early sowing. Average fibre yields 31.84 qtl/ha, highly resistant to stem rot and root rot diseases and tolerant to stem weevil, semi looper, Bihar hairy caterpillar and yellow mite. Its potential fibre yield is 40.95 qtl/ha.
B. White Jute			
Variety Name	**Developed by**	**Area of adoption**	**Salient features**
Shweta (BCCC-1)	BCKV, West Bengal (2018)	West Bengal, Assam, Bihar and Odisha	Suitable for rainfed mid and high land where jute is cultivated followed by transplanted paddy, low and high fertility, yield 27.50 qtl/ha, maturity: 120 days, tolerance to stem rot disease and insect pests like semi-looper and Bihar Hairy Caterpillar.
BCCC-2 Bidhan Pat 5	BCKV, West Bengal (2019)	West Bengal	Suitable for rainfed, mid and high land areas followed by transplanted paddy, fibre yield 29.5 qtl/ha or 16.4 bales/ha, maturity: 120 days (fibre), and 170-175 days (seed production), tolerant to stem rot disease and semi-looper, BHC, apion.
JRCJ-11	ICAR-CRIJAF (2021)	West Bengal, Assam, Bihar and Odisha	Suitable for cultivation from the 3rd week of March to the 2nd week of April. A high-yielding (31.45 qtl/ha) variety, it has fine fibre (1.78 tex) with high tolerance to Bihar hairy caterpillar and moderately tolerant to stem rot disease.
JRCP-5 (Pankaj)	ICAR-CRIJAF (2023)	West Bengal, Assam, Bihar, Odisha, Uttar Pradesh and Tripura	High-yielding (28.81 qtl/ha) variety with red stem colour, resistant to stem rot, root rot and yellow mosaic diseases. It is also tolerant to yellow mites and semi-loopers. It has better fibre quality with fewer defects and root content.

Source: ICAR- Central Research Institute for Jute and Allied Fibres, Barrackpore

Annex Table 3.2: High-yielding Varieties of Mesta Developed in the Last Five Years

A. Roselle			
Variety Name	**Developed by**	**Area of adoption**	**Salient features**
JRR-17 (Ayush)	ICAR-CRIJAF (2018)	Odisha, Maharashtra, Andhra Pradesh, Bihar and North Eastern States	Suitable for rainfed HS mesta growing belt of the country, Yield 26.35 qtl/ha finer fibre, Maturity: 130 -135 days, tolerant to foot and stem rot disease and insects like spiral borer, mesta mealy bug.
JRHS-1	ICAR-CRIJAF (2019)	West Bengal	Suitable for the mid and high land rainfed situation in the mesta growing belt of India for mid-April to mid-May sowing, even in nutrient-poor soil, average fibre yield 26.3 qtl/ha, maturity 180-200 days, fibre maturity 140 days, better fibre fineness (3.0 tex), tolerant to foot and stem rot disease, mealy bug, semi looper.
AMV-8	RRS, Amadalavalasa, ANGRAU, Andhra Pradesh, (2019)	Andhra Pradesh, Odisha, Maharashtra, West Bengal and Bihar	Suitable for mid and highland rainfed agro-ecosystem of all mesta growing States, average fibre yields 26.6 qtl/ha, maturity: 140-150 days, stronger (20.46 g/tex) fine (3.08 tex) fibre, moderately tolerant to foot and stem rot disease. Supplement widely cultivated varieties of roselle like, AMV-5 and HS-4288 for comparatively higher yield coupled with stronger fibre (better quality) and tolerance to insect pests.
AMV-9 (Aditya)	RRS, Amadalavalasa, ANGRAU, Andhra Pradesh, (2019)	Andhra Pradesh, Odisha, Maharashtra, West Bengal and Bihar	Suitable for rainfed mesta growing belt of India for cultivation from May to last week of June sowing, average fibre yields 27.4 qtl/ha, maturity: 140-150 days, stronger (21.03g/tex) and better fibre fineness (3.05 tex), highly tolerant to foot and stem rot disease.
AMV 10	RRS, Amadalavalasa, ANGRAU, Andhra Pradesh, (2021)	Andhra Pradesh, Odisha, Maharashtra and Bihar.	A high-yielding (27.22 qtl/ha) variety with good fibre tenacity (20.2 g/tex) and tolerant to Aphids, leafhoppers, semi loopers and foot and stem rot disease.
HSLC-1	ICAR-CRIJAF (2023)	Andhra Pradesh, West Bengal, Telangana, Tamil Nadu, Maharashtra, Bihar, Odisha, and North Eastern States.	Exclusively released for fresh calyx production with an average fresh calyx yield of 41.09 qtl/ha. Its potential calyx yield is 61.3 qtl/ha. Calyces of this variety are rich in minerals like K, Ca, Mg, Na, Fe and vitamins like C, B1, B3, and B5 which may add a high-value nutritive.

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Annex Table 3.2: High-yielding Varieties of Mesta Developed in the Last Five Years

B. Kenaf			
Variety Name	**Developed by**	**Area of adoption**	**Salient features**
JBMP 3 (Priya)	ICAR-CRIJAF (2018)	Andhra Pradesh, Maharashtra, Odisha, West Bengal, Bihar	Suitable for rainfed conditions, yield 26.0 qtl/ha, maturity: 120 – 130 days, resistant to Yellow Vein Mosaic disease.
JBMP-4 (Utkarsh)	ICAR-CRIJAF (2019)	West Bengal, Odisha, Bihar, Andhra Pradesh, Maharashtra	Resistance against yellow vein mosaic, foot and stem rot disease, fibre yield: 27.97 qtl/ha, maturity: fibre 120-130 days, seed: 150 - 165 days.
Central Kenaf JRHC-3	ICAR-CRIJAF (2020)	West Bengal, Odisha, Bihar, Andhra Pradesh, Maharashtra	Suitable for rainfed cultivation, fibre yield 28.6 qtl/ha, maturity: 160-175 days, tolerant to foot and stem rot and YVMV.
JBMP-5 (Vibhav)	ICAR-CRIJAF (2023)	West Bengal, Bihar, Andhra Pradesh, Odisha, Maharashtra and North-Eastern States of India	Coppery red stem with average fibre yield of 28.91 qtl/ha. Tolerant to YVM and foot & stem rot diseases, and major insects like, semilooper, mealybug and whitefly. Better fibre quality with stronger and finer fibre, less root content, defects, make it suitable for production of JDPs.

Source: ICAR- Central Research Institute for Jute and Allied Fibres, Barrackpore

Annex Table 4.1: Net position of India's Exports and Imports of Raw Jute and Jute Products, 2013-14 to 2022-23

(₹ crore)

Year	Raw Jute		Jute Products		Total Export	Total Import	Net Export
	Export	Import	Export	Import	(col 2+4)	(col 3+5)	(col 6-7)
1	2	3	4	5	6	7	8
2013-14	115.4	147.3	2315.1	780.5	2430.5	927.8	1502.7
2014-15	121.7	140.0	2122.7	983.8	2244.4	1123.8	1120.6
2015-16	114.8	366.3	1935.0	1261.1	2049.8	1627.4	422.4
2016-17	79.0	711.0	2080.2	931.6	2159.2	1642.6	516.6
2017-18	97.3	289.8	2158.7	880.4	2255.9	1170.2	1085.8
2018-19	109.3	236.6	2274.3	952.0	2383.5	1188.6	1195.0
2019-20	105.4	351.4	2427.6	1365.9	2532.9	1717.3	815.6
2020-21	192.8	179.6	2740.6	1123.7	2933.4	1303.3	1630.2
2021-22	225.5	451.8	3786.0	1397.9	4011.5	1849.7	2161.8
2022-23	191.6	849.6	3510.6	1532.3	3702.2	2381.9	1320.3

Source: Directorate General of Commercial Intelligence and Statistics (DGCIS), Ministry of Commerce and Industry

Annex Table

Annex Table 5.1: Actual Costs and Gross Returns over Actual Cost of Cultivation of Jute in Major Jute Producing States for 2019-20, 2020-21 and 2021-22

State/Year	CoC A_2	CoC A_2+FL	GVO	Gross Returns over CoC A_2		Gross Returns over CoC A_2+FL	
	₹/ha			₹/ha (Col.4 - Col.2)	Percent (Col.5 / Col.2)*100	₹/ha (Col.4 - Col.3)	Percent (Col.7 / Col.3)*100
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Assam							
2019-20	37320	72077	103245	65925	176.6	31169	43.2
2020-21	35732	65727	117066	81334	227.6	51338	78.1
2021-22	34182	55135	102026	67845	198.5	46891	85.0
Average	**35744**	**64313**	**107446**	**71701**	**200.6**	**43133**	**67.1**
Bihar							
2019-20	22896	29496	77596	54699	238.9	48100	163.1
2020-21	27027	33372	76062	49035	181.4	42690	127.9
2021-22	26286	33037	98489	72204	274.7	65452	198.1
Average	**25403**	**31968**	**84049**	**58646**	**230.9**	**52081**	**162.9**
West Bengal							
2019-20	58067	78413	113287	55220	95.1	34874	44.5
2020-21	50877	78646	139377	88500	173.9	60731	77.2
2021-22	49752	84696	152878	103125	207.3	68182	80.5
Average	**52899**	**80585**	**135181**	**82282**	**155.5**	**54595**	**67.7**
All-India							
2019-20	53155	73923	109448	56293	105.9	35524	48.1
2020-21	47663	74173	132685	85022	178.4	58512	78.9
2021-22	46266	77491	143329	97063	209.8	65839	85.0
Average	**49028**	**75196**	**128487**	**79459**	**162.1**	**53292**	**70.9**

Note: All-India CoC, GVO and gross returns of Jute are weighted average of respective CoCs, GVOs and gross returns of projected States

Source: CACP Calculations using CS data

Annex Table 5.2(a): Monthly Average Daily Wage Rates for Agricultural Labour (Man) at Current Prices in Major Jute Growing States during 2020 to 2023

(₹/day)

Year/Month	AS	BR	MP	OD	WB	IND
2020						
March	314	310	225	250	301	282
April	314	310	225	250	301	282
May	314	310	225	250	301	282
June	377	311	281	254	306	298
July	315	311	252	244	339	297
August	316	310	248	255	315	291
September	313	310	234	252	308	286
October	316	311	229	255	309	286
November	317	311	227	261	314	288
December	324	310	226	266	320	290
2021						
January	319	310	228	270	322	292
February	316	312	229	274	328	295
March	314	313	232	265	329	294
April	312	312	237	262	329	294
May	315	315	239	256	330	295
June	315	314	236	252	330	294
July	316	317	240	281	334	301
August	322	318	242	280	335	302
September	329	320	242	275	332	301
October	329	321	240	271	332	301
November	333	323	238	270	331	301
December	337	327	241	291	332	306
2022						
January	338	330	246	292	334	309
February	339	330	247	283	332	308
March	330	335	248	281	333	309
April	330	336	251	289	336	312
May	331	337	253	293	337	314
June	333	341	253	295	339	316
July	337	344	256	301	345	320
August	337	344	257	304	348	322
September	337	344	259	311	348	323
October	339	344	260	309	348	323
November	341	351	262	313	348	326
December	342	351	262	316	348	327

(Contd…)

Annex Table 5.2(a): Monthly Average Daily Wage Rates for Agricultural Labour (Man) at Current Prices in Major Jute Growing States during 2020 to 2023

(₹/day)

Year/Month	AS	BR	MP	OD	WB	IND
2023						
January	342	353	263	319	348	328
February	349	354	265	319	353	330
March	352	356	264	320	356	332
April	354	359	266	323	357	334
May	361	365	271	323	359	338
June	367	369	272	323	359	340
July	369	370	275	324	359	341

Note 1: Daily Wage rate - Average of five operations i.e. Ploughing, Sowing, Weeding, Transplanting and Harvesting
2: All-India daily wage rate is weighted average of daily wage rates of States mentioned in the Table
Source: Labour Bureau, Ministry of Labour and Employment and CACP Calculations

Annex Table 5.2(b): Monthly Consumer Price Index for Agricultural Labourers (CPI -AL) in Major Jute Growing States during 2020 to 2023

(₹/day)

Year/Month	AS	BR	MP	OD	WB	IND
2020						
March	935	847	858	865	863	861
April	951	851	859	865	868	864
May	960	844	858	871	871	864
June	959	833	859	878	869	861
July	971	839	863	883	871	865
August	985	836	868	883	898	874
September	995	856	876	899	909	888
October	1010	873	893	917	933	907
November	1016	878	897	923	937	911
December	1011	864	887	912	919	898
2021						
January	997	844	887	903	899	884
February	990	836	890	903	879	876
March	987	832	891	900	883	875
April	998	844	894	903	900	886
May	1009	848	902	912	911	893
June	1011	857	909	917	919	901
July	1011	862	916	920	920	904
August	1014	865	929	921	921	909
September	1018	873	931	918	931	914
October	1027	892	942	933	951	931
November	1036	910	943	942	959	941
December	1032	916	937	942	963	943
2022						
January	1026	912	936	943	958	940
February	1022	914	939	945	967	943
March	1025	919	948	949	963	946
April	1037	931	957	958	981	959
May	1049	934	967	963	989	966
June	1054	940	976	972	990	971
July	1067	949	981	979	999	979
August	1075	956	991	985	1004	986
September	1073	965	1000	994	1014	995
October	1078	974	1007	1002	1029	1005
November	1069	990	1013	1007	1032	1012
December	1071	993	1014	1004	1025	1011

(Contd…)

Annex Table 5.2(b): Monthly Consumer Price Index for Agricultural Labourers (CPI -AL) in Major Jute Growing States during 2020 to 2023

(₹/day)

Year/Month	AS	BR	MP	OD	WB	IND
2023						
January	1059	996	1018	1002	1015	1010
February	1052	994	1023	1001	1013	1009
March	1056	999	1028	999	1022	1014
April	1060	1005	1031	1004	1034	1021
May	1055	1012	1040	1000	1043	1026
June	1063	1019	1054	1007	1045	1033
July	1082	1027	1081	1027	1064	1051

Note: All-India CPI-AL is weighted average of CPI-AL of States mentioned in the Table
Source: Labour Bureau, Ministry of Labour and Employment, Government of India and CACP Calculations

Annex Table

Annex Table 5.3: Monthly Wholesale Price Index (Base: 2011-12) of Major Farm Inputs during 2022 and 2023

Year/Month	High Speed Diesel	Fertilizers and nitrogen compounds	Electricity	Manufacture of Agricultural and Forestry Machinery	Lube Oils	Cattle Feed	Fodder	Pesticides and other agrochemical products	Index of Farm Inputs
2022									
March	157.8	135.1	122.2	132.8	162.3	207.0	203.1	141.4	144.2
April	169.3	137.6	122.2	133.5	171.6	211.4	203.4	142.3	148.6
May	204.3	139.2	126.4	133.8	171.6	208.4	206.8	142.1	161.2
June	207.6	143.3	133.7	135.0	171.6	208.5	210.5	144.4	165.5
July	210.0	144.5	133.8	136.6	176.3	210.6	215.7	145.4	167.1
August	194.7	144.9	136.5	136.4	183.6	214.4	219.2	145.9	163.7
September	196.0	145.1	140.6	137.1	183.6	212.5	215.6	145.5	165.2
October	188.4	148.0	152.9	138.0	183.6	210.6	213.6	144.5	166.9
November	200.5	147.9	157.9	139.0	183.6	215.2	231.5	144.5	173.3
December	184.4	147.3	157.7	138.7	183.6	215.2	240.1	143.8	168.6
2023									
January	181.4	147.4	156.7	139.4	183.6	216.9	248.0	141.6	167.8
February	183.8	146.7	152.4	139.4	183.6	217.4	238.8	140.7	166.6
March	176.5	146.0	148.4	140.0	183.6	218.3	237.9	140.1	163.0
April	171.7	145.5	146.8	140.9	183.6	218.9	237.4	136.6	160.8
May	169.5	144.5	138.4	141.0	190.2	214.2	227.5	135.8	156.9
June	169.0	144.2	134.5	141.4	190.2	214.7	222.7	134.7	155.3
July	170.2	143.6	133.9	141.1	190.2	216.0	231.3	134.3	155.8

Note: WPI of Farm Inputs is weighted average of WPIs of farm inputs mentioned in the Table
Source: Office of the Economic Adviser, Ministry of Commerce and Industry

Annex Table

Annex Table 5.4(a): Jute: Break-up of Cost of Cultivation for Assam

(₹/ha)

Cost Items	2019-20	2020-21	2021-22	% change in 2020-21 over 2019-20	% change in 2021-22 over 2020-21
Operational Cost	**71374**	**65095**	**54656**	**-8.8**	**-16.0**
Human Labour					
Casual	15286	21688	21863	41.9	0.8
Attached	217	0	0	-	-
Family	34757	29995	20954	-13.7	-30.1
Total	50259	51684	42816	2.8	-17.2
Bullock Labour					
Hired	0	327	253	-	-22.6
Owned	9900	805	293	-91.9	-63.6
Total	9900	1132	546	-88.6	-51.8
Machine Labour					
Hired	4312	6963	6226	61.5	-10.6
Owned	396	30	262	-92.5	777.1
Total	4708	6993	6488	48.5	-7.2
Seed	1276	1298	1588	1.7	22.3
Fertilisers and Manure					
Fertilisers	2328	2311	1728	-0.7	-25.2
Manure	1723	581	178	-66.3	-69.4
Total	4051	2891	1906	-28.6	-34.1
Other Inputs					
Insecticides	39	0	239	-	-
Irrigation charges	0	0	0	-	-
Interest on working capital	1110	1064	1021	-4.1	-4.0
Miscellaneous	31	34	52	9.0	53.3
Crop Insurance	0	0	0	-	-
Fixed Cost	**26498**	**27203**	**20943**	**2.7**	**-23.0**
Rental value of owned land	23163	25394	19310	9.6	-24.0
Rent paid for leased-in land	0	0	0	-	-
Land revenue, cesses & taxes	162	157	130	-3.1	-17.1
Depreciation on Implements & Farm buildings	541	475	349	-12.2	-26.5
Interest on fixed capital	2633	1177	1154	-55.3	-1.9
Total Cost (C_2/ha)	**97872**	**92298**	**75600**	**-5.7**	**-18.1**
A_2(₹/ha)	**37320**	**35732**	**34182**	**-4.3**	**-4.3**
A_2+FL(₹/ha)	**72077**	**65727**	**55135**	**-8.8**	**-16.1**
Yield (Qtl/ha)	**24.36**	**24.24**	**16.94**	**-0.5**	**-30.1**
A_2(₹/qtl)	**1418**	**1322**	**1840**	**-6.8**	**39.2**
A_2+FL(₹/qtl)	**2675**	**2528**	**2991**	**-5.5**	**18.3**
C_2(₹/qtl)	**3628**	**3555**	**4106**	**-2.0**	**15.5**

Note: Total cost may not match due to rounding off the figures
Source: ESE Division, Ministry of Agriculture and Farmers Welfare

Annex Table 5.4(b): Jute: Break-up of Cost of Cultivation for Bihar

(₹/ha)

Cost Items	2019-20	2020-21	2021-22	% change in 2020-21 over 2019-20	% change in 2021-22 over 2020-21
Operational Cost	**29173**	**32952**	**32576**	**13.0**	**-1.1**
Human Labour					
Casual	12530	15409	14501	23.0	-5.9
Attached	0	0	0	-	-
Family	6600	6345	6751	-3.9	6.4
Total	19130	21753	21252	13.7	-2.3
Bullock Labour					
Hired	0	0	0	-	-
Owned	0	0	0	-	-
Total	0	0	0	-	-
Machine Labour					
Hired	2989	3050	3491	2.0	14.4
Owned	157	234	358	49.3	52.8
Total	3146	3285	3849	4.4	17.2
Seed	1816	1829	1737	0.7	-5.0
Fertilisers and Manure					
Fertilisers	3988	5279	4955	32.4	-6.1
Manure	356	0	0	-	-
Total	4344	5279	4955	21.5	-6.1
Other Inputs					
Insecticides	0	0	0	-	-
Irrigation charges	30	0	0	-	-
Interest on working capital	684	806	783	17.9	-2.9
Miscellaneous	22	0	0	-	-
Crop Insurance	0	0	0	-	-
Fixed Cost	**9218**	**11692**	**12088**	**26.8**	**3.4**
Rental value of owned land	7170	9743	9994	35.9	2.6
Rent paid for leased-in land	0	0	0	-	-
Land revenue, cesses & taxes	138	196	223	42.4	13.9
Depreciation on Implements & Farm buildings	185	224	237	21.0	5.9
Interest on fixed capital	1725	1529	1633	-11.4	6.8
Total Cost (C_2/ha)	**38391**	**44643**	**44664**	**16.3**	**0.0**
A_2(₹/ha)	**22896**	**27027**	**26286**	**18.0**	**-2.7**
A_2+FL(₹/ha)	**29496**	**33372**	**33037**	**13.1**	**-1.0**
Yield (Qtl/ha)	**21.47**	**21.93**	**22.59**	**2.1**	**3.0**
A_2(₹/qtl)	**1027**	**1209**	**1137**	**17.6**	**-6.0**
A_2+FL(₹/qtl)	**1324**	**1492**	**1428**	**12.7**	**-4.3**
C_2(₹/qtl)	**1723**	**1996**	**1931**	**15.9**	**-3.3**

Note: Total cost may not match due to rounding off the figures
Source: ESE Division, Ministry of Agriculture and Farmers Welfare

Annex Table

Annex Table 5.4(c): Jute: Break-up of Cost of Cultivation for West Bengal

(₹/ha)

Cost Items	2019-20	2020-21	2021-22	% change in 2020-21 over 2019-20	% change in 2021-22 over 2020-21
Operational Cost	**77129**	**78247**	**84320**	**1.4**	**7.8**
Human Labour					
Casual	37655	32884	32008	-12.7	-2.7
Attached	8	0	0	-	-
Family	20347	27769	34944	36.5	25.8
Total	58010	60653	66952	4.6	10.4
Bullock Labour					
Hired	236	283	105	20.3	-63.0
Owned	207	500	184	141.9	-63.2
Total	442	783	289	77.1	-63.1
Machine Labour					
Hired	8655	5873	6131	-32.1	4.4
Owned	84	36	56	-56.8	53.3
Total	8739	5910	6187	-32.4	4.7
Seed	1073	948	1203	-11.7	27.0
Fertilisers and Manure					
Fertilisers	5123	5672	5272	10.7	-7.1
Manure	185	238	156	28.4	-34.5
Total	5308	5910	5427	11.3	-8.2
Other Inputs					
Insecticides	586	555	498	-5.3	-10.2
Irrigation charges	1241	1958	2267	57.7	15.8
Interest on working capital	1721	1530	1496	-11.1	-2.2
Miscellaneous	9	0	1	-97.1	318.5
Crop Insurance	0	0	0	-	-
Fixed Cost	**29048**	**36001**	**39213**	**23.9**	**8.9**
Rental value of owned land	27198	34778	38072	27.9	9.5
Rent paid for leased-in land	1073	37	49	-96.6	34.4
Land revenue, cesses & taxes	0	0	0	-	-
Depreciation on Implements & Farm buildings	212	363	327	71.4	-9.9
Interest on fixed capital	566	823	765	45.3	-7.0
Total Cost (C_2/ha)	**106177**	**114247**	**123533**	**7.6**	**8.1**
A_2(₹/ha)	**58067**	**50877**	**49752**	**-12.4**	**-2.2**
A_2+FL(₹/ha)	**78413**	**78646**	**84696**	**0.3**	**7.7**
Yield (Qtl/ha)	**28.50**	**26.42**	**25.50**	**-7.3**	**-3.5**
A_2(₹/qtl)	**1861**	**1839**	**1858**	**-1.2**	**1.0**
A_2+FL(₹/qtl)	**2540**	**2826**	**3131**	**11.3**	**10.8**
C_2(₹/qtl)	**3439**	**4106**	**4575**	**19.4**	**11.4**

Note: Total cost may not match due to rounding off the figures
Source: ESE Division, Ministry of Agriculture and Farmers Welfare

Annex Table 5.5: Wholesale Price Index of Transport Equipment and Fuels

Year	Annual Average WPI of Transport Equipment and Fuels	Percentage Growth in Annual Average WPI of Transport Equipment and Fuels
2012	106	-
2013	112	6.03
2014	117	4.41
2015	99	-15.92
2016	91	-7.20
2017	98	7.01
2018	105	7.62
2019	106	0.81
2020	100	-6.21
2021	118	18.54
2022	155	31.71
2023	148	-4.74
Average Growth		**3.82**

Note 1: Monthly WPI of Transport Equipment and Fuels is weighted average of monthly WPIs of Tractor Tyre, Agricultural tractors, Light, medium & heavy commercial vehicles, Body (for commercial motor vehicles), Chassis of different vehicle types, Manufacture of parts and accessories for motor vehicles, High Speed Diesel, Lube Oils, Medium & heavy commercial vehicle tyre

2: Annual Average WPI of Transport Equipment and Fuels is average of monthly WPI of Transport equipment and Fuels from March to September for 2012 to 2022, and March to July for 2023

Source: CACP Calculations using WPIs published by Office of the Economic Adviser, Ministry of Commerce and Industry

Annex Table

Annex Table 5.6: Projected Cost of Production (CoP) of Jute for Seasons 2023-24 and 2024-25 and Growth in CoP of Jute for Season 2024-25 over 2023-24

States	Projected CoP for 2023-24 (₹/qtl)			Projected CoP for 2024-25 (₹/qtl)			Growth (%) in 2024-25 over 2023-24		
	A_2	A_2+FL	C_2	A_2	A_2+FL	C_2	A_2	A_2+FL	C_2
Assam	1649	3533	4497	2034	3656	4686	23.4	3.5	4.2
Bihar	1650	2159	2623	1807	2271	2740	9.5	5.2	4.5
West Bengal	2162	3127	4145	2163	3279	4483	0.1	4.9	8.2
All-India	**2081**	**3095**	**4069**	**2127**	**3237**	**4374**	**2.2**	**4.6**	**7.5**
Transportation cost, marketing charges and crop insurance premium	74	74	74	77	77	77	4.1	4.1	4.1
All-India Modified Cost	**2155**	**3169**	**4143**	**2204**	**3314**	**4451**	**2.2**	**4.6**	**7.4**

Note 1: Production shares are related to production of jute of projected States
2: All-India CoP of jute is weighted average of CoPs of projected States
Source: CACP Calculations using CS data

Annex Table 5.7: Projected Cost of Production (A_2, A_2+FL & C_2), Minimum Support Price (MSP), Margin in MSP over Cost of Production, and Growth in MSP of Jute for Crop Year 2020-21 to 2024-25

Crop Year	Projected Cost of Production (CoP) of Jute (₹/qtl)			Transportation Cost and Crop Insurance Premium (₹/qtl)	All-India Modified Cost of Production (CoP) of Jute (₹/qtl)			Minimum Support Price (MSP) of Jute (₹/qtl)	Margin (%) in MSP of Jute over CoP of Jute			Margin (%) in MSP of Jute over Modified CoP of Jute			Growth (%) in MSP
	A_2	A_2+FL	C_2		A_2	A_2+FL	C_2		A_2	A_2+FL	C_2	A_2	A_2+FL	C_2	
2020-21	2002	2709	3561	64	2066	2773	3625	4225	111.0	56.0	18.6	104.5	52.4	16.6	-
2021-22	2016	2832	3665	68	2084	2900	3733	4500	123.2	58.9	22.8	115.9	55.2	20.5	6.5
2022-23	2072	2959	3801	71	2143	3030	3872	4750	129.2	60.5	25.0	121.7	56.8	22.7	5.6
2023-24	2081	3095	4069	74	2155	3169	4143	5050	142.7	63.2	24.1	134.3	59.4	21.9	6.3
2024-25@	2127	3237	4374	77	2204	3314	4451	53335	150.9	64.8	22.0	142.1	61.0	19.9	5.6

Note: All-India CoP is weighted average of CoPs of projected States
@: Recommended MSP
Source: Various Price Policy Reports for Jute and CACP Records

Annex Table 5.8: State-wise Gross Returns and Relative Average Gross Returns over Cost of Production A_2 and A_2+FL with respect to Jute during Jute Season

State/Crop/Year	Gross Returns Over (₹/ha)		Relative Average Gross Returns Over (%)	
	A_2	A_2+FL	A_2	A_2+FL
Assam				
Jute				
2019-20	65925	31169	100.0	100.0
2020-21	81334	51338	100.0	100.0
2021-22	67845	46891	100.0	100.0
TE2021-22	71701	43133	100.0	100.0
Paddy				
2019-20	27411	11889	41.6	38.1
2020-21	22586	6552	27.8	12.8
2021-22	23581	6256	34.8	13.3
TE2021-22	24526	8232	34.2	19.1
Bihar				
Jute				
2019-20	54699	48100	100.0	100.0
2020-21	49035	42690	100.0	100.0
2021-22	72204	65452	100.0	100.0
TE2021-22	58646	52081	100.0	100.0
Paddy				
2019-20	21470	13047	39.3	27.1
2020-21	20207	11860	41.2	27.8
2021-22	22789	12924	31.6	19.7
TE2021-22	21489	12611	36.6	24.2
Maize				
2019-20	41877	32643	76.6	67.9
2020-21	33427	26512	68.2	62.1
2021-22	51300	43207	71.0	66.0
TE2021-22	42201	34121	72.0	65.5
West Bengal				
Jute				
2019-20	55220	34874	100.0	100.0
2020-21	88500	60731	100.0	100.0
2021-22	103125	68182	100.0	100.0
TE2021-22	82282	54595	100.0	100.0
Paddy				
2019-20	22694	1401	41.1	4.0
2020-21	26696	2620	30.2	4.3
2021-22	28633	3052	27.8	4.5
TE2021-22	26008	2357	31.6	4.3
Groundnut				
2019-20	-	-	-	-
2020-21	64636	23552	73.0	38.8
2021-22	101608	50093	98.5	73.5
TE2021-22	83122	36823	101.0	67.4

(Contd…)

Annex Table 5.8: State-wise Gross Returns and Relative Average Gross Returns over Cost of Production A_2 and A_2+FL with respect to Jute during Jute Season

State/Crop/Year	Gross Returns Over (₹/ha)		Relative Average Gross Returns Over (%)	
	A_2	A_2+FL	A_2	A_2+FL
West Bengal				
Sesamum				
2019-20	-1997	4541	-3.6	13.0
2020-21	-2953	-1997	-3.3	-3.3
2021-22	15198	-2953	14.7	-4.3
TE2021-22	3416	-136	4.2	-0.2
All-India				
Jute				
2019-20	56293	35524	100.0	100.0
2020-21	85022	58512	100.0	100.0
2021-22	97063	65839	100.0	100.0
TE2021-22	79459	53292	100.0	100.0
Paddy				
2019-20	37606	25936	66.8	73.0
2020-21	34707	22425	40.8	38.3
2021-22	35445	22124	36.5	33.6
TE2021-22	35919	23495	45.2	44.1
Maize				
2019-20	30211	20200	53.7	56.9
2020-21	22851	12955	26.9	22.1
2021-22	39078	27587	40.3	41.9
TE2021-22	30714	20247	38.7	38.0
Groundnut				
2019-20	34727	24246	61.7	68.3
2020-21	27299	16920	32.1	28.9
2021-22	38087	26286	39.2	39.9
TE2021-22	33371	22484	42.0	42.2
Sesamum				
2019-20	16439	7126	29.2	20.1
2020-21	19495	8174	22.9	14.0
2021-22	23896	11613	24.6	17.6
TE2021-22	19943	8971	25.1	16.8

Note: All-India CoC, GVO and gross returns of Jute are weighted average of respective CoCs, GVOs and gross returns of projected States mentioned in Table

Source: CACP Calculations using CS data

Annex Table 5.9: Comparison of CACP and State Projected Cost of Production (C_2) and suggested Minimum Support Price of Jute by State for Crop Season 2024-25

State	CACP Projections on the basis of CS data		State Projections		Suggested Minimum Support Price (MSP) by State (₹/qtl)
	Yield (qtl/ha)	Cost of Production (₹/qtl)	Yield (qtl/ha)	Cost of Production (₹/qtl)	
Andhra Pradesh	CS data are not available		18.00	4915	3500 to 4000*
Assam	22.79	4686	25.00	3746	5400
Bihar	22.00	2740	23.75	4274	6500
Meghalaya	CS data are not available		30.00	2312	No Suggestion
Odisha	CS data are not available		23.00	5260	6500
Tripura	CS data are not available		21.60	2969	4750
West Bengal	27.83	4483	25.69	4379	6240

** : The State has suggested MSP figures for lowest quality of Jute*
Source: CACP Calculations using CS data, and State Governments

Annex Table

Commission for Agricultural Costs & Prices
List of Officers

Advisers
Dr. Seema
Mr. Vivek Shukla

Joint Director
Mrs. Divya Sharma

Deputy Directors
Mr. Chitvan Singh Dhillon
Dr. Sadhana Srivastava
Mr. Suraj Kumar Shukla
Mr. Baidyanath Guru
Mrs. Shivani

Assistant Directors
Mrs. Anu Malhotra
Mr. Salam Shyamsunder Singh
Mr. Deepak Peeceeyen S
Mr. Vipin Singh

Sr. Statistical Officers
Mr. B.K. Barnawal
Mr. Ravi Kumar Sharma
Mr. Ashok Kumar
Mrs. Savitri Ramani

Economic Officers
Mr. Sikander
Mr. Mintu Kumar
Mr. Chandra Kumar
Ms. Pragya Singh

Jr. Statistical Officers
Mr. Mahender Kumar Gupta
Mr. Mohammad Shoeb Malik

Sr. Translation Officer
Mr. Manoj Kumar Shaw

Administrative Staff
Mr. Pardeep Kumar
Mr. M.V. Ananda Kumar
Mr. Pankaj Kumar
Mrs. Pooja Budhiraja
Ms. Kamla Manral

सत्यमेव जयते

Commission for Agricultural Costs & Prices

Department of Agriculture & Farmers Welfare
Ministry of Agriculture & Farmers Welfare
Government of India, New Delhi
October 2023