

JUTE TECHNOLOGY MISSION

MINI-MISSION IV

OPERATING MANUAL

A. SCHEMES FOR MODERNISATION OF ORGANISED JUTE MILLS

3. Productivity Improvement & TQM Facilitation

6.3

JMDC SCHEME

SCHEME FOR PRODUCTIVITY IMPROVEMENT AND TQM FACILITATION

1. INTRODUCTION

Govt. of India has approved the Jute Technology Mission (JTM) for overall development of the jute sector in the country. An urgent need is felt for productivity improvement in the jute industry and to establish Total Quality Management (TQM) facilities.

2. THRUST AREAS

To satisfy this need, the following areas of operation have been identified:

- I Total Quality Management
- II Energy Management
- III Waste Management
- IV Maintenance Management
- V Work Study and Ergonomics Study

3. OPERATION OF THE SCHEME

This scheme provides an integrated and cohesive approach for supporting Jute Machinery Development Programmes under Mini-Mission IV of JTM and thereby considers time-bound proposals for financial support.

I Total Quality Management

TQM is an effective approach to improve process performance, reducing wastes & costs and enhance customer satisfaction. TQM is focused on continuous improvement in all business processes by involving people at all levels, guided by a committed management and using relevant tools & technique leading to increased productivity.

II. Energy Management

The objective of this sub-component is to reduce the cost of energy by conducting Energy Audit and related cost reduction, reduction of transmission losses & improvement of Power Factor.

This sub-component will be implemented through

- (a) development of various energy-efficient machines
- (b) development of energy (electrical and thermal) saving methodologies
- (c) conducting energy audit in selected jute mills by engaging a competent agency on cost sharing basis.

III. Waste Management

This sub-component aims at reducing waste generation, standardization and as well to find alternative valuable uses of waste.

This sub-component will be implemented through development of

- (a) new uses of jute wastes.
- (b) newer processing techniques for reduced waste generation.

IV. Maintenance Management

This sub-component will be implemented through specific programmes for standardization of

- (a) maintenance practices and
- (b) spare parts for each jute machinery

V. Work Study & Ergonomics

This sub-component will be implemented through a specific study programme for:

- (a) formulation of norms for labour and machine productivity, and thereby
- (b) standardization of Man-Machine Productivity Ratio for various jute product manufacturing using both conventional and new generation technology as well as considering Human Aspects and Engineering.

JMDC / Jute Board will conduct the study by involving Institute(s) of repute at national level

SUB COMPONENT WISE ALLOCATION UNDER PRODUCTIVITY IMPROVEMENT & TQM FACILITATION SCHEME

Sub components	Estimated Cost (in Rs. Crores)
Total Quality Management	1.00
Energy Management	1.2
Waste Mangement	1.2
Maintenance Management	0.75
Work Study & Ergonomics Study	0.85
Total	5.00

YEARWISE FINANCIAL REQUIREMENT UNDER PRODUCTIVITY IMPROVEMENT & TQM FACILITATION SCHEME (in Rs. Crores)

2006-07	2007-08	2008-09	2009-10	2010-11
-	1.95	1.80	1.25	-

PART A
GENERAL GUIDELINES AND INSTRUCTIONS

The project which is approved for implementation is provided with a financial sanction which is subject to certain terms and conditions to be mentioned with the first sanction order. These guidelines assist for smooth implementation of the project in conformity with these terms and conditions.

Guidelines

The guidelines provide general information in an ideal situation. In addition to these, the implementing agency has to follow its own rules and regulations, where ever necessary.

1. Invitation of Expression of Interest (EOI) & Submission of Application

JMDC / Jute Board will invite Expression of Interest from the reputed jute / textile research associations / institutions. The guidelines for submission of project proposal and the format for application are provided at Part B and Part C respectively.

2. Selection process

The Expressions of Interest will be examined by a Technical Committee, formed for the purpose, which will examine all the EOIs and make the final selection for each specific project and subsequent evaluation & monitoring

Technical Committee :-

- | | |
|--|-------------|
| 1. Mr. A. Bhattacharya, Secretary, JMDC. | -- Chairman |
| 2. Dr. Prabir Ray, Principal, IJT | -- Convenor |
| 3. Dr. S.P. Mukherjee, University of Calcutta. | |
| 4. Mr. C.N. Chakraborty, Chief Advisor/HRD, IJMA | |
| 5. Mr. A.K. Kanungo, Director/MDC-III, BIS (ERO) | |
| 6. Prof. P.K.J. Mohapatra, Professor, IIT, KGP | |
| 7. Mr. Arun Lohia, Director, Alliance Jute Mills | |
| 8. Mr. D.C. Baheti, Chairman IJIRA | |
| 9. Mr. S. Ghosh, Chairman, Technical Division, IJMA | |
| 10. Mr. B.N. Thakkar, President (W), Ludlow Jute Mills | |
| 11. Mr. Goutam Chatterjee, IJIRA, | |
| 12. Representative of JC's office | |
| 13. CFO, JMDC & NCJD | |

1. Entering into MoU

Once the selection is completed and the project is approved, JMDC / Jute Board will enter into an MoU with the jute / textile research associations / institutions selected for each specific project which will contain the different terms and conditions alongwith the terms of payment and implementation of the project. The selected jute / textile research associations / institutions will thereafter be termed as Implementing Agency (IA).

2. Sanction Order

- i) Once the MoU is entered, a formal sanction order will be issued as per the recommendations of an Empowered Committee / Expert Panel. The total cost of the project will be finalised based on the latest quotation(s) of equipment(s) and other relevant documents related to travel, contingencies etc. submitted by the Implementing Agency.
- ii) The first sanction order will indicate the budgetary allocation for the duration of the project under various heads.

- iii) Any correspondence with JMDC / Jute Board regarding the project should invariably quote the sanction order No. and date.
- iv) Subsequent to the sanction order, a Bank Draft/ Cheque for the released amount will be despatched by the Drawing & Disbursing Officer, JMDC / Jute Board.

5. **Date of Commencement of Project & its Duration**

- i) The duration of the project is normally of 3 years and this will be specified in the first sanction order.
- ii) **The project becomes operative with effect from the date on which the Draft / Cheque is received by the Implementing Agency.** This date should be intimated by the Institution authorities/ Principal Investigator to this Department. It will, in no case later than one month after the receipt of the draft/ cheque by the Institute.

6 **Release of grants in instalment and financial management**

- i) The grants for the project are released on the basis of requirements taking note of the technical progress and expenditure incurred as stipulated in the MoU.
- ii) The first installment of grant will be released along with the first sanction order. It consists of the entire grant for the 'Equipment' and 'Overheads' for the first year of the project.
- iii) The subsequent installment of grant would be released annually on the basis of expenditure incurred in the previous financial year and expected expenditure in that year.
- iv) However, any request for release of the next installment should be accompanied by the following documents:
 - a) Utilisation Certificate and Statement of Expenditure for the previous financial year (in original or copy if sent earlier);
 - b) Latest authenticated Statement of Expenditure including Committed Expenditure, for expenditure since 1st April of that financial year till the previous month; and
 - c) Technical Annual Progress Report, if not sent earlier.
- v) Formal approval of JMDC must be taken to **carry forward** the un-utilised grant from the previous financial year to the present financial year. This request may be made while sending the authenticated Statement of Expenditure and Utilisation Certificate after the financial year.
- vi) The Statement of Accounts and the Utilisation Certificates are financial year wise and are to be submitted within a period of 3 months from the 31st of March of that year. (ie. If date of start of the project is 12.01.07, then the first statement of account and utilization certificate will be for the period 12.01.07 to 31.03.07, the next statement will be for the period 01.04.08 to 31.03.09 and so on.)
- vii) The implementing institute will maintain separate audited accounts for the project. Any interest earned should be reported to this Department and should be reflected in the Statement of Expenditure.
- viii) All the assets acquired from the grant will be the property of Government of India and should not be disposed off or encumbered or utilised for purpose other than those for which the grant had been sanctioned, without the prior sanction of this Department.
- ix) The Government of India has the discretion to gift the assets to the Institute or transfer them to any other Institute if it is considered appropriate and justified.
- X) JMDC reserves the right to terminate the project at any stage if it is convinced that the grant has not been properly utilised or appropriate progress is not being made.

- xi) The Comptroller & Auditor General of India, at his discretion, shall have the right of access to the books and accounts of the Institute maintained in respect of the grant received from the Government of India.

7 Progress evaluation and Monitoring

- i) The implementing agency will furnish to JMDC 5 copies of the Annual Technical Progress report of the work carried on the project on an annual basis. (ie. if the date of start of a project is 12.09.97 the first Annual Technical Progress report shall be for the period 12.09.07 to 30.09.08, the next will be from 01.10.98 to 30.09.99 and so on).
- ii) In addition, JMDC may designate Scientist/ Specialist or an Expert Panel to visit the Institute periodically to review the progress of the work being carried out and to suggest suitable measures to ensure realisation of the objectives of the project. The implementing Institute will provide all facilities to the visiting scientist/ specialist or the Expert Panel by way of accommodation etc. at the time of their visit.
- iii) JMDC also organises Monitoring Workshops/ PAC meetings wherein the implementing agencies are invited to present the technical progress of their project. It will provide an opportunity to review the progress of the project based on which any mid term requests for additional grants/ extension in duration etc. are considered by JMDC. Subsequent releases of grant would be based on the recommendations of reviewing and monitoring committees.
- iv) On completion of the project, the IA should send the following documents to this Department to enable us to settle the account :
 - a) 5 copies of the Project Completion Report in the prescribed format;
 - b) Consolidated audited statement of expenditure and utilisation certificates;
 - c) List of assets/ equipment in the prescribed format; and
 - d) DD/ cheque for any un-spent amount with the Institute.

8. Guidelines for publication of results and Intellectual Property Rights

- i) IA wishing to publish technical/ scientific papers based on the research work done under the project, should acknowledge the assistance received under this scheme of JTM.
- ii) IAs are also requested to publish some of the research papers emerging out of the project work in leading Indian Journals.
- iii) If the results of research are to be legally protected, the results should not be published without action being taken to secure legal protection for the research results.
- iv) Institutions are required to seek Intellectual Property Rights protection for the results of research on R&D projects.

This section provides guidance for preparation and submission of project proposals for support under the Jute Technology Mission (JTM) of the Ministry of Textiles (MoT), Govt. of India.

Who are eligible

Any recognised R&D institution or Centre of Excellence is eligible for availing this scheme. Programmes in newly emerging and front-line areas of research will get priority. Further, proposals involving purely survey-oriented work and routine studies will not be normally considered.

Guidelines

1. The project proposals for consideration under this Scheme can be submitted anytime throughout the year.
2. The Investigators may submit 10 copies of the proposal printed on both the sides of A4 size paper, properly stapled and without spiral binding along with the electronic copy of the proposal on a 1.44 MB floppy, preferably in MS Word.
3. The proposal should be prepared and submitted strictly according to the format as prescribed under Part C in this document.

4. The duration of the project should be of 3 years normally.
5. Please carefully read explanatory notes and detailed instructions given under Part C for completing each section of the prescribed format while preparing the proposal.
6. Copies of the proposal and other required documents must be sent in one lot through proper channel to JMDC.
7. The information should be given under each section, even if it is Nil. No Annexure(s) should be enclosed along with the project proposal.

General Terms & Conditions

1. The Principal Institution implementing the project assumes financial and other administrative responsibilities of the project.
2. In case of multi-institutional project the Principal Institution (PI) has to obtain formal agreement from the collaborating institutions.
3. International travel is not normally permissible under the project.
4. It is the policy of MoT to maximize the use of an equipment. In this light, the PI shall permit the use of spare or ideal capacities of equipment procured under the project by other Institutes for other MoT funded projects.
5. The proposals are scrutinized by experts in the field and after a peer review by an Empowered / Expert Committee, the JMDC takes the decision.

Particulars	BUDGET			(in Rs.)
	1st Year	2nd Year	3rd Year	Total
Mandays				
Budget				

311. Justification of Manpower engagement

320. BUDGET FOR CONSUMABLE MATERIALS

Item		BUDGET			(in Rs.)
		1st Year	2nd Year	3rd Year	Total
	Q*				
	B**				
	F***				
Total	B				
	F				

*Q: Quantity or number, ** Budget, ***F: FE Component in US\$

321. Justification for costly consumable

330. BUDGET FOR TRAVEL

	BUDGET			(in Rs.)
	1st Year	2nd Year	3rd Year	Total
Travel (Only inland travel)				

331. Justification for intensive travel, if any.

340. BUDGET FOR OTHER COSTS / CONTINGENCIES

	BUDGET			(in Rs.)
	1st Year	2nd Year	3rd Year	Total
Other costs / Contingency costs				

331. Justification for specific costs under other costs, if any.

350. BUDGET FOR EQUIPMENT

Sl. No.	Generic name of the Equipment along with make & model	Imported / Indigenous	Estimated Costs (in Foreign Currency also)*

* includes transport, insurance and installation charges.

351. Justification for the proposed equipment(s).

410. Time Schedule of Activities through BAR Diagram :

420. Equipment available with the Institute / Other Institutes for the project :

Equipment available with	Generic Name of Equipment	Remarks
Implementing Inst		
Other Inst In the region		

500. Any other relevant information :

General Instruction for Formulation of the Project Proposal

Section 101 : Project title

Project title should be within 150 characters (30 characters in each line). A title "Investigations of the Magnetic Properties of certain compounds of Transition metals with Rare Earth" may be sharpened to "Magnetic Properties of Rare Earth Transition Metal Compounds" (Underline the key words).

Section 102 : Broad Area

Please mark only one.

In case of projects with inter-disciplinary characteristics, mark the area towards which it is more inclined.

Section 103 : Scope of Development

Please mark only one. In case of projects with inter-disciplinary characteristics, mark the scope towards which it is more inclined.

Section 104 : Duration

Expected total duration of the project may be expressed in months. Proposed duration should normally not exceed 36 months.

Section 105 & 106: Total cost & FE Component

Give total cost of the project in rupees. Foreign exchange component, if any, of the total cost may be given in terms of US \$ equivalent. The budgetary projections should take into account the existing norms in case of manpower and should be as realistic as possible in case of equipment costs.

Section 107 to 109: Implementing Institution

Indicate the status (Govt./autonomous/private etc.) of the institution. In case of private or registered society a bond has to be executed after approval of the proposal. However, the copies of the annual activity report and audited annual accounts of the society for the last two years should be enclosed along with a copy of the SIRO certificate.

Section 110 to 112 : Collaborating Institutions

In case a project is to be executed by more than one Institution (which is welcomed), the names of collaborating institutions are to be recorded.

Section 191 : Project summary

Use separate sheet for sections 191 & 192. Give project title, name of Institution(s) involved before writing the summary .

Written in telegraphic language, the summary should be a self-contained description of the research activity including (a) research objectives (b) methodology to be adopted and (c) expected outcome of the project.

Section 192 : Subject Keywords

Please suggest not more than six keywords that best describe the project.

Section 211 : Definition of the Problem

Please give precise technical statement of only those problems which the project is expected to cover within the specified duration (normally 3 years).

Section 212 : Objectives

Instead of an essay, it is suggested that the objectives be spelled out point by point in telegraphic language keeping in view the definition of the problem outlined in Section 211.

Section 221 to 222 : State of Knowledge

Please indicate the recent development in the proposed field of work, both in the country and in other parts of the world. This should be based on literature survey. In the literature survey, inclusion of list of important review articles, if available, is recommended. This section will enable the referees to appreciate the effort that has been put in preparing the project proposal.

Section 223 : Importance of the proposed project/ Justification for subject area

The importance of the Project should be brought out in this section in the light of the international and national state of knowledge on the subject.

Section 231 : Time schedule of activities giving milestones

On the basis of work elements involved, the time schedule should be drawn. Here specific indications of milestones would be worthwhile. These milestones will help in periodic evaluation of the progress of the project. It is once again cleared here that lead time for creation of infrastructural facilities be computed on realistic basis.

Section 232 : Utilisation of research results

It is necessary to widely disseminate the research results and to facilitate their use by

entrepreneurs in jute sector. The intent of this section is to get an idea of how the interaction between the implementing institution and potential users of research results could possibly be initiated, stimulated and maintained for the purpose of an effective transfer of the technology developed.

Section 300 : Budget Estimates

Summary of the budget may be prepared after filling Sections 310 to 340. The estimates of costs of different items involved should be as realistic as possible. All costs are to be expressed in Indian rupees only which should be inclusive of the rupee equivalent of any foreign exchange required for equipment or consumable. If foreign exchange is required for purchase of equipment or consumable, it may be shown in terms of US\$ or equivalent separately.

Section 310 & 311 : Budget for Manpower Cost

The budgetary should indicate the engagement of manpower, category wise mandays for engagement, rate applied for mandays under each category and the estimated total requirement.

Section 320 & 321 : Budget for Consumable materials with justification for the use of costly consumable, if any.

The budget should clearly indicate the costly consumable items that would be required on a continuing basis or intermittently during the implementation of the project. It should also indicate those items where Foreign exchange is involved.

Section 330 & 331 : Budget for travel within India and justification for intensive travel on projects, if any.

The Department provides grants under this head to cover the travel requirement of the Investigator, Co-Investigator and the research personnel, working on the project, in connection with the project work like literature survey, monitoring meeting, etc. This travel is within the country. In case of projects involving intensive travel, the requirement may be justified by the PI.

Section 340 & 341 : Budget for other costs and justification for the same

Some projects may have special requirements not covered under sections 310 to 330. These requirements could be of computer time, payments for using specialised instrumentation facilities etc. Costs for such requirements are to be indicated, based on realistic estimates, in this section specifying the item under a & b.

Contingencies are meant to cover incidental and other miscellaneous expenditure.

Section 350 & 351 : Budget for permanent equipment and justification for the same

Specifically list all items of permanent equipment, or requiring import. Include provisions for installation charge, inland transport insurance etc. in the estimated cost.

Section 410 : Time schedule of activities through Bar diagram

The bar diagram should have work elements/activities as row and time in the column. The suggested time interval is three months. After approval of proposal PI will have to submit a PERT chart. The purpose of the PERT chart is to help in evaluation and monitoring.

Section 420 : Existing facilities

Basic infrastructural facilities and equipment that would be used by the institute for the project should be recorded. Please make sure that these facilities and equipment will actually be available during execution of the project.