

MINUTES OF 66th RC MEETING OF CMERTI, LAHDOIGARH
(Date: 28.03.2023)

The 66th Research Council meeting of CMER&TI, Lahdoigarh was held on 28th March 2023 under the Chairmanship of Dr. K.M. Vijaya Kumari, Director at conference hall of the Institute. The list of participants is enclosed as Annexure-I. The meeting was conveyed as per the agenda and explanatory notes.

AGENDA NO. 1: CONFIRMATION OF PREVIOUS RC MEETING MINUTES

The minutes of the 65thRC meeting held on 25th Jan, 2023 were circulated to all the scientists of main Institute and its Nested Units. Since, no comments were received, the minutes may be confirmed.

AGENDA NO. 2: REVIEW OF ACTION TAKEN ON THE RECOMMENDATION/ DECISIONS OF THE LAST RC MEETING

Project wise actions taken report on the decisions/ recommendations of last RC meeting will be presented by the Concerned Scientists.

AGENDA NO.3: NEW CONCEPT NOTES FOR APPROVAL

#		DETAILS
1.	Project title :	Adoption of Improved Technologies of Muga Culture for Enhancing Cocoon Production in Manipur
A	Investigators involved	Dr. Kh. Subadas Singh, RSRS Imphal (PI), Dr. L. Somen Singh, RSRS Imphal (CI) Dr. Vijay N., CMERTI Lahdoigarh (CI)
B	Objectives:	<ul style="list-style-type: none"> ➤ To promote adoption of improved Muga rearing technologies among rearers. ➤ To improve the socio-economic status of rural population of Manipur by enhancing cocoon production through improved muga culture.
C	Methodology & work plan:	<ul style="list-style-type: none"> ➤ Benchmark survey will be conducted in rural villages of three districts- Imphal East, Bishnupur and Jiribam selected based on proportion of farmers availability in total population and spread of muga culture know the socio-economic status, technology adoption pattern, present level production and productivity, income diversification, opportunity, constraints (SWOT analysis) <i>etc.</i> through personal contact method based on a structured interview schedule. ➤ Programs will be organized for awareness generation, skill development and community mobilization as well as for constructing a sustainable linkage with market through farmers group formation and networking. ➤ Clusters of farmers will be made each consisting of at least 10 farmers each districts. A total of 10 farmers will be selected from each district thus; a total of at least 30 farmers will be selected for guided adoption of improved muga rearing technologies. More importance will be given to mobilize new rearers at the selected districts. ➤ Two opinion leaders from each small group of farmers thus a total 6 rearers with high degree of opinion leadership will be selected. These selected persons will be provided with initial awareness along with motivational and group mobilization training to act as farmers friend. They will be eventually exposed to the on field in depth training in improved muga rearing practices starting from silkworm seed production and host plant nursery development. These trained farmers will be promoted subsequently by joint facilitation and multidisciplinary team of RSRS Imphal scientist to establish own improved rearing farm which will also act as learning and experimentation ground for farmers of that particular group or cluster. ➤ After the persuasion of targeted farmer through joint effort of scientists and selected rearers training will be provided to other identified farmers on host plant management, rearing of silkworms, silkworm seed production <i>etc.</i> through, technology demonstrations, farmers skill training, Farmer's day <i>etc.</i> on improved technology of

		<p>muga culture along with technological inputs. Training content will be selected based on Participatory appraisal (Focused Group Discussion)</p> <ul style="list-style-type: none"> ➤ Emphasis will be given to on farm learning for better motivation and knowledge and skill uptake. ➤ Training will be organized for skill up gradation of reelers, and beneficiary rearers to build as well as improve the marketing opportunity to muga silkworm rearers. Indirectly this will help in socio-economic improvement of reelers also through assured supply of quality muga cocoon. ➤ Training will also be provided to assimilate muga rearing by-products into their farming system to improve income diversification as well as overall farm income. ➤ Collection of feedback data in respect of cocoon production, yarn production and income generation etc. after adoption of improved technologies among the selected beneficiaries to produce further SWOT analysis. Further facilitator training will be provided to farmers based on comparative SWOT analysis to excel further in future based on initial momentum provided through project intervention. Thus a sustainable Research institute-NGOs- Progressive Muga Rearers-Market (reelers) linkage will be established. ➤ Collected data will be analyzed and compared with the benchmark data to assess the sustainability and improvement over the benchmark. ➤ Preparation of final report.
D	Expected outcome and utilization:	This study will help to boost production and productivity of muga silk in Manipur by adopting improved technologies of Muga culture and development of clusters of muga rearers in the districts.
E	Budget:	15.00
	66th RC Suggestions	<ol style="list-style-type: none"> 1. The PI is advised to carry out a baseline survey of the adopted areas to acquire preliminary information on present status and prevailing problems. 2. Concentrate more on one or two districts of Manipur where Muga culture is presently in practise. 3. Specify the number of farmers to be adopted under the project with full technological support and no. Of farmers expected to be trained under the project. 4. Modify the budget and objectives accordingly. 5. The concept note is approved subject to the incorporation of suggestions made and the PI is advised to submit the revised concept note within 15 days for onwards submission to CO, CSB for obtaining concept note approval.
2.	Project title :	Genetic enhancement of Castor (<i>Ricinus communis</i> L.) germplasm as a source material for development of productive perennial varieties-Phase-II
A	Investigators involved	Dr.Aftab Ahmad Shabnam (PI), Dr.Om Prakash Patidar (CI) Dr.D.K. Jigyasu (CI)
B	Objectives:	<ul style="list-style-type: none"> ➤ Genetic enhancement of castor germplasm. ➤ Development of pre-bred intermediate castor with perennial characteristics.
C	Methodology & work plan:	<ul style="list-style-type: none"> ➤ 33 collections have been made in the 1st phase of the project and presently the variability in metric traits ranges from 11.25 to 37.66%. Collection of castor accessions from NER and IIOR, Hyderabad will be continued in the 2nd phase of the project to further enrich the gene-pool. The collected accessions will be evaluated for morpho-metric, qualitative and bioassay traits. Methodology will be followed as per the descriptor published by CMER&TI, Lahdoigarh (Shabnam <i>et al</i>; 2022). ➤ 12 perennial, 02 leaf morphotypes and 03 profusely branched lines were selected in F₂ generation during 1st phase of the project. These lines will be maintained, selfed and recurrent selection will be carried out till F₇ generation to attain homogeneity. ➤ In every generation, the hybrid plants showing wood formation and delayed flowering will be assumed as showing perennial character and will be selected for raising next generation (plant-to-row progeny). ➤ Selected lines will also be evaluated for morpho-metric, biochemical, Pests & disease

		tolerance and bioassay traits in every generation.
D	Expected outcome and utilization:	➤ Evolution of perennial castor cultivar will open up ways for establishing systematic castor plantations in the field. Definite nutrient management cycle can be followed for harvesting the quality leaf. This in turn will increase the quality and quantity of eri silk, thereby making ericulture more remunerative.
E	Budget:	14.80
66th RC Suggestions		<ol style="list-style-type: none"> 1. PI is advised to maintain the germplasm accessions and perennial lines selected in first phase of the project. 2. Concept note is approved and the PI is advised to submit the concept note within 15 days for onwards submission to CO, CSB for obtaining approval.
3. Project title :		
A	Project title :	Evaluation of suitable model for Muga & Eri based integrated farming system
A	Investigators involved	Dr. D Mech, PI; Dr. Vijay N, CI;
B	Objectives:	<ol style="list-style-type: none"> 1. To identify the existing muga and eri based IFS in different locations 2. To ensure optimal utilisation of available resources in existing IFS for different farming situations 3. To assess economics of different components of IFS for evaluating suitable IFS model comprising with muga/eri enterprises
C	Methodology & work plan:	<ul style="list-style-type: none"> • Survey will be conducted at different pockets to know the existing IFS with muga and eri enterprises, operational land holding, resources availability, components of the dominant farming system, etc. • Based on availability of existing IFS among small and marginal land holders, at least 3 IFS modules each for muga and eri containing the components of fish pond, muga/eri enterprise, fruits, vegetables, duckery, livestock, tea, etc will be selected. • Necessary inputs (silkworm seeds, rearing appliances, fish fingerlings & fishing nets, ducklings, got, vegetables seeds, necessary shed for livestock, FYM, etc) will be provided to the selected IFS modules in consultation with the experts of different disciplines • To keep the farm environment clean, output of one component will be utilized as input for other. • Annual yield of different components will be recorded to know the comparative performance of integrated approach over traditional farming. • Impact on yield and economics of each component will be assessed. • Analysis of the data will be done using the appropriate statistical techniques applicable for drawing correct inference.
D	Expected outcome and utilization:	<ul style="list-style-type: none"> ❖ Efficient resource management for increasing productivity in the cropping system with muga and eri ❖ Effective recycling of products, by-products and waste material ❖ Increase farm income economic yield/income per unit area
E	Budget:	30.00 lakhs
66th RC Suggestions		<ol style="list-style-type: none"> 1. Along with field model, development of one IFS model at CMERTI farms for demonstration to be included and accordingly revise the budget with appropriate fund allocation under different heads. 2. 02 Project Assistants may be included instead of JRF as the proposed work is associated with more of field related works. 3. Concept note approved and the PI is advised to submit the concept note within 15 days for onwards submission to CO, CSB for obtaining concept note approval.
4. Project title :		
A	Project title :	Cost benefit analysis of Tapioca for Eri Rearing
A	Investigators	Dr. Vijay N, PI; Dr. D Mech, CI
B	Objectives:	<ol style="list-style-type: none"> 1. To study the cost benefit analysis of tapioca with respect to eri rearing 2. To study the rearing performance of the eri silkworms
C	Methodology	<ul style="list-style-type: none"> • Selection and survey of districts & farmers

	& work plan:	<ul style="list-style-type: none"> Rearing of the eri silkworms by harvesting 10%, 20%,30% and 40% of leaves and recorded the tuber yield Use of appropriate statistical analysis for cost benefit analysis and affect of leaves harvest on tuber yield will be studied.
D	Expected outcome and utilization:	<ul style="list-style-type: none"> Cost benefit ratio of eri rearing with tuber production Doubling the farmers income Popularisation of Eri rearing in non traditional area Sustainable income from the diverse crops Motivate the youths to take up eri culture in large scale
E	Budget:	Rs. 13.00 Lakhs
66th RC Suggestions		<ol style="list-style-type: none"> The title, objectives and methodology must be revised by considering the present status of tapioca and Ericulture in BTC and Nagaland. Project Assistant may be included instead of JRF as the proposed work is associated with more of field related works. Revise the concept note to bring in more clarity and present within 07 days for re-consideration.
<i>Repeat for additional proposals</i>		

AGENDA NO.4: CONCEPT NOTE PRESENTED IN LAST 64thMEETING

#		DETAILS
1.	Project title	Identification and Standardisation of clonal propagation methods in Borpat (<i>Ailanthus grandis</i> L.) for its mass multiplication
A	Investigators	Om Prakash Patidar, PI; Aftab A. Shabnam, CI; Dharmendra Kumar Jigyasu, CI
B	Objectives:	To evolve a simple, rapid and inexpensive clonal propagation technique for mass multiplication of Borpat
C	Suggestion of last RC/RAC meeting:	65thRC Suggestions: Look for collaboration with AAU Jorhat and revise the concept as per 64 th RC suggestions and submit the proposal immediately for onward submission to RCS, CO well before the upcoming Annual Action Plan meeting.
D	Follow-up action on	65th Follow up: Discussed with Prof. (Dr.) Salvinder Singh, Biotechnology Department, AAU for the collaboration and revised concept note is ready for submission.
66th RC Suggestions		Submit the updated concept note within 10 days for onwards submission to CO, CSB for obtaining concept note approval.

AGENDA NO. 5: REVIEW ON CONCLUDED PROJECTS

#		DETAILS
1	Project code & title:	MOE 05004 EF:Adoption of improved sustainable technologies of muga culture for elevation of cocoon production in the tribal belt of Assam
A	Investigators involved	Dr. Vijay N, Sc-C, (PI), Dr. Dip Kumar Gogoi, Sc-D, (Co-PI), Dr.D . Mech, Sc-D, (Co-PI)Dr. S A S Rahaman, Sc-D, (Co-PI), Dr.Sathyanarayana, (Co-PI)
B	Project period:	August 2019 to July 2022 (Extended upto Feb. 2023)
C	Objectives:	<ol style="list-style-type: none"> To promote adoption of improved Muga rearing technologies among tribal rearers through sustainable NGO-rearer linkages facilitated by CMER&TI. To improve the socio-economic status of tribal population by enhancing cocoon production through improved muga culture.
D	Progress achieved:	<ul style="list-style-type: none"> ➤ 1 Nos Awareness programs conducted at study area participating 50-60 Nos of farmers. ➤ 1 Nos Exposure visit conducted from Dhakakuna and Lakhimpur area to P3 unit MESSO Naryanpur around 80 farmers are participated.. ➤ Demonstration on use of foot sprayer for chemical disinfectants, controlling of

		diseases like Muscardine, flacherie and disinfectants of grainage and distribution of Lahdoi to the farmers
E	Utility of outcome	Improvement of the socio-economic status of tribal population by enhancing cocoon production through improved muga culture
F	Budget and expenditure	RS 25,51,000 (Received Rs17,36,500), Expenditure :16,30,103
G	Suggestion of last RC/RAC meeting:	• Continue the project as per milestones and conclude within the extended period.
H	Follow-up action on RAC meeting:	• Project continued as per milestons
66th RC Suggestions		Submit the concluding report in RMIS-10 format for onward submission to Co, CSB.
2		
	Project code & title:	PIB-05005-SI: Genetic enhancement of Castor (<i>Ricinus communis</i> L.) germplasm as a source material for development of productive perennial varieties.
A	Investigators involved	Aftab A.Shabnam (PI), Amit Kumar (CI up to 31 st July 2022), Vinodakumar S. Naik (CI) upto 29 th Feb. 2020, L. Somen Singh (CI), Dr. D. K. Jigyasu (CI)
B	Project period:	Oct. 2019 to Sept. 2022 (Concluded in March 2023)
C	Objectives:	1.Genetic enhancement of castor germplasm. 2.Development of pre-bred intermediate castor with perennial characteristics.
D	Progress achieved:	<ul style="list-style-type: none"> • F₂ and F₃ generation plantations are being regularly monitored for selections at Farm no: 01 from 1st& 2nd crossing lots. • Plantation of F₂ generation at GCC, Chenijan was maintained as per recommended package of practices. • Data generated under the project has been compiled and statistically analysed. However, F₂ generation data of 17 potential cross combinations is yet to be recorded for which project period extension has been sought.
E	Utility of outcome / Impact on silk industry	<ul style="list-style-type: none"> • Enrichment of gene-pool and its characterization will give breeders choice of selecting desired parents for future breeding programmes for improvement of castor. • Recurrent selection of these lines in subsequent generations will lead to development of intermediate/superior perennial castor cultivar. • The Project will be continued in 2nd Phase for attaining homogeneity in the selected lines.
F	Budget and expenditure:	Budget: Rs. 13.30 lakh Utilized: 9.53183 Lakhs
G	Suggestion of last RC/RAC meeting:	64th RC and 65th Suggestions: <ul style="list-style-type: none"> • Complete the project as per set work plan and milestones and submit the detailed report as requested by RCS for consideration towards future course of action. • The project should be continued in 2nd phase for stabilization of selected lines under this Phase of the project.
H	Follow-up action taken on last RC/RAC meeting:	Follow-up action on 64th RC and 65th Suggestions: <ul style="list-style-type: none"> ➤ Project completed as per work plan and detailed report will be submitted in RMIS-10 format. ➤ 2nd phase is being present in 66th RC as new project.
66th RC Suggestions		1. Continue the project activities to attain homogeneity in selected lines 2. Submit the concluding report of this phase in RMIS-10 format and new concept note for 2nd phase of the project.
3		
	Project code and title:	AIB05006SI: Breeding of muga silkworms for improved silk quality and disease tolerance
A	Investigators	Dr.Arun Kumar KP, PI; Dr. Mahesh DS, CI; Dr.Manjunath RN, CI
B	Project period :	Oct 2019 – Sep 2022 (Concluded in March 2023)

C	Objectives:	1) Selection of better parents by field collection of mugasilkmoth samples 2) Classical breeding studies to select better lines for mugasilkmoths Mass production for limited trials
D	Progress achieved:	1. GBS based large scale genotyping that was carried out before revealed that the wild muga, irrespective of place of collection was highly heterozygous in nature. Very little heterozygosity was observed in the cultivated stock, which probably is the reason behind reduced yield after several inbreeding cycles in the cultivated stock. 2. Genome wide association studies (GWAS) using the generated data is ongoing. 3. The wild samples were collected from Jorhat and pupal hibernation during summer was observed in grainage and the DNA was isolated individually from selected males and females. DFLs of selected line (BP1) and wild muga stock are being reared on Farm No.2.
E	Specific outcome:	1. Almost 10 times lower heterozygosity observed in cultivated stock compared to wild muga. 2. Loss of heterozygosity is a possible reason behind loss of vigor in cultivated muga. 3. Observation of summer hibernation in wild muga. 4. One promising muga line has been selected after several rounds of directional selection and further rearing. This line is now being stabilized. 5. Both Muga and Wild muga DFLs are being reared based on their cocoon characteristics and fecundity for better muga lines
F	Budget and expenditure :	Budget: 18.32 lakhs Expenditure: 9.26 lakhs
G	Suggestion of last RC/RAC meeting:	65th RC comments <ul style="list-style-type: none"> Continue the project as per milestones 41st RAC comments It is suggested to propose 2nd phase of the project after conclusion of this phase for taking forward the project outcomes.
H	Follow-up action taken on last RC/RAC meeting:	Compliance on 65th RC comments <ul style="list-style-type: none"> The project is being carried out as per milestone Compliance on 41st RAC comments As per the suggestions 2 nd of the project will be proposed taking into consideration the findings of this project.
66th RC Suggestions		1. Project activities to be continued to save the precious breeding lines developed under the project. 2. Propose the 2nd phase of the project and present in next RC. 3. Submit the concluding report in RMIS-10 format for onward submission to Co, CSB.
4.	Project code &title	APR05007SI: Standardization of chawki rearing practices for Eri silkworm, <i>Samia ricini</i> (Donovan)
A	Investigators involved	Dr. Mahesh DS (PI), Dr. Arun Kumar KP (CI) & Dr.Kh. Subadas Singh, (CI-up to June 2022)
B	Project period:	Oct 2019 - Sept 2022 (Extended up to March 2023)
C	Objectives:	-Establishment and management of eri host plant garden for erichawki rearing. -Design and fabrication of Eri silkworm chawki rearing equipment. -Development of new rearing method and ideal environment for erichawki rearing.
D	Progress achieved:	Identified suitable castor variety (NBR-1) for erichawki worms. 6 plot module developed for brushing 90,000 DFLs/hectare/year. Standardized all the erichawki rearing practices starting from egg incubation stage to distribution stage. Designed and fabricated a “Model Chawki Rearing House” at CMER&TI for

		brushing 5000 DFLs at a time. Several demonstrations and field testing of erichawki rearing carried out in different regions of Assam, Nagaland and Gujarat to show that this technology works at field level. The yield from chawki rearing was compared with the conventional method in farmers' field and found significantly higher (>20 %). Overall economics of commercial erichawki rearing technology calculated.
E	Utility of outcome / Future course of action / Impact on silk industry	1) Standard package of practice for erichawki rearing will lead to the development of erichawki rearing enterprises in different regions of north eastern states and other Eri growing areas. 2) This project outcome will also be helpful for creation of more employment in each standardized practice. 3) The standardized practices will be helpful in producing better quality of cocoons and increased yield of cocoons leads to increase in total raw silk production of India.
F	Budget and expenditure:	Budget: 18.15 lakhs and Expenditure: 17.15 Lakhs
G	Suggestion of last RC/RAC meeting:	65th RC comments: 1. Complete the work as per milestones and as per the suggestions of 41st RAC held on 24th January 2023. Also advised to update the budget utilized in the project and complete all the procurements within this financial year. 41st RAC comments 1. Provide chawki rearing technology details along with its economics to AAU for popularization through KVKs in Dhemaji district of Assam.
H	Follow-up action taken on last RC/RAC meeting:	ATR on 65th RC comments 1. Completed the project work as per the milestones and as per the suggestions of 41 st RAC. Also updated the budget utilized in the project and completed all the procurements. ATR on 41st RAC comments 1. Provided the complete package of erichawki rearing technology to AAU for popularization through KVKs in Dhemaji district of Assam.
66th RC Suggestions		1. Outcome of the project to be test verified under OFT. 2. Include the economic benefits of eri farmers rearing chawki worms and to entrepreneurs establishing chawki rearing centres. 3. Submit the concluding report in RMIS-10 format for onward submission to Co, CSB.
5.	Project code & title:	CFC5017MI: Exploration and adoption of novel muga cocoon cooking technology for increasing its reelability and raw silk quality.
A	Investigators	Dr. Manjunath R.N, PI; Dr. Dip Kr. Gogoi, Co-PI; Dr. Rajiv K Munshi, CI (RSTRS)
B	Project period :	March 2021 to Feb. 2023
C	Objectives:	1. To study the efficacy of enzymatic and non-enzymatic approaches in muga cocoon cooking/ softening. 2. To develop a new cocoon cooking technique to improve the reelability & raw silk quality in muga cocoons dried under different techniques 3. To carry out large scale Multi-location trials at CSB and DoS reeling units for validating the efficacy of the newly developed cooking method. To create awareness among the reeling beneficiaries to adopt/popularize the outcome of the project.
D	Progress achieved:	Enzymatic approach: • Bacterial isolates from potential sites were isolated and screened for lipolytic and proteolytic activity. • One of the isolates showed positive result for lipase activity and another four showed positive for proteolytic activity.

		<ul style="list-style-type: none"> Effect of temperature, time & pH on enzyme activity were studied and optimized suitably for degumming of muga cocoons. 30-35⁰C Temperature and 30-40 minutes of soaking time were found suitable for reeling muga cocoons. <p>Non-enzymatic approach</p> <ul style="list-style-type: none"> A new cocoon cooking formulation Muga Super Cook was developed by conducting intense reeling trials at laboratory levels. The findings were validated on fields in coordination with DoS and the efficacy/utility of the formulation was popularised among the reelers/farmers. Tensile properties of Silk obtained from new cooking technique were studied and compared with traditional soda based cooking method and it was evidenced that new formulation is capable of addressing those issues by reducing the strength loss and better retention of luster.
E	Utility of outcome / Future course of action / impact on silk industry	<ul style="list-style-type: none"> Protocols for pre-treatment (cooking) of cocoons were developed and optimised for better reelability& recovery %, reduced strength loss and improved luster retention along with the ease of cooking technique. The reduced cooking duration and multiple reusability of the cooking liquor offers great benefits to reelers and can address the issues of energy conservation in many aspects. <p>Increase in recovery by around 10% can offer better income generation to the reelers per unit Kg of Raw silk production.</p>
F	Budget and expenditure :	Budget: Rs. 18.23 lakh Expenditure: 10.00 Lakh
G	Suggestion of last RC and RAC meeting:	<ol style="list-style-type: none"> It is suggested to commercialize the technology by licensing for its percolation in the field. Continue the work as per milestones.
H	Follow-up action taken on last RC and RAC meeting:	<ol style="list-style-type: none"> The technology is taken up for OST validation and upon completion of the trials, the technology will be commercialized through licensing for its percolation in the field. Project continues as per the milestones
66th RC Suggestions		<ol style="list-style-type: none"> Outcome of the non-enzymatic approach to be tested under OST during 2023-24. Submit the concluding report in RMIS Part-10 format for onward submission to CO, CSB.
6.	Project code& title:	MFM 5019 MI: Development of Honeycomb Mountages and Harvesting Technology for Muga Cocoon Production with Improved Uniformity and raw silk recovery.
A	Investigators	Dr.Manjunath R.N, PI; Dr. Mahesh D. S, CI; Dr.Lopmudra Guha (CI)
B	Project period :	March 2021 to Feb. 2023
C	Objectives:	<ol style="list-style-type: none"> Fabrication of honeycomb mountages and suitable harvesting technology for uniform muga cocoon production. Impact assessment of honeycomb mountages on cocoon production, cocoon characteristics and reeling performances. To conduct on-station feasibility trials of the mountages at CSB/DoS units for prototype test verification
D	Progress achieved:	<ul style="list-style-type: none"> Continuous trials on the newly developed mountages were carried out to foresee the quality of cocoon construction and reeling parameters in comparison to all the traditional methods. Based on the suitability and manufacturing feasibility, Large scale Fabrication of

		Mountages using potential constructional materials was undertaken along with fine required tuning for easy harvesting.
E	Utility of outcome / impact on silk industry	Uniform and good quality cocoons will fetch better prizes for cocoon producers. Improved reelability and silk recovery percentage will be economically beneficial for the stakeholders.
F	Budget and expenditure:	Budget: Rs. 10.63 lakh Expenditure: 5.63 Lakh
G	Suggestion of last RC and RAC meeting:	Complete the trial of developed honey comb mountages and present the statistically analyzed data in next meeting.
H	Follow-up action taken on last RAC meeting:	The trial of developed honey comb mountages will be conducted and statistically analyzed data will be presented in next meeting
66th RC Suggestions		1. Workout the economics of the moutage and present the cocoon characteristics data in comparison to other traditional mountages. 2. Submit the concluding report in RMIS Part-10 format for onward submission to CO, CSB.
CONCLUDED PROJECTS (As CI with other Institutes):		
1.	Project code & title:	BPS 01013CN- Utilization and diversification of silkworm pupae products for human & animal consumption and composting.
A	Investigators	Dr. Mahesh D S (PI) & Dr. James Keisa (CI)
B	Project period:	September 2020 to August 2022 (Extended up to March 2023)
C	Objectives:	a. To evaluate nutrients and bioactive compounds in silkworm pupae of Eri and Muga. b. To characterize proteome of Eri and Muga silkworm pupae.
D	Progress achieved:	-Evaluated the nutrients composition and bioactive compounds in both eri and muga pupae and analysed the essential amino acids, fatty acids, sugars, flavonoids, phenolic acids and vitamin contents. -The heavy metals and antinutrients identified were below harmful level to human beings as per WHO standards. -Identified 7 bacterial species in the spent muga pupae by DNA sequencing. -Eri pupal snacks prepared by CFTRI were tested through sensory evaluation by the panellists of traditional area (Assam). Shelf-life studies are being conducted at CFTRI. -Preserved eri pupae by using natural preservatives at different temperatures were tested through sensory evaluation and up to 4 days pupae preserved at low temperature (2-8°C) is accepted by the panellists. - The proteomics studies of eri and muga pupae completed. -Standardized the de-cuticle procedure for both eri and mugapupae..
E	Utility of outcome / Impact on silk industry	-Creation of entrepreneurs by licencing the pupal products thus by generation of employment. -Information generated would be useful for further by-product utilization research.
F	Budget and expenditure	Total budget is 11.88 Lakhs and expenditure is 9.72 Lakhs
G	Suggestion of last RC/RAC meeting:	65th RC comments: 1. Complete the work as per milestones and as per the suggestions of 41 st RAC held on 24th January 2023. Also advised to update the budget utilized in the project and complete all the procurements within this financial year. 41st RAC comments 1. Continue the work as per milestones.
H	Follow-up action taken on last RC/RAC meeting:	ATR on 65th RC comments 1. Completed the project work as per the milestones and as per the suggestions of 41 st RAC. Also updated the budget utilized in the project and completed all the

	procurements. ATR on 41st RAC comments 1. Completed the project as per the milestones.
66th RC Suggestions	Submit the concluding report in RMIS-10 format to CSRTI, Mysore through proper channel.

AGENDA NO. 6: PROGRESS OF ON-GOING PROJECTS

#	ON-GOING PROJECTS	DETAILS
1	Project code and title:	AIB: 05009SI Isolation of thermo-tolerant line(s) of Oak tasar silkworm <i>Antheraea proylei</i> J.
A	Investigators	Dr. Y. Debaraj, PI, Dr. Subharani Devi, CI, Dr. Arun Kumar, CI
B	Project period :	October 2019 – September 2022 (Extended upto Sept. 2023)
C	Objectives:	1. To isolate thermo-tolerant line of oak tasar silkworm, <i>A.proylei</i> 2. Characterization of Heat shock protein gene in thermo-tolerant line.
D	Progress achieved:	Dfl prepared from seed cocoons of heat induced <i>A. proylei</i> , C27, RTRS 1 and spring crop rearing under progress. Genomic DNA Isolated, PCR amplification of random segments of genomic DNA (RAPD) using 20 different decamers is under progress.
E	Specific outcome:	Dfl prepared from seed cocoons of heat induced <i>A. proylei</i> , C27, RTRS 1 and spring crop rearing under progress. Genomic DNA Isolated, PCR amplification of random segments of genomic DNA (RAPD) using 20 different decamers is under progress.
F	Budget and expenditure	Rs. 21.90 lakhs and 8.178 lakhs
G	Suggestion of last RC/RAC meeting:	RAC comments: 1. Repeat the SDS PAGE analysis for bringing in more clarity. 2. Dr. Arun Kumar to provide the necessary technical support in conducting the experiments. 3. Since the work proposed under the project is not yet completed, the committee recommends 6 more months extension for drawing meaningful conclusions. RC comments: Complete the project as per set work plan and milestones without seeking any further extension.
H	Follow-up action taken on last RC/RAC meeting:	Action taken against RAC comments: 1. SDS PAGE analysis will be repeated as suggested. 2. Consulted Dr. ArunKumar for technical support. 3. Project extended for another six months within the sanctioned budget. Action taken against RC comments: Complied as suggested
I	Suggestions of RCS	a. To conduct experiments as per the set work plan. b. To complete and conclude project as per the approved project period. c. Report submitted in the current quarter same as the last quarter
J	ATR on suggestion of RCS	As suggested, the experiments of the project is conducted as per the set work plan As suggested in the 41st RAC meeting, to repeat the protein profiling experiments, it is requested to extend the project period for another six months. During the Quarter (June-September) conducted protein profiling studies and sequencing studies for detection of heat shock proteins. During the Quarter (October-December) Isolated DNA from three heat treated breeds, <i>A. proylei</i> , C27 and RTRS-1 and development of SCAR marker under progress.
66th RC Suggestions		Continue the project as per milestones and utilize the budget effectively.
2	Project code & title:	AIB 05012–SI: Inter and intra–Specific Hybridization for improvement of Eri Silkworm, <i>Samia ricini</i> Donovan
A	Investigator involved	Dr.ReetaLuikham, (PI), Dr. Aftab Ahmad Shabnam, (CI)

B	Project period:	04 years (March, 2020 – February, 2024)
C	Objectives:	To develop improved cross breeds/hybrids of Eri silkworm with higher fecundity and silk yield for commercial exploitation.
D	Progress achieved:	Based on significant GCA effects in desired traits, 07 cross combinations i.e B YP x T GBP, C2 x BYP, BYP X T GBS, B GBPX T GBS, C2 X TGBP, C2 X T GBS and T GBP X B GBP were selected for development of promising breed. These F1 crossed seed cocoons were harvested and 90 cocoons were taken from 03 replication of each combination to produce F2 seed. Selfed F1 grainage and F2 generation rearing is completed till date. During the grainage activities, fecundity line were taken out by selecting higher number of eggs laid by each cross and selected rearing was done. Based on SCA and reciprocal effects, three hybrids C2 x B YP, B YP X T GBP and G YP X T GBP shortlisted were reared . As per the 63 rd RC suggestion, Inter-specific hybridization will be repeated. Cocoon assessment of wild eri, <i>Samia canningis</i> selfed F5 generation is completed and cocoon were kept for emergence.
E	Specific outcome:	Selection of hybrid lots with desired traits will lead to evolution of improved Eri silkworm hybrid/breed.
F	Budget and expenditure :	Budget: Rs. 23.15 lakhs & Expenditure: 12.38 lakhs
G	Suggestion of last RC/RAC meeting:	65th RC: Continue the project as per milestones 41st RAC: Continue the project as per milestones
H	Follow-up action taken on last RC/RAC meeting:	65th RC: Continued the project as per milestones 41st RAC: Continued the project as per milestones
66th RC Suggestions		1. PI is advised to repeat the cross combinations for fecundity line selections. 2. Increase the population for getting desired results.
3	Project code & title:	AIP-05013-SI: Impact of elevated CO₂ and temperature on muga silkworm and its primary host plant
A	Investigators involved	D.K. Jigyasu-PI (w.e.f. 01.07.2022), Amit Kumar, PI (upto 30-06-2022); Aftab A. Shabnam-CI & G. Subrahmanyam, CI (upto 26-06-2021)
B	Project period	March 2020-Feb 2023 (Extended upto Feb. 2025)
C	Objectives:	1. To assess the influence of elevated CO ₂ and temperature on growth and yield attributes of primary host plant (Som). 2. To assess the impact of elevated CO ₂ and temperature on muga seed crop production, cocoon characteristics and fecundity. 3. To design strategies for adoption in muga silk worm rearing under the changing environmental scenario in Assam.
D	Progress achieved:	<ul style="list-style-type: none"> • Imposing treatment of elevated CO₂ at 550 ppm concentration and elevated temperature (ambient +1.5 °C) on Som plants is in progress. • The treatments are presently going on as per plan and constant monitoring and data recording is in progress. • The 1st seed crop rearing is going on after treatment for six months on som plants. • Biochemical analysis of treated Som plants was completed after imposing treatments for six months. • Project extension for 02 years has been received for completing the set milestones to achieve the objectives.
E	Specific outcome:	Exposure of Som plants to eCO ₂ and varied temperature regimes to assess the impact on plant growth, biochemical attributes and feeding behavior of muga silkworm.

F	Budget and expenditure:	Budget: Rs. 44.72 lakh Expenditure till March, 2023: 33.33 Lakh
G	Suggestion of last RC/RAC meeting:	<p>64th RC and 65th Suggestions:</p> <ul style="list-style-type: none"> • Continue the project as per set work plan and milestones • Check the data treatment hours. • Continue the treatment schedule and ensure to carry out the muga silkworm rearing during seed crop (Jan- Feb, 2023) • Seek extension for the project for two years along with re-appropriated budget and revised milestones since the project is running two years behind the schedule. <p>41st RAC suggestions:</p> <ul style="list-style-type: none"> ➤ Continue the work as per milestones ➤ Delay in procurement of OTCs has led to delayed start of the project activities. Hence, 2 years extension of the project period is recommended.
H	Follow-up action taken on last RC/RAC meeting:	<p>64th RC Follow-up:</p> <ul style="list-style-type: none"> • Project is running as per milestones. • Eight hours' treatment is being imposed as per day light duration. • Muga silkworm seed crop rearing in progress after completion of six-month treatment. • Two years' extension has been approved from Central Office, Bangalore to complete the revised milestones. <p>Follow-up action on 41st RAC suggestions:</p> <ul style="list-style-type: none"> ➤ Project is continuing as per milestones. ➤ Two years extension has been received from CO, Bangalore till Feb,2025.
66th RC Suggestions		Continue the project as per milestones
4	Project code and title:	ARP05015SI, Development of chemical-based control measures for management of pebrine disease in Muga silkworm, <i>Antheraea assamensis</i> Helder
A	Investigators	Dr.Arun Kumar K.P, (PI)
B	Project period :	Jan 2021 – Dec 2023
C	Objectives:	<ul style="list-style-type: none"> • Effect of different chemical disinfectants and antifungal substances on survivability and infectivity of microsporidian spores • Efficacy analysis and field application of chemical disinfectants suitable for management of pebrine disease.
D	Progress achieved:	<ul style="list-style-type: none"> • Infectivity and survivability test were performed using 4 other chemical disinfectants. • Field trial was carried out with the selected chemical disinfectants that showed reduced spore activity. • Egg washing studies with different chemicals to avoid transovum infection. Large scale field trial is being continued at Farm3, CMER&TI.
E	Specific outcome:	<ul style="list-style-type: none"> • Albendazole, Tinidazole, Metronidazole and Asthra did not show satisfactory results. • 5% Mancozeb showed toxic effects, 3% Nirmool showed least effect on leaves than the other two and larval growth was healthy and 0.2% NaOCl bleached the leaves and delayed growth observed in larvae. Both 3%Nirmool and 0.2%NaOCl showed satisfactory results regarding decrease in number of pebrine causing <i>Nosema</i> spores. • Large scale Field trial of egg washing technique is under progress.
F	Budget and expenditure :	Budget: 19.92 lakhs Expenditure: 8.99 lakhs
G	Suggestion of last RC/RAC meeting:	64th RC Suggestions

		<ul style="list-style-type: none"> Continue the project as per milestones and objectives of the project. 41st RAC suggestions <ul style="list-style-type: none"> Continue the project as per milestones and objectives of the project.
	Follow-up action taken on last RC/RAC meeting:	ATR on 64th RC suggestion <ul style="list-style-type: none"> Project is being continued as per milestone. ATR on 41st RAC suggestion <ul style="list-style-type: none"> Project is being continued as per milestone.
66th RC Suggestions		Continue the project as per milestones
5	Project code and title:	APR05018MI- Effect of various host plants separately and in combination on Rearing and grainage performance of Muga silkworm, <i>Antheraea assamensis</i> Helfer
A	Investigators involved	Kh. Subadas Singh (PI up to 30 th June, 2022), DK Jigyasu (PI w.e.f. 1 st July, 2022), S. A. S. Rahman (CI), Vikram Kumar (CI), D. Mech (CI, w.e.f. Nov., 2022)
B	Project period :	3 Years (March, 2021 to Feb, 2024)
C	Objectives:	<ol style="list-style-type: none"> To study the effect of various host plants separately and in combination on rearing performance of muga silkworm. To study the effect of various host plants separately and in combination on grainage performance of muga silkworm.
D	Progress achieved:	<ul style="list-style-type: none"> Muga silkworm rearing on different host plants and its combinations is conducted in Pre-seed (Jarua) and Seed (Chatua) crops. Jarua crop rearing shows that Som host plant exhibited better performance in terms of short larval duration, larval weight, cocoon weight, shell weight, ERR% and hatching % as compared to other food plants. Highest mortality is found in the silkworm reared on Mejankari and combination of Mejankori + Dighloti during Jarua crop. Highest fecundity was recorded in Soalu solo rearing in Jarua crop. Highest mortality was recorded in Soalu and its combination during the rearing of Chatua crop. Chotua seed crop (Mar- April) grainage is in progress.
E	Specific outcome:	Assessment of Muga silkworm rearing on different host plants in Jarua pre-seed crop.
F	Budget & expenditure	Budget: Rs. 15.42 lakh (CMER&TI: 7.62 lakh), Total Expenditure till February, 2023: Rs. 4.90959 Lakh
G	Suggestion of last RC/RAC meeting:	64th RC Suggestions: <ul style="list-style-type: none"> PI to present rearing data and grainage data separately. Present average climate data in tabulated form. Continue the project as per set work plan and milestones.
H	Follow-up action taken on last RC/RAC meeting:	64th RC Follow-up: <ul style="list-style-type: none"> The rearing data and grainage data will be present in separately presented. Average climate data has been presented in tabulated form.
66th RC Suggestions		Continue the project as per milestones
6	Project code and title:	APS 05020MI: Commercial egg production technology for ericulture
A	Investigators involved	Dr. Mahesh D S, Sci-B (PI), Dr.Lalith Natarajan, Sc-D, EBSF, Topatoli, (Co-PI) Dr.Arunkumar K P, Sci-C (CI)
B	Project period :	February 2022 to January 2024
C	Objectives:	<ol style="list-style-type: none"> Standardization and selection of suitable egg laying device for commercial loose egg production in eri. Synchronization of hatching and subsequent rearing. Popularization of loose egg production in Ericulture.
D	Progress achieved:	CMER&TI:

		<p>-Two days and three days layings of eri are being kept under optimum temperature for standardization of black boxing and synchronization of hatching with subsequent rearing performance studies are being carried out.</p> <p>-For the most accurate conclusion, the Eri silkworm seeds were stored at already developed preservation technology and with other various temperatures for their embryological developments were checked to observe the variations in development and hatching of worms.</p> <p>-Standardization of mass mother moth examination techniques for shortlisted egg laying devices is being carried out and will be repeated again for better conclusion.</p> <p>-Early emerged moths are preserved at different temperatures to identify the best suitable condition for preservation and their re-use is being carried out.</p> <p>EBSF, Topatoli:</p> <p>d. Continued the large-scale commercial loose egg production trials by using selected egg laying devices for further standardization of commercial loose egg production technology in coordination with CMERTI.</p>
E	Specific outcome:	Nil
F	Budget and expenditure :	Total budget is 14.65 Lakhs (8.15 Lakhs for CMER&TI and 6.50 Lakhs for EBSF) Expenditure is 6.00 Lakhs (Expenditure of CMER&TI - 4.60 Lakhs and Expenditure of EBSF- 1.40 Lakhs)
G	Suggestion of last RC/RAC meeting:	<p>65th RC comments:</p> <p>1. Complete the work as per milestones and as per the suggestions of 41st RAC held on 24th January 2023. Also advised to update the budget utilized in the project and complete all the procurements within this financial year.</p> <p>41st RAC comments</p> <p>Continue the work as per milestones.</p>
H	Follow-up action taken on last RC/RAC meeting:	<p>ATR on 65th RC comments</p> <p>1. Completed the project work as per the milestones and as per the suggestions of 41st RAC. Also updated the budget utilized in the project and completed all the procurements.</p> <p>ATR on 41st RAC comments</p> <p>2. Completed the project as per the milestones.</p>
66th RC Suggestions		PI is advised to recheck the black boxing schedule and synchronization.
7	Project code and title:	APS 05021EF: Studies on population diversity and role of host plant volatile cues for enhancing egg laying in temperate tasar (Vanya) silk moths <i>Antheraea proylei</i>.
A	Investigators involved	Dr S Subharani Devi (PI), Dr. Y. Debaraj (Co-PI) Dr. K M Vijayakumari (PI)
B	Project period :	Jan 2022- Dec. 2024
C	Objectives:	<ol style="list-style-type: none"> 1. To survey and establish population diversity of oak tasar silk moths across NER. 2. To establish potent food plants (Host) for oak tasar silk moths, <i>A. proylei</i> for egg production. 3. To isolate and evaluate highly suitable host plant volatiles to activate/increase egg laying in oak tasar silk moth. 4. To standardize the synthetic oviposition stimulant blends to enhance egg production in oak tasar silk moths and establishing the efficacy of developed technology. 5. To evaluate the synthetic volatile blend in large scale at oak tasar seed production centers.
D	Progress achieved:	Surveyed and collected wild <i>Antheraea frithi</i> and <i>Antheraea sp.</i> cocoons from the food plant <i>Lithocarpus dealbata</i> from Andro, Imphal East. Conducted grainage of <i>A. proylei</i> cocoons reared on different food plants and observed maximum average realized eggs in <i>Q. serrata</i> (174 eggs) followed by <i>Q. griffithii</i> (157 eggs) and <i>L. dealbata</i> (101 eggs) fed plants. <i>A. proylei</i> cocoons and other <i>Antheraea sp.</i> cocoons

		supplied to other collaborating Institutes viz. Manipur University for molecular characterization and IIHR for GC-EAD studies.
E	Specific outcome:	Collected wild <i>Antheraea frithi</i> and <i>Antheraea sp.</i> cocoons from Andro, Imphal East. Grainage performance of <i>A. proylei</i> fed on different food plants observed highest average fecundity in <i>Q. serrata</i> fed plants followed by <i>Q. griffithi</i> and <i>L. dealbata</i>
F	Budget & expenditure:	Rs.122.49 lakhs & Rs. 5.817 lakhs
G	Suggestion of last RC/RAC meeting:	RAC comments: Continue the work as per milestones. RC Comments: 1. Maintain the genetic stocks of oak tasar silkworm collected from different NE states. 2. Include statistical data for realized and potential fecundity. 3. Continue the project as per set work plan and milestones.
H	Follow-up action taken on last RC/RAC meeting:	Action taken against RAC comments: As suggested the project will be continued as per the milestone. Action taken against RC comments: 1. Will be complied as suggested 2. Statistical data included as suggested 3. As suggested the project will be continued as per the workplan and milestones.
I	Suggestions of RCS	a. To utilize the budget allocated under efficiently. (less than 15%). b. Report submitted in the current quarter same as the last quarter
J	Follow up action taken on suggestion of RCS	Total Budget for 1 st year (RSRS, Imphal) is 14.08 lakhs. Total budget utilized is 5.81 lakhs. Utilization % is 41 percent. Due to sudden deactivation of PFMS to formalise all grants-in-aid (GIA) operations to a new fund flow system implemented by the GoI, the payment for the committed expenditures is pending till date. Otherwise, the total budget utilization is more than 75% along with the committed expenditures. During the Quarter (June-September) the activity accomplished are - Surveyed and collected oak tasar silk moths across NER and transported samples to other collaborating Institutes for molecular characterization. - Reared <i>Antheraea proylei</i> on different food plants during 2 nd crop to study the rearing and grainage performance. - Studied the impact of different food plants on the egg laying potential of <i>A. proylei</i> During the Quarter (Oct-Dec) the activity accomplished are - Survey and collection of oaktasar silk moths continued and transported cocoon samples to other collaborating Institutes - Rearing of <i>Antheraea proylei</i> on different food plants continued and studied the rearing and grainage performance. - Studied the impact of different food plants on the egg laying potential of <i>A. proylei</i> continued from erratically emerged moths.
66th RC Suggestions		1. Progress under the project is satisfactory. 2. Continue the project as per the milestones.
8	Project code and title:	MOE-05022MI: Evaluation and popularization of improved technologies developed in the field of Muga, Eri and Oak sector for Northeastern India (On-station/On-farm Trials of CMER&TI, Lahdoigarh)
A	Investigators involved (PI & Co-I's)	Dr. D. K. Jigyasu, PI; Shri Suraj Pal, CI; Dr. James T Keisa, CI; Dr. Yumnam Debaraj, CI; Dr. L. Somen Singh, CI; Sri SAS Rahman, CI; Dr. Diganta Mech, CI; Dr. Aftab A Shabnam, CI; Dr. Sinam Subharani Devi, CI; Dr. Mahananda Chutia, CI; Dr. Arun Kumar KP, CI; Dr. Kh. Subadas Singh, CI; Dr Vijay. N, CI; Dr. Mahesh D S, CI; Dr. Manjunath R N, CI; Mr. Abhishek Singh, CI
B	Project period :	February 2022 to January 2024

C	Objectives:	<ul style="list-style-type: none"> ➤ To popularize various technologies in different stages developed by the Institute ➤ To further create awareness for technological intervention among the farmers and beneficiaries ➤ To increase the overall cocoon production.
D	Progress achieved:	<ul style="list-style-type: none"> • 10 kg Borpat seeds were collected from the farmers for raising borpat seedlings. 35 kg Kesseru seeds of HF005 and HF008 were also collected for raising seedlings. Nursery was prepared for raising the seedlings/saplings of host plants for popularization. • The egg incubation devices for procured for undertaking the trial “Popularization of Eri egg incubation device” during summer season. • Trial of formulated volatiles application for enhancing egg laying capacity of Eri silk moth is under progress at EBSF, Topatoli. • Trial of formulated volatiles application for enhancing egg laying capacity of muga silk moth was carried out at SSPC, Kaliabor and results generated are under analysis. • Multi-location trials of muga breeds CMR-1 and CMR-2 is in progress at six locations.
E	Specific outcome:	Awareness and popularization of technologies in muga, eri and oak tasar.
F	Budget and expenditure :	Budget: Rs. 36.02 lakh (Rs. 17.98 lakh for OST) + (Rs. 18.04 lakh for OFT) Expenditure till Nov, 2022: 4.83 Lakh
G	Suggestion of last RC/RAC meeting:	64th RC Suggestions: <ul style="list-style-type: none"> • Based on the results generated, the IPM technology for control of uzi fly in oak and use of biopesticides for control of insect pest infesting <i>Q. serrata</i> should be tested at farmers’ field under OFT. • Update the expenditure carried out under different OFTs • Continue the project as per set work plan and milestones.
H	Follow-up action taken on last RC/RAC meeting:	64th RC Follow-up: <ul style="list-style-type: none"> • The trial for validation of use of Biopesticides for control of insect pest infesting <i>Q. serrata</i> will be taken up during June - July 2023 at farmers’ fields. • Expenditure of ToT programmes is updated. • Transfer of technologies programmes are continued as per milestones
66th RC Suggestions		<ol style="list-style-type: none"> 1. It is observed that the progress of various OSTs/OFTs is very poor. 2. All the CIs associated with different OSTs/OFTs are advised to achieve the set targets as per action plan/project milestones. 3. PI to update the OSTs/OFTs to be included in action plan 2023-24. 4. Dr. D. Mech, Scientist-D and Head of the SEEM division is advised to take over the project as PI from Dr. D.K. Jigyasu w.e.f. 01.04.2023 for better coordination.

AGENDANO. 7: TRANSFER OF TECHNOLOGY (TOTS) PROGRAMMES

The progress of ToT programs are covered under the project “MOE 05022 MI: Evaluation and popularization of improved technologies developed in the field of Muga, Eri and Oak sector for N-E India”

AGENDA NO. 8: EXTENSION COMMUNICATION PROGRAMMES

Sl. No.	Programme	Target for the year 2022-23		Achievement during 2022-23	
		Phy (No.)	Beneficiary (No.)	Phy (No.)	Beneficiary (No.)
1	Krishimela / Reelers mela cum exhibition	3	800	3	916
2	Farmers Field days	8	560	8	630
3	Awareness Programmes	23	1150	23	1396
4	Tech. demonstrations / Enlightenment programmes	23	460	23	1096
5	Workshops/ Seminars/ Conferences	2	200	2	220
Total		59	3170	59	4258

AGENDA NO. 9: CAPACITY BUILDING & TRAINING PROGRAMMES (2022-23)

Sl. No.	Training / Course	Target for the 2022-23		Achievement up to the end of the quarter during 2022-23	
		Physical (Nos.)	Beneficiaries (No.)	Physical (Nos.)	Beneficiaries (No.)
1.	Farmers Skill Training	19	475	19	477
2.	Technology Orientation Programme	6	150	10	253
3.	Training under Post Cocoon Sector	6	150	6	173
4.	MDP under STEP	-	-	2	32
5.	Sericulture Resource Centres (SRCs)	45	900	45	902
6.	Other Need Based Training Programme	-	-	1	13
7.	Non-CBT: Training programme funded by agencies other than CSB*	-	-	2	51
8.	Training under SAMARTH	5	150	3	97
	TOTAL	81	1825	88	1998

AGENDA NO. 10: Any other points for discussion

- The budget utilization in most of the projects is poor. The PIs are advised to effectively utilize the allocated project budget.



(Dr. K M Vijaya Kumari)
Director & Chairperson

**LIST OF PARTICIPANTS OF THE 66th RESEACH COUNCIL MEETING OF
CMER&TI, LAHDOIGARH HELD ON 28.03.2023**

Name & Designation
1. Dr. K. M. Vijaya Kumari, Director, CMER&TI
2. Dr. Y. Debraj, Scientist-D, RSRS, Imphal
3. Sh. Suraj Pal, Scientist-D, REC, Fatehpur (UP)
4. Dr. Reeta Luikham, Scientist-D, CMER&TI
5. Dr. D. Mech, Scientist-D, CMER&TI
6. Dr. T. James Keisa, Scientist-D, CMER&TI
7. Dr. Aftab Ahmad Shabnam, Scientist-D, CMER&TI
8. Sh. Bitupan Das, Scientist-D, CMER&TI
9. Sh. L Sonowal, Scientist-C, REC Sille
10. Dr. Arun Kumar K.P, Scientist-C, CMER&TI
11. Dr. K. Subadas Singh, Scientist-C, RSRS, Imphal
12. Dr. D. K. Jigyasu, Scientist-C, CMER&TI
13. Dr. Vijay N., Scientist-C, CMER&TI
14. Dr. Mahesh D.S., Scientist-C, CMER&TI
15. Dr. Manjunath R.N., Scientist-C(R&S), CMER&TI
16. Dr. Om Prakash Patidar, Scientist-C, CMER&TI
17. Ms. Padmini Baruah, SRF, CMER&TI, Lahdoigarh
18. Mr. Kalpajyoti Gogoi, JRF, CMER&TI, Lahdoigarh
19. Ms. Lucu Moni Borah, JRF, CMER&TI, Lahdoigarh
20. Ms. Priyanka Sahu, PA, CMER&TI, Lahdoigarh
21. Ms. Raisa Begum, PA, CMER&TI, Lahdoigarh
22. Mr. Dibyajyoti Hazarika, PA, CMER&TI, Lahdoigarh