

MINUTES OF 43rd RESEARCH ADVISORY COMMITTEE MEETING OF CSB-CMER&TI, LAHDOIGARH HELD ON 22.03.2024

The 43rd Research Advisory Committee Meeting of the Central Muga Eri Research and Training Institute (CMERTI) Lahdoigarh was convened on March 22, 2024. Dr. K M Vijaya Kumari, the Director of CSB-CMER&TI Lahdoigarh, initiated the proceedings by extending warm welcome to Dr. Bidyut Chandan Deka, Chairman of the Research Advisory Committee (RAC); Dr. Nitin Kulkarni, Director of Rain Forest Research Institute (RFRI) Jorhat; Dr. Palash Debnath, Professor and Head of the Department at Assam Agricultural University (AAU) Jorhat; Dr. B K Singh, retired Director of the Central Silk Board (CSB); and Dr. N Ibotombi Singh, retired Scientist from CSB. The meeting also saw representation from key organizations including the Directorate of Sericulture (DOS) of Nagaland, Bodoland Territorial Council (BTC), and Assam, alongside beneficiary representatives associated with the sericulture sector. In addition, representatives from other relevant institutions such as RCS (Research and Coordination Section), CO (Central Office) of CSB Bangalore, and scientists from CSB-CMERTI Lahdoigarh and its nested units were present, emphasizing the collaborative nature of the gathering.

Dr. Vijaya Kumari commenced the meeting by delivering a comprehensive update on the recent advancements and significant developments achieved by CSB-CMERTI Lahdoigarh. This update was presented through a detailed Power Point presentation, which highlighted the institute's research outcomes, technological innovations, ongoing projects, and future initiatives aimed at enhancing silk production, sericulture practices, and related socio-economic aspects.

AGENDA NO. 1: CONFIRMATION OF LAST RC MEETING MINUTES

The last (42nd) RAC meeting of CMERTI, Lahdoigarh was held on 9th-10th October, 2023 under the chairmanship of Dr. B. C. Deka, Vice Chancellor, Assam Agricultural University, Jorhat. The minutes of the meeting were circulated among all the Members, Invitees and Scientists and as no comments received from any of the members, the minutes of the 42nd RAC meeting were confirmed.

AGENDA NO. 2: FOLLOW UP ACTION ON THE GENERAL RECOMMENDATIONS OF THE LAST RAC MEETING

Dr. Aftab A. Shabnam, Scientist-D, PMCE presented the general recommendations of the last RAC meeting to the committee members. Following this overview, the Department of Sericulture, Government of Assam, presented a draft Silk policy paper for discussion. During the deliberations, the committee engaged in detailed discussions regarding the specific points addressed in the policy drafting process. The discussions underscored the importance of considering inputs from diverse stakeholders and engagement of experts and stakeholders in shaping policies that align with the broader goals of promoting sericulture, preserving indigenous silk heritage, and enhancing the overall socio-economic landscape in the region. It was also suggested that the Department of Sericulture (DoS), Assam; CSB-CMERTI, Lahdoigarh and CSB-MESSO, Guwahati collaborate closely to finalize the draft policy document particularly emphasizing on promoting the welfare of beneficiaries and safeguarding the interests of the muga silk sector.

AGENDA NO. 3: FOLLOW UP ACTION ON THE PROJECT SPECIFIC RECOMMENDATION OF THE LAST RAC MEETING

As previously decided, the follow-up actions on the project-specific recommendations from the last Research Advisory Committee (RAC) meeting were presented by the respective scientists during their individual presentations.

AGENDA NO. 4: REVIEW ON CONCLUDED PROJECTS

Four research projects were concluded during the period and the concerned investigators presented the concluding report of the project

1. AIB-05012-SI: Inter and intra-specific hybridization for improvement of eri silkworm, *Samia ricini* Donovan

Dr. Aftab A Shabnam, Sc-D presented the final outcome of the project and the following observations were made during the meeting:

- Wild species and ecoraces should be conserved at other stations or locations also to ensure their availability for future research purposes.
- Recurrent selection of 02 fecundity lines should be continued in the successive generations for attaining purity.
- Additionally, the maintenance of parental strains of selected hybrids should be continued as an ongoing activity.

Action: Dr. Aftab A. Shabnam, Sc-D; Incharge Silkworm Division and Dr. Jigyasha, Sc-B

2. ARP-05015-SI: Development of chemical-based control measures for management of pebrine disease in Muga silkworm, *Antheraea assamensis* Helfer

Dr. Arun Kumar K P, Sc-D presented the final outcome of the project and the following observations were made during the meeting:

- Expand the scope of locations under MESSO for validating On-station Trials (OST).
- Further, develop a well-defined Protocol from the outcome of the project with Standard Operating Procedures (SoPs) that are easily adoptable by farmers.

Action: Dr. Arun Kumar K P, Sc-D, Silkworm Division

3. APR-05018-MI: Effect of various host plants separately and in combination on Rearing and grainage performance of Muga silkworm, *Antheraea assamensis* Helfer

Dr. D.K. Jigyasu, Sc-C presented the final outcome of the project and the following observations were made during the meeting:

- Compile the data and conclude the project with recommendation about the combinations that are most suitable for OST validation trials.
- The outcome from the project may be recommended for considering while drafting the silk policy for suitable adoption among the farmers' level.

Action: Dr. D.K. Jigyasu, Sc-C, Host Plant Division

4. APS-05020-MI - Commercial egg production technology for ericulture

Dr. Mahesh D S, Sc-C presented the final outcome of the project and the following observations were made during the meeting:

- Develop a concrete protocol/package of practices with Dos & Don'ts for technology dissemination.
- Investigators may look for motivating young entrepreneurs to take up the outcome of the project as a start-up venture and Incubation centers at AAU can help in extending the support if needed.

Action: Dr. Mahesh DS, Sc-C, Silkworm Division

5. MOE-05022-MI: Evaluation and popularization of improved technologies developed in the field of Muga, Eri and Oak sector for Northeastern India (OST/OFT of CMER&TI)

Dr. D K Jigyasu, Sc-C presented the compiled validation trials of all the OST/OFTs under the project and the following suggestions/observations were made during the meeting:

- Validated technologies should be commercialized and popularized for the benefit of the stakeholders.
- Update the final validated data and the financial utilization in the concluding the report.
- Continue the ToT activities as per annual action plan.

Action: Dr. D.K. Jigyasu, Sc-C and all the CIs of the Project

**AGENDA NO. 5: CONCEPT NOTES OF NEW RESEARCH PROJECTS FOR PPROVAL:
NIL**

AGENDA NO. 6: REVIEW OF THE PROGRESS OF ON-GOING PROJECTS

The progress of the following ten ongoing projects was reviewed and the respective investigators were advised to continue the projects as per the set target milestones and effectively utilize the allocated budget under each project:

1. AIB 5013 SI: Impact of elevated CO₂ and temperature on muga silkworm and its primary host plant

Dr. D K Jigyasu, Sc-C presented the progress of the project and investigators were advised to continue the projects as per the set target milestones and effectively utilize the allocated budget under each project.

2. APS-05021-EF: Studies on population diversity and role of host plant volatile cues for enhancing egg laying in temperate tasar (Vanya) silk moths *Antheraea proylei*.

Dr. S Subharani, Sc-D presented the progress of the project and investigators were advised to continue the projects as per the set target milestones and effectively utilize the allocated budget under each project.

3. ARP05023CN: Muga and Eri silkworm disease monitoring in north eastern states of India

Sh. Bitopan Das, Sc-D presented the progress of the project and the following observations were made during the meeting:

- Efforts should be made by the investigators to create/develop a disease map covering the entire locations of NER and update the forecasting/forewarning calendar for the benefit of the farmers/stakeholders.
- The webpage to be developed and integrated with the Institute's website so that it can be made available for the public.

- Continue as per the milestones.

4. AIT05024EF - Advanced-Level Institutional Biotech Hubs at CMERTI-Jorhat (Phase-II)

Dr. Arun Kumar K P, Sc-D presented the progress of the project and the following observations were made during the meeting:

- Investigators should ensure proper maintenance of the collected eco-races and if needed may explore the possibility of conservation at MESSO/other stations to avoid any loss.
- Continue as per the milestones.

The following six projects were recently initiated. The respective investigators were advised to continue the projects as per the set target milestones and effectively utilize the allocated budget under each project:

5. PIB 5025 SIC: Characterization and evaluation of Soalu (*Litsea monopetala*) accessions for muga silkworm (*Antheraea assamensis*) rearing
6. SPR 5026 SIC: Development of suitable Muga and Eri based Integrated Farming System (IFS) for North East India
7. MOE 5027 SIC: Economic analysis of Tapioca based Eri-culture in Assam & Nagaland
8. SPR 5028 SIC: Popularization of Improved Technologies of Muga Culture for Enhancing Cocoon Production in Manipur
9. PIT 5029 SIC: Development of clonal propagation methods in Borpat (*Ailanthus grandis* L.) for its mass multiplication
- 10 MOE 5030 SNC: Evaluation, optimization & Popularization of Eri-culture Practices in Castor Growing Areas of Gujarat

AGENDA NO. 7: R&D HIGHLIGHTS

At the onset of the meeting, the Director of CMERTI presented a comprehensive overview of the institute's Research and Development (R&D) highlights. This presentation encapsulated the key achievements, advancements, and ongoing projects within the Institute. Following the presentation, the Chairman expressed appreciation for the notable progress made by CMER&TI.

AGENDA NO. 8: TRIALS OF TECHNOLOGIES (OST/OFTs)

Covered under the Review of Concluded project MOE 5022 MI.

AGENDA NO. 9: EXTENSION COMMUNICATION PROGRAMMES

Dr. D Mech, Sc-D & Head SEEM Division presented the overall progress of the Extension activities conducted during 2023-24. It was suggested to maintain the data base of the stakeholders covered under various extension communication programmes.

AGENDA NO. 10: CAPACITY BUILDING & TRAINING PROGRAMMES

Sh. Bitopan Das, Sc-D & Head Training Division presented the overall progress of the Training programs conducted during 2023-24. Progress achieved was appreciated.

AGENDA NO. 11: ANY OTHER POINTS

- Significance of collaborative efforts in implementing research and development (R&D) projects was emphasized. It is essential for the State Department of Sericulture to extend support for seed production and market development.

AGENDA NO. 12: CONCLUDING REMARKS FROM RAC MEMBERS AND CHAIRMAN

- Efforts should be intensified for the *in-situ* conservation of oak tasar, ensuring that this valuable resource is preserved within its natural habitat. Additionally, focused work on the preservation of cocoons is crucial.

Action: RSRS, Imphal

- Department of Sericulture (DoS) Assam was commended for presenting the first draft of the Silk Policy Document. A core group is to be established, consisting of 2-3 senior scientists; Dr. B K Singh, Ex-Director, CSB; Director of Sericulture, Government of Assam; Dr. Palash Dutta and farmer representatives to provide all necessary expertise and inputs to draft and finalize the policy document. It was advised to prepare the final draft by June 2024 and the finalized policy document be ready for appraisal by September 2024.
- The Sericulture Department should take proactive steps to implement crop insurance, which is vital for helping farmers manage financial losses caused by adverse conditions, disease outbreaks, or unexpected events impacting their crops.

Action: DOS, Assam

- It is essential for researchers to not only conduct high-quality research but also to focus on generating revenue through the sale of developed technologies. Prioritizing the patenting, commercialization, and popularization of institute-developed technologies is crucial.

Action: All the scientists of CMER&TI & its nested units

- It is imperative to identify specific areas and establish protected zones dedicated to rearing muga silkworms to safeguard the muga sector from pesticides and chemicals commonly used in tea cultivation and accordingly a regulated policy to be framed for implementation.

Action: CMER&TI, Lahdoigarh and DOS, Assam

- Identify specific seed zones within the states designated for silkworm egg production.

Action: MESSO, Guwahati

- Trial of Kesseru under OFT should be taken-up at higher altitudes in collaboration with KVK and DoS Nagaland.

Action: Host Plant Division of CMER&TI, Lahdoigarh and DOS, Nagaland

- The implementation of a grading system for muga silk, coupled with testing facilities to ensure its authenticity, should be introduced. The utilization and promotion of the Muga detection kit developed at AAU (Assam Agricultural University) may also be taken into consideration for utility and popularization.

Action: SMOI, Guwahati

The meeting ended with vote of thanks by PMCE.



(Bidyut Chandan Deka)

Chairman-RAC

LIST OF PARTICIPANTS IN THE 43rd RESEARCH ADVISORY COMMITTEE MEETING OF CMER&TI, LAHDOIGARH HELD ON 22nd March 2024

Chairman:

1. Dr. Bidyut Chandan Deka, Vice Chancellor, Assam Agricultural University, Jorhat

Members

2. Dr. Nitin Kulkarni, Director, RFRI Jorhat
3. Dr. Palash Denath, Professor & HoD, AAU Jorhat
4. Dr. B K Singh, Retd. CSB Director
5. Dr. N Ibotombi Singh, Retd. CSB Scientist
6. Sh. Chandan Shaw, Deputy Director, DoS Assam
7. Sh. M Saikia, Deputy Director, DoS Assam
8. Sh. Alakesh M Baruah, Deputy Director, DoS Assam
9. Sh. Sanjai Rai, Additional Director, DoS Nagaland
10. Sh. Hema Chandra Baruah, Rearer Representative, Lakhimpur
11. Sh. Binod Borah, Reeler Representative, Sivsagar
12. Dr. Kartik Neog, Director, CSB-MESSO Guwahati
13. Sh. S Nazeer Ahmed, Scientist-D, RCS, CO-CSB Bangalore
14. Sh. Giridhar Srinivas, Deputy Director, SMOI-Guwahati
15. Dr. K. M. Vijaya Kumari, Director, CMER&TI, Lahdoigarh
16. Dr. N B Chowdary, Director, CSB-CTRRTI Ranchi

Scientists

17. Dr. Reeta Luikham, Scientist-D, CMER&TI, Lahdoigarh
18. Sh. Suraj Pal, Scientist-D, EREC, Fatehpur, Uttar Pradesh
19. Dr. D. Mech, Scientist-D, CMER&TI, Lahdoigarh
20. Dr. Laishram Somen Singh, Scientist-D, RSRS, Imphal
21. Dr. Aftab A. Shabnam, Scientist-D, CMER&TI, Lahdoigarh
22. Sh. Bitupan Das, Scientist-D, CMER&TI, Lahdoigarh
23. Dr. Sinam Subharani Devi, Scientist-D, RSRS, Imphal
24. Dr. Arun Kumar K.P., Scientist-D, CMER&TI, Lahdoigarh
25. Dr. D.K. Jigyasu, Scientist-C, CMER&TI, Lahdoigarh
26. Dr. K. Subadas Singh, Scientist-C, RSRS Imphal
27. Dr. Vijay N., Scientist-C, CMER&TI, Lahdoigarh
28. Dr. Mahesh D.S., Scientist-C, CMER&TI, Lahdoigarh
29. Dr. Manjunath R.N., Scientist-C(R&S), CMER&TI, Lahdoigarh
30. Dr. Om Prakash Patidar, Scientist-C, CMER&TI, Lahdoigarh
31. Sh. Roshan Lal Meena, Scientist-B (R&S), CMER&TI, Lahdoigarh
32. Dr. Kaiho Kaisa, Scientist-B, CMER&TI, Lahdoigarh
33. Ms. Brunda B N, Scientist-B, CMER&TI, Lahdoigarh
34. Dr. Chandrakumara, Scientist-B, CMER&TI, Lahdoigarh
35. Dr. Jigyasha, Scientist-B, CMER&TI, Lahdoigarh
36. Dr. Harisha R, Scientist-B, CMER&TI, Lahdoigarh
37. Sh. Sinto Antoo, Scientist-B, CMER&TI, Lahdoigarh
38. Sh. Pulak Rabha, Scientist-B, REC Lakhimpur

Technical staff/Research Fellows

39. Sh. Simanta Saikia, SFA
40. Sh. Akib Hussain, JRF
41. Sh. Suraj K Shah, JRF
42. Ms. Akshita Choudhury, JRF
43. Ms. Rubi Sut, JRF
44. Ms. Raisa Begum, PA
45. Shri Saif Afridi Hussain, PA
46. Shri Porag Das, Project Assistant
47. Shri Mohmudur Rohman, Project Assistant