

**MINUTES OF 67th MEETING OF THE RESEARCH COUNCIL (RC) OF CTR&TI RANCHI
HELD ON 21.08.2023 and 24.08.2023**

The 67th meeting of Research Council (RC) of Central Tasar Research and Training Institute was held on 21.08.2023 (physical mode) & on 24.08.2023 (hybrid mode) at the institute under the Chairmanship of Dr. N. B. Chowdary, Director CTR&TI, Ranchi to evaluate the new project/pilot study proposals and review the on-going & concluded projects, TOTs, CBT and ECP programmes. List of the participants is appended as Annexure-1.

At the outset the Chairman, RC welcomed all the scientists and requested them to be crisp and to the point in their presentations. Later the meeting proceeded as per the agenda.

Agenda No.1: Confirmation of the previous RC Meeting Minutes

The Minutes of 66thR.C meeting were circulated to the scientists *vide* Email dated 25.07.2023. Since no comments / suggestions were received from any scientist, the Minutes were confirmed.

Agenda No. 2: Review of action taken on the recommendation / decisions of the previous RC meeting

Follow up action taken on the decisions made during the previous RC & RAC meetings were reviewed by Director and the following observations were made.

Concluded Pilot Studies

1. [CTR&TI/SP/PS-19] Design & Development of Tasar Silkworm Pebrine Identification System using Image processing Technique (January - June 2022)

Chairman suggested the PI for early development of conveyer belt.

[PI: Ms.Susmita Das, Scientist-D] (In Collaboration with BIT, Mesra, Ranchi)

2. [CTR&TI/HI/PS-21] Carbon dynamics and Carbon sequestration potential of tasar sericulture systems (January - June 2022)

Committee suggested PI to publish at least one popular article from the concluded pilot study.

[Dr. Aparna Kopparapu, Scientist-C]

3. [CTR&TI/SP/BT-25] Intuitive gene annotation of *Antheraea mylittade novo* whole genome using functional bioinformatics tools (July - December 2022)

Committee suggested PI to publish at least one popular article from the concluded pilot study.

[PI: Dr. J.P. Pandey, Scientist-D]

4. [CTR&TI/SI/BT-26] Reveal Insights into the Biology, Genetics and Evaluation of *Antheraea mylitta* through its Whole Genome Sequence (June –Nov 2022)

Committee suggested PI to publish at least one popular article from the concluded pilot study.

[Dr. I. G. Prabhu, Scientist – C]

Evaluation of New Research Proposals

1. Socio-economic impact assessment of tasar sericulture technologies and skill development in major tasar growing areas [PI: Dr. Vishal Mittal, Scientist-D]

PI requested to drop the project due to non-availability of experts in socio-economic / statistics areas. Committee agreed to kept proposal on hold and suggested to submit new proposal within a month.

[Action: Dr. Vishal Mittal, Scientist-D]

Agenda No. 3: New concept notes for approval

Total 05Projectproposals were evaluated and following decisions were made during the meeting:

1. Development of a low-cost combination of Vanya and mulberry pupae waste-based feed for carp Broodstock, and cultivable aquatic species

Dr. K. Jena, Scientist – D presented the collaborative project proposal with CIFRI, Barrackpore and committee suggested to revise the title of project and delete the third objective from project proposal. After incorporation of these suggestions, project proposal is approved for submission to RCS in RMIS01 for preliminary clearance.

[Action: Dr. K. Jena, Scientist-D&PI]

2. Comparative efficacy of nutrient formulations for improvement of leaf quality in tasar host plantation

Ms. Susmita Das, Scientist-D presented the proposal for comparative study of the nutrient formulations prepared earlier for qualitative and quantitative leaf productivity in tasar host plants. Committee suggested to include Poshan a multi nutrient formulation which is being widely used by the mulberry farmers as one of the treatment. Proposal is approved as pilot study.

[Action: Ms. Susmita Das, Scientist-D & PI]

3. Efficacy of Vijetha and Ankush for body disinfection of tasar silkworm

Dr. K. Jena, Scientist – D presented the proposal and committee suggested to revise the title “Field Testing of of Vijetha and Ankush for management of tasar silkworm diseases” and included four treatment combination for field experiment along with appropriate replications. Project proposed is approved for pilot study.

[PI:Dr. K. Jena. Scientist-D& PI]

4. Elucidating effects of Tasar silkworm feeding on Phyllosphere microbiome and biochemical profile of foliage of *Terminalia sp.*

Dr. Aparna Kopparapu, Scientist-C presented the proposal and Dr. I.G. Prabhu, Scientist – C suggested to include the transcriptome analysis work in project proposal. Committee suggested PI to submit the project proposal to DBT for funding.

[Action: Dr. Aparna Kopparapu, Scientist-C & PI]

5. Study on utilizing scanner technique for identification of uzifly / yellow fly infested seed cocoon

Dr. H S Gadad, Scientist-C proposed the pilot study. Committee suggested to explore the availability of thermal imaging facility at NISA, Namkum and BIT, Mesra. Based on the availability of the facility further pilot study may be take-up

[Action: Dr. H.S. Gadad, Scientist-C & PI]

Agenda No. 4: Review on concluded projects

Concluded Project (Nil)

Agenda No. 5: Progress of On-going projects

1. [PIB 04009 SI] Evaluation of identified hybrids of *Terminalia arjuna* × *T. tomentosa* and drought tolerant *T. arjuna* for their suitability in different tropical tasar silkworm rearing regions. (October 2021 - September 2026)

Dr. Aparna Kopparapu, Scientist-C and PI presented the progress of project. The chairman suggested to send a reminder to RCS, Bengaluru regarding reduction of sample size and test centres under project.

[Action: Dr. Aparna Kopparapu, Scientist-C & PI]

2. [PPA 04010 CN] Region and season specific selection of pruning and brushing schedule for tasar food plants and silkworm protection. (February 2022- January 2025)

Dr. Jitendra Singh, Scientist-C presented the progress of collaborative project with BTSSO, Bilaspur & TDF, Deoghar. Committee suggested to change the objective 02 with "State specific pruning and brushing schedule for higher crop yield" and inform to RCS also.

[Action: Dr. Jitendra Singh, Scientist – C & PI]

3. [ARP 04012 SI] Developing ectomycorrhizal bio-inoculants for improving survival and leaf yield of *Terminalia arjuna* and *T. tomentosa*. (February 2022- January 2026)

P.I. presented the progress and committee took note of the progress.

[Action: Dr. Aparna K., Scientist-C & PI]

4. [APS 04003 SI] Studies on the reproductive potential of Tasar silkworm *Antheraea mylitta* D with special reference to nutritional and mechanical indices. (March, 2020- February 2023 extended up to August 2023)

Dr Jena presented the progress, and the house observed progress was satisfactory. However, 1st crop rearing is under progress and fecundity impact will be assessed during grainage period., Hence, as discussed final project report will be submitted by November

[Action: Dr. K. Jena, Scientist-D& PI]

5. [AIE 04004 CN] Study on existence of tropical tasar silkworm eco-races and their subsist places with the help of geospatial technology.(March, 2020- February 2023)

Dr .D.I.G. Prabhu, Scientist-C presented the progress. The Chainman suggested the PI to fix a review meeting in physical mode at CTRTI, Ranchi with collaborative Institute (NESAC) in second week of September to review the progress of project.

[Action: Dr. D.I. G. Prabhu, Scientist-C & PI]

6. [ARE 04006 CN]Management of important pests of tasar silkworm *Antheraea mylitta* (D) through botanical repellents.(April, 2020- March 2023 Extended upto September 2023)

PI presented the progress of the project and chair suggested to consider effective botanicals for next year on station trial.

[Action: Dr. H.S. Gadad, Scientist-C & PI]

7. [ARE 04011 MI] Diversity, yield loss and management of predatory wasps attacking *Antheraea mylitta* Drury [February 2022- January 2025)

Committee suggested to explore the experts' views and suggestions for effective management of predatory wasps in tasar ecosystem. PI requested the permission of chair to seek the technical assistance for the project works at RSRS, Baripada as it is one of the centers where wasp problem is more. Chairman considered the request and suggested to send an official letter about the same.

[Action: Dr. H. S. Gadad, Scientist-C& PI]

8. [CYR 04013 MI] Studies on storage practices of tropical tasar cocoons for better cooking efficiency, reeling parameters and yarn quality. (February 2022- January 2024)

Mr. Ashu Kumar, Scientist-B presented the progress and requested for six month extension of the project period for completing Single cocoon reeling, reeling performance characteristics and sericin characteristics. Chairman considered the request and suggested to send an official letter about the same to RCS, Bengaluru.

[Action: Mr. Ashu Kumar, Scientist-B & PI]

9. [BPC 04008 EF] Mass level extraction of sericin from tasar cocoon cooking waste water for its prospective utilization[PI: Dr. K. Jena] (March 2021- February 2024) (DBT Funded)

Dr Jena presented the progress, and the house noted progress. As PI informed, no grant was received after April 2022.It was decided to send reminder to DBT regarding release of funds.

[Action: Dr. K. Jena, Scientist-D& PI]

10. [MOE 04007 EF] Establishment of Biotech-KISAN Hub at Professional Assistance for Development Action (PRADAN), Deoghar, Jharkhand for three Aspirational Districts of Jharkhand (Godda, Dumka and Pakur) (March 2021- February 2023 extended up to August 2023) Collaborative Project with PRADAN [Co-PI from CTR&TI, Ranchi:]. (DBT Funded)

Dr. J.P. Pandey Scientist-D presented the progress of project and committee suggested PI to plan for Experimental Field Visit conducted by TDF Deoghar in Godda and Dumka Districts in the month of September for Director, CTRTI, Ranchi and Director, BTSSO, Bilaspur. Send a letter to Director, BTSSO, Bilaspur and TDF, Deoghar for same.

[Action: Dr. J.P. Pandey Scientist-D& PI]

11. [MOE 04014 MI] Evaluation and popularization of improved technologies developed in the field of tasar sector for central and north India (On Station/Farmer Trials of CTRTI) [February 2022- January 2024)

PI of the project presented the progress of project and committee suggested the following decisions given below

a. **Evaluation of cocoonase variant:**

- Cocoonase trials may be repeated in all the locations
- Prepare the feedback format & collect the feedback from the stakeholders

b. **Evaluation of IPM for Gall fly**

- Location-wise data may be collected and compare with previous year data.

c. **Evaluation of PSB:**

- Leaf yield data to be recorded along with Soil fertility data
- PSB may be supplied immediately to all the locations including TDF.

d. **Evaluation of chemical trap:**

- In-charges of BSMTCs Kharswan, Ambikapur, Bhandara & Chennur opined that, there are no good results found regarding the chemical traps.
- Chairman suggested to dis-continue the technology, since there are no indicative results.

e. **Improved accession:**

- Supply 05 Jarul & 02 no's of 102 saplings to TDF, Godda for gap filling
- Supply 05 saplings of Acce.102 & 123 to TDF, Dumka for Gap filling

f. **Evaluation of Egg washing & dis-infection machine:**

- Egg washing machine Trial may be conducted with 5% bleaching powder at BSMTC, Chennur
- All the BSMTCs may go for demonstration of machine in 2nd crop and record the data & send it to CTRTI in the given format.

g. **Abiotic factor – heat reflector paints**

- Prepare the feedback format & collect the feedback from the stakeholders

h. **New cooking package:**

- Trials may be repeated in all the locations
- Prepare the feedback format & collect the feedback from the stakeholders

[Action: Dr. Jagadajyoti Binkadakatti, Scientist-C& PI]

12. [APR 04015CN] Documentation and Validation of Indigenous Technical Knowledge (ITKs) in Tropical tasar Zone (December-2022 to November-2025)

PI of the project presented the progress of project and Committee suggested following decisions given bellows.

- Categorise the ITKs as per their use/purpose
- Include ITK (Brushing of worms with date palm leaves) from Chennur area & collect ITK details along with photos from In-charge BSMTC, Chennur
- Include ITK (Control of red ants) from Kujurli village West-Singhbhum district & document the ITK in 2nd crop.
- Collect the ITKs from TDF include for validation.

13. [ARP04016MI] Tasar Silkworm Disease Monitoring and Management

(March, 2023-Feb,2028) [PI: Dr. J.P. Pandey Scientist-D]

Dr. J.P. Pandey Scientist-D presented the progress of project and and Chairman suggested Pi to initiate the recruitment process for engagement of JRF/CRPs in on-going project. Committee suggested PI to circulate the updated version of disease module to all the centres and make presentation state wise, CSB (CTR TI & Nested Units & BTSSO, Bilaspur& Attached units) wise and NGOs wise disease % for Joint Coordination Committee to be held on 26.09.2023. Shri Bhagavanulu, M.V.K, Scientist-D, BSM&TC, Chennur suggested PI to initiate the pebrine testing in grainage, after harvesting fist crop BV, TV and second crop TV also for management of silkworm disease.

[Action: Dr. J.P. Pandey Scientist-D, Scientist-C& PI]

14. [AIB04017MI] Recurrent Selection and Multiplication of Thermo-Tolerant Line(s) of Tropical Tasar Silkworm (March,2023-Feb,2026)[PI:Dr. I. G. Prabhu, Scientist-C]

Dr. I. G. Prabhu, Scientist-C presented the progress of project and committee suggested PI to maintain silkworm rearing of thermo-tolerant line in Ratu field (version field) of State Department also to avoid the loss of stock due to pebrine disease.

[Action: Dr. I. G. Prabhu, Scientist-C& PI]

15. [AIB 04018 MI]: In situ Conservation of Modal Ecorace of Tasar Silkworm in Odisha (March,2023-Dec,2027) [PI:Dr. I. G. Prabhu, Scientist-C]

Chairman suggested to initiate the tri-party MOU between CSB, DoS, Odisha and Forest Dept. of Odisha at the earliest for timely and effective implementation of the project.

[Action: Dr. I. G. Prabhu, Scientist-C& PI]

16. [AIB 04019 MI]: In situ Conservation of Raily Ecorace of Tasar Silkworm in Chhattisgarh (March,2023-Dec,2027) [PI:Dr. I. G. Prabhu, Scientist-C]

Chairman suggested to initiate the tri-party MOU between CSB, DoS, Chhattisgarh and Forest Dept. of Chhattisgarh at the earliest for timely and effective implementation of the project.

[Action: Dr.H.S.Gadad, Scientist-C& PI]

17. [AIB 04020 MI]: In situ Conservation of Sarihan Ecorace of Tasar Silkworm in Jharkhand (March,2023-Dec,2027) [PI:Dr. I. G. Prabhu, Scientist-C]

Chairman suggested to initiate the tri-party MOU between CSB, DoS, Jharkhand and Forest Dept. of Jharkhand at the earliest for timely and effective implementation of the project.

[Action: Dr. S. Giri, Scientist – D, RSRS, Dumka& PI]

18. [AIT 08006 EF] Development of lateral flow assay (LFA) kit for diagnosis of pebrine disease in silkworms.(March 2021- August 2022 extended upto June 02023) [Co-PI: Dr. H. S. Gadad, Scientist-C] [DBT Funded SBRL, Bangalore project]

Dr. H. S. Gadad, Scientist-C, presented the progress of project and house took note the project progress.

[Action: Dr. H. S. Gadad, Scientist-C&Co-PI]

19. MOE9001MI: Test verification of seed preservation technology developed for Tasar silkworm (*Antheraea mylitta*, D (June 2022-December 2023)

Dr. J.P. Pandey Scientist-D presented the progress of project and requested to organize a meeting in physical mode with collaborative Institute for better understanding and timely achieving of milestone as per target fixed in project proposal.

[Action: Dr. J.P. Pandey Scientist-D, Scientist-C & PI]

AGENDA NO. 6: PROGRESS OF PILOT STUDIES/ PROGRAMME OF WORK

Respective PIs presented the progress of pilot study and Program of work. Committee took note of the progress.

A. Concluded Pilot Studies

1. [CTR&TI/SP/ BT/28] "Designing and Fabrication of automated LED light trap emitting light of all wavelength across UV- vis spectra in a single trap" ((December 2022 - May 2023) [PI: Dr. S.M. Mazumdar, Scientist-C, BSM&TC, Kathikund]

Committee suggested PI to submit conclude report within a month and publish at least one popular article from the concluded pilot study.

[Action:Dr. S.M. Mazumdar, Scientist-C, BSM&TC, Kathikund& PI]

2. [CTR&TI/SP/ BT/29] "Evaluation of the role of Ceratopogonids (Diptera) a neglected cluser to Tasar silkworms" (December 2022 - May 2023) [PI: Dr. S.M. Mazumdar, Scientist-C, BSM&TC, Kathikund]

Committee suggested PI to submit conclude report within a month and publish at least one popular article from the concluded pilot study.

[Action: Dr. S.M. Mazumdar, Scientist-C, BSM&TC, Kathikund & PI]

B. Ongoing Pilot Studies

1. [CTR&TI/SSRT/BP/30] "Preparation and characterization of Chitosan sheet/nanofiber mat" (April 2023 - September 2023) [PI: Dr. K. Jena, Scientist – D, CTRTI, Ranchi]

The committee took note of the progress.

C. On-going Programme of Work (of continuous nature)

Respective PIs presented the progress of Programme of Work.

1. [CTR&TI/HPP/POW-02] Farm Management & Developmental works [PI: Dr. H. Yadav Scientist-C]
2. [CTR&TI/SWPT/POW-09] Laboratory production and supply of LSM [PI: J. P. Pandey, Scientist-D]

AGENDA NO. 7: TRIAL OF TECHNOLOGIES (OSTs/ OFTs)

Dr. Jagadajyoti Binkadakatti, Scientist-C presented the progress of TOTs. Committee took note of the progress.

[Action: Dr. Jagadajyoti Binkadakatti, Scientist-C]

AGENDA NO. 8: EXTENSION (ECP) AND OTHER PROGRAMMES

Dr. Vishal Mittal, Scientist-D presented the progress of ECPs. The council took note of the progress.

[Action: Dr. Jagadajyoti Binkadakatti, Scientist-C]

AGENDA NO. 9: TRAINING (CBT) AND OTHER PROGRAMMES

Dr. Vishal Mittal, Scientist-D presented the progress of CBT. The council took note of the progress.

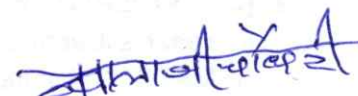
[Action: Dr. Vishal Mittal, Scientist-D & PI]

AGENDA NO. 10: DISCUSSION ON GENERAL COMMENTS / SUGGESTIONS OF RC/ RAC

AGENDA NO. 11: ANY OTHER POINT WITH PERMISSION OF THE CHAIR

The meeting ended with a vote of thanks to the chair.

Place: Ranchi
Date: 26.07.2023



Dr. N. B. Chowdary
DIRECTOR

**LIST OF PARTICIPANTS ATTENDED 67th MEETING OF THE RESEARCH COUNCIL (RC)
OF CTR&TI RANCHI HELD ON 21st & 24th August 2023**

1. Dr.N. B. Chowdary, Director, CTR&TI, Ranchi
2. Dr.Selvakumar. T, Director, BTSSO, Bilaspur(Online mode)
3. Shri Bhagavanulu,M.V.K,Scientist-D, BSM&TC, Chennur (Online mode)
4. Dr. Sunil Mishra, Scientist – D, RSRS, Jagdalpur (Online mode)
5. Dr. Dinesh Kumar, REC, Champa (Online mode)
6. Dr. S. Giri, RSRS, Dumka (Online mode)
7. Ms.Susmita Das, Scientist-D, CTR&TI, Ranchi
8. Dr. J. P. Pandey, Scientist-D, CTR&TI, Ranchi
9. Dr. K. Jena, Scientist-D, CTR&TI, Ranchi
10. Dr. Vishal Mittal, Scientist-D, CTR&TI, Ranchi
11. Dr. Hasansab Nadaf, Scientist – D, BTSSO, Bilaspur(Online mode)
12. Dr. D.I.G. Prabhu, Scientist-C, CTR&TI, Ranchi
13. Dr.Jitendra Singh, Scientist - C, CTR&TI, Ranchi
14. J. Binkadakatti, Scientist - C, CTR&TI, Ranchi
15. Dr.HarendraYadav, Scientist-C, CTR&TI, Ranchi
16. Dr.PravinGedam, Scientist – C, BSMTC, Bandara(Online mode)
17. Dr.Vinod Singh, Scientist – C, BSMTC, Pali(Online mode)
18. Dr. S.M. Majumdar, Scientist – C, BSMTC, Kathikund(Online mode)
19. Dr.BommireddyThirupam Reddy, BSMTC, Bastar(Online mode)
20. Dr. C. Selvaraj, Scientist – C, BSMTC, Madhupur(Online mode)
21. Dr. Vishaka G.V., Scientist – C, BTSSO, Bilaspur(Online mode)
22. Dr. H.S. Gadad, Scientist-C, CTR&TI, Ranchi
23. Dr.Aparna K., Scientist-C, CTR&TI, Ranchi
24. Mr.Ashu Kumar, Scientist – B, CTRTI, Ranchi
25. Mr.PrabhudattaMallick, Project Fellow, TDF, Deoghar(Online mode)
26. Sri. A.K. Rajput, STA, BSMTC, Ambikapur(Online mode)
27. Sri. BenudharPatnaik, STA, Baripada(Online mode)
28. Sri. G.R. Sawarkar, STA, Bhandara(Online mode)