

**MINUTES OF 66th MEETING OF THE RESEARCH COUNCIL (RC) OF CTRTI RANCHI
HELD ON 29th April 2023**

The 66th meeting of Research Council (RC) of Central Tasar Research and Training Institute was held on 29th April, 2023 at the institute under the Chairmanship of Dr. K. Sathyanarayana, Director CTR&TI, Ranchi to evaluate the new project/pilot study proposals and review the ongoing & concluded projects, TOTs, CBT and ECP programmes. List of the participants is appended as Annexure-1.

At the onset 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 65th R.C. meeting were circulated to the scientists *vide* Email dated 06.04.2023. Since no comments / suggestions were received from any scientist, the minutes were confirmed.

Agenda No. 2: Review of action taken of 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 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 the 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 mylitta de novo* whole genome using functional bioinformatics tools (July - December 2022)

Committee suggested the 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]

It was suggested to that submission of the proposal is pending for more than one year Chairman took the matter seriously and suggested the PI to submit revised concept note in RMIS- 01 within May 2023 for RCS approval and submit proposal to DST for funding.

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

Capacity building and Training (CBT)

Committee suggested to Publish a brief report on CBT, ECP and Research highlights every year

[Action: Training, SEEM & PMCE Divisions]

Agenda No. 3: New concept notes for approval

Total 02 Project proposals were evaluated following decisions were made during the meeting:

1. **Reduce the culture period and increased the production of bioactive compounds in Cordyceps for its value addition**

Dr. K. Jena, Scientist – D presented the proposal. The house did not approved the concept note is not approved.

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

2. **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 committee recommended to include the justification and importance of phyllosphere studies. The committee also suggested to increase the treatments to differentiate the effects of inadequate nutrition and plant defence. The concept note is to be submitted with the suggestions incorporated.

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

Agenda No. 4: Review on concluded projects

Concluded Project (1)

1. [BPS 01013 CN] **Utilization and diversification of silkworm pupae products for human & animal consumption and composting.** (Oct, 2020 - Sept, 2022, Extended upto March, 2023)

PI to submit the concluded project report by 10.05.2023 and suggested to submit the proposal for second phase of project by 10.05.2023.

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

Agenda No. 5: Progress of Ongoing 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 submit a report on status of saplings, progress of the project and the request for mid-term corrections for communication to CO, Bengaluru.

[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 and committee took note of the progress.

[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-B & 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 upto August 2023)**

Dr. K. Jena, Scientist-D presented the progress and committee took note of the progress.

[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. Prabhu, Scientist-C presented the progress. The Chainman suggested the PI to fix a meeting with collaborative Institute (NESAC) in last week of July to review the progress of the 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)

Dr. H.S. Gadad Scientist-Cand PI of the project presented the progress and based on the discussion between project investigators and scientists from NBAIR, Bengaluru, held on 25.04.2023 at NBAIR, Bengaluru, PI requested to include the work on development of slow releasing formulations of effective botanicals in ongoing project. Chairman suggested that ongoing project is at the flag end so it is too late for midterm correction. Hence committee suggested to take up the said work as phase-II of the project, after completion of the ongoing project.

[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]

Dr. H. S. Gadad, Scientist-C project presented the progress and committee took note of the progress. PI requested to include Dr. Vishal Mittal, Scientist – D, CTRTI, Ranchi and Dr. C. Selvaraj, Scientist – C, BSMTTC, Kharsawan in ongoing project.

[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. D. Chattopadhyay, Scientist-D presented the progress and committee took note of the progress.

[Action: Mr. D. Chattopadhyay, Scientist-D & 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. K. Jena, Scientist-D presented the progress of project and committee took note of the progress.

[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 upto 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 Chairman suggested the PI to organize a workshop involving the collaborative partners and stockholders.

[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 took note of the progress.

[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 Chairman suggested to speed up the ITK's documentation.

- 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 committee suggested PI to submit revised proposal to RCS.

[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 and committee took note of the progress.

[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]**

Dr. I. G. Prabhu, Scientist-C presented the progress of project and committee suggested Dr. I. G. Prabhu, Scientist-C to take up the project as PI.

[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]**

Dr. I. G. Prabhu, Scientist-C presented the progress of project and committee suggested H.S. Gadad, Scientist - C to take up the project as PI.

[Action: Dr. I. G. Prabhu, 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]

Dr. I. G. Prabhu, Scientist-C presented the progress of project and committee suggested Dr. S. Giri, Scientist – D, RSRS, Dumka to take up the project as PI.

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

18. [BPS 01013 CN] Utilization and diversification of silkworm pupae products for human & animal consumption and composting. (Oct, 2020 - Sept, 2022 extended upto March 2023)

Dr. K. Jena Scientist-D. Presented the progress and committee took note of the progress. Committee suggested to furnish the mechanical approach on fecundity of tasar silkworm at BSMTC, Kharsawan.

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

19. [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 committee suggested to validate LFA Kit at Institute and field level.

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

20. 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 committee took note of the progress.

[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. Ongoing 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]

The committee took note of the progress

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]

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

The committee took note of the progress.

B. 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: 25.07.2023



Dr. N. B. Chowdary
DIRECTOR

Annexure-I

**LIST OF PARTICIPANTS ATTENDED 66th MEETING OF THE RESEARCH COUNCIL (RC)
OF CTR&TI RANCHI HELD ON 29th April 2023**

1. Dr. K. Sathyanarayana, Director, CTR&TI, Ranchi
2. Ms. Susmita Das, Scientist-D, CTR&TI, Ranchi
3. Dr. J. P. Pandey, Scientist-D, CTR&TI, Ranchi
4. Dr. K. Jena, Scientist-D, CTR&TI, Ranchi
5. Dr. Vishal Mittal, Scientist-D, CTR&TI, Ranchi
6. Mr. Debasish Chattopadhyay, Scientist-D, CTR&TI, Ranchi
7. Dr. D.I.G. Prabhu, Scientist-C, CTR&TI, Ranchi
8. Dr. Jitendra Singh, Scientist - C, CTR&TI, Ranchi
9. J. Binkadakatti, Scientist - C, CTR&TI, Ranchi
10. Dr. Harendra Yadav, Scientist-C, CTR&TI, Ranchi
11. Dr. H.S. Gadad, Scientist-C, CTR&TI, Ranchi
12. Dr. Aparna K., Scientist-C, CTR&TI, Ranchi