



**MINUTES OF 75th MEETING OF THE RESEARCH COUNCIL (RC) OF CSB-CTRTI,
RANCHI HELD ON 30th SEPTEMBER, 2025**

The 75th meeting of the Research Council (RC) of CSB-Central Tasar Research and Training Institute was convened on 30th September 2025 at the Institute, under the chairmanship of Dr. N. B. Chowdary, Director, CSB-CTRTI, Ranchi. The meeting aimed to evaluate new project proposals and review ongoing and completed projects, along with Technology Transfer (TOT), Capacity Building Training (CBT), and Extension Communication Programme (ECP) activities.

At the outset, Dr. Deepika Kumar Umesh, Scientist-C & In-charge, PMCE Division, warmly welcomed Dr. N. B. Chowdary, Chairman, Research Council and the scientists from the Institute and its Nested Units. The list of participants is enclosed in *Annexure-1*.

In his inaugural address, Dr. N. B. Chowdary advised all the scientists to focus R&D on generating tangible impacts in the field to promote tasar culture and to improve the quality productivity. Following his remarks, the proceedings continued as per the agenda, facilitated by Dr. Deepika Kumar Umesh, Scientist-C & In-charge, PMCE Division.

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

The Minutes of 74th R.C. meeting was circulated to the Scientists of the Institute and its Nested Units vide Email dated 18.08.2025. Since no comments/suggestions have been received so far, the Minutes may be confirmed.

Agenda No. 2: Review of Action Taken of the recommendation / decisions of the previous RC meeting

The follow-up action taken on the decisions/recommendations of the previous meetings were presented by Dr. Deepika Kumar Umesh, Scientist-C & In-charge PMCE Division. While approving the action taken report, the Chairman instructed the scientists to submit the pending concept notes to CO at the earliest.

Agenda No. 3: New concept notes for approval:

Projects: 7 Nos.

1. Development of nutrient-based stimulants for enhancing leaf productivity of *Quercus* sp. [PI: Dr. Divya Singh, Scientist-C, CSB-RSRS, Bhimtal]

PI presented the project proposal before RC. The committee gave following suggestions:

- A comprehensive review of both national and international literature on previous work in this area should be included.
- The nutrient combinations should be revisited to enhance their effectiveness in improving oak leaf yield and quality.
- The objectives may be streamlined to two well-defined ones instead of three. Both oak species should be included in the study.

- d) Poshan and Haryali may be used as controls to compare the efficacy of the newly developed nutrient-based stimulants.
- e) Additional nutrient-based stimulants may also be explored.
- f) The experiment should be conducted under field conditions rather than in pots, as oak is a perennial species and pot experiments may not yield conclusive results.
- g) A silkworm bioassay should be incorporated into the methodology.

The PI was further advised to incorporate the suggestions in the proposal and submit to RCS section, CO, Bengaluru.

[Action: PI: Dr. Divya Singh, Scientist-C, CSB-RSRS, Bhimtal]

2. Innovative approaches for effective preservation of *Anthereaproylei* J seed cocoons to minimize preservation loss [PI: Dr. Divya Singh, Scientist-C, CSB-RSRS, Bhimtal]

PI presented the project proposal before RC. The committee gave following suggestions:

- a) A comprehensive review of the literature on previous work conducted in this area should be included.
- b) The existing preservation methods and their associated limitations should be clearly described.
- c) Gopeshwar may be selected for the high-altitude treatment, while the facilities at Jagatpur can be utilized for the air-conditioned (AC) treatment.
- d) Objective 1 should be suitably revised or modified.

The PI was further advised to incorporate the suggestions in the proposal and submit to RCS section, CO, Bengaluru.

[Action: PI: Dr. Divya Singh, Scientist-C, CSB-RSRS, Bhimtal]

3. Evaluation of device-assisted oviposition on fecundity to improve seed production in *Anthereaproylei* J. [PI: Dr. A.S. Verma, Scientist-D, CSB-RSRS, Bhimtal]

The Principal Investigator (PI) presented the project proposal before the Research Council (RC). The committee offered the following suggestions:

- a) A comprehensive review of the literature on previous work carried out in this area should be included.
- b) The drawbacks associated with the use of nylon bags should be clearly mentioned.
- c) Loose eggs should be included as one of the treatments.

The PI was further advised to incorporate these suggestions into the proposal and submit the revised version to the RCS Section, Central Office, Bengaluru.

[Action: PI: Dr. A.S. Verma, Scientist-C, CSB-RSRS, Bhimtal]

4. Establishment of Artificial Insemination as an Assisted Reproductive Technique in Tropical Tasar Silkworm (*Antheraea mylitta*) [PI: Dr. Divya Rajawat, Scientist-B]

The Principal Investigator (PI) presented the project proposal before the Research Council (RC). The committee provided the following suggestions:

- a) A comprehensive review of the existing literature related to previous work in this area should be included.

- b) The reasons for the failure of earlier attempts in artificial insemination experiments should be clearly mentioned.
- c) The PI should highlight how the proposed methodology differs from the approaches used in previous studies.

The PI was further advised to incorporate these suggestions into the proposal and submit the revised version to the RCS Section, Central Office, Bengaluru.

[Action: PI: Dr. Divya Rajawat, Scientist-B]

5. Establishment of SOP for Production of High-Quality DFLs through Nucleus Breeding and Field Evaluation in Tasar Silkworm [PI: Dr. Divya Rajawat, Scientist-B]

The Principal Investigator (PI) presented the project proposal before the Research Council (RC). The committee observed that the BTSSO Bilaspur has already developed a Standard Operating Procedure (SOP) for high-quality DFL production. Hence, the proposed project may not be appropriate to undertake at present. The PI was further advised to focus on projects related to silkworm breeding.

[Action: PI: Dr. Divya Rajawat, Scientist-B]

6. Devising Selection Index for holistic genetic improvement in Daba ecorace of Tropical Tasar silkworm [PI: Dr. Nidhi Sukhija, Scientist-B]

The Principal Investigator (PI) presented the project proposal before the Research Council (RC). The committee recognized the project as significant for initiating work on tasar silkworm breeding. The PI was advised to discuss the proposed methodology with mulberry silkworm breeders and subsequently submit the revised proposal to the RCS Section, Central Office, Bengaluru.

[Action: PI: Dr. Nidhi Sukhija, Scientist-B]

Collaborative Project:

7. Smart silk patch: Dual loaded bio-adhesive system for rapid bed sore healing [PI: Dr. Himansu Bhusan Samal, Associate Professor, Centurion University of Technology and Management, Odisha & PI: K. Jena, Scientist-D, CSB-CTRTI, Ranchi]

The Principal Investigator (PI) from CUTM, Odisha presented the project proposal before the Research Council (RC). The committee offered the following suggestions:

- a) The individual effects of curcumin and sericin should be studied separately.
- b) Standard or recommended methods for bed sore treatment should be included as controls.
- c) Sorosis may also be considered as an additional component.
- d) The project title should be revised to make it more comprehensive.
- e) The PI should refer to studies conducted by NIT, Rourkela on utilizing sericin's properties for anticancer drug development.

The PI was further advised to incorporate the suggestions in the proposal and submit to RCS section, CO, Bengaluru.

Agenda No. 4: Review on concluded projects Concluded Project(0+4)

Projects: NIL

Pilot Study: 4 Nos.

1. CTRT&TI/BSMTC/PS/40: Studies on standardizing techniques for preservation of Diapausing nucleus Seed cocoons and Egg production in basic seed grainage. [PI: K. S. Prakash, Scientist-D, BSMTC, R.C Varam, AP]

Co-I presented the progress of the project and committee suggested the PI to submit the concluded report to PMCE at the earliest.

[Action: K. S. Prakash, Scientist-D, BSMTC, R.C Varam, AP]

2. CSB-CTRTI/2024-25HP/PS/02: Design & Development of Conveyor Belt for Tasar Silkworm Pebrine Identification System [PI: Ms. Susmita Das, Scientist -D]

PI presented the progress of the concluded pilot study and committee suggested the PI to finish the remaining work at earliest and submit the concluded report to PMCE.

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

3. CSB-CTRTI/2024-25HP/PS/01: Development of a counting machine for tasar cocoons (October 2024 –March, 2025) [PI: Ms. Susmita Das, Scientist -D]

PI presented the progress of the concluded pilot study and committee suggested the PI to finish the remaining work at earliest and submit the concluded report to PMCE.

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

4. CTR&TI/BT/PS/37: Possibilities of Indoor Rearing in Tropical Tasar Silkworm *Antheraea mylitta*

PI presented the progress of pilot study and committee suggested the PI to submit the concluded report to PMCE at the earliest.

[Action: Mr. Divya Rajawat, Scientist-B]

Agenda No. 5: Progress of Ongoing projects (22 + 6)

Ongoing Projects as PI (21):

1. [PIB 04009 SI] Evaluation of identified hybrids of *Terminalia arjuna* x *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, presented the progress and committee took note of the progress.

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

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

PI presented the progress and the committee observed that the progress was as per the mile stone.

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

3. [PPS04031SIC] Exploration of C sequestration potential of *Terminalia* spp. and ways to increase the soil organic C stock (April 2025 - March 2028)

Dr. Aparna Kopparapu, Scientist-C presented the progress and committee noted that the project is running as per the milestones.

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

4. [SIP 04022 SIC] Impact of weather change on tasar food plants and silkworm (March, 2024 February, 2027).

Dr. Deepika Kumar Umesh, Scientist-C presented the progress and committee suggested to expedite the installation of the equipment under the project.

[Action: Dr. Deepika Kumar Umesh, Scientist-C& PI]

5. [PPA 04023 SIC] Identification of suitable package of practices for establishment of *Lagerstroemia speciosa* (Jarul) for quality leaf production (March, 2024 – February, 2029).

PI presented the progress and committee took note of the progress.

[Action: Smt. Susmita Das, Scientist-D]

6. [PPA 04024SIC] Effect of different plant spacing and pruning heights on chawki leaf productivity of tasar host plants (*Terminalia arjuna*, *T. Tomentosa* and *Lagerstroemia speciosa*) and chawki silkworm rearing. (March 2024 – February, 2027)

Dr. Harendra Yadav, Scientist-C presented the progress and committee took note the progress.

[Action: Dr. Harendra Yadav, Scientist-C]

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

Dr. Hanamant Gadad, Scientist-C & PI of project presented the progress and committee took note the progress.

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

8. [ARP04016M1] Tasar Silkworm Disease Monitoring and Management in North and Central states of India (March, 2023-Feb, 2028)

Dr. Nidhi Sukhija, Scientist-B presented the progress and committee took note the progress.

[Action: PI: Dr. Nidhi Sukhija, Scientist-B& PI]

9. [A1B04017MI] Recurrent Selection and Multiplication of Thermo-Tolerant Line (s) of Tropical Tasar Silkworm (March, 2023-Feb, 2026)

PI presented the progress of project and committee took note the progress.

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

10. [AIB 04018 MI]: In situ Conservation of Modal Ecorace of Tasar Silkworm in Odisha (March, 2023-Dec, 2027)

PI presented the progress of project and committee observed that the progress is as per the milestone.

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

11. [AIB 04019 MI]: In situ Conservation of Raily Ecorace of Tasar Silkworm in Chhattisgarh (March, 2023-Dec, 2027)

PI presented the progress of project and committee observed that the progress is as per the milestone.

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

12. [AIB 04020 MI]: In situ Conservation of Sarihan Ecorace of Tasar Silkworm in Jharkhand (March, 2023-Dec, 2027)

PI presented the progress of project and committee suggested PI to ensure project running as per milestone.

13. [Action: Dr. S. Giri, Scientist-D& PI]

[CEM 04021 MNC]: Evaluation of technologies and machines developed in tasar post cocoon technology (March 2024 – February, 2026).

Shri. Ashu Kumar, Scientist-B presented the progress and committee took note of the progress.

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

[BPC 04025 SNC] Management of type II diabetic (T2D) condition through tasar sericin (March 2024 – September, 2026).

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

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

15. [BPS 04026 SNC] Studies on nutraceutical properties of silkworm pupae oil and development of a low-cost combination of vanya and mulberry pupae meal based feed for carp broodstock, and cultivable aquatic species (March 2024 – February, 2026)

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

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

[AIT 04026 SIE] Development of KASP Based SNP Barcoding System for the Molecular Identification of Tropical Tasar Silkworm Ecoraces

PI presented the progress of the project and the Committee noted the progress.

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

17. [AIT04028SNE] Inflatable mucoadhesive vaginal tablet coin (VTC) for instant spermicidal action as local vaginal contraceptive and microbicide

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

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

18. [PIG04033MIC]: Development of Standard Operating Procedure (SOP) for tasar host plant gene bank and maintenance of the gene bank using cultural package of practices

The Principal Investigator (PI) presented the progress of the project, which was duly noted by the committee. The committee further suggested including Dr. Deepika Kumar Umesh, Scientist-C, as a Co-Investigator (CI) in the project, considering that her expertise in plant physiology would be highly beneficial to its successful implementation.

[Action: Mr. Haragopal Dutta, Scientist-B& PI]

19. [PRP04032SIC]: Identification of pathogens associated with Tasar host plant diseases and their integrated management

CI of the project presented the progress and committee took note of the progress.

[Action: Dr. Shreenath Y S, Scientist-B& PI]

20. [SRP04030SIC]: Evaluation of the efficacy of identified formulations for the management of Cytoplasmic Polyhedrosis Virus in *Antheraea mylitta*

CI of the project presented the progress and committee took note of the progress.

[Action: Dr. Shreenath Y S, Scientist-B& PI]

21. [MTS04029MIC]: Study on lab to land gaps in adoption & effectiveness of tasar technologies: Constraints and recommendations in major tasar growing areas

Dr. Vishal Mittal, Scientist-D & PI of the project presented the progress and committee took note of the progress.

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

Ongoing Projects as Co-PI (1):

[SRP08012MNC] Development of a Rapid Antigen Test Kit for Diagnosis of Cytoplasmic Polyhedrosis in Vanay Silkworms (*Antheraea assamensis*, *A. mylitta* and *A. proylei*) (Collaboration with SBRL) (February 2024- January 2026)

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

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

Ongoing Pilot Studies (7):

1. CSB-CTRTI/2024-25/SBG/01: Metabolite profiling of tasar food plants and silkworms to study their potential impact on silk production. [PI: Dr. Nidhi Sukhija, Scientist -B]

Dr. Nidhi Sukhija, Scientist -B presented the findings of the pilot study and committee took note of the progress.

[Action: Dr. Nidhi Sukhija, Scientist -B]

2. **CSB-CTRTI/2024-25/PCT/01:** Comparative Analysis of physical and chemical properties of Oak Tasar, Korean Tasar, Muga and Tropical Tasar Silk: A Study on Colour, Strength, Fineness, and Durability[PI: Mr. Ashu Kumar, Scientist-B]

PI Presented the progress of the project and committee took note the progress.

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

3. **CSB-CTRTI/2025-26/PS/PP/01:** Feasibility of floriculture-Based Integrated Farming System in Tasar Sericulture[PI: Dr. Shreenath Y S, Scientist-B]

Dr. Shreenath Y S, Scientist-B presented the findings of the pilot study and committee took note of the progress.

[Action: Dr. Shreenath Y S, Scientist-B]

4. **CSB-CTRTI/2025-26/PS/SBG/04:** Heritability estimation in Daba ecorace of Tropical Tasar silkworm[PI: Dr. Nidhi Sukhija, Scientist-B]

Dr. Nidhi Sukhija, Scientist-B presented the findings of the pilot study and committee took note of the progress.

[Action: Dr. Nidhi Sukhija, Scientist-B]

5. **CSB-CTRTI/2025-26/PS/SBG/05:** Development of an AI-Based Mobile Application for Automated Counting of Tasar Silkworm Eggs[PI: Dr. Nidhi Sukhija, Scientist-B]

PI presented the findings of the pilot study and committee took note of the progress.

[Action: PI: Dr. Nidhi Sukhija, Scientist-B]

6. **CSB-CTRTI/2025-26/PS/SBG/02:** Crossing and Selection Between the Tropical Tasar Silkworm and Various Sericigenous Species in India [PI: Dr. D. I. G. Prabhu, Scientist-D]

Dr. Dr. D. I. G. Prabhu, Scientist-D presented the findings of the pilot study and committee took note of the progress.

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

7. **CSB-CTRTI/2025-26/PS/SBG/03:** DNA Barcoding and Taxonomic Assessment of Indian Sericigenous Insects [PI: Dr. D. I. G. Prabhu, Scientist-D]

Dr. Dr. D. I. G. Prabhu, Scientist-D presented the findings of the pilot study and committee took note of the progress.

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

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

[CTR&TI/HPP/POW-02] Farm Management & Developmental works

Dr. Harendra Yadav, Scientist-C presented the progress of farm management and committee took note the progress.

[Action: Dr. H. Yadav, Scientist-C]

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

Dr. Shantakar Giri, Scientist-D and In-charge, SEEM Division presented the progress of TOTs. Committee took note of the progress. The progress was found to be satisfactory.

[Action: Dr. Shantakar Giri, Scientist-D]

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

Dr. Shantakar Giri, SEEM Division presented the progress of ECPs. The council took note of the progress. The progress was found to be satisfactory.

[Action: Dr. Shantakar Giri, Scientist-D]

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

Dr. Vishal Mittal, Scientist-D and Head Training Division presented the progress of CBT. The committee took note of the progress.

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

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

The Chairman advised all scientists to utilize project funds judiciously and to expedite the work in order to achieve the targets outlined in the Annual Action Plan for 2025–26.

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

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

Date: 16:10:2025



Dr. N. B. Chowdary
Director

LIST OF PARTICIPANTS ATTENDED 75th MEETING OF THE RESEARCH COUNCIL (RC) OF CTR&TI RANCHI HELD ON 30th SEPTEMBER, 2025

1. Dr. N. B. Chowdary, Director, CSB-CTRRTI, Ranchi (Chairman)
2. Dr. Shantakar Giri, Scientist-D, CSB-CTRRTI, Ranchi
3. Dr. K. Jena, Scientist-D, CSB-CTRRTI, Ranchi
4. Dr. Vishal Mittal, Scientist-D, CSB-CTRRTI, Ranchi
5. Dr. I. G. Prabhu, Scientist-D, CSB-CTRRTI, Ranchi
6. Dr. Harendra Yadav, Scientist-D, CSB-CTRRTI, Ranchi
7. Dr. Himansu Bhusan Samal, Associate Professor, CUTM, Bhubaneswar (online)
8. Dr. H.S. Gadad, Scientist-C, CSB-CTRRTI, Ranchi
9. Dr. Aparna K., Scientist-C, CSB-CTRRTI, Ranchi
10. Dr. Deepika K.U., Scientist-C, CSB-CTRRTI, Ranchi
11. Dr. Divya Singh, Scientist-C, CSB-RSRS, Bhimtal (online)
12. Dr. Rajitha K., Scientist-C, CSB-RSRS, Warangal (online)
13. Mr. Ashu Kumar, Scientist-B, CSB-CTRRTI, Ranchi
14. Ms. Divya Rajawat, Scientist-B, CSB-CTRRTI, Ranchi
15. Mr. Haragopal Dutta, Scientist-B, CSB-CTRRTI, Ranchi
16. Dr. Nidhi Sukhija, Scientist-B, CSB-CTRRTI, Ranchi
17. Dr. Shreenath YS, Scientist-B, CSB-CTRRTI, Ranchi