



के. रे. बो.-केन्द्रीय तसर अनुसंधान एवं प्रशिक्षण संस्थान, राँची- 835303
CSB-CENTRAL TASAR RESEARCH AND TRAINING INSTITUTE,
RANCHI- 835303



**MINUTES OF 71st MEETING OF THE RESEARCH COUNCIL (RC) OF CSB-CTR TI,
RANCHI HELD ON 17th -18th OCTOBER, 2024**

The 71st meeting of Research Council (RC) of CSB-Central Tasar Research and Training Institute was convened on 17th-18th October, 2024 at the Institute under the Chairmanship of Dr. N.B. Chowdary, Director, CSB-CTR TI, Ranchi to evaluate the new project proposals and to review the ongoing & concluded projects, TOTs, CBT and ECP programmes. At the outset, Dr. Jitendra Singh, Scientist-D & In-charge, PMCE Division, extended warm welcome to Dr. N. B. Chowdary, Chairman, Research Council and scientists of the Institute and its Nested Unit. List of the participants is appended as Annexure-1.

Dr. N.B. Chowdary, Chairman, Research Council, welcomed all the scientists of the Institute and its Nested Unit. In his opening remarks, he opined that CSB- CTR TI is unique Institute having multifaceted activity like, R & D, Extension, ToT, liaison with DoS of different tasar growing states, ICAR, DBT, New Delhi, Regional Offices of National Highway Authority of India (NHAI), Forest Department, NGOs etc. He appreciated the team PMCE, for timely organizing RC & RAC meeting, initiation of three DBT funded projects, patenting & commercialization of developed technologies. Later the meeting proceeded as per the agenda by Dr. Jitendra Singh, Scientist-D, PMCE Division.

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

The Minutes of 70th R.C. meeting was circulated to the Scientists of the Institute and its Nested Unit vide Email dated 12.07.2024. 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. Jitendra Singh, Scientist-D & In-charge PMCE Division. While approving the action taken report, the Chairman made the following decision/suggestions:

Concluded Pilot Studies

1. [CTR&TI/HPI/PS-30]: Comparative efficacy of nutrient formulations for improvement of leaf yield & quality of tasar host plantation. (Sept. 2023-February, 2024) [PI: Smt. Susmita Das, Scientist-D]

Chairman, appreciate to PI for findings of the pilot study and suggested to submit the patent application to the PMCE division for further action.

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

2. [CTR&TI/SSRT/BP/32]: Efficacy of Vijetha and Ankush for body disinfection of tasar silkworm. (Sept. 2023-February, 2024) [PI: Dr. K. Jena. Scientist-D]

The committee suggested PI to publish at least one popular or research article in NAAS rated/Impact factor journal.

[Action: Dr. K. Jena. Scientist-D]

3. [CTR&TUSSRT/BP/30]: Preparation and characterization of Chitosan sheet/nano fiber mat (Sept. 2023- February, 2024) [PI: Dr. K. Jena, Scientist -D]

The chairman suggested PI to publish at least one popular or research article in NAAS rated/Impact factor journal.

[Action: Dr. K. Jena. Scientist-D]

4. [CTR&TI/PCT/PS32]: Modification of existing softening technique followed for peduncle for better yarn quality (Jan,2024- June, 2024) (PI: Mr. Ashu Kumar, Scientist-B)

The committee suggested PI to publish at least one popular or research article in NAAS rated/Impact factor journal and advise to submit the concluded report to PMCE division.

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

5. [CTR&TI/PCT/PS33]: Development of alternative ways of producing Ghichatar yarn (Jan, 2024- June, 2024) (PI: Mr. Ashu Kumar, Scientist-B)

The committee suggested PI to publish at least one popular or research article in NAAS rated/Impact factor journal and advise to submit the concluded report to PMCE division.

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

Evaluation of New Research Proposals

- 1. Study on lab to land gaps of tasar technologies in major tasar growing areas** [PI: Dr. Vishal Mittal, Scientist-D]

Dr. Vishal Mittal, Scientist-D submitted the revised proposal as RMIS-01 in eSubMIS and decision pending with CO, CSB, Bengaluru.

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

- 2. Recurrent selection for high fecundity line in Tropical Tasar silkworm** [PI: Dr. Nidhi Sukhija, Scientist-B]

Dr. Nidhi Sukhija, Scientist-B submitted the RMIS-01 in eSubMIS and decision pending with CO, CSB, Bengaluru.

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

- 3. Systematic identification of food plant metabolites controlling expression of gene involved in silk synthesis in *Antheraea mylitta* D.** [PI: Dr. Nidhi Sukhija, Scientist-B]

Dr. Nidhi Sukhija, Scientist-B submitted the revised RMIS-01 in eSubMIS and decision pending with CO, CSB, Bengaluru.

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

- 4. Evaluation of the efficacy of identified formulations for the management of Cytoplasmic Polyhedrosis Virus in *Antheraea mylitta*.** [PI: Dr. Sruthy, K. S, Scientist-B]

Dr. Sruthy, K. S, Scientist-B submitted the revised RMIS-01 in eSubMIS and decision pending with CO, CSB, Bengaluru.

[Action: PI: Dr. Sruthy, K. S, Scientist-B]

- 5. Nutrient management in tasar culture through nano fertilizers** [Dr. Shantakar Giri, Scientist-D, RSRS]

Dr. Shantakar Giri, Scientist-D, RSRS, Dumka submitted the revised RMIS-01 in eSubMIS and decision pending with CO, CSB, Bengaluru.

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

- 6. Development of Oak Tasar rearing Technology for early spring crop** [PI: Mr. A.S. Verma, Scientist-D, RSRS, Bhimtal]

Committee suggested PI to submit project proposal to the PMCE division by 15.11.2024 for further action.

[Action: Mr. A.S. Verma, Scientist-D, RSRS, Bhimtal]

- 7. Host-Pathogen Interaction by Genome-Wide Expression profiling of *Antheraea mylitta* Immune Genes in Response to *Nosema mylitta*.** [PI: Dr. Divya Rajawat Scientist-B]

Dr. Divya Rajawat Scientist-B submitted the revised RMIS-01 in eSubMIS and decision pending with CO, CSB, Bengaluru.

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

8. Socio-economic impact assessment of tasar sericulture technologies in major tasar growing areas [PI: Dr. Arnab Roy, Scientist-B]

Dr. Arnab Roy, Scientist-B submitted the revised RMIS-01 in eSubMIS which is pending from RCS for approval.

[Action: Dr. Arnab Roy, Scientist-B]

9. An investigation on consumer behavior and Preferences towards Tasar apparel [PI: Dr. Arnab Roy, Scientist-B]

Dr. Arnab Roy, Scientist-B submitted the revised RMIS-01 in eSubMIS. Committee suggested PI to kept proposal on hold.

[Action: Dr. Arnab Roy, Scientist-B]

Agenda No. 3: New concept notes for approval

1. Assessment of Asan plants growth and yield parameters in different plant spacing [PI: Dr. Harendra Yadav, Scientist-C]

Dr. Harendra Yadav, Scientist-C presented the project proposal and committee suggested PI to revise the project for Arjun plants and considered it for pilot study.

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

2. 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 project proposal and committee consider it for pilot study.

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

3. Utilizing Tasar Host Plant Wood Waste for Cellulose Production: A Green Approach [PI: Mr. Haragopal Dutta, Scientist-B]

Mr. Haragopal Dutta., Scientist-B presented the project proposal and committee consider it for pilot study

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

4. Evaluation of Efficacy of Commercial Drug Formulations against Pebrine in Tasar Silkworm (Antheraea mylitta) [PI: Dr. Sruthy, K. S., Scientist-B]

Dr. Sruthy, K. S., Scientist-B presented the project proposal and committee suggested PI to the PMCE division in by 05.11.2024 for further action

[Action: Dr. Sruthy, K. S., Scientist-B &PI]

Agenda No. 4: Review on concluded projects Concluded Project (as PI) : Nil

Agenda No. 5: Progress of Ongoing projects:

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)

The progress of the project was presented and committee suggested PI to ensure progress of the project as per mile stone.

[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-D presented the progress and committee suggested PI to calculate GDD in different region and crop.

[Action: Dr. Jitendra Singh, Scientist-D & PI]

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

Dr. Aparna Kopparapu, Scientist-C presented the progress and committee suggested PI to ensure progress of the project as per mile stone.

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

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

Dr. Jitendra Singh, Scientist-D presented the progress and committee took note the progress.

[Action: Dr. Jitendra Singh, Scientist-D & 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).

Smt. Susmita Das, Scientist-D presented the progress and committee took note 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. [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 and committee suggested PI to complete the project within extended period.

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

8. [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 presented the progress of project and chairman suggested to focus Integrated Pest Management (IPM) for pest management.

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

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

Dr. Jagadajyothi Binkdakatti, Scientist-D & PI of project presented the progress and chairman suggested PI to validate ITKs scientifically.

[Action: Dr. Jagadajyothi Binkdakatti, Scientist-D & PI]

10. [ARP04016M1] Tasar Silkworm Disease Monitoring and Management (March, 2023-Feb, 2028)

Dr. J.P. Pandey Scientist-D & PI of the project presented the progress and committee took note the progress.

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

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

Dr. D.I.G. Prabhu, Scientist-D & PI of the project presented the progress of project and committee suggested PI to ensure project running as per milestone.

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

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

Dr. D.I.G. Prabhu, Scientist-D presented the progress of project and committee suggested PI to complete the signing of MoA between different organizations.

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

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

Dr. H.S. Gadad, Scientist-C presented the progress of project and committee suggested PI to complete the signing of MoA between different organizations.

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

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

Dr. H.S. Gadad, Scientist-C presented the progress of project and committee suggested PI to ensure project running as per milestone.

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

15. [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.

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

16. [BPC 04025 SNC] Management of type II diabetic (T2D) condition through tasar sericin (March 2024 – September, 2026). (PI: Dr. K. Jena, Scientist-D)

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

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

17. [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). (PI: Dr. K. Jena, Scientist-D)

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

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

18. [AIT 04026 SIE] Development of KASP Based SNP Barcoding System for the Molecular Identification of Tropical Tasar Silkworm Ecoraces. [PI: Dr. I. G. Prabhu, Scientist-D]

Dr. I. G. Prabhu, Scientist-D presented the progress of the project and the Committee noted that the same is a newly initiated project and is progressing as per milestone.

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

19. [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]

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

A. Ongoing Pilot Studies:

1. [CTR&TI/FMA/PS-36] Characterization and evaluation of propagation traits, floral biology, morphological, biochemical and reproductive parameters in the identified improved accessions of *Terminalia arjuna*. (May, 2024 – October 2024) (PI: Dr. Shreenath Y.S, Scientist-B)

Dr. Shreenath Y.S, Scientist-B presented the progress and committee suggested to induce the flowering with the growth hormones in the accessions 102, 135 for the next flowering season.

(**Action:** Dr. Shreenath Y.S, Scientist-B)

2. [CTR&TI/FMA/PS/35] Isolation and characterization of culturable bacterial communities associated with salivary glands of *Forcipomyia* spp. an ectoparasite on *Antheraea mylitta*. (May, 2024 – October 2024) (PI: Dr. S.M Majumdar, Scientist-C)

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

(**Action:** Dr. S.M Majumdar, Scientist-C)

3. [CTR&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., Scientist-D, BSMTC, R.C Varam, AP]

Dr. H.S. Gadad, Scientist-C presented the progress and committee suggested PI to submit piers cocoon which is utilized under pilot study to the Institute.

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

4. [CSB-CTR&TI/2024-25HP/PS/02] Design & Development of Conveyor Belt for Tasar Silkworm Pebrine Identification System (October 2024 –March, 2025) [PI: Ms. Susmita Das., Scientist-D]

Ms. Susmita Das, Scientist-D presented the progress and committee took note of the progress.

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

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

Ms. Susmita Das., Scientist-D presented the progress and committee took note of the progress.

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

6. [CTR TI/FMA/PS/34] Enhancement of sexual and asexual reproduction in Asan [PI: Mr. Haragopal Dutta, Scientist-B]

Mr. Haragopal Dutta, Scientist-B presented the findings of the pilot study and Committee suggested to review the methodology with IF rated journal and if possible to conduct one more trial.

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

7. [CTR TI/SEEM/PS/38] An analysis of the causes of low tasar raw silk production (July 2024- December, 2024) [PI: Dr. Jagadajyothi Binkdakatti ., Scientist-D]

Dr. Jagadajyothi Binkdakatti, Scientist-D presented the findings of the pilot study and the Committee suggested incorporating feedback of other DoS and compare with the production of tasar.

[**Action:** Dr. Jagadajyothi Binkdakatti ., Scientist-D]

8. [CTR TI/BP/PS/41] Exploring the Feasibility of Rearing of Tasar Silkworm on Lac Food Plants: Implications for Sustainable Silk Production (July 2024- December 2024) [PI: Dr. K. Jena., Scientist-D]

Dr. K. Jena., Scientist-D presented the progress of the project and the Committee noted that the same is a newly initiated project and is progressing as per milestone.

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

9. [CTR TI/BP/PS/39] Eco Friendly Bioplastic Production Using Tasar Silk Eggshell: A Sustainable Approach (July 2024-December 2024) [PI: Dr. K. Jena., Scientist-D]

Dr. K. Jena., Scientist-D presented the progress of the project and the Committee noted.

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

10. [CTR&TI/BT/PS/37]: Possibilities of indoor rearing in Tropical Tasar Silkworm *Antheraea mylitta* (July 2024-December 2024) [PI: Dr. Divya Rajawat, Scientist-B]

Divya Rajawat, Scientist-B presented the progress of the project and the Committee noted.

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

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

PI presented the progress of Programme of Work.

[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.

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

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

Dr. Vishal Mittal, Head, SEEM Division presented the progress of TOTs. Committee took note of the progress.

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

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

Dr. Vishal Mittal, Head, SEEM Division presented the progress of ECPs. The council took note of the progress.

[Action: Dr. Jagadajyoti Binkadakatti, 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

Chairman advised the young scientist to thoroughly review and standardize the research methodology for the ongoing projects. Chairman stated that review of literature and methodology become very critical to guide the futuristic results.

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

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



Dr. N. B. Chowdary,
DIRECTOR

LIST OF PARTICIPANTS ATTENDED 71th MEETING OF THE RESEARCH COUNCIL (RC) OF CTR&TI RANCHI HELD ON 17th -18th OCTOBER, 2024

1. Dr. N. B. Chowdary, Director, CSB-CTR&TI, Ranchi
2. Ms. Susmita Das, Scientist-D, CSB-CTR&TI, Ranchi
3. Dr. J. P Pandey, Scientist-D, CSB-CTR&TI, Ranchi
4. Dr. Vishal Mittal, Scientist-D, CSB-CTR&TI, Ranchi
5. Dr. K. Jena, Scientist-D, CSB-CTR&TI, Ranchi
6. Dr. Jitendra Singh, Scientist - D, CSB-CTR&TI, Ranchi
7. Dr. D.I.G. Prabhu, Scientist-D, CSB-CTR&TI, Ranchi
8. Dr. Dr. Jagadajyoti B., Scientist-D, CSB-CTR&TI, Ranchi
9. Dr. Harendra Yadav, Scientist-C, CSB-CTR&TI, Ranchi
10. Dr. H.S. Gadad, Scientist-C, CSB-CTR&TI, Ranchi
11. Dr. Aparna K., Scientist-C, CSB-CTR&TI, Ranchi (online)
12. Mr. Haragopal Dutta, Scientist-B, CSB-CTR&TI, Ranchi
13. Dr. Arnab Roy, Scientist-B, CSB-CTR&TI, Ranchi
14. Dr. Sruthy K. S, Scientist-B, CSB-CTR&TI, Ranchi
15. Dr. Nidhi Sukhija, Scientist-B, CSB-CTR&TI, Ranchi
16. Mrs. Divya Rajawat, Scientist-B, CSB-CTR&TI, Ranchi
17. Dr. Shreenath Y. S, Scientist-B, CSB-CTR&TI, Ranchi
18. Mr. Ashu Kumar, Scientist-B, CSB-CTR&TI, Ranchi (online)

Nested Unit

1. Dr. Sunil Kr. Misro, Scientist-D, RSRS, Jagdalpur (online)
2. Dr. Shantakar Giri, , Scientist-D, RSRS, Dumka (online)
3. Mr. A.S. Verma, , Scientist-D, RSRS, Bhimtal (online)
4. Mr. Benudhar Patnaik, STA, RSRS, Baripada (online)
5. Mr. Babusona Mandal, FA, RSRS, Bhandara (online)
6. Incharge, RSRS, Warangal (online)
7. Dr. Dinesh Kumar, Scientist-D, REC,Champa (online)
8. Incharge, REC, Kapistha (online)
9. Mrs. Seema Jalali, STA, REC, Palmpur (online)
10. Dr. Tapendra Saini, Scientist – B, P-4, Chakrdharpur (online)
11. Mr. Rammohan Pramanik, Assistant Secretary (Tech.), RMB, Chaibasha (online)