

**MINUTES OF 64th MEETING OF THE RESEARCH COUNCIL (RC) OF CTRTI RANCHI
HELD ON 09th JANUARY 2023**

The 64th meeting of Research Council (RC) of Central Tasar Research and Training Institute was held on 09th January 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.

Director 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 63rd R.C. meeting were circulated to the scientists *vide* Email dated 17.12.2022. Since no comments / suggestions have been 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 the Director and following observations were made.

Evaluation of New Research Proposals

1. Evaluation of technologies and machines developed in tasar post cocoon technology
[PI: Mr. D. Chattopadhyay, Scientist-D]

The proposal to be submitted in RMIS-02 after incorporating referee's comments.

[Action: Mr. D. Chattopadhyay, Scientist -D]

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

The PI was suggested to submit the details of the collaborating institute and submit the project proposal in RMIS 01 to PMCE division by 25.02.2023 without fail.

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

Transfer of Technology (TOT)

• Validation and popularization of cooking package developed for three eco-races:

The demonstrations for new Non- peroxide cooking and cocoonase process were to be completed by March 2023.

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

Agenda No. 3: New concept notes for approval

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

(A) New Concept notes for Projects:

1. Immunity development in tasar silkworm through zinc enrichment in its host plant leaf [PI: Dr. S. Giri, Scientist-D, RSRS, Dumka]

The proposal was recommended with the suggestion to revise the title and to include experimental design in the methodology.

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

2. Standardization of fertilizer dose and pruning schedule for establishment and quality Leaf production of *Lagerstroemia speciosa* (Jarul) [PI: Ms. Susmita Das, Scientist-D]

The concept was approved subject to the following suggestions:

- POP of all tasar host plants to be tried in centers outside institute farm
- Chawki rearing data to be recorded during bioassay
- Pruning schedule should be assessed at interval of 20 days from 2nd week of March upto 1st week of May
- Experimental design, layout and availability of existing plants for research may be clearly indicated.

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

(B) New Concept notes for Pilot Studies:

3. Screening of various disinfectants and its impact on tasar silkworm disease [PI: Dr. J. P. Pandey, Scientist - D]

Dr. J. P. Pandey, Scientist - D presented the proposal and committee recommended the concept note for pilot study.

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

Agenda No. 4: Review on concluded projects: (Nil)

Agenda No. 5: Progress of Ongoing projects

Total 16 ongoing projects were discussed and following decisions were made during the meeting:

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 K, Scientist-C & CI presented the progress of project. Committee took note of the progress.

[Action: Dr. S. Gandhi Doss, Scientist-D & 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 project. 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-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 upto August 2023)

Project progress was presented 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 extended upto February 2023)

Dr. D. I. G. Prabhu, Scientist-C presented the progress and and committee took note of the progress. Chairman suggested the PI to arrange a VC with NESAC, Umiam, Meghalaya during the month of March.

[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-C presented the progress and and committee took note of the progress.

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

[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 and committee took note of the progress.

[Action: Mr. D. Chattopadhyay, Scientist-D & PI]

9. [BPC 04005 SI] Tasar waste to wealth by Cordyceps. (March, 2020- February 2023)

Progress of the project was discussed and committee expressed its satisfaction on the progress made.

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

10. [PR04015CN] Documentation and Validation of Indigenous Technical Knowledge (ITKs) in Tropical tasar Zone (December 2022- November 2025)

The project has just initiated.

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

11. [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]

12. [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- September 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 took note of the progress.

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

13. [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)

Project progress was presented and committee expressed its satisfaction over the progress.

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

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

Project progress was presented and committee expressed its satisfaction over the progress.

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

15. [AIT 08006 EF] Development of lateral flow assay (LFA) kit for diagnosis of pebrine disease in silkworms. (March 2021- August 2022) [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 took note of the progress.

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

16. **MOE9001MI** Test verification of seed preservation technology developed for Tasar silkworm (*Antheraea mylitta*, D [Co- PI: Dr. J. P. Pandey, Scientist-D]

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

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

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

A. Concluded Pilot Studies

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

PI was suggested to contact the collaborator to carry out the work to achieve objective no.3.

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

2. **[CTR&TI/SP/PS-20]** Voyage and Endeavour towards utilization of disease contaminated eggs of tasar silkworm *Antheraea mylitta* for rearing (January - June 2022)

PI was suggested to submit the final report by 25.02.2023.

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

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

The committee took note of progress and PI was suggested to submit the concluded report by 25.02.2023 and explore the possibilities of further studies.

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

4. **[CTR&TI/SI/PS-22]** Induction of parthenogenesis in tropical tasar silkworm, *Antheraea mylitta*.D (June –Nov 2022) [PI: Dr. I.G. Prabhu, Scientist-C]

The committee note of progress and PI was suggested to submit the conclusion report by 25.02.2023 and explore the possibilities of further studies.

[Action: Dr. I. G. Prabhu, Scientist – C]

5. **[CTR&TI/SI/PS-23]** Comparative study of heavy metal and pesticide content in tasar silkworm (*Antheraea mylitta*) pupae collected from different tasar growing areas (March-August 2022)

The committee note of progress and PI was suggested to submit the concluded report by 25.02.2023.

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

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

The committee took note of progress and PI was suggested to submit the final report by 25.02.2023.

[Action: Dr. I. G. Prabhu, Scientist – C]

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

The committee took note of progress and PI was suggested to submit the final report by 25.02.2023.

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

B. Ongoing Pilot Studies

1. [CTR&TI/SP/BSMTC- Kharswan - 24] Study on natural enemies associated withTasar Silkworm Pupal Parasitoid *Xanthopimpla pedator* (August 2022 - January 2023) [PI: Dr. B. T. Reddy, Scientist-C, BSMTC, Kharswan]

The committee took note of the progress

[Action: Dr. B. T. Reddy, Scientist-C, BSMTC, Kharswan]

2. [CTR&TI/HPI/PS-27] Validation of package of application of SM5 on Tasar Host plant (August 2022 - January 2023) [PI: Ms. Susmita Das, Scientist-D]

The committee took note of progress and PI was suggested to ensure timely submission of the concluded report.

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

3. [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 note of the progress

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

4. [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]

The council took note of the progress and PI was suggested to take up proper identification of the insect species

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

B. Ongoing 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)

Progress of the TOTs was discussed. The committee took note the progress.

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

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

Progress of the ECPs was discussed. The committee took note the progress.

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

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

Progress of the CBT was discussed. The committee took note of the progress.

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

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


General comments and suggestions of 63rd RC and 51st RAC were discussed along with their compliance status and the status of fund utilization of R&D projects was reviewed.

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: 21.02.2023


Dr. K. Sathyanarayana
DIRECTOR

Annexure-I

**LIST OF PARTICIPANTS ATTENDED 64th MEETING OF THE RESEARCH COUNCIL (RC)
OF CTR&TI RANCHI HELD ON 9th JANUARY 2023**

1. Dr. K. Sathyanarayana, Chairman & Director, CTR&TI, Ranchi
2. Dr. S. Giri, Scientist – D, RSRS, Dumka (attended online)
3. Ms. Susmita Das, Scientist-D, CTR&TI, Ranchi
4. Dr. J. P. Pandey, Scientist-D, CTR&TI, Ranchi
5. Mr. Debasish Chattopadhyay, Scientist-D, CTR&TI, Ranchi
6. Dr. D.I.G. Prabhu, Scientist-C, CTR&TI, Ranchi
7. Dr. Jitendra Singh, Scientist - C, CTR&TI, Ranchi
8. Dr. Harendra Yadav, Scientist-C, CTR&TI, Ranchi
9. Dr. H.S. Gadad, Scientist-C, CTR&TI, Ranchi
10. Dr. Aparna K., Scientist-C, CTR&TI, Ranchi
11. Dr. B. Thirupam Reddy, Scientist-C, BSM&TC, Kharsawan (attended online)
12. Dr. S. M. Majumdar, Scientist-C, BSM&TC, Kathikund (attended online)

Dr. K. Sathyanarayana
DIRECTOR