

ITEM NO. 1: The particulars of the Organization, Function and Duties

The Central Sericultural Research & Training Institute, Berhampore is a premier R&D Institute established in the year 1943 to provide the research and development support for promotion of silk industry in the eastern region. Presently, it functions under the administrative control of Central Silk Board, a statutory body under the ministry of textiles, Govt. of India.

During 1943, realizing the importance of silk industry in providing employment and export opportunities, a policy decision was taken to encourage and support the production of silk. Therefore, in order to revive this ailing industry from the ravages of diseases, inferior quality and poor productivity, the Central Sericultural Research Station was established at Berhampore in the erstwhile Bengal in the same year. In 1969, the Research Station was merged with Central Silk Board. In 1971, as per the Board's decision for dissemination of research findings from Lab. to land, Training and Extension activities were started and the station was renamed as Central Sericultural Research & Training Institute in the year 1975-76. This has resulted qualitative and quantitative improvement in silk production in the eastern region.

LAND & BUILDING:

The CSR&TI, Berhampore is having 63 acres of land, of which 30 acres are under plantation, 10 acres under pond, 1.5 acres under office building, Lab., rearing houses and student's hostel, 15 acres under residential areas and remaining 6.5 acres for road. A total of 104 Nos. residential staff quarters, 3 Nos. office building, 9 Nos. Rearing house, one Farm house, one student hostel (100 bed capacity), one work shop and one Guest house are available.

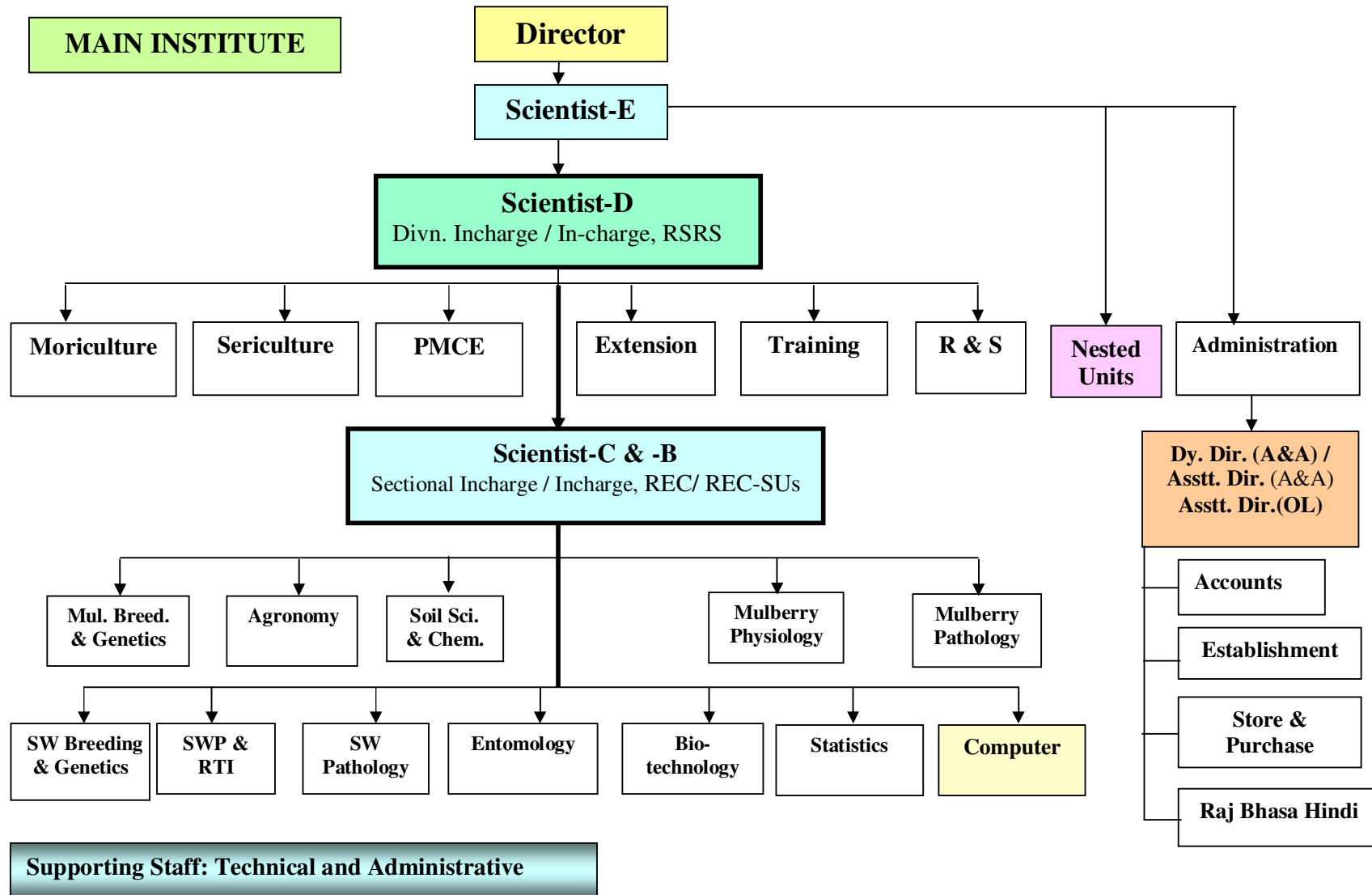
MANPOWER:

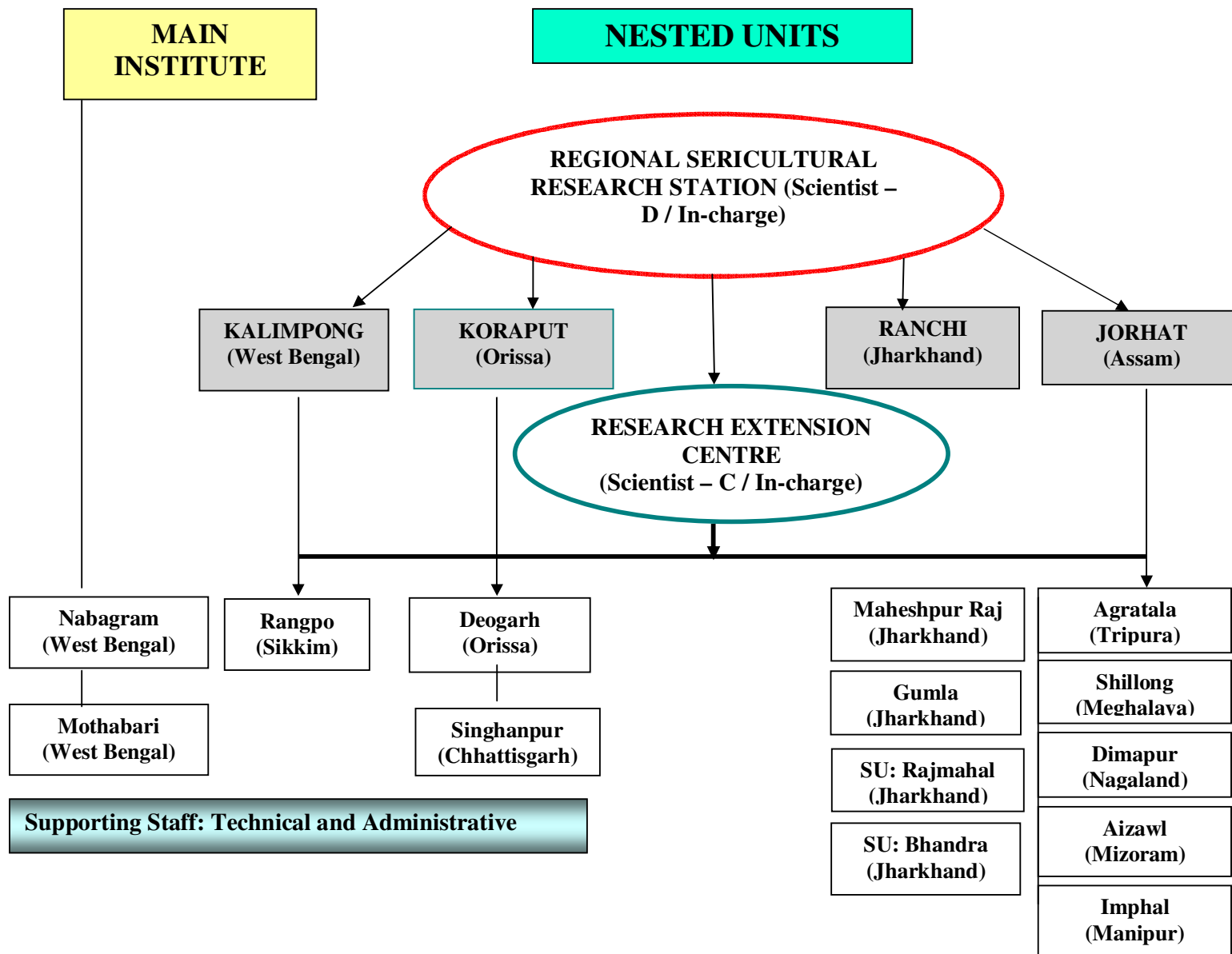
The Institute has a substantial manpower of 187 staff and workers comprising with Scientists including one Director, Technical, Administrative staff and TSFWs (101).

ORGANIZATIONAL SET UP:

The Institute is envisaged its R&D activities and extension with five major divisions namely Moriculture, Sericulture, Reeling & Spinning, Training and Extension comprising of 17 sections along with the Computer and Administrative sections. The following organizational chart of the institution shows the details of different establishments.

Hierarchical System / Organizational Set up of CSR&TI, Berhampore, W.B.





FACILITIES FOR EMPLOYEES:

The Institute has an **Employees'** Co-operative Stores Berhampore, Murshidabad (Regd. No. 15 of 1969-70) registered with Govt. of West Bengal, which has been functioning successfully since 1969. A Recreation club managed by the employees has also been functioning since establishment of the Institute. A community Hall has been established with the active contribution of the staff members for various cultural functions.

MANDATE:

The core areas of work of CSR&TI, Berhampore (WB) are as follows:-

1. To increase of productivity of silkworm (Multivoltine, MXBi and Bi x Bi) and mulberry for irrigated and rain fed conditions in its areas of operations.
2. It shall be the testing centre for all mulberry silkworms related experiments or feeding technologies evolved in CSB Institutions or referred by other agencies to CSB in the states identified for it.
3. Human resources development through training and academic initiatives.
4. Co-ordination with DOS for development of sericulture industry.

The institute conducts research on all fields of sericulture from soil to silk. Entrusted with the mandate to carry out research, it has made remarkable breakthrough and outstanding contributions for the overall development of silk industry in the region. In the plant side, improved mulberry varieties, suitable to the agro climatic condition of different areas, have been developed along with its package of practices by the way of integrated nutrient management (INM). Regarding silkworm, region and season specific high yielding silkworm breeds have been evolved. The institute has developed of diseases and pests of mulberry and silkworm, which are being popularised in the fields and proved to be effective to minimise crop losses. With regard to post cocoon technologies improved cooking and the Institute has developed reeling techniques.

The Institute has been conducting training on different aspects of sericulture since, 1975. The details of the courses conducted by the Institute are as follows:

- Post Graduate Diploma in Sericulture (PGDS) for 15 months
- Capsule course for 1 – 5 weeks and
- On-job training for 2 weeks

All together **5408** candidates were trained through imparting training under various courses since 1975 till date with the following break up (As on 30th July, 2011):

Name of the Programme	<i>No. of Trainees</i>
1. Post Graduate Diploma in Sericulture (PGDS)	850
2. Diploma in Mulberry Sericulture (DMS)	298
3. Capsule course	1932
4. Intensive Practical Training (IPT)	276
5. Vocational Course	1119
6. Junior Certificate Course	80
7. Crash Training for Bank Officers	37
8. Foundation course	77
9. Refresher' course	121
10. Demonstration of Evolved Techniques	27

11. Trainers Training Programme	63
12. Orientation Training Programme	60
13. Skill Updating Programme	45
14. MDP / SUP Programme (under Central Sector Scheme)	423

EXTENSION NETWORK

The Institute has an effective extension network for dissemination of the sericultural technologies to the farmers through different programmes like IVLP, TAR and other Technology Demonstration Programmes.

Besides, the Institute disseminates the sericultural technologies to the farmers through its nested units i.e. Regional Sericultural Research Stations (RSRSs), Research Extension Centres (RECs) and REC-Sub Units located in different states (West Bengal, Sikkim, Jharkhand, Bihar, Orissa Chhittisgarh and Madhya Pradesh) for fine tuning of the technologies developed. RSRS is entrusted with the regional problems of sericulture and overall extension and development. It also conducts the adoptive research for the main institute for testing suitability in the region. Similarly, RECs and REC (SUs) are also entrusted with the responsibilities for popularizing new technologies through demonstration at farmers' level.

Location of the Nested Units:

About the nested units		
RSRSs	RECs	REC-SUs
Kalimpong	Nabagram	Bhandra
Ranchi	Mothabari	Rajmahal
Koraput	Rangpo	
Jorhat	Maheshpurraj	
	Gumla	
	Singhanpur	
	Deogarh	
	Imphal	
	Aizwal	
	Dimapur	
	Shillong	
	Agartala	

INTERNET AND INTRANET:

The Institute has established a gigabit backbone Local Area Network (LAN), Internet and Intranet Web Pages for the better utilization and resources management and quick dissemination of information.

Website: www.csrtiber.res.in

Email: csrtiber@csb.gov.in / csrtiber@gmail.com

ITEM NO. 2: Powers and duties of its Officers & Employees

The Director of the Institute has been delegated with various powers and duties viz. administrative powers, financial powers, disciplinary powers, powers for transferring Group C & D staff within the Units coming under their jurisdiction following the transfer policy for the employee of the Central Sericultural Research & Training Institute & its nested units finalized by the Committee at its Meeting held at 1999 at Bangalore.

Administrative powers delegated to the Director of the Institute:-

- ✓ Grant of Disability leave & special casual leave to the Officers & staff below his own level as per rules.
- ✓ Acceptance of resignation of Officers/Staff up to the level of Joint Director of the Institute under intimation to Central Office.
- ✓ To grant advance increments to Junior Stenographer for acquiring higher speed in short hand as per rules.
- ✓ To grant special pay to clerical staff working as Telephone operators as per rules.
- ✓ To grant special pay to Group D staff as per rules for operating (a) Franking Machine (b) Gestetner & (c) photocopier.
- ✓ Closure of probationary period in respect of Officers/Staff below his rank as per rules.
- ✓ Acceptance of voluntary retirement applications of Officers & Staff below his rank as per rules under intimation to Central Office.
- ✓ To obtain annual property returns in the prescribed proforma from Officers below his rank in Group A every year and to retain the same in safe custody.
- ✓ To grant approval for acquisition disposal of immovable properties in respect of Officers/Officials up to Deputy Director level.
- ✓ To issue No objection Certificate for obtaining passport as per rules for Officers & Staff below his rank working under his control.
- ✓ To issue No objection certificate for obtaining visa and grant of leave for going to abroad for the Officers/Staff up to the level of Deputy Director working under their control.
- ✓ To grant permission for extension of time limit up to 6 months in addition to normal 6 months for completion of journey in LTC by the family of Officers/Staff working under his control except himself.
- ✓ To sign Bond on behalf of Member Secretary, CSB in respect of Officers/Staff working under his control who are granted Study leave deputed for Training abroad/scholarship/associate ship/ fellowship etc.
- ✓ Approval for change of hometown in respect of Officers/Staff working under his control under intimation to Central Office as per rules.
- ✓ Approval for change of surname in respect of Officers/Staff working under his control as per rules under intimation to Central Office.
- ✓ To dispose of pay anomaly request of Officers/Staff working under his control within the Institution.
- ✓ To approve list of holidays for Units coming under his control with a copy to Central Office.
- ✓ Grant of any kind of regular Leave to the Officers/Staff below his own level.
- ✓ Grant of Annual Increment to the Officers/Staff below his own level.
- ✓ Grant of LTC to the Officers/Staff below his own level.

- ✓ Grant of special pay for promoting small family for the Officers/Staff below his own level.
- ✓ Forwardal of application for the better employment in respect of the Gazetted employee.

Financial Powers delegated to the Director of the Institute.

- ✓ Maintenance, upkeep & repairs of equipments, Vehicles, Computers, Furniture Rs.25,000/-.
- ✓ Repairs & Maintenance of Building Rs. 25,000/- per single work order and overall ceiling of Rs. 5,00,000/- for the Main Institute & nested units per annum.
- ✓ Purchase of Stationery & Stores Rs.25,000/- per order.
- ✓ Printing & binding publication & other publicity materials up to Rs.25,000/- per order.
- ✓ Purchase of chemicals, pesticides & disinfectant up to Rs.50,000/- per annum.
- ✓ Purchase of fertilizers and manure up to Rs.50,000/- per order.
- ✓ Purchase of Library Books & journals up to Rs.50,000/- per order.
- ✓ Statutory payments like Municipal rates and taxes & insurance up to full powers of current payments except as follows :

In case of enhancement the new rate should be cleared by the Central Office. No penalty interest component or arrears can be sanctioned by the Director.

- ✓ Rent: 50,000/- per annum per case.
- ✓ Payments towards water & electricity up to 50,000/- per annum.
- ✓ Payments towards Telephone, Fax & Internet up to Rs. 25,000/-.
- ✓ Payments towards Postage up to Rs. 50,000/-.
- ✓ Payments of professional fees like legal fees Rs. 10,000/- per case.
- ✓ Payments of misc. expenditure not listed above Rs. 1,000/-.
- ✓ Purchase of assets like tools, plants & machineries up to Rs. 50,000/-.
- ✓ Purchase of vehicles up to Rs.1,00,000/- per single order.

Disciplinary powers delegated to the Director of the Institute.

1. On the review Meeting of the Board at its 111th Meeting held at Bangalore on 4th May, 2002 following delegations to the Director has been approved & proposed.(a) addition disciplinary powers to the Director of the Board's Research Institutes/Stations. As per the latest approval of the Board, the Directors of the Board's Research Institutes / Stations will henceforth function as Disciplinary Authorities for initiating major penalty proceedings against officials from the rank of Safaiwala up to the rank of Superintendent and against officials holding equivalent ranks and for imposing any of the penalties as prescribed under the CCS (CCA) Rules, 1965 on them. The existing disciplinary powers vested with the Directors of the Board's Research Institutes/Stations for initiating minor penalty proceedings against officials up to the rank of Deputy Director shall stand.

2. The Directors of the Board's Research Institutes/Stations will be competent to initiate major penalty proceedings against officials from the rank of Safaiwala up to the rank of Superintendent and against officials holding equivalent ranks working under their control and to impose any of the penalties as prescribed under the CCS(CCA) Rules, 1965 on them. The existing disciplinary powers vested with the Directors of the Board's Research Institutes/Stations for initiating minor penalty proceedings against officials up to the rank of Deputy Director shall stand.

While delegating the disciplinary power to the Director Central Silk Board has suggested to ensure that all the procedures prescribed under CCS (CCA) rules 1965 are strictly adhered to while handling disciplinary cases of all important communications addressed to the delinquent officials viz. charge sheet/statement of imputations orders of appointment of Enquiry Officer/Presiding Officer, Forwardal letter of enquiry report & final order imposing penalties are issued under the signature of Director i.e. disciplinary authority only, under intimation to Central Office. Officers who have sense of balance and knowledge of rules alone should be appointed as Enquiry Officer/Presenting Officer.

As stated on the forgoing paras the Director of the Institute have been delegated with the power to transfer group C & D staff within the units coming under the jurisdiction keeping in view the following aspects:-

- ✓ The Director may effect transfers of Staff group C & D within the units coming under their jurisdiction provided the official have completed 3 years stay at their place of posting as stipulated in the transfer policy.
- ✓ The Director should not effect transfers just because the officials have completed 3 years stay in a place unless his transfer is warranted.
- ✓ The Director should not effect any transfer involving transfer of posts along with, without prior approval of the Central Office.
- ✓ The Director should also not effect any pre-mature transfer with less than 3 years stay without prior approval of Central Office.
- ✓ Group D officials should not ordinarily be transferred except on their own request.

Director /SCIENTIST-E: Overall planning, monitoring and coordination of the activities of the Institute and assisting directly to the Director in all matters.

SCIENTIST-D:

- Overall planning, monitoring and coordination of the activities of different sections under his Division.
- Evaluation and Guiding the Research / Development activities of different sections under his Division including formulation of new research projects of different sections.
- Planning, monitoring and coordination of different training programmes, extension activities of the institute and its nested units.
- Monitoring of Transfer of Technology (TOT) and Technology Assessment and Refinement (TAR) programmes.

- Coordination, communication and correspondence with different CSB units, Central office, DOS's, 'Universities and Institutes'.
- Regular interaction with the farmers, reelers, NGO's, KVK's etc.
- Organizing Resham Krishi Mela.
- Teaching as faculty members in different structured, non-structured and special training courses, conducting of examinations and evaluations.
- Assistance to the Director in research, administration and implementation of different programmes.

SCIENTIST-C:

Monitoring and guiding the activities of:

- Compilation and preparation of Annual Action Plan, Annual Research and Administrative reports.
- Compilation and preparation of Quarterly, Half-Yearly and Yearly Reports.
- Organization of different research review meetings like Research Council (RC), Research Advisory Committee (RAC), Extension Officers' Meeting (EOM) and other meetings related to Research, seminars & Developmental activities as and when required.
- Preparation of meeting proceedings, follow up action of different meetings related to R&D activities of the Institute and presentation of research progress reports.
- Coordination, communication and correspondence with different CSB units, Central office, DOS's, 'Universities and Institutes'.
- Guiding the Research / Development activities including formulation of new research projects of the concerned section.
- Supervision of extension activities of the institute and different nested units.
- Supervision of Transfer of Technology (TOT) and Technology Assessment and Refinement (TAR) programmes.
- Coordination, communication and correspondence with different CSB units, Central office, DOS's, 'Universities and Institutes'.
- Organizing Resham Krishi Mela.
- Teaching as faculty members in different structured, non-structured and special training courses, conducting of examinations and evaluations.
- Assistance to the Joint Directors and Director in research monitoring, coordination and evaluation of projects and programme.
- Conducting meeting, seminars and administrative works as per need of the Institute.
- Monitoring of patent related activities.
- Implementation of Official Language.

SCIENTIST-B:

- Formulation and implementation of research, developmental and survey based projects.

- Statistical analyses of experimental, developmental and survey based data.
- Compilation, preparation and implementation of Annual Action Plan.
- Compilation, preparation and implementation of Quarterly, Half-Yearly, Yearly and Annual Reports.
- Assisting in organizing different research review meetings like RC, RAC, EOM etc.
- Preparation of meeting proceedings, follow up actions of recommendations of different meetings related to R&D activities.
- Assist in Coordination, communication and correspondence with different CSB units, Central office, DOS's, 'Universities and Institutes'.
- Implement Transfer of Technology (TOT) programme and Technology Assessment and Refinement (TAR) programme.
- Teaching as faculty members in different structured, non-structured and special training courses, conducting of examinations and evaluations.
- Assisted in organizing Resham Krishi Mela.
- Correspondence relating to Patent related activities.
- Noting and drafting of letters, proposals etc. as directed and guided.
- Implementation of Office language relating to concerned sections.

DEPUTY DIRECTOR (COMPUTER)

- ◆ Designing and developing Information Systems to improve functional efficiency of the organisation.
- ◆ Identify new areas for computerisation, systems analysis, design, development and implementation.
- ◆ Maintenance and upgradation of Information Systems in use.
- ◆ Coordinate with various Sections on the usage of Information Technology
- ◆ Purchase of Computer accessories
- ◆ Conducting periodical training on computer applications to employees
- ◆ Providing E-Mail / Internet facility and establishing LAN
- ◆ Maintenance of software packages
- ◆ Administration of Servers and Network
- ◆ Administration of Local Area Network (LAN) and Computer Systems

DEPUTY DIRECTOR (A&A):

- Grant of leave, LTC to the officers below his own level.
- Grant of Annual Increment of Officers below his own level.
- Sanction of expenditure of contingent nature up to Rs.1000/- on each item.
- Grant of special pay for passing Hindi Pragya Examination.
- Grant of Special Pay for handling cash to the cashier.
- Grant of special pay for promoting small family.
- Forwarding of applications for the better employment in respect of Non-Gazetted employees.
- Counter signature of TA bills of both Gazetted and Non-Gazetted officers/officials as required under S.R.194

ASSISTANT DIRECTOR(A&A):

- Being the Section Officer, they have been delegated with certain Administrative & Financial powers.
- In absence of Deputy Director (A&A), they may exercise the financial powers vested with Deputy Director (A&A) subject to ratification by the concerned Officer.
- Sanction of leave, increment of the staff below their own level.
- Making routine correspondence with Central Office and other offices.
- Attestation of Service Book for all categories of Officers & Staff.
- Issue of Identity cards for the staff below their own level after obtaining approval of the C. Authority.

ASSISTANT DIRECTOR (OL):

- The translation work from English to Hindi and vice versa and vetting there of.
- To acquaint the officers and staff of the concerned departments with the provisions of the O.L. act.
- To ensure proper compliance of the provisions of the O.L. Act and the orders pertaining to Hindi Teaching scheme and Official language policy.
- To make suggestions from time to time for promoting the progressive use of Hindi and to keep liaison with the Official Language Department through proper channel.
- Organize official language implementation committee meeting during each and every quarter as well as Hindi Workshop from time to time.

SUPERINTENDENT

- ◆ Supervisory staff of the Section.
- ◆ The work involves distribution of dak among the Dealing Assistants working in the Section, checking of Assistants Diary, scrutiny of the files put up by the Dealing Assistants with reference to Rules and offer comments and coordination of work of all Dealing Assistants working in the Section
- ◆ Disposal of files at his / her level as per delegation of powers
- ◆ Supervise the work of Dealing Assistants and guide them and enforce punctuality and discipline
- ◆ Check whether all facts, statements are correct, point out the mistakes / missing data, draw attention to the statutory or customary procedure and point out the relevant law and rules
- ◆ Furnish other relevant data / information available in the Section, draw attention of any precedents, evaluate relevant data and information and suggest, where possible, alternative course of action for consideration.
- ◆ Maintenance of Casual Leave Account of the staff of the Section
- ◆ Maintenance of Record Room files
- ◆ Monitoring of implementation of Official Language
- ◆ Monitoring RTI issues

ASSISTANT SUPERINTENDENT

- ◆ Preparation of drafts where necessary and issue the same after approval by the concerned Officers and take further action of despatch and keep records relating to the issue of such communication
- ◆ Follow proper filing system and keep files in an orderly manner for easy reference.
- ◆ Maintenance of reminder diary, etc.
- ◆ To go through the receipts and separate urgent receipts from the rest, enter in the Assistant Diary, deal with urgent receipts first and put up the case to the higher Officers.

ASSISTANT

- ◆ Receipt of dak, examine the issue in relation to the Rules governing the subject and suggest appropriate action
- ◆ Maintenance of files relating to the activities of the Section as per work allocation order.
- ◆ Preparation of Notes on the subject dealt in the Section, marking the receipts, preparation of running summary of facts
- ◆ Follow docketing system i.e. keep the files numbers for early references, linking files, etc.
- ◆ Put up earlier references of the case, any precedents in taking a particular decision.

UPPER DIVISION CLERK

- ◆ Receipt of dak
- ◆ Maintenance of files
- ◆ Examination and scrutiny of papers received with reference to Rules
- ◆ Submission of files with comments to Section In-charge
- ◆ Other work assigned by the concerned Section Head.

LOWER DIVISION CLERK

- ◆ Typing
- ◆ Diarising of papers
- ◆ Despatch of letters
- ◆ PABX Operation
- ◆ Other work assigned by the concerned Section Head.

REPORTER

- ◆ Taking dictation and transcription apart from typing.
- ◆ Attending important Meetings and preparation of verbatim reports
- ◆ Maintenance of Engagement Diaries
- ◆ Preparation of tour programme
- ◆ Fixing of appointments
- ◆ Attending to phone calls of the concerned Officers.

STENOGRAPHER/JR. STENOGRAPHER

- ◆ Taking dictation and transcription apart from typing.
- ◆ Any other work assigned by the concerned Officer.

COMPUTER PROGRAMMER

- ◆ Systems analysis
- ◆ System design
- ◆ Software development
- ◆ Computerization
- ◆ Computer applications
- ◆ Computer maintenance

SR. TECHNICAL ASSISTANT (SELECTION GRADE).

- ◆ Microscopic examination of moths
- ◆ Preparation of Technical Reports and compilation of technical data
- ◆ Organising Transfer of technology under IVLP
- ◆ Coordination of pest management
- ◆ Coordination of training programmes of farmers
- ◆ Labour supervision and management
- ◆ Farm Management
- ◆ Basic stock maintenance at P4
- ◆ Maintenance of technical files/records pertaining to rearing /
- ◆ Compilation and preparation of monthly, quarterly and annual reports

SR. TECHNICAL ASSISTANT

- ◆ Assisting in-charge Officers in organizing Field Days, Group Discussions, Film Shows, etc. with farmers
- ◆ Compilation and forwardal of primary data from the Field
- ◆ Feedback information on various aspects /constraints in sericulture development
- ◆ Assisting scientific personnel, demonstration of package of practices for application of research findings in the field, assisting in conducting training programmes and attending to the extension activities to educate farmers in new technologies.
- ◆ Collection of primary data on farmers, infrastructure status of sericulture, DFLs requirement and other information to plan improvement of sericulture in the given area,
- ◆ Responsible for transfer of technologies identified for the area/supervision of farmers by using the extension tool and providing feedback on technologies, assisting the farmers in improving the production and productivity of mulberry and silkworm by way of application of quality inputs, specific disinfectants, technologies and absorption of relevant farmers.

TECHNICAL ASSISTANT

- ◆ Garden management,
- ◆ Monitoring the schedules of cultural operations including input application,
- ◆ Making available the silkworm DFLs as per the requirements,
- ◆ Supervision of work carried out by the Farm Workers,
- ◆ Rearing of silkworms including harvesting of leaves, feeding, disinfection etc.
- ◆ Data compilation pertaining to the Centre on various activities,
- ◆ Maintenance of technical files/ records,
- ◆ Basic Seed Production for experimentation which includes, pairing, de-pairing, attending to emergence etc.

SR. FIELD ASSISTANT/ FIELD ASSISTANT

- ◆ Duties and responsibilities are more or less as prescribed for the post of Technical Assistant

SR. LIBRARIAN AND INFORMATION ASSISTANT

- ◆ Regular acquisition, classification and cataloguing of Library Books
- ◆ Regular renewal of subscription of journals
- ◆ Issuing and receiving books
- ◆ Maintenance of files pertaining to Library
- ◆ Inter Library loan work and service to University staff
- ◆ Periodical purchase of books and journals.

Sr. ARTIST

- ◆ Visualisation / preparation of art work, designs, layout for all publications and preparation of logos.
- ◆ Liaison with Press during printing of publications.

STAFF CAR DRIVER (SELECTION GRADE)

STAFF CAR DRIVER (GRADE-I)

STAFF CAR DRIVER (GRADE-II)

STAFF CAR DRIVER (O.G.)

- ◆ Driving and maintenance of vehicles and Log Books.

COOK

- ◆ Looking after the catering work in Guest Houses / Hostels.
- ◆ Preparation of food for guests / students.
- ◆ Maintenance of kitchen neatly attached to the Guest Houses / Hostels.

TECHNICIAN

- ◆ Attending to the work like operating Gestetner Machine, Boilers, Plumbing, operating Pump, Wiring, Carpentry, Mason work, Electrical work, etc. depending upon their trade.

ASSISTANT TECHNICIAN

- ◆ Attending to the work like operating Gestetner Machine, Carpentry, Mason work, Wiring, Assisting Artist, Plumbing, Reeling / Spinning, Weaving, Rearing, Daftary, Driving Power Tiller, etc. depending upon their trade.

ATTENDER

- ◆ Identification of files meant for different sections and carryout inter sectional movement of files.
- ◆ Dusting /Cleaning of tables/Chairs of the officers/Staff and other Office equipments like computer, Telephone etc.
- ◆ Assisting the dispatcher for preparation of envelopes. Pasting of postage stamps, affixing address stamps etc.
- ◆ Hand delivery of letters to the local Offices and booking of Air parcels.
- ◆ Booking Registered letters /Speed post/Courier
- ◆ Visiting nearby units for hand delivery of urgent letters/ records etc.
- ◆ Attending of work connected with payment of telephone/water/ Electricity bills.
- ◆ Where necessary, assisting cashier, accompanying cashier to the Bank and collection of DDs/ Pay orders etc from Bank.
- ◆ Screening of visitors coming to meet senior Officers and guide them to the concerned officer after ascertaining the purpose of the visit.
- ◆ Distribution of Dak and official communication to the staff after obtaining their signatures in the register.
- ◆ Display of notices/ Circulars on the Notice Board as also circulation among the staff.
- ◆ Booking of Air/Train /Bus tickets to the Officers and staff for official visits to out stations.
- ◆ Shifting of office furnitures.
- ◆ Serving Coffee/Tea and lunch /Snacks in the meetings.
- ◆ Getting photo copies and set making , stitching of files.
- ◆ Any other duties assigned by the officer-in-charge from time to time.

CHOWKIDAR

- ◆ Responsible for overall security and safety of the office/ stations and performing watch and ward duties.
- ◆ Safeguarding the properties/ records etc of the office.
- ◆ Restricting the movement of public and visitors to the office premises.
- ◆ Screening of visitors coming to the office premises to meet the Officer/ Staff and guide them after ascertaining the purpose of their visit.
- ◆ To note down the registration numbers of vehicles entering and leaving the office premises including the time of arrival and departure.

- ◆ Checking the items / materials/equipments/Stationary items with reference to Bills/Invoices before entry into the office premises or before they are taken out of the office premises.
- ◆ Issuing gate pass to the outsiders for the purpose of their entry into the office premises and to collect back the same duly signed by the concerned officer visited before allowing the visitor to move out.
- ◆ Reporting promptly to the Officer-in-charge with regard to any untoward incident occurred in the premises while on duty for appropriate action.
- ◆ Attending to Telephone calls before and after office hours/ holidays and pass on important and urgent messages received to the Officer-in-charge/ Senior Officers depending upon requirement.
- ◆ Any other duties assigned by the Officer-in-charge from time to time.

SAFAIWALA

- ◆ Sweeping and cleaning of entire area of Office premises.
- ◆ Cleaning of bathrooms/ Toilets of the office with disinfectants and maintain cleanliness.
- ◆ Spraying of insecticides so as to prevent cockroaches/Silver fish/white ants etc. from attacking office records / furniture.
- ◆ Cleaning ceiling fans/ Pedestal fans and other fixtures provided in the office premises and maintain cleanliness.
- ◆ Any other duties assigned by the officer –in-charge from time to time.

ITEM NO. 3: The procedures followed in decision-making process including channels of supervision and accountability

Administrative Part:

The transfer and posting of staff are being effected directly by the Member Secretary, Central Silk Board, Bangalore. However, Director has also been delegated with the transfer power up to the level of U.D.C. Decision on account of Selection of staff for special assignment like inland or foreign training are taken care by the Chief Executive Officer and Member Secretary, Central Silk Board, Bangalore.

Scientific and Technical Part:

As regards formulation and clearance for projects/ scheme following are the steps:

- ✓ Scientist is to prepare project proposal as per the prescribed format and present the same in the Research council meeting.
- ✓ Research council evaluates the projects and approves for obtaining Referees Comments.
- ✓ As per recommendation of the RC the project is prepared in full form and then send to at least five referees for comments.
- ✓ The project with Refrees comments is finally presented before the Research Advisory Committee i.e. RAC (the apex body constituted with eminent scientist of different institutes/ professors of universities etc. for evaluating research projects / programmes of the Institute).
- ✓ After obtaining approval of the RAC the project is submitted to the Central Silk Board (Central Office), Bangalore for financial approval and project code number.
- ✓ On receipt of the above, the scientist has to initiate the work as per the milestone of the project.
- ✓ The progress of the projects / programmes is to be presented before the RC and RAC for review and correction, if any, as per recommendation of the said committees.
- ✓ The concluded projects / programmes are to be presented before the RAC in detail and then submitted to the Central Office in prescribed format within one month of the completion of the project.

ITEM NO.4: The norms set by it for the discharge of its functions, employment of labourers etc.

Central Silk Board has adopted / followed the rules and manuals of Government of India i.e., FRSR, GFRs etc. Moreover, Central Silk Board has its own act called CSB Act, 1948 and CSB, Rules, 1955. In addition whatever norms are there i.e. Labour norms, discharge of various functions, norms for employment are set by Central Silk Board. Repairs and maintenance of vehicle are made following the procedure laid down under G.F.R. Redpair of buildings are entrusted to C.P.W.D. Procurement, awards of contracts are lined up based on the provision of G.F.R. and also followed the guidelines of Central Vigilance Commission as issued from time to time. Selection of candidates for special assignment, Prizes, Consultancies etc. are decided by the Member Secretary, Central Silk Board, Bangalore. Sanction of Study Leave is considered following CCS (Leave) Rules, 1965 and this is sanctioned by the Member Secretary, Central Silk Board, Bangalore depending upon its merit.

ITEM NO.5: The rules, regulations, instructions, manuals and records held under its control for used by its employees for discharging its function.

Administrative Part:

The rules, regulations, instructions, manuals and records, held by it or under its control are used by its employees for discharging its functions are the Government of India Rules adopted by the Board, such as FRSR, GFR, CCS (CCA) Rules, CCS (Conduct) Rules, CCS (Leave) Rules, Pension Rules, GPF Rules, General Rules, T.A. Rules, LTC Rules, Rules for Children Education allowance, House building advance, Recruitment rules. As far as recruitment of Labourers are concerned the rules framed by Central Silk Board is followed. Rules for interest subsidy of Housing loans are also followed.

Scientific and Technical Part:

As regards technical / scientific matters, all the published, unpublished data relating to projects, Annual reports etc. and data relating to routine work are the property of the Institute. Hence, those are preserved in the Institute and are subject to accessible to public.

ITEM NO. 6: A statement of the categories of documents that are held by it or under its control.

- ✓ Annual Research and Administrative Report
- ✓ Annual Action Plan
- ✓ Annual Budget
- ✓ Minutes of Research Council (RC), Research Advisory Committee (RAC)
- ✓ News bulletin
- ✓ Service Book
- ✓ Annual Performance Appraisal Report
- ✓ Asset register, Stock register (both consumable & Dead stock)
- ✓ Stock Register of Books & Journals
- ✓ Vehicle Registers & Logbooks etc.

ITEM NO. 7: The particulars of any arrangement that exists for consultation with, or representation by, the members of the public in relation to the formulation of its policy or implementation thereof

The Institute organizes the following public interactive events for the shake of the sericultural farmers.

- ✚ Resham Krishi Mela
- ✚ Workshop / Seminar / Symposium
- ✚ Field day / Farmers' Day
- ✚ Exhibition
- ✚ Demonstration

ITEM No. 8: A statement of Board, Councils, Committees and other bodies consisting of two or more officials constituted as its part or for the purpose of its advice and as to whether meeting of those boards, councils, committees and other bodies are open to the public or minutes of such meetings are accessible for public.

Following are some of the Board, Councils, Committees and other bodies consisting of two or more officials:

1. **Research Council (RC):** Consisting of all the scientists of the Research Institute and RSRS's including Director of the Institute / In-charge who act as Chairman of the committee.
2. **Research Advisory Committee (RAC):** Following are the members of newly constituted Research Advisory Committee (W.e.f. 01.04.2011).

Prof. M. Muniyamma , Chairman, Former <i>Vice Chancellor</i> No. 3, First Floor, 11 th Cross, 5 th Main Jayamahala Extension BANGALORE – 560 045	
Dr. H. K. Mazumdar , Member, Director Grade Scientist Dept. of Parasitology and Biochemistry Indian Institute of Chemical Biology 4, Raja S.C. Mullick Road KOLKATA – 700 032	Dr. D. Sen , Member, Agricultural Extension EB 1/12, Deshbandhunagar Baguihati, KOLKATA – 700 032
Prof. S. Maity , Member, Dept. of Agronomy Bidhan Chandra Krishi Viswavidyalaya P.O. MOHANPUR – 741 252 Dist. Nadia, West Bengal	Dr. N. Suryanarayana , Member, Ex-Director, CSB D. No. 11-3-392/2/11/833 Srinivas Nagar Colony SECUNDERABAD - 500 061 Hyderabad, Andhra Pradesh
Prof. D. K. Battachararya , Member, Dept. of Zoology University of Kalyani P.O. KALYANI – 741 235 Dist. Nadia, West Bengal	Dr. B. Saratchandra , Member, Director, Central Silk Board, BTM layout, P.O. Madiwala Bangalore – 560 068
Dr. V. Sivaprasad , Member, Director, National Silkworm Seed Organization Central Silk Board, BTM layout, P.O. Madiwala Bangalore – 560 068	Dr. B.B. Bindroo , Member Convener Director , C.S.R. & T.I., P.O. Berhampore, West Bengal

Minutes of the 34th meeting of Research Advisory Committee held on 26th May, 2011
at CSR&TI, Berhampore, West Bengal

The 34th meeting of Research Advisory Committee of CSR&TI, Berhampore was held on 26th May, 2011 at this Institute, to review the progress of various ongoing research projects/ programmes, the findings, so far from the concluded research projects/ programmes and to consider the new research project/ programme proposals as well, pertaining to the main Institute and its nested RSRs. The meeting was chaired by Dr. H. K. Majumder, Scientist-G, IICB (CSIR), Kolkata & Member, RAC with the prior consent of Prof. M. Muniyamma, Chairperson, RAC who was unable to chair the meeting due to her sudden illness. The list of the participants is appended in Annexure-I.

Dr. B. B. Bindroo, Member-Convenor, RAC & Director Incharge, CSR&TI, Berhampore welcomed Dr. H. K. Majumder, Scientist-G, IICB (CSIR), Kolkata who acted as Chairman of RAC, all distinguished members specially Dr. B. Saratchandra, Director (Tech.), CSB and Dr. V. Sivaprasad, NSSO, Bangalore who, inspite of their busy schedule attended the meeting. He also welcomed the invitees from various RO / RDOs and scientists of the main Institute and its nested units.

Dr. H. K. Majumder, the acting Chairman, RAC while addressing the house conveyed thanks to Dr. B. B. Bindroo, Director Incharge of the Institute, distinguished members of RAC, invitees, scientists, participants and staff members of the Institute and expressed his happiness to be one of the members of the apex body of this institute. He requested all the hon'ble members to take part actively in course of discussion and extend precious suggestions to enrich the knowledge of the scientists. He, however, advised the scientists to highlight only the salient findings so far emanated from their research work during presentation to cover all the agenda points within the limited time. In this occasion, following two brochures were released by the Chairman, RAC-

- 1) About CSR&TI, Berhampore and its R&D achievements.
- 2) Silkworm diseases and preventative measures.

Later on, the agenda-wise items were taken up for discussion.

ITEM NO.1: CONFIRMATION OF THE MINUTES OF THE 33RD MEETING OF RAC HELD ON 23RD & 24TH SEPTEMBER, 2010 AT CSR&TI, BERHAMPORE.

The minutes of last RAC meeting was confirmed since no comment was received from any corner.

ITEM NO.2: REVIEW OF FOLLOW-UP ACTION ON THE RECOMMENDATIONS/ DECISIONS OF THE 33RD MEETING OF RAC HELD ON 23RD & 24TH SEPTEMBER, 2010 AT CSR&TI, BERHAMPORE.

The follow-up actions taken as per the recommendations / decisions of the 33rd RAC meeting by the concerned scientists were reviewed and found satisfactory.

As regards rearing of APS race, Director, NSSO, Bangalore informed that since the race is an authorized one and being giving good results, it can be reared by any CSB units and layings of the said race may be obtained from NSSO, Bangalore or from the concerned state department. REC, Rangpo (Sikkim) may undertake rearing with the above silkworm race.

[Action: Extn. Divn. /RSRS, Kalimpong]

ITEM NO.3: DIRECTOR'S REPORT ON THE WORK CARRIED OUT BY THIS INSTITUTE DURING THE PERIOD FROM OCTOBER, 2010 TO APRIL, 2011.

To give an overall idea to the reconstituted RAC members about the R&D activities being carried out by the Institute, a brief report was presented before the house by the Director(I/C), CSR&TI, Berhampore on the following aspects.

- i. Mulberry/Silkworm Crop Improvement
- ii. Productivity Improvement
- iii. Mulberry/Silkworm Crop Protection
- iv. Human Resource Development
- v. Extension Communication Programme
- vi. External funded (DBT) Project
- vii. Cluster Promotion Programme.
- viii. Publication
- ix. Developmental activities at the Institute under MGNREGA

ITEM NO. 4: REVIEW OF CONCLUDED PROJECTS / PROGRAMMES / PILOT STUDY:

Following three projects and four programmes of the main Institute were concluded during the period as per the time schedule.

1. PIB-3340: Development of mulberry genotypes suitable for low productive soils.

The outcome of the above concluded project was reviewed by the house and progress found as per the milestone. It was suggested to use the term “Line/Variety” instead of “genotype” while evaluating the new mulberry plant. The term “low fertility soil” should be expressed as “low input soil”. (Action: PI of the Project and all concerned)

2. AIB-3393: Development of commercial hybrids of silkworm, *Bombyx mori*. L. by identification of bivoltine parents through screening in different seasons of West Bengal.

The project was concluded as per the objective of the project.

3. AIP-3412: Physio-biochemical characterization of selected silkworm germplasm accessions during seed crop seasons.

The outcome of the above project was found as per the objective. The findings emanated from the above project may be utilized for selection of parents in breeding programme by the SBG section of the institute.

4. Validation trial of mulberry based intercropping system in wider spacing under irrigated condition.

The above programme was concluded as per the objective. It was suggested that since the technology is for a certain period i.e. during establishment period of mulberry, the same may not be feasible to recommend for the grown up plantation due to less space between mulberry plants.

[Action: Dr. A.K. Misra, Sci-C, Mul.Physiol. Section]

5. Validation trial of waterlogged tolerant mulberry variety C-2028 at farm level.

It was suggested to initiate necessary action to get the mulberry variety C-2028 authorized. As requested by the Director, NSSO, planting materials of C-2028 variety as sample, may be supplied to NSSO farm at BSF, Palakkad for testing.

[Dr. P. K. Tewary, Sci-C, Mul. Physiol./ Director, NSSO]

6. Multilocational trial of the rearing package emanated through the project APR 3250: Development of Rearing package for optimizing cocoon yield in West Bengal .

The programme was reviewed and achievements found as per objective.

7. Field evaluation of botanical insecticides for management of major mulberry pests and their impact on leaf yield.

The results of the programme was reviewed and found as per objective.

ITEM NO.5: REVIEW OF PROGRESS OF ONGOING RESEARCH PROJECTS / PROGRAMMES.

Progress of ongoing research projects / programmes was critically reviewed by the house and the suggestions / recommendations are as follows:

MAIN INSTITUTE

MULBERRY BREEDING & GENETICS SECTION:

The progress of two ongoing projects viz., (1) **“PIB-3422: Development of mulberry genotypes for improvement in productivity and quality”** and (2) **“PIB-3424: Development of low temperature stress tolerant mulberry genotypes for sub-tropical plains”**, was found as per the milestone.

AGRONOMY SECTION:

While reviewing the progress of one ongoing programme namely **“Field evaluation of antitranspirants for increasing leaf yield of mulberry under rainfed condition”**, the progress was found as per the milestone.

SOIL SCIENCE & CHEMISTRY SECTION:

Progress of two ongoing projects entitled (1) “PPS-3347: Evaluation of soil fertility for sustained production of quality mulberry leaf in Eastern India under long-term fertilization” and (2) “PPS-3435: Studies on micronutrients for sustained high productivity of quality mulberry in Eastern and North-Eastern India” and one programme entitled “Validation trail of the ready reckoner of sulphur fertilizer application for obtaining targeted yields of mulberry” was presented and found as per milestone.

Regarding continuation of the project entitled “PPS-3347: Evaluation of soil fertility for sustained production of quality mulberry leaf in Eastern India under long-term fertilization” the PI was advised to continue the same as a programme for drawing meaningful conclusion on the effect of long term fertilization.

(Action: Dr. R. Kar, Sci-C, Soil.Sci. & Chem. Section)

MULBERRY PATHOLOGY SECTION:

The progress of one ongoing Central Sector Scheme-2107, entitled “Development of forecasting and forewarning system of mulberry diseases” was reviewed and found as per milestone. The PI was advised to present the disease intensity alongwith area map during different season in various districts, henceforth.

(Action: Dr. S. K. Dutta, Sci.-C, Mul. Pathology Section)

SILKWORM BREEDING AND GENETICS SECTION:

While reviewing the progress of the Pilot Study entitled “Identification of improved multivoltine hybrids for unfavourable seasons in West Bengal”, it was observed by the house that the rearing performance of the new hybrids in various state govt. farm is not up to the satisfactory level and accordingly, it was suggested that during favourable season MxM hybrid such as M.Con1 x Nistari should not be tried for rearing.

(Action: Dr. N. Suresh Kumar, Sci.-C, SBG Section)

Regarding the Pilot Study entitled, “Studies on the multiple mating ability of bivoltine male moths of *Bombyx mori* L. and its effect on production of Multi x Bi dfls under tropical condition”, it was observed that 4th time mating had shown good result as

compared to 1st, 2nd & 3rd matings which is practically impossible and hence, it was suggested that the PI should check the data. (Action: Dr. S. Chanda, Sci.-C)

SILKWORM PHYSIOLOGY & REARING TECH. INNOVATION SECTION:

Progress of one ongoing programme entitled, **“Validation trial on the superiority of paired row plantation in chawki mulberry garden with regard to leaf yield and cocoon productivity”** was presented and found as per the milestone.

ENTOMOLOGY SECTION:

Progress of one ongoing project entitled “PRE-3345: Development of the weather based forecasting models for mulberry pests” (which was modified as a programme from January 2011), was reviewed by the house and found as per milestone.

SILKWORM PATHOLOGY SECTION:

While reviewing the progress of the programme entitled, “Study on the efficacy of newly developed bed disinfectant (Sericillin) in hot spot areas for the control of muscardine disease of silkworm, *Bombyx mori*.”, it was observed by the house that different hybrids were considered in treatment and control to study the efficacy of Sericillin. It was suggested to consider the same hybrid to have comparison between the treatment and control.

(Action: Dr. S.Chakraborty, Sci-B, Silkworm Pathology Section)

BIOTECHNOLOGY SECTION:

The progress of two DBT funded ongoing projects in collaboration with CCMB, Hyderabad, entitled (i) “Development, validation and utilization of SCAR marker(s) for powdery mildew (*Phyllactinia corylea*) resistance in mulberry” and (ii) “Development of DNA marker based genetic linkage map of mulberry and QTL analysis for agronomically important planta traits”, was reviewed and the progress found as per the milestone.

EXTENSION:

The progress of various extension activities under different programmes (work plans)/ projects being conducted at attached RSRSs & RECs under this Institute was presented and found as milestone.

While reviewing the progress of the programme entitled **“Technology Assessment and Refinement through Institute Village Linkage Programme (Phase-III)”**, it was observed by the house that refinement of the technology being the objective of the project, but it has not been emphasized. Accordingly, the PI was advised to concentrate on refinement of the developed technologies identifying the local problem and at the same time outcome of the SWOT analysis should also be taken into consideration.

(Action: PI/Co-PI of the project, Extn.Divn.)

REGIONAL SERICULTURAL RESEARCH STATIONS:**RSRS, Kalimpong:**

Progress of ongoing two collaborative projects, three programmes and one Central Sector Schemes- (2107) of the Main Institute and two own programmes was reviewed by the house and found as per the milestone.

While reviewing the progress of the programme entitled, “**Studies on the leaf webber, *Glyphodes pyloalis* (Walker) and its eco-friendly management**”, it was advised that the incidence of flacherie should also be studied since *Glyphodes pyloalis* (Walker) is one of the carriers of flacherie disease. **(Action: Dr. U.K.Bandyopadhyay, Sci-C, RSRS, Kalimpong)**

In the above context, the Director, NSSO advised to take up a project on flacherie/Gattine (non-occuled) virus in collaboration with SSTL, B'lore.

(Action: Mr. Zakir Hossain, Sci-C)

As regards the programme entitled, “**Improvement of yield and quality of mulberry leaf in sub-tropical leaf in subtropical hills of eastern India through the refinement of pruning schedules and application of Morizyme-B**”, it was noticed by the house that whether the main cause of leaf fall during September was due to fungal infection (Anthracnose) in mulberry, has not been taken into consideration. Therefore, it was suggested to incorporate the said study and in that case expertise available may be utilized.

(Action: Smt. C. Maji, Sci-D, RSRS, Kalimpong)

RSRS, Koraput:

Progress of ongoing two collaborative projects, two programmes and one Central Sector Scheme-2107 of the Main Institute conducted through the station, was reviewed by the house and found as per the milestone.

RSRS, Ranchi:

Progress of ongoing one collaborative project, two programmes and one Central Sector Scheme-2107 of the Main Institute conducted through the station, was reviewed and found as per the milestone.

RSRS, Jorhat:

Progress of ongoing two collaborative projects, one programme and one Central Sector Scheme-2107 of the Main Institute conducted through the station, was reviewed and found as per the milestone.

ITEM NO. 6: APPROVAL OF NEW RESEARCH PROJECT / PROG./ PILOT STUDY:

Eight (8) projects and four (4) programmes alongwith two (2) programmes and one pilot study (Presented and discussed under the Item No. 13 of the meeting minutes) were reviewed critically and project/programme-wise decisions are given below:

1. Title of the Project: Screening of mulberry genotypes using physio-biochemical markers responsive to abiotic stress - **Dr. A.K. Misra, Sci.-C, Mulberry Physiology section**

Duration: 3 years (July, 2011 to June, 2014)

Observation/Suggestion:

1. The terms “Genotypes” should be replaced with “variety/line” and hence, title of the project should be changed accordingly.
2. Identification of markers being the objective of the project, the PI should specify the abiotic stress for the study.
3. Anti-oxidant may be studied.
4. Experiment should be conducted under controlled /simulated condition for identifying the markers.
5. Molecular marker may also be included in the project work.

Decision of RAC: The project proposal was approved by the house subject to revision/incorporation of the above suggestions.

2. Title of the Project: Standardization and determination of temperature tolerance potentiality in different developmental stages of silkworm, *Bombyx mori* L. – **Dr. S.K. Nayak, Sci-B, SWP & RTI Section**

Duration : 3 years (July, 2011 to June,2014)

Observation/Suggestion:

1. The term “Lethality” would be appropriate word instead of “LD₅₀” in the experiment E01.
2. Protein profiling study of the breeds should be done for identification of heat shock proteins.
3. Well known thermo-tolerant breeds such as Nistari, Sarupat, Pure Mysore & SH6 (at least two nos.) should be taken in the work alongwith other four breeds already kept in the project proposal.
4. There is no need for specific environmental chamber; instead, experiments should be conducted in the rearing room maintaining high temperature and high humidity by employing required devices.

Decision of RAC: The project proposal was approved by the house subject to modification.

3. Title of the Project: Development of seed crop rearing package for Eastern and North-Eastern India - **Dr. T. Dutta (Biswas), Sci.-C, Silkworm Physiology & RTI Section.**

Duration: 3 years and seven months (July,2011 to Feb.,2015).

Observation/suggestion:

1. The package already available for commercial rearing may be taken up for demonstration at the Adopted Seed Rearers (ASR) level as ToT component to produce quality seed cocoons by the seed rearers.

Decision of RAC: Not approved as project. However, available silkworm rearing package may be demonstrated to the seed rearers under extension activities (under ToT) as a programme.

4. Title of the Project: Formulation of broad spectrum room disinfectant for silkworm disease management – **Dr. S. Chakraborty, Sci-B, Silkworm Pathology Section**

Duration: 2 years (June, 2011 to May, 2013)

Observation/Suggestion: The fumigant type of room disinfectants (to be spelt out) could be studied for its mode of action, effectiveness and applicability *vis-à-vis* availability of the same in the market.

Decision of RAC: The above work may be taken up as a Pilot Study subject to modification/ incorporation of the fumigant type of disinfectants only as suggested.

5. Title of the Project: Biology and feeding efficacy studies of *Scymnus pallidicollis* (Mulsant) for the eco-friendly management of pink mealy bug, *Maconellicoccus hirsutus* – Smt. M. Patnaik, Sci- C, Entomology Section

Duration: 2 years (February, 2012 to January,2014)

Observation/Suggestion:

1. Preliminary study on the environmental impact and relationship between the predators and the prey has to be done.
2. For studying the biology of the predators, one year time period proposed in the project may not be sufficient; therefore, PI was advised to modify the objective keeping the time period for two years.

Decision of RAC: The project proposal was approved by the house subject to modification.

6. Title of the Programme: Studies on the biology and efficacy of the potential of coccinellids predators for management of whitefly – Dr. Y. Debraj, Sci.-C, RSRS, Jorhat.

Duration: 2 years (April,2011 to March,2013)

Observation/Suggestion:

1. While discussing the above proposal, it was advised that instead of studying the predators alone, a comprehensive approach involving the biology of natural enemies, population interactions between pests and natural enemies (i.e. predators & parasitoids) in mulberry, role of alternative hosts of pests and natural enemies during non-availability of the host plant, the life stages of the pests and natural enemies those are overcoming unfavourable conditions, should also be studied.

Decision of RAC: 1. The programme as such was approved to be undertaken.

2. Further, the Entomology section, CSR&TI, Berhampore may take up a networking project for a period of 5 years involving Eastern & North-Eastern regions keeping in view the suggestions as above and submit the same for external funding.

7. Title of the Project: Management of disease and pests of mulberry with petroleum derived spray oil and its impact on leaf quality and yield - Dr. S. K. Mukhopadhyay, Sci.-C, PMCE Divn.

Duration: 3 years (June,2012 to March,2015)

Observation: During the course of discussion the house wanted to know the appropriateness of spraying petroleum oils on mulberry leaf, which will be used for silkworm rearing. The PI informed the house that the same oil is being utilized in many horticultural crops including tea. Moreover, in Pilot study positive trends were observed with whitefly. Besides, as reported it has no harmful effect on the natural enemies and the results on the bioassay have also shown no adverse effect on silkworm.

Decision of RAC: The project was approved to be undertaken with an advice to PI to send the project to IOC for funding.

8. Title of the Project: Development of region specific bivoltine breeds suitable for highly fluctuating and seasonally variable climatic conditions of Eastern and North-Eastern India – **Dr. N. Suresh Kumar, Sci.-C, SBG Section.**

Duration: 5 years (April,2011 to December,2016)

Observation/suggestion: The breeds collected from different sources should be screened for their suitability in this region and only the region specific promising breeds should be considered for breeding purpose.

Decision of RAC: The project was approved subject to incorporation of the suggestion.

9. Title of the Project: Yield gap in mulberry sericulture – A study in North-Eastern region of India – **Smt. Ranuma Das, Sci.-C, RSRS, Jorhat.**

Duration: 3 years (October,2011 to April,2014)

Observation/Suggestion: Technological factors as indicated in the project proposal should be minimized and total cocoon productivity per hectare of land should also be considered as one of the components in the study.

Decision of RAC: The project was approved to be undertaken.

10. Title of the Prog.: Studies on the field efficacy of selected doses of insecticides in whitefly management – **Dr. M.V. Santha Kumar, Sci.-C, Entomology Section.**

Duration: 2 years (July,2011 to June, 2013)

Observation/Suggestion: The budget of the above programme may be revised appropriately.

Decision of RAC: The programme was approved to be undertaken.

11. Title of the Prog.: Studies on reduction in cost of production and improvement on crop productivity for sustainable sericulture under West Bengal conditions – **Mr. S. Rajaram, Sci.-C, Agronomy section.**

Duration: 3 years (July, 2011 to June, 2014)

Observation/Suggestion:

- 1) It was observed that new simple devices should be identified/ modified for use in the study. The PI was advised to work out the detailed information on manufacturing cost, working efficiency etc. of the device towards its cost effectiveness.
- 2) Mechanical advantage between the new and the conventional devices has to be spelt out clearly emphasizing the efficiency of the new one. Since, the work is found to be an innovative one, as it is a new attempt under closer spacing for W.B. condition and the feasibility of the same may be taken up as exploratory study for a period of one and half years.

Decision of RAC: The work may be taken up as an exploratory/ innovative study. Moreover, the devices to be innovated need to be filed for patent /commercialization.

12. Title of the Programme: Validation of the modified package of nutrient management under rainfed condition – **Dr. Ghanashyam Singh, Sci.-C, RSRS, Ranchi.**

Duration: 2 years (July,2011 to June,2013)

Observation/Suggestion:

1. **During discussion, the house advised the PI to rename the programme as “Validation trial of package of nutrient under rainfed condition”.**
2. **Total number of farmers to be selected should be mentioned *vis-à-vis* the farmers should have facilities to prepare vermicompost from the available farm resources of their own.**
3. **Selected farmers should also have the capacity to prepare the required quantity of the vermicompost of their own. The above programme may be put under the ToT programme to arrange the expenditure on inputs supply.**

Decision of RAC: The programme was approved subject to incorporation of the above suggestions.

ITEM NO.7. PROGRESS OF TRIALS / DEMONSTRATIONS OF TECHNOLOGIES AND FEEDBACK:

Various trials / demonstration programmes were organized by different nested RSRs and RECs as per their annual target. The progress and its subsequent feedback on various aspects like mulberry cultivation (with existing and new plantation) under TAR through IVLP (Phase-III), demonstration of silkworm crop protection measures, promotion of vermicompost, testing of rearing package and establishment of Farmers’ Field Schools etc., are reviewed and found as per the objectives.

ITEM NO. 8. REVIEW OF THE ACTIVITIES OF RESEARCH EXTENSION CENTRES & THEIR SUB-UNITS.

The activities of various Research Extension Centres (RECs) and Sub-RECs are reviewed by the house and found as per the milestone.

ITEM NO. 9. EXTENSION COMMUNICATION PROGRAMME:

During the period, various Extension Communication Programmes such as, Resham Krishi Mela, Field Day, Exhibition, Awareness Programme, Audio-Visual Programme and Trainers’/Farmers’ Training programme were conducted by the nested RSRs, RECs and REC (SU)s of this Institute to make the farmers acquainted with the evolved technologies besides enriching their knowledge. The overall progress of the programme was found satisfactory.

ITEM NO. 10. TRAINING IMPARTED:

The Institute imparted various trainings on structured (PGDS) and non-structured courses during the period. Training programmes such as capsule, in-service, Orientation training (Management Development /Skill updation Programme) under Central Sector Scheme (Code No. 2109) was arranged for the officers of both CSB & State Ser. Deptt. Besides, a total of 31 DOS/CSB officials from Orissa and West Bengal were imparted training alongwith organizing two days training to “Seed Officers and Seed analyst”.

While reviewing the training programme, the house emphasized that more number of farmers should be trained under the programme and accordingly target for imparting training to 5,000 farmers in a year should be fixed. In this context, the Director Incharge, CSR&TI, Berhampore expressed that a programme has already been chalked out taking all the RSRs & RECs for training to the farmers with the available facilities.

ITEM NO. 11: TECHNOLOGIES UNDER PATENT AND COMMERCIALIZATION, IF ANY.

The progress on the products / technologies so far evolved by this Institute which were either got patented/ commercialized or in the process of patenting/commercialization, was reviewed and found satisfactory.

As regards popularization/commercialization of the biofertilizers such as Nitrofert & Phosphofert, it was suggested that the entrepreneurs who have come forward for the same could be assisted under CDP scheme.

[Action: Sci-D (Mori) & Sci-D (Extn.)]

ITEM NO.12: REVIEW OF THE RECOMMENDATIONS OF RRAC AND FEEDBACK FROM THE SLSCC AND OTHER DOS MEETINGS

The progress on various follow up actions taken by this institute on the decisions/recommendations of different RRAC and SLSCC meetings and feedback received from different DoS/ DoT, from time to time, were reviewed and found satisfactory.

1. Regarding shifting of REC, Deogarh to Keonjhar, it was suggested that if the above REC is not required at Deogarh suitable action may be initiated. It was also decided that the issues related to R&D only may be kept in the agenda items for discussion rather than the issues of administrative nature.
2. The incharges of RSRs should initiate follow up action on the important decisions taken in the RRAC meetings without wasting time for the approval of the minutes.

ITEM NO. 13: SUBJECT, IF ANY, WITH THE PERMISSION OF THE CHAIR:

With the permission of the Chairman and consent of the hon'ble members, RAC, following two new programmes and one Pilot Study were critically discussed in the meeting for approval of new project / programme / pilot study.

1. Title of the Programme: Screening and identification of bivoltine breeds for Eastern and North-Eastern India – **Dr. N. Suresh Kumar, Sci.-C, SBG Section.**

Duration: 3 years (July,2011 to June,2013)

Observation/Suggestion:

The bivoltine breeds which are susceptible to diseases should be considered as control to compare with the disease resistant one for identifying the promising breeds.

Decision of RAC: The programme was approved to be undertaken.

2. Title of the Programme: Establishment of molecular IDs for few indigenous and evolved silkworm breeds using molecular markers – **Dr. S. Srikumar, Sci.-C, SBG Section.**

Duration: 2 years (July,2011 to June,2013)

Observation/Suggestion:

It was observed by the house that the work was found to be a good one for establishment of molecular IDs for evolved silkworm breeds and hence, the PI was advised to initiate the work as a programme with immediate effect utilizing the existing facilities and budget provision of Rs. 3-4 lakh. In the

mean time, the PI should prepare a new project on the above lines for submission to DBT for funding.

Decision of RAC: The work was approved as programme and also the PI was advised to formulate a project on this above line for submission to DBT for funding.

3. Title of the Pilot Study: Improvement of mulberry through *in vitro* mutagenesis and somaclonal variation – **Smt. N. Lalitha, Sci.-B, Biotech. Section.**

Duration: 1½ years (July,2011 to December,2012)

Observation / Suggestion:

The study is planned for standardizing the protocol and developing of somaclonal variants/mutants towards tukra resistance in mulberry.

Decision of RAC: As the proposed work is limited to standardization of protocol, the proposal was approved as a Pilot Study.

MISCELLANEOUS:

1. Henceforth, layings will be supplied on cost basis to other organizations except for the Institutes own programme for testing etc.
2. Arrangement for supply of P1 layings of SK6 x SK7 will be done by the NSSO alongwith procurement of cocoons. However, supply of P3 layings, if any, required by the NSSO/ DoT (Seri.) will be made by the Institute.
3. Since the Institute is taking great efforts for promotion of bivoltine in Eastern & North-Eastern states and has already envisaged the research projects in this direction, the RSRS, Kalimpong & REC, Shillong would be enacted as designated satellite breeding centres for the purpose to coup up the necessity for bivoltine breeding works of the Institute.

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

APPROVED

**Chairman, RAC,
CSR&TI, Berhampore (WB)**

**(Dr. B.B. Bindroo)
Director In-charge
Member Convener, RAC
CSR&TI, Berhampore (WB)**

Annexure-I

LIST OF MEMBERS, INVITEES AND SCIENTISTS ATTENDED THE 34th MEETING OF RESEARCH ADVISORY COMMITTEE HELD ON 26TH MAY, 2011 AT CSR&TI, BERHAMPORE, W. B.

Sl. No.	Name	Designation
Members		
1	Dr. H. K. Majumder, Scientist-G, IICB(CSIR), Kolkata	Chairman, RAC (On request)
2	Dr. S. Maity, Ex-Prof. BCKV, Mohanpur, West Bengal	Member, RAC
3	Dr. D. K. Bhattacharya, Prof. of Zoology, Univ. of Kalyani, West Bengal	Member, RAC
4	Dr. D. Sen, Ex-Director of Extn., NIRD, ICAR, Hyderabad	Member, RAC
5	Dr. N. Suryanarayana, Ex-Director, Central Silk Board	Member, RAC
6.	Dr. B. Saratchandra, Director (Tech), CSB., Bangalore	Member, RAC
7.	Dr. V. Sivaprasad, Director, NSSO, CSB, Bangalore	Member, RAC
8.	Dr. B.B. Bindroo, Director In-charge, CSR&TI, Berhampore	Member Convener, RAC
Invitees		
1.	Shri R. Bhattacharjee, Jt. Secretary(Tech.), RO, CSB, Kolkata	Invitee
2.	Shri G. C. Ray, Asstt. Secretary (Tech), RDO, Bhubaneswar	Invitee

Scientists:			
Sl. No	Name	Designation	Address
1.	Dr. P. Mitra	Scientist-D, Extension	CSR&TI, Berhampore
2.	Shri S. S. Manna	Scientist-D, R&S	CSR&TI, Berhampore
3.	Shri R. N. Dutta	Scientist-D, Training	CSR&TI, Berhampore
4.	Dr. A. Ghosh	Scientist-D, Mori.	CSR&TI, Berhampore
5.	Dr. A.K. Saha	Scientist-D, Seri.	CSR&TI, Berhampore
6.	Dr. S. Roy Chowdhuri	Scientist-D, PMCE	CSR&TI, Berhampore
7.	Dr. M.K. Ghosh	Scientist-D, MBG	CSR&TI, Berhampore
8.	Dr. N.K. Saha	Scientist-D, Farm Management	CSR&TI, Berhampore
9.	Mrs. C. Maji	Scientist-D	RSRS, Kalimpong
10.	Dr. S. K. Mukhopadhyay	Scientist-C, PMCE	CSR&TI, Berhampore
11.	Dr. S.K. Dutta	Scientist-C, Mul. Patho.	CSR&TI, Berhampore
12.	Dr. P.K. Tewary	Scientist-C, MBG	CSR&TI, Berhampore
13.	Dr. P. K. Ghosh	Scientist-C, MBG	CSR&TI, Berhampore
14.	Dr. Shiv Nath	Scientist-C, MBG	CSR&TI, Berhampore
15.	Dr. Jalaja S. Kumar	Scientist-C, MBG	CSR&TI, Berhampore
16.	Dr. A. K. Misra	Scientist-C, Mul. Physiol.	CSR&TI, Berhampore

17.	Dr. R. Kar	Scientist-C, Soil Sc.& Chem.	CSR&TI, Berhampore
18.	Dr. S. K. Majumder	Scientist-C, Soil Sc.& Chem	CSR&TI, Berhampore
19.	Dr. (Mrs.) Rita Banerjee	Scientist-C, Biotechnology	CSR&TI, Berhampore
20.	Dr.(Mrs.) S. Chanda	Scientist-C, Agronomy	CSR&TI, Berhampore
21.	Smt. M.Patnaik	Scientist-C, Ento.	CSR&TI, Berhampore
22.	Dr. M.V.Santhakumar	Scientist-C, Ento.	CSR&TI, Berhampore
23.	Shri N. B. Kar	Scientist-C, R&S	CSR&TI, Berhampore
24.	Dr.G.K.Chatterjee	Scientist-C, SBG	CSR&TI, Berhampore
25.	Dr. N. Suresh Kumar	Scientist-C, SBG	CSR&TI, Berhampore
26.	Shri S. Sreekumar	Scientist-C,SBG	CSR&TI, Berhampore
27.	Dr. (Mrs.) T. Datta (Biswas)	Scientist-C, SWP & RTI	CSR&TI, Berhampore
28.	Mrs. S. Mukherjee	Scientist-C, Training	CSR&TI, Berhampore
29.	Dr. S.K. Mondal	Scientist-C, Training	CSR&TI, Berhampore
30.	Dr. S.K. Gupta	Scientist-C, Training	CSR&TI, Berhampore
31.	Dr. L.M. Saha	Scientist-C, Extn.	CSR&TI, Berhampore
32.	Dr. S.N. Bagchi	Scientist-C, Extn.	CSR&TI, Berhampore
33.	Shri. D. Das	Scientist-C, Extn.	CSR&TI, Berhampore
34.	Shri N. K. Das	Scientist-C, Statistics	CSR&TI, Berhampore
35.	Dr. N.R.Rao	Scientist-C	RSRS, Koraput
36.	Dr. U.K. Bondapadhyay	Scientist-C	RSRS, Kalimpong
37.	Dr. S.N. Gogoi	Scientist-C	RSRS, Jorhat
38.	Smt. Ranuma Das	Scientist-C	RSRS, Jorhat
39.	Shri Zakir Hossain	Scientist-C,SW.Pathology	CSR&TI, Berhampore
40.	Shri S. Rajaram	Scientist-C, Agronomy	CSR&TI, Berhampore
41.	Dr. S.K. Dutta	Scientist-C, Mul. Patho.	CSR&TI, Berhampore
42.	Dr. Ghanashyam Singh	Scientist-C	RSRS, Ranchi
43.	Dr. D. Pandit	Scientist-C	REC,Maheshpurraj
44.	Dr. S. Chakraborty	Scientist-B, S.W. Patho.	CSR&TI, Berhampore
45.	Dr. B.B. Patnaik	Scientist-B, SBG	CSR&TI, Berhampore
46.	Dr. H. Lakshmi	Scientist-B, SBG	CSR&TI, Berhampore
47.	Smt. N. Lalitha	Scientist-B, Biotech.	CSR&TI, Berhampore
48.	Shri P. Mahapatra	Computer Programmer	CSR&TI, Berhampore
49.	Shri B. Gupta	Jr. Steno. PMCE	CSR&TI, Berhampore
50.	Smt. Sanchita Sarkar	JRF, Biotechnology Section	CSR&TI, Berhampore
51.	Shri T. Maitra	T.A., Computer	CSR&TI, Berhampore
Absentée :			
1.	Prof. M. Muniyamma, Ex-VC, Gulbarga University, Karnataka		Chairman, RAC
2.	Shri R. Prasad, Asstt. Secretary (Tech.), RDO, Patna		Invitee
3.	Shri S. Deori, Jt. Secretary (Tech.), RDO,CSB, Guwahati		Invitee
4.	Dr. P. N. Mishra, Scientist-D, RSRS, Ranchi		Invitee

MINUTES OF THE RESEARCH COUNCIL MEETING HELD ON 22ND & 23RD FEBRUARY, 2011 AT CSR&TI, BERHAMPORE, WEST BENGAL

The Research Council meeting of CSR&TI, Berhampore was held on 22nd & 23rd February, 2011 under the Chairmanship of Shri M.K. Majumdar, Director In-charge in order to assess the progress of on-going and concluded research projects/ programmes of the Main Institute & its nested RSRs, apart from considering the new research projects/ programmes proposals. The list of the participants is enclosed in Annexure - I.

In his introductory remarks, Shri M.K. Majumdar, Director In-charge welcomed all the scientists of this Institute/ nested units & other participants and urged the scientists to take active participation in a positive manner so that effectiveness of the outcome of the research work/technology can be analysed critically in the house and ultimate goal for taking the same to the farmers' field can be achieved. Since most of the farmers in West Bengal are marginal so affordability of the technologies from economic point of view by the farmers has also to be taken into consideration.

Later on, discussions were taken up as per agenda-items.

Item No. 1: Confirmation of the minutes of the meeting held on 27th & 28th July, 2010.

Since no comment was received from any corner the minutes were confirmed.

Item No.2: Review of the follow up action taken on the decision of the Research Council meeting held on 27th & 28th July, 2010.

Review of the follow up action taken on the decisions of the earlier Research Council meeting held on 27th & 28th July, 2011 by the concerned was done and outcome of which is here under:

Though it was decided in the earlier RC meeting held on 27th & 28th July, 2010 that Dr. N. Suresh Kumar, Sci.-C of this institute should visit all the RSRs and select the breeds suitable for each RSRs in consultation with the in-charges of the RSRs. In some case it was not possible because of low hatching and less fecundity of the breeds supplied by the institute. Dr. N. Suresh Kumar, Sci.-C was further advised to visit all the RSRs and identify the suitable breeds/ hybrids based on the performance in consultation with the respective in-charges of RSRs.

(Action: Dr. N. Suresh Kumar, Sci.-C, SBG Section and All RSRs)

Consequent upon transfer of Smt. C. Maji, Sci.-D from this institute, as proposed by Dr. A. K. Saha, Sc-D (seri), Dr. N.K. Saha, Sci-D of Farm Management Section has been entrusted to initiate the project entitled, **“Socio-economic empowerment of women sericulturists / stakeholders through technological updating and training”** as PI which was agreed by the house. At the same time Dr. N.K. Saha, Sci-D was advised to propose the name of the scientists as CI because some of the scientists involved in the project have already been transferred from this institute. Besides, Dr. N. K. Saha was advised to consult with Dr. A.K. Saha, SCI-D (Seri.), Shri R. N. Dutta, SCI-D (Trg.) and Dr. (Mrs.) Jalaja S. Kumar, SCI-C for necessary modification if required. Since the project is under **“Human Resource Development”** it was suggested to include scientists from Training Divn. and submit the project to the DST for funding.

(Action: Dr. N.K. Saha, Sci-D, Dr. A.K. Saha, SCI-D, (Seri.), Shri R. N. Dutta, SCI-D (trg.) and Dr. (Mrs.) Jalaja S. Kumar, SCI-C)

With regard to the project entitled **“PIT 3359: Development of high frequency regeneration protocols from leaf disc explants in mulberry”**, Dr. R. Banerjee, Sci.-C & CI of the project informed that the fine tuning of the said protocol has already been done and to this effect one new project has been prepared and will be presented for approval by the RC in the meeting.

Regarding non-attending of the official meetings, being conducted by RSRs, Jorhat and CSR&TI, Berhampore from time to time, by Dr. V. Kumar, Sci-C, REC, Agartala on the pretext of

his ill health, the house suggested to initiate necessary disciplinary action against concerned scientist as per rules. The Sci-D, RSRS, Jorhat was advised to look into the matter in consultation with the Deputy Director (A&A) and Sci-D (Extn. Divn.).

[Action: Sci-D (Extn. Divn., Sci-D, RSRS, Jorhat and DD (A&A)]

As for the new project proposal entitled “**Study of combining ability of the developed sex limited bivoltine and multivoltine breeds of *Bombyx mori* L. and biochemical characterization of promising combiners**”, after having a lengthy discussion on the field applicability of the sex-limited breeds, the house suggested that the said proposed new project need to be sent to the Director (HQ), C.O., B’lore for seeking his comments before taking further initiative at this end.

[Action: Sci-D (Seri) and PI of the project]

Regarding the new project proposal entitled “**Standardization of technique of high bush mulberry plantation in North-East India**” of Dr. S.N. Gogoi, Sci.-C, RSRS, Jorhat, the house suggested to drop the said project based on the suggestions made by the Director (Tech), C.O., B’lore. Further, Dr. S. N. Gogoi, Sci-C, the PI may prepare another new project proposal considering the field demand and place in the next RC meeting.

[Action: Dr. S.N. Gogoi, Sci.-C, RSRS, Jorhat]

With regard to the new project entitled “**Identification of gene involving in drought/cold tolerance and development of efficient protocols for transformation in mulberry**” Dr. P.K. Tewary, Sci-C, MBG Section was advised to contact the professors / scientists of the Bose Institute, Kolkata to get their suggestions and also to involve as collaborator in the project. Dr. G.K. Chattopadhyay, Sci-C, SBG Section was advised to help Dr. Tewary, Sci-C in this regard. Besides, Dr. Tewary was advised to submit the summary of discussion that he had with Dr. Md. Aslam, Director, DBT, New Delhi on revival of the project for record purpose.

[Action: Dr. P.K. Tewary, Sci.-C, MBG Section and Dr. G.K. Chattopadhyay, Sci-C, SBG Section]

As far as changing the title of the new project proposal entitled “**Development of bivoltine breeds/hybrids suitable for adverse climatic conditions of Eastern India**” Dr. N. Suresh Kumar, Sci-C was advised to submit his request in writing, however, the title of the project “**Development of region-specific bivoltine breeds suitable for highly fluctuating and seasonally variable climatic conditions of Eastern & North-Eastern India**” as proposed was approved by the house.

[Action: Dr. N. Suresh Kumar, Sci-C, SBG section and Sci-D (Seri)]

Item No.3: Review of the progress of the ongoing research projects/programmes of the Main Institute/ RSRSs.

I. Main Institute:

MULBERRY BREEDING & GENETICS SECTION:

Progress of two ongoing research projects was reviewed and found as per milestone.

However, the project entitled “**PIB 3340: Development of mulberry genotypes suitable for low productive soils**” with a duration from Jan., 05 to Dec., 10, the house suggested the PI to submit the concluded report as quickly as possible. Since analysis of data is in progress, the PI of the project assured to submit the final report soon.

(Action: Dr. M. K. Ghosh, Sci-D, MBG Section)

AGRONOMY SECTION:

Progress of two ongoing validation programmes entitled “**Validation trial of mulberry based intercroppingcondition**” and “**Field evaluation of antitranspirant rainfed condition**” was reviewed by the house and found as per the milestone.

SOIL SCIENCE & CHEMISTRY SECTION:

Progress of two ongoing projects and one validation programme was reviewed critically and found as per milestone.

As far as extension of time for the project entitled “**PPS 3347: Evaluation of soil fertility for sustained production of quality mulberry leaf in eastern India under long-term fertilization**” is concerned, the PI informed the house that C.O., B’lore has sought some clarification which will be furnished shortly. However, the Chairman advised the PI to pursue the matter with C.O., Bangalore for approval of the project and Dr. S.K. Majumder, Sci-C may be inducted as C.I. in the above project.

As proposed, the house approved the name of Dr. S. K. Majumder, Sci-C as PI of the project entitled **PPS 3435: Studies on micronutrients for sustained high productivity of quality mulberry in Eastern and North-Eastern India** and for the Programme on **Validation trial of the ready reckoner of sulphur fertilizer application for obtaining targeted yields of mulberry**, Dr. R. Kar, Sci-C will act as PI while Dr. S.K. Majumder, Sci-C will be as CI.

[Action: Dr. S. K. Majumder, Sci-C, Soil Sci. & Chem. Section]

MULBERRY PHYSIOLOGY SECTION:

While reviewing the progress of one ongoing programme, it was observed by the house that validation trial of C 2028 as waterlogged tolerant has shown encouraging results. The house has suggested the PI to discuss the matter with the DoT (Seri.), West Bengal for large scale trial at farmers’ field to generate data on the performance of the genotype.

[Smt. T. Sengupta, Sci-C, Mul. Physiol. Section]

MULBERRY PATHOLOGY SECTION:

Progress of one ongoing programme under **Central Sector Scheme (CSS-2107)** was reviewed by the house and found as per milestone.

ERI RESEARCH CELL:

Progress of one ongoing programme alongwith two routine programmes namely Maintenance & Evaluation of host plant and eri silkworm was reviewed by the house and found as per milestone.

As regards to validation of eri silkworm breeds evaluated by the Institute through it’s earlier concluded programme, the house suggested that the validation programme may be taken up in consultation with the DoT (Seri.), West Bengal. To this effect, Dr. (Mrs.) M. Chowdhury, Sci-C was advised to write letter to the DoT (Seri.), West Bengal and pursue the programme.

BIOTECHNOLOGY SECTION:

A critical review on the progress of one DBT funded ongoing project was done and the progress was found as per the milestone. Dr. P. Mitra, Sci-D (Extn. Div.) informed that the Biotechnology Section of the Institute is pursuing the research projects on mulberry only since it’s establishment, and therefore, he expressed that it would be appropriate to place the concerned section under Morigulture Division from Sericulture Division. To this effect, the Chairman expressed that the facilities available with the section are being utilized by the scientists of both Seri. and Mori. Divisions. Moreover, since establishment of this section, it is functioning under Seri. Divn. Hence proposal for change the division does not arise.

SILKWORM BREEDING & GENETICS SECTION:

The progress of one ongoing project and two pilot studies was reviewed by the house and progress was found as per milestone.

While reviewing the project entitled “**Development of commercial hybrids of silkworm, *Bombyx mori* L. by identification of bivoltine parents through screening in different seasons of West Bengal**”, it was observed that the name of Dr. M. Z. Khan, Sci-C & PI of the project did not figure in the project report prepared by Dr. B. B. Patnaik, Sci-B. The Chairman advised Dr. Patnaik that Dr. M.Z. Khan’s name should figure in the project. Besides, Dr. B.B. Patnaik, Sci-B who is presently looking after the project work should present the results and the trend obtained.

[Action: Dr. B. B. Patnaik, Sci-B, SBG Section]

During the course of discussion, it was come to the notice of the house that the silkworm breeds BHR1 and BHR3 are no longer showing heat tolerant characters and therefore, the same should not be considered as heat tolerant breeds.

[Action: Dr. S. Chanda, Sci-C, Eri Res. Cell]

SILKWORM PHYSIOLOGY & RTI SECTION:

Progress of one project and one validation programme was as per the milestone. While reviewing the progress of the ongoing project entitled “**AIP 3421: Physio-biochemical characterization of selected silkworm germplasm accessions during seed crop seasons**” Dr. G. K. Chattopadhyay, Sci-C, SBG Section suggested that the reported “*R_f*” value of esterase bands is not sufficient to characterize the details of the bands, for which, native protein marker(s) should be run simultaneously (as check) with the samples in future studies.

[Dr. T. Dutta (Biswas), Sci-C, SWP&RTI section]

ENTOMOLOGY SECTION:

Review on the progress of one ongoing research project was done by the house and found as per milestone. As proposed, the name of Dr. M.V. Santha Kumar, Sci -C as CI in the project (PRE 3345, extended up to Dec. 2015) has been approved by the house.

[Action: Dr. M.V. Santha Kumar, Sci-C, Ento. Section]

EXTENSION DIVISION:

The progress of one ongoing programme entitled “**Technology Assessment and Refinement through Institute Village Linkage Programme (Phase-III)**” was reviewed critically by the house and found as per milestone.

TRAINING DIVISION:

During the period, the activities of training division for conducting various training under structured courses apart from organizing training under Management Development Programme for officers, scientists & officials & Skill Updation programmes for farmers as desired by the various State Govts., was reviewed and found as per milestone.

REELING & SPINNING DIVISION:

The progress of one ongoing programme entitled “**Popularizing the concept of value addition using waste cocoons and silk**” recently initiated was reviewed by the house and found as per the milestone.

II. RSRSs:

RSRS, Kalimpong:

The progress of Main Institute’s collaborative two (2) ongoing projects, one (1) Central Sector scheme (CSS-2107) and four (4) programmes along with two (2) own programmes of RSRS was reviewed and found as per the milestone.

RSRS, Koraput:

Review on the progress of Main Institute's collaborative two (2) ongoing projects, one (1) Central Sector scheme (CSS-2107) and two (2) programmes was made by the house and found as per the milestone.

RSRS, Ranchi:

The centre is having Main Institute's collaborative one (1) ongoing project, one (1) Central Sector scheme (CSS-2107) and two (2) programmes and one (1) recently initiated validation programme of RSRS. The progress was reviewed by the house and found as per the milestone.

RSRS, Jorhat:

The centre is having Main Institute's collaborative two (2) ongoing projects, one (1) Central Sector scheme (CSS-2107) and one (1) programme, progress of which was reviewed by the house and found as per milestone.

Item No.4: Review of concluded projects/programmes:

During the period one project of Mulberry Breeding & Genetics Section, one project & one programme of Entomology Section and one programme of Silkworm Physiology & RTI Section were concluded, progress of which was reviewed by the house and found as per milestone. Future plan of action are given below:

Section	Title	Future plan of action
Mulberry Breeding & Genetics Section	PIB-3340: Development of mulberry For low productive soil.	Evaluation under FYT
Entomology Section	PRE-3394: Studies on the efficacy of some insecticides Bio-safety to silkworm, <i>B. mori</i> L.	Validation trial at farms & farmers' level
Entomology Section	Validation prog.: Field evaluation of botanical insecticideimpact on leaf yield	Popularization of technology through ToT prog.
Silkworm Physiology & RTI Section	Multilocational trial of the rearing package project APR-3250	Popularization of technology through ToT prog.

Item No. 5: CONSIDERATION OF NEW PROJECTS/SUB-PROJECTS/ PROGRAMMES, IF ANY.

The following nine new research projects and three programmes proposals of Main Institute and RSRSs were presented by the respective scientist before the house, was reviewed critically and decisions taken in this context are as follows:

1. **“Studies on reduction in cost of production and improvement on crop productivity for sustainable sericulture under West Bengal conditions”** – of Shri S. Rajaram, Sci.-C, Agronomy Section.

While discussing the above new project proposal critically, the house suggested that the sericulture farmers' in the Eastern region being marginal, mechanization for mulberry cultivation may not suitable in the region. It was opined by the house that one year time proposed by the PI for identification, modification, development/ fine tuning of tools/ machine, device, field trial, etc. is not required and thus the entire project period should be reduced to three years instead of four years time. The PI was advised to cite the reference on cost reduction; labour saving etc. in the project besides mentioning the spacing and variety of mulberry to be used for the above study.

Decision: The project was approved subject to modification as per above guidelines and may be presented in the RAC meeting after obtaining comments from the referees.

2. “Development of silkworm (*Bombyx mori* L.) breeds from a gene pool with higher genetic plasticity” of Dr. G.K. Chattopadhyay, Sci.-C, SBG Section.

While discussing the above revised new project proposal the PI was advised to consider the following points in the project -

1. Expected performance of the breeds in relation to the yield parameters.
2. In back cross breeding colour variation should be considered to maintain the uniformity in the cocoon characters.

Decision: The project was approved for four years subject to incorporation of the above points and may be presented in the RAC meeting after obtaining comments from the referees.

3. “Management of diseases and pests of mulberry with petroleum derived spray oil and its impact on quality and yield” of Dr. S.K. Mukhopadhyay, Sci.-C, PMCE Division.

.The above new project proposal during the course of discussion was found to be the new one in relation to the management of disease & pests of mulberry.

Decision: The project was approved and the concerned PI was advised to present it in the RAC meeting for ratification and take up with the concerned authority of Indian Oil Corporation (Marketing Division), Mumbai for funding.

4. “Evaluation and identification of productive hybrid(s) of Eri silkworm *S. ricini* Donovan for popularization in West Bengal” of Dr. (Mrs.) S. Chanda, Sci.-C, Eri Research Cell.

After having a detailed discussion on the above new proposed project, the house opined that the project can be taken up as an inter-institutional collaborative project with CMER&TI, Lahdoigarh, Assam. The duration of the project should be of three years. The PI was advised to contact the Director, CMER&TI, Lahdoigarh by sending a copy of the above project and also to get consent and collaboration.

Decision: The project was approved subject to collaboration and consent from the Director, CMER&TI, Lahdoigarh.

5. “Identification of DNA Makers associated with bacterial leaf spot resistance in mulberry (*Morus* spp.)” of Dr. (Mrs.) R. Banerjee, Sci.-C, Biotechnology Section.

Decision: The above new project proposal was found to be a collaborative project with SBRL, Bangalore. The house advised the PI to obtain consent for collaboration from the Director, SBRL, Bangalore. The project was approved by the house and advised to place in the RAC meeting after obtaining comments from the referees.

6. “Studies on the biology and efficacy of the potential coccinellid predators for management of whitefly on mulberry” of Dr Y. Debraj, Sci.-C, RSRS, Jorhat.

During the course of discussion on the above new project proposal, the house suggested to use “efficiency” replacing the word “efficacy” since it will be appropriate term in case of predator. Regarding survivability of the predator on the cultured prey (host) as per requirement has to be thought of and accordingly studies on *Scymnus* should be made first and then go for multiplication work in the laboratory on mealy bug. The above work can be taken up as a programme for two years and in this duration the PI should take up biology and feeding efficiency of the predatory preferably *Scymnus* sp.

Decision: Approved as a programme subject to incorporation of the above suggestions.

7. **“Formulation of broad spectrum disinfectant for disease management in silkworm crops”**, of Dr. S. Chakraborty, Sci.-B, Silkworm Pathology Section.

After a detailed discussion on the project proposal, the PI was advised to clarify the following points and formulate the work schedule accordingly.

1. Type of broad spectrum disinfectants need to be clearly spelt out i.e. whether room or bed disinfectant
2. Chemicals to be used for the work should be selected properly since all the chemicals are not compatible and can not be mixed together. PI may consult with the scientists of the Soil Sc. & Chemistry Section of this Institute before selecting the chemicals to see the synergistic effect.
3. Time schedules proposed for *in vitro* study should be minimized.

Decision: Approved as a programme subject to inclusion of the above suggestions.

8. **“Effect of composite plant growth promoting micro organisms (PGPM) on nutrient acculations, yield and quality of mulberry (*Morus spp*) leaves on acid soils of West Bengal”** of Shri Ram Lakhan Ram, Sci.-B, RSRS(Annex), Kalimpong.

A threadbare discussion was held while reviewing the above project proposal and it was suggested by the house that since the effectiveness of biological agents (PGPM) varied from places, it is better to consider the PGPM available in the field locally. Besides, due to paucity of land at Kalimpong Hills, the PI should minimize the number of treatments. Vermicompost may be considered as one of the treatments and also the bio-assay study as experiment. For isolation of native strains, the PI should explore the possibilities to get readily available strains to reduce the time. Further, it was felt by the house that the Professor of BHU proposed to be included in this project, may not be available fully because of their busy schedule and keeping this in mind of the professor of NBU may be included.

Decision: Approved, subject to incorporation of the above suggestions. Further, written consent along with terms and conditions should be obtained from the concerned Professors of the Banaras Hindu University and place in the RAC meeting. Meanwhile, the professor of North Bengal University, Siliguri may also be contacted for the purpose.

9. **“Rapid multiplication of elite mulberry strains through in vitro culture”** of Smt. N. Lalitha, Sci.- B, Biotechnology Section.

While reviewing the above new project proposal, a lengthy discussion was held. Dr. P.K. Tewary, Sci-C informed that this project is not economical. Earlier, while reviewing the concluded project PIT-3359 in the last RC (dated 27th & 28th July,2010) and 33rd RAC (held on 23rd & 24th Sept.,10) meetings, it was suggested to formulate a project in this line, which was presented.

Decision: Approved and it was decided that Dr. P.K. Tewary, Sci-C, MBG Section should go through the project proposal and furnish one page note containing the ways for fine tuning of the said proposal. Incorporating the suggestions, addition /alteration if any, the project may be sent to the referees' for their comments.

10. **Programme: “Studies on the field efficacy of selected doses of insecticides in whitefly management”** of Dr. M.V. Santha Kumar, Sci.-C, Entomology Section.

During the course of discussion on the above new proposal, it was suggested by the house that the PI should simplify the doses so that it can be easily acceptable for adoption to the farmer.

Decision: Approved the programme subject to compliance of the above suggestions.

11. Programme: “Development of nucleus farm for mass multiplication of high yielding mulberry variety and its maintenance” of Dr. P. K. Tewary, Sci.-C, MBG Section.

During the course of discussion, the house expressed that though it is not the mandate of the institute but, for the sake of sericultural farmers’ the work in this line could be taken up. Dr. Tewary, Sci.-C, MBG Section who had presented the programme was advised to finalize the name of the scientist besides identification the DoT (Seri.) farms to take up the cutting multiplication work so that they may not depend fully for lifting the mulberry cuttings from this institute and action may be initiated accordingly.

Decision: Approved.

12. Programme: “Validation of modified package of nutrient management under rainfed condition” of Sri Ghanshyam Singh, Sci.-C, RSRS, Ranchi

The above validation programme was found by the house as part of the concluding project PPA 3395 which was as per the suggestions of the last RAC held during Sept., 2010. However, after a detailed discussion, it was suggested that at least 10 farmers for two years should be considered in the above programme.

Decision: Approved

MISCELLANEOUS:

1. The house expressed deep concern over the fact that though last Research Council meeting was held during 27th & 28th July, 2010, the concerned sections/ scientists were not submitting the progress on follow up action taken in time, for which, the scientist were advised submit the up-to-date progress on the follow up action taken in time.
2. It was come to the notice of the house that all the projects/ programmes going on at RSRS, Koraput are collaborative in nature and scientists of the station do not have any own project. Henceforth, the centre should give rigid effort so that each scientist could prepare at least one project/ programme of their considering the local problems and submit the same before the next RC. It is also applicable to other RSRSs, since barring some programmes there is no projects of their own. Besides, the centre should prepare a slide containing their own activities and present the same in the meeting.
3. The Scientist-D, RSRS, Jorhat was advised by the Chairman, to make pursue at regular interval for getting approval from the DBT for the project already submitted by him as PI.
4. It was decided in the house that Dr. P.K. Tewary, Sci.-C, MBG Section should be deployed in the Mulberry Physiology section for utilizing his expertise in a better way.

At the end, Shri M.K. Majumdar, Scientist-E & Director In charge expressed that the scientist who are not having any research project should give persistence effort to formulate new research project considering the field problem and should plan in such a way so that available infrastructure and man power can be utilized fully.

The meeting was ended with a vote of thanks.

Annexure-I

List of the participants attended the R.C. meeting held on 22nd & 23rd Feb., 2010 at CSR&TI, Berhampore (W.B.)

1. Shri M.K. Majumdar, Scientist-E & Director I/C, CSR&TI, Berhampore
2. Dr. P.Mitra, Scientist-D, CSR&TI, Berhampore
3. Shri S. S. Manna, Scientist-D, CSR&TI, Berhampore
4. Shri R.N. Dutta, Scientist-D, CSR&TI, Berhampore

5. Dr. A. Ghosh, Scientist-D, CSR&TI, Berhampore
6. Dr. A. K. Saha, Scientist-D, CSR&TI, Berhampore
7. Dr. N.K. Saha, Scientist-D, CSR&TI, Berhampore
8. Dr. M. K. Ghosh, Scientist-D, CSR&TI, Berhampore
9. Dr. S. Roy Chowdhuri, Scientist-D, CSR&TI, Berhampore
10. Shri T.K. Biswas, Scientist-D, CSR&TI, Berhampore
11. Dr. P.N. Mishra, Scientist-D, RSRS, Ranchi
12. Dr. R. Singh, Scientist-D, RSRS, Jorhat
13. Dr. M.K. Singh, Scientist-C, CSR&TI, Berhampore
14. Dr. S. K. Mukhopadhyay, Scientist-C, CSR&TI, Berhampore.
15. Dr. P. K. Tewary, Scientist-C, CSR&TI, Berhampore
16. Dr. Shiv Nath, Scientist-C, CSR&TI, Berhampore.
17. Dr. P. K. Ghosh, Scientist-C, CSR&TI, Berhampore.
18. Shri S. Rajaram, Scientist-C, CSR&TI, Berhampore
19. Dr. S.K. Majumdar, Scientist-C, CSR&TI, Berhampore
20. Dr. R. Kar, Scientist-C, CSR&TI, Berhampore.
21. Dr. A. K. Misra, Scientist-C, CSR&TI, Berhampore.
22. Smt. Tapati Sengupta, Scientist-C, CSR&TI, Berhampore
23. Shri N.K. Das, Scientist-C, CSR&TI, Berhampore.
24. Shri N.B. Kar, Scientist-C, CSR&TI, Berhampore
25. Dr. (Mrs) R. Banerjee, Scientist-C, CSR&TI, Berhampore.
26. Dr. (Mrs.) M. Chowdhury, Scientist-C, CSR&TI, Berhampore
27. Dr. (Mrs.), T. Datta (Biswas), Scientist-C, CSR&TI, Berhampore
28. Dr. N. Suresh Kumar, Scientist-C, CSR&TI, Berhampore
29. Dr. G. K. Chattopadhyay, Scientist-C, CSR&TI, Berhampore
30. Mrs. M. Patnaik, Scientist-C, CSR&TI, Berhampore
31. Dr. M. V. Santha Kumar, Scientist-C, CSR&TI, Berhampore
32. Dr. S. K. Gupta, Scientist-C, CSR&TI, Berhampore
33. Md. Zakir Hossain, Scientist-C, CSR&TI, Berhampore
34. Smt. S. Mukherjee, Scientist-C, CSR&TI, Berhampore
35. Dr. S. Jaleja, Scientist-C, CSR&TI, Berhampore
36. Dr. (Mrs.) S. Chanda, Scientist-C, CSR&TI, Berhampore
37. Sri D. Das, Scientist-C, CSR&TI, Berhampore
38. Dr. S. N. Bagchi, Scientist-C, CSR&TI, Berhampore
39. Shri N. B. Kar, Scientist-C, CSR&TI, Berhampore
40. Dr. M.D. Maji, Scientist-C, RSRS, Kalimpong
41. Mrs. R. Das, Scientist-C, RSRS, Jorhat
42. Dr. U. K. Bondapadhyay, Scientist-C, RSRS, Kalimpong
43. Dr. N. R. Rao, Scientist-C, RSRS, Koraput
44. Dr. Y. Debraj, Scientist-C, RSRS, Jorhat
45. Dr. Ghanashyam Singh, Scientist-C, RSRS, Ranchi
46. Dr. S. Chakraborty, Scientist-B, CSR&TI, Berhampore
47. Dr. S.K. Naik, Scientist-B, CSR&TI, Berhampore
48. Dr. B. B. Patnaik, Scientist-B, CSR&TI, Berhampore
49. Dr. H. Lakshmi, Scientist-B, CSR&TI, Berhampore
50. Smt. N. Lalitha, Scientist-B, CSR&TI, Berhampore
51. Shri Ram Lakhan Ram, Scientist-B, RSRS, Kalimpong
52. Shri H. Panduranga, Dy. Director (Comp.), CSR&TI, Berhampore
53. Sri B. Gupta, Jr. Steno, CSR&TI, Berhampore
54. Sri T. Moitra, T.A., CSR&TI, Berhampore

MINUTES OF THE SPECIAL RESEARCH COUNCIL MEETING HELD ON 31/03/2011-01/04/2011 & 04/04/2011-07/04/2011 AT CSR&TI, BERHAMPORE, WEST BENGAL

The special Research Council meeting of CSR&TI, Berhampore was held on 31/03/11, 01/04/ 2011 and 04/04/2011-05/04/2011 under the Chairmanship of Dr. B. B. Bindroo, Director In-charge in order to assess Scientist wise workload, progress of on-going, concluded research projects/ programmes/ R&D activities of the Main Institute & its nested units and consideration of new research projects/ programmes proposals. The list of the participants is enclosed in Annexure - I.

At the outset, Dr. B. B. Bindroo, Director In-charge welcomed the scientists and expressed that CSR&TI, Berhampore is the premier sericulture research Institute where lot of works have already been done on sericulture development in Eastern & NE region and the country as well, specially on mulberry improvement since its establishment in the year 1943. He also expressed that development of need based technologies is the need of the hour for easy acceptability and benefit of the sericulture farmers / stakeholders. The scientists should put serious efforts for the development of the industry.

Later on, section-wise review of R&D activities was taken up.

MULBERRY BREEDING & GENETICS SECTION:

Concluded: 1 (One) project (PIB3340) “Development of new mulberry genotypes”. **FPA:** Final Yield Trial (FYT) will be initiated.

On-going: 2 (Two) projects and 1 (One) AICEM Phase-III programme. Progress as per milestone.

Proposed New Project: 1 (One) project submitted by Dr. S. Jalaja, Sc-C.

Decision:

At present, there are three scientists in MBG section (**Dr. M. K. Ghosh, Sc-D, Dr. P. K. Ghosh, Sc-C and Dr. S. Jalaja, Sc-C**), where Dr. M. K. Ghosh, Sc-D and Dr. P. K. Ghosh, Sc-C are associated in two ongoing projects as CI, while Dr. S. Jalaja, Sc-C does not have any project. Dr. P. K. Ghosh, Sc-C was advised to prepare project on the development of triploid genotype superior with leaf quality and yield. Though Dr. Jalaja, Sc-C has submitted a project proposal, it may take at least 6 months to initiate the work. Therefore, she was advised to go through the AICEM-Phase-II programme data, study the performance of S-1635 in all test centres and report to the Director (I/c).

(Action: Dr. S.Jalaja, Sc-C, MBG section).

For initiation of AICEM-Phase-III programme, Dr. M. K. Ghosh, Sc-D, MBG section was advised to get indent from the designated test centres and ensure supply of planting materials of two new genotypes along with S-1635 (Check) developed by the Institute in consultation with Dr. A. Ghosh, Sc-D & Div. Head (Moriculture).

(Action: Dr. M.K.Ghosh, Sc-D, MBG section)

AGRONOMY SECTION:

Concluded: 1 (One) project (PPA3362) “Effect of variation of planting geometry”. **FPA:** Validation trial will be undertaken. One programme: Validation trial of Mulberry based intercropping. **FPA:** Popularization at the field.

On-going : 1 (One) programme. Progress as per milestone.

Proposed New Project: 1 (One) project submitted by Shri S. Rajaram, Sc-C.

Decision:

At present, there are two scientists (**Dr. Shivnath, Sc-C and S. Rajaram, Sc-C**) in Agronomy section carrying out one programme and two micro-projects (Production of Nitrofert and Phosphofert). While reviewing the R&D project / programme, it was observed that Dr. Shivnath, Sc-C, though presently deployed in Agronomy section, is associated in the projects of MBG section as PI in one project and CI in another, besides, engaged in Micro-project -I and Micro-project -II. It was advised that Dr. Rajaram, Sc-C will help Dr. Shivnath, Sc-C, in MP-I & MP-II till his new project gets approved by the RAC.

SOIL SCIENCE & CHEMISTRY SECTION:

Concluded: Nil.

On-going: 3 (Three) projects, one CSS (2105) and one validation programme “Validation trial of ready reckoner of sulphur fertilizer application”. Progress as per milestone.

Decision:

The section is having 2 scientists (**Dr. S. K. Majumder, Sc-C and Dr. R. Kar, Sc-C**) carrying out 3 research projects and one validation programme. Regarding the progress of Central Sector Scheme (**CSS-2105 – Establishment of Soil Sc. & Agri-chemistry facilities**) of the section, Dr. R. Kar, Sc-C was advised to see the extent of expenditure and establishment of Soil Sc. & Agri-chemistry facilities and apprise the progress to the Director (I/C).

FARM MANAGEMENT:

Concluded: Nil.

On-going: Nil

New Programme proposed in the Action Plan (2011-12): 1 (One) programme “**Development of nuclear farm for mass multiplication of S-1635 & its maintenance**” at NSSO, Farm Karnasubarna, West Bengal, submitted by Dr. P. K. Tewary, Sc-C presently deployed at Mulberry Physiology section.

Decision:

The section is having one scientist (**Dr. N. K. Saha, Sc-D**), maintain the mulberry plantation of the section and supply mulberry leaves for silkworm rearing of other sections at the Institute. Dr. Saha, Sc-D was advised to prepare the information on mulberry plantation, facilities and manpower available at the section in details and apprise the Director (I/C). Further, he should prepare new projects on sericulture/ moriculture and submit to the Director (I/C). He may also take new project/ programme on “Women empowerment in sericulture”.

(Action: Dr. N. K. Saha, Sc-D, Farm Management section)

Regarding the programme “**Development of nuclear farm for mass multiplication of S-1635 & its maintenance**”, Director (I/C) expressed that S-1635 being recommended as National check by the AICEM-II, the variety may not need any further introduction from the Institute level. Dr. P.K.Tewary, Sc-C, instead of selecting NSSO farm for the programme, should consider the programme at the Institute along with its RECs where plantations are available.

(Action: Dr. P.K. Tewary, Sc-C, Mulberry Physiology section)

MULBERRY PHYSIOLOGY SECTION:

Concluded: 2 (Two) programmes (a) “Validation trial of C 2028”. **FPA:** Recommended for flood prone areas through concerned DoS.” (b) “Impact of plant growth regulators on photosynthetic activitiesunder cold stress condition”. **FPA:** Formulation of new project.

On-going : Nil

Proposed New Project: 1 (One) project submitted by Dr. A. K. Misra, Sc-C which is approved by RC, sent for comments from referees’ and will be placed in RAC meeting.

Decision:

The section is having two scientists (**Dr. P. K. Tewary, Sc-C** and **Dr. A. K. Misra, Sc-C**). As Future Plan of Action of the concluded programme “Validation trial programme for flood tolerant mulberry variety”, Dr. P. K. Tewary, Sc-C was advised to formulate the programme on “Popularization of the genotype” and submit the proposal to the Director(I/C) by 30/05/2011 for keeping in the Action Plan 2011-12.

(Action: **Dr. P.K. Tewary, Sc-C, Mulberry Physiology section**)

MULBERRY PATHOLOGY SECTION:

On-going: 1 (One) programme - Central Sector Scheme (**CSS-2107**) “Development of weather based forecasting models for mulberry pests”. Progress as per milestone.

Decision:

The section is having One scientist (**Dr. S. K. Dutta, Sc-C**) and carrying out one Central Sector Scheme (**CSS-2107 – Disease forecasting & forewarning**). It was observed that the CSS is continuing as per the milestone, but funds allocated during the year could not be spent. Director (I/C) advised Dr. S. K. Dutta, Sc-C, PI of the programme to look into the matter. He should also look into the establishment of weather station at different RSRs & RECs and apprise the Director (I/C). Further, Dr. A. Ghosh, Sc-D (Mori) was advised to look into the matter and guide Dr. Dutta and ensures no funds should go back unspent.

ERI RESEARCH CELL:

Concluded: Nil

On-going : 3 (Three) programmes

- (a) Identification of suitable perennial castor genotype(s) for ericulture in West Bengal
- (b) Maintenance of evolved castor genotypes (Routine programme)
- (c) Maintenance of eri silkworm stocks (Routine programme)

Decision:

The section is having One scientist (**Dr. S. Chanda, Sc-C**) carrying out programmes on castor and eri silkworm maintenance alongwith one pilot study of SBG section. Dr. M. Chaudhuri, Sc-C, presently deployed in Training Division is continuing with one RAC approved programme of ericulture. Dr. S. Chanda, Sc-C was advised to extend necessary facilities / support to Dr. Chaudhuri for conducting the programme. It was advised that scientists should continue to develop/ identify new castor genotypes and continue the ongoing programmes.

BIOTECHNOLOGY SECTION:

Concluded: Nil

On-going : 2 (Two) projects – DBT funded

Proposed New Project: 2 (Two) projects – (1) Identification of DNA marker(s) associated with bacterial leaf spot resistance in Mulberry (*Morus* spp.) (*Collaboration with SBRL, Bangalore*), of Dr. R. Banerjee, Sc-C, and (2) Rapid multiplication of elite mulberry strains through *in vitro* culture, of Mrs. N. Laliha, Sc-B, which were approved in the RC meeting with the comments that PI to incorporate the suggestions and obtain comments from the referees' and get approved by the RAC.

Decision:

The section is having two scientists (**Dr. R. Banerjee, Sc-C** and **Mrs. N. Laliha, Sc-B**). Dr. R. Banerjee, Sc-C was advised to submit the new project entitled Identification of DNA Markers associated with bacterial leaf spot resistance in Mulberry (*Morus* spp.), to the PMCE Div. **by 30/05/2011** for sending to the referees and place before the RAC. Regarding the new project "Rapid multiplication of elite mulberry strains through *in vitro* culture", it was decided that the project needs modification. After necessary modification, PI should submit the same in the PMCE Div. **by 30/05/2011** for obtaining comments from referees'.

(Action: Dr. R. Banerjee, Sc-C and Mrs. N. Laliha, Sc-B, Biotechnology section)

SILKWORM BREEDING & GENETICS SECTION:

Concluded: 1 (One) project (AIB3393) "Development of commercial hybrids.... seasons of West Bengal". **FPA:** Large scale data generation.

On-going : 2 (Two) Pilot study; One MSRAP (CSB, Bangalore prog.) and One Routine programme for Silkworm germplasm maintenance.

Proposed New Project: 3 (Three) projects entitled (1) "Development of region specific bivoltine breeds suitable for highly fluctuating and seasonally variable climatic conditions of Eastern and North-Eastern India", of Dr. N. S. Kumar, Sc-C; (2) "Development of high temperature and high humidity tolerant bivoltine breeds of silkworm, (*Bombyx mori* L)". (**Submitted to DST on 22/11/2010**) of Dr. H. Lakshmi, Sc-B and Development of silkworm (*Bombyx mori* L.) breeds from a gene pool with higher genetic plasticity of Dr. G. K. Chattopadhyay, Sc-C, were approved by the RC and sent to referees' for comments to place in the RAC meeting for approval.

Decision:

The section is having four scientists (Dr. N. S. Kumar, Sc-C, Dr. G. K. Chattopadhyay, Sc-C, Dr. B. B. Patnaik, Sc-B and H. Lakshmi, Sc-B). Progress of ongoing programmes of the section is as per the milestone. The scientists were advised to carry out research projects on development of region specific productive silkworm breeds / hybrids.

SILKWORM PHYSIOLOGY & RTI SECTION:

Concluded: 1 (One) project (AIP3421) "Physio-chemical characterization of selected silkworm germplasm accessions during seed crop seasons". **FPA:** Outcome will be utilized for breeding programme.

On-going : 1 (One) validation trial on the superiority of paired row plantation in chawki mulberry garden.

Proposed New Project: 2 (Two) projects entitled (1) "Development of seed crop rearing package for Eastern India", of Dr. T. Dutta (Biswas), Sc-C, and (2) "Standardization and determination of temperature tolerance potentiality in different developmental stages of silkworm, *Bombyx mori* L.", of Dr. S. K. Nayak, Sc-B, were approved by the RC and sent to referees' for comments to place in the RAC meeting for approval.

Decision:

The section is having two scientists (**Dr. (Mrs.) T. Dutta (Biswas), Sc-C** and **Dr. S. K. Nayak, Sc-B**). Progress of ongoing programme of the section is as per the milestone.

ENTOMOLOGY SECTION:

Concluded: 1 (One) project and 1 (One) programme. (1) (PRP3394) “Studies on the efficacy of some insecticides for management of whitefly”. **FPA:** Validation at field level, (2). Field evaluation of botanical insecticides for management of major mulberry pests. **FPA:** Popularization at field level.

On-going: 1 (One) project (PRE3345) “Development of weather based forecasting models for mulberry pests”.

Proposed New Project: 2 (Two) projects entitled (1) “Studies on the biology and field efficacy of *Scymnus pallidicollis* (Mulsant) for the eco-friendly management of pink mealy bug, *Maconellicoccus hirsutus*,” of Mrs. M. Patnaik, Sc-C, (2) “Management of disease diseases and pests of mulberry with petroleum derived spray oil and its impact on quality and yield” (*Collaboration with IOC, Faridabad*), of Dr. S. K. Mukhopadhyay, Sc-C, and (3) Programme: “Studies on the field efficacy of selected doses of insecticides in whitefly management”, of Dr. M. V. Santha Kumar, Sc-C, were approved by the RC and will be placed in the RAC meeting for approval.

Decision:

The section is having two scientists (Dr. M. V. Santha Kumar, Sc-C and Mrs. M. Patnaik, Sc-C). Progress of ongoing project was as per the milestone. Regarding incidence of pests of mulberry, Dr. Santha Kumar, Sc-C was advised to formulate the prediction model on incidence of mulberry pests and apprise the Director (I/C). Further, it was suggested to take up research projects on “Parasitoid of mulberry pests” along with their biological control measures. Regarding the recently concluded programmes of the section, as a future plan of action, it is necessary to initiate the programmes and hence, the concerned scientist should **submit the same to the Director by 15/04/2011** and incorporate in the Annual Action Plan.

(Action : Dr. M. V. Santha Kumar, Sc-C, Entomology section)

SILKWORM PATHOLOGY SECTION:

Concluded: Nil

On-going: 1 (One) Programme – “Study on the efficacy of newly developed bed disinfectant (Sericillin) in hot spot areas for control of muscardine disease of silkworm *Bombyx mori* L.”.

Proposed New Project: 1 (One) project entitled “Isolation, cloning and functional expression of an antibacterial protein from silkworm, *Bombyx mori* L. (Collaboration with SBRL, Bangalore and DBT funding)” of Dr. S. Chakraborty, Sc-B has been sent to DBT for funding.

Decision:

The section is having two scientists (**Shri Zakir Hossain, Sc-C** and **Dr. S. Chakraborty, Sc-B**). Progress of ongoing programme was as per the milestone. It was suggested that the scientists should formulate the disinfectants which are in the form of capsule. In this regard, concerned scientists should contact the Pathological laboratories of reputed Institutes for guidance. Scientist-D (Seri) was advised to form a Task force for management of silkworm diseases. Regarding the proposed new project, PI was advised to contact the DBT to know the present status of the project.

(Action: Scientist-D (Seri) and Dr. Zakir Hossain, Sc-C & Dr. S. Chakraborty, Sc-B, Silkworm Pathology section)

EXTENSION DIVISION:**Concluded:** Nil**On-going:** 1 (One) Programme – “Technology Assessment and Refinement through Institute Village Linkage Programme (Phase-III)”.**Proposed New Project:** Nil**Decision:**

The section is having four scientists (**Shri T. K. Biswas, Sc-D, Dr. L. M. Saha, Sc-C, Dr. S. N. Bagchi, Sc-C and Shri D. Das, Sc-C**). Progress of ongoing programme, extension activities and the Cluster Promotion Programme was as per the milestone. Since the Extension division does not have any research project, Director (I/C) advised the scientists **to take up new projects on extension management, within a month**, if possible.

(Action: All scientists, Extension & Publicity Division)**Training Division:****Concluded:** Nil**On-going:** Structured and Non-structured training courses.**Proposed New Project:** Nil**Decision:**

The section is having three scientists (**Shri R. N. Dutta, Sci-D & Incharge, Dr. S. K. Mandal, Sci-C, Smt. S. Mukherjee, Sci-C and Dr. S. K. Gupta, Sci-C**). Progress of ongoing programme, extension activities and the Cluster Promotion Programme was as per the milestone.

The Incharge was advised to contact University of Kalyani for recognizing the scientists of this Institute to act as Research guide for Ph D students..

(Action: Incharge, and all Scientists, Trg. Division)**Reeling & Spinning Division:****Concluded:** Nil**On-going:** One programme entitled “Popularizing the concept of value addition using waste cocoons and silk (Nov.,2010-Oct.,2012)”.**Proposed New Project:** Nil**Decision:**

The section is having two scientists (**Shri S. S. Manna, Sci-D & Incharge and Shri N. B. Kar, Sci-C**). Progress of ongoing programme was as per the milestone. The scientists were advised to take up research projects / programmes as per the thrust areas envisaged in the Annual Action Plan, 2011-12.

(Action: Scientists of R&S Division)**Regional Sericultural Research Station (RSRS):****RSRS, Kalimpong:****Concluded:** Nil

On-going: Project - 1 (PRE3345), **CSS - 1** (CSS-2107), **Prog. – 1** (MLT of new breeds / hybrids), **Validation trial - 1** (Application of sulphur), **AICEM(Phase-III) - 1**, **MSRAP – 1** and **IVLP Programme - 1**, which are Collaborative project/ programmes of Main Institute and Central Office, Bangalore.

Own programme- 2 [(1) “Studies on the leaf webber eco-friendly management” (2) “Improvement of leaf yield.....application of Morizyme-B].

Besides, RSRS, is pursuing Extension programmes target fixed by the Extension division of the Institute.

In addition, One C.O., Bangalore programme on “Raising of Muga host plant at Kalimpong”, is being continuing at RSRS Farm.

Proposed New Project: 1 [Effect of composite plant growth promoting micro organisms (PGPM) on nutrient accumulations, yield and quality of mulberry (*Morus spp*) leaves on acid soils of West Bengal], submitted by Shri Ram Lakhan Ram, Sc-B was approved by RC to incorporate certain suggestions/ alterations etc.

Decision:

Progress of the on-going projects, programmes, extension activities at RSRS, Kalimpong and its farms and REC was reviewed. The In-charge, RSRS was advised to formulate new projects / programmes of its own. Regarding nomenclature of RSRS, Annex (P2/P4 Farm), it was suggested to mention only RSRS, Farms. The following suggestions were made for compliance.

- Vermicompost should be popularized at farmers’ level.
- The Incharges should put more emphasis on “Promotion of bivoltine programme” at farmers’ level. RSRS, Kalimpong in association with Dr. R. Singh, Sci-D, RSRS, Jorhat should take up project on development of region specific silkworm breeds / hybrids as one of the component of Bivoltine Promotion programme in the region.
- RSRS, Kalimpong in association with RSRS, Jorhat should work as “silkworm Satellite breeding centre”.
- The scientists (Smt. C. Maji, Sci-D & Incharge, Smt. R. Bhutia, Sci-C, Dr. S. P. Chakraborti, Sci-C and Dr. U. K. Bandopadhyay, Sci-C) of RSRS, Kalimpong should also take up need based projects / programmes.

RSRS, Koraput:

Concluded: Nil

On-going: Project - 1 (PRE3345), **CSS - 1** (CSS-2107), **Validation trial - 1** (Application of sulphur), **AICEM(Phase-III) – 1**, **MSRAP – 1** and **IVLP Programme - 1**, which are Collaborative project/ programmes of Main Institute and Central Office, Bangalore.

In addition, RSRS, is pursuing Extension programmes target fixed by the Extension division of the Institute.

Proposed New Project: Nil

Decision:

Progress of the on-going Progress of the on-going projects, programmes, extension activities at RSRS, Koraput and its nested RECs was reviewed. The following suggestions were made for compliance.

- Vermicompost should be popularized at farmers' level.
- It was observed that scientists of RSRS, Koraput do not have research projects of their own other than pursuing collaborative project of Main Institute. The scientists (Shri R. Sahu, Sci-C & Incharge, Dr. N. R. Rao, Sci-C and Dr. S. K. Mishra, Sci-C) should take up need based research project suits to the Orissa agro-climate.

RSRS, Ranchi:

Concluded: Nil

On-going: CSS - 1 (CSS-2107), **Validation trial - 1** (Application of sulphur), **AICEM(Phase-III) - 1**, **MSRAP – 1** and **IVLP Programme - 1**, which are Collaborative project/ programmes of Main Institute and Central Office, Bangalore.

Own programme- 1 [“Survey & surveillance of mulberry and silkworm diseases].

In addition, RSRS, is pursuing Extension programmes target fixed by the Extension division of the Institute.

Proposed New Validation Programme: 1 [Validation of modified package of nutrient management under rainfed condition] by Dr. G. S. Singh, Sc-C].

Decision:

Progress of the on-going Progress of the on-going projects, programmes, extension activities at RSRS, Ranchi and its nested REC & Sub-REC was reviewed. The following suggestions were made for compliance.

- Vermicompost should be popularized at farmers' level.
- Three scientists of RSRS, Ranchi (Dr. P. N. Misra, Sci-D & Incharge, Dr. HA. H. Naqvi, Sci-C and Dr. G. S. Singh, Sci-C) were advised to take up need based research projects of their own suits to the region.

RSRS, Jorhat:

Concluded: Nil

On-going: Project - 1 (PRE3345), **CSS - 1** (CSS-2107), **Validation trial - 1** (Application of sulphur), **AICEM(Phase-III) - 1**, **MSRAP – 1** and **IVLP Programme - 1**, which are Collaborative project/ programmes of Main Institute and Central Office, Bangalore.

In addition, RSRS, is pursuing Extension programmes target fixed by the Extension division of the Institute.

Own programme- Nil

Proposed New Project/ Programme: 1 project (Yield gap in mulberry sericulture –A study in North –Eastern region of India, of Mrs. R. Das, Sc-C) and 1 programme (Studies on the biology and efficacy of the potential *coccinellid* predators for management of whitefly on mulberry, of Dr. Y. Debraj, Sc-C)

Decision:

While reviewing the performance of RSRS, Jorhat, it was observed that the RSRS has no R&D projects and extension programmes as well, of their own. It was suggested that apart from the

action plan assigned by the Main Institut, the RSRS should also take up need-based projects / programmes based on the local seri-farmer's need for functioning the RSRS more effectively. Since the RECs do not have sufficient works as per its mandate, it was suggested that the concerned RSRS should entrust work to them. The following suggestions were made for compliance.

- Vermicompost should be popularized at farmers' level. The In-charges of RECs should be made responsible for functioning of existing vermeries. For popularization of vermicompost, two vermeries should be established in a year by the RSRSs and RECs.
- The Incharges should put more emphasis on "Promotion of bivoltine programme" at farmers' level in North-Eastern region.
- The RSRS, Jorhat should take up projects on development of bivoltine breeds as "**Promotion of bivoltine programme**". In this regard, it was advised that **Promotion of bivoltine programme** may be taken up at REC, Shillong also as the centre prevails congeniality for bivoltine rearing, besides, considering the land-based RECs (5 Nos. except REC, Dimapur) for the programme.
- RSRS, Jorhat in association with RSRS, Kalimpong should work as "silkworm Satellite breeding centre".
- It was observed that three scientists of RSRS, Jorhat have no projects / programmes, therefore, they are advised **to submit the new projects/ programmes by 15/05/2011.**
- Farmers' Field Schools need to be strengthened.

The meeting was ended with a vote of thanks.

Annexure-I

*List of the participants attended the Special R.C. meeting held on 31/03 & 01/04/2010 at
CSR&TI, Berhampore (W.B.)*

1. Dr. A. Ghosh, Scientist-D, CSR&TI, Berhampore
2. Dr. A. K. Saha, Scientist-D, CSR&TI, Berhampore
3. Dr. N.K. Saha, Scientist-D, CSR&TI, Berhampore
4. Dr. M. K. Ghosh, Scientist-D, CSR&TI, Berhampore
5. Dr. S. RoyChowdhuri, Scientist-D, CSR&TI, Berhampore
6. Shri T.K. Biswas, Scientist-D, CSR&TI, Berhampore
7. Dr. P. N. Mishra, Sc-D, RSRS, Ranchi
8. Dr. R. Singh, Sc-D, RSRS, Jorhat
9. Smt. C. Maji, Sc-D, RSRS, Kalimpong
10. Shri R. Sahu, Sc-C, RSRS, Koraput
11. Dr. N. R. Rao, Sc-C, RSRS, Koraput
12. Dr. M.K. Singh, Scientist-C, CSR&TI, Berhampore
13. Dr. P. K. Tewary, Scientist-C, CSR&TI, Berhampore
14. Dr. P. K. Ghosh, Scientist-C, CSR&TI, Berhampore.
15. Dr. S. Jaleja, Scientist-C, CSR&TI, Berhampore
16. Shri S. Rajaram, Scientist-C, CSR&TI, Berhampore
17. Dr. S.K. Majumdar, Scientist-C, CSR&TI, Berhampore
18. Dr. R. Kar, Scientist-C, CSR&TI, Berhampore.
19. Dr. A. K. Misra, Scientist-C, CSR&TI, Berhampore.
20. Smt. Tapati Sengupta, Scientist-C, CSR&TI, Berhampore
21. Dr. (Mrs.) S. Chanda, Scientist-C, CSR&TI, Berhampore
22. Dr. (Mrs) R. Banerjee, Scientist-C, CSR&TI, Berhampore.
23. Dr. (Mrs.) T. Datta (Biswas), Scientist-C, CSR&TI, Berhampore
24. Dr. N. Suresh Kumar, Scientist-C, CSR&TI, Berhampore
25. Dr. G. K. Chattopadhyay, Scientist-C, CSR&TI, Berhampore
26. Mrs. M. Patnaik, Scientist-C, CSR&TI, Berhampore
27. Dr. M. V. Santha Kumar, Scientist-C, CSR&TI, Berhampore
28. Dr. S. Chakraborty, Scientist-B, CSR&TI, Berhampore
29. Dr. S.K. Naik, Scientist-B, CSR&TI, Berhampore
30. Dr. B. B. Patnaik, Scientist-B, CSR&TI, Berhampore
31. Dr. H. Lakshmi, Scientist-B, CSR&TI, Berhampore
32. Smt. N. Lalitha, Scientist-B, CSR&TI, Berhampore
33. Dr. L. M. Saha, Sc-C, CSR&TI, Berhampore
34. Dr. S. N. Bagchi, Sc-C, CSR&TI, Berhampore
35. Shri D. Das, Sc-C, CSR&TI, Berhampore

Minutes of the Second Extension Officers' meeting held on 24th & 25th February, 2011 at Central Sericultural Research & Training Institute, Berhampore, W.B.

The second Extension Officers' meeting for the year 2010-11 was held at CSR&TI, Berhampore on 24th & 25th February, 2011 under the chairmanship of Shri M.K. Mazumdar, Scientist-E & Director Incharge, in order to review the progress of extension activities of various nested RSRSs, RECs and REC (SUs) as per the Action Plan for the year 2010-11 besides finalizing the Action Plan for the year 2011-12. The list of the participants is appended as *Annexure-I*.

While welcoming the Director Incharge and other participants from RSRSs, RECs, REC(SUs) and main Institute, Dr. P. Mitra, Scientist-D, Extension and Publicity Division requested all the scientists for active participation during interaction so that review of the extension activities could be made critically besides identifying the possible field constraints for implementation of the developed technologies in the farmers' field. He also requested the incharges of the CDCs viz. REC Mothabari and REC Nabagram under CPP to achieve the target of various programme since the financial year is about to end. Lastly he requested the Director (I/C) to chair the meeting.

In his introductory remarks, as chairman Shri M.K. Majumdar, Scientist-E & Director Incharge, CSR&TI, Berhampore welcomed all participants in the meeting and expressed that to take up the improved technologies to the farmers' field, every REC has to put persistent and consistent effort keeping close contact with the stake holders. He, however, requested all the participants to feel free to get their doubt clarified and give their best efforts to fulfill the annual target, utilizing the available infrastructure.

Thereafter, discussions were taken up as per the agenda.

Item No. I.: Confirmation of the Minutes of the last Extension Officers' meeting held at CSR&TI, Berhampore, W.B. on 29th & 30th July, 2010

The minutes of the meeting was confirmed since no comment was received.

Item No. II.: Review of follow-up actions on the decisions of the last Extension Officers' Meeting held on 29th & 30th July, 2010.

A threadbare review was made on the follow-up action taken as per the decisions of the last Extension Officers' meeting and followings are the outcome.

The incharge officer of RSRS, Koraput informed that due to merger of BSF-Cum-SSPC, Koraput with RSRS, Koraput, the latter has recently been utilizing the services of A.C. machine of erstwhile BSF, Koraput and accordingly the centre does not require any new A.C. machine at this moment. However, Director Incharge advised the Incharge Officer of RSRS, Koraput to inform the same to this office in writing

(Action: Incharge of RSRS, Koraput)

Regarding non-attending any of the meetings, by Dr. V. Kumar, Scientist-C since his joining at REC, Agartala, so far conducted either by RSRS, Jorhat or this institute on the pretext of ill health, expressing deep concern it was decided by the house that action will be taken up as per disciplinary rules against the above scientist.

(Action: Sci.-D, RSRS, Jorhat/DD(A&A), CSR&TI, Berhampore)

It was reported by the incharge of RSRS, Kalimpong that due to grazing and scanty rain, target could not be fulfilled regarding supply of cuttings of TR-23 mulberry variety. Accordingly, for

gap filling it was advised by the house to collect mulberry saplings from MBG section. At the same time, the incharge of REC, Rangpo was advised to follow 6-8" spacing instead of 10" in case of Sikkim.

(Action: Incharge of RSRS, Kalimpong/REC, Rangpo)

As far as shifting of REC, Deogarh to Keonjhar is concerned, a letter has been written on 08.11.2011 from this end to CSB, Bangalore alongwith the letter of DoT, Govt. of Orissa. However, reply is still awaited. Meanwhile, Extension Division should send a reminder in this regard to C.O, Bangalore.

(Action: SD, Extn. Divn.)

Regarding brushing of dfls by DoS, Sikkim, the Incharge, REC, Rangpo informed the house that meeting was held with the Director of DoS, Sikkim who agreed to place indent for dfls according to their leaf availability. Hence the matter may be dropped.

With regard to feed back report for rearing of 11000 P1 dfls of SK6 x SK7 by DoT(Seri.), Orissa which was supplied by this institute, the SD(Seri.) apprised the house that performance of last September crop was very good and the cocoon was lifted by ZSSO, Malda. In this regard, the incharge of REC, Deogarh informed the house that DoT(Seri.), Orissa requested for supervising the rearing of Mayurbhanj, Keonjhar and Koraput area. However, after discussing the matter, incharge of REC, Deogarh was advised to extend necessary assistance in such a way so that the REC's mandated work as per Action Plan may not be hampered.

(Action: Incharge, REC, Deogarh)

For maintenance of SK6 x SK7, BC1, BC4 as stock lot by DoS, Meghalaya, SD, RSRS, Jorhat informed that DoS, Meghalaya already started maintaining SK6 x SK7 hybrids as stock lot and efforts have been made to incorporate BC1 & BC4 in their stock lot. In this context, after having a detailed discussion, it was opined by the house that since SK6 & SK7 has not been authorized till date, it would not be appropriate to allow other organization for maintaining the above hybrids as stock lot. However, it can be maintained at RSRS, Jorhat. Accordingly, SD, RSRS, Jorhat was advised to write DoS, Meghalaya in the matter under intimation to this office.

(Action: SD (Seri.), Main Instt. & SD,RSRS, Jorhat)

Regarding disposal of cocoons to be generated at farmers level, the SD, RSRS, Ranchi informed that DoS, Jharkhand will purchase the cocoons of the farmers from March, 2011. As far as rate of the cocoons are concerned, the SD, RSRS, Ranchi was advised to contact ZSSO, Malda for getting the enhanced rate so that the farmers of Jharkhand state may get good return from their end product. Simultaneously, the SD, RSRS, Ranchi suggested that DoS, Jharkhand may be pursued constantly and the matter should be taken up with the Director Shri Dharendra Kumar, IFS during ensuing Resham Krishi Mela to be held at Ranchi, besides raising the issue at SLSCC meeting of Jharkhand. At the same time, the incharge of REC, Rangpo was also advised to take initiative, so that the farmers of Sikkim state can earn good return from their harvested cocoon.

(Action: SD,RSRS, Ranchi & Incharge,REC,Rangpo)

The Incharge, REC, Rangpo was advised to take up rigid examination at the time of rearing of Muga silkworm with Mulberry silkworm or Eri silkworm with mulberry silkworm, since muga worms are very much susceptible and there may be every possibility for cross infectivity.

(Action: Incharge, REC, Rangpo)

As far as undertaking of silkworm rearing in the Tripura state is concerned, Dr. R. Singh, SD, RSRS, Jorhat was advised by the house to discuss the matter with the State Seri. Deptt to stop the overlapping of rearing to avoid contamination, because REC Agartala has to undertake some more rearing as per the need of the Tripura State Seri. Deptt. At the same time, it was decided in the house that some senior officer alongwith SD, RSRS, Jorhat will visit Tripura to discuss the issue with the concerned State Sericulture Department.

[Action: SD, RSRS,Jorhat.]

Regarding popularization of M x Bi during unfavourable season, the performance in case of REC, Mothabari was found satisfactory by the house while in case of REC, Nabagram, the incharge informed the house that, the farmers are not willing to take up M x Bi rearing because of low cocoon yield. However, the incharge, REC, Nabagram was advised by the house to continue motivating the farmers on the same.

[Action: REC, Nabagram]

Discussion on finalization of the Action Plan for the year 2011-12

A detailed discussion was held on finalization of the Action Plan for the year 2011-12 in respect of the extension centres working under this institute and following decisions were taken while finalizing the Action Plan for the year 2011-12 :-

1. Every REC incharge was requested to furnish the farmer-wise and crop-wise basic information data for regression analysis under IVLP (Phase – III).
2. MSRAP programme should also figure in the Action Plan under R&D head. Any kind of validation programme should figure in the Action Plan under extension programme.
3. As proposed by the Incharge of RSRS, Kalimpong, target for revenue generation was reduced to Rs.10,000/- from Rs.20,000/-.
4. RECs working under the direct control of this institute should place their indent for Labex before two months from the date of commencement of rearing programme. The RSRSs who are procuring the Labex+ produced by M/s. Saha Resham Enterprise, Berhampore should sometimes get the quality of the same tested from this institute on payment basis.
5. In case of REC, M.P. Raj, 2000 dfls of Multi x Multi should be reared under testing of rearing package, instead of Multi x Bi.

Item No.III. Review of the up-to-date progress of each extension unit as per the target fixed in the Action Plan 2010-11

The progress of extension Units as per the target fixed in the Action Plan 2009-10 & 2010 -11, was reviewed by the Chairman and the outcome were as follows.

1. While reviewing the activities of RSRS, Koraput, it was observed by the house that execution of almost all the extension communication programmes are still pending which has to be conducted by the end of March of this year. Expressing concern over the matter, the house suggested to give persistent effort to achieve the target in full. In reply to this RSRS incharge assured the house that the total target will be achieved within March'11.

(Action: Incharge,RSRS, Koraput)

2. The activities performed under TAR/IVLP programme by RSRS, Koraput was reviewed and found that no significant difference existed between control and treatment which indicates that, the technology has not been implemented in the field and there were some lapses in the monitoring level by the staff of RSRS, Jorhat. Accordingly, the chairman suggested the incharge of RSRS, Jorhat to look into the matter seriously. The chairman also advised that henceforth Soil Science & Chemistry section should send their observations after conducting soil test/leaf sample analysis alongwith recommendation to the concerned RSRS, so that proper measures can be taken up to abridge the gap, if any.

(Action: SD, RSRS,Jorhat & Soil Sci. & Chem. Section of MI)

3. While reviewing the progress of REC, Gumla, it was observed by the house that there was no significant variation between control and treatment of silkworm rearing under “Testing of new silkworm breeds/hybrids”. Accordingly, the incharge of REC, Gumla was advised to check the data, apart from making field visit and interaction with the farmers at regular intervals to find out the possible reasons for the above.

(Action: Incharge, REC,Gumla)

4. The activities of REC, Singhanpur was reviewed by the house and performance was found not upto the mark. Moreover, the data presented in the meeting was found full of error and the incharge was not able to reply properly against the queries. Expressing great concern, the house however advised the incharge of RSRS, Koraput to guide Sri S.B. Chouhan, Scientist-C properly, besides making regular visit to improve the activities of the REC. It was also revealed that there was no significant difference observed in between control and treatment in case of programmes on mulberry and silkworm which indicates that, either the recommended package is not working or being not used in the field by the farmers. Under the circumstances, the incharge of RSRS, Koraput was advised to arrange quarterly review meeting with all the nested REC at regular interval, under intimation to this office and should send meeting proceedings of the same.

(Action: RSRS,Koraput, REC, Singhanpur & Extn.Divn.)

Item No.IV: Discussion on the official language, financial as well as administrative matters, if any.

Discussions were held on the implementation of official language, financial and administrative matters and confusions were sorted out.

Item No.V: Subject, if any, with the permission of the chair.

- 1) It was decided that RSRS, Koraput will rear 200 dfls of SK6 x SK7 (100 dfls for P1 Aghrayani and 100 dfls for P1 Falgooni) to generate bivoltine seed cocoons and the same will be handed over to ZSSO, Malda against payment basis

(Action: RSRS,Koraput & ZSSO, Malda)

- 2) It was also decided that REC, Shillong and REC, Aizawl will generate bivoltine cocoons during Sept. (Aghrayani P1 crop) and the produced cocoons will be supplied to ZSSO, Malda in consultation with SD, RSRS, Jorhat. The transportation cost will be borne by the purchaser.

(Action: RECs, Shillong/Aizawl & ZSSO, Malda)

- 3) It was observed by the house that most of the units are citing the bivoltine breed B.Con1/B.Con.4 wrongly as BC1/ BC4. Accordingly, the house suggested to use the appropriate term and advised the SD(Seri.) to initiate necessary action to avoid discrepancy/controversy in the matter.

[Action: SD(Seri.), CSR&TI, Berhampore]

- 4) Regarding getting back of plastic trays which were supplied earlier to RECs at M.P. Raj, Rajmahal, Nabagram & Mothabari, it was decided in the house that the same will be adjusted at the time of supply to be done shortly from this end as per their requisition.

[Action: Incharges of above RECs]

- 5) Regarding supply of video cassettes from CSB, Bangalore regarding mulberry and silkworm, a letter may be written with a request that the technology should be befitting with eastern and north-eastern region, under intimation to this office.

[REC, Nabagram]

MISCELLANEOUS:

- 1) As proposed regarding enhancement of LS grant in case of REC, Gumla and REC, Rangpo, the respective nodal officer from this Institute alongwith the incharge of concerned RSRS should together visit to review the demand as made by the incharge of above RECs.

(Action: Nodal Officer of MI & Incharge, of RSRS Ranchi/Kalimpong)

- 2) Regarding supply of rearing kit as demanded by the Incharge of REC, Gumla, it was decided in the house that the matter may be discussed in presence of Shri D. Kumar, IAS & Director of Handloom & Seri., Jharkhand during ensuing Resham Krishi Mela to be held at Ranchi.
(Action: SD,RSRS,Ranchi/REC, Gumla)
- 3) As regards utilization of vehicle services on hire basis for accomplishing technical work & other urgent works, all the incharges of RECs were advised to submit their half yearly tentative indent to this office specifying the justification/merits of the work to be executed, which will be placed to the competent authority for approval.
(Action: All RECs)
- 4) During the course of review, it was found by the house that in case of most of the RECs, the target for extension communication programmes are yet to be achieved and are to be completed at the fag end of the financial year i.e. in February, which will result in difficulties to furnish the complete report to C.O., Bangalore. Accordingly, it was decided in the meeting that REC incharge should take serious care of the matter so that the above programmes could be completed by 15th Feb. from the next year but for this year (2010-11) it should be completed by 15th March.
[Action: SD,RSRSs/Incharge,RECs]
- 5) The incharge of RSRS, Koraput was advised to furnish the details information on the vehicles available at the centre including their status to review the need of the centre.
[Action: Incharge,RSRS, Koraput]
- 6) It was advised by the chairman that all the RSRSs/RECs should submit a micro plan for conducting various extension communication programmes so that the target fixed in the Action Plan could be achieved smoothly rather than keeping most of the programmes for completion during the month of March of every year.
[Action: All RSRSs/RECs]
- 7) It has come to the notice that some of the RECs are sending their purchase proposal directly to C.O., Bangalore. Expressing deep concern the chairman advised that henceforth no REC should send such proposal directly to C.O, which may be routed through proper channel
(Action: All RECs/REC-SU)

The meeting ended with vote of thanks to the Chair.

ANNEXURE-I

**LIST OF PARTICIPANTS OF THE FIRST EXTENSION OFFICERS' MEETING HELD ON
24th & 25th February, 2011 at C. S.R. & T.I, BERHAMPORE, WEST BENGAL**

1. Shri M.K. Majumdar, Scientist-E, CSR&TI, Berhampore
2. Dr. P. Mitra, Scientist-D, CSR&TI, Berhampore
3. Shri R.N. Dutta, Scientist-D, CSR&TI, Berhampore
4. Dr. A. Ghosh, Scientist-D, CSR&TI, Berhampore
5. Dr. A. K. Saha, Scientist-D, CSR&TI, Berhampore
6. Shri S. S. Manna, Scientist-D, CSR&TI, Berhampore
7. Dr. N.K. Saha, Scientist-D, CSR&TI, Berhampore
8. Dr. M. K. Ghosh, Scientist-D, CSR&TI, Berhampore
9. Shri T.K. Biswas, Scientist-D, CSR&TI, Berhampore
10. Mr. P.N. Mishra, Scientist-D, RSRS, Ranchi
11. Dr. R. Singh, Scientist-D, RSRS, Jorhat
12. Dr. Shiv Nath, Scientist-C, CSR&TI, Berhampore.
13. Dr. A. K. Mishra, Scientist-C, CSR&TI, Berhampore
14. Dr. S.K. Majumdar, Scientist-C, CSR&TI, Berhampore
15. Dr. (Mrs.) M. Chowdhury, Scientist-C, CSR&TI, Berhampore
16. Dr. (Mrs.), T. Datta (Biswas), Scientist-C, CSR&TI, Berhampore
17. Dr. N. Suresh Kumar, Scientist-C, CSR&TI, Berhampore
18. Md. Zakir Hossain, Scientist-C, CSR&TI, Berhampore
19. Dr. N. B. Pal, Scientist-C, SSPC, Berhampore
20. Dr. D.P. Das Mahapatra, Scientist-C, REC, Deogarh
21. Dr. S.P. Sharma, Scientist-C, REC Gumla
22. Sri K.B. Chouhan, Scientist-C, REC, Singhanpur
23. Dr. M. V. Santakumar, Scientist-C, CSR&TI, Berhampore
24. Mrs. R. Das, Scientist-C, RSRS, Jorhat
25. Dr. D. Pandit, Scientist-C, REC, M P Raj
26. Mr. S. Chatterjee, Scientist-C, REC, Nabagram
27. Sri D. Chakraborty, Scientist-C, REC, Nabagram
28. Dr. J. Sarkar, Scientist-C, REC, Mothabari
29. Dr. A. K. Verma, Scientist-C, REC(SU) Rajmahal
30. Dr. S. N. Bagchi, Scientist-C, CSR&TI, Berhampore.
31. Dr. M. K. Singh, Scientist-C, CSR&TI, Berhampore
32. Dr. U. K. Bondapadhyay, Scientist-C, RSRS, Kalimpong
33. Sri S.T. Lepcha, Scientist-C, REC, Rangpoo
34. Dr. N. R. Rao, Scientist-C, RSRS, Koraput
35. Dr. Y. Debraj, Scientist-C, RSRS, Jorhat
36. Dr. B. Rana, Scientist-C, REC, Imphal
37. Dr. Collin, Scientist-B, REC, Aizawl
38. Dr. Ghanashyam Singh, Scientist-C, RSRS, Ranchi
39. Dr. S. Chakraborty, Scientist-B, CSR&TI, Berhampore
40. Dr. S.K. Naik, Scientist-B, CSR&TI, Berhampore
41. Sri D. K. Nath, S.T.A., REC, Agartala
42. Sri Ram Lakhan Ram, Scientist-B, RSRS, Kalimpong
43. Dr. N. Lalitha, Scientist-C, CSR&TI, Berhampore
44. Sri. A. N. Mukherjee, A.S.(Store)
45. Shri H. Panduranga, Dy. Director(Comp.), CSR&TI, Berhampore
46. Mr. A. Majumdar, TA, REC Mothabari
47. Sri B. Gupta, Jr. Steno, CSR&TI, Berhampore
48. Sri T. Moitra, T.A., CSR&TI, Berhampore

ITEM No. 9: A directory of its officers and employees

2101 CSR&TI, BERHAMPORE, WEST BENGAL

Emp No	Name of the Employee	Designation
4975	BHARAT BHUSHAN BINDROO(DR.)	DIRECTOR
305	MRINAL KANTI MAZUMDAR	SCIENTIST-E (R&S)
248	RABINDRANATH DATTA	SCIENTIST-D
282	ASIS GHOSH (DR.)	SCIENTIST-D
574	ATUL KUMAR SAHA (DR)	SCIENTIST-D
264	NAKUL KUMAR SAHA (DR.)	SCIENTIST-D
366	MRINAL KANTI GHOSH (DR.)	SCIENTIST-D
572	SUKHEN ROY CHOWDHURY (DR.)	SCIENTIST-D
446	SITANSU SEKHAR MANNA	SCIENTIST-D (R&S)
535	SWAPAN KUMAR MANDAL (DR.)	SCIENTIST-C
3388	LAL MOHAN SAHA (DR.)	SCIENTIST-C
372	SUNITA MUKHERJEE	SCIENTIST-C
403	NIRVAN KUMAR DAS	SCIENTIST-C
3035	RAMKUMAR SAHA	SCIENTIST-C
567	PRAKASH KUMAR TEWARY (DR.)	SCIENTIST-C
425	TAPAS NARAYAN NATH	SCIENTIST-C
445	MASOOD ZAMAN KHAN (DR.)	SCIENTIST-C
456	ASHOKE KUMAR MISHRA (DR)	SCIENTIST-C
458	SWAPAN K. MUKHOPADAYAY (DR.)	SCIENTIST-C
459	PARITOSH KUMAR GHOSH, (DR.)	SCIENTIST-C
594	MONICA CHAUDHURI (DR)	SCIENTIST-C
619	SREE KUMAR.S (DR.)	SCIENTIST-C
3021	JALAJA S KUMAR (DR)	SCIENTIST-C
3010	SURESH KUMAR,N. (DR.)	SCIENTIST-C
3051	MD. SAFIUR RAHMAN, (DR.)	SCIENTIST-C
3016	SANDIP KUMAR DUTTA (DR.)	SCIENTIST-C
3164	GAUTAM K. CHATTOPADHYAY (DR.)	SCIENTIST-C
3161	SAMIR KUMAR MAJUMDAR (DR.)	SCIENTIST-C
3046	MAHENDRA KUMAR SINGH (DR.)	SCIENTIST-C
3389	SUBHRA CHANDA (DR.)	SCIENTIST-C
488	RAJARAM,S.	SCIENTIST-C
1778	RANJIT KAR (DR.)	SCIENTIST-C
5031	TAPATI DATTA BISWAS (DR.)	SCIENTIST-C
5011	RITA BANERJEE (NANDY) DR.	SCIENTIST-C
4469	ZAKIR HOSSAIN	SCIENTIST-C
4614	SOUMEN CHATTOPADHYAY (DR.)	SCIENTIST-C
4938	DEBOJIT DAS	SCIENTIST-C
4510	MANNE VENKATA SANTHAKUMAR(DR.)	SCIENTIST-C
2553	MANOJA PATNAIK MOHANTY	SCIENTIST-C
3322	NIHARENDU BIKASH KAR	SCIENTIST-C (R&S)
756	ASHOK KUMAR SAHA	DY.DIRECTOR (A&A)
3796	PANDURANGA,H.A.	DY.DIRECTOR(COMP.)
758	GOUR KRISHNA BANDYOPADHYAY	ASST.DIRECTOR (A&A)
789	MUKHERJEE, A.N.	ASST.DIRECTOR (A&A)
2614	RAMBRIKSH CHOUDHARY	ASST.DIRECTOR(OL)

3496	SATADAL CHAKRABARTY (DR)	SCIENTIST-B
5646	SANDEEPTA KUMAR NAYAK (DR)	SCIENTIST-B
5645	BHARAT BHUSHAN PATNAIK (DR)	SCIENTIST-B
5663	LALITHA, N	SCIENTIST-B
5673	LAKSHMI, H (DR)	SCIENTIST-B
780	SWAPAN KUMAR DATTA	SUPERINTENDENT(ADMN)
1826	DULAL KUMAR DAS	SUPERINTENDENT(ADMN)
1261	GOPI KANTA ROY	SUPERINTENDENT(ADMN)
810	SHYAMAL KUMAR SAHA	SUPERINTENDENT(ADMN)
5622	PRASANTA KUMAR MOHAPATRA	COMPUTER PROGRAMMER
1342	PINAKI BHUSAN CHAKRABORTY	ASSISTANT SUPERINTENDENT
1349	RATNA BISWAS	ASSISTANT SUPERINTENDENT
1350	BIMAL KUMAR RAY	ASSISTANT SUPERINTENDENT
1363	ASIM KUMAR BATABYAL	ASSISTANT SUPERINTENDENT
809	INDRAJIT RAY	SR.LIBRARY & INF. ASST.
1070	KRISHNA SADHAN ROY	SR.TECHNICAL ASSISTANT
1074	BIRENDRANATH MISTRY	SR.TECHNICAL ASSISTANT
1007	SANJUKTA ROY (RAHA)	SR.TECHNICAL ASSISTANT
1018	TAPAS KUMAR RAY	SR.TECHNICAL ASSISTANT
1076	NARENDRA KUMAR RAY	SR.TECHNICAL ASSISTANT
1059	TAPAN KUMAR PAL	SR.TECHNICAL ASSISTANT
1060	SWAPAN KUMAR RAY	SR.TECHNICAL ASSISTANT
1071	NIL KUMAR PAUL	SR.TECHNICAL ASSISTANT
1079	ARJUN DEBNATH	SR.TECHNICAL ASSISTANT
1088	ASHIM KUMAR BAISHYA	SR.TECHNICAL ASSISTANT
1255	NIRMAL KUMAR DAS	SENIOR MECHANIC (SG)
916	SUDIPTA SINHA CHOUDHURY	SENIOR ARTIST (SG)
3118	PROMOD CHANDRA BARMAN	STENOGRAPHER
3229	SHUKLA MUKHERJEE	STENOGRAPHER
3212	SAMIR KUMAR ROY	ASSISTANT
4124	SUHAIL AKHTAR	ASSISTANT
1844	IRA CHOWDHURY	ASSISTANT
1354	ANITA BHATTA	ASSISTANT
1915	SUBRATA CHAKRABORTY	ASSISTANT
1917	ARUP KUMAR BASAK	ASSISTANT
1918	KISHALAY BHADURY	ASSISTANT
1923	REBA ROY CHOUDHURY	ASSISTANT
1928	MUKUNDA DAS	ASSISTANT
1942	RITA MAZUMDAR (MITRA)	ASSISTANT
5157	AVIJIT SAHA	SR.MECHANIC
1133	SAMIR KUMAR ROY	TECHNICAL ASSISTANT
1155	ASHOK SAHOO	TECHNICAL ASSISTANT
1162	PARTH SARATHI MUKHOPADHYAY	TECHNICAL ASSISTANT
1173	SANTI RANJAN SAHA	TECHNICAL ASSISTANT
1175	DEBASISH ACHARYA	TECHNICAL ASSISTANT
1186	AMITAVA MUKHERJEE	TECHNICAL ASSISTANT
1188	SAYED BADRUDDUZA	TECHNICAL ASSISTANT
1486	SANJIB ROY	TECHNICAL ASSISTANT
1512	BUDDHA DEB BISWAS	TECHNICAL ASSISTANT
1538	SANCHAYAN CHAKRABORTY	TECHNICAL ASSISTANT
1548	PULAK KUMAR MUKHOPADHYAY	TECHNICAL ASSISTANT

1551	ANGSHU PRAKASH SARKAR	TECHNICAL ASSISTANT
1556	UTTAM KUMAR MANDAL	TECHNICAL ASSISTANT
1557	ASOK TARU PRAMANIK	TECHNICAL ASSISTANT
1560	ANNAPURNA MONDAL	TECHNICAL ASSISTANT
1561	MD.BADRUL ANAM	TECHNICAL ASSISTANT
1562	MADAN MOHAN MUKHERJEE	TECHNICAL ASSISTANT
1563	SUBAL KRISHNA DEY	TECHNICAL ASSISTANT
1564	NITA MUKHERJEE	TECHNICAL ASSISTANT
1617	NIKHIL RANJAN GHOSH	TECHNICAL ASSISTANT
2948	DEEPALI BRAHMA	TECHNICAL ASSISTANT
1791	CHANDRA SEKHAR MANDAL	TECHNICAL ASSISTANT
3073	BHOLA NATH PAUL	TECHNICAL ASSISTANT
3184	DUTTA, T.K.	TECHNICAL ASSISTANT
3087	TUSHAR RANJAN MUKHERJEE	TECHNICAL ASSISTANT
3430	SUNIL KUMAR GHOSH	TECHNICAL ASSISTANT
3179	DIBYENDU SARKAR	TECHNICAL ASSISTANT
3435	CHANDAN MALLICK	TECHNICAL ASSISTANT
3494	SANJOY ROY CHOWDHURY	TECHNICAL ASSISTANT
4186	SANJEEB KUMAR NEOGI	TECHNICAL ASSISTANT
4767	SRIKRISHNA GHOSH	TECHNICAL ASSISTANT
4756	SUBRATA SARKAR	TECHNICAL ASSISTANT
4769	PARTHA PRATIM DEY	TECHNICAL ASSISTANT
4757	NARAYAN SARKAR	TECHNICAL ASSISTANT
4765	BIPAD KARMAKAR	TECHNICAL ASSISTANT
4771	TAPAS KUMAR MAITRA	TECHNICAL ASSISTANT
4759	JOYANTA DHAR GUPTA	TECHNICAL ASSISTANT
4776	PRADIP KUMAR CHOUDHURY	TECHNICAL ASSISTANT
4806	MADHURI BISWAS	TECHNICAL ASSISTANT
4805	DIPALI BASAK	TECHNICAL ASSISTANT
3182	SIBESH BISWAS	TECHNICAL ASSISTANT
2029	ARJUN KUMAR DAS	STAFF CAR DRIVER (SG)
2014	ARUN KUMAR NANDI	STAFF CAR DRIVER (SG)
2032	BIPAD BHANJAN MAJHI	STAFF CAR DRIVER GRADE-I
2086	PRADIP KUMAR GHOSH	STAFF CAR DRIVER GRADE-I
3246	PRASANTA KUMAR CHATTERJEE	STAFF CAR DRIVER GRADE-I
4264	BHASKAR GUPTA	JR.STENOGRAPHER
1943	NARAYANI GUPTA (SEN)	U.D.C
3214	AMITAVA BHADURI	U.D.C
3215	HITESH KUMAR SEJPAL	U.D.C
3326	UJJAL KUMAR SAHA	U.D.C
4024	GOUTOM HALDER	U.D.C
1935	REZIA SULTANA	U.D.C
4245	CHANDAN PAL	U.D.C
5149	MANOJ KUMAR GUPTA	LDC(HINDI TYPIST)
5458	MANJU SHARMA	LDC(HINDI TYPIST)
4816	BASUDEB GANGULY	L.D.C
5158	BISWAJIT SANKHARI	L.D.C
5617	MADHABI MONDAL	L.D.C
5714	GANESH ROY	COOK
2120	SISIR KUMAR DATTA	TECHNICIAN
2125	BISWANATH DAS	TECHNICIAN

2123	ANANDA DAS	TECHNICIAN
3643	KAJAL KUMAR BAKSHI	TECHNICIAN
3640	TARAK NATH CHAUDHARY	TECHNICIAN
3639	PREM SHANKAR THAKUR	TECHNICIAN
2138	JOYDEB BOSE	TECHNICIAN
4335	TAPESH MUKHERJEE	TECHNICIAN
4436	BHUSHAN CHANDRA SARDAR	TECHNICIAN
4435	UTTAM KUMAR DUTTA	TECHNICIAN
4749	SUJOY KUMAR DAS	TECHNICIAN
4748	SUKUMAR KARMAKAR	TECHNICIAN
2126	PRADIP ROY	ASSISTANT TECHNICIAN
2129	KALI KINKAR ROY	ASSISTANT TECHNICIAN
2215	BIJOY SARKAR	ASSISTANT TECHNICIAN
3248	DILIP GANGULLY	ASSISTANT TECHNICIAN
3247	UTTAM LAL SHILL	ASSISTANT TECHNICIAN
2310	FANI ROY	ASSISTANT TECHNICIAN
2312	DILIP KUMAR SARKAR	ASSISTANT TECHNICIAN
2321	RATANKUMAR KURMI	ASSISTANT TECHNICIAN
3776	KRISHNA SANKAR ROY	ASSISTANT TECHNICIAN
2702	JOY DEB DAS	ASSISTANT TECHNICIAN
4375	SUDHAM ROY	ASSISTANT TECHNICIAN
4437	SANTOSH KUMAR DAS	ASSISTANT TECHNICIAN
4081	APURBA MAJHI	ASSISTANT TECHNICIAN
5254	MRITYUNJOY BISWAS	ASSISTANT TECHNICIAN
2376	SANTOSH KUMAR KARMAKAR	ATTENDER
2389	CHANDI MONDAL	ATTENDER
2322	DILIP KUMAR MALAKAR	ATTENDER
2328	SAMSUDDIN,S.K.	ATTENDER
2331	AMITABHA MONDAL	ATTENDER
2720	MOTILAL ROY	ATTENDER
2333	SANKAR BISWAS	ATTENDER
2334	ANJALI ROY	ATTENDER
2698	MD ABU BAKKAR SK	ATTENDER
3984	CHARAN HALDAR	ATTENDER
4750	CHANDRA SHEKHAR MAJHI	ATTENDER
5456	MINATI PRAMANIK	ATTENDER
2699	BISWANATH MONDAL	ATTENDER
2711	BHANU ROY	CHOWKIDAR
2679	BANAMALI HAZRA	SAFAIWALA
4367	ALOKA HAZRA	SAFAIWALA
5457	DHANU HAZRA	SAFAIWALA

2311 REC, BAGMARA (MOTHABARI)

476	ALOKE KUMAR DUTTA	SCIENTIST-C
490	JAYEETA SEN, (DR.)	SCIENTIST-C
1491	ANGAN MAJUMDER	TECHNICAL ASSISTANT
3440	PRAVAT PRAMANIK	TECHNICAL ASSISTANT
5688	SUMANTA PRAMANIK FIELD	ASSISTANT
5689	SANTONA MONDAL	FIELD ASSISTANT
2383	NILKANTA MAZUMDER	ATTENDER
3702	SHANKAR CHANDRA DAS	CHOWKIDAR

2545	SRIDAM CHANDRA DAS	CHOWKIDAR
2530	BIMAL CHANDRA MISTRY	CHOWKIDAR
5480	SURESH SARKAR	CHOWKIDAR
4062	SUPHAL CHANDRA MONDAL	SAFAIWALA

2319 REC, NABAGRAM

361	SHYAM PRASAD CHAKRABORTY (DR.)	SCIENTIST-C
4008	DEBASHISH CHAKRAVARTY	SCIENTIST-C
1555	MD.AYUB ALI KHAN	TECHNICAL ASSISTANT
5528	SHREYASHI GUPTA	TECHNICAL ASSISTANT
3084	SHAMPA BISWAS	TECHNICAL ASSISTANT
4763	BISWARANJAN SARKAR	TECHNICAL ASSISTANT
4762	MD. SIRAJUL ISLAM	TECHNICAL ASSISTANT
4761	GOUTAM MANDAL	TECHNICAL ASSISTANT
4770	AMAR KUMAR SAHA	TECHNICAL ASSISTANT
2929	SASTHICHARAN MONDAL	STAFF CAR DRIVER GRADE-I
3839	ARUN KUMAR ROY CHOWDHURY	U.D.C
5472	ANUP KUMAR ACHARYYA	CHOWKIDAR

2211 RSRs, KALIMPONG

310	CHANDANA MAJEE	SCIENTIST-D
538	REGINA BHUTIA	SCIENTIST-C
539	SUDEB CHATTERJEE	SCIENTIST-C
3054	UJJAL KUMAR BANDYOPADHYAY(DR.)	SCIENTIST-C
5668	RAM LAKHAN RAM	SCIENTIST-B
5150	GEETA LAMA	TECHNICAL ASSISTANT
5033	GITA SHARMA	TECHNICAL ASSISTANT
4498	NARAYANMANDAL	TECHNICAL ASSISTANT
4371	PHURBA WANGDI SHERPA	TECHNICAL ASSISTANT
4373	KARMA LHAMU BHUTIA	TECHNICAL ASSISTANT
2712	RAMJEE CHETTRY	TECHNICAL ASSISTANT
4773	SANDIP KUMAR SEAL	TECHNICAL ASSISTANT
3969	DEO PRAKASH KALIKOTAY	JR.STENOGRAPHER
1946	PASANG SHERPA	U.D.C
4183	RITA DIYALI	U.D.C
4985	NIRDOSH TSERING LEPCHA	STAFF CAR DRIVER GRADE-II
4184	ASHOK KUMAR GHIMIRAY	STAFF CAR DRIVER (ORD.GR)
3648	SANTOSH KUMAR TAMANG	ASSISTANT TECHNICIAN
2309	SAITSHERING LEPCHA	ASSISTANT TECHNICIAN
2320	BIRMAN TAMANG	ASSISTANT TECHNICIAN
4045	ABIKESHORE ADHIKARI	ASSISTANT TECHNICIAN
2326	BIDEN TSHERING LEPCHA	ATTENDER
5459	MARY KHAWAS	ATTENDER
2713	BIRE TAMANG	CHOWKIDAR
5526	SUBAL MARDI	CHOWKIDAR
3168	PALMIT LEPCHA	CHOWKIDAR
5523	CHURAMANI SUNUWAR	CHOWKIDAR

6611 P2-P4 FARM, KALIMPONG

433	MANAS DEV MAJI (DR)	SCIENTIST-C
1356	SARAN SUBBA	ASSISTANT
5274	SANGITA SINGH	ASSISTANT
2955	SUMAN LEPCHA	TECHNICAL ASSISTANT
4374	LUKMAN ALI	TECHNICAL ASSISTANT
2098	GANESH PRADHAN	STAFF CAR DRIVER GRADE-I
5471	NORBU TAMANG	CHOWKIDAR

2111 RSRS, KORAPUT

1159	RUSHI SAHU	SCIENTIST-C
3167	NALLAMOTHU RAJESWARA RAO (DR)	SCIENTIST-C
4163	SUNIL KUMAR MISHRA	SCIENTIST-C
1304	RAJKUMAR RANA	SUPERINTENDENT(ADMN)
4106	PADMAVATI RAJU	TECHNICAL ASSISTANT
4105	SNIGDHA RANI BANERJEE	TECHNICAL ASSISTANT
4104	PARBATI ROUTRAY	TECHNICAL ASSISTANT
4077	JAGADISHWAR PATTANAIK,T.S.	TECHNICAL ASSISTANT
4585	JAMES MARTIN KHORA	TECHNICAL ASSISTANT
2084	SATYABADI SAHOO	STAFF CAR DRIVER GRADE-I
4433	PRASANTA KUMAR MOHAPATRA	JR.STENOGRAPHER
4080	RAJESWARY,P.	U.D.C
5210	SRINIVAS RAO,M.	L.D.C
5211	RAJENDRA BURUDI	STAFF CAR DRIVER (ORD.GR)
2563	NAGABHUSHAN RAO,A.S.	ASSISTANT TECHNICIAN
5131	RABINDRA NATH RATH	ATTENDER
2606	TRILOCHAN MAJHI	CHOWKIDAR
2607	SURESH MAHAPATRA	CHOWKIDAR
4586	KORA BADAMUNDI	CHOWKIDAR
4588	RAMA CHANDRA KARJEE	CHOWKIDAR
5121	GHANASHYAM KHILLO	CHOWKIDAR
5130	BHIMA KHEMUNDU	SAFAIWALA

2115 REC, DEOGARH

356	DEBA PRASAD DAS MOHAPATRA	SCIENTIST-C
508	KSHETRA MOHAN PUROHIT (DR.)	SCIENTIST-C
4616	ATULYA KUMAR PADHAN	TECHNICAL ASSISTANT
2071	MISHRA DHARMANANDA	STAFF CAR DRIVER GRADE-I
1971	PRAFULLA KUMAR PRADHAN	U.D.C
5129	GOKUL CHANDRA MAJHI	CHOWKIDAR
5128	FAKIRA CHARAN MAJHI	CHOWKIDAR

2450 RSRS, JORHAT

308	TUSHAR KANTI BISWAS	SCIENTIST-D
518	SUMENDRA NATH GOGOI (DR.)	SCIENTIST-C
2989	RANUMA DAS	SCIENTIST-C
4052	YUMNAM DEBARAJ(DR.)	SCIENTIST-C
5102	MINA PAMEHGAM	SCIENTIST-C
767	AMRIT KUMAR DUTTA	ASST.DIRECTOR (A&A)
1091	HAREN CHANDRA KAKATI	SR.TECHNICAL ASSISTANT
3063	QUEEN BORKOTOKY	ASSISTANT

1204	KUSHAL CHANDRA DAS	TECHNICAL ASSISTANT
2314	HEMAKANTA DAS	TECHNICAL ASSISTANT
4791	AMARJIT SARMAH	TECHNICAL ASSISTANT
4465	AJIT KUMAR SAIKIA	TECHNICAL ASSISTANT
3660	JUNUMONI DAS	TECHNICAL ASSISTANT
2885	NIPAMONI BHUYAN	TECHNICAL ASSISTANT
2755	JYOTIMONI BORAH	TECHNICAL ASSISTANT
3538	SURENDRA PATGIRI	U.D.C
3357	MANJU MONI MOHANTA	U.D.C
1252	BHADRESWAR DAS	TECHNICIAN
5109	ANANDARAM SAIKIA	ASSISTANT TECHNICIAN
2403	KHOGESWAR DAS	ATTENDER
2336	ATUL CHANDRA SAIKIA	ATTENDER
3360	MAKHAN CHANDRA SARMA	ATTENDER
5141	BIMAN CHANDRA BORAH	ATTENDER
3821	GANGADHAR HAZARIKA	ATTENDER
2513	DEBEN SAIKIA	CHOWKIDAR
2536	ARUN KHATANIAR	CHOWKIDAR
5218	GIRISH CHANDRA BORAH	CHOWKIDAR
5385	LOKEN KACHARI	CHOWKIDAR
4840	DIPAK BASFOR	SAFAIWALA

2452 REC, SHILLONG

5605	COLLINS Z RENTHLEI (DR)	SCIENTIST-B
2951	DWIJEN CHANDRA DAS	TECHNICAL ASSISTANT
2028	SIBANATH BORAH	STAFF CAR DRIVER GRADE-I
5703	MITALI SAIKIA	FIELD ASSISTANT

2460 REC, IMPHAL

272	BIREN RANA (DR.)	SCIENTIST-D
854	BIRCHANDRA SINGH THOKCHOM	SR.TECH.ASSISTANT (SG)
1029	HEMKHOSE LUNKIM	SR.TECHNICAL ASSISTANT
5304	KAMEI GAITONGPOU RONGMEI	TECHNICAL ASSISTANT
5351	RAJKUMAR RAJMOHOL SINGH	TECHNICAL ASSISTANT
4837	YENSENBAM KALPANA DEVI	TECHNICAL ASSISTANT
4053	TONGBRAM INAOMACHA MEETEI	TECHNICAL ASSISTANT
4004	THOKCHOM PREMKANTA SINGH	TECHNICAL ASSISTANT
4714	ANGONJAM NILAMANI MEITEI	TECHNICAL ASSISTANT
2055	LAWRENCE RUANGMEI NAGA KAMEI	STAFF CAR DRIVER GRADE-I

2466 REC, AIZWAL

5348	BIDYUT NATH CHOUDHURY	SCIENTIST-C
5655	LALTHLAMUANA PACHUAU (DR)	SCIENTIST-B
1945	ZODINPULI	ASSISTANT
3950	NIBARAN SAIKIA	TECHNICAL ASSISTANT
3759	DEBIRAM DAS	TECHNICAL ASSISTANT
2096	LALRAMHLUNA	STAFF CAR DRIVER GRADE-I
2332	VANLAL DINGA	ATTENDER
2875	LALMANGAIHA	CHOWKIDAR
4884	TLANLIANA	CHOWKIDAR

2454 REC, AGARTALA TRIPURA

601	GANGESH BAHADUR SINGH(DR)	SCIENTIST-C
963	DILIP KUMAR NATH	SR.TECHNICAL ASSISTANT
5283	HARIDHAN NAMA	TECHNICAL ASSISTANT
5284	SABYASACHI GANGOPADHYAY	TECHNICAL ASSISTANT
2018	PARESH CHANDRA DAS	STAFF CAR DRIVER GRADE-I
3339	GOBINDA DEBBARMA	CHOWKIDAR

2470 REC, DIMAPUR, NAGALAND

549	ANUKUL BORAH (DR)	SCIENTIST-C
1920	AOSANGLA LONGCHAR	ASSISTANT
3488	NILIMA THAOSEN	TECHNICAL ASSISTANT
3350	BABUL MECH	TECHNICAL ASSISTANT
4920	AZIANG NEWMAI	TECHNICAL ASSISTANT
5107	SHUHINYO PURO	STAFF CAR DRIVER GRADE-I
5585	MHAYAMO MURRY	FIELD ASSISTANT
2327	RAVOLHU PHESAO	ATTENDER
2871	GOPINATH SANGMA	CHOWKIDAR

2215 REC, RANGPO, SIKKIM

570	SIMON TSHERING LEPCHA	SCIENTIST-C
2950	AMAR DEO DEWAN	TECHNICAL ASSISTANT
3995	BHANU SHILAL	TECHNICAL ASSISTANT
4516	CHHITIM BHUTIA	TECHNICAL ASSISTANT
5183	KUMAR BHUJEL	STAFF CAR DRIVER (ORD.GR)
5575	BIR BAHADUR CHETTRI	CHOWKIDAR

2430 REC, MAHESHPURRAJ

4937	DIPESH PANDIT (DR.)	SCIENTIST-C
1530	ASIM KUMAR KUNDU	TECHNICAL ASSISTANT
4838	BIMAL CHOWDHURY	TECHNICAL ASSISTANT
4185	NANDO DULAL BHUIMALI	TECHNICAL ASSISTANT
4189	MD. ANWARUL HAQUE	TECHNICAL ASSISTANT
4218	KAILASH PRASAD SHARMA	TECHNICAL ASSISTANT

2428 REC SUB-UNIT, RAJMAHAL

3953	ANIL KUMAR VERMA (DR.)	SCIENTIST-C
1233	RABINDRA THAKUR	TECHNICAL ASSISTANT
4187	MD. KALIMUDDIN	TECHNICAL ASSISTANT
4752	BUDDHADEV DHAR	TECHNICAL ASSISTANT

2411 RSRS, RANCHI

181	MISHRA,P.N. (DR.)	SCIENTIST-D
3983	AZFAR HUSAIN NAQVI (DR.)	SCIENTIST-C
3989	GHANSHYAM SINGH (DR.)	SCIENTIST-C
1800	MIRZA IBRAHIM BAIG	SUPERINTENDENT (ADMN)
1264	GHOSH SUBHASISH	REPORTER
1141	ANITA JACINTA KUJUR	SR.TECHNICAL ASSISTANT
1010	MISHRA ABHIYANANDA	SR.TECHNICAL ASSISTANT
3596	PATRAS LOMGA	ASSISTANT
1150	DEVENDRA KUMAR SINHA	TECHNICAL ASSISTANT
1637	NAGENDRA,D.K.	TECHNICAL ASSISTANT

2133	SHEAKH HAZRAT ALI	TECHNICAL ASSISTANT
2106	KRISHNA RAY	STAFF CAR DRIVER (SG)
4036	MD.QUMRUL HODA	U.D.C
4037	BIRENDRA KUMAR	U.D.C
4875	KAMAL RAM	STAFF CAR DRIVER GRADE-II
2172	ABDUL WAHAB ANSARI	ASSISTANT TECHNICIAN
2344	SUKRA ORAON	ATTENDER
2835	RAM PRAVESH SINGH	ATTENDER
2612	MANJHI CHHUTNU	CHOWKIDAR
3129	MAHLI DINA NATH	CHOWKIDAR

2415 REC, GUMLA

473	SATYA PRAKASH SHARMA (DR.)	SCIENTIST-C
997	NARAYAN KUMAR	SR.TECHNICAL ASSISTANT
4496	BASUDEO SINGH	TECHNICAL ASSISTANT
4571	INDER RAM MAHTO	TECHNICAL ASSISTANT
2062	TOPPO ALEXANDER	STAFF CAR DRIVER GRADE-I
2142	MAQBOOL ANSARI	ASSISTANT TECHNICIAN
2476	ORAON JIWAN	CHOWKIDAR
5028	SATYANARAYAN SINGH	CHOWKIDAR

2433 REC (SUB-UNIT), BHANDRA

1529	SHANKAR RAI	TECHNICAL ASSISTANT
4499	SURESH RAM MOCHI	TECHNICAL ASSISTANT

ITEM NO. 10: The monthly remuneration received by each of its Officers and employees, including the system of compensation as provided in its regulations.

Monthly remuneration of Officers & Staff members of CSR&TI, Berhampore and its nested units for the month of July, 2011

EMP_CD	EMP_NAME	GROUP	GROSS_PAY
000180	PRABIR MITRA (DR.)	A	66727.00
000248	RABINDRANATH DATTA (DR.)	A	63757.00
000264	NAKUL KUMAR SAHA (DR.)	A	62421.00
000282	ASIS GHOSH (DR.)	A	57667.00
000305	MRINAL KANTI MAZUMDAR	A	78505.00
000361	SHYAMAPRASAD CHAKRABORTY DR.	A	58447.00
000366	MRINAL KANTI GHOSH (DR.)	A	61358.00
000372	SUNITA MUKHERJEE	A	53620.00
000403	NIRVAN KUMAR DAS	A	53620.00
000446	SITANSU SEKHAR MANNA	A	66204.00
000456	ASHOKE KUMAR MISHRA (DR.)	A	51748.00
000458	SWAPAN K. MUKHOPADAYAY (DR.)	A	55015.00
000459	PARITOSH KUMAR GHOSH, (DR.)	A	55015.00
000476	ALOKE KUMAR DUTTA	A	55015.00
000488	RAJARAM,S.	A	53002.00
000490	DR(MRS.)JAYEETA SEN (SARKAR)	A	55015.00
000535	SWAPAN KUMAR MANDAL (DR.)	A	57897.00
000567	PRAKASH KUMAR TEWARY (DR.)	A	56563.00
000572	SUKHEN ROY CHOWDHURY (DR.)	A	59249.00
000574	ATUL KUMAR SAHA (DR.)	A	56550.00
000594	MONICA CHOUDHURY	A	50781.00
000619	SREE KUMAR.S (DR.)	A	53984.00
000756	ASOK KUMAR SAHA	A	55755.00
000758	GOUR KRISHNA BANDYOPADHYAY	A	51296.00
000789	MUKHERJEE,A.N.	A	43639.00
001778	RANJIT KAR (DR.)	A	46976.00
002553	MANOJA PATNAIK	A	46855.00
002614	RAMBRIKSH CHOUDHARY	A	40287.00
003010	SURESH KUMAR,N. (DR.)	A	54534.00
003016	SANDIP KUMAR DUTTA (DR.)	A	50781.00
003021	JALAJA S KUMAR	A	53984.00
003046	MAHENDRA KUMAR SINGH (DR.)	A	50781.00
003051	MD. SAFIKUR RAHMAN, (DR.)	A	53984.00
003161	SAMIR KUMAR MAJUMDAR (DR.)	A	50781.00
003164	GAUTAM K. CHATTOPADHYAY (DR.)	A	50781.00
003322	NIHARENDU BIKASH KAR	A	58397.00
003388	LAL MOHAN SAHA (DR.)	A	56579.00
003389	SUBHRA CHANDA (DR.)	A	52524.00
003496	SATADAL CHAKRABARTY (DR.)	A	39366.00
003796	PANDURANGA,H.A.	A	44141.00
003953	ANIL KUMAR VERMA (DR.)	A	49927.00
004008	DEBASHISH CHAKRAVARTY	A	49927.00
004469	ZAKIR HOSSAIN	A	49927.00
004510	MANNE VENKATA SANTHAKUMAR(DR.)	A	51358.00
004937	DIPESH PANDIT (DR.)	A	49863.00

004938	DEBOJIT DAS	A	49863.00
004975	BHARAT BHUSHAN BINDROO,DR.	A	64614.00
005011	RITA BANERJEE(NANDY) DR.	A	46976.00
005031	TAPATI DATTA BISWAS (DR.)	A	46976.00
005645	BHARAT BHUSAN PATNAIK (DR.)	A	38837.00
005663	LALITHA N. (MRS.)	A	35077.00
005673	LAKSHMI H.(MRS.) DR.	A	35077.00
000780	SWAPAN KUMAR DATTA	B	42005.00
000809	INDRAJIT RAY	B	41797.00
000810	SHYAMAL KUMAR SAHA	B	40812.00
000916	SUDIPTA SINHA CHOUDHURY	B	38399.00
001007	SANJUKTA ROY (RAHA)	B	34696.00
001018	TAPAS KUMAR RAY	B	33733.00
001059	TAPAN KUMAR PAL	B	34632.00
001060	SWAPAN KUMAR RAY	B	32541.00
001070	KRISHNA SADAN ROY	B	36499.00
001071	NIL KUMAR PAUL	B	34616.00
001074	BIRENDRANATH MISTRY	B	36499.00
001076	NARENDRA KUMAR RAY	B	32556.00
001079	ARJUN DEBNATH	B	34616.00
001088	ASHIM KUMAR BAISHYA	B	34632.00
001155	ASHOK SAHOO	B	32700.00
001162	PARTHA SARATHI MUKHERJEE	B	31619.00
001173	SANTI RANJAN SAHA	B	31121.00
001175	DEBASISH ACHARYA	B	31121.00
001186	AMITAVA MUKHERJEE	B	31331.00
001188	SAYED BADRUDDUZA	B	28527.00
001233	RABINDRA THAKUR	B	33102.00
001255	NIRMAL KUMAR DAS	B	36950.00
001261	GOPI KANTA ROY	B	36489.00
001342	PINAKI BHUSAN CHAKRABORTY	B	36322.00
001349	RATNA BISWAS(SINHA)	B	36322.00
001350	BIMAL KUMAR ROY	B	34541.00
001354	ANITA BHATTA (BANDOPADHYAY)	B	36322.00
001363	ASIM KUMAR BATABYAL	B	36322.00
001486	SANJIB ROY	B	30608.00
001491	ANJAN MAJUMDAR	B	30125.00
001512	BUDDHA DEB BISWAS	B	30125.00
001530	ASIM KUMAR KUNDU	B	32440.00
001538	SANCHAYAN CHAKRABORTY	B	32040.00
001548	PULAK KUMAR MUKHOPADHYAY	B	32555.00
001551	ANGSHU PRAKASH SARKAR	B	31333.00
001556	UTTAM KUMAR MANDAL	B	29279.00
001557	ASOK TARU PRAMANIK	B	32040.00
001560	ANNAPURNA MONDAL	B	31816.00
001561	MD.BADRUL ANAM	B	30140.00
001562	MADAN MOHAN MUKHERJEE	B	32555.00
001563	SUBAL KRISHNA DEY	B	30125.00
001564	NITA MUKHERJEE (SAHA)	B	30608.00
001617	NIKHIL RANJAN GHOSH	B	30125.00
001791	CHANDRA SEKHAR MANDAL	B	29898.00
001826	DULAL KUMAR DAS	B	36708.00
001844	IRA CHOWDHURY	B	33567.00
001915	SUBRATA CHAKRABORTY	B	32169.00
001917	ARUP KUMAR BASAK	B	30049.00

001918	KISHALAY BHADURY	B	32359.00
001923	REBA ROY	B	30049.00
001928	MUKUNDA DAS	B	31959.00
001942	RITA MAZUMDAR (MITRA)	B	29882.00
002014	ARUN KUMAR NANDI	B	28675.00
002029	ARJUN KUMAR DAS	B	29398.00
002948	DIPALEE BRAHMA DAS	B	28101.00
003073	BHOLA NATH PAUL	B	29351.00
003084	SHAMPA BISWAS(ROY CHOWDHURY)	B	29351.00
003087	TUSHAR RANJAN MUKHERJEE	B	27603.00
003118	PROMOD CHANDRA BARMAN	B	30623.00
003179	DIBYENDU SARKAR	B	29561.00
003182	SIBESH BISWAS	B	28836.00
003184	DUTTA,T.K.	B	29351.00
003229	SHUKLA MUKHERJEE	B	30369.00
003430	SUNIL KUMAR GHOSH	B	28803.00
003435	CHANDAN MALLICK	B	28803.00
003440	PRAVAT PRAMANIK	B	29203.00
003494	SANJOY ROY CHOWDHURY	B	30299.00
004124	SUHAIL AKHTAR	B	30848.00
004185	NANDO DULAL BHUIMALI	B	27193.00
004186	SANJEEB KUMAR NEOGI	B	25789.00
004187	MD. KALIMUDDIN	B	27593.00
004189	MD. ANWARUL HAQUE	B	27193.00
004218	KAILASH PRASAD SHARMA	B	27193.00
004752	BUDDHADEV DHAR	B	27193.00
004756	SUBRATA SARKAR	B	27403.00
004757	NARAYAN SARKAR	B	27403.00
004759	JOYANTA DHAR GUPTA	B	27193.00
004761	GOUTAM MANDAL	B	27193.00
004762	MD. SIRAJUL ISLAM	B	27403.00
004763	BISWARANJAN SARKAR	B	27403.00
004765	BIPAD KARMAKAR	B	27193.00
004767	SRIKRISHNA GHOSH	B	25579.00
004769	PARTHA PRATIM DEY	B	27193.00
004770	AMAR KUMAR SAHA	B	27193.00
004771	TAPAS KUMAR MAITRA	B	27193.00
004776	PRADIP KUMAR CHOUDHURY	B	25579.00
004805	DIPALI BASAK	B	25579.00
004806	MADHURI BISWAS	B	27403.00
004838	BIMAL CHOWDHURY	B	27193.00
005157	AVIJIT SAHA	B	30977.00
005622	PRASANTA KUMAR MOHAPATRA	B	31236.00
001935	REZIA SULTANA	C	23105.00
001943	NARAYANI GUPTA (SEN)	C	27603.00
002032	BIPAD BHANJAN MAJHI	C	26757.00
002086	PRADIP KUMAR GHOSH	C	22710.00
002120	SISIR KUMAR DATTA	C	23362.00
002123	ANANDA DAS	C	21986.00
002125	BISWANATH DAS	C	23346.00
002126	PRADIP ROY	C	22076.00
002129	KALI KINKAR ROY	C	18845.00
002138	JOYDEB BOSE	C	20189.00
002215	BIJOY SARKAR	C	19627.00
002310	FANI ROY	C	22154.00

002312	DILIP KUMAR SARKAR	C	22154.00
002321	RATAN KUMAR KURMI	C	20279.00
002322	DILIP KUMAR MALAKAR	C	21602.00
002328	SAMSUDDIN,S.K.	C	19280.00
002331	AMITABHA MONDAL	C	19220.00
002333	SANKAR BISWAS	C	18180.00
002334	ANJALI ROY	C	19220.00
002376	SANTOSH KUMAR KARMAKAR	C	20370.00
002383	NILKANTA MAZUMDER	C	18398.00
002388	HARADHAN VERMA	C	18398.00
002389	CHANDI MONDAL	C	21722.00
002530	BIMAL CHANDRA MISTRY	C	18351.00
002545	SRIDAM CHANDRA DAS	C	18141.00
002679	BANAMALI HAZRA	C	18105.00
002698	MD ABU BAKKAR SK	C	19220.00
002699	BISWANATH MONDAL	C	21635.00
002702	JOY DEB DAS	C	20913.00
002711	BHANU ROY	C	20573.00
002720	MOTILAL ROY	C	19220.00
002929	SASTHICHARAN MONDAL	C	23019.00
003214	AMITAVA BHADURI	C	28288.00
003215	HITESH KUMAR SEJPAL	C	28288.00
003246	PRASANTA KUMAR CHATTERJEE	C	21101.00
003247	UTTAM LAL SHILL	C	19112.00
003248	DILIP GANGULLY	C	19192.00
003326	UJJAL KUMAR SAHA	C	24102.00
003639	PREM SHANKAR THAKUR	C	20461.00
003640	TARAK NATH CHAUDHARY	C	21018.00
003643	KAJAL KUMAR BAKSHI	C	20808.00
003702	SHANKAR CHANDRA DAS	C	18382.00
003776	KRISHNA SANKAR ROY	C	18886.00
003839	ARUN KUMAR ROY CHOWDHURY	C	23239.00
003984	CHARAN HALDAR	C	18141.00
004024	GOUTOM HALDER	C	27951.00
004062	SUPHAL CHANDRA MONDAL	C	18141.00
004081	APURBA MAJHI	C	18499.00
004245	CHANDAN PAL	C	22879.00
004264	BHASKAR GUPTA	C	27089.00
004335	TAPESH MUKHERJEE	C	18724.00
004367	ALOKA HAZRA	C	17481.00
004375	SUDHAN ROY	C	17984.00
004435	UTTAM KUMAR DUTTA	C	19884.00
004436	BHUSHAN CHANDRA SARDAR	C	20094.00
004437	SANTOSH KUMAR DAS	C	18210.00
004748	SUKUMAR KARMAKAR	C	19610.00
004749	SUJOY KUMAR DAS	C	19610.00
004750	CHANDRA SHEKHAR MAJHI	C	16474.00
005149	MANOJ KUMAR GUPTA	C	19020.00
005158	BISWAJIT SANKHARI	C	20254.00
005254	MRITYUNJOY BISWAS	C	16414.00
005456	MINATI PRAMANIK	C	15154.00
005457	DHANU HAZRA	C	15154.00
005458	MANJU SHARMA	C	17048.00
005472	ANUP KUMAR ACHARYA	C	15154.00
005480	SURESH SARKAR	C	15154.00
005617	MADHABI MONDAL	C	14225.00

005688	SUMANTA PRAMANIK	C	14643.00
005689	SANTONA MONDAL	C	14643.00
005714	GANESH ROY	C	13049.00

RSRS, KALIMPONG

S. No.	Name & Designation	Pay (Rs.)	Grade Pay (Rs.)	Total Emoluments (Rs.)
1	Smt. Chandana Maji, Scientist- D	27860.00	7600.00	52017.00
2	Smt. Regina Bhutia, Scientist-C	26850.00	6600.00	54768.00
3	Dr. M.D. Maji, Scientist-C	25700.00	6600.00	49755.00
4	Dr. S.P. Chakraborty, Scientist-C	26850.00	6600.00	51973.00
5	Dr. U.K. Bandyopadhyay, Scientist-C	24490.00	6600.00	48001.00
6	Shri Ram Lakhn Ram, Scientist-B	15600.00	5400.00	33370.00
7	Sri Saran Subba, Assistant	16560.00	4600.00	24838.00
8	Smt. Sangita Singh, Assistant	15300.00	4600.00	32485.00
9	Sri Suman Lepcha, Technical Assistant	12440.00	4200.00	27432.00
10	Smt. Geeta Sharma, Technical Assistant	11470.00	4200.00	25929.00
11	Sri Narayan Mandal, Technical Assistant	11470.00	4200.00	24362.00
12	Sri P. W. Sherpa, Technical Assistant	11470.00	4200.00	26029.00
13	Smt. K. L. Bhutia, Technical Assistant	11470.00	4200.00	26139.00
14	Md. Lukman Ali, Technical Assistant	11470.00	4200.00	25929.00
15	Sri. Sandip Kr.Seal, Technical Assistant	11470.00	4200.00	24362.00
16	Sri Ramjee Chettri, Technical Assistant	11470.00	4200.00	25929.00
17	Smt. Geeta Lama, Sr. F.A.	9830.00	4200.00	23387.00
18	Sri D.P. Kalikotay, Jr. Steno	12770.00	4200.00	27944.00
19	Smt. Pasang Sherpa, U.D.C.	12440.00	4200.00	27432.00
20	Shri Alok Kumar Das, U.D.C.	11650.00	4200.00	24623.00
21	Smt. Rita Diyali, U.D.C.	9470.00	2400.00	20039.00
19	Sri A.K. Ghimeray, Driver.	9470.00	2400.00	20309.00
20	Sri N. T. Lepcha, Driver	8410.00	2400.00	18456.00
21	Shri Ganesh Pradhan, Driver	10710.00	2800.00	21230.00
22	Sri S.T. Lepcha, Assistant Technician	12410.00	2400.00	21496.00
23	Sri Birman Tamang, Assist. Technician	9870.00	2400.00	20659.00
24	Sri S. K. Tamang, Assistant Technician	8690.00	2000.00	18210.00
25	Shri A. K. Adhikari, Assistant Technician	8360.00	2000.00	16662.00
26	Ms D.K. Gurung, Attender	8730.00	2000.00	18332.00
27	Sri B.T. Lepcha, Attender	8820.00	2000.00	18471.00
28	Smt. Mary Khawas. Attender	6830.00	1900.00	14652.00
29	Sri Bire Tamang, Chowkidar	8730.00	2000.00	18332.00
30	Smt. Palmit Lepcha, Chowkidar	8120.00	2000.00	17386.00
31	Sri Narbu Tamang, Chowkidar	6830.00	1900.00	13989.00
32	Sri Churamani Sunuwar, Chowkidar	6180.00	1800.00	13489.00
33	Sri Subal Mardi, Chowkidar	6060.00	1900.00	12662.00

REC, RANGPO

Sl. No.	Name & Designation	Pay (Rs.)	Grade Pay (Rs.)	Total Emoluments (Rs.)
1	Mr. S.T. Lepcha, Scientist - C	26150.00	6600.00	59777.00
2	Mr. A. D. Dewan, Technical Assistant	12440.00	4200.00	31032.00
3	Mr. B.Sailal, Technical Assistant	11470.00	4200.00	29408.00
4	Mr. C. Bhutia, Technical Assistant	11470.00	4200.00	29408.00
5	Sri Kumar Bhujel, Driver	9090.00	2400.00	23615.00
6	Mr. B.B.Chettri, Chowkidar	5820.00	1800.00	15404.00

RSRS, KORAPUT (ODISHA)

Sl. No.	EMP CODE	NAME	DESIGNATION	SCALE OF PAY	GR	
01	001159	Shri R. Sahu	Scientist-C	15600-39100	A	53380
02	003167	Dr. N.R. Rao	Scientist-C	15600-39100	A	45617
03	004163	Shri S.K. Misro	Scientist-C	15600-39100	A	48215
04	001304	Shri R.K. Rana	Superintendent	9300-34800	B	33640
05	001949	Shri P.K. Khosla	Assistant	9300-34800	B	26067
06	004106	Smt. Padmavati Raju	T.A.	9300-34800	B	24092
07	004104	Miss P. Routray	T.A.	9300-34800	B	23882
08	004105	Smt. S.R.Banerjee	T.A.	9300-34800	B	22722
09	004077	Shri T.S.J. Pattanaik	T.A.	9300-34800	B	24092
10	004585	Shri J.M. Khora	T.A.	9300-34800	B	23822
11	004433	Shri P.K. Mohapatra	Jr.Stenographer	9300-34800	C	25288
12	004080	Smt. B. Rajeswari	U.D.C.	5200-20200	C	18682
13	002888	Shri R.K. Jena	Staff Car Driver	5200-20200	C	20534
14	005211	Shri Rajendra Burudi	Staff Car Driver	5200-20200	C	19014
15	002563	Shri A.S.N. Rao	Asst. Technician	5200-20200	C	18389
16	005131	Shri R.N. Rath	Attender	5200-20200	C	16406
17	002606	Shri T. Majhi	Chowkidar	5200-20200	C	18208
18	003607	Shri Suresh Mohapatra	Chowkidar	5200-20200	C	14567
19	004586	Shri K.Badamundi	Chowkidar	5200-20200	C	15387
20	004588	Shri R.C. Karjee	Chowkidar	5200-20200	C	12477
21	005121	Shri Ghanashyam Khillo	Chowkidar	5200-20200	C	15155
22	005130	Shri B.Khemundu	Safaiwala	5200-20200	C	16116

RESEARCH EXTENSION CENTRE, DEOGARH (ODISHA)

23	000356	Shri D.P. D. Mohapatra	Scientist-C	15600-39100	A	54168
24	000508	Dr. K.M. Purohit	Scientist-C	15600-39100	A	52385
25	004616	Shri A.K. Padhan	T.A.	9300-34800	B	25449
26	001971	Shri P.K. Pradhan	UDC	9300-34800	C	27102
27	005376	Shri P. Munda	Driver	5200-20200	C	17790
28	005128	Shri F.C. Majhi	Chowkidar	5200-20200	C	16116
29	005129	Shri G.C. Majhi	Chowkidar	5200-20200	C	16116

RESEARCH EXTENSION CENTRE, SINGANPUR (CHHATTISGARH)

30	003144	Shri K.B. Chauhan	Scientist-C	15600-39100	A	51871
31	005066	Shri Lachinder	Chowkidar	5200-20200	C	16566

REGIONAL SERICULTURAL RESEARCH STATION, JORHAT (ASSAM)

Sl. No	Emp_No	Name	Designation	Grade pay	Gr.	Total Emoluments (Rs.)
01	00308	T.K.Biswas	Scientist-D	7600.00	A	65527.00
02	004052	Dr.Y.Debraj	Scientist-C	6600.00	A	50709.00
03	002989	R. Das	Scientist-C	6600.00	A	53908.00
04	000518	Dr.S.N.Gogoi	-do-	6600.00	A	55835.00
05	005102	M.Pahmegham	-do-	6600.00	A	47718.00
06	000767	A.K. Dutta	A/D(A&A)	5400.00	A	46388.00
07	003063	Q. Bortokoki	Assistant.	4200.00	C	30134.00
08	001091	H.Ch. Kakoti	Sr.TA.	4200.00	C	34243.00
09	004791	A.J.Sarmah	TA.	4200.00	C	27728.00
10	004465	A.K.Saikia	-do-	4200.00	C	27728.00
11	001204	K.Ch.Das	-do-	4200.00	C	34091.00
12	002314	H.K.Das	-do-	4200.00	C	27728.00
13	002885	N.M.Bhuyan	-do-	4200.00	C	23042.00
14	003660	Junumoni Das.	-do-	4200.00	C	27728.00
15	002755	J.M. Borah	-do-	4200.00	C	27728.00
16	003538	S.Patgiri	UDC	4200.00	C	28833.00
17	003357	M.M.Mohanta	-do-	4200.00	C	25520.00
18	002934	M.C.Borah	Driver Gr.II	2800.00	C	24203.00
19	002028	S.N.Borah	Driver Gr.I	2800.00	C	25995.00
20	001252	B.Das	Technician	2000.00	C	Absent
21	002403	K.Das	Attender	2000.00	D	18582.00
22	002336	A.C.Saikia	-do-	2000.00	D	18522.00
23	003821	G.Hazarika	-do-	2000.00	D	EOL
24	003360	M.C.Sharma	-do-	2000.00	D	17810.00
25	005141	B.C.Borah	-do-	2000.00	D	18843.00
26	002513	D.Saikia	-do-	2000.00	D	19669.00
27	005218	G.C.Borah	Chowkider	2000.00	D	17486.00
28	002536	Arun Khataniar	-do-	2000.00	D	18582.00
29	005385	Loken Kachari	-do-	2000.00	D	16571.00
30	004840	D.Basfore	Safaiwala	1300.00	D	Absent

RESEARCH EXTENSION CENTRE, IMPHAL (MANIPUR)

Sl. No	Emp_No	Name	Designation	Grade Pay	Group	Monthly Remuneration
01	000272	Dr.B. Rana	Scientist-D	7600.00	A	64422.00
02	000854	B.C. Singh	-do-	4600.00	A	43498.00
03	001029	H. Lunknm	Sr.TA.	4200.00	C	36475.00
04	004837	Y. K. Devi	Tech. Asstt.	4200.00	C	27041.00
05	004053	T.I.Meetei	-do-	4200.00	C	28608.00
06	004004	T. P.K.Singh	-do-	4200.00	C	28608.00

07	004714	A.N. Meitei	-do-	4200.00	C	28608.00
08	005304	K.G. Rongmei	TA.	4200.00	C	25861.00
09	005351	R. R. Singh	-do-	4200.00	C	25861.00
10	002055	L.R.N. Kamie	Driver Gr. – I	4200.00	C	26440.00

RESEARCH EXTENSION CENTRE, DIMAPUR (NAGALAND)

Sl. No	Emp code	Name	Designation	Grade Pay	Group	Monthly Remuneration
01	000549	Anukul.Bora	Scientist-C	6600.00	A	57535.00
02	001920	A. Longchar	Assistant	4200.00	C	32274.00
03	003488	N. Thaosen	Tech. Asstt.	4200.00	C	29218.00
04	003350	Babul Mech	-do-	4200.00	C	30649.00
05	004920	A. Newmai	-do-	4200.00	C	29008.00
06	005585	M.Murry	Field Asstt.	2000.00	C	23554.00
07	005107	S.Puro	Driver Gr. – I	2800.00	C	25450.00
08	002327	R. Phesao	Attender	2000.00	D	20944.00
09	002871	G. Sangma	Chowkidar	2000.00	D	20944.00

RESEARCH EXTENSION CENTER, AGARTALA (TRIPURA)

Sl. No	Emp code	Name	Designation	Grade pay	Group	Monthly Remuneration
01	002296	Dr. G.B.Singh	Scientist-C	6600.00	A	58300.00
02	000963	D.K. Nath	Sr.T. Asstt.	4200.00	C	37672.00
03	005283	H. Nama	T.A.	4200.00	C	26071.00
04	005284	S. Gongopadhya	-do-	4200.00	C	25861.00
05	002018	P. Ch. Das	Driver	2800.00	C	28313.00
06	003339	G. Debarma	Chowkidar	1800.00	D	11865.00 (26 days)

RESEARCH EXTENSION CENTER, AIZWAL (MIZORAM)

Sl. No	Emp code	Name	Designation	Grade pay	Group	Monthly Remuneration
01	005348	B. Choudhury	Scientist –C	6600.00	A	49648.00
02	003759	D.R. Das	Tech. Asstt.	4200.00	C	28608.00
03	002942	N. Saikia	-do-	4200.00	C	31338.00
04	001945	Mrs. Zodinpuii	Assistant	4200.00	C	31338.00
05	002096	Lalramhluna	Driver	2800.00	C	25954.00
06	002332	Vanlaldinga	Attender	2000.00	D	20754.00
07	002875	Lalmangaiha	Chowkidar	2000.00	D	20754.00
08	004884	Tianliana	-do-	2000.00	D	19723.00

RESEARCH EXTENSIONC, SHILLONG (MEGHALAYA)

Sl. No	Emp code	Name	Designation	Grade pay	Group	Monthly Remuneration
01	005605	Collin Z. Renthlei	Scientist-B	5400.00	A	44681.00
02	002951	D.C. Das	Tech. Asstt.	4200.00	C	31602.00

ITEM NO. 11: The budget allocated to each of its agency, indicating the particulars of all plans, proposed expenditures and reports on disbursements made

NAME OF THE INSTITUTE / UNIT: CSR&TI, BERHAMPORE (W.B.)

[₹ in Lakhs]

SL. NO.	PARTICULARS	CONSOLIDATED PROVISIONS					
		ACTUALS FOR 2010 - 11			BUDGET ALLOCATION FOR 2011 - 12		
		Recurring GIA - 31	Capital Assets GIA - 35	Total	Recurring GIA - 31	Capital Assets GIA - 35	Total
1	NON PLAN	1919.58	NA	1919.58	1900.00	NA	1900.00
2	PLAN GENERAL	230.44	120.14	350.58	292.30	117.28	409.58
3	PLAN - NE	35.21	2.39	37.60	32.07	36.41	68.48
	TOTAL :	2185.23	122.53	2307.76	2224.37	153.69	2378.06

** NA - Not applicable

HEAD WISE ACTUAL EXPENDITURE FOR 2010 - 11

[₹ IN LAKHS]

SL. NO.	EXPENDITURE HEADS	ACTUALS FOR THE YEAR 2010 - 11										
		NON PLAN	PLAN GENERAL			PLAN - NE			TOTAL PLAN			GRAND TOTAL
			Recurring GIA - 31	Capital Assets GIA - 35	TOTAL	Recurring GIA - 31	Capital Assets GIA - 35	TOTAL	Recurring GIA - 31	Capital Assets GIA - 35	TOTAL	
1	2	3	4	5	6	7	8	9	10 [4+7]	11 [5+8]	12 [10+11]	13 [3 + 12]
1	SALARY & ALLOWANCES	1427.54	22.17		22.17			0.00	22.17		22.17	1449.71
2	WAGES & EPF (Employers Cotrbn.)	203.43	0		0.00			0.00	0.00		0.00	203.43
3	TRAVELLING EXPENSES (TA/TTA/LTC)		52.82		52.82	11.51		11.51	64.33		64.33	64.33
4	CONTINGENT EXPENSES		155.45		155.45	23.70		23.70	179.15		179.15	179.15
5	<u>ASSETS :</u>											
	a. Land			0.00	0.00		0	0.00		0.00	0.00	0.00
	b. Buildings & Other original works			0	0.00		0	0.00		0.00	0.00	0.00
	c. Tools, Plant & Machinery			13.74	13.74		0	0.00		13.74	13.74	13.74
	d. Furniture & Office Equipments			16.89	16.89		0.38	0.38		17.27	17.27	17.27
	e. Vehicles			0.00	0.00		0	0.00		0.00	0.00	0.00
	f. Fans & Fixtures			0.02	0.02		0	0.00		0.02	0.02	0.02
	g. Library Books / Scientific Journals			5.80	5.80		0.02	0.02		5.82	5.82	5.82
	Sub - Total :	0	0	36.45	36.45		0.40	0.40	0.00	36.85	36.85	36.85
6	PENSION & GRATUITY	288.61			0.00							288.61
7	RECOVERABLE ADVANCES			9.32	9.32		1.99	1.99		11.31	11.31	11.31
8	ADVANCE DEPOSITS			74.37	74.37		0.00	0.00		74.37	74.37	74.37
9	R & D - X I PLAN COMPONENTS				0.00							
10	SEED SECTOR - X I PLAN COMPONENTS											
	T O T A L :	1919.58	230.44	120.14	350.58	35.21	2.39	37.60	265.65	122.53	388.18	2307.76

ITEM NO. 12: The manner of execution of subsidy programmes, including the amounts allocated and the details of beneficiaries of such programmes

Technology Assessment and Refinement through IVLP (Phase-III)

The programme was taken up keeping in view of the success of TAR programme (2002-2007). The programme has been implemented in the mulberry sericulture belts of Eastern and N-E states through RSRSs and its nested units covering a total of 375 farmers with 187.5 acres of land during the project period.

Year wise Target :

Year	No. of Farmers with existing plantation	No. of Farmers with new plantation	Unit area 0.5 acre
			Progressive Total
2007-08	600	-	600
2008-09	210	-	810
2009-10	210	-	1020

Budget :

			Rs. in Lakh
2010-11	2011-12	2012-13	Total
6.52	7.19	9.14	23.25

Unit Cost : 0.5 acre per farmer under rainfed condition with existing plantation

Sl No.	Name of the inputs to be provided as support system	Cost (Rs)
1	Bio-fertiliser (Nitrodfer) @ 1.33 kg/ acre /crop and Phosphofert @ 16 kg/ acre once in 4 years.	250=00
2	PGR @ 400 ml/ac/crop (Spring and Autumn crop)	82=00
3	Chemicals for control of White fly @ 540 ml / ac crop (Sept. and Nov crop)	270=00
4	Bleaching powder for disinfection @ 1.0 kg / crop (3 crop)	75=00
5	Bed disinfectant (Labex Plus) @ 3.5 kg / 100 dfls. (3 crop)	116=00
	TOTAL	793=00

Unit Cost : 0.5 acre per farmer under Irrigated condition with existing plantation

Sl No.	Name of the inputs to be provided as support system	Cost (Rs)
1	Bio-fertiliser (Nitrodfer) @ 1.60 kg/ acre /crop and Phosphofert @ 30 kg/ acre once in 4 years.	475=00
2	PGR @ 400 ml/ac/crop (Nov. and Feb. crop)	82=00
3	Chemicals for control of White fly @ 540 ml / ac crop (Sept. and Nov crop)	270=00
4	Bleaching powder for disinfection @ 1.0 kg / crop (5 crop)	125=00
5	Bed disinfectant (Labex Plus) @ 3.5 kg / 100 dfls. (5 crop)	385=00
	TOTAL	793=00

Progress / Achievement made so far:

The programme is being implemented in the mulberry sericulture belts of Eastern and North-eastern states through RSRSs and its nested units (03 units in irrigated zone and 15 units in rainfed zone) covering a total of 1020 farmers with 510 acres of land during the project period.

The recommended technological packages in respect of mulberry cultivation and silkworm rearing was prepared and is being followed to implement the programme. Prepared the year wise crop schedule based on unit wise crop calendar. Regular visit and crop supervision was done by extension staff and the subject matter specialist to the farmers and provided technical guidance. Besides, training was also organized for updating the knowledge of the farmers.

Achievements:

The programme is presently under implementation. However, the following achievements were made under IVLP Phase – II.

- ❖ Since inception (2007-08) up to Mar' 10, a total of 375 farmers were covered.
- ❖ 375 farmers were covered under **Irrigated Zone** who reared 52300 dfls of MxB and 12700 MxM with an average cocoon yield (kg/100dfls) of 41.2 kg in case of MxBi and 25.00 kg in MxM against the control yield of 35.5kg and 21.74 kg respectively.
- ❖ Under **Rainfed Zone** a total of 23770dfls were reared with an average yield (kg/100dfls) of 48.92 kg from 5250dfls of BxB, 35.33kg from 15120dfls of MxB and 22.30kg from 2000dfls of MxM . The corresponding control yield was 42.56kg, 30.3kg and 19.0kg respectively.
- ❖ Following the packages of mulberry cultivation, leaf production was also increased in irrigated zone from 22.0 to 34.5mt/ha/yr i.e. 56.81% improvement and in case of rainfed zone leaf production was increased from 8.0 mt to 11.5 mt/ha/yr (improvement 44.37%).
- ❖ New rearing houses have been constructed under CDP.
- ❖ Socio-economic condition of the target farmers has been improved.

Nabagram Cluster, Murshidabad**2008-09**

- Based on benchmark survey a total of 150 farmers were selected covering 50 acres of plantation (Existing-35ac & New-15ac).
- Prepared crop-wise action plan for 2008-09.
- A total of Rs. 8.358 lakh was released as CSB share for four components (Assistance for Irrigation, Supply for rearing appliances, construction of Rearing House and crop insurance for bivoltine rearing).
- 50 nos of beneficiaries were identified for construction of rearing house and construction work has been completed.
- Supplied rearing appliances to 105 farmers.
- Disinfectants were also supplied to all the farmers.
- The component like assistance for irrigation could not be achieved as the farmers were not ready to provide their share. Though Bi x Bi rearing is not in vogue in W.B, trial rearing of Bi x Bi combination under crop insurance support could not be initiated because suitable rearing season i.e. Agrahayani (Oct-Nov) / Falguni (Jan-Feb) when farmer could take risk of rearing bivoltine with the help of crop insurance was already over by the time of release of fund i.e. Feb'09.
- Constituted JCPC and convened meeting at regular interval.
- Organized awareness programme in different villages under the cluster.
- Silkworm rearing initiated at the farmers level with effect from Oct-Nov'08.
- Crop performance is appended in Annexure-I

2009-10

- Prepared action plan for 2009-10 and incorporated the components as suggested by the JCPC.
- A total of **Rs. 69.19 lakh** has been proposed for the cluster.
- AMC has approved **67.011 lakh**.
- Prepared crop-wise action plan for 2009-10.
- A total of 115 acres (345 farmers) will be covered during 2009-10 including 50 acres of previous year as per the project proposal.
- Benchmark survey for the project period (2008-09 to 2011-12) has been completed.
- Farmers for 09-10 have been identified and plantation work is under progress.
- Action initiated for establishment of Chawki Rearing Centre in the cluster.
- Action also initiated to introduce Farmers Field School (FFS) and Seripolyclinic.
- Conducted JCPC (Joint Cluster Promotion Committee) meeting at regular interval.

- Organized extension communication programmes in different location of the cluster area.
- Crop performance is appended in Annexure-I

2010-11

- Prepared action plan for 2010-11 and incorporated the components as suggested by the JCPC.
- A total of **Rs. 45.29 lakh** has been proposed for the cluster.
- AMC has approved **67.011 lakh**.
- Prepared crop-wise action plan for 2010-11.
- A total of 200 acres (600 farmers) will be covered during 2010-11 including 115 acres of previous years as per the project proposal.
- Benchmark survey for the project period (2008-09 to 2011-12) has been completed.
- Farmers for 10-11 was identified and plantation work completed.
- Action taken for establishment of Chawki Rearing Centre in the cluster.
- Action taken for Farmers Field School (FFS) and Seri-polyclinic.
- Conducted JCPC (Joint Cluster Promotion Committee) meeting at regular interval.
- Organized extension communication programmes in different location of the cluster area.
- Crop performance is appended in Annexure-I

Kaliachak Cluster, Malda

2008-09

- Based on benchmark survey a total of 150 farmers were selected covering 50 acres of plantation (Existing-35ac & New-15ac).
- Prepared crop-wise action plan for 2008-09.
- A total of Rs.4.883 lakh was released as CSB share for four components (Assistance for Irrigation, Supply for rearing appliances, construction of Rearing House and crop insurance for bivoltine rearing).
- Assistance was provided to the 5(five) farmers for irrigation. Materials were also supplied.
- 25 nos of beneficiaries were identified for construction of rearing house and construction work has been completed.
- Supplied rearing appliances to 105 farmers.
- Disinfectants were also supplied to all the farmers.
- Though Bi x Bi rearing is not in vogue in W.B, trial rearing of Bi x Bi combination under crop insurance support could not be initiated because suitable rearing season i.e. Agrahayani (Oct-Nov) / Falguni (Jan-Feb) when farmer could take risk of rearing bivoltine with the help of crop insurance was already over by the time of release of fund i.e. Feb'09.
- Constituted JCPC and convened meeting at regular interval.
- Organized awareness programme in different villages under the cluster.

- Silkworm rearing initiated at the farmers level with effect from Oct-Nov'08.
- Crop performance is appended in Annexure-I

2009-10

- Prepared action plan for 2009-10 and incorporated the components as suggested by the JCPC.
- A total of **Rs. 120.44 lakh** has been proposed for the cluster.
- AMC has approved **118.552** lakh.
- Prepared crop-wise action plan for 2009-10.
- A total of 140 acres (420 farmers) will be covered during 2009-10 including 50 acres of previous year as per the project proposal.
- Benchmark survey for the project period (2008-09 to 2011-12) has been completed.
- Farmers for 09-10 have been identified and plantation work is under progress.
- Action initiated for establishment of Chawki Rearing Centre in the cluster.
- Action also initiated to introduce Farmers Field School (FFS) and Seripolyclinic.
- Conducted JCPC (Joint Cluster Promotion Committee) meeting at regular interval.
- Supervised mulberry garden and silkworm rearing and also provided necessary suggestion time to time.
- Organized extension communication programmes in different locations of the cluster area.
- Crop performance is appended in Annexure-I

2010-11

- Prepared action plan for 2010-11 and incorporated the components as suggested by the JCPC.
- A total of **Rs. 89.77 lakh** has been proposed for the cluster.
- Prepared crop-wise action plan for 2010-11.
- A total of 225 acres (675 farmers) covered during 2010-11 including 140 acres of previous year as per the project proposal.
- Benchmark survey for the project period (2008-09 to 2011-12) has been completed.
- Farmers for 10-11 was identified and plantation work completed.
- Action taken for establishment of Chawki Rearing Centre in the cluster.
- Action taken for Farmers Field School (FFS) and Seripolyclinic.
- Conducted JCPC (Joint Cluster Promotion Committee) meeting at regular interval.
- Supervised mulberry garden and silkworm rearing and also provided necessary suggestion time to time.
- Organized extension communication programmes in different locations of the cluster area.
- Crop performance is appended in Annexure-I

Serchhip Cluster, Mizoram

2008-09

- Based on benchmark survey a total of 50 farmers were selected covering 50 acres of plantation (Existing-20ac & New-30ac).
- Prepared crop-wise action plan for 2008-09.
- A total of **Rs.18.92 lakh** was released as CSB share for four components (Assistance for Irrigation, Support for mulberry plantation, Supply of rearing appliances and Construction of Rearing House).
- Support for mulberry plantation was provided to the 30 farmers covering 30 acres and plantation has already established.
- Assistance was provided to the 8(eight) farmers for irrigation. Materials were also supplied.
- 20 nos of beneficiaries were identified for construction of rearing house and construction work has been completed.
- Supplied rearing appliances to 20 farmers.
- Disinfectants were also supplied to all the farmers.
- Constituted JCPC and convened meeting at regular interval.
- Organized awareness programmes in both the locations under the cluster.
- Silkworm rearing initiated at the farmers level with effect from Sept-Oct'08.
- Crop performance is appended in Annexure-I

2009-10

- Prepared action plan for 2009-10 and incorporated the components as suggested by the JCPC.
- A total of **Rs. 57.51 lakh** has been proposed for the cluster.
- AMC has approved **41.24 lakh**.
- Prepared crop-wise action plan for 2009-10.
- A total of 52 acres (52 farmers) will be covered during 2009-10.
- Benchmark survey for the project period (2008-09 to 2011-12) has been completed.
- Farmers for 09-10 have been identified and plantation work is under progress.
- Identified farmers have started work for construction rearing houses and water conservation & usage techniques for irrigation as per the target.
- Conducted JCPC (Joint Cluster Promotion Committee) meeting at regular interval.
- Supervised mulberry garden and silkworm rearing and also provided necessary suggestion time to time.
- Organized extension communication programmes in different location of the cluster area.
- Crop performance is appended in Annexure-I

2010-11

- Prepared action plan for 2010-11 and incorporated the components as suggested by the JCPC.
- A total of **Rs. 54.28 lakh** has been proposed for the cluster.
- Prepared crop-wise action plan for 2010-11.
- A total of 45 acres covered during 2010-11.
- Benchmark survey for the project period (2008-09 to 2011-12) has been completed.
- Farmers for 10-11 have been identified and plantation work is under progress.
- Identified farmers have started work for construction rearing houses and water conservation & usage techniques for irrigation as per the target.
- Conducted JCPC (Joint Cluster Promotion Committee) meeting at regular interval.
- Supervised mulberry garden and silkworm rearing and also provided necessary suggestion time to time.
- Organized extension communication programmes in different location of the cluster area.
- Crop performance is appended in Annexure-I

ANNEXTURE-I



a. Nabagram Cluster

CROP PERFORMANCE 2010-11

Central Sericultural Research & Training Institute, Bahampore, MB.

Crop Season	Benchmark C. Yield (kg/100dfis)		Dfis		Cocoon yield (kg/100dfis)		
	Range	Avg.	Target	Reared	Target	CPP farmer	Non-CPP
April'10 (Baishakhi)	24.00- 48.00	38.50	6000	7100 (MxB)	45.00	32.80 (26.0 - 38.0)	19.50 (12.0 - 38.0)
	15.00 -28.00	21.4	30000	32000 (MxM)	28.00	26.50 (20.9 - 29.5)	23.05 (10.0 - 27.0)
June'10 (Srabani)	32.0 – 39.0	36.0	2500	2750 (MxB)	40.0	23.50 (10.2 - 34.8)	21.50 (8.0 - 25.0)
	20.00-29.00	27.13	30000	32100 (MxM)	28.5	26.93 (19.7 – 31.8)	24.50 (16.0- 30.0)
August'10 (Aswina)	13.2 – 28.4	26.67	8000	8,650 (MxB)	40.0	38.41 (36.2- 40.5)	34.5 (22.0- 37.0)
	12.5 – 31.0	26.67	30000	32700 (MxM)	28.0	27.38 (24.1 – 31.8)	24.0 (16.5 – 27.8)
Oct – Nov'10 (Agrahayani)	25.33-41.00	36.37	45000	48300 (MxB)	47.0	48.06 (45.0 – 52.5)	45.8 (35.5 - 47.5)
Jan – Feb'11 (Falguni)	34.50 -47.20	39.50	60000	63750 (MxB)	47.00	47.47 (43.6 – 54.2)	46.5 (34.5 – 51.5)
	-	-	500	500 (B x B)	45.0	44.5 (21.0 – 50.0)	-



b. Kaliachak Cluster

CROP PERFORMANCE 2010-11

Central Silk Board Research & Training Institute, Bhubaneswar, Odisha

Crop Season	Benchmark C. Yield (kg/100dfls)		No. of Dfls		Cocoon yield (kg/100dfls)		
	Range	Avg.	Target	Reared	Target Fixed	CPP farmer	Non-CPP farmer
April'10 (Baishakhi)	15.00-40.00	30.5	30000	32050 (M x B)	45.00	40.08 (36.0 - 42.7)	35.50 (32.0 - 37.0)
	14.40-26.60	21.74	5000	7000 (M x M)	28.00	26.02 (23.0 - 28.5)	24.20 (22.0 - 26.0)
August'10 (Bhaduri)	14.44-26.66	18.27	35250	40050 (M x M)	28.5	25.14 (23.0 - 28.0)	23.5 (21.0 - 25.0)
Oct - Nov'10 (Agrahayani)	20.00-48.00	39.33	50000	59050 (M x B)	45.0	47.56 (43.0 - 56.0)	42.2 (35.5 - 44.0)
	-	-	500	500 (B x B)	45.0	55.44 (43.0 - 56.0)	-
Jan - Feb'11 (Falguni)	20.00-45.00	33.31	60000	62750 (M x B)	45.00	45.93 (42.5 - 54.0)	42.1 (33.0 - 44.5)



c. Serchhip cluster

Crop season	Benchmark Cocoon Yield (kg/100dfis)		No. of Dfis		Cocoon yield (kg/100dfis)		
	Range	Average	Target	Reared	Target Fixed	CPP farmer	Non-CPP farmer
Mar-Apr'10 (Spring)	20.00-28.00	25.00	10000	10000 (MxB)	40.00	35.35 (20.0 - 41.5)	27.0 (15.0 - 29.5)
June- July'10 (Summer)	17.00-26.00	23.00	10000	10000 (MxB)	40.00	37.34 (23.5 - 40.0)	27.0 (16.0 - 30.0)
Sept-Oct '10 (Autumn)	25.00-37.00	32.00	10000	17550 (BxB)	45.0	47.13 (30.5 - 52.0)	35.0 (25.5 - 40.0)

ITEM NO. 13: Particulars of recipients of concessions permits or authorizations granted by it.

Field trials of various technologies developed by the institute are tested under Technology Assessment and Refinement (TAR) – Institute Village linkage Programme (IVLP) and accordingly incentives like supply of planting materials, fertilizers, manures, Dfl's etc. are provided to the selected farmers for validation of technologies in the field condition.

ITEM No. 14: Details in respect of the information, available to or held by it, reduced in an electronic form.

- ➡ CDs of all technologies developed by the Institute
- ➡ Records on concluded research projects since inception
- ➡ Seri Information Kiosk.
- ➡ Maintaining Institute's own Website (www//csrtiber.res.in)

ITEM No. 15: The particulars of facilities available to citizens for obtaining information, including the working hours of a library or reading room, if maintained for public use.

A well equipped library with about 5886 accessions including 500 books exclusively for sericulture sciences is available for the trainees and scientists, besides 28 National & 10 International journals are being regularly subscribed.

ITEM No. 16: Names, Designations and other particulars of the Public Information Officers.

List of Central and Assistant Public Information Officers (CPIO / APIOs) of CSR&TI, Berhampore (WB) and its nested units.

Sl. No.	Name and Designation		Name of the Unit / Centre	Desig.
1.	Dr. B.B. Bindroo, Director	:	CSR&TI, Berhampore, (WB)	CPIO
2.	Mrs. Chandana Majee, Scientist-D	:	RSRS, Kalimpong, WB	APIO
3.	Dr. P.N. Misra, Scientist-D	:	RSRS, Ranchi, Jharkhand	APIO
4.	T.K.Biswas, Scientist-D	:	RSRS, Jorhat, Assam	APIO
5.	Dr. Rushi Sahu, Scientist-C	:	RSRS, Koraput, Orissa	APIO
6.	Dr. S.P. Chakraborty , Scientist-C	:	REC, Nabagram, Msd, WB	APIO
7.	Sri Alok Kr. Dutta, Scientist-C	:	REC, Mothabari, Malda, WB	APIO
8.	Sri S.T. Lepcha, Scientist-C	:	REC, Rongpoo, Sikkim	APIO
9.	Dr. D. Pandit, Scientist-C	:	REC, M.P. Raj, Jharkhand.	APIO
10.	Dr. Biren Rana, Scientist-D		REC, Imphal, Manipur	APIO
11.	B. Chowdhury , Scientist-B	:	REC, Aizwal, Mizoram	APIO
12.	Sri Anukul Borah, Scientist-C	:	REC, Dimapur, Nagaland	APIO
13.	Dr. G.B.Singh, Scientist-C	:	REC, Agartala, Tripura	APIO
14.	Dr. Collins Z Renthlei, Scientist-B	:	REC, Shillong, Meghalaya	APIO
15.	Dr. S.P. Sharma, Scientist-C	:	REC, Gumla,	APIO
16.	Sri D.P. Das Mahapatra, Scientist-C	:	REC, Deogarh	APIO
17.	Sri K.B. Chouhan, Scientist-C	:	REC, Singhanpur, Chattisgarh	APIO
18.	Dr. A.K. Verma, Scientist-C	:	REC(SU), Rajmahal, Jharkhand	APIO
19.	Sri S. Rai, Tech. Asst.	:	REC(SU), Bhandra	APIO

ITEM No. 17: Such other information as may be prescribed and thereafter update these publications every year.

Concluded Projects:

YEAR	SECTION / DIVISION	PROJECT TITLE
2004-05	Mulberry Breeding & Genetics	Primary evaluation of new mulberry lines for their yield and quality. (November,2000-October,2004)
	Mulberry Breeding & Genetics	Mulberry germplasm evaluation in relation to quality, quantity and stress resistance (April,2000 –March, 2005)
	Mulberry Physiology	Screening of improved mulberry varieties for flood tolerance (April, 2001 – March, 2005).
	Rearing Technology & Innovation	Induction of tri-moulting in bivoltine silkworm by physiologically active chemicals and their utilization as male parent for multi x bi hybrid preparation (March, 2002 To January, 2005)
	Statistics	A study on input resource management for farmers having sericulture as one of the major crops (2001 – 2004).
	Training	A study on impact of specialized training for extension personnel in dissemination of improved sericultural technologies. (2002 – 2004).
2005-06	Mulberry Agronomy	PPA3223: Updation of improved package of practices for newly authorized mulberry varieties under irrigated condition (Nov, 2001-Dec,2005)
		PPA 3249: Effect of plant nutrition systems (IPNS) in mulberry crop production and protection (Sep., 2002 - Dec., 2005)
	Mulberry Breeding & Genetics	PIE 3221: All India Mulberry & Silkworm Germplasm evaluation programme (AIMSGEP) of CSGRC, Hosur (Jun, 2001 – Mar, 2005)
		PIE3222: All India Co ordinated experimental Trials for mulberry (Phase-II) (Apr, 200 1 – Dec, 2005)
	Soil Science & Chemistry	PPS 3154: Assessment of Phosphorus and Potassium requirements for mulberry (Morus alba L.) based on Mitscherlich-Bray concept (Jul, 1999-Jun, 2005)
	Silkworm Physiology & RTI	APR 3250: Development of rearing package for optimizing cocoon yield in West Bengal (Nov, 2002 – Feb, 2006)
	Silkworm pathology	ARP 3285: Studies on the pathogens, pathogenesis and control of gattine in silkworm (Bombyx mori L.) (Oct, 2002 - Sept, 2005)
		ARP 3286: Studies on the prevention and control of nuclear polyhedrosis and white muscardine diseases of silkworm, Bombyx mori L. using botanicals (Oct, 2002-Sept,, 2005)
2006-07	Mulberry Physiology	PIP-3284: Screening of mulberry varieties for chowki rearing. (Apr.,03 - Oct., 06)

	Mulberry Pathology	PRP-3314: Field evaluation of botanicals and bio-control agents against major mulberry diseases.
	Agronomy	PPA-3248: Nutrient management in newly evolved HYVs and its influence on growth, quality and productivity of leaf and cocoon (May, 2002 – Oct., 2006)
	Agronomy	Pilot Study: Effect of application of different forms of preconditioned ureain soil on quality, yield and N-status of plant and soil of irrigated mulberry (Jan., 2006 – Dec., 2006).
	Eri Cell	Research Programme: Eri pupae, an alternative sources for the preparation of Glucosamine Hydrochloride: an important bio-chemical for medicinal use (Jan., 2006 – Dec., 2006)..
	Jorhat	PIE-3321: All India mulberry and silkworm germplasm evaluation programme (AIMSGEP) [in collaboration with CSGRC, Hosur] (2000 – 2006).
	Jorhat	AIE-3257: Evaluation of selected mulberry silkworm (<i>B. mori</i>) germplasm for biotic and abiotic stress in the identified hot spot (2001-2006)
	Koraput	PPA-3242 : Studies on in situ soil moisture conservation in rainfed mulberry garden in the red soils of Eastern ghat Highland zone of Koraput district in Orissa (Jan., 2002 – Mar.,2007)
	Extension	TAR Programme : Evaluation and Refinement of package of practices for mulberry cultivation under new plantation with irrigation Nov., 2002 – Mar., 2007)
2007-08	RSRS, Koraput	PPS 3253 : Studies on the effects of amendments and ameliorations of problematic soils of Eastern Ghat high land zone of Orissa with reference to mulberry cultivation under rainfed conditions (April, 2003 – December, 2007)
	Mulberry Breeding & Genetics	PIB 3191: Selection of High Yielding Mulberry Varieties for improvement of cocoon production in Gangetic Plains of West Bengal and similar regions (November, 2000 –October, 2007)[
	Silkworm Breeding & Genetics]	AIB 3237: Utilization of polyvoltine breeds for improve-ment of survival in bivoltine silkworm <i>Bombyx mori</i> L. (March, 2002 – June, 2007)
	Silkworm Breeding & Genetics	AIB 3349: On farm trials of evolved bivoltine and multivoltine congenic breeds and their hybrid performance at farmers level (December,2005–November,2007) [In Collaboration with DOS, W.B)
	Biotechnology	DBT FUNDED: Mulberry genome characterization: DNA profiling for ascertaining genetic diversity and construction of framework linkage map. (February, 2005 – November, 2007*) (Collaborative with CCMB- Hyderabad, and CSR&TI- Mysore)
	SW Physiology & RTI	Programme : Field trial of rearing package evolved through the project APR-3250 (November,2006 - October, 2007).
	Extension	A study on constraint analysis in mulberry sericultural technology transfer (January, 2006 – December, 2007)
	Extension	Role of extension personnel in disseminating sericultural technologies as perceived by the sericulture farmers (January, 2006 – December, 2007)

	Extension	A study on impact of different schemes on sericultural farmers of West Bengal (<i>January, 2006 – December, 2007</i>)
	Mulberry Breeding & Genetics	PIE 3310: Evaluation of improved mulberry genotypes for acidic soils of West Bengal (<i>June, 2004-May, 2008</i>) (<i>Collaboration with RSRS, Kalimpong & DOS, Matigara, WB</i>)
	Entomology	PRE 3311 : Efficacy of botanical insecticides for management of mulberry pests and their bio safety to silkworm and natural enemies (<i>July, 2004 – June, 2007</i>)
	RSRS, Jorhat	PIP 3256: Evaluation of mulberry genetic resources for abiotic and biotic stresses in the hot spot locations (<i>December, 2004 – June, 2007</i>) (<i>Collaborative with CSGRC, Hosur</i>)
	RSRS, Jorhat	ARP 3156: Studies on the efficacy of <i>coelophora unicolor</i> f.(coleoptera coccinellidae) as a bio-control agent against whitefly on mulberry (<i>April, 2003 – March, 2008</i>)
2008-09	MBG	PIB-3341: Preliminary evaluation of newly evolved mulberry genotypes for their productivity and quality (<i>November, 2004 – March, 2008; extension up to March, 2009</i>)
	Mulberry Physiology	PIP-3356: Studies on the variability in photosynthesis and related physiological parameters of some promising mulberry genotypes for future breeding programme. (<i>February 2006–March,2009</i>).
	Mulberry Physiology	Prog.: Field trial of flood tolerant mulberry variety (<i>April, 2006 – March, 2009</i>) (<i>In collaboration with DOS, W.B</i>)
	Extension	Prog.: Development programme on sericulture at Murshidabad district--An IVLP approach (<i>July,2005–March,2009</i>) (<i>A collaborative programme with DOS, West Bengal .</i>
	Eri Cell	Prog.: Collection, establishment and evaluation of some castor (<i>Ricinus communis</i> L.) genotypes for their adaptability in Eastern part of India (<i>March, 2005 - February, 2009</i>)
	Eri Cell	Prog.: Evaluation of eri silkworm (<i>Philosamia ricini</i> Hutt.) stocks under different agro-climatic conditions of Eastern India (<i>March, 2005 – December, 2008</i>)
	Biotechnology	Identification of DNA markers associated with disease and pest resistance in mulberry (<i>Morus</i> spp.) (<i>January, 2005 – September, 2008</i>)
	Agronomy	Study on mulberry based parallel multiple cropping under irrigated condition (<i>October, 2004 – December, 2008</i>)
2009-10	MBG	PIB-3365: Develop-ment of Superior Triploid Mulberry for High Productivity and Quality
	Agronomy	PPA3360: Improve- ment of leaf productivity through antitranspirants application in mulberry under rainfed condition
	Soil Science & Chemistry	PPS 3346 : Studies on the effect of sulphur on mulberry growth, yield, nutrient uptake and soil fertility in the Gangetic plains of Eastern India.

	Mulberry Physiology	PIE3319: Screening of germplasm and raising of progeny towards development of disease resistant mulberry against bacterial leaf spot (BLS).
	SBG	Large Scale Trial of new Silkworm hybrids (Programme:)
	SBG	Validation cum multi-locational trial of new silkworm breed/ hybrids at farm level. (Programme :)
	Silkworm Pathology	ARP3351: Studies on the morphology, life cycle and pathogenicity of some microsporidia infecting silkworm, <i>Bombyx mori</i> L and their identification.
	Silkworm Pathology	Immunization of silkworm <i>Bombyx mori</i> L. against bacterial disease (Pilot Study)
	Biotechnology	PIT3359: Development of high frequency regeneration protocol from leaf disc explants in mulberry.
	Silkworm Physiology & RTI	PPA3366: Development of integrated package for raising Chawki leaves and young age silkworm rearing for successful cocoon production.
	Extension	MOE-3396 : Technology Assessment and Refinement through Institute Village Linkage Programme (Phase-II)
	RSRS, Ranchi	PPA- 3395: Integrated nutrient management for increasing the leaf productivity of mulberry (<i>Morus alba</i>) under rainfed condition.
2010-11	Agronomy	PPA-3362 Effect of variations in planting geometry on mulberry canopy development, quality and quantity of leaf.
	Farm management	PPA-3358 Organic farming in Mulberry- An approach for improvement in silk Industry
	Entomology	PRP-3394 Studies on the efficacy of some insecticides for management of white fly and their bio safety to silkworm, <i>Bombyx mori</i> L. July,2007 -June,2010
	SB&G	AIB-3393 Development of commercial hybrids of silkworm <i>Bombyx mori</i> L. by identification of bivoltine parents through screening in different seasons of West Bengal.
	RTI & P	AIP-3421 Physiobio-chemical characterization of selected silkworm germplasm accessions during seed crop seasons
	Agronomy	Validation trial of mulberry based intercropping system in wider spacing under irrigated condition.
	Entomology	Field evaluation of botanical insecticides for management of major mulberry pests and their impact on leaf yield. (<i>In collaboration with the REC, Mothabari and REC, Nabagram</i>)
	Mul. Physiology	Validation trail of waterlogged tolerant mulberry variety C-2028 at farm level. (<i>In collaboration with DOT (Seri), W.B & NSSO</i>).
	Mul. Physiology	Impact of plant growth regulators on photosynthetic activities, leaf productivity and quality in mulberry especially under cold stress condition.

Publications:

Research paper

I. Journal

1. Bandyopadhyay, U. K., Santha Kumar, M.V., Mukhopadhyay S.K., Mitra, P and Bajpai, A. K. (2010). Biological Control studies on whitefly *Dialeuropora decempuncta* Quaintance and Baker (Homoptera: Aleyrodidae) through native predator *Brumoides suturalis* (Fab.) on mulberry in West Bengal. *Journal of Sericulture and Technology*.1 (1):66-69.
2. Bose P.C. , R. Kar and A. K. Bajpai (2010) Effect of levels and sources of sulphur on growth, yield, nutrient uptake of mulberry (*Morus alba* L.) and its economics. *Sericologia*, 50(4): 509-18.
3. Bose P.C., R. Kar, S. K. Majumder, R. N. Dutta and A. K. Bajpai (2010) Fertilizer prescription on soil test basis for targeted yields of mulberry under rain fed condition of West Bengal. *Journal of Crop and Weed*, 6(2): 6-9.
4. Bose P.C. and R. Kar (2010) Soil-plant-manure-water-disinfectant quality testing, advisory and consultancy services. Brochure, CSR and TI, Berhampore (WB).
5. Bose P.C., R. Kar and A. K. Bajpai (2010) Soil test based sulphur fertilization for targeted yields of mulberry. *Journal of Crop and Weed*, 6(1): 22-24.
6. Chattopadhyay S., K. A.r Ali, S. G. Doss, N. K. Das, R. K. Aggarwal, T.K. Bandopadhyay, A. Sarkar and A. K. Bajpai (2011) Association of leaf micro-morphological characters with powdery mildew resistance in field-grown mulberry (*Morus* spp.) germplasm. *AoB PLANTS*. doi: 10.1093/ aobpla/plr002.
7. Chattopadhyay,S. K.A. Ali, S. G. Doss, N. K. Das, R.K. Aggarwal, T.K. Bandopadhyay, A. Sarkar and A. K. Bajpai (2011) Evaluation of mulberry germplasm for resistance to powdery mildew in the field and greenhouse. *Journal of General Plant Pathology* 76: 87-93.
8. Chaudhuri M., D. Chakravarty, T.K.Biswas, A.Ghosh and A.K. Bajpai (2010). Salient features of castor genotype RG 2824 suiting ericulture in West Bengal. *Journal of Oilseeds Research*. 27: 259-261.
9. Das R., Pamehgam M., Singh, R. and Bajpai, A.K.(2010): Distribution of Mulberry (*Morus* Sp.) in North Eastern Region. *Journal of Assam Science Society* Vol.51: 164-169.
10. Debaraj, Y and Singh, R (2010): Seasonal biology of Bihar hairy caterpillar, *Spilomia obliqua* Walker (Lepidoptera: Arctiidae) on castor, a primary food plant of eri silkworm. *Uttar Pradesh J. Zool*. 30(1): 17 – 20
11. Debaraj, Y., Singh, R. and Bajpai, A.K. (2010): Evaluation of some mulberry varieties for yield and quality through bioassay in Manipur, North East India. *Uttar Pradesh J. Zool*. 30 (2): 165 – 168.

12. Ghosh, M.K., S.P. Chakrabarti, Shiv Nath, P.K. Ghosh, R.N. Datta and A.K. Bajpai. (2010). Impact of Improved Mulberry genotypes on Cocoon production in Acidic soils of Hills and Foot Hills. *Uttar Pradesh J. Zool.*30 (2): 197-199.
13. Gogoi, S.N., and Sarma, S.K. (2010): Ecological study of summer weeds in tea (*Camellia sinensis* L. Kuntze) plantation of Dibrugarh and Tinsukia districts of Assam. *Advance in Plant Science* 22(1); 277 – 279.
14. Gogoi, S.N., and Sarma, S.K. (2010): Weed biomass of dominant species in weed communities of tea (*Camellia sinensis* L. Kuntze) plantation of Assam. *Indian Journal of Forestry.* 33 (1): 89 – 90.
15. Kar R., Bose P.C. and A. K. Bajpai (2010) Studies on the residual effect of nutrient inputs on mulberry with special emphasis on the gradient application of phosphorus. *Sericologia*, 50(3): 393-398.
16. Maji, M. D. (2011) Genetic variability of mulberry (*Morus* spp.) germplasm against powdery mildew (*Phyllactinia corylea*) and identification of high resistance genotypes. *Archives of Phytopathology and Plant Protection.* 44: 513-519.
17. Mukhopadhyay S. K., M. V. Santha Kumar (2010). Forecasting of thrips incidence in mulberry. *Insect environment* 16(2) pp 5-6.
18. Mukhopadhyay S.K., M.V.Santha Kumar, A.K. Saha & A.K.Bajpai. (2011) Management of pink mealy bug, *Maconellicoccus hirsutus* (Green) (Hemiptera: Pseudococcidae), a major pest of mulberry, *Morus alba* (L.) with botanicals. *UP jour. of Zoology* 31(1). pp 9-14.
19. Santha Kumar M. V., P. Mitra, D. Chakravarty, M. Patnaik, N.K. Das, A.K. Saha and A.K. Bajpai (2010). Seasonal incidence of jassids *Empoasca flavescens* (F.) on various castor genotypes. *Journal of Oilseeds Research.* 27: 284-286.
20. Singh M.K., Mishra P.K., Roy A.K. and Mishra P.N. (2010). Comparative performance of newly evolved three way crosses of mulberry silkworm in Chotanagpur plateau. *J. Appl. Bioscience*, 36(1): pp 115-17.
21. Singh, R, Nirupama, R and Gangopadhyay, D. (2010): Effect of refrigeration of non-diapause eggs of the mulberry silkworm, *Bombyx mori* L. *Sericologia* 50(1): 129 – 132.
22. Singh, R, Nirupama, R, Das, Ranuma and Bajpai, A.K. (2010): Heterosis and combining ability in newly developed polyvoltine and bivoltine breeds of the silkworm (*Bombyx mori* L.). *Journal of Assam Science Society* 51 (2): 98 – 104.

II. BOOK/ BOOKLET

Book Chapter

1. S.K. Gupta, Z. Hossain, M. Mohanan, P. Mitra, K. Mandal and A.K. Bajpai. **2011**. Electron Microscopic Observation of Five Microsporidia Infecting Silkworm *Bombyx mori* L. In “Recent Trends in Sericulture”, Edited by: Dilip Kumar, P.N. Pandey, Kamal Jaiswal, Sunil P. Trivedi and Md. Razauddin, Narendra Publishing House, Delhi, India, pp : 173.

2. **Directory of concluded research projects 2010**, Published by the Director, CSR&TI, Berhampore.
3. **A Compendium of Research Publication** Published by the Director, CSR&TI, Berhampore.
4. Bose P.C. and R. Kar (2010) Soil characteristics and nutritional management of mulberry in Eastern and North-Eastern India. Book, CSR&TI, Berhampore (WB).
5. Booklet: A. K. Saha, T. Datta Biswas and M.K.Majumdar. 2011. Bengali booklet on “Unnata projectite rituvittic polupalan” has been published during Resham Krishi mela.
6. Leaflet: A. K. Saha, T. Datta Biswas and S.K.Nayak. Bengali leaflet on “Samabhabe Chawki polu bitaran” has been printed and distributed during Resham Krishi mela.

III. Popular article/Reports:

1. Bandyopadhyay U.K. & S.K.Mandal. Awareness programme by RSRS, Kalimpong Indian silk. June 2010.49:2; 33
2. Bandyopadhyay, U.K.and C.Maji (2011).
3. Bandyopadhyay, U.K.and Mandal, S.K. (2010). Awareness Programme under farmers Field School at Mahakaldara. Indian Silk (June). 1(2): 33.
4. Chanda, S.; Saha, L.M.; Shibnath; Kar, N.B.; Saha, A.K. and Ghosh, A. (2011) Resham keet me yugman bal. Indian Silk, 1(11): 38 – 40.
5. Doss, S. G.; Chakraborti, S. P.; Roychowdhuri, S.; Maji, M. D.; Roy, B. C.; Saratchandra, B and Bajpai, A. K (2011) CT-44(C2047): A high yielding mulberry genotype with delayed senescent. Indian Silk. 1 (49 old): 7-9.
6. Mandal S.K. & U.K. Bandyopadhyay. Training Programme by RSRS, Kalimpong. Indian silk. August 2010.49(1):4:33
7. Mandal S.K. Awareness programme by RSRS, Kalimpong. Indian Silk. November, 2010(1)49:7; 33
8. Mandal S.K. Group discussion by RSRS, Kalimpong Indian silk. Sept 2010.49 (1):5-6:31
9. Mandal S.K. Resham Krishi Mela, at RSRS, Kalimpong. Indian silk. Sept 2010.49 (1):5-6:34
10. Mandal S.K. Technology awareness programme at Lingsay. Indian silk. April 2010.48(12s) 36
11. Mandal, S.K. and U.K Bandyopadhyay, (2010). Field Day Programme with Self Help Group members at RSRS, Kalimpong. Indian Silk. (March).1(11): 34.
12. Mandal, S.K. and Bandyopadhyay, U.K (2010). Resham Krishi Mela at RSRS, Kalimpong Indian Silk (Sept. – Oct). 1(5 – 6) : 34.
13. Mandal, S.K. and Bandyopadhyay, U.K. (2010). Trainers’ Training Programme by RSRS, Kalimpong. Indian Silk (August). 1(4) : 33.
14. Mandal. S.K. Field day by RSRS, Kalimpong. Indian silk Sept 2010.49 (1):5-6:33

15. Rahman M.S., S. Gandhi Doss, M.K. Ghosh and A.K. Bajpai. (2010). C-2036 (RG-76): A Cold Tolerant Mulberry Genotype. Indian Silk.Vol. 1 No.7 (49): 8-9.
16. Saha, L.M.; Chanda, S.; Kar,N.B.; Saha, A.K.; Mondal,K.; Bajpai, A.K. and Raje Urs, S. (2010) SSPC, Raiganj – Setting seed quality trends. Indian Silk, 1(4): 10 – 12.
17. Singh, R., Nirupama, R., Gongopadhyay, D. and Qadri, S.M.H. (2010): Androgenesis – A new Approach in Silkworm Breeding, Indian Silk 49 (old) V. I (2). P. 10 – 11.

IV. Proceedings of Seminar/ Workshop/ Symposium:

In Technical compendium of state level workshop on sericulture management held on 15-16 April'10 Directorate of Textiles (Govt. of Orrisa) at Bhubaneswar.

1. Das, R., M Pamehgam and, R. Singh (2010): Role of Self Help in Women empowerment in Assam. PP: 42 – 44.
2. Maji, M. D., Dikshit, B. K. Das, N. K. Ghosh, A. and Bajpai, A. K. (2010) Development of weather based forecasting models of mulberry diseases of Orissa. *Technical compendium of State Level Workshop on Sericulture Management, April 15-16, Bhubaneswar.* pp. 137-143.
3. Mukhopadhyay S. K., M. V. Santha Kumar, Saha A.K. and Bajpai A.K (2010). Forewarning calendar for thrips and whitefly in Orissa pp 142-43.
4. Pal N. B., Saha A.K. and Bajpai A.K Orrisa – A potential zone for generation of bivoltine seed cocoons for commercial autumn and spring crops of West Bengal.

V. Attended and Papers/ Abstracts presented in Workshop/ Seminar/ Symposium.

1. Symposium on “Recent Advances in Sericulture Research” held at Bangalore, May17-19-2010.

S. Roy Chawdhury Sc-D	R.Banerjee Sc-C	S.K. Gupta Sc-C	S. Chakraborty Sc-B	N. Suresh Kumar Sc-C
A. K. Saha Sc-D	M. K. Singh Sc-C	Shivnath, Sc-C	G.C. Das Sc-C	B.B. Patnaik Sc-B

2. **22nd National Congress on Parasitology, “Advances in Parasitology: A novel approach towards a disease free world” held during 30th October – 1st November, 2010 at University of Kalyani, Kalyani, W.B..**

1. Chakrabarty S., Mitra,P., Hossain,Z., Saha, A.K., Bajpai A.K. and Manna,B. (2010). Studies on immunological impact of some chemicals, botanicals, antibacterial proteins and live non-pathogenic bacteria in silkworm, *Bombyx mori* L. against bacterial disease. 71-72.
2. Mitra,P., Chakrabarty S., D.P.Haldar , P.K.Bandopadhyay and A.K.Bajpai (2010) Studies on some physiological changes in silkworm, *Bombyx mori* L following bacterial inoculation to screen the disease tolerant breeds and hybrids. 65-66.

3. Patnaik B. B. M. Jayalakshmi, A. K. Saha and A. K. Bajpai (2011). Hemagglutinins as possible candidates towards immune defense in the silkworm, *Bombyx mori* L. pp. 69-70.
4. Patnaik, M., Bhattacharya, D.K, Mitra, P.,Saha, A.K. and Bajpai, A.K. (2010). Effect of *Chaetothyrium* sp., a causal agent of sooty mould on silk production of *Bombyx mori*. Abstract : 8.
5. Santha Kumar, M.V., Dutta, P., Chakrabarty, S., Mukhopadhyay, S.K., Das, N.K., Mitra, P., Saha, A.K. and Bajpai, A.K. (2010). Influence of abiotic factors and parasitoid, *Eritmocerus adustiscutum* on the incidence of whitefly, *Dialeuropora decempuncta*. Abstract: 21.

3. National Conference of Plant Physiology. Physiological and Molecular Approaches for Crop Improvement under changing Environment. Held at BHU, Varanasi on 25th & 27th November, 2010

1. Ghosh M. K, P.K. Ghosh, Shiv Nath, A. K. Misra, T. Sengupta, M.K. Singh and A.K. Bajpai. (2010). Physiological Evaluation of Mulberry Genotypes under High Moisture Stress Condition. **Abstract** No. 03-40. pp. 105.
2. Ghosh, M. K., Shiv Nath, S. P. Chakrabarti, A. K. Misra, M.K. Singh and A. K. Bajpai. (2010). Physiological Evaluation of Mulberry Genotypes Suitable under Low pH Soil. **Abstract** No. 03-41. pp. 105.
3. Kar R., P. C. Bose, S. K. Majumder, R. N. Dutta and A. K. Bajpai (2010) Humic acid-a soil conditioner as well as Mulberry (*Morus alba* L.) growth promoter. Abstract, pp. 252.

4. National Conference on Evaluation of Biodiversity of Eastern Himalaya and Adjoining Plains held at University of North Bengal, Siliguri, West Bengal on December 1-4, 2010

1. P. C. Bose, R. Kar, D. Das and S. K. Majumder (2010) Site specific nutrient management in sericulture to maintain biodiversity in Eastern sub-Himalayan region. Abstract, pp. 38-39.

5. National Symposium on Perspective in the Plant Health Management. December 14-16, 2010 Department of Plant Pathology, B. A. College of Agriculture, Anand Agricultural University, Gujarat.

Maji, M. D.; Dutta, S. K. and Maji, C. (2010) Epidemiology and prediction of brown leaf rust of mulberry caused by *Peridiopsisora mori*. S-07.86.pp.61. (ORAL).

6. International Conference on Energy, Environment and Development from Stockholm to Copenhagen, December, 10-12, Sambalpur University, Orissa

Maji, C.; Mukherjee, S.; Das, N. K.; Pandit, D.; Roychodhury, S and Bajpai, A. K (2010) Mulberry sericulture in conservation of soil and environment. BRC-11, p. 57-58.

7. National Conference on Sericulture Innovations: Before and Beyond held during 28th – 29th January, 2011 organized by Central Sericultural Research & Training Institute, Mysore, Karnataka.

1. Bagchi S.N. , Pandit D., Ghosh S., Mitra P., and Bajpai A.K. Impact of TAR-IVLP for development of mulberry sericulture in eastern and northeastern india. TOT/O-2; p 215.
2. **Chakrabarty S., B.Manna, Mitra, P., Hossain,Z., Saha, A.K. and Bajpai A.K. (2011). A comparative on efficacy of different inoculum concentrations of *Nosema* spp for larval mortality and spore multiplication in different seasons and development of pebrine disease in mulberry and vanya silkworms during infection, cross-infection and transovarian transmission. SPP/O -1; p 91.**
3. Chakravarty D., M.Chaudhuri, and A.K. Bajpai. (2011). Studies on the relationship between leaf lamina yield and yield components of some high leaf yielding castor (*Ricinus communis* L.) food plants suitable for ericulture. VHP/P- 8; p 160.
4. Chaudhuri M., D. Chakravarty, N.K.Das, and A.K. Bajpai. (2011). Genetic variability and association of yield and yield traits in RG 2824- a promising castor (*Ricinus communis* L.) food plant for eri silkworm. VHP/P-7; p 159-60.
5. **Datta Biswas T., S. K. Nayak, A. K. Saha and A. K. Bajpai .2011. Screening of some promising multivoltine silkworm breeds for leaf silk conversion efficiency. SIM P -8; p 65.**
6. **Ghosh M.K., Shiv Nath, P.K. Ghosh and A.K. Bajpai. (2011). Development of Low Temperature Stress Tolerant Mulberry Genotype for Eastern and North-Eastern Plains of India. MIM/O-001; p. 01.**
7. **Gogoi, S.N., Handique, P.K. and Boruah, M. Phenotypic variability in plus trees of Som, *Persea bombycina* Kost in North East India VHP/O-1; 157.**
8. **Jalaja S.K., Reddy M.M., Mogli T, Saha S. and Qadri, S.M.H. sodium potassium ratio as an index for determining alkalinity tolerance in mulberry MIM /P- 9; p. 6.**
9. Kar, N.B.; Majumdar, M.K.; Chanda, S.; Saha, L.M.; Saha, A.K. and Bajpai, A.K.(2011) Studies on inter and intra-cocoon variation in physical and tensile properties of raw silk of different voltinism of *Bombyx mori* L. available in West Bengal. PCT/O-2; p-131 .
10. Patnaik, M., Mitra, P., Santha Kumar, M.V., Kar, N.B., Das, N.K., Bhattacharya, D.K., Saha, A.K. and Bajpai, A.K. (2011). Efficacy of new pesticides in controlling whitefly (*Dialeuropora pentatuberculata*) and its impact on silkworm rearing. Abstract : SPP/P-7; p-94.
11. Rajaram, S; Qadri, S.M.H. (2011) Water Use Efficiency in mulberry crop under different types and levels of irrigation for sustainable leaf productivity in ‘Tamil Nadu conditions. MPP/P 10; p 15.
12. **Rao N.R., R.Sahu, B.K.Dikshit, K.C.Brahma. K.V.S.Rao & P.Mitra. Testing of New silkworm Hybrids in different agroclimatic codition of Odisha. SIM/P -15; p 68.**

13. Santha Kumar, M.V., Dutta, P., Chakrabarty, S., Mukhopadhyay, S.K., Das, N.K., Mitra, P., Saha, A.K. and Bajpai, A.K. (2011). Effect of whitefly population and abiotic factors on population dynamics of a native predator, *Micraspis discolor* (Coleoptera : Coccinellidae). Abstract: MPP/O- 1; p 15.
14. Sharma S.P., Ram K. and Prasad B.C. management of gall insect *T. fletcheri* Minor Crawf , a major pest of primary tasar food plants through ecofriendly techniques. VHP/P-9; p 160.

8. International Symposium on System Intensification towards Food & Environmental Security held at BCKV, Kalyani on 24-27 February, 2011.

1. Das, D., Santha Kumar, M.V., Chatterjee, H., Mitra, P. and Majumdar, M.K. (2011). Varietal susceptibility of mulberry (*Morus* sp.) to root mealy bug (*Paraputo* sp.) (Hemiptera : Pseudococcidae) in Darjeeling hills of West Bengal. Abstract no.: O/2 p 25
2. Das, N.K.; Saha; A.K.; Roy Chowdhury, S & Majumdar, M.K. Current status of profitability in mulberry sericulture in Gangetic plains of West Bengal. Abs P 4/?? p. 432.
3. Datta Biswas T., A.K. Saha, S. K. Nayak, A. Ghosh, N. B. Kar and M.K. Majumdar.2011. Studies on the effect of planting geometry in Chawki mulberry garden through moulting and rearing test. Abs. P 2/41 p: 141
4. Dutta, S. K.; Maji, M. D.;Ghosh, A, Roy Chowdhury, S; Choudhuri and Majumdar,M.K. (2011) Study on different diseases severity of mulberry (*Morus alba* L.) in different seasons of Aizawal district (Mizoram). Abs P/4 32 p 301.
5. Kar R., P. C. Bose, S. K. Majumder and A. Ghosh (2011) An account of soil organic carbon reserve under long-term fertilizer experiment in mulberry (*Morus alba* L.). pp. 109-110,
6. Maji, M. D.; Dutta, S. K. and Maji, C. (2011) Epidemiological studies of Powdery mildew of mulberry caused by *Phyllactinia corylea*. Abs. P 4/30 p. 299.
7. Mukhopadhyay, S.K., Roy, B.C., Banerjee, R., Santha Kumar, M.V., Saha, A.K. and Majumder, M.K. (2011). Identification of cultivars for utilizing as infector row during evaluation of mulberry. Abstract no. Abs P 1/27 p 57:
8. Rajaram, S., Qadri, S.M.H. (2011) Water savings in mulberry cultivation through improved micro irrigation under Tamil Nadu conditions. Abs. P 3/15 p 231. (Adjudged as the best research paper presentation and awarded with shield & certificate for the same)
9. Roy Chowdhury, S; Umasankar; Das, N.K.; Sahu, P.K. & Majumdar, M.K.Studies on involvement of women and their contribution share in sericulture activities. Abs. O 6/1 p.423.
10. Sengupta T., Saha A.B., Chatterjee S., Setua M., Ghosh A.,& Bajpai A.K. Performance of waterlogged tolerant mulberry variety in the low land of Murshidabad district of West Bengal. Abs . P 2/42 p 143.

9. National Symposium on Research and Development in Castor : Present status and future Stratiges on 22-23 October 201o at DoR, ICAR, Hyderabad.

Santha Kumar, M.V., Mitra, P., Chakrabarty, D., Patnaik M., Das, N.K., Saha, A.K. and Bajpai, A.K. Seasonal incidence of Jassid *E. flavescens* on various castor genotypes. Abs
Chaudhuri M., Chakravarty D., Biswas T.K., Ghosh A. and A.K. Bajpai. Salient features of castor genotypes RG2824 sining ericulture in West Bengal Abs

10. National Conference on Biotechnology, bioinformatics and bioengineering at Deptt. of Botany Karnatak University during 17-18 December 2010.

Tiwari P.K. Prasad B.C. and Majumder M.K. Application of in vitro techniques in tasar food plants improvement. Abs.

11. Interactive Session on Silkworm Breeding at Satellite Silkworm Breeding Station, Coonoor during 2nd & 3rd December 2010.

Saha A. K., N. Suresh Kumar, G. K. Chattopadhyay, H. Lakshmi, M. K. Majumdar and R.K. Khatri (2010) Present Status and future strategies for development of silkworm breeds/hybrids for Eastern and North-Eastern India. Lead paper pp.17-21

TRAINING ATTENDED

Institute/Place	Subject	Duration	Participants
Seribiotech Laboratory, Bangalore-560 035,	Molecular Biology Techniques	20.05.2010 - 22.05.2010	S K.Gupta Sc-C S.Chakraborty, Sc-C. R. Banerjee Sc-C
Statsoft, Kolkata	Statistica Software.	16.08.2010	R. Banerjee Sc-C
Directorate of Oilseed Research , Hyderabad.	Exposure on castor biology.	24.10.2010- 30.10.2010	M. Chowdhury, Sc-C
NAARM, ICAR, Hyderabad	Winning Research Proposals	28.10.2010 - 03.11.2010	M.K.Ghosh, Sc-D A.K.saha Sc-D R. Banerjee, Sc-C
Tamil Nadu Agricultural University	Advances in molecular techniques in sericulture	22.12.2010- 05.01.2011	P.K.Tewary Sc.- C H. Lakhmi Sc.- C
NAARM, ICAR, Hyderabad	Foundation Training for Young Scientists of CSB	4.01.2011- 18.01.2011	N.Lalitha, , Sc-B H.Lakshmi Sc-B R.L.Ram Sc-B
GB Pant University of Agri. & Tech. Nainital.	Animal Cell Culture Techniques	17.01.11 - 22.01.11	Zakir Hossain. Sc-C
National Productivity Council, Jaipur	Systematic problem solving.	1.02.2011- 05.02.2011	S. Roy Choudhury Sc-D

LBS National Institute of Administrative Research, LBS Mossourie.	Ethics & Values	28.02.2011 – 4.03.2011	A.K. Misra Sc-C S. K. Gupta Sc-C
Indian Institute of Entrepreneurship. Guwahati	Disciplinary Proceeding	03.01.2011- 06.01.2011	R. Singh, Sc.-D
CSR&TI, Berhampore	Mulberry Race Authorization Programme	20.01.2011- 22.01.2011	R. Bhutia Sc.- C M. Pamehgam, Sc.- C A.H.Naqvi, Sc.- C N.R.Rao Sc.- C
Madurai Kamaraj University, Madurai	UGC-NRCBS Visiting Fellow	13.05.2010 – 12.07.2010	B. B. Patnaik, Sc.- B

Award:

- A poster presentation entitled *Water savings in mulberry cultivation through improved micro irrigation under Tamil Nadu conditions*. In the International Symposium on System Intensification towards Food & Environmental Security held at BCKV, Kalyani on 24-27 February, 2011. by S. Rajaram, Scientist-C adjudged as the best poster in the section and awarded with shield & certificate.
- An oral presentation entitled *Epidemiology and prediction of brown leaf rust of mulberry caused by Peridiopsisora mori* by Dr. M. D. Maji, Scientist-C at National Symposium on Perspective in the Plant Health Management. December 14-16, Department of Plant Pathology, B. A. College of Agriculture, Anand Agricultural University, Gujarat adjudged as **2nd Rank**.