

317-402

Administrative Sanction

File No. DBT-NER/AGRI/33/2016
GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF BIOTECHNOLOGY
(NER - BPMC)

Block-2, 7th Floor,
CGO Complex, Lodhi Road
New Delhi-110003

Dated: 22/3 /2018

ORDER

Sanction of the President is hereby accorded under Rule 18 of the Delegation of Financial Powers Rules, 1978 for the implementation of a network project under 'DBT's NER-Banana Program for the NE' by Dr. S. Uma, National Research Centre for Banana, Tiruchirappalli; Dr. Ashok Bhattacharyya, Assam Agricultural University, Jorhat, Assam; Dr. Rakhi Chaturvedi, Indian Institute of Technology, Guwahati, Assam; Dr. K. Soorianathasundram, Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu; Dr. C. K. Narayan, Indian Institute of Horticultural Research, Bengaluru and Dr. Rajappa Joga, ICAR Research Complex for NEH Region Umiam, Meghalaya at a total cost of ₹ 3039.40 Lakhs (Rupees Thirty Crore Thirty Nine Lakhs and Forty Thousand only) for a period of three years on the terms and conditions detailed as under:

2.0 The Project:

Group	Title	Co-ordinator Name	Associate Co-ordinator Name
Group – 1	Banana Biodiversity	Dr. S. Uma National Research Centre for Banana, Tiruchirappalli	Dr Robert Singh Thangjam Mizoram University, Aizawl, Mizoram
Group – 2	Pathogen Detection and Control	Dr. Ashok Bhattacharyya Assam Agricultural University, Jorhat, Assam	Dr. R. Thangavelu National Research Centre for Banana, Tiruchirappalli, Tamil Nadu
Group – 3	Tissue Culture	Dr. Rakhi Chaturvedi Indian Institute of Technology, Guwahati, Assam	Dr. M. S. Saraswathi National Research Centre for Banana, Tiruchirappalli, Tamil Nadu

Group – 4	Value Addition	Dr. K. Soorianathasundram Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu	Dr. Rajlakshmi Devi Institute of Advanced Study in Science and Technology (IASST), Guwahati, Assam
Group – 5	Post Harvest Loss	Dr. C. K. Narayan Indian Institute of Horticultural Research, Bengaluru	-
Group – 6	Down Streaming & Processing	Dr. Rajappa Joga ICAR Research Complex for NEH Region Umiam, Meghalaya	Dr Akshaya Padmakar Gupte N.V. Patel College of Pure and Applied Sciences, Gujarat

2.1 Project Title:

Project Title	
Group 1: Banana Biodiversity	
Sub-Title	App. No. 2: Genome Characterization of Banana/Plantain Genetic Resources of North-eastern Region and their Utilization in Multicenter Planning for Commercial Improvement
	App. No. 3: Exploration of Banana Biodiversity and its Biotechnological Research in Nagaland
	App. No. 7: Diversity Assessment, Germplasm Conservation and Database Development on Bananas resources of North Eastern India
	App. No. 40: Whole genome and transcriptome study of stress-tolerant banana cultivars
	App. No. 75: Collection, evaluation, documentation and conservation of banana genetic resources from north eastern region
	App. No. 90: Consortium for managing Indian banana genetic resources
Group 2: Pathogen Detection and Control	
Sub-Title	App. No. 6: Exploring diversity, genomic and transcriptome profiling and phytosemiochemicals of banana pest complex in NER region- An ecological and molecular approach
	App. No. 9: Screening of Banana germplasm from the NE for Fusarium wilt resistance and molecular characterization in contrasting genotypes
	App. No. 11: Harnessing the potential of endophytes against root knot nematode, <i>Meloidogyne incognita</i> in banana

	App. No. 18: Biotechnological Interventions through RNAi approach for Management of Banana Bunchy Top Virus (BBTV) in Northeast Region of India
	App. No. 61: Molecular dissection of defense against Sigatoka infection in Banana; Exploitation of Musa germplasm of North East for development of Sigatoka-resistant hybrid.
	App. No. 63: Knocking-out the virus: Elimination of the endogenous Banana streak viral sequences from banana through genome editing with CRISPR-Cas9 system
	App. No. 71: Development of <i>Fusarium</i> resistant elite banana cultivars of NE India
	App. No. 78: Screening for resistance to Nematodes in traditional Banana Cultivars and wild species of Tripura and other north-eastern region
Group 3: Tissue Culture	
Sub-Title	App. No. 17: In vitro mass propagation of High value hill area Banana.
	App. No. 67: Seedless plant production and mass scale propagation of <i>Musa balbisiana</i> (Bhimkol banana) of NER using in vitro approaches.
Group 4: Value Addition	
Sub-Title	App. No. 20: Characterization of high value phytochemicals of anti- diabetic and immunomodulatory properties in North Eastern banana varieties
	App. No. 72: Development of seedless Bhimkol (<i>Musa balbisiana</i> , BB genome) through CRISPR/Cas9 and mutation approaches
	App. No. 86: Assessing post-harvest physiological deterioration in banana pre-treated with plant-based natural products using fruit volatiles status and ripening as indicators
Group 5: Post Harvest Loss	
Sub-Title	App. No. 19: Development of pre & postharvest bunch care management methods for fresh bananas
Group 6: Down Streaming & Processing	
Sub-Title	App. No. 31(I): Downstream processing for utilization of banana wastes for natural fiber extraction, fiber based products, biomass briquettes & utility compounds
	App. No. 31(II): Banana fiber extraction by mycogenic pectinase and surface modification through laccase enzymes thereafter – An eco-friendly approach

	App. No. 55: Management of low temperature and soil moisture deficit stresses in banana grown in North Eastern India
	App. No. 73: Value addition of banana (Musa. sp) and creating small scale enterprises of Meghalaya tribal community through minimal processing technology
	App. No. 89: Genetic resource assessment, In-situ on-farm conservation and Impact of banana waste as a feed for animals in Northeast region of India

2.2 Project Investigators

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2.3 Specific Objectives:

2.3.1 Specific Objectives of Group 1:

2.3.1.1 Sub Project Title: Genome Characterization of Banana/Plantain Genetic Resources of North-eastern Region and their Utilization in Multicentre Planning for Commercial Improvement (App. No. 2)

1. Establishment of field gene bank of wild & cultivated banana/plantain and cytomolecular characterization of *Musa* spp.
2. Micro-propagation of *Musa* spp. and establishment of gene bank.

2.3.1.2 Sub Project Title: Exploration of Banana Biodiversity and its Biotechnological Research in Nagaland (App. No. 3)

JNTBG&RI, Thiruvanthapuram (PI: Dr. K. K. Sabu)

1. Development of SSR and EST-SSR markers.
2. Development of micropropagation and in vitro conservation methods.
3. Determination of ploidy status of the collected samples.
4. Genetic diversity and phylogenetic analysis of wild *Musa* spp./14 indigenous varieties.

Kohima Science College, Jotsoma (PI: Dr. Moakum)

1. Collection and characterization of banana germplasm.
2. Development of mass multiplication protocols.
3. Genetic analysis of the edible banana varieties using ISSR markers.

BCKV, Kalyani (PI: Dr. Sanjit Debnath)

1. To evaluate trait specific characters like yield, quality and field tolerance to major insect pests and diseases etc.
2. Molecular characterization of germplasm using AFLP/EST-SSR markers.
3. Multiplication of selected elite/superior clones.

Nagaland University, Medziphema, Nagaland (PI: Dr. Animesh Sarkar)

1. Exploration and collection of banana diversity.
2. Conserving and maintaining banana germplasm.
3. Phenotypic/morphological characterization of the germplasm.

Nagaland University, Medziphema, Nagaland (PI: Dr. Susanta Banik)

1. Survey of banana disease problems in the state of Nagaland.
2. To evaluate the banana germplasms for disease resistance.
3. Evaluation of genetic variability of the banana cultivars using SSR markers.



2.3.1.3 Sub Project Title: Diversity Assessment, Germplasm Conservation and Database Development on Bananas resources of North Eastern India (App. No. 7)

NERIST, Arunachal Pradesh (PI: Dr. S. Sureshkumar Singh)

1. To provide training on field survey and data collection using standardised data formats and questionnaire and herbarium preparation to all research staffs.
2. To enumerate taxonomic characters of all banana collections from the region.
3. To study the karyomorphology and karyotypes of selected species.
4. To characterize Musa genomes using available molecular markers and probes and development of DNA barcodes.
5. To prepare structured data in standard format for development of digital database on bananas of NER.
6. To design, develop and publish an image based digital database on banana resources of NE region in collaboration with NRCB.
7. To establish and maintain a state level banana germplasm collection and conservation centre in Arunachal Pradesh.

NRC Banana, Tiruchirapalli (PI: Dr. Marimuthu Saraswathi)

1. To characterize Musa genomes using available molecular markers and probes and development of DNA fingerprints.
2. To analyse transcriptomes to understand functional and structural aspects of selected Musa genomes using NGS technologies.
3. To screen disease resistant abiotic stress tolerant genes from wild and cultivated banana accessions and development of cloned libraries.
4. To assist in identification of Musa collections and design, develop and publish an image based digital database on banana resources of NE region in collaboration with NERIST.

2.3.1.4 Sub Project Title: Whole genome and transcriptome study of stress- tolerant banana cultivars (App. No. 40)

AAU, Jorhat, Assam (PI: Dr. Mahendra Kumar Modi)

1. Whole genome sequencing of banana cultivar Bhimkol to study the structural variation with published *Musa balbisiana* and *Musa acuminata* genome.
2. To study the Genome-wide differential methylation pattern in Bhimkol (*Musa balbisiana*) through bisulphite sequencing (BS-seq) and identify epi-alleles involved in drought tolerance.
3. Study the alternate gene splicing, if any, in Bhimkol on exposure to abiotic stress (drought).
4. Generation of a co-expressed gene network to understand the interaction between genes and their regulatory elements under stress.

NRC Banana, Tiruchirappalli (PI: Dr. S. Backiyarani)

1. Identification of the best drought tolerant clone of Bhimkol from heterogeneous population.
2. Whole transcriptome profiling of drought tolerant bhimkol clone both under drought and irrigated conditions using Illumina Hi-seq platform.
3. Comparative analysis of drought stress regulated gene expression pattern between control and stressed samples to identify the possible molecular mechanism behind drought tolerance

TNAU, Coimbatore (PI: Dr. Ramalingam J)

1. Identification of microsatellite markers, SNP, total repeat content, and designing of marker specific primers for validation.
2. Construction of genome and transcriptome database (web interface).

2.3.1.5 Sub Project Title: Collection, evaluation, documentation and conservation of banana genetic resources from north eastern region (App. No. 75)

NERIST, Arunachal Pradesh (PI: Dr. Karuna Shrivastava)

1. Survey and collection of accessions from NER and sucker multiplication.
2. Tissue culture multiplication of selected accessions.
3. Development of a digital database.
4. Training workshop and Co-ordination meetings.

Nagaland University, Lumami, Nagaland (PI: Dr. Maibam Romeo Singh)

1. Survey and collection of accessions from NER and sucker multiplication.

NBPGR, New Delhi (PI: Dr. Anuradha Agrawal)

1. In vitro cryo-conservation of selected accessions.

NRC Banana, Tiruchirappalli (PI: Dr M S Saraswathi)

1. Tissue culture multiplication of selected accessions.
2. Conservation in field and in-vitro gene banks.
3. Biochemical analysis of accessions

Gauhati University, Guwahati (PI: Dr. Bhaben Tanti)

1. Survey and collection of accessions from NER and sucker multiplication.
2. Tissue culture multiplication of selected accessions.
3. Field trial and agronomic evaluation of accessions.

Mizoram University, Aizwal (PI: Dr. Thangjam Robert Singh)

1. Survey and collection of accessions from NER and sucker multiplication.
2. Field trial, agronomic evaluations, ploidy level and cytogenetical studies of accessions.

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TERI, New Delhi (PI: Dr Shashi Bhushan Tripathi)

1. Genotyping-by-sequencing (GBS) of all accessions.
2. Analysis of genetic diversity.
3. Capacity building programmes for NER researchers on high throughput molecular markers.

2.3.1.6 Sub Project Title: Consortium for managing Indian banana genetic resources
(App. No. 90)

NRC Banana, Tiruchirapalli (PI: Dr. Uma S)

1. Gap identification of Indian Musa Germplasm and target collection at national and International level
2. Evolutionary studies on banana for its improvement
3. Identification and utilization of parthenocarpic genes in banana
4. Prototype development for QPM production of NE variety
5. Development of Indian banana genetic resource database

P.S.G. College of Technology, Coimbatore (PI: Dr. Selvi Subramanian)

1. Comparative genomic analyses on banana genomes vs available transcriptome data on seedlessness to identify genetic factors regulating parthenocarpic banana fruit development
2. Identification of genetic factors regulating parthenocarpy in banana

NEIST, Arunachal Pradesh (PI: Dr. S. Sureshkumar Singh)

1. To perform field survey for documentation and taxonomic diversity and distribution, traditional knowledge & economic importance of wild and cultivated banana varieties of Arunachal Pradesh.
2. Ecological studies of soil microflora associated with wild species.

Utkal University, Odisha (PI: Dr. Anath Bandhu Das)

1. Understanding the origin of Indian bananas through FISH/GISH techniques.

Tripura University, Tripura (PI: Dr. Sukhen Das)

1. Collection, field conservation and characterization of identified germplasm accessions at Tripura
2. Molecular characterization of germplasm collected at Tripura
3. Multiplication and evaluation of selected germplasm accession for various agro-ecological zones of Tripura



2.3.2 Specific Objectives of Group 2:

2.3.2.1 Sub Project Title: Exploring diversity, genomic and transcriptome profiling and phyto-semiochemicals of banana pest complex in NER region- An ecological and molecular approach (App. No. 6)

Mizoram University, Mizoram (PI: Prof. G. Gurusubramanian)

1. Survey, collection, documentation, and maintenance of wild and cultivated banana varieties and their associated insect pests' complex from North East India.
2. Investigation on species diversity and species dominance of insect pests of banana from North East India.
3. Establishing a Barcoding system for insect pests of banana from NER and creating a database on banana varieties and pests of NER.
4. Genetic differentiation among insect pest populations on cultivated and wild banana varieties from 8 states of NER using COI and ITS2 markers.

NRC Banana, Tiruchirappalli (PI: Dr. B. Padmanaban)

1. Maintenance of Banana germplasm from NER and to survey banana growing areas for the collection of weevil and scarring beetles for taxonomical studies and molecular characterization and search for natural enemies.
2. In vitro phenotyping of NER banana for weevil resistance and Proteomic investigation of larval and adult antennal proteins of scarring beetles.
3. Transcriptome profiling of weevil resistant and susceptible banana and to collect the host plant to isolate and identify volatile Semiochemical and pheromone from banana scarring beetle and to conduct Electrophysiological and behavioural studies for applications

AAU, Jorhat, Assam (PI: Dr. Inee Gogoi)

1. To survey and collect botanical plants.
2. To extract, isolate and characterize bioactive compounds to formulate botanical insecticides, deterrents and repellents to weevil and scarring beetles.
3. To isolate microbial agents for the management of weevil and scarring beetle.
4. To develop IPM for the management of weevil and fruit scarring beetles under lab and field Conditions.

IIHR, Bangalore (PI: Dr. Kamala Jayanthi P D)

1. To identify the phyto-semiochemical cues involved in stem/rhizome weevil pests their host plant, Banana- natural enemy interactions at different trophic levels.
2. To isolate, identify and evaluate these interspecific (kairomone) and intraspecific (pheromone) cues for their behaviour inducing responses, biological activity, short and long range attraction/repulsion.
3. To extract, isolate and characterize bioactive compounds to formulate botanical insecticides, EPN, deterrents and repellents to stem/rhizome weevil pests.

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4. To exploit the potential application of these plant/ insect based semiochemicals as components of stimulo-deterrent diversion strategies for management of stem/rhizome weevil pests of Banana.

2.3.2.2 Sub Project Title: Screening of Banana germplasm from the NE for Fusarium wilt resistance and molecular characterization in contrasting genotypes (App. No. 9)

AAU, Jorhat, Assam (PI: Dr. Ashok Bhattacharyya)

1. Survey, collection, multiplication and screening of banana germplasm from NER for Foc resistance (Race 1 and 4)
2. Transcriptome /marker analysis using contrasting genotypes

IIHR, Bangalore (PI: Dr. K.V. Ravishankar)

1. Survey, collection, multiplication and screening of banana germplasm from NER for Foc (Race 1) resistance
2. Transcriptome /marker analysis using contrasting genotypes

NRC Banana, Tiruchirapalli (PI: Dr. R. Thangavelu)

1. Collection, multiplication and screening of banana germplasm from NER for Foc resistance (Race 1 and 4)

NERIST, Arunachal Pradesh (PI: Dr. S. Sureshkumar Singh)

1. Survey, collection, multiplication and screening of banana germplasm from NER for Foc resistance (Race 1 and 4)

2.3.2.3 Sub Project Title: Harnessing the potential of endophytes against root knot nematode, *Meloidogyne incognita* in banana (App. No. 11)

AAU, Jorhat, Assam (PI: Dr. Bhabesh Bhagawati)

1. To survey and isolate the endophytes occurring in banana (*Musa* spp.) in Assam.
2. To survey and detect nematodes associated with banana through morphological and molecular characterization in Assam.
3. To screen the endophytes under pot culture studies against root knot nematode in Banana.
4. To develop the bio-formulation of promising endophytes.
5. To evaluate bio-formulations against root knot nematode in banana under field condition in Assam.

TNAU, Coimbatore (PI: Dr. P. Vetrivelkakai)

1. To survey and collect native endophytes occurring in Assam along with NER institute.
2. To screen the endophytes in vitro studies against root knot nematode.

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3. To identify the promising endophytes (pooled microbes from all three centres) through molecular characterization.
4. To develop and evaluate bioformulations against nematodes in banana under field condition at Tamil Nadu.
5. To study RNA-Seq- based transcriptome analysis.

Regional Plant Resource Centre, Bhubaneswar (PI: Dr. Nibha Gupta)

1. To survey, collect and isolate the endophytic microbes from banana cultivars of Assam.
2. To identify the microbial isolates (morphological and/or molecular through other collaborating institute/ outsourcing).
3. To screen the isolates for bioactive metabolites (exopolysaccharides, ergosterols, and phenols, organic acids, antimicrobial activity, IAA production). Extracts will be evaluated for Nematicidal properties at other collaborative institutes).
4. To develop the suitable media, mass culture production of promising strains having nematicidal properties).
5. To study the shelf life of commercial formulations.

2.3.2.4 Sub Project Title: Biotechnological Interventions through RNAi approach for Management of Banana Bunchy Top Virus (BBTV) in Northeast Region of India (App. No. 18) (PI: Dr. Priyabrata Sen, Dr. Palash Deb Nath, Dr. T. Robert Singh, Dr. Prabodh Kumar Trivedi, Dr. Basavaprabhu L. Patil, Dr. R. Selvarajan)

1. Collection and evaluation of banana germplasms from NER for BBTV resistance.
2. Generation of RNAi construct(s) against Banana Bunchy Top Virus.
3. Optimization of an *in vitro* regeneration and transformation protocol in two important cultivar (Cheni Champa & Grand Naine) of banana.
4. Functional validation of RNAi through genetic transformation of susceptible varieties (Cheni Champa & Grand Naine) of banana.
5. Metabolite profiling of selected control and genetically transformed plant.

2.3.2.5 Sub Project Title: Molecular dissection of defense against Sigatoka infection in Banana; Exploitation of Musa germplasm of North East for development of Sigatoka- resistant hybrid (App. No. 61)

NRCB and ICAR-NEH (PI: Dr. R. Thangavelu, Dr. Rajesha Giriappa)

1. Collection, isolation and study the genetic diversity of Sigatoka leaf spot pathogen of banana from North East regions of India
2. Screening of banana germplasm of North East India for their reaction to Sigatoka leaf spot pathogen and identification of agronomically superior variety resistant/tolerant to Sigatoka leaf spot disease under field condition
3. Conducting pathogenicity studies by artificial inoculation under controlled condition
4. Isolation and characterization of pathotoxins from *Mycosphaerella* spp.



5. Development and validation of molecular methods for the detection of Sigatoka leaf spot pathogen

AAU, JNU and WBSU (PI: Priyadarshini Bhorali, Dr. Nirala Ramchiary, Dr. Krishna Ray)

1. Study global defense transcriptomes of Sigatoka infected banana for identification and characterization of defense related genes and pathogen effectors
2. Profiling and identification of non coding RNAs and their target genes involved in defense signaling and thereby resistance against Sigatoka disease
3. Screening for Sigatoka resistant banana accessions and their hybrids cultivated in NER through plant defense induced biochemical indicator analysis correlating the defense transcriptome

2.3.2.6 Sub Project Title: Knocking-out the virus: Elimination of the endogenous Banana streak viral sequences from banana through genome editing with CRISPR-Cas9 system (App. No. 63)

ICAR- Research complex For NEH Region, Manipur (PI: Dr. Susheel Kumar Sharma)

1. *In silico* analysis of whole genome reference sequences of "Pisang Klutuk Wulung PKW" (BB) banana to identify the structure of integrated badna viral sequences in *Musa B* genome
2. Transient and stable transformation with sgRNA, cgRNA and CRISPR-Cas9/CRISPR-Cpf1 constructs using protoplast or embryogenic cell suspensions of banana cultivar Bhimkol (BB) and development of mutants free of potential episomal BSVs
3. Pathogenicity analysis of BSVs on developed Bhimkol mutants and understanding the host-pathogen interactions

NRC Banana, Tiruchirappalli (PI: Dr. Dr. R. Selvarajan)

1. *In silico* analysis of whole genome reference sequences of "Double Haploid Pahang" (AA) banana to identify the structure of integrated badna viral sequences in *Musa A* genome
2. Transient and stable transformation with sgRNA, cgRNA and CRISPR-Cas9/CRISPR-Cpf1 constructs using protoplast or embryogenic cell suspensions of banana cultivar Chini Champa (AAB) and development of mutants free of potential episomal BSVs
3. Pathogenicity analysis of BSVs on developed Chini Champa mutants and understanding the host-pathogen interactions

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IIHR, Bangalore (PI: Dr. M. Manamohan)

1. Bioinformatic analysis of targets in the integrated eBSV sequences for selection of guide RNAs (gRNA) and off-target removal to develop strategies for genome editing
2. Development of CRISPR resources optimized for banana and binary constructs of sgRNA, cgRNA and CRISPR-Cas9/CRISPR-Cpf1

2.3.2.7 Sub Project Title: Development of *Fusarium* resistant elite banana cultivars of NE India (App. No. 71)

TNAU, Coimbatore (PI: D. Sudhakar)

1. Cloning of *Fusarium* transcription factor 1(*ftf1*) genes and development of RNAi construct with root specific promoter to suppress gene expression.
2. Genetic transformation of susceptible varieties of (Rasthali (AAB) / Grand naine (AAA) types) with RNAi constructs targeting *velvet* and/or *ftf1* genes.

AAU, Jorhat, Assam (PI: Dr. Salvinder Singh)

1. Cloning of *velvet* gene and development of RNAi construct with root specific promoter to suppress gene expression.
2. Genetic transformation of popular cultivars with RNAi constructs targeting *velvet* and/or *ftf1* genes.

2.3.2.8 Sub Project Title: Screening for resistance to Nematodes in traditional Banana Cultivars and wild species of Tripura and other north-eastern region (App. No. 78) (PI: Dr. Sukhen Chandra Das, Dr. M. S. Rao)

1. To assemble and screen for resistance and tolerance attributes in Musa genotypes of NER (Tripura/IIHR).
2. To understand the Chemical basis of susceptibility and resistance (Tripura/IIHR)

2.3.3 Specific Objectives of Group 3:

2.3.3.1 Sub Project Title: In vitro mass propagation of High value hill area Banana (App. No. 17)

Sikkim University (PI: Dr. Laxuman Sharma)

1. Establishment of *in vitro* propagation method and Mass multiplication of BSV virus free plants for Sikkim (Chini Champa AAB, Ghew Kera (AAA)
2. Hardening and Field Evaluation of Invitro raised plants

Guru Nanak Dev University, Amritsar (PI: Pratap Kumar Pati)

1. Development of an efficient *in vitro* propagation system for recalcitrant Banana germplasms of NER using various explants
2. Hardening of *in vitro* raised plants and assessment of their genetic uniformity

Nagaland University (PI: Dr. C. S. Maiti)

1. Identification and screening of virus free Banana explants
2. Mass multiplication of BSV free Banana suitable for Nagaland
3. Hardening of Invitro raised plants
4. Field evaluation for performance of Invitro raised plants

NRC Banana, Tiruchirappalli (PI: Dr M. S. Saraswathi)

1. Molecular characterization of the *Musa* spp. and their wild relatives collected from the North Eastern states of India.
2. Identification of Fusarium wilt resistant wild *Musa* spp. through pot culture studies.
3. Development of variety specific tissue culture protocols for the mass multiplication of unique landraces of North Eastern India. (We may include Amrit sagar (AAA), Sabri (AAB- Silk), Digjowa (AAB- Silk), Bharatmoni (AAA – unique)
4. Bio, Physical and Chemical priming of tissue culture plant for growth and vigour

2.3.3.2 Sub Project Title: Seedless plant production and mass scale propagation of *Musa balbisiana* (Bhimkol banana) of NER using in vitro approaches (App. No. 67)

IIT Guwahati (PI: Dr. Rakhi Chaturvedi)

1. To develop Seedless Triploid plants of *Musa balbisiana* by in vitro endosperm culture using any two superior varieties, one each of Athiyakol and Bhimkol, as will be identified by AAU Jorhat
2. To develop seedless Haploid plants of *M. balbisiana* by in vitro anther culture using two superior varieties, one each of Athiyakol and Bhimkol, as will be identified by AAU Jorhat
3. Ploidy analysis of in vitro raised Haploid/Triploid plantlets
4. Clonal-propagation and hardening of in vitro plantlets

AAU, Jorhat (PI: Mr. Manab Bikash Gogoi)

1. Morphological screening and identification of superior germplasm of *Musa balbisiana* (Athiyakol and Bhimkol) of Assam.
2. To standardize protocol for *in vitro* regeneration using tissue culture technique to establish haploid/triploid plantations of identified varieties of *Athiyakol* and Bhimkol

JNU, New Delhi (PI: Prof. Neera Bhalla Sarin)

1. To establish triploid/haploid cultures of *M. balbisiana* in any two superior varieties, one each of Athiyakol and Bhimkol, as will be identified by AAU Jorhat using endosperm/anther cultures
2. To check clonal fidelity and genetic variation of in vivo and in vitro regenerated plants by RAPD/ ISSR markers

2.3.4 Specific Objectives of Group 4:

2.3.4.1 Sub Project Title: Characterization of high value phytochemicals of anti-diabetic and immunomodulatory properties in North Eastern banana varieties (App. No. 20)

North Eastern Hill University, Tura Campus, (PI: Dr. C.P. Suresh)

1. To quantify and profile the amount and type of flavonoids present in the fruits of the regions.
2. To quantify and profile the type of anthocyanin pigments in bracts of banana flowers (with special reference to 'B' genome banana genotypes).

NRC Banana, Tiruchirappalli (PI: Dr. Muthu M. Vaganan)

1. To determine of glycemic index of bananas in different ripening stages.
2. To detect and quantify the low-glycemic isomaltulose sugar and fructans content in the pulp of fruits of banana genotypes (with special reference to 'B' genome banana genotypes) of North-Eastern states.
3. To assay in *in vitro* the immunomodulatory properties of banana fructans.
4. To characterize bioactive compounds from banana biowastes namely, pseudostem and rhizome.

IASST, Guwahati (PI: Dr. Rajlakshmi Devi)

1. To isolate and characterize bioactive compounds from banana species *Musa balbisiana* (Bhimkol).
2. To enumerate the bioactive properties in vivo by assaying antioxidant and anti-diabetic activity in rat model experiments.

THSTI, Faridabad (PI: Dr. Sanjay Banerjee)

1. To assay *in vivo* the immunomodulatory activity of *Musa balbisiana* extracts in rat model.
2. To isolate and identify active fraction from the extract and elucidation of the molecular mechanisms in cells.

Assam Down Town University, Guwahati (PI: Dr. Ananya Kashyap)

1. To enumerate the bioactive properties of banana extracts in vivo by assaying antioxidant potential and anti-cancer using animal experiments.

2.3.4.2 Sub Project Title: Development of seedless Bhimkol (*Musa balbisiana*, BB genome) through CRISPR/Cas9 and mutation approaches (App. No.72)

Institute of Life Sciences, Bhubaneswar, Odisha (PI: Dr. Nrisingha Dey)

1. Isolation and cloning of 20 nt guide RNA (gRNA) spacer with appropriate adapters of *Inner No Outer* (INO) gene of Bhimkol into RNA-guided genome editing (RGE) binary vector.

Assam Agricultural University, Jorhat (PI: Dr. Salvinder Singh)

1. Genetic transformation of Bhimkol with RGE vector harbouring 20 nt gRNA-spacer mediated through *Agrobacterium* using embryogenic calli using protocol available in TNAU.

Tamil Nadu Agricultural University, Coimbatore (PI: Dr. K. Soorianathasundaram)

1. To standardize protocols for somatic embryogenesis in cv. Bhimkol.
2. To induce mutagenesis of somatic embryos of cv. Bhimkol
3. To screen the mutant population for seedlessness and desirable attributes

2.3.4.3 Sub Project Title: Assessing post-harvest physiological deterioration in banana pre-treated with plant-based natural products using fruit volatiles status and ripening as indicators (App. No. 86)

Indian Institute of Technology, Kharagpur (Prof. Adinipunya Mitra)

1. To prepare a cheap and plant-based aldehyde natural product (PBANP) for post-harvest treatment of plucked banana.
2. To study the consequence of PBANP treatment on defense enzyme activities and fruit ripening in plucked banana during post-harvest storage.
3. To study the consequence of PBANP application on post-harvest fruit ripening status by analysis of volatile forming enzyme activities and volatilome landscape.

Mizoram University, Aizawl (Dr. Thanjam Singh)

1. To establish and maintain commercial cultivars of NER banana namely, Vaibalhla (M. acuminata AAA group), (M. acuminata AAA group), Banria (Musa AB group), Lawngbalhla (Musa AAB group), Meitei Hei (Musa ABB group) for physiological studies.
2. To check the consequence of PBANP pre-treatment in plucked banana on reduction of disease incidence.
3. To analyze the physiological status of banana fruit maturation.

2.3.5 Specific Objectives of Group 5:

2.3.5.1 Sub Project Title: Development of pre and postharvest bunch care management methods for fresh bananas (App. No. 19)

1. Testing, validation and refinement of pre-harvest practices developed elsewhere in India for producing high quality bananas popular in the state and region (Shabri, Gopi, Cheenichampa, Jahaji, Grand Naine, Malbhog and Bheemkol).
2. Developing protocols for better post harvest management of fresh bananas according to cultivars for retention of quality and longer shelf life.
3. Demonstration, training and entrepreneurial skill development programmes for establishment of packhouses and small scale processing/ value addition centres in the regions to rural and tribal farmers.

2.3.6 Specific Objectives of Group 6:

2.3.6.1 Sub Project Title (I): Downstream processing for utilization of banana wastes for natural fiber extraction, fiber based products, biomass briquettes & utility compounds (App. No. 31)

1. Developing fiber extraction methods by physical, mechanical and microbial methods
2. Developing novel industrially important compounds like hemicelluloses, pectin, enzymes and citric acid using banana wastes
3. Dissemination of developed technologies and commercialization of the fiber for economic upliftment and entrepreneurship development

2.3.6.2 Sub Project Title (II): Banana fiber extraction by mycogenic pectinase and surface modification through laccase enzymes thereafter – An eco-friendly approach (App. No. 31)

1. Optimization of Pectinase and Lacase enzyme producing fungal strains and standardization of their production parameters.
2. Standardization of enzymatic processing parameters for high yield of quality banana fiber with higher tensile strength, spinability and blending potentiality with another natural fiber like Eri
3. Comparison of banana fiber obtained from bio-enzymatic and other approaches
4. Characterization of mycogenic crude pectinase and laccase enzyme (s) and molecular identification of the potent fungal isolates
5. Optimization of processing parameters for effective surface modification of banana fibers utilizing mycogenic laccase enzyme(s)
6. Optimization for enhancement of fermentable sugar yields from post-banana fiber extracted cellulosic agro-waste using mycogenic laccase enzyme
7. Development of scalable bioconversion process for Ferulic acid (FA) production from banana stem waste

2.3.6.3 Sub Project Title: Management of low temperature and soil moisture deficit stresses in banana grown in North Eastern India (App. No. 55)

Assam Agricultural University, Jorhat

1. To identify NER banana genotypes including wild species, land races and cultivars for soil moisture deficit and low temperature stress tolerance
2. To identify the critical growth phases of banana to soil moisture deficit stress and low temperature stress in NER banana cultivars
3. To study the mechanism of soil moisture deficit stress and low temperature tolerance in NER banana cultivars

NRC Banana, Tiruchirappalli

1. To identify NER banana genotypes including wild species, land races and cultivars for soil moisture deficit stress tolerance
2. To identify the critical growth phases of banana to soil moisture deficit stress in NER banana cultivars
3. To study the mechanism of soil moisture deficit and low temperature stress tolerance in NER banana cultivars
4. To study proteomics of cold stress tolerance in NER banana genotypes and comparison of proteomic expression data with other crops including *Arabidopsis*
5. Capacity building of NER scientists on abiotic stress tolerance methods in banana

2.3.6.4 Sub Project Title: Value addition of banana (*Musa. sp*) and creating small scale enterprises of Meghalaya tribal community through minimal processing technology (App. No. 73)

North-Eastern Hill University, Shillong

1. To study the physicochemical properties of selected banana variety(s) of Meghalaya
2. To select suitable probiotic(s) strain through in-vitro/in-vivo (in products) trials
3. To standardise, formulate and processing condition in development of probiotic(s) fortified banana value added product(s) and its shelf life study
4. To create small-scale enterprises, capacity building and assess the effectiveness of developed product(s) value chain interventions of local tribal community

NRC Banana, Tiruchirappalli

1. To study the physicochemical properties of selected banana variety(s) of Meghalaya
2. To popularise suitable banana variety(s) to improve economic security, sustainability and livelihood of tribal people of Meghalaya

2.3.6.5 Sub Project Title: Genetic resource assessment, In-situ on-farm conservation and Impact of banana waste as a feed for animals in Northeast region of India (App. No.89)

1. To assess and evaluate the banana genetic resources of Northeast India for its suitability as a fodder for cattle and pig
 2. To introduce low cost farmer friendly sexual and asexual propagation technology among the ethnic groups of NEH for the mass multiplication of Banana species suitable for fodder use
 3. Assessment of potential regions for cultivation/In-situ on-farm conservation of NE banana landraces using Ecological Niche Modeling
 4. To develop GIS map, Banana database and Banana Atlas of Northeast region (inventory of diversity and distribution of banana genetic resources in NE states of India)
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2.4 Time Schedule:

The duration of the project is **three** years from the date of issue of sanction order.

2.5 Equipment Details:**Group-1****2.5.1 Utkal University, Bhubaneswar (PI: Prof. Anath Bandhu Das)****(₹ in lakhs)**

S. No.	Item	Grant Recommended
1	Renovation of tissue culture lab and culture racks and accessories	2.00
2	Net House (400 sqft.)	2.00
Total		4.00

2.5.2 Tripura University (PI: Prof. Rabindra Kumar Sinha)**(₹ in lakhs)**

S. No.	Item	Grant Recommended
1	Green House (600 sqft) and Net House (600 sq ft) renovation and upgradation	11.00
2	Renovation of tissue culture lab and culture racks with light arrangements	4.00
Total		15.00

2.5.3 NBRI, Lacknow (PI: Dr.Satya Narayan Jena)

Nil

2.5.4 JNTBG&RI, Thiruvanthapuram (PI: Dr. Sabu K. K.)**(₹ in lakhs)**

S. No.	Item	Grant Recommended
1	Qubit Fluorometer	2.65
2	Rack Server/Workstation	2.25
Total		4.90

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2.5.5 Kohima Science College, Jotsoma (PI: Dr. Moaakum)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Camera with zoom & macro lens	0.50
2	Microcentrifuge	0.80
3	Micro pipettes	0.86
4	Electrophoresis unit with power supply Microscope	1.20
5	Ice flaker	2.50
6	Gel documentation system	5.00
7	GPS	0.50
8	Polyhouse/Shade net house	2.44
Total		13.80

2.5.6 Nagaland University, Medziphema, Nagaland (PI: Dr. Animesh Sarkar)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Spectrophotometer	1.50
2	Hot water bath	0.16
3	Microscope	1.44
4	PCR machine	5.00
5	Orbital shaking Incubator	1.52
6	Water purification system	7.07
7	Vortex	0.12
8	Horizontal electrophoresis system	0.75
9	Deep freezer -20 °C	1.00
10	Polyhouse/Shade net house	2.50
Total		21.06

2.5.7 Bidhan Chandra Krishi Viswavidyalaya, Kalyani (PI: Dr. Sanjit Debnath)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	PCR (Gradient) Machine	5.00
2	Micro Centrifuge	0.80
3	Gel Electrophoresis	1.20
Total		7.00

2.5.8 Nagaland University, Medziphema, Nagaland (PI: Dr. Sushant Banik)
(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Freezer	1.00
Total		1.00

2.5.9 NERIST, Arunachal Pradesh (PI: Dr. S. Sureshkumar Singh)
(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Steriomicroscope with Microphotography	2.05
2	Storage Drives	2.00
3	Digital SLR camera with Zoom Lens	0.50
4	Micropipettes	1.73
5	Field Kits set	1.00
6	Gel Electrophoresis (Submarine)	1.20
7	Gradient Thermal Cycler	5.05
8	Gel Doc System with PC	5.00
9	Online UPS (5KVA+3 hrs battery backup)	1.85
10	Refrigerated centrifuge	4.98
11	GPS	0.50
12	Herbarium Cabinets	1.50
13	Deep Freezer (-20°C)	1.00
Total		28.36

2.5.10 NRC Banana, Tiruchirapalli (PI: Dr. M. S. Saraswathi)
(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Horizontal Autoclave with thermograph and without door	7.85
2	Conductivity meter	1.50
3	Hot air oven	1.20
Total		10.55

2.5.11 AAU, Jorhat, Assam (PI: Dr. M. K. Modi)
(₹ in lakhs)

S. No.	Item	Grant Recommended
1	High Performance Cluster Server	30.00
2	20 KVA UPS with 2-hour backup	5.00
Total		35.00

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2.5. 12 NRC Banana, Tiruchirapalli (PI: Dr. Backiyarani S)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Storage Server	5.00
Total		5.00

2.5. 13 TNAU, Coimbatore (PI: Dr. Ramalingam J)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Real Time PCR	8.00
Total		8.00

2.5. 14 NERIST, Arunachal Pradesh (PI: Dr. Karuna Shrivastava)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Tissue culture mobile work station	4.00
2	Laminar air flow (medium size)	1.05
3	Air curtain	0.20
4	Orbital Shaking Incubator	3.26
5	Mist chamber /green house	5.18
6	DSLR Camera	0.50
Total		14.19

2.5. 15 Mizoram University, Mizoram (PI: Dr. Thangjam Robert Singh)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Flow Cytometer	21.93
2	Inverted Phase contrast Microscope & imaging facility	1.44
Total		23.37

2.5. 16 Nagaland University, Lumami, Nagaland (PI: Dr. M. Romeo Singh)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Camera	0.20
2	Shade House	2.50
Total		2.70

2.5. 17 Gauhati University, Guwahati (PI: Dr. Bhaben Tanti)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Nanodrop	6.87
2	Deep Freezer (-86 degree)	3.91
3	Horizontal Laminar Air Flow	1.05
4	Digital Hot Air Oven	0.28
5	Water Bath (Serological)	0.26
6	Air Curtain	0.20
7	Vortex Mixture	0.18
Total		12.75

2.5. 18 TERI, New Delhi (PI: Dr. Shashi Bhushan Tripathi)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	-20° C deep freezer	0.94
Total		0.94

2.5. 19 NRC Banana, Tiruchirapalli (PI: Dr. M. S. Saraswathi)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Laminar Air Flow	1.05
2	Air curtain 3 ft	0.20
Total		1.25

2.5. 20 NBPGR, New Delhi (PI: Dr. Anuradha Agrawal)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Water Purification System	8.00
Total		8.00

2.5. 21 NRC Banana, Tiruchirapalli (PI: Dr. Uma S)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Flowcytometer setup with all accessories	23.00
Total		23.00

13 /

2.5. 22 P. S. G. College of Technology, Coimbatore
NIL

2.5. 23 **NERIST, Arunachal Pradesh (PI: Dr. S. Sureshkumar Singh)**
(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Stereozoom Microscope with accessories	1.50
2	Transmittance Compound Microscope with Microphotography attachments and imaging software	7.00
3	Digital SLR Camera with Zoom lens	0.50
Total		9.00

2.5. 24 **Utkal University, Odisha (PI: Dr. Anath Bandhu Das)**
(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Micro centrifuge	0.50
2	LN2 Container	1.00
Total		1.50

2.5. 25 **Tripura University (PI: Dr. Sukhen Das)**
(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Hot Air Oven	0.87
2	pH meter	0.50
3	Spectrophotometer	1.50
4	PCR	5.00
5	Gel Documentation system	3.50
6	Autoclave	3.00
7	Deep Freezer (-20°C)	1.00
8	Microscope	1.44
9	Weighing Balance	0.88
Total		17.69

W/

Group-2

2.5.26 Mizoram University, Mizoram (PI: Prof. G. Gurusubramanian)
(₹ in lakhs)

Sl. No	Item	Grant Recommended
1	Mastercycler nexus gradient	4.00
2	Bio Spectrometer	4.00
3	UPS 2 KVa	0.95
Total		8.95

2.5.27 NRC Banana, Tiruchirappalli (PI: Dr. B Padmanaban)
(₹ in lakhs)

Sl. No	Item	Grant Recommended
1	Observer 5.0 software for behavioural study	5.00
2	Software for Electroantenna graphic detector	2.00
Total		7.00

2.5.28 AAU, Jorhat, Assam (PI: Dr. Inee Gogoi)
(₹ in lakhs)

Sl. No.	Item	Grant Recommended
1	Deep freezers (-20° C)	2.19
2	Soxhlet apparatus	2.00
3	Spectrofluorometer	5.00
4	Weighing balance	0.50
Total		9.69

2.5.29 IIHR, Bangalore (PI: Dr. Kamala Jayanthi P D)
(₹ in lakhs)

Sl. No.	Item	Grant Recommended
1	Customized olfactometers	1.50
2	Automontage software	2.00
3	Liquid Nitrogen container	0.50
4	Deep Freezer	2.00
Total		6.00

N /

2.5.30 AAU, Jorhat, Assam (PI: Dr. Ashok Bhattacharyya)

(₹ in lakhs)

Sl. No.	Item	Grant Recommended
1	Net House	0.61
2	Micro pipette	0.95
3	Electrophoresis Set	0.87
Total		2.43

2.5.31 IIHR, Bengaluru (PI: Dr. K. V. Ravishankar)

(₹ in lakhs)

Sl. No.	Item	Grant Recommended
1	Spectrophotometer	4.00
Total		4.00

2.5.32 NRC Banana, Tiruchirappalli (PI: Dr. R. Thangavelu)

Nil

2.5.33 NERIST, Arunachal Pradesh (PI: Dr. S. Sureshkumar Singh)

Nil

2.5.34 AAU, Jorhat, Assam (PI: Dr. Bhabesh Bhagawati)

(₹ in lakhs)

Sl. No.	Item	Grant Recommended
1	Digital camera	0.62
2	BOD Incubator cum Orbital shaking Incubator	2.50
3	Trinocular compound Microscope with image analyzer	3.00
4	Haemocytometer	0.15
5	Micro pipettes	0.65
6	Polyhouse construction*	2.99
Total		9.91

2.5.35 TNAU, Coimbatore (PI: Dr. P. Vetrivelkalai)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Gel documentation with power backup	4.00
2	Gel electrophoresis (Midi) without power supply	0.20
3	Liquid nitrogen can	0.25
Total		4.45

2.5.36 Regional Plant Resource Centre, Bhubaneswar, Odisha
(PI: Dr. Nibha Gupta)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Analytical Balance	0.50
2	Multi tube vortexer	0.50
3	Microcentrifuge	0.50
Total		1.50

2.5.37 AAU, Jorhat, Assam (PI: Dr. Priyabrata Sen)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Refrigerated Centrifuge	5.00
Total		5.00

2.5.38 AAU, Jorhat, Assam (PI: Dr. Palash Deb Nath)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Gel Documentation System	4.21
Total		4.21

2.5.39 Mizoram University, Aizwal (PI: Dr. T. Robert Singh)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Real-Time PCR	7.00
2	3 KVA Online UPS – 30 min back up	0.95
4	Plant Tissue Culture work station	3.60
Total		11.55

2.5.40 NBRI, Lucknow (PI: Dr. Prabodh Kumar Trivedi)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	-70oC Deep Freezer	4.00
Total		4.00

2.5.41 NRCPB, New Delhi (PI: Dr. Basavaprabhu L. Patil)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Real-Time PCR	4.00
Total		4.00

2.5.42 NRC Banana, Tiruchirappalli (PI: Dr. R. Selvarajan)

NIL

2.5.43 AAU, Jorhat, Assam (PI: Dr. Priyadarshini Bhorali)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Pathogen infection chamber with Dew Formation	25.00
2	Table top refrigerated centrifuge	3.50
Total		28.50

2.5.44 ICAR Complex for NEH Region, Nagaland (PI: Dr. Rajesha Giriappa)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Phase contrast Microscope with camera	11.00
2	Vacuum flash evaporator	2.00
3	Table top refrigerated centrifuge	5.00
Total		18.00

2.5.45 NRC Banana, Tiruchirappalli (PI: Dr. R. Thangavelu)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Gel documentation system with accessories	4.00
Total		4.00

2.5.46 JNU, New Delhi (PI: Dr. Nirala Ramchiary)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Computational workstation/server for long non coding analysis	3.50
Total		3.50

2.5.47 West Bengal State University, Kolkata (PI: Dr. Krishna Ray)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Protein gel apparatus with power pack	2.00
2	Renovation of controlled green house	1.00
Total		3.00

**2.5.48 ICAR Research Complex for NEH Region, Manipur Centre
(PI: Dr. Susheel Kumar Sharma)**

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Refrigerated incubator cum shaker	2.50
2	Biosafety Cabinet with accessories	2.00
3	Deep Freezer with online UPS	2.00
4	Growth Chamber	5.98
5	Image analysis software and accessories	3.00
Total		15.48

2.5.49 NRC Banana, Tiruchirapalli (PI: Dr. R. Selvarajan)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Genome Station for NGS data analysis	5.00
2	Image analysis software	2.00
Total		7.00

2.5.50 IIHR, Bangalore (PI: Dr. M. Manamohan)

Nil

2.5.51 TNAU, Coimbatore (PI: Dr. D. Sudhakar)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Stackable Refrigerated Incubator Shaker	5.00
2	Reverse Osmosis unit	1.50
Total		6.50

2.5.52 AAU, Jorhat, Assam (PI: Dr. Salvinder Singh)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	- 20°C freezer	2.19
2	Growth Chamber	5.98
Total		8.17

2.5.53 College of Agriculture, Lembucherra, Tripura
(PI: Dr. Sukhen Chandra Das)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	G.P.S	0.50
2	Poly house/Green House	4.00
3	Phase contrast Microscope	3.00
4	Trinocular Stereo Zoom Microscope	0.50
5	Autoclave	1.99
6	Centrifuge	2.85
7	Semi Automatic cryostat Microtom	5.50
Total		18.34

2.5.54 IIHR, Bengaluru (PI: Dr. M. S. Rao)
NIL

Group-3

2.5.55 Sikkim University (PI: Dr. Laxuman Sharma)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Midi Horizontal electrophoresis	0.74
2	Vertical electrophoresis system	2.10
3	Power Pack for Electrophoresis	0.63
4	BOD Incubator	1.74
5	Heating equipments for incubation chamber, etc.	0.49
6	Electronic Balance	1.50
7	Dual wavelength UV Transilluminator	1.50
8	Digital Water Bath	0.69
9	KIT, 6 LAMP, 302nm, GD/CD/XRS Part	0.55
Total		9.94

2.5.56 **Guru Nanak Dev University, Amritsar (PI: Pratap Kumar Pati)**
(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Laminar air flow	2.00
Total		2.00

2.5.57 **Nagaland University, Medziphema, Nagaland (PI: Dr. C. S. Maiti)**
(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Laminar Airflow cabinet vertical	2.12
2	Bench top pH meter	0.60
3	Tissue culture rack	1.37
4	Rotary flask shaker	1.20
5	Magnetic stirrer-hot plate	0.60
6	Analytical balance	1.67
7	Vortex mixture	0.16
8	Micropipette with tip	0.35
9	Water distillation unit	0.91
10	Hot Air oven	0.55
11	Horizontal Electrophoresis Apparatus	0.37
12	Electrophoresis power supply digital unit	0.35
13	Refrigerated centrifuge	2.26
14	Gel documentation system	7.88
15	Thermal Cycler	2.88
Total		23.27

2.5.58 **NRC Banana, Trichirapalli (PI: Dr M. S. Saraswathi)**
(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Electro Magnetic Induction Chamber	2.00
2	High Precision Electronic balance (Four digits with max weighing capacity 220 g)	1.01
Total		3.01

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2.5.59 IIT, Guwahati (PI: Dr. Rakhi Chaturvedi)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Inverted Microscope with Fluorescence	14.00
2	Ultra low temperature freezer (-80°C)	4.20
3	Spinwin	0.26
4	Vortex	0.61
6	Liquid nitrogen container	0.32
Total		19.39

2.5.60 AAU, Jorhat, Assam (PI: Mr. Manab Bikash Gogoi)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Analytical balance	1.20
2	Vertical Autoclave	1.75
4	Stereoscopic Microscope	6.00
5	Deep Freezer	6.00
Total		14.95

2.5.61 JNU, New Delhi (PI: Prof. Neera Bhalla Sarin)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Shaker	8.38
2	Laminar Air Flow	0.80
3	Autoclave	0.71
Total		9.89

Group-4

2.5.62 NEHU, Tura Campus, Meghalaya (PI: Dr. C.P. Suresh)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	HPLC with UV visible and fluorescence detectors	18.00
2	Rotary flash evaporator	3.00
3	Water bath	0.40
4	Spectrophotometer	4.00
5	Deep Freezer	2.00
6	Electronic analytical balance	0.60
7	Refrigerated high speed centrifuge	2.00
Total		30.00

2.5.63 NRC Banana, Tiruchirappalli (PI: Dr. Muthu M. Vaganan)
(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Pulsed Amperometric (Electrochemical) Detector	7.00
2	Banana Ripening Chambers (2 Nos.)	2.00
3	Electronic analytical balance	1.00
Total		10.00

2.5.64 IASST, Guwahati (PI: Dr. Rajlakshmi Devi)
(₹ in lakhs)

S. No.	Item	Grant Recommended
1	BP instruments for small animals	5.50
Total		5.50

2.5.65 THSTI, Faridabad (PI: Dr. Sanjay Banerjee)
(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Hypoxic Chamber	6.00
Total		6.00

2.5.66 Assam Down Town University, Guwahati (PI: Dr. Ananya Kashyap)
(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Balance BL 120 –120 gm to 0.1 mg*	0.50
2	Muffle furnace IIC 106A Laboratory Electric Muffle furnace	0.39
3	Hot air oven	0.51
4	Laminar Air Flow Cabinet BTI-31 (HM-1)	1.10
5	Germicidal Lamp	0.06
6	Autoclave	2.18
Total		4.74

2.5.67 AAU, Jorhat (PI: Dr. Salvinder Singh)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Stackable refrigerated incubator Shaker with illumination	11.80
2	BOD Incubator	2.97
3	Steroscopic Microscope with photograph facility	5.00
Total		19.77

2.5.68 TNAU, Coimbatore (PI: Dr. K.Soorianathasundaram)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Refrigerated incubator shaker with accessories (photosynthetic light bank & raiser)	6.50
2	Cold Incubator	2.57
Total		9.07

2.5.69 Institute of Life Sciences, Bhubaneswar (PI: Dr. Nrishingha Dey)

NIL

2.5.70 IIT Kharagpur, West Bengal (PI: Prof. Adinpunya Mitra)

(₹ in lakhs)

Sl. No	Item	Grant Recommended
1	Incubation Chamber for fruit ripening	5.00
2	Autosampler for GC-MS	4.99
Total		9.99

2.5.71 Mizoram University, Aizaawl (PI: Dr. Thanjgam Singh)

(₹ in lakhs)

Sl. No	Item	Grant Recommended
1	Rotary Evaporator	3.95
2	HPCL semi-preparative-cum-analysis	17.92
3	Spares and Accessories	0.12
Total		21.99

W

Group-5

2.5.72 **College of Agriculture, Tripura (PI: Dr. Thingreingam KS)**
(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Portable Ethylene Gas Analyser	2.79
2	Oxy Baby (O2/CO2 Analyser)	3.80
3	GPS	0.55
4	Fruit Penetrometer	0.79
5.	Portable fruit colour	4.40
6.	Single distillation unit	0.26
7.	Cold Room-cum-Ripening Chamber	3.83
8.	Shrink wrapping machine	0.74
9.	Microplate reader	6.00
10.	Chlorophyll meter	4.04
11	Refractometer	0.44
12	Vortex mixer	0.18
13	Water bath	0.33
17.	Lab development	2.00
Total		30.15

2.5.73 **NRC Banana, Tiruchirapalli (PI: Dr. Suresh Kumar)**
(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Texture analyser	10.00
Total		10.00

2.5.74 **IIHR, Bangalore (PI: Dr. Narayana C.K)**
(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Handmade paper making machine	4.00
Total		4.00

Group-6

2.5.75 AAU, Jorhat, Assam (PI: Dr. Pritom Kumar Borthakur)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Banana fiber extracting machine	0.69
2	Fiber based plate making unit	3.50
3	Digital fruit pressure tester	1.49
4	Electronic balance	0.30
5	Water bath	0.68
Total		6.66

2.5.76 NRC Banana, Tiruchirapalli (PI: Dr. P. Suresh Kumar)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Nano composites and personal hygienic products	6.50
2	BOD incubator	0.50
3	Paper cup machine	
4	Data loggers	
5	Deep freezer	
6	Water bath	
Total		7.00

2.5.77 National Institute of Technology, Trichy (PI: Dr. M. Perumalsamy)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Bioreactor	1.00
2	Deep freezer	1.00
Total		2.00

2.5.78 TERI, Guwahati (PI: Dr Indrani Sarma)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Microprocessor Colony Counter(1)	0.40
2	Universal Testing Machine (1)	10.53
3	Raspador Fiber Machine(1)	0.68
Total		11.61

2.5.79 N.V. Patel College of Pure and Applied Sciences, Gujarat
(PI: Dr Akshaya Padmakar Gupte)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	For High Speed Shaker	2.00
Total		2.00

2.5.80 AAU, Jorhat, Assam(PI: Dr. Prakash Kalita)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	UV-Vis Spectrophotometer	3.50
2	Portable Photosynthesis system	15.60
3	Conductivity Meter	0.40
4	Analytical Balance	0.50
5	10 KVA UPS with 2hrs. backup	1.00
6	Soil moisture meter	2.47
7	Plant stress Kit (Portable Fluorescence meter)	5.67
8	Water bath	0.50
9	Hot air oven	0.36
Total		30.00

2.5.81 NRC Banana, Tiruchirapalli (PI: Dr. Iyyakutty Ravi)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Walk in plant growth chamber	8.00
2	Nitrogen Gas Dryer	1.50
3	Vapor Pressure Osmometer	3.50
4	PAR Quantum Meter	1.00
5	Green Seeker Handheld crop sensor	1.00
Total		15.00

2/

2.5.82 NEHU, Tura Campus, Meghalaya (PI: Mr. Sasikumar Raju)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	Spray Dryer	20.00
2	Fermentor	4.00
3	Freeze Dryer	10.26
4	Encapsulator (Non-Sterile)	12.00
5	Vacuum Packaging Machine	2.00
Total		48.26

2.5.83 NRC Banana, Tiruchirapalli (PI: Dr. Thirunagnavel A)
NIL

2.5.84 ICAR Research Complex for NEH Region, Umiam
(Dr. Rajappa Joga)

(₹ in lakhs)

S. No.	Item	Grant Recommended
1	UPS-10 KV A	3.45
Total		3.45

2.5.85 NBPGR, Regional Station-Hyderabad (PI: Dr. Sivaraj N)
NIL

2.5.86 NRC Banana, Tiruchirapalli (PI: Dr. Thirugnanavel A)
NIL

2.6 Manpower:

Fellowship Conditions:

A year wise detail of manpower as proposed has been furnished below. HRA will be as per the Govt. Norms, an indication as stated below for the JRF and SRF's emoluments will be provided as a part of sanction order. JRF shall be ₹ 25,000/- + HRA for the 1st two years and ₹ 28,000/- + HRA for the 3rd year for SRF and applicable, (JRF - Post graduate Degree in Basic Science with NET qualification or graduate degree in Professional course with NET qualification or post graduate degree in professional course)

JRF without NET qualification shall be ₹ 12,000/- + HRA for the 1st two years and ₹ 14,000/- + HRA for the 3rd year for SRF

- For JRF/SRF/RA salary is as per the revised DST OM SR/S9/Z-09/2012, dated October 21, 2014.
- For Project Assistant salary is as per the revised DST OM C.30011/1/2007-IFD, dated 21st July 2008.

W

Group-1

2.6.1 Utkal University, Bhubaneswar (PI: Prof. Anath Bandhu Das)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.2 Tripura University, Tripura (PI: Prof. Rabindra Kumar Sinha)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.3 NBRI, Lucknow (PI: Dr. Satya Narayan Jena)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.4 JNTBG&RI, Thiruvanthapuram (PI: Dr. Sabu K. K.)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2/

2.6.5 Kohima Science College, Jotsoma (PI: Dr. Moaakum)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (2)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	6.60	6.60	7.39	20.59
Total			6.60	6.60	7.39	20.59

2.6.6 Nagaland University, Medziphema, Nagaland (PI: Dr. Animesh Sarkar)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.7 BCKV, Kalyani (PI: Dr. Sanjit Debnath)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 30 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 30 % HRA for 3 rd yr	3.90	3.90	4.37	12.17
Total			3.90	3.90	4.37	12.17

2.6.8 Nagaland University, Medziphema, Nagaland (PI: Dr. Sushant Banik)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.9 NERIST, Arunachal Pradesh (PI: Dr. S. Sureshkumar Singh)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (2)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	6.60	6.60	7.39	20.59
Total			6.60	6.60	7.39	20.59

2.6.10 NRC Banana, Tiruchirapalli (PI: M. S. Saraswathi)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.11 AAU, Jorhat, Assam (PI: Dr. M. K. Modi)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.12 NRC Banana, Tiruchirapalli (PI: Dr. Backiyarani S)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.13 TNAU, Coimbatore (PI: Dr. Ramalingam J)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.14 NERIST, Arunachal Pradesh (PI: Prof. Karuna Shrivastava)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.15 Mizoram University (PI: Dr. Thangjam Robert Singh)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.16 Nagaland University, Lumami, Nagaland (PI: Maibam Romeo Singh)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.17 Gauhati University, Guwahati (PI: Dr. Bhaben Tanti)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.18 TERI, New Delhi (PI: Dr. Shashi Bhushan Tripathi)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 30 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 30 % HRA for 3 rd yr	3.90	3.90	4.37	12.17
Total			3.90	3.90	4.37	12.17

2.6.19 NRC Banana, Tiruchirapalli (PI: Dr. M. S. Saraswathi)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.20 NBPGR, New Delhi (PI: Dr. Anuradha Agrawal)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 30 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 30 % HRA for 3 rd yr	3.90	3.90	4.37	12.17
Total			3.90	3.90	4.37	12.17

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2.6.21 NRC Banana, Tiruchirapalli (PI: Dr. Uma S)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.22 P. S. G. College of Technology, Coimbatore (PI: Dr. Selvi Subramanian)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.23 NERIST, Arunachal Pradesh (PI: Dr. S. Sureshkumar Singh)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.24 Utkal University, Odisha (PI: Dr. Anath Bandhu Das)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.25 Tripura University (PI: Dr. Sukhen Das)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (2)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	6.60	6.60	7.39	20.59
Total			6.60	6.60	7.39	20.59

Group-2

2.6.26 Mizoram University, Mizoram (PI: Prof. G. Gurusubramanian)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (2)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	6.60	6.60	7.39	20.59
Total			6.60	6.60	7.39	20.59

2.6.27 NRC Banana, Tiruchirappalli (PI: Dr. B Padmanaban)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.28 AAU, Jorhat, Assam (PI: Dr. Inee Gogoi)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (2)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	6.60	6.60	7.39	20.59
Total			6.60	6.60	7.39	20.59

2.6.29 IIHR, Bengaluru (PI: Dr. Kamala Jayanthi P D)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 30 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 30 % HRA for 3 rd yr	3.90	3.90	4.37	12.17
Total			3.90	3.90	4.37	12.17

2.6.30 AAU, Jorhat, Assam (PI: Dr. Ashok Bhattacharyya)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (2)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	6.60	6.60	7.39	20.59
Total			6.60	6.60	7.39	20.59

2.6.31 IIHR, Bengaluru (PI: Dr. K. V. Ravishankar)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 30 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 30 % HRA for 3 rd yr	3.90	3.90	4.37	12.17
Total			3.90	3.90	4.37	12.17

2.6.32 NRC Banana, Tiruchirappalli (PI: Dr. R. Thangavelu)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

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2.6.33 NERIST, Arunachal Pradesh (PI: Dr. S. Sureshkumar Singh)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.34 AAU, Jorhat, Assam (PI: Dr. Bhabesh Bhagawati)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (2)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	6.60	6.60	7.39	20.59
Total			6.60	6.60	7.39	20.59

2.6.35 TNAU, Coimbatore (PI: Dr. P. Vetrivelkalai)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.36 Regional Plant Resource Centre, Bhubaneswar Odisha (PI: Dr. Nibha Gupta)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.37 AAU, Jorhat, Assam (PI: Dr. Priyabrata Sen)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (2)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	6.60	6.60	7.39	20.59
Total			6.60	6.60	7.39	20.59

2.6.38 AAU, Jorhat, Assam (PI: Dr. Palash Deb Nath)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (2)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	6.60	6.60	7.39	20.59
Total			6.60	6.60	7.39	20.59

2.6.39 Mizoram University, Aizwal (PI: Dr. T. Robert Singh)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.40 NBRI, Lucknow (PI: Dr. Prabodh Kumar Trivedi)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.41 NRCPB, New Delhi (PI: Dr. Basavaprabhu L. Patil)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 30 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 30 % HRA for 3 rd yr	3.90	3.90	4.37	12.17
Total			3.90	3.90	4.37	12.17

2.6.42 NRC Banana, Tiruchirappalli (PI: Dr. R. Selvarajan)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.43 AAU, Jorhat, Assam (PI: Dr. Priyadarshini Bhorali)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.44 ICAR Complex for NEH Region, Nagaland Centre (PI: Dr. Rajesha Giriappa)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.45 NRC Banana, Tiruchirapalli (PI: Dr. R. Thangavelu)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.46 JNU, New Delhi (PI: Dr. Nirala Ramchiary)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 30 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 30 % HRA for 3 rd yr	3.90	3.90	4.37	12.17
Total			3.90	3.90	4.37	12.17

2.6.47 West Bengal State University, Kolkata (PI: Dr. Krishna Ray)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 30 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 30 % HRA for 3 rd yr	3.90	3.90	4.37	12.17
Total			3.90	3.90	4.37	12.17

2.6.48 ICAR Research Complex for NEH Region, Manipur Centre (PI: Dr. Susheel Kumar Sharma)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.49 NRC Banana, Tiruchirappalli (PI: Dr. R. Selvarajan)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.50 IIHR, Bengaluru (PI: Dr. M. Manamohan)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 30 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 30 % HRA for 3 rd yr	3.90	3.90	4.37	12.17
Total			3.90	3.90	4.37	12.17

2.6.51 TNAU, Coimbatore (PI: Dr. D. Sudhakar)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.52 AAU, Jorhat- Assam (PI: Dr. Salvinder Singh)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (2)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	6.60	6.60	7.39	20.59
Total			6.60	6.60	7.39	20.59

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2.6.53 College of Agriculture, Lembucherra, Tripura (PI: Dr. Sukhen Chandra Das)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.54 IIHR, Bengaluru (PI: Dr. M. S. Rao)

(₹ in lakhs)

S. No	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 30 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 30 % HRA for 3 rd yr	3.90	3.90	4.37	12.17
Total			3.90	3.90	4.37	12.17

Group-3

2.6.55 Sikkim University (PI: Dr. Laxuman Sharma)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.56 Guru Nanak Dev University, Amritsar (PI: Pratap Kumar Pati)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.57 Nagaland University, Medziphema, Nagaland (PI: Dr. C. S. Maiti)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (2)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	6.60	6.60	7.39	20.59
Total			6.60	6.60	7.39	20.59

2.6.58 NRC Banana, Trichirapalli (PI: Dr M. S. Saraswathi)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.59 IIT Guwahati (PI: Dr. Rakhi Chaturvedi)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.60 AAU, Jorhat, Assam (PI: Mr. Manab Bikash Gogoi)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.61 JNU, New Delhi (PI: Prof. Neera Bhalla Sarin)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 30 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 30 % HRA for 3 rd yr	3.90	3.90	4.37	12.17
Total			3.90	3.90	4.37	12.17

Group-4

2.6.62 NEHU, Tura Campus (PI: Dr. C.P. Suresh)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.63 NRC Banana, Tiruchirappalli (PI: Dr. Muthu M. Vaganan)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.64 IASST, Guwahati (PI: Dr. Rajlakshmi Devi)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.65 THSTI, Faridabad (PI: Dr. Sanjay Banerjee)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 30 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 30 % HRA for 3 rd yr	3.90	3.90	4.37	12.17
Total			3.90	3.90	4.37	12.17

2.6.66 Assam Down Town University, Guwahati (PI: Dr. Ananya Kashyap)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.67 AAU, Jorhat, Assam (PI: Dr. Salvinder Singh)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.68 TNAU, Colmbatore (PI: Dr. K. Soorianathasundaram)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

N/

2.6.69 Institute of Life Sciences, Bhubaneswar, Odisha (PI: Dr. Nrishingha Dey)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.70 IIT Kharagpur, West Bengal (PI: Prof. Adinpunya Mitra)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1st & 2nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.71 Mizoram University, Aizawl (PI: Dr. Thanjgam Singh)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1st & 2nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

Group-5

2.6.72 College of Agriculture, Tripura (PI: Dr. Thingreingam KS)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (2)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	6.60	6.60	7.39	20.59
Total			6.60	6.60	7.39	20.59

2.6.73 NRC Banana, Tiruchirapalli (PI: Dr. Suresh Kumar)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.74 IIHR, Bangalore (PI: Dr. Narayana C.K)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 30 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 30 % HRA for 3 rd yr	3.90	3.90	4.37	12.17
Total			3.90	3.90	4.37	12.17

Group-6

2.6.75 AAU, Jorhat, Assam (PI: Dr. Pritom Kumar Borthakur)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.76 NRC Banana, Tiruchirapalli (PI: Dr. P. Suresh Kumar)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.77 National Institute of Technology, Trichy (PI: Dr. M. Perumalsamy)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.78 TERI, Guwahati (PI: Dr Indrani Sarma)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.79 N.V. Patel College of Pure and Applied Sciences, Gujarat (PI: Dr Akshaya Padmakar Gupte)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.80 AAU, Jorhat, Assam (PI: Dr. Prakash Kalita)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.81 NRC Banana, Tiruchirapalli (PI: Dr. Iyyakutty Ravi)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.82 NEHU, Tura Campus (PI: Mr. Sasikumar Raju)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 10 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 10 % HRA for 3 rd yr	3.30	3.30	3.70	10.30
Total			3.30	3.30	3.70	10.30

2.6.83 NRC Banana, Tiruchirapalli (Dr. Thirunagavel A)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.6.84 ICAR Research Complex for NEH Region, Umiam (PI: Dr. Rajappa Joga)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (2)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	7.20	7.20	8.06	22.46
Total			7.20	7.20	8.06	22.46

2.6.85 NBPGR, Regional Station-Hyderabad (PI: Dr. Sivaraj N)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 30 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 30 % HRA for 3 rd yr	3.90	3.90	4.37	12.17
Total			3.90	3.90	4.37	12.17

2.6.86 NRC Banana, Tiruchirapalli (PI: Dr. Thirugnanavel A)

(₹ in lakhs)

S. No.	Position (No.)	Consolidated Emolument	1 st Year	2 nd Year	3 rd Year	Total
1	JRF/SRF (1)	JRF @ ₹ 25,000/- + 20 % HRA for the 1 st & 2 nd yr SRF @ ₹ 28,000/- + 20 % HRA for 3 rd yr	3.60	3.60	4.03	11.23
Total			3.60	3.60	4.03	11.23

2.7 Budget Estimate:

Groups	Total cost of the project (₹ in lakhs)
Group-1	906.77
Group-2	904.37
Group-3	288.95
Group-4	388.08
Group-5	116.94
Group-6	434.29
Total	3039.40

2.8 Budget Details:

Group-1

2.8.1 Utkal University, Bhubaneswar (PI: Prof. Anath Bandhu Das)

(₹ in lakhs)

	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	4.00	0.00	0.00	4.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	2.00	2.00	2.00	6.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.50	0.50	0.50	1.50
	Recurring Total	7.10	7.10	7.53	21.73
	TOTAL (NR + R)	11.10	7.10	7.53	25.73

2.8.2 Tripura University (PI: Prof. Rabindra Kumar Sinha)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	15.00	0.00	0.00	15.00
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	3.00	3.00	3.00	9.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	8.30	8.30	8.70	25.30
	TOTAL (NR + R)	23.30	8.30	8.70	40.30

2.8.3 NBRI, Lucknow (PI: Dr. Satya Narayan Jena)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	0.00	0.00	0.00	0.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	2.00	2.00	2.00	6.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.50	0.50	0.50	1.50
	Recurring Total	7.10	7.10	7.53	21.73
	TOTAL (NR + R)	7.10	7.10	7.53	21.73

2.8.4 JNTBG&RI, Thriruvanthapuram (PI: Dr. Sabu K. K.)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	4.90	0.00	0.00	4.90
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	2.50	2.50	2.00	7.00
4.	Travel & Field Trip	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.50	0.50	0.50	1.50
	Recurring Total	7.60	7.60	7.53	22.73
	TOTAL (NR + R)	12.50	7.60	7.53	27.63

2.8.5 Kohima Science College, Jotsoma (PI: Dr. Moaakum)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	13.80	0.00	0.00	13.80
	Recurring				
2.	Manpower	6.60	6.60	7.39	20.59
3.	Consumables	3.00	3.00	3.00	9.00
4.	Travel & Field Trip	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	11.60	11.60	12.39	35.59
	TOTAL (NR + R)	25.40	11.60	12.39	49.39

2.8.6 Nagaland University, Medziphema, Nagaland (PI: Dr. Animesh Sarkar)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	21.06	0.00	0.00	21.06
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	2.00	2.00	2.00	6.00
4.	Travel & Field Trip	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	7.30	7.30	7.70	22.30
	TOTAL (NR + R)	28.36	7.30	7.70	43.36

2.8.7 BCKV, Kalyani (PI: Dr. Sanjit Debnath)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	7.00	0.00	0.00	7.00
	Recurring				
2.	Manpower	3.90	3.90	4.37	12.17
3.	Consumables	2.00	2.00	2.00	6.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.50	0.50	0.50	1.50
	Recurring Total	7.40	7.40	7.87	22.67
	TOTAL (NR + R)	14.40	7.40	7.87	29.67

2.8.8 Nagaland University, Medziphema, Nagaland (PI: Dr. Sushant Banik)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	1.00	0.00	0.00	1.00
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	3.50	3.50	3.00	10.00
4.	Travel & Field Trip	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.50	0.50	0.50	1.50
	Recurring Total	8.30	8.30	8.20	24.80
	TOTAL (NR + R)	9.30	8.30	8.20	25.80

2.8.9 NERIST, Arunachal Pradesh (PI: Dr. S. Sureshkumar Singh)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	28.36	0.00	0.00	28.36
	Recurring				
2.	Manpower	6.60	6.60	7.39	20.59
3.	Consumables	3.00	3.00	3.00	9.00
4.	Establishment of Germplasm Centre	7.00	5.00	3.00	15.00
5.	Training/Workshop	3.00	2.00	1.00	6.00
6.	Travel	0.50	0.50	0.50	1.50
7.	Contingency	0.50	0.50	0.50	1.50
8.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	21.60	18.60	16.39	56.59
	TOTAL (NR + R)	49.96	18.60	16.39	84.95

2.8.10 NRC Banana, Tiruchirapalli (PI: Dr. M. S. Saraswathi)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	10.55	0.00	0.00	10.55
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	2.00	2.00	2.00	6.00
4.	Training/Workshop	1.00	1.00	1.00	3.00
5.	Travel	0.50	0.50	0.50	1.50
6.	Contingency	0.50	0.50	0.50	1.50
7.	Overhead Charge	0.50	0.50	0.50	1.50
	Recurring Total	8.10	8.10	8.53	24.73
	TOTAL (NR + R)	18.65	8.10	8.53	35.28

2.8.11 AAU, Jorhat, Assam (PI: Dr. M. K. Modi)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	35.00	0.00	0.00	35.00
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	20.00	11.00	1.00	32.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	25.30	16.30	6.70	48.30
	TOTAL (NR + R)	60.30	16.30	6.70	83.30

2.8.12 NRC Banana, Tiruchirapalli (PI: Dr. Backiyarani S)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	5.00	0.00	0.00	5.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	2.00	8.00	3.00	13.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.50	0.50	0.50	1.50
	Recurring Total	7.10	13.10	8.53	28.73
	TOTAL (NR + R)	12.10	13.10	8.53	33.73

2.8.13 TNAU, Coimbatore (PI: Dr. Ramalingam J)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	8.00	0.00	0.00	8.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	1.00	1.00	1.00	3.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.50	0.50	0.50	1.50
	Recurring Total	6.10	6.10	6.53	18.73
	TOTAL (NR + R)	14.10	6.10	6.53	26.73

2.8.14 NERIST, Arunachal Pradesh (PI: Dr. Karuna Shrivastava)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	14.19	0.00	0.00	14.19
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	2.00	2.00	1.00	5.00
4.	Establishment of banana germplasm conservation plots at two places in Arunachal Pradesh	2.00	0.50	0.50	3.00
5.	Travel	0.50	0.50	0.50	1.50
6.	Contingency	0.50	0.50	0.50	1.50
7.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	9.30	7.80	7.20	24.30
	TOTAL (NR + R)	23.49	7.80	7.20	38.49

2.8.15 Mizoram University, Mizoram (PI: Dr. Thangjam Robert Singh)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	23.37	0.00	0.00	23.37
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	1.50	1.50	1.50	4.50
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	6.80	6.80	7.20	20.80
	TOTAL (NR + R)	30.17	6.80	7.20	44.17

2.8.16 Nagaland University, Lumami, Nagaland (PI: Dr. Maibam Romeo Singh)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	2.70	0.00	0.00	2.70
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	1.50	1.50	2.00	5.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.50	0.50	0.50	1.50
	Recurring Total	6.30	6.30	7.20	19.80
	TOTAL (NR + R)	9.00	6.30	7.20	22.50

2.8.17 Gauhati University, Guwahati (PI: Dr. Bhaben Tanti)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	12.75	0.00	0.00	12.75
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	5.00	2.00	1.00	8.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	10.60	7.60	7.03	25.23
	TOTAL (NR + R)	23.35	7.60	7.03	37.98

2.8.18 TERI, New Delhi (PI: Dr. Shashi Bhushan Tripathi)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	0.94	0.00	0.00	0.94
	Recurring				
2.	Manpower	3.90	3.90	4.37	12.17
3.	Consumables	2.70	2.70	2.60	8.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.50	0.50	0.50	1.50
	Recurring Total	8.10	8.10	8.47	24.67
	TOTAL (NR + R)	9.04	8.10	8.47	25.61

2.8.19 NRC Banana, Tiruchirapalli (PI: Dr. M. S. Saraswathi)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	1.25	0.00	0.00	1.25
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	2.00	1.50	1.50	5.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.50	0.50	0.50	1.50
	Recurring Total	7.10	6.60	7.03	20.73
	TOTAL (NR + R)	8.35	6.60	7.03	21.98

2.8.20 NBPGR, New Delhi (PI: Dr. Anuradha Agrawal)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	8.00	0.00	0.00	8.00
	Recurring				
2.	Manpower	3.90	3.90	4.37	12.17
3.	Consumables	1.00	1.00	1.00	3.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.50	0.50	0.50	1.50
	Recurring Total	6.40	6.40	6.87	19.67
	TOTAL (NR + R)	14.40	6.40	6.87	27.67

2.8.21 NRC Banana, Tiruchirapalli (PI: Dr. Uma S)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	23.00	0.00	0.00	23.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	2.00	4.00	2.00	8.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.50	0.50	0.50	1.50
	Recurring Total	7.10	9.10	7.53	23.73
	TOTAL (NR + R)	30.10	9.10	7.53	46.73

W/

2.8.22 P. S. G. College of Technology, Coimbatore (PI: Dr. Selvi Subramanian)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	0.00	0.00	0.00	0.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	1.00	1.00	1.00	3.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.50	0.50	0.50	1.50
	Recurring Total	6.10	6.10	6.53	18.73
	TOTAL (NR + R)	6.10	6.10	6.53	18.73

2.8.23 NERIST, Arunachal Pradesh (PI: Dr. S. Sureshkumar Singh)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	9.00	0.00	0.00	9.00
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	0.50	0.50	0.50	1.50
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	5.80	5.80	6.20	17.80
	TOTAL (NR + R)	14.80	5.80	6.20	26.80

2.8.24 Utkal University, Odisha (PI: Dr. Anath Bandhu Das)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	1.50	0.00	0.00	1.50
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	1.00	2.00	1.00	4.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.50	0.50	0.50	1.50
	Recurring Total	6.10	7.10	6.53	19.73
	TOTAL (NR + R)	7.60	7.10	6.53	21.23

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2.8.25 Tripura University (PI: Dr. Sukhen Das)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	(Equipments & accessories)	17.69	0.00	0.00	17.69
	Recurring				
2.	Manpower	6.60	6.60	7.39	20.59
3.	Consumables	1.00	1.00	1.00	3.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	9.60	9.60	10.39	29.59
	TOTAL (NR + R)	27.29	9.60	10.39	47.28

Group-2

2.8.26 Mizoram University, Mizoram (PI: Prof. G. Gurusubramanian)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	8.95	0.00	0.00	8.95
	Recurring				
2.	Manpower	6.60	6.60	7.39	20.59
3.	Consumables	5.00	3.00	2.00	10.00
4.	Field visit/Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.50	1.25	1.25	4.00
	Recurring Total	14.10	11.85	11.64	37.59
	TOTAL (NR + R)	23.05	11.85	11.64	46.54

2.8.27 NRC Banana, Tiruchirappalli (PI: Dr. B Padmanaban)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	7.00	0.00	0.00	7.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	1.50	1.50	1.00	4.00
4.	Travel	0.50	0.50	0.25	1.25
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.25	0.25	0.25	0.75
	Recurring Total	6.35	6.35	6.03	18.73
	TOTAL (NR + R)	13.35	6.35	6.03	25.73

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2.8.28 AAU, Jorhat, Assam (PI: Dr. Inee Gogoi)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	9.69	0.00	0.00	9.69
	Recurring				
2.	Manpower	6.60	6.60	7.39	20.59
3.	Consumables	2.00	1.50	1.50	5.00
4.	Travel/Field Trip	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.25	1.25	1.00	3.50
	Recurring Total	10.85	10.35	10.89	32.09
	TOTAL (NR + R)	20.54	10.35	10.89	41.78

2.8.29 IIHR, Bangalore (PI: Dr. Kamala Jayanthi P D)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	6.00	0.00	0.00	6.00
	Recurring				
2.	Manpower	3.90	3.90	4.37	12.17
3.	Consumables	2.00	1.00	1.00	4.00
4.	Travel	0.50	0.50	0.25	1.25
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.25	0.25	0.25	0.75
	Recurring Total	7.15	6.15	6.37	19.67
	TOTAL (NR + R)	13.15	6.15	6.37	25.67

2.8.30 AAU, Jorhat, Assam (PI: Dr. Ashok Bhattacharyya)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	2.43	0.00	0.00	2.43
	Recurring				
2.	Manpower	6.60	6.60	7.39	20.59
3.	Consumables	3.00	4.00	2.00	9.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	11.60	12.60	11.39	35.59
	TOTAL (NR + R)	14.03	12.60	11.39	38.02

W

2.8.31 IIHR, Bengaluru (PI: Dr. K. V. Ravishankar)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	4.00	0.00	0.00	4.00
	Recurring				
2.	Manpower	3.90	3.90	4.37	12.17
3.	Consumables	2.00	1.00	1.00	4.00
4.	Travel	0.50	0.50	0.25	1.25
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.25	0.25	0.25	0.75
	Recurring Total	7.15	6.15	6.37	19.67
	TOTAL (NR + R)	11.15	6.15	6.37	23.67

2.8.32 NRC Banana, Tiruchirappalli (PI: Dr. R. Thangavelu)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	0.00	0.00	0.00	0.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	1.00	0.50	0.50	2.00
4.	Travel	0.25	0.25	0.25	0.75
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.25	0.25	0.00	0.50
	Recurring Total	5.60	5.10	5.28	15.98
	TOTAL (NR + R)	5.60	5.10	5.28	15.98

2.8.33 NERIST, Arunachal Pradesh (PI: Dr. S. Sureshkumar Singh)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	0.00	0.00	0.00	0.00
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	0.00	0.00	0.00	0.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.50	0.50	0.25	1.25
	Recurring Total	4.80	4.80	4.95	14.55
	TOTAL (NR + R)	4.80	4.80	4.95	14.55

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2.8.34 AAU, Jorhat, Assam (PI: Dr. Bhabesh Bhagawati)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	9.91	0.00	0.00	9.91
	Recurring				
2.	Manpower	6.60	6.60	7.39	20.59
3.	Consumables	3.00	3.00	3.00	9.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.50	1.25	1.25	4.00
	Recurring Total	12.10	11.85	12.64	36.59
	TOTAL (NR + R)	22.01	11.85	12.64	46.50

2.8.35 TNAU, Colmbatore (PI: Dr. P. Vetrivelkalai)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	4.45	0.00	0.00	4.45
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	1.00	1.00	1.00	3.00
4.	RNA-Seq- based Transcriptome analysis	0.00	5.00	0.00	5.00
5.	Travel	0.50	0.50	0.25	1.25
6.	Contingency	0.50	0.50	0.50	1.50
7.	Overhead Charge	0.25	0.25	0.25	0.75
	Recurring Total	5.85	10.85	6.03	22.73
	TOTAL (NR + R)	10.30	10.85	6.03	27.18

2.8.36 Regional Plant Resource Centre, Bhubaneswar, Odisha (PI: Dr. Nibha Gupta)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	1.50	0.00	0.00	1.50
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	1.25	1.00	0.75	3.00
4.	Travel	0.50	0.50	0.25	1.25
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.25	0.25	0.25	0.75
	Recurring Total	6.10	5.85	5.78	17.73
	TOTAL (NR + R)	7.60	5.85	5.78	19.23

2.8.37 AAU, Jorhat, Assam (PI: Dr. Priyabrata Sen)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	5.00	0.00	0.00	5.00
	Recurring				
2.	Manpower	6.60	6.60	7.39	20.59
3.	Consumables	6.00	3.00	2.00	11.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.25	1.25	1.00	3.50
	Recurring Total	14.85	11.85	11.39	38.09
	TOTAL (NR + R)	19.85	11.85	11.39	43.09

2.8.38 AAU, Jorhat, Assam (PI: Dr. Palash Deb Nath)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	4.21	0.00	0.00	4.21
	Recurring				
2.	Manpower	6.60	6.60	7.39	20.59
3.	Consumables	3.00	3.00	3.00	9.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	11.60	11.60	12.39	35.59
	TOTAL (NR + R)	15.81	11.60	12.39	39.80

2.8.39 Mizoram University, Aizawl (PI: Dr. T. Robert Singh)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	11.55	0.00	0.00	11.55
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	2.00	2.00	2.00	6.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	7.30	7.30	7.70	22.30
	TOTAL (NR + R)	18.85	7.30	7.70	33.85

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2.8.40 NBRI, Lucknow (PI: Dr. Prabodh Kumar Trivedi)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	4.00	0.00	0.00	4.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	2.00	1.00	1.00	4.00
4.	Travel	0.50	0.50	0.25	1.25
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.25	0.25	0.25	0.75
	Recurring Total	6.85	5.85	6.03	18.73
	TOTAL (NR + R)	10.85	5.85	6.03	22.73

2.8.41 NRCPB, New Delhi (PI: Dr. Basavaprabhu L. Patil)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	4.00	0.00	0.00	4.00
	Recurring				
2.	Manpower	3.90	3.90	4.37	12.17
3.	Consumables	2.00	1.00	1.00	4.00
4.	Travel	0.50	0.50	0.25	1.25
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.25	0.25	0.25	0.75
	Recurring Total	7.15	6.15	6.37	19.67
	TOTAL (NR + R)	11.15	6.15	6.37	23.67

2.8.42 NRC Banana, Tiruchirappalli (PI: Dr. R. Selvarajan)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	0.00	0.00	0.00	0.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	1.00	1.00	1.00	3.00
4.	Travel	0.50	0.50	0.25	1.25
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.25	0.25	0.25	0.75
	Recurring Total	5.85	5.85	6.03	17.73
	TOTAL (NR + R)	5.85	5.85	6.03	17.73

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2.8.43 AAU, Jorhat, Assam (PI: Dr. Priyadarshini Bhorali)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	28.50	0.00	0.00	28.50
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	3.00	2.00	3.00	8.00
4.	Outsourcing of transcriptome sequencing	0.00	4.00	0.00	4.00
5.	Travel	0.50	0.50	0.50	1.50
6.	Contingency	0.50	0.50	0.50	1.50
7.	Overhead Charge	1.50	1.25	1.25	4.00
	Recurring Total	8.80	11.55	8.95	29.30
	TOTAL (NR + R)	37.30	11.55	8.95	57.80

2.8.44 ICAR Complex for NEH Region, Nagaland Centre (PI: Dr. Rajesha Giriappa)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	18.00	0.00	0.00	18.00
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	3.00	3.00	2.00	8.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.25	1.25	1.00	3.50
	Recurring Total	8.55	8.55	7.70	24.80
	TOTAL (NR + R)	26.55	8.55	7.70	42.80

2.8.45 NRC Banana, Tiruchirappalli (PI: Dr. R. Thangavelu)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	4.00	0.00	0.00	4.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	2.00	1.00	1.00	4.00
4.	Travel	0.50	0.50	0.25	1.25
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.25	0.25	0.25	0.75
	Recurring Total	6.85	5.85	6.03	18.73
	TOTAL (NR + R)	10.85	5.85	6.03	22.73

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2.8.46 JNU, New Delhi (PI: Dr. Nirala Ramchiary)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	3.50	0.00	0.00	3.50
	Recurring				
2.	Manpower	3.90	3.90	4.37	12.17
3.	Consumables	2.00	2.00	1.00	5.00
4.	Travel	0.50	0.50	0.25	1.25
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.25	0.25	0.25	0.75
	Recurring Total	7.15	7.15	6.37	20.67
	TOTAL (NR + R)	10.65	7.15	6.37	24.17

2.8.47 West Bengal State University, Kolkata (PI: Dr. Krishna Ray)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	3.00	0.00	0.00	3.00
	Recurring				
2.	Manpower	3.90	3.90	4.37	12.17
3.	Consumables	1.50	1.50	1.00	4.00
4.	Travel	0.50	0.50	0.25	1.25
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.25	0.25	0.25	0.75
	Recurring Total	6.65	6.65	6.37	19.67
	TOTAL (NR + R)	9.65	6.65	6.37	22.67

2.8.48 ICAR Research Complex for NEH Region, Manipur Centre
(PI: Dr. Susheel Kumar Sharma)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	15.48	0.00	0.00	15.48
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	4.00	5.00	5.00	14.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.25	1.25	1.00	3.50
	Recurring Total	9.55	10.55	10.70	30.80
	TOTAL (NR + R)	25.03	10.55	10.70	46.28

2.8.49 NRC Banana, Tiruchirapalli (PI: Dr. R. Selvarajan)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	7.00	0.00	0.00	7.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	1.50	1.50	1.00	4.00
4.	Travel	0.50	0.50	0.25	1.25
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.25	0.25	0.25	0.75
	Recurring Total	6.35	6.35	6.03	18.73
	TOTAL (NR + R)	13.35	6.35	6.03	25.73

2.8.50 IIHR, Bengaluru (PI: Dr. M. Manamohan)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	0.00	0.00	0.00	0.00
	Recurring				
2.	Manpower	3.90	3.90	4.37	12.17
3.	Consumables	1.00	1.00	1.00	3.00
4.	Travel	0.50	0.25	0.25	1.00
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.25	0.25	0.25	0.75
	Recurring Total	6.15	5.90	6.37	18.42
	TOTAL (NR + R)	6.15	5.90	6.37	18.42

2.8.51 TNAU, Coimbatore (PI: Dr. D. Sudhakar)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	6.50	0.00	0.00	6.50
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	2.00	1.00	1.00	4.00
4.	Travel	0.50	0.50	0.25	1.25
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.25	0.25	0.25	0.75
	Recurring Total	6.85	5.85	6.03	18.73
	TOTAL (NR + R)	13.35	5.85	6.03	25.23

2.8.52 AAU, Jorhat, Assam (PI: Dr. Salvinder Singh)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	8.17	0.00	0.00	8.17
	Recurring				
2.	Manpower	6.60	6.60	7.39	20.59
3.	Consumables	5.00	5.00	5.00	15.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.25	1.25	1.00	3.50
	Recurring Total	13.85	13.85	14.39	42.09
	TOTAL (NR + R)	22.02	13.85	14.39	50.26

2.8.53 College of Agriculture, Lembucherra, Tripura
(PI: Dr. Sulchen Chandra Das)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	18.34	0.00	0.00	18.34
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	3.00	2.00	2.00	7.00
4.	Training/workshop	1.00	1.00	0.00	2.00
5.	Travel	0.50	0.50	0.50	1.50
6.	Contingency	0.50	0.50	0.50	1.50
7.	Overhead Charge	1.25	1.25	1.00	3.50
	Recurring Total	9.55	8.55	7.70	25.80
	TOTAL (NR + R)	27.89	8.55	7.70	44.14

2.8.54 IIHR, Bengaluru (PI: Dr. M. S. Rao)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	0.00	0.00	0.00	0.00
	Recurring				
2.	Manpower	3.90	3.90	4.37	12.17
3.	Consumables	1.00	1.00	1.00	3.00
4.	Travel	0.50	0.50	0.25	1.25
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.25	0.25	0.00	0.50
	Recurring Total	6.15	6.15	6.12	18.42
	TOTAL (NR + R)	6.15	6.15	6.12	18.42

2

Group-3**2.8.55 Sikkim University (PI: Dr. Laxuman Sharma)**

(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	9.94	0.00	0.00	9.94
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	3.00	3.00	3.00	9.00
4.	Creation of hardening unit	2.50	0.00	0.00	2.50
5.	Travel	0.75	0.75	0.50	2.00
6.	Contingency	0.75	0.75	0.50	2.00
7.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	11.30	8.80	8.70	28.80
	TOTAL (NR + R)	21.24	8.80	8.70	38.74

2.8.56 Guru Nanak Dev University, Amritsar (PI: Pratap Kumar Pati)

(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	2.00	0.00	0.00	2.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	3.00	3.00	2.00	8.00
4.	Travel	0.40	0.40	0.40	1.20
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	0.75	0.75	2.50
	Recurring Total	8.50	8.25	7.68	24.43
	TOTAL (NR + R)	10.50	8.25	7.68	26.43

2.8.57 Nagaland University, Medziphema, Nagaland (PI: Dr. C. S. Maiti)

(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	23.27	0.00	0.00	23.27
	Recurring				
2.	Manpower	6.60	6.60	7.39	20.59
3.	Consumables	4.00	4.00	2.00	10.00
4.	Lab renovation & construction of polyhouse	16.00	0.00	0.00	16.00
5.	Travel	0.75	0.75	0.50	2.00
6.	Contingency	0.50	0.50	0.50	1.50
7.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	28.85	12.85	11.39	53.09
	TOTAL (NR + R)	52.12	12.85	11.39	76.36

2.8.58 NRC Banana, Trichirapalli (PI: Dr M. S. Saraswathi)
(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	3.01	0.00	0.00	3.01
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	3.00	3.00	2.00	8.00
4.	Travel	0.75	0.75	0.50	2.00
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	0.75	0.75	2.50
	Recurring Total	8.85	8.60	7.78	25.23
	TOTAL (NR + R)	11.86	8.60	7.78	28.24

2.8.59 IIT Guwahati (PI: Dr. Rakhi Chaturvedi)
(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	19.39	0.00	0.00	19.39
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	3.00	3.00	3.00	9.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	8.60	8.60	9.03	26.23
	TOTAL (NR + R)	27.99	8.60	9.03	45.62

2.8.60 AAU, Jorhat (PI: Mr. Manab Bikash Gogoi)
(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	14.95	0.00	0.00	14.95
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	3.00	3.00	2.00	8.00
4.	Travel	0.50	0.75	0.50	1.75
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	8.30	8.55	7.70	24.55
	TOTAL (NR + R)	23.25	8.55	7.70	39.50

2.8.61 JNU, New Delhi (PI: Prof. Neera Bhalla Sarin)

(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	9.89	0.00	0.00	9.89
	Recurring				
2.	Manpower	3.90	3.90	4.37	12.17
3.	Consumables	2.00	2.00	2.00	6.00
4.	Travel	0.75	0.75	0.50	2.00
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	0.75	0.75	2.50
	Recurring Total	8.15	7.90	8.12	24.17
	TOTAL (NR + R)	18.04	7.90	8.12	34.06

Group-4

2.8.62 NEHU, Tura Campus (PI: Dr. C.P. Suresh)

(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	30.00	0.00	0.00	30.00
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	4.00	3.00	3.00	10.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	9.30	8.30	8.70	26.30
	TOTAL (NR + R)	39.30	8.30	8.70	56.30

2.8.63 NRC Banana, Tiruchirappalli (PI: Dr. Muthu M. Vaganan)

(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	10.00	0.00	0.00	10.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	3.00	4.00	3.00	10.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	8.60	9.60	9.03	27.23
	TOTAL (NR + R)	18.60	9.60	9.03	37.23

2.8.64 IASST, Guwahati (PI: Dr. Rajlakshmi Devi)

(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	5.50	0.00	0.00	5.50
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	7.00	5.00	3.00	15.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	12.60	10.60	9.03	32.23
	TOTAL (NR + R)	18.10	10.60	9.03	37.73

2.8.65 THSTI, Faridabad (PI: Dr. Sanjay Banerjee)

(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	6.00	0.00	0.00	6.00
	Recurring				
2.	Manpower	3.90	3.90	4.37	12.17
3.	Consumables	2.00	3.00	3.00	8.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	7.90	8.90	9.37	26.17
	TOTAL (NR + R)	13.90	8.90	9.37	32.17

2.8.66 Assam Down Town University, Guwahati (PI: Dr. Ananya Kashyap)

(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	4.74	0.00	0.00	4.74
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	4.00	3.00	1.00	8.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	9.60	8.60	7.03	25.23
	TOTAL (NR + R)	14.34	8.60	7.03	29.97

2.8.67 AAU, Jorhat (PI: Dr. Salvinder Singh)

(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	19.77	0.00	0.00	19.77
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables & sequencing	8.00	6.50	5.50	20.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	13.30	11.80	11.20	36.30
	TOTAL (NR + R)	33.07	11.80	11.20	56.07

2.8.68 TNAU, Coimbatore (PI: Dr. K. Soorianathasundaram)

(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	9.07	0.00	0.00	9.07
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	3.00	3.50	3.50	10.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	8.60	9.10	9.53	27.23
	TOTAL (NR + R)	17.67	9.10	9.53	36.30

2.8.69 Institute of Life Sciences, Bhubaneswar (PI: Dr. Nrishingha Dey)

(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	0.00	0.00	0.00	0.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	5.00	3.00	2.00	10.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.50	0.50	0.50	1.50
	Recurring Total	10.10	8.10	7.53	25.73
	TOTAL (NR + R)	10.10	8.10	7.53	25.73

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2.8.70

IIT Kharagpur, West Bengal (PI: Prof. Adinpunya Mitra)

(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	9.99	0.00	0.00	9.99
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	2.00	2.00	2.00	6.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	7.30	7.30	7.70	22.30
	TOTAL (NR + R)	17.29	7.30	7.70	32.29

2.8.71

Mizoram University, Aizawl (PI: Dr. Thanjgam Singh)

(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	21.99	0.00	0.00	21.99
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	2.00	2.00	2.00	6.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	7.30	7.30	7.70	22.30
	TOTAL (NR + R)	29.29	7.30	7.70	44.29

Group-5

2.8.72 College of Agriculture, Tripura (PI: Dr. Thingreingam KS)

(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	30.15	0.00	0.00	30.15
	Recurring				
2.	Manpower	6.60	6.60	7.39	20.59
3.	Consumables	3.00	2.00	1.00	6.00
4.	Training/Workshop	0.00	0.75	0.75	1.50
5.	Travel	0.50	0.50	0.50	1.50
6.	Contingency	0.50	0.50	0.50	1.50
7.	Overhead Charge	2.00	2.00	2.00	6.00
	Recurring Total	12.60	12.35	12.14	37.09
	TOTAL (NR + R)	42.75	12.35	12.14	67.24



2.8.73 NRC Banana, Tiruchirapalli (PI: Dr. Suresh Kumar)

(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	10.00	0.00	0.00	10.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	1.15	1.00	1.00	3.15
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.25	0.25	0.25	0.75
6.	Overhead Charge	0.25	0.25	0.25	0.75
	Recurring Total	5.75	5.60	6.03	17.38
	TOTAL (NR + R)	15.75	5.60	6.03	27.38

2.8.74 IIHR Bangalore (PI: Dr. Narayana C.K)

(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	4.00	0.00	0.00	4.00
	Recurring				
2.	Manpower	3.90	3.90	4.37	12.17
3.	Consumables	1.15	1.00	1.00	3.15
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.25	0.25	0.25	0.75
6.	Overhead Charge	0.25	0.25	0.25	0.75
	Recurring Total	6.05	5.90	6.37	18.32
	TOTAL (NR + R)	10.05	5.90	6.37	22.32

Group-6

2.8.75 AAU, Jorhat (PI: Dr. Pritom Kumar Borthakur)

(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	6.66	0.00	0.00	6.66
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	1.50	1.50	1.50	4.50
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	6.80	6.80	7.20	20.80
	TOTAL (NR + R)	13.46	6.80	7.20	27.46

2.8.76 NRC Banana, Tiruchirapalli (PI: Dr. P. Suresh Kumar)
(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	7.00	0.00	0.00	7.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	1.00	1.00	0.50	2.50
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	6.60	6.60	6.53	19.73
	TOTAL (NR + R)	13.60	6.60	6.53	26.73

2.8.77 National Institute of Technology, Trichy (PI: Dr. M. Perumalsamy)
(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	2.00	0.00	0.00	2.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	1.00	1.00	0.50	2.50
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	6.60	6.60	6.53	19.73
	TOTAL (NR + R)	8.60	6.60	6.53	21.73

2.8.78 TERI, Guwahati (PI: Dr Indrani Sarma)
(₹ in lakhs)

S. No.	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	11.61	0.00	0.00	11.61
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	3.00	2.50	1.50	7.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	0.75	0.75	2.50
	Recurring Total	8.60	7.85	7.28	23.73
	TOTAL (NR + R)	20.21	7.85	7.28	35.34

W

2.8.79

N.V. Patel College of Pure and Applied Sciences, Gujarat
(PI: Dr Akshaya Padmakar Gupte)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	2.00	0.00	0.00	2.00
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	1.00	1.00	0.50	2.50
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	0.75	0.75	2.50
	Recurring Total	6.30	6.05	5.95	18.30
	TOTAL (NR + R)	8.30	6.05	5.95	20.30

2.8.80

AAU, Jorhat (PI: Dr. Prakash Kalita)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	30.00	0.00	0.00	30.00
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	2.00	4.00	4.00	10.00
4	Phenotyping facility-Rain out shelter	50.00	0.00	0.00	50.00
5	Travel	0.50	0.50	0.50	1.50
6	Contingency	0.50	0.50	0.50	1.50
7	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	57.30	9.30	9.70	76.30
	TOTAL (NR + R)	87.30	9.30	9.70	106.30

2.8.81 NRC Banana, Tiruchirapalli (PI: Dr. Iyyakutty Ravi)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	15.00	0.00	0.00	15.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	1.00	3.50	3.50	8.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	6.60	9.10	9.53	25.23
	TOTAL (NR + R)	21.60	9.10	9.53	40.23

2.8.82

NEHU, Tura Campus (PI: Mr. Sasikumar Raju)

(₹ in lakhs)

S.No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	48.26	0.00	0.00	48.26
	Recurring				
2.	Manpower	3.30	3.30	3.70	10.30
3.	Consumables	2.50	1.50	2.50	6.50
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	7.80	6.80	8.20	22.80
	TOTAL (NR + R)	56.06	6.80	8.20	71.06

2.8.83

NRC Banana, Tiruchirapalli (PI: Dr. Thirunagavel A)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	0.00	0.00	0.00	0.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	0.25	0.25	0.00	0.50
4.	Travel	0.00	0.00	0.00	0.00
5.	Contingency	0.00	0.00	0.00	0.00
6.	Overhead Charge	0.50	0.50	0.50	1.50
	Recurring Total	4.35	4.35	4.53	13.23
	TOTAL (NR + R)	4.35	4.35	4.53	13.23

2.8.84

ICAR Research Complex for NEH Region, Umiam
(PI: Dr. Rajappa Joga)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	3.45	0.00	0.00	3.45
	Recurring				
2.	Manpower	7.20	7.20	8.06	22.46
3.	Consumables	1.50	1.50	0.50	3.50
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	1.00	1.00	1.00	3.00
	Recurring Total	10.70	10.70	10.56	31.96
	TOTAL (NR + R)	14.15	10.70	10.56	35.41

2.8.85

NBPGR, Regional Station-Hyderabad (PI: Dr. Sivaraj N)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	0.00	0.00	0.00	0.00
	Recurring				
2.	Manpower	3.90	3.90	4.37	12.17
3.	Consumables	0.75	0.50	0.25	1.50
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.40	0.40	0.30	1.10
6.	Overhead Charge	0.50	0.50	0.50	1.50
	Recurring Total	6.05	5.80	5.92	17.77
	TOTAL (NR + R)	6.05	5.80	5.92	17.77

2.8.86 NRC Banana, Tiruchirappalli (PI: Dr. Thirugnanavel A)

(₹ in lakhs)

S. No	Head	1 st Year	2 nd Year	3 rd year	Total
	Non-Recurring				
1.	Equipments & accessories	0.00	0.00	0.00	0.00
	Recurring				
2.	Manpower	3.60	3.60	4.03	11.23
3.	Consumables	1.00	1.50	0.50	3.00
4.	Travel	0.50	0.50	0.50	1.50
5.	Contingency	0.50	0.50	0.50	1.50
6.	Overhead Charge	0.50	0.50	0.50	1.50
	Recurring Total	6.10	6.60	6.03	18.73
	TOTAL (NR + R)	6.10	6.60	6.03	18.73

Group-1

(i) Grand total for 3 years

(25.73+40.30+21.73+27.63+49.39+43.36+29.67+25.80+84.95+35.28+83.30+33.73+26.73+38.49+44.17+22.50+37.98+25.61+21.98+27.67+46.73+18.73+26.80+21.23+47.28) = ₹ 906.77 lakhs

(ii) Total for 1st year release

(11.10+23.30+7.10+12.50+25.40+28.36+14.40+9.30+49.96+18.65+60.30+12.10+14.10+23.49+30.17+9.00+23.35+9.04+8.35+14.40+30.10+6.10+14.80+7.60+27.29) = ₹ 490.26 lakhs

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Group-2

- (i) **Grand total for 3 years**
(46.54+25.73+41.78+25.67+38.02+23.67+15.98+14.55+46.50+27.18+19.23+
43.09+39.80+33.85+22.73+23.67+17.73+57.80+42.80+22.73+24.17+22.67+46.28
+25.73+18.42+25.23+50.26+44.14+18.42)= ₹ 904.37 lakhs
- (ii) **Total for 1st year release**
(23.05+13.35+20.54+13.15+14.03+11.15+5.60+4.80+22.01+10.30+7.60+19.85+
15.81+18.85+10.85+11.15+5.85+37.30+26.55+10.85+10.65+9.65+25.03+13.35+
6.15+13.35+22.02+27.89+6.15) = ₹ 436.88 lakhs

Group-3

- (i) **Grand total for 3 years** (38.74+26.43+76.36+28.24+45.62+39.50+34.06) = ₹ 288.95 lakhs
- (ii) **Total for 1st year release**
(21.24+10.50+52.12+11.86+27.99+23.25+18.04) = ₹ 165.00 lakhs

Group-4

- (i) **Grand total for 3 years**
(56.30+37.23+37.73+32.17+29.97+56.07+36.30+25.73+32.29+44.29) = ₹ 388.08 lakhs
- (ii) **Total for 1st year release**
(39.30+18.60+18.10+13.90+14.34+33.07+17.67+10.10+17.29+29.29)= ₹ 211.66 lakhs

Group-5

- (i) **Grand total for 3 years** (67.24+27.38+22.32) = ₹ 116.94 lakhs
- (ii) **Total for 1st year release** (42.75+15.75+10.05) = ₹ 68.55 lakhs

Group-6

- (i) **Grand total for 3 years**
(27.46+26.73+21.73+35.34+20.30+106.30+40.23+71.06+13.23+35.41+17.77+
18.73) = ₹ 434.29 lakhs
- (ii) **Total for 1st year release**
(13.46+13.60+8.60+20.21+8.30+87.30+21.60+56.06+4.35+14.15+6.05+6.10) = ₹ 259.78 lakhs

2.8 Other Terms & Conditions:

2.8.1 The other terms and conditions governing this sanction are attached at Annexure-I.

2.8.2 A Memorandum of Agreement (MoA) will be signed between the Department of Biotechnology and the grantee institute on a ₹ 100/- stamp paper in the format given



at Annexure II and the subsequent releases will be made only after signing of MoA by the grantee institute and its acceptance by DBT. All pages need to be signed by the PI and the forwarding authority and the MoA returned to DBT within 30 days of issue of this letter.

- 2.8.3 The Non-recurring items must be procured and installed within 6 month period from the date of sanction.
- 2.8.4 In case the amount of grant-in-aid is refunded, the whole or a part amount of the grant, with an interest at 10% per annum there on shall be recovered.
- 2.8.5 No international travel will be undertaken from the sanctioned project grant unless specified otherwise.
- 2.8.6 The Institute/Agency will keep the whole of the grant in a Bank Account earning interest, and the interest so earned should be reported to DBT in the Utilization Certificate and statement of Expenditure. The interest so earned will be treated as created to the institute / Agency and shall be adjusted towards further installment of the grant and or at the time of Final Settlement of Account.
- 2.9 Additional Terms & Conditions, specific for Twinning R&D program for NER:
- 2.9.1 Both NER & Rest of India (RoI), Institutions scientists should work together for the objectives stated in the sanction of the project and any deviation from this would attract closure of the project at any point of time.
- 2.9.2 In the project review meetings, both the PI's from NER & RoI Institutions should participate & make presentation.
- 2.9.3 The outcomes of the project such as research papers, patents, copy rights etc. should be made jointly.
- 2.9.4 The NER Scientists are to be trained at the collaborating institute appropriately to empower the NER Scientists.
- 2.9.5 The project personal such as Research Associate, JRF/SRF, Research Assistant are also to be trained at least once in the collaborating national institute.
- 2.9.6 The collaborating institute scientist should visit NER institutions more frequently to guide NER scientists in design and conduct of experiments.
- 2.10 This issues under the powers delegated to this Department and with the concurrence of IFD, DBT vide their Dy No. 102/L.F.D/SAN/1765-1767/2017-2018 Dated 20.07.2017.

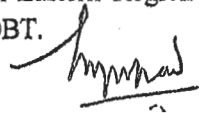
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317-402

2.10.1 This sanction order has been noted at Serial No..... in the Register of Grants.

2.10.2 "As per Rule 236 (1) of GFR 2017, the accounts of all Grantee Institutions or Organisations shall be open to inspection by the sanctioning authority and audit, both by the Comptroller and Auditor General of India under the provision of CAG(DPC) Act 1971 and internal audit by the Principal Accounts Office of the Ministry or Department, whenever the Institution or Organisation is called upon to do so"

3.0 M/S Biotech Consortium India Ltd (BCIL), Anuvrat Bhawan, 210, Deen Dayal Upadhyay Marg, New Delhi- 110002, is administrating the North Eastern Region Biotechnology Programme Management Cell (NER-BPMC) of the DBT.


(Dr. T. Madhan Mohan)
Sr. Adviser, DBT

To,
The Pay & Accounts Officer,
Department of Biotechnology,
New Delhi - 110003

Copy to:

Group-1

1. The Principal Director of Audit (Scientific Department), AGCR Building, New Delhi - 110 002.
2. Cash Section, DBT (For information only).
3. Sanction Folder.
4. IFD, DBT.
5. The Registrar, Utkal University, Vani Vihar, Bhubaneswar, Orissa, Dist-Khurda, Odisha- 751004.
6. The Vice Chancellor, Utkal University, Vani Vihar, Bhubaneswar, Orissa, Dist-Khurda, Odisha- 751004.
7. The Registrar, Tripura University, Suryamaninagar, Tripura West, Agartala- 799022, Tripura.
8. The Vice Chancellor, Tripura University, Suryamaninagar, Tripura West, Agartala- 799022, Tripura.
9. The Director, CSIR- National Botanical Research Institute, Rana Pratap Marg, Lucknow- 226001, Uttar Pradesh.
10. The Director, Jawaharlal Nehru Tropical Botanic Garden & Research Institute, Palode, Karimancode P.O. Thiruvanthapuram - 695562, Kerala.
11. The Principal, Kohima Science College, Jotsoma- 797002, Kohima, Nagaland.
12. The Registrar, Nagaland University, Headquarter: Lumami, District-Zunheboto-798613, Nagaland.

13. The Vice Chancellor, Nagaland University, Headquarter: Lumami, District-Zunheboto-798613, Nagaland.
14. The Comptroller, Bidhan Chandra Krishi Viswavidyalaya, P.O. Krishiviswavidyalaya, Mohanpur - 741252, West Bengal.
15. The Vice-Chancellor, Bidhan Chandra Krishi Viswavidyalaya, P.O. Krishiviswavidyalaya, Mohanpur - 741252, West Bengal.
16. The Director, North Eastern Regional Institute of Science and Technology, New Degree Block, P. O., Nirjuli- 791109, Arunachal Pradesh.
17. The Director, ICAR-National Research Centre for Banana, Thogamalai Road, Thayanur P.O. Tiruchirapalli-620102, Tamil Nadu.
18. The Comptroller, Assam Agricultural University, Jorhat-785013, Assam.
19. The Vice-Chancellor, Assam Agricultural University, Jorhat-785013, Assam.
20. The Comptroller, Tamil Nadu Agricultural University, Lawley Road Post, Coimbatore - 641003, Tamil Nadu.
21. The Vice-Chancellor, Tamil Nadu Agricultural University, Lawley Road Post, Coimbatore - 641003, Tamil Nadu.
22. The Registrar, Mizoram University, Aizawl- 796004, Mizoram.
23. The Vice-Chancellor, Mizoram University, Aizawl- 796004, Mizoram.
24. The Registrar, Gauhati University, Gopinath Bordoloi Nagar, Jalukbari, Guwahati, Assam 781014.
25. The Registrar, TERI School of Advanced Studies, TERI University, 10 Institutional Area, Vasant Kunj, New Delhi- 110070.
26. The Director, ICAR-National Bureau of Plant Genetic Resources, Pusa Campus, New Delhi- 110012.
27. The Principal, P.S.G. College of Technology, Peelamedu, Coimbatore- 641004.
28. The Principal, College of Agriculture, Tripura, Lembucherra, West Tripura- 799210.
29. Prof. Anath Babdhu Das, Professor and Head, Department of Botany, Utkal University, Vani Vihar, Bhubaneswar- 751004, Odisha.
30. Dr. Chinmay Pradhan, Reader, Department of Botany, Utkal University, Vani Vihar, Bhubaneswar- 751004, Odisha.
31. Prof. Rabindra Kumar Sinha, Professor, Department of Botany, Tripura University, Suryamaninagar, Tripura West, Agartala- 799022, Tripura.
32. Dr. Satya Narayan Jena, Senior Scientist, Department of Genetics & Plant Molecular Biology, CSIR- National Botanical Research Institute, Rana Pratap Marg, Lucknow- 226001, Uttar Pradesh.
33. Dr. Sabu K K, Senior Scientist, Department of Biotechnology and Bioinformatics, Jawaharlal Nehru Tropical Botanic Garden & Research Institute, Palode, Karimancode P.O.- 695562, Thiruvanthapuram.
34. Dr. William Decruse S, Senior Scientist, Department of Biotechnology and Bioinformatics, Jawaharlal Nehru Tropical Botanic Garden & Research Institute, Palode, Karimancode P.O.- 695562, Thiruvanthapuram.
35. Dr. R. K. Radha, Scientist, Department of Biotechnology and Bioinformatics, Jawaharlal Nehru Tropical Botanic Garden & Research Institute, Palode, Karimancode P.O.- 695562, Thiruvanthapuram.

36. Dr. Moakum, Assistant Professor, Department of Botany, Kohima Science College, Jotsoma- 797002, Nagaland.
37. Dr. Mhathung Yanthan, Assistant professor, Department of Botany, Kohima Science College, Jotsoma- 797002, Nagaland.
38. Dr. Animesh Sarkar, Assistant Professor, Department of Horticulture, SASRD Nagaland University, Medziphema Campus, Medziphema- 797106, Nagaland.
39. Dr. Tiameren N, Associate professor, Department of Plant Pathology, SASRD, Nagaland University, Medziphema Campus, Medziphema- 797106, Nagaland
40. Dr. Sanjit Debnath, Assistant Professor, Department of Fruit and Orchard Management, Bidhan Chandra Krishi Viswavidyalaya, P. O.- 741235, Kalyani.
41. Dr. Jayanta Tarafder, Professor, Department of Agril. Plant Pathology, Bidhan Chandra Krishi Viswavidyalaya, P. O.- 741235, Kalyani.
42. Dr. Debaline Majhi, Assistant Professor, Fruits and Orchard Management, Bidhan Chandra Krishi Viswavidyalaya, Directorate of Research, BCKV, Kalyani- 741235, West Bengal.
43. Mrs. Ankita Roy, Assistant Professor, Department of Plant Pathology, Bidhan Chandra , Krishi Viswavidyalaya, Directorate of Research, BCKV, Kalyani- 741235, west Bengal.
44. Dr. Susanta Banik, Assistant Professor, Department of Plant Pathology, SASRD, Nagaland University, Medziphema Campus, Medziphema- 797106, Nagaland.
45. Dr. Chandan Suravi Maiti, Associate Professor, Department of Horticulture, SASRD, Nagaland University, Medziphema Campus, Medziphema-797106 Nagaland.
46. Dr. Chijamo Kithan, Post Graduate Teacher, Department of Biology, Patkai Christian College, Chumukedima, Seithekema, Dimapur- 797103, Nagaland.
47. Dr. S. Sureshkumar Singh, Associate Professor, Department of Forestry, North Eastern Regional Institute of Science And Technology, New Degree Block, Nirjuli-791109, Arunachal Pradesh.
48. Dr. Padma Raj Gajurel, Associate Professor, Department of Forestry, North Eastern Regional Institute of Science And Technology, New Degree Block, Nirjuli-791109, Arunachal Pradesh.
49. Dr. Karuna Shrivastava, Professor, Department of Forestry, North Eastern Regional Institute of Science And Technology, New Degree Block, Nirjuli-791109, Arunachal Pradesh.
50. Dr. Marimuthu Saraswathi, Principal Scientist, Department of Crop Improvement, ICAR – National Research Centre for Banana, Thogamalai Main Road, Thayanur post, Trichirappalli- 610102.
51. Dr. S. Backiyarani, Principal Scientist, Department of Crop Improvement, ICAR – National Research Centre for Banana Thogamalai Main Road, Thayanur post, Tiruchirappalli- 610102.
52. Dr. Mahendra Kumar Modi, Professor, Department of Agricultural Biotechnology, Assam Agricultural University, Jorhat- 785013, Assam.
53. Dr. Priyabrata Sen, Professor, Department of Agricultural Biotechnology, Assam Agricultural University, Jorhat- 785013, Assam.
54. Dr. Salvinder Singh, Professor, Department of Agricultural Biotechnology, Assam Agricultural University, Jorhat- 785013, Assam.

55. Dr. Ashok Bhattacharyya, Principal Scientist, Department of Plant Pathology, Assam Agricultural University, Jorhat- 785013, Assam.
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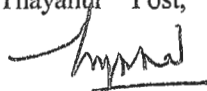
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