

**BT/01/17/NE/TAX
GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
DEPARTMENT OF BIOTECHNOLOGY**

**Block 2, 6-8th Floors
CGO Complex, Lodhi Road,
New Delhi- 110 003**

Dated: 29th March, 2018

ORDER

Sanction of the President is hereby accorded, under Rule 18 of the Delegation of Financial Powers Rules, 1978, for the implementation of the project entitled "**Bioresource and Sustainable livelihoods in North East India**" for a period of 3 Year 0 Month at a total cost of Rs. **2318.64243 lakhs (Rupees Twenty Three Crores Eighteen Lakhs Sixty Four Thousand Two Hundred and Forty Three Only)** on the terms and conditions detailed here under:-

2. The Project:

2.1 Title: Bioresource and Sustainable livelihoods in North East India

2.2 Overall Project Coordinator: Dr. Ganesan Rengaiyan, Fellow, Suri Sehgal Center for Biodiversity and Conservation, Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore

Project Co-Coordinator: Professor Dinabandhu Sahoo, Director, Institute of Bioresources and Sustainable Development (IBSD), Imphal, Manipur

2.3 Project Investigators:

COMPONENT 1 – INVENTORIES AND MAPPING OF BIORESOURCES IN NORTHEAST INDIA

Subproject 1: ATREE, Bangalore

Principal Investigators: 1. Dr. Ganesan Rengaiyan, ATREE, Bangalore

Co- Investigator: 1. Dr. Ravikanth Gudsalmani, (ATREE), Bangalore
2. Dr. Muneeswaran Mariappan, (ATREE), Bangalore

Subproject 2: Assam - Balipara Foundation, Assam

Principal Investigator: 1. Dr. Gitamani Dutta, Balipara Foundation, Assam

Subproject 3, 4, 5 Yet to be Identified:

Subproject 6:- Nagaland University, Nagaland

Principal Investigator: 1. Dr. Neizo Puro, Nagaland University, Lumami

Co-Investigator: 1. Dr. Limasenla, Nagaland University, Lumami

Subproject 7: Institute for Bioresources and Sustainable Development (IBSD), Manipur

Principal Investigator : 1. Dr. Biseshwori Thongam, IBSD, Imphal, Manipur,

Subproject 8: Mizoram University, Mizoram

Principal Investigator: 1. Dr. Bianka Zote, Mizoram University, Aizawl

Subproject 9: Tripura University, Tripura

Principal Investigator: 1. Dr. Badal Datta, Tripura University, Tripura, Agaratala

Subproject 10:- North East Hill University (NEHU), Meghalaya

Principal Investigator: 1. Dr. Uma Shankar, North Eastern Hill University, Shillong

Mohd. Aslam

Subproject 11: National Botanical Research Institute (NBRI), Lucknow

Principal Investigator : 1. **Dr. Sanjeeva Nayaka**, NBRI, Lucknow

Co-Investigator:

1. **Dr. Tikam Rana**, NBRI, Lucknow
2. **Dr. Ashish Asathana**, NBRI, Lucknow
3. **Dr. Ajit Singh**, NBRI, Lucknow
4. **Dr. Poonam Singh**, NBRI, Lucknow
5. **Dr. Suchi Srivastava**, NBRI, Lucknow
6. **Dr. Vinay Sahu**, NBRI, Lucknow
7. **Dr. Kiran Toppo**, NBRI, Lucknow
8. **Dr. Sandip Behera**, NBRI, Lucknow
9. **Mr. Komal Ingle**, NBRI, Lucknow

Subproject 12: Institute for Bioresources and Sustainable Development (IBSD), Manipur

Principal Investigator : 1. **Professor Dinabandhu Sahoo**, IBSD, Imphal, Manipur

Co-Principal Investigator: 1. **Dr. Nanaocha Sharma**, IBSD, Imphal, Manipur

Subproject 13: - Agharkar Research Institute, Pune

Principal Investigator: 1. **Dr. Karthick Balasubramanian**, Agharkar Research Institute, Pune

Subproject 14: Institute for Bioresources and Sustainable Development (IBSD), Manipur

Principal Investigator: 1. **Dr. Shantibala Tourangbam**, IBSD, Imphal, Manipur

Subproject 15: Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore

Principal Investigator: 1. **Dr. Priyadarsanan**, ATREE, Bangalore

Subproject 16: Rajiv Gandhi University, Arunachal Pradesh

Principal Investigator: 1. **Dr. Hiren Gogoi**, Rajiv Gandhi University, Arunachal Pradesh

Subproject 17: North Eastern Hill University (NEHU), Shillong

Principal Investigator: 1. **Dr. Sundhanya Hajong**, North Eastern Hill University, Shillong

Subproject 18: - Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore

Principal Investigator: 1. **Dr. Priyadarsanan**, ATREE, Bangalore

Subproject 19: Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore

Principal Investigator: 1. **Dr. Aravind**, Fellow, ATREE, Bangalore

Subproject 20: Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore

Principal Investigator: **Dr. Ganesan Rengaiyan**, ATREE, Bangalore

Co- Investigator: 1. **Dr. Ravikanth Gudsalmani**, ATREE, Bangalore
2. **Dr. Muneeswaran Mariappan**, ATREE, Bangalore

Component 2: Integrative Taxonomic Analysis for Assessment of Diversity and Phylogenetic Relationships among Selected Understudied Taxa of Northeast Region

Project Coordinator : **Dr. Ajay Parida**, Institute of Life Sciences , Bhubaneswar

Subproject 1: - Institute of Life Sciences (ILS), Bhubaneswar

Principal Investigator: 1. **Dr. Ajay Parida**, Institute of Life Sciences, Bhubaneswar

Co-Investigator: 1. **Dr. Nrisingha Kumar Dey**, Institute of Life Sciences, Bhubaneswar

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Subproject 2: Institute of Bioresources and Sustainable Development (IBSD), Imphal

Principal Investigator: 1. Dr. Biseshwori Thongam, IBSD, Imphal

Subproject 3: National Botanical Research Institution (NBRI)

Principal Investigator :

1. Dr. K Narayana, NBRI, Lucknow
2. Professor S K Barik, NBRI, Lucknow
3. Dr. Tikam Rana, NBRI, Lucknow
4. Dr. Satya Narayanan Jena, NBRI, Lucknow, Lucknow

Subproject 4 Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore

Principal Investigator: 1. Dr. Ganesan Rengaiyan, ATREE, Bangalore

Co-Investigator: 1. Dr. Ravikanth Gudlasamani, ATREE, Bengaluru

Component 3: Assess the economic value of bio-resources and their role in meeting the societal needs and sustainable development goals

Project Coordinator: Professor Dinabandhu Sahoo, IBSD, Imphal

Project Co- Coordinator: Dr. Saroj Kumar Barik: - NBRI, Lucknow

Subproject 1: Institute for Bioresources and Sustainable Development (IBSD), Manipur

Principal Investigator : 1. Professor Dinabandhu Sahoo, IBSD, Imphal, Manipur,

Co-Investigator: 1. Dr. Albert Chiang, IBSD, Imphal, Manipur

Subproject 2: National Botanical Research Institute (NBRI), Lucknow

Principal Investigator : 1. Dr Sekhar Chandra Mohanty, NBRI, Lucknow

Co-Investigator:

1. Dr. O P Sidhu, NBRI, Lucknow
2. Dr. Manjoocha Srivastava, NBRI, Lucknow
3. Dr. Anand Prakash, NBRI, Lucknow
4. Dr. Vishnu Wagh, NBRI, Lucknow

Component 4: Biodiversity-based Livelihoods

Project Coordinator: Professor Saroj K. Barik, National Botanical Research Institute, Lucknow

Subproject 1 - CSIR- NBRI, Lucknow

Principal Investigator: 1. Dr. Brahma Singh, National Botanical Research Institute, Lucknow

Co-Investigator:

1. Dr. Krishna Tiwari, National Botanical Research Institute, Lucknow
2. Dr. Ch V Rao, National Botanical Research Institute, Lucknow
3. Dr. Sharad Srivastava, National Botanical Research Institute, Lucknow
4. Dr. O.P. Sidhu, National Botanical Research Institute, Lucknow

Subproject 2 - North Eastern Regional Institute of Science and Technology, Itanagar

Principal Investigator : 1. Dr. Padmaraj Gajurel, NERIST, Arunachal Pradesh

Co-Investigator: 1. Dr. Binay Singh, NERIST, Arunachal Pradesh

Subproject 3 - Institute of Bioresources and Sustainable Development (IBSD), Imphal, Manipur,

Principal Investigator: 1. Dr. Biseshwori Thongam, IBSD, Imphal, Manipur

Subproject 4 - North Eastern Hill University, Meghalaya, Shillong, Meghalaya

Principal Investigator : 1. Dr. Highland Kayang, NEHU, Shillong, Meghalaya

Co-Investigator : 1. Dr. Papiya Ramanujam, NEHU, Shillong, Meghalaya

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Component 5 - Enhancing capacity in Communication about biological resources, biodiversity science and sustainable development for societal benefits in Northeast

Project Coordinator: Dr. Ravikanth G., ATREE, Bangalore

Principal Investigator: 1. Dr. Ravikanth G., ATREE, Bangalore

Co-Investigator :

1. Dr. Aravind , Fellow, ATREE, Bangalore
2. Dr. Sarala Khaling , , ATREE, Bangalore
3. Dr Biseshwori Thongam IBSD, Imphal, Manipur,

Component 6 - Monitoring, Management and Coordination of the project

Project Coordinator: Dr. Ganesan Rengalan, ATREE, Bangalore

Project Co-coordinator: Professor Dinabandhu Sahoo, IBSD, Imphal, Manipur

2.4 Objectives:

Overall objectives of the project:

1. Distribution maps of natural landscapes, ecosystems, and species
2. Patterns of species richness, abundance, rarity and endemism
3. A systematic program on the monitoring of anthropogenic impacts, including climate change, on bioresources and biodiversity
4. Data on evolutionary relationships among species in species rich genera such as wild gingers, Primulas, oaks and other taxa
5. Profiles of genetic variation within selected species of economic importance such as gingers, cucurbits, and oranges
6. Economic assessment of bioresources of the region
7. Options and tradeoffs in the use of ecosystem services in meeting United Nation's Sustainable Development Goals.
8. Data on the use of wild bioresources by local communities and traditional knowledge associated with these resources
9. New products and improved germplasm from wild bioresources integrated with livelihoods of local communities
10. Central Database Management Unit that curates, organizes and archives biodiversity data on the distribution of genes, populations, species and ecosystems and their use, with data also serving as baseline to detect future changes as result of human use and climate change
11. Trained scientists and strengthened institutions in the Northeast to address critical issues in conservation and management of bioresources
12. A minimum of 10 graduate level courses over 5 years in modern concepts and tools of biodiversity science
13. At least 40 doctoral dissertations on bioresources by graduate students from institutions in the Northeast over the next 5-7 years
14. A web-based portal on biodiversity of the Northeast mirrored on the web sites of the 10 participating institutions
15. Public engagement in conservation and management of bioresources and biodiversity via citizen science programs on the portal and other communication and outreach programs.

COMPONENT AND SUB-PROJECT WISE PROJECT OBJECTIVES ARE AS FOLLOWS:

COMPONENT-1: INVENTORIES AND MAPPING O BIORESOURCES IN NORTHEAST INDIA

Sub- project : 1 Mapping ecosystems of the Northeast and Quantitative assessment and mapping of plant diversity and biological resources in Sikkim Himalaya: (Ashoka Trust for Research in Ecology and the Environment, Bangalore):

1. Map ecosystems and distribution of species (flowering and non-flowering plants and selected animal groups) from secondary data to identify the preliminary patterns of species richness, abundance, rarity, endemism in the Northeast region
2. Undertake a systematic, quantitative inventory of the distribution and diversity of flowering plants and biological resources in Sikkim and Darjeeling Himalayan region of the Northeast using grid-based sampling approach.
3. Identify biological resources used by local communities, including wild relatives crop plants in Sikkim and Darjeeling Himalayan region

Md. Aslam

Sub-project 2: Quantitative assessment and mapping of plant diversity and biological resources in Upper and Lower Assam: Balipara Foundation, Assam

1. Undertake a systematic, quantitative inventory of the distribution and diversity of flowering plants and biological resources in Upper and Lower Assam region of the Northeast using grid-based sampling approach.
2. Identify biological resources used by local communities, including wild relatives crop plants in Upper and Lower Assam region

Sub-project 3: Quantitative assessment and mapping of plant diversity and biological resources in Western Arunachal Pradesh: Institute yet to be identified

1. Undertake a systematic, quantitative inventory of the distribution and diversity of flowering plants and biological resources in Western Arunachal Pradesh region of the Northeast using grid-based sampling approach.
2. Identify biological resources used by local communities, including wild relatives crop plants in Western Arunachal Pradesh region

Sub-project 4: Quantitative assessment and mapping of plant diversity and biological resources in Central Arunachal Pradesh: Institute yet to be identified

1. Undertake a systematic, quantitative inventory of the distribution and diversity of flowering plants and biological resources in Central Arunachal Pradesh region of the Northeast using grid-based sampling approach.
2. Identify biological resources used by local communities, including wild relatives crop plants in Central Arunachal Pradesh region

Sub-project 5: Quantitative assessment and mapping of plant diversity and biological resources in Eastern Arunachal Pradesh: North Eastern Regional Institute of Science and Technology (NERIST)

1. Undertake a systematic, quantitative inventory of the distribution and diversity of flowering plants and biological resources in Eastern Arunachal Pradesh region of the Northeast using grid-based sampling approach.
2. Identify biological resources used by local communities, including wild relatives crop plants in Eastern Arunachal Pradesh region

Sub-project 6: Quantitative assessment and mapping of plant diversity and biological resources in Nagaland: Nagaland University : Dr. Neizo Puro

1. inventory of the distribution and diversity of flowering plants and biological resources in Nagaland region of the Northeast using grid-based sampling approach.
2. Identify biological resources used by local communities, including wild relatives of crop plants in Nagaland region

Sub-project7: Quantitative assessment and mapping of plant diversity and biological resources in Manipur: Institute for Bioresources and Sustainable Development (IBSD), Manipur:

1. Undertake a systematic, quantitative inventory of the distribution and diversity of flowering plants and biological resources in Manipur region of the Northeast using grid-based sampling approach.
2. Identify biological resources used by local communities, including wild relatives of crop plants in Manipur region

Sub-project 8: Quantitative assessment and mapping of plant diversity and biological resources in Mizoram: Mizoram University, Mizoram:

1. Undertake a systematic, quantitative inventory of the distribution and diversity of flowering plants and biological resources in Mizoram region of the Northeast using grid-based sampling approach.
2. Identify biological resources used by local communities, including wild relatives of crop plants in Mizoram region.

Sub-project 9: Quantitative assessment and mapping of plant diversity and biological resources in Tripura: Tripura University, Tripura:

1. Undertake a systematic, quantitative inventory of the distribution and diversity of flowering plants and biological resources in Tripura region of the Northeast using grid-based sampling approach.
2. Identify biological resources used by local communities, including wild relatives of crop plants in Tripura region.

Sub-project10: Quantitative assessment and mapping of plant diversity and biological resources in Meghalaya: North East Hill University (NEHU), Meghalaya:

1. Undertake a systematic, quantitative inventory of the distribution and diversity of flowering plants and biological resources in Meghalaya region of the Northeast using grid-based sampling approach.
2. Identify biological resources used by local communities, including wild relatives of crop plants in Meghalaya region

Mohd. Asher

Sub-project 11: Quantitative assessment and mapping of the diversity of non-flowering plants (bryophytes, fungi, pteridophytes,) of Northeast India. National Botanical Research Institute (NBRI), Lucknow:

1. Undertake a systematic, quantitative inventory of the distribution and diversity of non-flowering plant (bryophytes, fungi, pteridophytes, gymnosperms) in the Northeast region using grid-based sampling approach
2. Identify non-flowering plant (bryophytes, fungi, pteridophytes, gymnosperms) based biological resources used by local communities in Northeast region and integrate this data into a comprehensive database.

Sub-project 12: Quantitative assessment and mapping of the diversity of non-flowering plants (Algae) of Northeast India. Institute for Bioresources and Sustainable Development (IBSD), Manipur:

1. Undertake a systematic, quantitative inventory of the distribution and diversity of non-flowering plant (Algae) in the Northeast region using grid-based sampling approach
2. Identify algal based biological resources used by local communities in Northeast region and integrate this data into a comprehensive database.

Sub-project 13: Quantitative assessment and mapping of the diversity of non-flowering plants (Diatom) of Northeast India. Agharkar Research Institute, Pune:

1. Undertake a systematic, quantitative inventory of the distribution and diversity of non-flowering plant (Diatom) in the Northeast region using grid-based sampling approach.
2. Prepare a relational database of diatom flora of Northeast region.

Sub-project 14: Geo-Referenced Database and Habitat Attributes of Insect Bioresources of NE India with Special Reference to Edible Insects and Wild Sericigenous Insects : Institute for Bioresources and Sustainable Development (IBSD), Manipur:

1. Prepare geo-referenced database of edible insects and their habitat attributes of Northeast Indian states.

Sub-project 15: Documenting Community Knowledge Associated with Insect Bio Resources of Northeast India, Together with Their Dynamics and Sustainability Challenges : Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore:

1. Documenting community knowledge associated with insect bio resources of Northeast India, together with their dynamics and sustainability challenges and management.

Sub-project 16: Quantitative assessment and mapping of the diversity of wild bees and honey bees of Northeast India. Rajiv Gandhi University, Arunachal Pradesh:

1. Undertake a systematic, quantitative inventory of the distribution and diversity of wild bees and honey bees in the Northeast region using grid-based sampling approach
2. Prepare a relational database of wild bees and honey bees from the Northeast region integrating catalogs, specimen data, geo-referenced locality information, images, and a bibliography etc.

Sub-project 17: Quantitative assessment and mapping of the diversity of Cicadas from Northeast India. North Eastern Hill University (NEHU), Shillong:-

1. Undertake a systematic, quantitative inventory of the distribution and diversity Cicadas from the Northeast region using grid-based sampling approach
2. Prepare a relational database of Cicadas from the Northeast region integrating catalogs, specimen data, geo-referenced locality information, images, and a bibliography etc.

Sub-project 18: Quantitative assessment and mapping of the diversity of Dung beetle (Scarabaeinae: Coleoptera) and Ant (Formicidae: Hymenoptera) from Northeast India. Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore:

1. Collate existing information on Ants and Dung beetles of the Northeast region and organize this information into a database
2. Undertake a systematic, quantitative inventory of the distribution and diversity Ants and Dung beetles from the Northeast region using grid-based sampling approach
3. Prepare a relational database of Cicadas from the Northeast region integrating catalogs, specimen data, geo-referenced locality information, images, and a bibliography etc.

Sub-project 19: Quantitative assessment and mapping of the diversity of non-marine molluscs (land snails and freshwater molluscs) Northeast India. Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore:-

1. To undertake a systematic, quantitative inventory of the distribution and diversity of non-marine molluscs (land snails and freshwater molluscs) of the Northeast region using grid-based sampling approach
2. Assess the Bioresource potential of non marine mollusks in Northeast Indian region and develop comprehensive database.

Mold. Ashok

Sub-project 20: Organization and Management of a Central Database and diversity analysis of transect data :Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore:-

1. Establish and manage a central database for data generated by surveys of ecosystems, species, use of bioresources by local communities, and data generated by other subprojects of the study, using tools and approaches of biodiversity informatics; make the curated data available to researchers in the project
2. Use species level data from grid-based inventories to analyze diversity pattern and community assemblage rules

Component 2: Integrative Taxonomic Analysis for Assessment of Diversity and Phylogenetic Relationships among Selected Understudied Taxa of Northeast Region

Sub-project 1: Integrative Taxonomic Analysis for Assessment of Diversity and Phylogenetic Relationships among Asiatic Vigna and Cucurbitaceae from Northeast Region: Institute of Life Sciences, Bhubaneswar:

1. Assembly of core set of collections based on morphological characters as well as distribution pattern.
2. Molecular characterization of reference set of germplasm and identifying and developing best possible marker systems.
3. Elucidating intra- and inter-specific genetic diversity, analysis of population genetic structure and phylogeography of native and wild species
4. Molecular phylogenetics using nuclear and chloroplast gene sequence analyses.
5. Estimation of divergence times of species-populations through comparative phylogeographic and phylogenetic data analyses.
6. Identifying populations with unique and diverse attributes for aiding to conservation efforts.

Sub-project 2: Integrative Taxonomic Analysis for Assessment of Diversity and Phylogenetic Relationships among Gingers (Zingiberaceae) and Prunus from Northeast Region: Institute of Bioresources and Sustainable Development (IBSD), Imphal:

1. Assembly of core set of collections based on morphological characters as well as distribution pattern.
2. Molecular characterization of reference set of germplasm and identifying and developing best possible marker systems.
3. Elucidating intra- and inter-specific genetic diversity, analysis of population genetic structure and phylogeography of native and wild species
4. Molecular phylogenetics using nuclear and chloroplast gene sequence analyses.
5. Estimation of divergence times of species-populations through comparative phylogeographic and phylogenetic data analyses.
6. Identifying populations with unique and diverse attributes for aiding to conservation efforts.

Sub-project 3: Integrative Taxonomic Analysis for Assessment of Diversity and Phylogenetic Relationships among Quercus and Citrus from Northeast Region: CSIR-NATIONAL BOTANICAL RESEARCH INSTITUTE (CSIR-NBRI):-

1. Analysis of population genetic structure and phylogeography of native and wild species of Citrus and Quercus.
2. Molecular phylogenetics of Indian Citrus and Quercus using nuclear and chloroplast gene sequence analyses.
3. Estimation of divergence times of species-populations of Citrus and Quercus through comparative phylogeographic and phylogenetic data analyses.

Sub-project 4: Integrative Taxonomic Analysis for Assessment of Diversity and Phylogenetic Relationships among Lauraceae from Northeast Region: Ashoka Trust for Research in Ecology and the Environment (ATREE):-

1. Develop a comprehensive database for distribution of Lauraceae species in Northeast region of India from primary field survey and secondary data.
2. Use Integrative taxonomic approach by combining morphological, ecological and molecular sequence data to resolve taxonomic status and phylogenetic relationship of Northeast Indian Lauraceae.
3. Undertake historical biogeographic and comparative phylogenetic analysis of Northeast Indian Lauraceae to gain insights about phyto geography and diversification of Lauraceae.

Component 3: Assess the economic value of bio-resources and their role in meeting the societal needs and sustainable development goals

Sub-project 1: Mainstreaming the lesser-known Bioresources: CSIR-NATIONAL BOTANICAL RESEARCH INSTITUTE (CSIR-NBRI):-

1. Mainstreaming the lesser-known Bioresources.

Sub-project 2: Integrating the unique bioresources to enhance the ecotourism potential of the region: Institute of Bioresources and Sustainable Development (IBSD), Imphal: -

1. Integrating the unique bioresources to enhance the ecotourism potential of the region.

N. J. Ashu

Component 4: Biodiversity-based Livelihoods

Sub-project 1:

Product development and partner support for demonstration farming and value addition: CSIR-NATIONAL BOTANICAL RESEARCH INSTITUTE (CSIR-NBRI):

1. High value product development for selected bioresources and sharing the benefits with the communities
2. Demonstration farming, value addition and value chain development for high value plant resources for economic development
3. Capacity building among the communities for non-agriculture use of biodiversity

Sub-project2: Development of captive farming, sustainable harvest technologies, integration with plantation programmes and agroforestry, and value addition in Arunachal Pradesh: NERIST, Arunachal Pradesh:

1. Demonstration farming and value addition of high value plant resources hitherto under-exploited for economic development and sustainable use of biodiversity
2. Capacity building among the communities for non-agriculture use of biodiversity

Sub-project 3: Development of captive farming, sustainable harvest technologies, integration with plantation programmes and agroforestry, and value addition by IBSD in Manipur/Nagaland Targeted bioresources: Gingers and Zanthoxylum: Institute of Bioresources and Sustainable Development (IBSD), Imphal, Manipur:

1. Demonstration farming and value addition of high value plant resources hitherto under-exploited for economic development and sustainable use of biodiversity
2. Capacity building among the communities for non-agriculture use of biodiversity

Sub-project 4: Development of captive farming, sustainable harvest technologies, integration with plantation programmes and agroforestry, and value addition by NEHU in East Khasi Hills, Meghalaya Targeted bioresources: Zanthoxylum and Gaultheria species: NEHU, Shillong, Meghalaya:-

1. Demonstration farming and value addition of high value plant resources hitherto under-exploited for economic development and sustainable use of biodiversity
2. Capacity building among the communities for non-agriculture use of biodiversity

Component 5: Enhancing Capacity in Communication about Biological resources, Biodiversity Science and Sustainable development for societal benefits in Northeast Ashoka Trust for Research in Ecology and the Environment(ATREE):

There are two broad objectives of the proposal:

1. Build capacity of the research group engaged in the project and other staff in Northeast academic institutions, in biodiversity science (quantitative ecology, integrated taxonomy, conservation biology and green economy).
2. Develop a comprehensive, multi-level strategy to convey to students, practitioners, policy makers and the general public the ecological and economic significance of Bioresources

Component 6: Sub-Project Title: Monitoring, Management and Coordination of the project; -

Project Summary: The proposed program will be coordinated by the Ashoka Trust for Research in Ecology and the Environment (ATREE) and Institute of Bioresources and Sustainable Development (IBSD) under the sponsorship of the Department of Biotechnology (DBT) in partnership with a range of institutions in the northeast. This document deals with the management structure of the overall program and the associated budget.

2.5 Time Schedule:

The duration of the project is 3 Year 0 Month from the date of this sanction order.

2.6 Project Cost:

The total cost of the project is **Rs. 2318.64243 lakhs (Rupees Twenty Three Crores Eighteen Lakhs Sixty Four Thousand Two Hundred and Forty Three Only)** as per details given below:

Mohd. Aslan

Budget Details: Total Consolidated Budget of All Sub- projects and Institutions (Rs in lakhs):

Name of Sub-Project	Non-Rec.	Manpower	Consumables	Travel	Contingency	Overhead	TOTAL
Component 1: SP- 1- ATREE Sikkim	16.10	45.576	4.00	9.00	6.00	3.00	83.676
SP- 2 Balipara Foundation	13.65	42.84	4.00	9.00	6.00	3.00	78.49
SP -3 NERIST, AP	0.00	0.00	0.00	0.00	0.00	0.00	0.0
SP- 4 Central Arunachal	0.00	0.00	0.00	0.00	0.00	0.00	0.0
SP- 5 West Arunachal	0.00	0.00	0.00	0.00	0.00	0.00	0.0
SP -6 Nagaland University , Nagaland	13.65	42.84	4.00	9.00	6.00	3.00	78.49
SP -7 IBSD Manipur	13.65	42.84	4.00	9.00	6.00	3.00	78.49
SP -8 Mizoram Univ. Mizoram	13.65	42.84	4.00	9.00	6.00	3.00	78.49
SP -9, Tripura Univ. , Assam	13.65	42.84	4.00	9.00	6.00	3.00	78.49
SP -10 NEHU, Shillong	13.65	42.84	4.00	9.00	6.00	3.00	78.49
SP -11 - NBRI, Lucknow	5.00	43.416	6.00	9.00	6.00	3.00	72.416
SP- 12 -IBSD, Manipur	2.00	33.048	6.00	9.00	6.00	3.00	59.048
SP -13 ARI, Pune	2.00	27.00	6.00	9.00	6.00	3.00	53.00
SP -14 - IBSD, Imphal	1.50	27.00	6.00	9.00	6.00	3.00	52.5
SP -15 - ATREE, Bangalore	3.60	42.12	3.00	3.00	3.00	2.15	56.87
SP -16, RGU, Itanagar	10.10	35.64	6.00	9.00	6.00	3.00	69.74
SP -17 NEHU, Shillong	10.10	35.64	6.00	9.00	6.00	3.00	69.74
SP -18 - ATREE , Bangalore	36.10	42.12	9.00	9.00	6.00	3.00	105.22
SP -19 - ATREE , Bangalore	29.35	42.12	4.00	9.00	6.00	3.00	93.47
SP -20 - ATREE , Bangalore	6.10	26.784	0.00	6.00	3.00	3.00	44.884
Component 2: SP -1: ILS	40.13	38.016	20.00	3.00	3.00	3.00	107.146
SP -2: IBSD, Imphal	35.00	34.848	20.00	3.00	3.00	3.00	98.848
SP -3: CSIR-NBRI, Lucknow	29.11	38.016	20.00	3.00	3.00	3.00	96.126
SP -4: ATREE, Bangalore	10.00	24.336	13.10	3.00	1.50	1.50	53.436
Component 3: SP -1: IBSD, Imphal	10.00	34.992	30.00	9.00	3.00	3.00	89.992
SP -2: CSIR-NBRI, Lucknow	10.00	44.928	27.00	7.50	3.00	2.15	94.578
Component 4: SP -1: -NBRI, Lucknow	10.00	50.976	43.60	6.00	3.00	5.00	118.576
SP -2: NEIRST, AP	7.99	20.592	35.00	6.00	3.00	3.00	75.582
SP -3: IBSD, Imphal	10.00	20.592	34.15	6.00	3.00	3.00	76.742
SP -4: NEHU, Shillong	7.95	20.592	35.00	6.00	3.00	3.00	75.542
Component 5: ATREE, Bangalore	3.75	30.888	30.00	23.00	60.00	3.00	150.638
Component 6: ATREE, Bangalore	0.55	35.68243	1.50	6.00	3.00	3.00	49.73243
Total	378.43	1051.96243	389.35	225.50	187.50	85.80	2318.54243

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Component wise Budget Breakup:-

Component 1:-

Sub-project 1: Ashoka Trust for Research in Ecology and the Environment (ATREE)

(Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	16.10	0.00	0.00	16.10
Manpower	14.928	14.928	15.72	45.576
Consumables	2.00	1.00	1.00	4.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	39.028	21.928	22.72	83.676

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Data Loggers	1.10
2	Desktop computer	5.00
3.	Cameras (@ Rs. 30,000 * 2 Units)	0.60
4.	GPS (@ Rs. 20,000 * 2 Units)	0.40
5.	Stereomicroscope	6.00
6.	Minor Equipment (field gears & storage units etc)	3.00
Total		16.10

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 38000/- + 30% HRA HRA for all three years.	One	5.928	5.928	5.928	17.784
Junior Research Fellow @ Rs. 25000/- + 30% HRA for 1 st and 2 nd year and	Two	6.60	6.60	7.392	20.592
Senior Research Fellow @ Rs. 28000/- + 30% HRA for 3 rd year. Strictly as per DST guidelines					
Field Asst. Rs.10000/- month	Two	2.40	2.40	2.40	7.20
Total :		14.928	14.928	15.72	45.576

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

Nald. Arle

Sub-Project 2- Ballpara Foundation

(Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	13.65	0.00	0.00	13.65
Manpower	14.016	14.016	14.808	42.84
Consumables	2.00	1.00	1.00	4.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	35.666	21.016	21.808	78.49

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Scanner for Herbarium Imaging	3.00
2	Data Loggers	0.55
3.	Field Cameras (@ Rs. 13,500 and 46,000- 2 units Units)	0.60
4.	GPS (@ Rs. 25,000 * 2 Units)	0.50
5.	Stereo Zoom microscope	6.00
6.	Minor Equipment (field gears & storage units etc)	3.00
	Total	13.65

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 38000/- + 10% HRA HRA for all three years.	One	5.016	5.016	5.016	15.048
Junior Research Fellow @ Rs. 25000/- + 10% HRA for 1 st and 2 nd year and	Two	6.60	6.60	7.392	20.592
Senior Research Fellow @ Rs. 28000/- + 30% HRA for 3 rd year. Strictly as per DST guidelines					
Field Asst. Rs.10000/- month	Two	2.40	2.40	2.40	7.2
Total :		14.016	14.016	14.808	42.84

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

Sub-project 3, Sub-project 4 and Sub-project 5 : Institute yet to be identified

Mold. Asha

Sub-Project 6- Nagaland University

(Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	13.65	0.00	0.00	13.65
Manpower	14.016	14.016	14.808	42.84
Consumables	2.00	1.00	1.00	4.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	35.666	21.016	21.808	78.49

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Scanner for Herbarium Imaging	3.00
2	Data Loggers	0.55
3.	Field Cameras (@ Rs. 13,500 and 46,000- 2 units Units)	0.60
4.	GPS (@ Rs. 25,000 * 2 Units)	0.50
5.	Stereo Zoom microscope	6.00
6.	Minor Equipment (field gears & storage units etc)	3.00
	Total	13.65

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 38000/- + 10% HRA HRA for all three years.	One	5.016	5.016	5.016	15.048
Junior Research Fellow @ Rs. 25000/- + 10% HRA for 1 st and 2 nd year and	Two	6.60	6.60	7.392	20.592
Senior Research Fellow @ Rs. 28000/- + 30% HRA for 3 rd year. Strictly as per DST guidelines					
Field Asst. Rs.10000/- month	Two	2.40	2.40	2.40	7.2
Total :		14.016	14.016	14.808	42.84

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

Mold. Adhe

Sub-Project 7- Institute for Bioresources and Sustainable Development (IBSD), Manipur

(Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	13.65	0.00	0.00	13.65
Manpower	14.016	14.016	14.808	42.84
Consumables	2.00	1.00	1.00	4.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	35.666	21.016	21.808	78.49

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Scanner for Herbarium Imaging	3.00
2	Data Loggers (Laptop Hp) (@ Rs. 0.55 lakhs * 2 Units)	0.55
3.	Cameras (@ Rs. 30,000 * 2 Units)	0.60
4.	GPS (@ Rs. 25,000 * 2 Units)	0.50
5.	Stereomicroscope	6.00
6.	Minor Equipment (field gears & storage units etc)	3.00
	Total	13.65

Details of Manpower

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 38000/- + 10% HRA HRA for all three years.	One	5.016	5.016	5.016	15.048
Junior Research Fellow @ Rs. 25000/- + 10% HRA for 1 st and 2 nd year and	Two	6.60	6.60	7.392	20.592
Senior Research Fellow @ Rs. 28000/- + 30% HRA for 3 rd year. Strictly as per DST guidelines					
Field Asst. Rs.10000/- month	Two	2.40	2.40	2.40	7.2
Total :		14.016	14.016	14.808	42.84

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

Mold. Adher.

Sub-Project 8- Mizoram University, Mizoram

(Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	13.65	0.00	0.00	13.65
Manpower	14.016	14.016	14.808	42.84
Consumables	2.00	1.00	1.00	4.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	35.666	21.016	21.808	78.49

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Scanner for Herbarium Imaging	3.00
2	Data Loggers (Laptop Hp) (@ Rs. 0.55 lakhs * 2 Units)	0.55
3.	Field Cameras (@ Rs. 30,000 * 2 Units)	0.60
4.	GPS (2 Units)	0.50
5.	Stereomicroscope	6.00
6.	Minor Equipment (field gears & storage units etc)	3.00
	Total	13.65

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 38000/- + 10% HRA HRA for all three years.	One	5.016	5.016	5.016	15.048
Junior Research Fellow @ Rs. 25000/- + 10% HRA for 1 st and 2 nd year and	Two	6.60	6.60	7.392	20.592
Senior Research Fellow @ Rs. 28000/- + 30% HRA for 3 rd year. Strictly as per DST guidelines					
Field Asst. Rs.10000/- month	Two	2.40	2.40	2.40	7.2
Total :		14.016	14.016	14.808	42.84

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

Mold. Asher

Sub-Project 9- Tripura University, Tripura

(Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	13.65	0.00	0.00	13.65
Manpower	14.016	14.016	14.808	42.84
Consumables	2.00	1.00	1.00	4.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	35.666	21.016	21.808	78.49

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Scanner for Herbarium Imaging	3.00
2	Data Loggers (Laptop Hp) (@ Rs. 0.55 lakhs * 2 Units)	0.55
3.	Field Cameras (@ Rs. 30,000 * 2 Units)	0.60
4.	GPS (2 Units)	0.50
5.	Stereomicroscope	6.00
6.	Minor Equipment (field gears & storage units etc)	3.00
	Total	13.65

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 38000/- + 10% HRA HRA for all three years.	One	5.016	5.016	5.016	15.048
Junior Research Fellow @ Rs. 25000/- + 10% HRA for 1 st and 2 nd year and	Two	6.60	6.60	7.392	20.592
Senior Research Fellow @ Rs. 28000/- + 30% HRA for 3 rd year. Strictly as per DST guidelines					
Field Asst. Rs.10000/- month	Two	2.40	2.40	2.40	7.2
Total :		14.016	14.016	14.808	42.84

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

Mold. Adla

Sub-Project 10- North East Hill University (NEHU), Meghalaya

(Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	13.65	0.00	0.00	13.65
Manpower	14.016	14.016	14.808	42.84
Consumables	2.00	1.00	1.00	4.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	35.666	21.016	21.808	78.49

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Scanner for Herbarium Imaging	3.00
2	Data Loggers (@ Rs. 0.55 lakhs * 2 Units)	0.55
3.	Field Cameras (@ Rs. 30,000 * 2 Units)	0.60
4.	GPS (2 Units)	0.50
5.	Stereomicroscope	6.00
6.	Minor Equipment (field gears & storage units etc)	3.00
	Total	13.65

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 38000/- + 10% HRA HRA for all three years.	One	5.016	5.016	5.016	15.048
Junior Research Fellow @ Rs. 25000/- + 10% HRA for 1 st and 2 nd year and	Two	6.60	6.60	7.392	20.592
Senior Research Fellow @ Rs. 28000/- + 30% HRA for 3 rd year. Strictly as per DST guidelines					
Field Asst. Rs.10000/- month	Two	2.40	2.40	2.40	7.2
Total :		14.016	14.016	14.808	42.84

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

Mold. Ad

Sub-Project 11- National Botanical Research Institute (NBRI), Lucknow

(Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	5.00	0.00	0.00	5.00
Manpower	14.472	14.472	14.472	43.416
Consumables	2.00	2.00	2.00	6.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	27.472	22.472	22.472	72.416

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Minor equipment (GPS, Soil physical parameter analyzing kit, field microscopes etc.)	5.00
	Total	5.00

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 38000/- + 20% HRA for all three years.	One	5.472	5.472	5.472	16.416
Project Fellow @ Rs. 25000/- per month fixed	Three	9.00	9.00	9.00	27.00
Total :		14.472	14.472	14.472	43.416

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A.20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

Sub-Project 12- Institute for Bioresources and Sustainable Development (IBSD), Manipur

Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	2.00	0.00	0.00	2.00
Manpower	11.016	11.016	11.016	33.048
Consumables	2.00	2.00	2.00	6.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	21.016	19.016	19.016	59.048

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Minor equipment (GPS, Soil physical parameter analysing kit, field microscopes etc.)	2.00
	Total	2.00

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 38000/- + 10% HRA for all three years.	One	5.016	5.016	5.016	15.048
Project Fellow @ Rs. 25000/- per month fixed	Two	6.00	6.00	6.00	18.00
Total :		11.016	11.016	11.016	33.048

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A.20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

Mohd. Ashu

Sub-Project 13- Agharkar Research Institute, Pune

Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	2.00	0.00	0.00	2.00
Manpower	9.00	9.00	9.00	27.00
Consumables	2.00	2.00	2.00	6.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	19.00	17.00	17.00	53.00

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Minor equipment (GPS, Soil physical parameter analysing kit, field microscopes etc.)	2.00
	Total	2.00

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Project Fellow @ Rs. 25000/- per month fixed	Three	9.00	9.00	9.00	27.00
Total :		9.00	9.00	9.00	27.00

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

Sub-Project 14- Institute for Bioresources and Sustainable Development (IBSD), Manipur

Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	1.50	0.00	0.00	1.50
Manpower	9.00	9.00	9.00	27.00
Consumables	2.00	2.00	2.00	6.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	18.50	17.00	17.00	52.50

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Minor equipments (Data loggers, Handy cam camera (High magnification), GPS etc)	1.50
	Total	1.50

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 38000/- + 10% HRA for all three years.	One	5.016	5.016	5.016	15.048
Project Fellow @ Rs. 25000/- per month fixed	Two	6.00	6.00	6.00	18.00
Total :		11.016	11.016	11.016	33.048

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

Mold-Ashu

Sub-Project 15- Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore

(Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	3.60	0.00	0.00	3.60
Manpower	13.728	13.728	14.664	42.12
Consumables	1.00	1.00	1.00	3.00
Travel	1.00	1.00	1.00	3.00
Contingency	1.00	1.00	1.00	3.00
Overhead	0.75	0.70	0.70	2.15
TOTAL	21.078	17.428	18.364	56.87

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Data Loggers (2 Units)	1.00
2.	Cameras(2 Units)	0.60
3.	Minor Equipment (GPS, field gears & storage units etc.)	2.00
	Total	3.60

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 38000/- + 30% HRA for all three years.	One	5.928	5.928	5.928	17.784
Junior Research Fellow @ Rs. 25000/- + 30% HRA for 1 st and 2 nd year and	Two	7.80	7.80	8.736	24.336
Senior Research Fellow @ Rs. 28000/- + 30% HRA for 3 rd year. Strictly as per DST guidelines					
Total :		13.728	13.728	14.664	42.12

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

M. P. Adla

Sub-Project 16- Rajiv Gandhi University, Arunachal Pradesh

Rs. In lakhs

Heads	I Year	II Year	III Year	Total
Equipment	10.00	0.00	0.00	10.00
Manpower	11.616	11.616	12.408	35.64
Consumables	2.00	2.00	2.00	6.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	29.616	19.616	20.408	69.64

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Data loggers (Rs. 50000*2 units)	1.00
2.	Cameras (with Zoom lens, with Macro lens and stand)	1.50
3.	Stereo Microscope	5.00
4.	Minor equipment- GPS, (bee veil, leather gloves, storage vial, digital calipers, Sampling net, Altimeter, Kestrel Weather meter, HoBo data logger, etc.)	2.50
	Total	10.00

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 38000/- + 10% HRA for all three years.	One	5.016	5.016	5.016	15.048
Junior Research Fellow @ Rs. 25000/- + 30% HRA for 1 st and 2 nd year and	Two	6.60	6.60	7.392	20.592
Senior Research Fellow @ Rs. 28000/- + 30% HRA for 3 rd year. Strictly as per DST guidelines					
Total :		11.616	11.616	12.408	35.64

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

Mold. Ash

Sub-Project 17- North Eastern Hill University (NEHU), Shillong

Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	10.00	0.00	0.00	10.00
Manpower	11.616	11.616	12.408	35.64
Consumables	2.00	2.00	2.00	6.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	29.616	19.616	20.408	69.64

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Data loggers (Rs. 50000*2 units)	1.00
2.	Cameras (with Zoom lens, with Macro lens and stand)	1.50
3.	GPS (Rs. 50000*2 units)	0.50
4.	Stereo Microscope	5.00
5.	Minor equipment- (bee veil, leather gloves, storage vial, digital calipers, Sampling net, Altimeter, Kestrel Weather meter, HoBo data logger, etc.)	2.00
	Total	10.00

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 38000/- + 10% HRA for all three years.	One	5.016	5.016	5.016	15.048
Junior Research Fellow @ Rs. 25000/- + 10% HRA for 1 st and 2 nd year and	Two	6.60	6.60	7.392	20.592
Senior Research Fellow @ Rs. 28000/- + 10% HRA for 3 rd year. Strictly as per DST guidelines					
Total :		11.616	11.616	12.408	35.64

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

Nbold. Arl

Sub-Project 18- Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore
(Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	36.10	0.00	0.00	36.10
Manpower	13.728	13.728	14.664	42.12
Consumables	3.00	3.00	3.00	9.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	58.828	22.728	23.664	105.22

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Data Loggers (2 units)	1.00
2.	Cameras(2 units)	0.60
3.	GPS	0.50
4.	Digital Microscope (Keyence VHX900 & accessories)	30.00
5.	Stereo microscope Lobo (2 units)	2.00
6.	Minor Equipment including field gears & storage units,	2.00
	Total	36.10

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 38000/- + 30% HRA for all three years.	One	5.928	5.928	5.928	17.784
Junior Research Fellow @ Rs. 25000/- + 30% HRA for 1 st and 2 nd year and	Two	7.80	7.80	8.736	24.336
Senior Research Fellow @ Rs. 28000/- + 30% HRA for 3 rd year. Strictly as per DST guidelines					
Total :		13.728	13.728	14.664	42.12

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

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Sub-Project 19- Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore

Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	29.35	0.00	0.00	29.35
Manpower	13.728	13.728	14.664	42.12
Consumables	1.50	1.25	1.25	4.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	50.578	20.978	21.914	93.47

Details of equipment:

S..n o	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Data logger (3 Units)	1.65
2.	Streo Microscope with camera attachment for identification of snails	6.00
3.	Minor field equipment etc	5.00
4.	GPS (2 Units)	0.50
5.	Field Camera (2 Units)	0.60
6.	pH meter (2 Units)	0.30
7.	TDS meter (2 Units)	0.30
8.	Color printer+ Scanner	0.40
9.	Hach water analysis kit	7.50
10.	High-end image processing unit	1.60
11.	DSLR Camera and Lens	3.50
12.	Image processing software	2.00
	Total	29.35

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 38000/- + 30% HRA for all three years.	One	5.928	5.928	5.928	17.784
Junior Research Fellow @ Rs. 25000/- + 30% HRA for 1 st and 2 nd year and	Two	7.80	7.80	8.736	24.336
Senior Research Fellow @ Rs. 28000/- + 30% HRA for 3 rd year. Strictly as per DST guidelines					
Total :		13.728	13.728	14.664	42.12

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

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Sub-Project 20- Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore

Rs. In lakhs

Heads	I Year	II Year	III Year	Total
Equipment	6.10	0.00	0.00	6.10
Manpower	8.928	8.928	8.928	26.784
Consumables	0.00	0.00	0.00	0.0
Travel	2.00	2.00	2.00	6.00
Contingency	1.00	1.00	1.00	3.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	19.028	12.928	12.928	44.884

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Computer for database	5.00
2.	Desktop/Laptop computers 2 Units	1.10
	Total	6.10

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 38000/- + 30% HRA for all three years.	One	5.928	5.928	5.928	17.784
Project Assistant (Computer) @ Rs. 25000/- Per month fixed	One	3.00	3.00	3.00	9.00
Total :		8.928	8.928	8.928	26.784

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

Component 2: Taxonomic Analysis for Assessment of Diversity and Phylogenetic Relationships among Selected Understudied Taxa of North East Region

Sub-Project 1- Institute of Life Sciences, Bhubaneswar *Rs. In lakhs*

Heads	I Year	II Year	III Year	Total
Equipment	40.13	0.00	0.00	40.13
Manpower	12.384	12.384	13.248	38.016
Consumables	8.00	6.00	6.00	20.00
Travel	1.00	1.00	1.00	3.00
Contingency	1.00	1.00	1.00	3.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	63.514	21.384	22.248	107.146

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Fragment Analyzer and accessories	24.00
2.	C1000 Thermal Cycler (PCR Machine)	4.00
3.	Refrigerated High Speed Centrifuge	7.50
4.	Horizontal Electrophoresis & Power	1.26
5.	Deep Freezer (2 Units) and refrigerators (2 Units)	2.57
6.	Pippet set	0.80
	Total	40.13

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Details of Manpower:

(Rs. in Lakhs)					
Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 36000/- + 20% HRA for all three years.	One	5.184	5.184	5.184	15.552
Junior Research Fellow @ Rs. 25000/- + 20% HRA for 1 st and 2 nd year and	Two	7.20	7.20	8.064	22.464
Senior Research Fellow @ Rs. 28000/- + 20% HRA for 3 rd year. Strictly as per DST guidelines					
Total :		12.384	12.384	13.248	38.016

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

Sub-Project 2- Institute of Bioresources and Sustainable Development (IBSD), Imphal

(Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	35.00	0.00	0.00	35.00
Manpower	11.352	11.352	12.144	34.848
Consumables	8.00	6.00	6.00	20.00
Travel	1.00	1.00	1.00	3.00
Contingency	1.00	1.00	1.00	3.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	57.352	20.352	21.144	98.848

Details of equipment:

S. no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Real time PCR (RT-PCR)	20.00
2.	Minor equipment (PCR machine, electrophoresis units, micro-centrifuge, Incubator etc.)	15.00
	Total	35.00

Details of Manpower:

(Rs. in Lakhs)					
Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 36000/- + 10% HRA for all three years.	One	4.752	4.752	4.752	14.256
Junior Research Fellow @ Rs. 25000/- + 10% HRA for 1 st and 2 nd year and	Two	6.60	6.60	7.392	20.592
Senior Research Fellow @ Rs. 28000/- + 10% HRA for 3 rd year. Strictly as per DST guidelines					
Total :		11.352	11.352	12.144	34.848

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

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Sub-Project 3 CSIR-NATIONAL BOTANICAL RESEARCH INSTITUTE (CSIR-NBRI)

Rs. In lakhs

Heads	I Year	II Year	III Year	Total
Equipment	29.21	0.00	0.00	29.21
Manpower	12.384	12.384	13.248	38.016
Consumables	8.00	6.00	6.00	20.00
Travel	1.00	1.00	1.00	3.00
Contingency	1.00	1.00	1.00	3.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	52.594	21.384	22.248	96.226

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Nanodrop Spectro photometer	11.21
2.	PCR machine	6.00
3.	Refrigerated Centrifuge	9.00
4.	Circulating Water-bath	3.00
	Total	29.21

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 36000/- + 20% HRA for all three years.	One	5.184	5.184	5.184	15.552
Junior Research Fellow @ Rs. 25000/- + 20% HRA for 1 st and 2 nd year and	Two	7.20	7.20	8.064	22.464
Senior Research Fellow @ Rs. 28000/- + 20% HRA for 3 rd year. Strictly as per DST guidelines					
Total :		12.384	12.384	13.248	38.016

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

Sub-Project 4:- Ashoka Trust for Research in Ecology and the Environment(ATREE)

Rs. In lakhs

Heads	I Year	II Year	III Year	Total
Equipment	10.00	0.00	0.00	10.00
Manpower	7.80	7.8	8.736	24.336
Consumables	4.00	4.55	4.55	13.10
Travel	1.00	1.00	1.00	3.00
Contingency	0.50	0.50	0.50	1.50
Overhead	0.50	0.50	0.50	1.50
TOTAL	23.80	14.35	15.286	53.436

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	PCR machine	4.50
2.	Autoclave	4.00
3.	Digital SLR Camera with lens & accessories	1.30
4.	GPS	0.20
	Total	10.00

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Details of Manpower:

Positions	No.	(Rs. in Lakhs)			Total
		I Year	II Year	III Year	
Junior Research Fellow @ Rs. 25000/- + 30% HRA for 1 st and 2 nd year and	Two	7.80	7.80	8.736	24.336
Senior Research Fellow @ Rs. 28000/- + 30% HRA for 3 rd year. Strictly as per DST guidelines					
Total :		7.8	7.8	8.736	24.336

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

Component 3: Assess the economic value of bio-resources and their role in meeting the societal needs and sustainable development goals

Sub-Project 1:- Institute of Bioresources and Sustainable Development (IBSD), Imphal

Heads	Rs. In lakhs)			
	I Year	II Year	III Year	Total
Equipment	10.00	0.00	0.00	10.00
Manpower	11.40	11.40	12.192	34.992
Consumables	10.00	10.00	10.00	30.00
Travel	3.00	3.00	3.00	9.00
Contingency	1.00	1.00	1.00	3.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	36.40	26.40	27.192	89.992

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Minor equipment	10.00
	Total	

Details of Manpower:

Positions	No.	(Rs. in Lakhs)			Total
		I Year	II Year	III Year	
Research Associate @ Rs. 40000/- + 10% HRA for all three years.	One	4.80	4.80	4.80	14.40
Junior Research Fellow @ Rs. 25000/- + 10% HRA for 1 st and 2 nd year and	Two	6.60	6.60	7.392	20.592
Senior Research Fellow @ Rs. 28000/- + 10% HRA for 3 rd year. Strictly as per DST guidelines					
Total :		11.40	11.40	12.192	34.992

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

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Sub-Project 2:- CSIR-NATIONALBOTANICALRESEARCHINSTITUTE (CSIR-NBRI), LUCKNOW
(Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	10.00	0.00	0.00	10.00
Manpower	14.40	14.4	16.128	44.928
Consumables	9.00	9.00	9.00	27.00
Travel	2.50	2.50	2.50	7.50
Contingency	1.00	1.00	1.00	3.00
Overhead	0.75	0.70	0.70	2.15
TOTAL	37.65	27.6	29.328	94.578

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Double beam UV-spectrophotometer	10.00

Details of Manpower:

Positions	No.	I Year	II Year	III Year	Total
Junior Research Fellow @ Rs. 25000/- + 20% HRA for 1 st and 2 nd year and	Four	14.40	14.40	16.128	44.928
Senior Research Fellow @ Rs. 28000/- + 20% HRA for 3 rd year. Strictly as per DST guidelines					
Total :		14.4	14.4	16.128	44.928

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A.20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

Component 4: Biodiversity based livelihoods

Sub-Project 1:- CSIR-NATIONALBOTANICALRESEARCHINSTITUTE (CSIR-NBRI)
(Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	10.00	0.00	0.00	10.00
Manpower	16.56	16.56	17.856	50.976
Consumables	15.00	14.30	14.30	43.60
Travel	2.00	2.00	2.00	6.00
Contingency	1.00	1.00	1.00	3.00
Overhead	1.00	2.00	2.00	5.00
TOTAL	45.56	35.86	37.156	118.576

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Microplate Reader	10.00

Details of Manpower:

Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 40000/- + 20% HRA for all three years.	One	5.76	5.76	5.76	17.28
Junior Research Fellow @ Rs. 25000/- + 20% HRA for 1 st and 2 nd year and	Three	10.80	10.80	12.096	33.696
Senior Research Fellow @ Rs. 28000/- + 20% HRA for 3 rd year. Strictly as per DST guidelines					
Total :		16.56	16.56	17.856	50.976

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A.20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

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Sub-Project 2:- NERIST, Arunachal Pradesh

Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	7.99	0.00	0.00	7.99
Manpower	6.60	6.60	7.392	20.592
Consumables	5.00	15.00	15.00	35.00
Travel	2.00	2.00	2.00	6.00
Contingency	1.00	1.00	1.00	3.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	23.59	25.6	26.392	75.582

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Rotary evaporator	7.99

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Junior Research Fellow @ Rs. 25000/- + 10% HRA for 1 st and 2 nd year and	Two	6.60	6.60	7.392	20.592
Senior Research Fellow @ Rs. 28000/- + 10% HRA for 3 rd year. Strictly as per DST guidelines					
Total :		6.60	6.60	7.392	20.592

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

Sub-Project 3:- Institute of Bioresources and Sustainable Development (IBSD), Impal, Manipur

Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	10.00	0.00	0.00	10.00
Manpower	6.60	6.60	7.392	20.592
Consumables	5.00	15.00	14.15	34.15
Travel	2.00	2.00	2.00	6.00
Contingency	1.00	1.00	1.00	3.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	25.6	25.60	25.542	76.742

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Rotary evaporator	10.00

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Junior Research Fellow @ Rs. 25000/- + 10% HRA for 1 st and 2 nd year and	Two	6.60	6.60	7.392	20.592
Senior Research Fellow @ Rs. 28000/- + 10% HRA for 3 rd year. Strictly as per DST guidelines					
Total :		6.60	6.60	7.392	20.592

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

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Sub-Project 4:- NEHU, Shillong, Meghalaya

Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	7.95	0.00	0.00	7.95
Manpower	6.60	6.60	7.392	20.592
Consumables	5.00	15.00	15.00	35.00
Travel	2.00	2.00	2.00	6.00
Contingency	1.00	1.00	1.00	3.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	23.55	25.6	26.392	75.542

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Rotary evaporator	7.95

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Junior Research Fellow @ Rs. 25000/- + 10% HRA for 1 st and 2 nd year and	Two	6.60	6.60	7.392	20.592
Senior Research Fellow @ Rs. 28000/- + 10% HRA for 3 rd year. Strictly as per DST guidelines					
Total :		6.60	6.60	7.392	20.592

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

Component 5:- Enhancing capacity in Communication about biological resources, biodiversity science and sustainable development for societal benefits in North East

Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore

Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	3.75	0.00	0.00	3.75
Manpower	10.296	10.296	10.296	30.888
Consumables	10.00	10.00	10.00	30.00
Travel	8.00	8.00	7.00	23.00
Contingency	20.00	20.00	20.00	60.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	53.046	49.296	48.296	150.638

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Computers (4 nos. of Laptops/Desktops)	2.20
2.	Projector and accessories	0.93
3.	Cameras (2Units)	0.62
	Total	3.75

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 38000/- + 30% HRA for all three years.	One	5.928	5.928	5.928	17.784
Project Associate @ Rs. 28,000 + HRA 30% HRA	One	4.368	4.368	4.368	13.104
Total :		10.296	10.296	10.296	30.888

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

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Component 6:-Monitoring, Management and Coordination of the project

Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore

Rs. In lakhs

Heads	I Year	II Year	III Year	Total
Equipment	0.55	0.00	0.00	0.55
Manpower	11.388	11.8794	12.41503	35.68243
Consumables	0.50	0.50	0.50	1.50
Travel	2.00	2.00	2.00	6.00
Contingency	1.00	1.00	1.00	3.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	16.438	16.3794	16.91503	49.73243

Details of equipment:

S.no	Name of the equipment	Sanctioned Cost (in lakhs)
1.	Computers (1 nos. of Laptops/ Desktops)	0.55
	Total	0.55

Details of Manpower:

(Rs. in Lakhs)

Positions	No.	I Year	II Year	III Year	Total
Research Associate @ Rs. 38000/- + 30% HRA for all three years.	One	5.928	5.928	5.928	17.784
Accountant One; Pay transition to 7 CPC equivalent considered	One	5.46	5.95140	6.48703	17.89843
Total :		11.388	11.8794	12.41503	35.68243

Emoluments of the research personnel (Junior Research Fellow/ Senior Research Fellow/ Research Associate/ Research Scientist etc.) shall be applicable only if educational qualification or eligibility criteria as per DST OM Nos. A.20020/11/97-IFD dated 31.03.2010 and A. 20020/11/97-IFD dated 22.09.2009 are met by the research personnel.

3. Head of Account:

The **Non-Recurring** expenditure involved is debit to:

Demand No. 85	Department of Biotechnology
3425	Other Scientific Research 2017-2018
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Biotechnology Research and Development, Human Resource Development, Research Resources and Facilities
3425.60.200.29.17	Assistance for Research and Development
3425.60.200.29.17.35	Grants for creation of capital assets

The **Recurring** expenditure involved is debit to:

Demand No. 85	Department of Biotechnology
3425	Other Scientific Research 2017-2018
3425.60	Others (Sub Major Head)
3425.60.200	Assistance to other Scientific Bodies (Minor Head)
3425.60.200.29	Biotechnology Research and Development, Human Resource Development, Research Resources and Facilities
3425.60.200.29.17	Assistance for Research and Development
3425.60.200.29.17.31	Grants in Aid General

4. Terms & Conditions:

- 4.1 The other terms and conditions governing this sanction are attached at Annexure- I.
- 4.2 A Memorandum of Agreement (MoA) will be signed between the Department of Biotechnology and the grantee institution on Non-Judicial stamp paper Rs. 100/- in the enclosed format and the second release/installment will be made only after signing of MoA by the grantee institutions and its acceptance by DBT. In case of NGO or Private Institution, MOA signed is mandatory before first release. A format of the MoA is enclosed in Annexure-II.
- 4.3 Institute wise Total consolidated budgetary details of the all Sub -projects are given at Annexure -III.

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- 4.4 Considering the time bound nature of the project, the project will be monitored by the Task Force / Committee constituted by DBT. In addition, the PI will submit half yearly progress report as per format in Annexure-IV.
- 4.4 In the event of the grantee failing to comply with the conditions or committing breach of the conditions of the bond, the signatories to the bond shall be jointly and severally liable to refund to the President of India, the whole or a part amount of the grant with interest at ten per cent per annum thereon or the sum specified under the bond. The stamp duty for this bond shall be borne by the Government.
- 4.5 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 Accounts.
- 5.0 No International travel will be undertaken from the sanctioned project grant.
- 6.0 Executive Authorities (Director/ Registrar as the case will be) of the institutions involve in the project would be responsible for submission of Statements of Expenditure (S/E) and consolidated utilization certificates (U/Cs) etc. to DBT in respect of grants released against this sanction order from time to time.
- 7.0 The accounts of grantee institution shall be open to inspection by the sanctioning authority/audit whenever the institute is called upon to do so by the sanctioning authority.
- 8.0 This issues under the power delegated to this Department and with the concurrence of IFD vide their SAN No. **102/IFD/SAN/...5441.../2017-2018** Dated **29-03-2018**.
- 9.0 This sanction order has been noted at serial no. ...39..... in the Register of Grants

Mohd. Aslam
Dr. Mohd. Aslam
(Adviser)

To,
 The Pay & Accounts Officer,
 Department of Biotechnology,
 New Delhi - 110 003

Copy to:

1. The Principal Director of Audit (Scientific Departments), DACR Building, New Delhi- 110 002
2. Prof. Dinabandhu Sahoo, Director, Institute of Bioresources and Sustainable Development (IBSD), Imphal, Manipur
3. Dr. Gitamani Dutta, Programme Office and Lead Researcher, Department of Botany, Institute of Bioresources and Sustainable Development (IBSD), Imphal
4. Dr. Bisheshwori Thongam, Scientist D, Department of Plant Systematic and Conservation Lab, (IBSD), Imphal, Manipur
5. Dr. Nanaocho Sharma, Fellow, Institute of Bioresources and Sustainable Development (IBSD), Imphal, Manipur
6. Dr. Shantibala Tourangbam, Scientist -C, Insect Bioresources Division, Institute of Bioresources and Sustainable Development (IBSD), Imphal, Manipur
7. Dr. Albert Chiang, Scientist C, Department of Restoration Ecology, Institute of Bioresources and Sustainable Development (IBSD), Imphal, Manipur
8. Dr. Ganesan Rengaiyan, Fellow, Suri Sehgal Center for Biodiversity and Conservation, Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore
9. The Director, Ashoka Trust for Research in Ecology and the Environment (ATREE), Royal Enclave Srirampura, Jakkur Post, Bengaluru- Karnataka
10. Dr. Ravikanth Gudsalmanni, Fellow, Center for Biodiversity and Conservation, Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore
11. Dr. Muneeswaran Mariappan, Coordinator, Department of Ecoinformatics Lab, Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore
12. Dr. Priyadarsanan, Senior Fellow, Centre for Biodiversity and Conservation, ATREE, Bangalore
13. Dr. Aravind, Fellow, ATREE, Bangalore
14. Dr. Sarala Khaling, Regional Director, ATREE, Bangalore
15. Dr. Uma Shankar, Professor, Department of Botany North Eastern Hill University, Shillong, Meghalaya
16. Finance Officer, North-Eastern Hill University, Umshing Mawkynroh, Shillong, Meghalaya 793022
17. Dr. Sundhanya Hajong, Assistant Professor, Department of Zoology, North Eastern Hill University, Shillong, Meghalaya
18. Dr. Highland Kayang, Professor, Centre for Advanced Studies in Botany, North Eastern Hill University, Meghalaya, Shillong, Meghalaya
19. Dr. Papiya Ramanujam, Associate Professor, Department of Botany, North Eastern Hill University, Shillong, Meghalaya
20. Dr. Bianka Zote, Assistant Professor, Department of Botany, Mizoram University, Aizawl

21. Registrar, Mizoram University, Aizawl, Mizoram -796004
22. Dr. Saroj Kumar Barik, Director, Plant Diversity, Systematics and Herbarium Division, CSIR-National Botanical Research Institute (NBRI), No 436, Rana Pratap Marg, Lucknow, Uttar Pradesh
23. Dr. Sanjeeva Nayaka, Principal Scientist, Department of Systematics and Herbarium CSIR-National Botanical Research Institute, Lucknow
24. Dr. Tikam Rana, Senior Principal Scientist, Molecular Systematics Lab., Plant Diversity, Systematics and Herbarium Division, CSIR-National Botanical Research Institute, Lucknow, Uttar Pradesh
25. Dr. Ashish Asathana, Principal Scientist, Bryology Section, Plant Diversity, Systematics and Herbarium Division, CSIR-National Botanical Research Institute, Lucknow, Uttar Pradesh
26. Dr. Ajit Singh, Senior Scientist, Pteridology Section, Plant Diversity, Systematics and Herbarium Division, CSIR-National Botanical Research Institute, Lucknow, Uttar
27. Dr. Poonam Singh, Senior Scientist, Plant Microbial Interaction Section Division, CSIR-National Botanical Research Institute, Lucknow, Uttar Pradesh
28. Dr. Suchi Srivastava, Senior Scientist, Plant Microbial Interaction Section Division, CSIR-National Botanical Research Institute, Lucknow, Uttar Pradesh
29. Dr. Vinay Sahu, Senior Technical officer, Plant Diversity, Systematics and Herbarium Division, CSIR-National Botanical Research Institute, Lucknow, Uttar
30. Dr. Kiran Toppo, Senior Technical officer, Plant Diversity, Systematics and Herbarium Division, CSIR-National Botanical Research Institute, Lucknow, Uttar Pradesh
31. Dr. Sandip Behera, Senior Technical officer, Plant Diversity, Systematics and Herbarium Division, CSIR-National Botanical Research Institute, Lucknow, Uttar Pradesh
32. Mr. Komal Ingle, Technical Assistant, Lichenology Section, Plant Diversity, Systematics and Herbarium Division, CSIR-National Botanical Research Institute, Lucknow, Uttar Pradesh
33. Dr. K Narayana, Sr. Principal Scientist, Department of Plant Diversity, Systematics & Herbarium, CSIR-National Botanical Research Institute, Lucknow, Uttar Pradesh
34. Dr. Satya Narayanan Jena, Senior Scientist, Genetics and Molecular Biology, CSIR-National Botanical Research Institute, Lucknow, Uttar Pradesh
35. Dr. Sekhar Chandra Mohanty, Senior Scientist, Plant Molecular Biology, CSIR-National Botanical Research Institute, Lucknow
36. Dr. O P Sidhu, Principal Scientist, Department of Phytochemistry, National Botanical Research Institute, Rana Pratap Marg, Lucknow - Uttar Pradesh
37. Dr. Manjoosha Srivastava, Principle Scientist, Phytochemistry Division, National Botanical Research Institute, Rana Pratap Marg, Lucknow - Uttar Pradesh
38. Dr. Anand Prakash, Principal Scientist, Department of Plant Taxonomy, National Botanical Research Institute, Rana Pratap Marg, Lucknow - Uttar Pradesh
39. Dr. Vishnu Wagh, Principal Scientist, Department of Plant Taxonomy, National Botanical Research Institute, Rana Pratap Marg, Lucknow - Uttar Pradesh
40. Dr. Brahma Singh, Scientist, Pharmacognosy & Ethnopharmacology, CSIR-National Botanical Research Institute, Lucknow
41. Dr. Krishna Tiwari, Senior Principal Scientist, Distant Research Centres, CSIR-National Botanical Research Institute, Lucknow, Uttar Pradesh
42. Dr. Ch V Rao, Senior Principal Scientist, Pharmacognosy & Ethnopharmacology, CSIR-National Botanical Research Institute, Lucknow, Uttar Pradesh
43. Dr. Sharad Srivastava, Principal Scientist, Pharmacognosy & Ethnopharmacology, CSIR-National Botanical Research Institute, Lucknow, Uttar Pradesh
44. Dr. Karthick Balasubramanian, Scientist-C, Department of Biodiversity and paleobiology, Agharkar Research Institute, Pune, Maharashtra
45. Director, Agharkar Research Institute (ARI), Gopal Ganesh Agarkar Road, Pune -411004, Maharashtra
46. Dr. Badal Datta, Professor, Department of Botany, Tripura University, Tripura, Agartala
47. Registrar, Tripura University, Suryamani Nagar, Birkramnagar, Tripura -799022
48. Dr. Ajay Parida, Director, Institute of Life Sciences (ILS), Bhubaneswar
49. Director, Institute of Life Sciences (ILS), NALCO Nagar Road, NALCO Square, Chandrasekharpur, Odisha - 751023, Bhubaneswar
50. Dr. Padmaraj Gajurel, NERIST, Nirjuli, Itanagar -791109 Arunachal Pradesh
51. Director, NERIST, Nirjuli, Itanagar -791109 Arunachal Pradesh
52. Cash Section, DBT (2 copies).
53. Sanction Folder
54. File Copy

Mohd. Aslam

Dr. Mohd. Aslam
(Adviser)

Institute wise Total consolidated budgetary details of the project are as follows:

Balipara Foundation, Guwahati, Assam (Component 1: Sub-Project 2)

(Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	13.65	0.00	0.00	13.65
Manpower	14.016	14.016	14.808	42.84
Consumables	2.00	1.00	1.00	4.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	35.666	21.016	21.808	78.49

Nagaland University , Ballard, Nagaland (Component 1: Sub-Project -6)

(Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	13.65	0.00	0.00	13.65
Manpower	14.016	14.016	14.808	42.84
Consumables	2.00	1.00	1.00	4.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	35.666	21.016	21.808	78.49

Mizoram University, Aizawl, Mizoram (Component 1: Sub-Project 8)

(Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	13.65	0.00	0.00	13.65
Manpower	14.016	14.016	14.808	42.84
Consumables	2.00	1.00	1.00	4.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	35.666	21.016	21.808	78.49

Tripura University, Suryamani Nagar, Bikramnagar Tripura (Component 1: Sub-Project 9)

(Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	13.65	0.00	0.00	13.65
Manpower	14.016	14.016	14.808	42.84
Consumables	2.00	1.00	1.00	4.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	35.666	21.016	21.808	78.49

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Agharkar Research Institute, Pune, Maharashtra (Component 1: Sub-Project 13)

Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	2.00	0.00	0.00	2.00
Manpower	9.00	9.00	9.00	27.00
Consumables	2.00	2.00	2.00	6.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	19.00	17.00	17.00	53.00

Rajiv Gandhi University, Papum Pare, Arunachal Pradesh (Component 1: Sub-Project 16)

Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	10.00	0.00	0.00	10.00
Manpower	11.616	11.616	12.408	35.64
Consumables	2.00	2.00	2.00	6.00
Travel	3.00	3.00	3.00	9.00
Contingency	2.00	2.00	2.00	6.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	29.616	19.616	20.408	69.64

Institute of Life Sciences, Bhubaneswar, Odisha (Component 2: Sub-Project 1)

Rs. In lakhs)

Heads	I Year	II Year	III Year	Total
Equipment	40.13	0.00	0.00	40.13
Manpower	12.384	12.384	13.248	38.016
Consumables	8.00	6.00	6.00	20.00
Travel	1.00	1.00	1.00	3.00
Contingency	1.00	1.00	1.00	3.00
Overhead	1.00	1.00	1.00	3.00
TOTAL	63.514	21.384	22.248	107.146

Ashoka Trust for Research in Ecology and the Environment, Bengaluru, Karnataka

**(Component 1: Sub-Project - 1; Sub-Project -15 ; Sub-Project-18 ; Sub-Project -19; Sub-Project- 20;
Component 2: Sub-Project -4; Component 5 and Component 6)**

(Rs. In lakhs)

Heads	I Year	II year	III year	Total
Equipment	105.55	0.0	0.0	105.55
Manpower	94.524	95.0154	100.08703	289.62643
Consumables	22.00	21.30	21.30	64.60
Travel	23.00	23.00	22.00	68.00
Contingency	29.50	29.50	29.50	88.50
Overhead	7.25	7.20	7.20	21.65
TOTAL	281.824	176.0154	180.08703	637.92643

Mohd. Ashok

North-Eastern Hill University, Shillong, Meghalaya

(Component 1: Sub-Project -10 ; Sub-Project -17; Component 4: Sub-Project -4)

(Rs. In lakhs)

Heads	I Year	II year	III year	Total
Equipment	31.60	0.00	0.0	31.60
Manpower	32.232	32.232	34.608	99.072
Consumables	9.00	18.00	18.00	45.00
Travel	8.00	8.000	8.00	24.00
Contingency	5.00	5.00	5.00	15.00
Overhead	3.00	3.00	3.00	9.00
TOTAL	88.832	66.232	68.608	223.672

National Botanical Research Institute, Lucknow, Uttar Pradesh

(Component 1: Sub-Project -11; Component 2: Sub-Project -3; Component 3: Sub-Project -2; Component 4: Sub-Project -1)

(Rs. In lakhs)

Heads	I Year	II year	III year	Total
Equipment	54.21	0.0	0.00	54.21
Manpower	57.816	57.816	61.704	177.336
Consumables	34.00	31.30	31.30	96.60
Travel	8.50	8.50	8.50	25.50
Contingency	5.00	5.00	5.00	15.00
Overhead	3.75	4.70	4.70	13.15
TOTAL	163.276	107.316	111.204	381.796

Institute of Bioresources and Sustainable Development, Imphal, Manipur

(Component 1: Sub-Project -7; Sub-Project -12; Sub-Project -14; Component 2: Sub-Project -2; Component 3: Sub-Project -1; Component 4: Sub-Project -3)

(Rs. In lakhs)

Heads	I Year	II year	III year	Total
Equipment	72.15	0.00	0.00	72.15
Manpower	63.384	63.384	66.552	193.32
Consumables	29.00	36.00	35.15	100.15
Travel	15.00	15.00	15.00	45.00
Contingency	9.00	9.00	9.00	27.00
Overhead	6.00	6.00	6.00	18.00
TOTAL	194.534	129.384	131.702	455.62

Mohd. Asla