भारतीय वनस्पति सर्वेक्षण
BOTANICAL SURVEY OF INDIA

सत्यमेव जयते

Nature Protects if She is Protected

भारत सरकार
GOVERNMENT OF INDIA
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE

भारतीय वनस्पति सर्वेक्षण / BOTANICAL SURVEY OF INDIA
सी.जी.ओ. कॉम्प्लेक्स / CGO COMPLEX
तृतीय एम. एस. ओ. भवन / 3RD MSO BUILDING
पाँचवाँ और छठा तल/ 5TH & 6TH FLOOR
डी एफ ब्लॉक, सेक्टर१/ DF BLOCK, SECTOR I
साल्टलेक , कोलकाता-६४/ SALT LAKE, KOLKATA – 700064
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फ़ाइल संख्या/File No.: 288/1/ARP/2024-25-Tech./ 732 **दिनांक/Date:** 8th **May 2024**

सेवा में/To

All Head of offices / Units
Botanical Survey of India

विषय/ **Subject: Research Programmes of BSI for the year 2024-25 – reg.**

Sir / Madam,

In continuation of this office letter of even no. dated, 15th April, 2024 regarding circulation of the *Interim* Annual Research Programmes, I am directed to send herewith the **Final Annual Research Programmes (ARP) of BSI for the year 2024-25.** This may be circulated among all the executing Scientists / scientific staff for information and necessary compliance.

This issues with the approval of Director, Botanical Survey of India.

सधन्यवाद / Thanking you,

भवदीय / Yours sincerely,

8/5/2024

एस. एस. दाश / S. S. Dash)
वैज्ञानिकएफ/ Scientist 'F'
(प्रभारी, तकनीकीअनुभाग / In- charge, Tech. Section)

Encl: As above.

ANNUAL RESEARCH PROGRAMMES (ARP)
2024-25
OF
BOTANICAL SURVEY OF INDIA

Final

Approved
07/05/2024

भारतीय वनस्पति सर्वेक्षण
BOTANICAL SURVEY OF INDIA

Botanical Survey of India
Ministry of Environment, Forest and Climate Change
Government of India
Kolkata - 700064

AJC BOSE INDIAN BOTANIC GARDEN, HOWRAH

Sl. No.	Name of the Project	Period	Quantifiable deliverables for 2024-25
1.	**Development and Maintenance of aquatic plant section in AJCBIBG** 1. Dr. R. Saravanan, Botanist *(With assistance of Two garden staff)* ***Note: The report to be submitted by March 25th every year.***	Ongoing	**Q1 – Q4:** Introduction of 10 species in each quarter. Local Tours.
2.	**Introduction and *ex-situ* conservation of RET species in AJC Bose Indian Botanic Garden** All staff members of AJCBIBG up to the level of Preservation Asst. *cum* Garden Overseer ***Note: The report to be submitted by March 25th every year.***	Ongoing	**Q1 – Q4:** Conservation of RET species in garden. Q1- **Three tours**: Andaman, Western Ghats, N. E. India. (3) Q2- **Two tours:** Western Ghats, Eastern Ghat. (2) Q3- **Two tours**: N. E. India, Western Himalaya. (2) Q4- **One tour:** Andaman. (1) **Total tours: 8** ***Note: Tours to be clubbed as per the requirement and budgetary availability of the centre.***
3.	**Legumes of AJC Bose Indian Botanic Garden, Howrah, West Bengal, India** 1. Dr. V.K. Mastakar, Botanist 2. Dr. J. Swamy, Scientist-C 3. Dr. Devendra Singh, Scientist-E ***Note: The final report to be submitted by March 25th 2025.***	2023-2025	**Q1. – Q4**. Documentation of **45** species in each quarter.
4.	**Sustainable Management of water bodies of Acharya Jagdish Chandra Bose Indian Botanic Garden** Dr. R. Saravanan, Botanist Shri Sattom Dasgupta, Pres. Asstt. Cum Garden Overseer ***New Project***	2024-2026	**Q1:** Documentation of plants, collection of water sample for water analysis In-situ measurements of pH, dissolved oxygen and electrical conductivity were taken using a multiparameter calibrated probe. **Q2:** Identification of plants, photography and documentation. **Q3:** Collection of water sample for water analysis. In-situ measurements of pH, dissolved oxygen and electrical conductivity were taken using a multiparameter calibrated probe. **Q4:** Documentation of plants
5.	***Ex-situ* conservation, Propagation Techniques and Taxonomic studies of the Genus *Thunbergia* Terz. (Acanthaceae) in India** Dr. J. Swamy, Scientist C, Shri R.D. Barnam, Bot, Asst. Dr. Devendra Singh, Scientist E ***New Project***	2024-2027	**Q1- Q4:** • Develop the protocol for *ex-situ* conservation of the genus *Thunbergia*. • Revise the entire genus *Thunbergia* for India. • Undertake ex-situ conservation and propagation endemic and important species. • Preparation of high quality photographs and diagnostic keys based on the field observations. • Identification and document the species, providing valid names, with synonymy, citation, descriptions with good photographs and to building diagnostic keys based on field observations.
ANDAMAN & NICOBAR REGIONAL CENTRE, PORT BLAIR ***Note: Tours to be clubbed as per the requirement and budgetary availability of the centre.***			
6.	**Macrofungi of Andaman & Nicobar Islands** Dr. Mahadevakumar, S., Scientist C	2023-2027	**Q1. One Field Tour** to be undertaken to Great Nicobar Island Literature survey- identification of research gap and if any previous literature will be taken into consideration. **Q2. One Field Tour** will be conducted to North Andaman and macrofungal resources will be

	Note: The final report to be submitted by March 25th 2027.		documented. Processing & identification of specimens collected during Field tour. Identification will be based on micro-morphological features. **Q3. One Field Tour** will be conducted to Nancowry group of Islands and macrofungal resources will be documented. Processing & identification of specimens collected during field tour. Identification will be based on micro-morphological features. **Q4.** Study and Identification of collected specimens. **Total Tours: 3**
7.	**Ethnobotanical Study of Ranchi communities / settlers of Andaman Islands** 1. Dr. Pankaj A. Dhole, Botanist 2. Mr. Gautam Anuj Ekka, Botanical Assistant (Deployed at ANRC, Port Blair) 3. Dr. Lal Ji Singh, Scientist-F ***Note: The final report to be submitted by March 25th 2026.***	2023-2026	**Q1: One Field Tour** to be conducted to Middle Andaman. Study of the collected specimens during Field tours **Q2. One Field Tour** to be conducted to North Andaman. Study of the collected specimens during Field tours **Q3. One Field Tour** to be conducted to Little Andaman. Study of the collected specimens during Field tours **Q4.** Study of the collected specimens during Field tours. **Total Tours: 3**
8.	**Flora of Cinque Wildlife Sanctuary, South Andaman** 1. Dr. Anil Kumar Midigesi, Botanist 2. Shri Gautam Anuj Ekka, Botanical Assistant 3. Dr. Lal Ji Singh, Scientist-F ***Note: The final report to be submitted by March 25th 2025.***	2023-2025	**Q1. One Field Tour** to be conducted to Cinque Wildlife Sanctuary, South Andaman. Processing & identification of specimens collected during Field tour. **Q2. One Field Tour** to be conducted to Cinque Wildlife Sanctuary, South Andaman. Processing & identification of specimens collected during Field tour. **Q3. One Field Tour** to be conducted to Cinque Wildlife Sanctuary, South Andaman. Processing & identification of specimens collected during Field tour. **Q4.** Study of the collected specimens during Field tours **Total Tours: 3**
9.	**A pictorial guide to Flora of Mount Manipur National Park, South Andaman** 1. Dr. Pankaj A. Dhole, Botanist 2. Mr. Gautam Anuj Ekka , Botanical Assistant 3. Dr. Lal Ji Singh, Scientist-F ***Note: The final report to be submitted by March 25th 2025.***	2023-2025	**Q1: One Field Tour** will be conducted to Mount Manipur National Park, South Andaman and flora will be documented. Processing & identification of specimens collected during Field **Q2. One Field Tour** will be conducted toMount Manipur National Park, South Andaman and flora will be documented. Processing & identification of specimens collected during Field **Q3. One Field Tour** will be conducted toMount Manipur National Park, South Andaman and flora will be documented. Processing & identification of specimens collected during Field tour. **Q4.** Processing & identification of specimens collected during Field tour. **Total Tours: 3**
10.	**A pictorial guide to Flora of Shaheed Dweep (Neil Island), South Andaman** 1. Dr. Pankaj A. Dhole, Botanist 2. Dr. Lal Ji Singh, Scientist-F ***Note: The final report to be submitted by March 25th 2025.***	2023-2025	**Q1. One Field Tour** to be undertaken toShaheed Dweep, South Andaman. Literature survey, consultation of the herbarium and identification of the collected specimens. **Q2. One Field Tour** to be undertaken toShaheed Dweep, South Andaman. Literature survey, consultation of the herbarium and identification of the collected specimens. **Q3. One Field Tour** to be undertaken toShaheed Dweep, South Andaman. Literature survey, consultation of the herbarium and identification of the collected specimens. **Q4.** Processing & identification of specimens collected during Field tour. **Compilation of Final report** **Total Tours: 3**
11.	**Cyanobacteria and Microalgae of Andaman & Nicobar Islands, India**	2024-2026	**Q1.** Collection of literatures **One field tour** to be undertaken to Great Nicobar Island. **Q2. One field tour** to be undertaken to North

	Dr. Sudipta Kumar Das, Scientist E Dr. S. Bhakta, Bot. Asstt. ***New Project***		Andaman. **Q3. One field tour** to be undertaken to Little Andaman for sample collection and **One herbarium consultation tour** for Microscopy and diagnosis of algal samples. **Q4.** Processing & identification of specimens collected during field tour. **Total tours: 3 + 1 HCT**
ARUNACHAL PRADESH REGIONAL CENTRE, ITANAGAR ***Note: Tours to be clubbed as per the requirement and budgetary availability of the centre.***			
12.	**Metadata preparation and Digitization of ARUN Herbarium** Dr. Ranjit Daimary, Botanist ***Note: The report to be submitted by March 25th every year.***	Ongoing	**Q1- :** Metadata preparation and digitization of 1500 herbarium specimens. **Q2 :** Metadata preparation and digitization of 1500 herbarium specimens. **Q3 :** Metadata preparation and digitization of 1500 herbarium specimens. **Q4 :** Metadata preparation and digitization of 1500 herbarium specimens.
13.	**Pteridophytic Flora of Arunachal Pradesh – A Pictorial guide** 1. Dr. Vineet Kumar Rawat, Sci. E 2. Sh. Suman Halder, Botanist 3. Sh. Arijit Ghosh, Bot. Asstt.	2023-2024 *Extended for 6 months, upto September 2024.*	**Q1 :** Literature survey and photo plate preparation . **Q2 :** Literature survey and submission of final report. **Updation and final submission of project report.** ***Note: The report to be submitted by September 2024.***
14.	**Taxonomic studies on Wild edible Mushrooms of Arunachal Pradesh** Dr. Arvind Parihar, Scientist - C ***Note: The final report to be submitted by March 25th 2026.***	2023-2026 ****Note: One tour of Project no 15 and 16 to be clubbed.***	**Q1- One tour** to the Eastern Arunachal Pradesh (Siang, Upper Siang, DibangValley Districts) for the Survey and collection of Wild Edible Mushroom Specimens. **Q2.- One tour** to the Eastern Arunachal Pradesh (Anjaw, Lohit and Changlang Districts) for the Survey and collection of Wild Edible Mushroom Specimens. **Q3.- One Herbarium Consultation tour** to CAL Study and characterisation of collected specimens. **Q4. -One Herbarium Consultation tour** to CAL (Central National Herbarium, Howrah) for the Microscopic Study and identification of collected specimens. **Total Tour : 2 F.T. & 2 H.C.T.**
15.	**Taxonomy and Ecology of Gesneriaceae of Arunachal Pradesh** Dr. Krishna Chowlu, Sci-D, Akshath Shenoy, Senior Preservation Assistant ***New Project***	2024-2026 ****Note: One tour of Project no 15 and 16 to be clubbed.***	**Q1.** Literature study. **Q2. One field** tour to Eastern parts of Arunachal Pradesh. **Q3. One field tour** to Western parts of Arunachal Pradesh. Identification and description of collected specimens. **Q4.** Identification, description writing and photoplate preparation of previously collected specimens. **Total tours: 2**

ARID ZONE REGIONAL CENTRE, JODHPUR ***Note: Tours to be clubbed as per the requirement and budgetary availability of the centre.***			
16.	**Flora of Mount Abu Wilflife Sanctuary, Rajasthan** 1. Dr. Sanjay Mishra, Sci. D (BSI, CRC, Allahabad) 2. Dr. S.L. Meena, Scientist-E	**2021-2024** ***Extended upto September, 2024***	**Updation and final submission of project report.** ***Note: The report to be submitted by September, 2024.***

17.	**Grasses of Rajasthan** Dr. Pushpa Kumari, Scientist-E ***Note: The final report to be submitted by March 25th 2026.***	2023-2026	**Q1.** Library consultation and herbarium studies. **Q2.** One Field exploration tour to Rajasthan. **Q3.** Study of collected specimens and herbarium study. **Q4.** Herbarium study and Identification of samples. **Total tour: 1**
18.	**Vegetation of Indian desert of Rajasthan and Gujarat: present scenario, GIS mapping and IUCN Assessment of Endemic, Endangered and regionally rare species** 1. Dr. C.S. Purohit, Scientist D 2. Dr. S.L. Meena, Scientist-E 3. Ramesh Kumar, Bot. Asstt. 4. Amit Kumar, Sr. Pres.Asst. ***Note: The final report to be submitted by March 25th 2027.***	2023-2027	**Q1.** Processing & identification of Herbarium specimens collected in the previous tour. **Q2. One field tour** to the study area; processing & identification of Herbarium specimens collected in the previous tour. **Q3. One field tour** to the study area; processing & identification of Herbarium specimens collected in the previous tour. Q4. Processing & identification of Herbarium specimens collected in the previous tour. **Total tours: 2**
19.	**Floristic studies in Ramgarh Vishdhari Tiger Reserve, Rajasthan, India** Dr. Rajeev Kumar Singh, Botanist Dr. S.L. Meena, Scientist E Mr. Ramesh Kumar, Bot. Asstt. ***New Project***	2024-2027	**Q1:** Procurement of permissions. **Q2. One field tour** to study area, collection, Identification & inventorisation **Q3** Identification of collected specimens and data analysis. **Q4. One field tour**, collection, Identification & inventorisation **Total: 2 field tours.**
20.	**Maintenance and conservation of selected Economically important, Endemic and Threatened species of the Arid region** 1. Dr. S.L. Meena, Scientist-E 2. Dr. C.S. Purohit, Scientist-D 3. Shri Amit Kumar, Sr. Pres. Asstt. ***Note: The report to be submitted by March 25th every year.***	Ongoing	**Q1**: Maintenance and conservation of Economic, , Endemic and Threatened species of the arid region in the experimental Garden of AZRC. Introduction of 10 woody species in the garden. **Q2**: Maintenance and conservation of Economic, , Endemic and Threatened species of the arid region in the experimental Garden of AZRC. Introduction of 10 woody species in the garden. **Q3**: **One field tour**. Maintenance and conservation of introduced RET species & their further multiplication. **Q4:** Maintenance and conservation of introduced RET species & their further multiplication. **Total tour: 1**
21.	**Metadata preparation and digitization of herbarium specimens** 1. Dr. R.K. Singh, Botanist 2. Dr. P.K. Deroliya, Bot. Asstt. 3. Shri Ramesh Kumar, Bot. Asstt. 4. Shri Amit Kumar, Sr. Pres. Asstt.) ***Note: The report to be submitted by March 25th every year.***	Ongoing	**Q1 – Q4:** 1. Completion of metadata of herbarium specimens 2. Digitization of 2400 herbarium specimens (600 per quarter by each). 3. Identification of 40 unidentified specimens, accession and incorporation in every quarter. (10 specimens by each)
22.	**Landscape analysis and floristic diversity of Keoladeo national park and Sāmbhar lake Ramsar sites of Rajasthan, India.** Dr. Ravi Kiran Arigela, Scientist - C, Dr. S.L. Meena, Scientist – E, Dr. Purushottam Kumar Deroliya, Bot. Asst.	2023-26	Q1. **One field tour** - Collection, identification inventorisation, & field data analysis. Q2. Preparation of Classified maps of Ramsar sites and identification of collected specimens of previous tours and field data analysis. Q3. **One field tour** - Collection, identification inventorisation & field data analysis Q4. Identification of collected specimens of previous tours and field data analysis. **Total: 2 field tours.**

BOTANIC GARDEN OF INDIANREPUBLIC, NOIDA

Note: Tours to be clubbed as per the requirement and budgetary availability of the centre.

23.	**Mass germination and multiplication of Horticultural and ornamental plants/ season flowers in BGIR.** 1. Dr. Sandeep Kr. Chauhan, Scientist–F 2. Ms L.I. Chanu, Botanist 3. Mr. Yogesh Lahane, Botanist ***Note: The report to be submitted by March 25th every year.***	Ongoing	**Q1** Preparation of Inventory of available ornamental and Horticulture plants in BGIR as on 31.3.2014. Collection and Germination/Multiplication of about 20 ornamental plants species and annual flower seed germination (30 No varieties) **Q2** Enrichment of existing fruit sections by introducing hybrid cvs of fruits (15 no) in fruit section. Collection and Germination/Multiplication of about 20 ornamental plants species and annual flower seed germination (10 No varieties) **Q3** Introducing low chill sub temperate fruit varieties (20 no) in fruit section. Collection and Germination/Multiplication of about 25 ornamental plants species and annual flower seed germination (20 No varieties) **Q4** Preparation of separate nursery for mass scale production of ornamental and seasonal plants and flower/ ***No separate field tour is allowed*** *Note: List of the target species to be approved by the Director, BSI.*
24.	**Maintenance of existing Forest Types and Phytodiversity at BGIR Noida** 1. Dr. Priyanka A. Ingle, Scientist D 2. Mr. Yogesh Lahane, Botanist 3. ***Note: The report to be submitted by March 25th every year.***	Ongoing	**Q1 – Q4**: Maintenance of the existing plants of forest zones (1-8) and net houses of BGIR. Recording phenology of the plants (flowering and fruiting- 20 spp.,). Pollination studies of a minimum of 2 plant species /each quarter. Inventory preparation of existing plants spp as planted in last 15 years (entire zones). Viability status of plants spp., planted in last 5 years in various sections an inventory thereof. *Note: List of the target species to be approved by the Director, BSI.*
25.	**Collection of seeds from existing garden and its maintenance, development of nurseries, Seed bank lab unit and studies of seed germination protocol of endemic and threated plant species vis a vis setting of Plant conservatoires and vermicomposting unit at BGIR Noida** 1. Dr. Sandeep Kr. Chauhan, Scientist F 2. Dr. G. S. Panwar, Scientist E 3. Ms L.I. Chanu, Botanist ***Note: The final report to be submitted by March 25th 2026.***	2023-2026	**Q1 – Q4**: Seed collection of plant spp. (including threatened plants); Preparation of defined seed germination Methodology for endemic & threatened plant spp. Preparation of Seed data base. 25000 seedling to be raised and maintained. *Note: List of the target species not less than 50 species, to be approved by the Director, BSI.*
26.	**QR based plant modeling based plant labeling for the Plant species in entire woodland of BGIR, Noida** 1. Dr. Sandeep Kr. Chauhan, Scientist F 2. Dr. G. S. Panwar, Scientist E 3. Dr. Priyanka A. Ingle, Scientist D 4. Dr. M.K. Singhadiya, Botanist ***Note: The final report to be submitted by March***	2023-2025	**Q1 – Q4**: GSP modeling of all plants identified with numbers. Preparation of plant spp description in detail for QR code. QR code of all the species of plants of BGIR to be completed.

	25th 2026.		
CENTRAL BOTANICAL LABORATORY, HOWRAH			
27.	**Nutraceutical studies of wild edible selected plants of North-East Region in India** 1. Dr. Tapan Seal, Scientist-E 2. Dr. Kaushik Chaudhuri, Botanist 3. Ms. Basundhara Pillai, Botanist ***Note: The final report to be submitted by March 25th 2025.***	2022-2025	**No of Target plants : Twenty** **Q1 – Q4**: Proximate composition, minerals content, Water soluble vitamins (C, B1, B2, B3, B5, B6, B9), Antioxidant properties, Antinutritional composition of **twenty** wild plants.
28.	**Flora, Phytosociology and Ethnobotany of Debrigarh Wildlife Sanctuary, Bargarh district, Odisha** Dr. Manas Rajan Debta, Scientist-'D' Dr. D.K. Agrawala, Scientist-'E' Dr. S.S. Dash, Scientist-'F' ***New Project***	2024-2027	**Q1**: Literature survey. **Q2.** Preparation of Checklist; **One Field survey** tour; identification of the collected specimens **Q3 One Field tour**; herbarium consultation at CAL; identification and description of the identified taxa. **Q4. One field tour** to the study area. **Total : 3 field tours**
CENTRAL NATIONAL HERBARIUM, HOWRAH ***Note: Tours to be clubbed as per the requirement and budgetary availability of the centre.***			
29.	**Molecular phylogeny, morphology and taxonomy of Boletoid mushrooms in India** Dr. Kanad Das, Scientist-F Dr. Sudeshna Datta, Botanist ***Note: The final report to be submitted by March 25th 2026.***	2022-2026	**Q2**: **Two field Tour** (One to Uttarakhand and another to Himachal Pradesh) **Q1 – Q4**: Micromorphological characterization of the fungal samples, culturing of the edible Boteloid mushrooms, Germplasm conservation. Mutligene molecular phlogeny, documentation of the interesting findings. **Field tours: 2**
30.	**Morpho-Molecular and Phytochemical identification of 30 CITES Listed Plants in high International Trade.** • *(10 taxa each year)* 1. Dr. Avishek Bhattacharjee, Scientist-E 2. Mr. Ranjith Layola M.R., Botanist 3. Ms. Farheen Banu, Preservation Assistant-cum-Garden Overseer 4. Dr. Tapan Seal, Scientist E ***Note: The final report to be submitted by March 25th 2026 in the form of Manual.***	2023-2026	**Q1: Field tour** in north east India/ east India to collect multiple accessions of the 5 species from different localities. **Q2:** Consultation of literature and herbarium specimens; **field tour** in north east India/ South India to collect multiple accessions of the 5 species from different localities **Q3:** Morphological, phytochemical, molecular studies of the collected specimens. **Q4:** Morphological, phytochemical, molecular studies of the collected specimens. **Total: 2 Field tours** *Note: List of the 10 targeted species every year to be submitted to HQ.*
31.	**Taxonomic Revision of *Meconopsis* Vig. (Papaveraceae) in India** 1. Dr Kumar Avinash Bharati, Scientist-D 2. Dr Anand Kumar, Botanist 3. Dr Rajib Gogoi, Scientist E ***Note: The final report to be submitted by March 25th 2026.***	2023-2026	**Q1:** Consultation of herbarium specimens and literature studies; one field tour to Arunachal Pradesh. **Q2: One field tour** to Sikkim. **Q3:** Morphological characterization of collected specimens. **Q4:** Identification of the collected specimens. **Total: 2 Field tours**
32.	**Taxonomic Revision of *LIGULARIA* Cass (Asteraceae) in India** 1. Dr. Partha Pratim Ghoshal, Botanist	2023-2026	**Q1:** Literature survey **Q2: One field tours** to Arunachal Pradesh and herbarium consultation at ARUN. **Q3: One field tour** to Sikkim; Identification of collected specimens.

	2. Dr. Shyam Biswa, Botanical Assistant ***Note: The final report to be submitted by March 25th 2026.***		**Q4:** Identification of collected specimens and morphological characterization of specimens. **Total: 2 Field tours & 1 HCT**
33.	**Digitization of herbarium specimens (about 15000) belonging to the family Asteraceae** Dr Kumar Avinash Bharati, Scientist-D Dr Anand Kumar Botanist ***New Project***	2024-2025	**Q1-Q4:** Sorting, curation, barcoding, scanning and metadata preparation of about 15000 specimens will be completed. The scanned images and associated metadata will be uploaded on IVH portal (https://ivh.bsi.gov.in/).
34.	**Wild edible mushrooms of West Bengal: Multigene molecular phylogeny, morpho-taxonomy, nutritional profile, in vitro culture and cultivation (selected taxa)** Dr. Sudeshna Datta, Botanist, Dr. Kanad Das, Scientist 'F', Dr. Tapan Seal, Scientist E ***New Project***	2024-2026	**Q1:** Literature and herbarium consultation. **Q2: Five macrofungal tours** will be undertaken to Burdwan (once), Bankura (twice), Midnapore (twice) districts during rainy season (July to September). Macromorphological characterization, recording of ethnomycological data with these edible mushrooms will also be conducted in the field. **Q3 – Q4:** Description, micromorphological illustration, phylogenetic inferences will be prepared for the respective collections. Specimens would be cultured in artificial culture media and preserved. Nutraceutical properties will be assessed. Initiative for cultivation will be taken with the saprophytic species. Manuscript will be prepared and communicated for interesting collection(s).
35.	**A taxonomic revision of the tribe Semecarpeae (Anacardiaceae) in India.** Dr. M. Murugesan, Scientist-D	2024-2026	**Q1:** Scrutiny of literature Herbarium, indexing, and type image gathering. Preparation of preliminary checklist. **Q2 – Q4:** Study of Herbarium specimens at CNH and preparation of preliminary checklist**.**
CENTRAL REGIONAL CENTRE, ALLAHABAD ***Note: Tours to be clubbed as per the requirement and budgetary availability of the centre.***			
36.	**Documentation of plant diversity in Sur Sarovar –A Ramsar site in Uttar Pradesh** Dr. Vinay Ranjan, Scientist –'E' B. Lakshmanudu, Sr. Preservation Assistant ***New Project***	2024-2025	**Q1:** Literature collection & Regional herbarium consultation **Q2: One field tour** to the study area. **Q3:** Identification and documentation of specimens collected. **Q4: One field tour** to the study area**.** Writing, finalization and submission of Manuscript. **Field tours: 2**
37.	**Flora of Amangarh Tiger Reserve, Bijnor, Uttar Pradesh** Dr. Onkar Nath Maurya, Scientist-D ***New Project***	2024-2027	**Q1:** Study of relevant literature. **Q2: One field tour** to the study area. **Q3:** Identification and documentation of collected specimens. **Q4: One field tour** to the study area**.** Processing & identification of the collected specimens **Field tours: 2**
38.	**Flora of Madhav National Park, Shivpuri (Madhya Pradesh)** Dr. Sanjay Mishra, Scientist-'D' ***New Project***	2024-2027	**Q1:** Literature collection & Regional herbarium consultation **Q2: One field tour** to the study area. **Q3:** Identification and documentation of specimens collected. **Q4: One field tour** to the study area**.**

			Field tours: 2
39.	**Floristic diversity of Sandi Ramsar Site, Hardoi District, Uttar Pradesh** Dr. Nitisha Srivastava, Botanist ***New Project***	2024-2025	**Q1:** Study of relevant literature and available Herbarium specimens **Q2: One field tour** to the study area. **Q3:** Processing and identification of herbarium specimens collected in the previous tour **Q4: One field tour** to the study area**.** Writing, finalization and submission of Manuscript. **Field tours: 2**
40.	**Pictorial Flora of Madhya Pradesh** (Ranunculaceae to Poaceae) Dr. Vinay Ranjan, Scientist-E, Dr. O.N. Maurya, Scientist-D, Dr. Sanjay Mishra, Scientist-D ***New Project***	2024-2027	**Q1:** Literature collection & Regional herbarium consultation **Q2: One field tour** to the study area. **Q3:** Identification and documentation of specimens collected. **Q4: One field tour** to the study area**.** **Field tours: 2**
41.	**Digitisation of herbarium holdings of 'BSA' – Botanical Survey of India, Central Regional Centre, Prayagraj** Dr. Sanjay Mishra, Scientist 'D' Dr. S. Muthukumar, Botanist Smt. Neelima A. M, Botanical Assistant Shri. B. Lakshmanudu, Senior Preservation Assistant ***New Project***	2024-2026	**Q1 - Q4:** Regular maintenance of herbarium, Preparation of database and incorporation of metadata of all digitised herbarium, specimens. Digitization of herbarium. **Target: 16,000 herbarium specimens per year.**
DECCAN REGIONAL CENTRE, HYDERABAD ***Note: Tours to be clubbed as per the requirement and budgetary availability of the centre.***			
42.	**Preparation of metadata, digitization and maintenance of herbarium specimens** Dr. G. Swarnalatha, Botanist. ***Note: The metadata report to be submitted by March 25th 2024.***	Ongoing	**Q1-Q4:** Digitization and development of Database of Herbarium specimens. **Q1-Q4:** Development of Museum of DRC, Hyderabad. *Note: Previous report on database of Herbarium specimens to be submitted to HQ.*
43.	**Lichens of Telangana state** Dr. Swamalatha G., Botanist. ***Note: The final report to be submitted by March 25th 2026.***	2022-2026	**Q1:** Identification of specimens collected during the previous tour. Q2: **One field tour. P**rocessing of specimens and Identification of specimens collected during the previous tour. Q3: **Two field tour.** Processing of specimens and Identification of specimens collected during the previous tour. Q4: Identification and documentation of collected plants. **Total tours: 03**
44.	**Flora of Sri Lankamalleswara Wildlife Sanctuary (464.42 sq.km) (Kadapa & SPSR District, Nellore)** 1. Dr. Sankara Rao Mudadla, Scientist D 2. Dr. P. Harikrishna, Bot. Asst. ***Note: The final report to be submitted by March 25th 2025.***	2022-2025	Q1: **One field tour** the study area and Identification of specimens collected during the previous tour. Q2: **One field tour** and identification & documentation of collected plants. Q3: **One field tour** and Identification and documentation of collected plants. Q4: Identification and documentation of collected plants. **Total tours: 03**
45.	**Flora of Pakhal Wildlife Sanctuary, Telangana** 1. Dr. L. Rasingam, Scientist E 2. Dr. P. Harikrishna, Bot. Asst.	2023-2026	**Q1: One field tour** the study area and Identification of specimens collected during the previous tour. Q2: **One field tour** and identification & documentation of collected plants. Q3: **One field tour** and Identification and

	Note: The final report to be submitted by March 25th 2026.		documentation of collected plants. Q4: Identification and documentation of collected plants. **Total tours: 03**
EASTERN REGIONAL CENTRE, SHILLONG ***Note: Tours to be clubbed as per the requirement and budgetary availability of the centre.***			
46.	**Maintenance of the Experimental Botanic Garden, BSI, ERC, Barapani** 1. Mr. B.B.T. Tham, Botanist 2. Shri L.R. Meitei, Bot. Asst. ***Note: The report to be submitted by March 25th every year.***	Ongoing	**Q1:** Regular maintenance of the Garden. **Q2: One Collection Tour** to Dima Hasao, Assam for Enrichment, Replenishment and New addition to Botanic Garden Collection if any. **Q3: One Collection Tour** to Garo Hills Meghalaya for Enrichment, Replenishment and New addition to Botanic Garden Collection if any **Q4:** Regular maintenance of the Garden for Enrichment, Replenishment and New addition to Botanic Garden Collection if any. **Total tours: 2**
47.	**Maintenance of Herbarium of ERC, Shillong (ASSAM)** 1. Smt. Nandita Sarma, Bot. Asst. 2. Shri. Vijay, Bot. Asst. 3. Miss. Debala Tudu, Bot. Asst. ***Note: The report to be submitted by March 25th every year.***	Ongoing	**Q1 - Q4:** Regular maintenance of herbarium Preparation of database and incorporation of metadata of all digitised herbarium specimens. Digitization of herbarium specimen of ASSAM. Target: 15,000 herbarium specimens (5000 per head per year).
48.	**Backlog clearance of unidentified Herbarium sheets at ASSAM.** 1. Smti. Nandita Sarma, Bot Asstt., 2. Shri. Vijay, Bot Asstt., 3. Shri. Harminder Singh, Bot Asstt., 4. Smti. Debala Tudu, Bot Asstt., 5. Shri. Harekrushna Swain, Sr. Preservation Asstt., 6. Shri. Y Mahesh, Sr.Preservation Asstt. Under the supervision of Dr. Chaya Deori, Sci-E. ***Note: The final metadata to be submitted by March 25th every year.***	Ongoing	**Q1**: Segregation of herbarium sheets. Collecting the field related information whose field books are not available. Data entry of herbarium sheets. Identification of 700 plants. Fumigation & incorporation of identified sheets. **Q2**: Identification of 700 plants fumigation & incorporation of them. **Q3**: Identification of 700 plants fumigation &incorporation of them. **Q4:** Identification of 700 plants & fumigation & incorporation of them. Preparation& submission of final report.
49.	**Morphotaxonomy and Molecular Phylogeny of Wild edible Mushrooms of Meghalaya** Dr. Dyutiparna Chakraborty, Scientist –C Ms. Debala Tudu, Bot Asst. ***Note: The final report to be submitted by March 25th 2026.***	2023-2026	**Q1: a.** Literature consultation and DNA extraction from previously collected (remaining) specimens. **b. Two tours** in Jowai, Nongkhlaw and Narpuh WLS. **Q2: One tour to Garo Hills** (Nokrek WLS, Baghmara, William Nagara, Tura peak). Macro and micro morphological characterization of all collected mushroom will be done. SEM study of basidiospores will be done if necessary. **Q3: a.** Molecular phylogeny will be conducted approximately 10 wild edible mushrooms. **b.** Macro and micro morphological study of all collected specimens. **c.** Preparation final herbarium specimens.**d.** Manuscript will be prepared for interesting specimens. **Q4: a.** DNA extraction and phylogenetic analysis of collected specimens will be done. **b.** GPS based map will be prepared for all collected specimens. **c.** Identification and documentation of all collected wild edible mushrooms will be done. **Total tours: 03**

50.	**DNA barcoding and Phylogenetic analysis of the endemic genus *Hypericum* of North-East India and Chemical composition, antioxidant activities of the essential oil produced.** 1. Dr. Deepu Vijayan, Scientist-D Mr. Harekrushna Swain, Senior Preservation Assistant	2022-2024 *Extended upto* ***30th September, 2024***	**Q2: One Collection Tour.** Updation and final submission of project report. ***Note: The report to be submitted by September, 2024.***
51.	**Trees of Meghalaya, India** Dr. N. Odyuo, Scientist-'E' Dr. R. Kottaimuthu, Scientist-'C' Mr. B.B.T. Tham, Botanist Dr. Y. Mahesh, Senior Preservation Assistant ***New Project***	2024-2026	**Q1**: Literature survey and study earlier collections at ASSAM& CAL **Q2**: Collection tour to Khasi Hills **Q3**: Literature survey and study earlier collections **Q4:** Collection tour to Jaintia Hills, Photography of plants. **Total tours: 02**
52.	**Documentation of parasitic Angiosperms of Meghalaya, India** Dr. R. Kottaimuthu, Scientist-'C' Dr. Y. Mahesh Senior Preservation Assistant Dr. Harekrushna Swain, Senior Preservation Assistant ***New Project***	2024-2026	**Q1**: Literature survey and study earlier collections at ASSAM & CAL **Q2**: Collection tour to Khasi Hills **Q3**: Collection tour to Garo Hills **Q4:** Collection tour to Jaintia Hills **Total tours: 03**
53.	**Phylogeny and evolutionary history of the genus *Magnolia* L. Magnoliaceae) in India** Dr. David Lalsama Biate, Scientist – D ***New Project***	2024-2026	**Q1**: Herbarium and literature studies **Q2 - Q4:** • Exploration, collection and preparation of herbarium specimens to different states of NE India for collection of specimens of *Magnolia.* • Genomic DNA extraction from herbarium and fresh specimens of gymnosperms available at ASSAM and Survey and exploration tours for collection of selected species. • Polymerase Chain Reaction (PCR) amplification using selected nuclear and chloroplast DNA markers viz. ITS, rbcL and matK. • DNA sequencing and analysis to validate taxonomy, establish phylogenetic relationships and evolutionary history of *Magnolia* in India. Submission of validated DNA barcode sequences to public database viz. Barcode of Life Database (BOLD) and NCBI.
HIGH ALTITUDE WESTERN HIMALAYAN REGIONAL CENTRE, SOLAN			
54.	**Ecological and Ethnobotanical status of Medicinal and Aromatic Plants of Ladakh (U.T.), India** Dr. Kuldip S. Dogra, Scientist-E Dr. Kumar Ambrish, Scientist-F Sh. Brajesh Meena, Bot. Asstt.. ***New Project***	2024-27	**Q1**: Literature survey and collection of secondary data. **One field tour** in the month of June (2024) to collect and ecological analysis of medicinal and aromatic plants from different parts of Ladakh (U.T.). **Q2**: Identification of collected plant species. **Q3**: Documentation and updation of nomenclature of collected plant species. **Q4:** Compilation of data and finalization of annual report.

NORTHERN REGIONAL CENTRE, DEHRADUN ***Note: Tours to be clubbed as per the requirement and budgetary availability of the centre.***			
55.	**Grasses of western Himalayas** Dr. Manish Khandwal, Scientist-'E	2021- 2024 *Extended for One year, upto* ***March 2025***.	**Updation and final submission of project report.** ***Note: The report to be submitted by March 2025.***
56.	**Maintenance and conservation of the selected endemic, threatened and economic plants of the garden of NRC, Dehradun.** 1. Dr. S.K. Singh, Scientist F 2. Dr. Puneet Kumar, Scientist-D 3. Shri. Subhasmit Bhattacharya, Bot. Asstt. ***Note: The report to be submitted by March 25th every year.***	Ongoing	**Q1-Q4:** Regular maintenance and conservation of the endemic threatened and economic plant species in the garden of NRC. Documentation of monthly data on flowering and fruiting**.**
57.	**SEM studies of spores of Fern & Fern allies of Western Himalaya.** 1. Dr. Brijesh Kumar, Sci-C, 2. Dr. S.K. Singh, Scientist F 3. Ms. Latika Sagarwal, Bot. Asstt. ***Note: The final report to be submitted by March 25th 2026.***	2023-2026	**Q1.** Preparation of spores and SEM imaging and description. **Q2.** One filed tour to Unexplored areas in region for collection. Description. preparation of spores and SEM imaging. **Q3.** Preparation of spores and SEM imaging and description. **Q4.** Preparation of spores and SEM imaging and description. **Total tours: 01 field tour**
58.	**Flora of Himachal Pradesh, Vol. 3** [*c.* 800 taxa] **a. Rubiaceae- Plumbaginaceous** except Asteraceae [*c.* 100 taxa] 1. Dr. Puneet Kumar, Scientist-D **b. Asteraceae** [*c.*401 taxa], 2. Dr. S.K. Singh, Scientist-F; 3. Dr. Monika Mishra, Botanist; 4. Ms Poulami Ghosh, Bot. Asst.; 5. Mr. Subhasmit Bhattacharyya, Bot. Asstt.; 6. Ms. Latika Sagarwal, Bot. Asstt.; 7. Mrs. Priti Gangwar, Senior Pres.Asstt.; **c. Primulaceae- Apocynaceae**, [*c.*125 taxa] 8. Dr. Bhavana Joshi, Botanist **d. Loganiaceae – Polemoniaceae, Ehretiaceae, Convolvulaceae** [*c.*105 taxa] 9. Dr. Sameer Patil, Botanist **e. Boraginaceae** [*c.* 56 taxa] 10. Dr. Kumar Ambrish, Scientist-F 11. Dr. Kuldip S. Dogra, Scientist-E *(High Altitude Western Himalayan Regional Centre, Solan)* **f. Cuscutaceae & Solanaceae** [*c.*52 taxa] 12. Dr. Brijesh Kumar, Scientist-C ***Note: The final report to be submitted by March 25th 2025.***	2023-2025	**Q1:** Documentation of 133 taxa. **Q2:** Documentation of 133 taxa **Q3:** Documentation of 134 taxa **Q4**: Finalization and submission of manuscript.
59.	**Floristic diversity of Jhilmil Jheel Conservation Reserve, Haridwar, Uttarakhand and its environs** Dr. Bhavana Joshi, Botanist**;** Dr. Monika Mishra Botanist & Dr. S. K. Singh, Scientist-F ***New Project***	2024-2026	**Q1**: Literature survey and collection of reference **Q2: One field tour** to the area and collection of plant specimens **Q3**: Identification and documentation of the collected plant species **Q4:** Identification and documentation of the collected plant species. **One field tour** to the area and collection of plant specimens **Total tours: 2 field tours**
60.	**A pictorial guide to the flowering plants of Dehradun District**	2024-2026	**Q1**: Literature survey to make an inventory **Q2 - Q3**: Survey, capturing good quality photographs, recording of field data and & collection of plants,

	Dr. Puneet Kumar, Scientist-D, Dr. S.K. Singh, Scientist-F & Mr. Subhasmit Bhattacharyya, Bot. Asstt. ***New Project***		if required. **Q4:** Identification of the collected specimens, literature survey, consultation of the herbarium.
61.	**Flora of Saraswati wildlife Sanctuary, Haryana** Dr. Sameer Patil, Botanist ***New Project***	2024-2026	**Q1**: Literature (Haryana and neighbouring areas) and Herbarium (BSD & DD) review. Preparation of tentative species list. **Q2: One field tour** to the study area. Q3: **One field tour** to the study area. Identification and processing of collected specimens. **Q4:** Identification and processing of collected specimens.
SIKKIM HIMALAYAN REGIONAL CENTRE, GANGTOK			
62.	**Maintenance of Germplasm of *Rhododendron* L., *Impatiens* Riv ex L., Zingiberaceae and Musaceae in EBG, BSI-SHRC.** 1. Dr. Rajib Gogoi, Scientist F 2. Dr. J. H. Franklin Benjamin, Scientist D 3. Mr. Norbu Sherpa, Sr. Pres. Asst. ***Note: The report to be submitted by March 25th every year.***	Ongoing	**Q1: One field tour to North Sikkim.** Maintenance of Germplasm **Q2: One field tour** east Sikkim and erstwhile Darjeeling district. **Q3**: Maintenance of Germplasm **Q4:** Maintenance of Germplasm **Total tours: 2**
63.	**Flora of Kitam Bird Sanctuary, South District, Sikkim** 1. Dr. Rajib Gogoi, Scientist F 2. Dr. Monalisa Dey, Scientist D 3. Dr. Basant Singh, Bot. Asst. ***Note: The final report to be submitted by March 25th 2024.***	2022-2025 *Extended upto* ***31st March, 2025***	**Q1: One field tour.** **Q2: One field tour.** **Q3-Q4: Updation and final submission of project report.** ***Note: The report to be submitted by March 2025.***
SOUTHERN REGIONAL CENTRE, COIMBATORE ***Note: Tours to be clubbed as per the requirement and budgetary availability of the centre.***			
64.	**Lichens of Tamil Nadu.** Dr. T.A.M. Jagadesh Ram, Scientist-E ***Note: The final report to be submitted by March 25th 2026.***	2023-2026	**Q1:** Morphological, anatomical, chemical characterization, and identification. **One field tour** to Tenkasi, Ramanathapuram and Virudhunagar districts. **Q2: One field tour** to Kanyakumari, Tirunelveli and Toothukudi districts. **Q3:** Morphological, anatomical, chemical characterization, and identification. **Q4:** Morphological, anatomical, chemical characterization and identification. **Total Field Tour : 2**
65.	**Assessment of Floristic Diversity of Nellai Wildlife Sanctuary, Thenkasi District, Tamil Nadu , India** Dr. K. Karthigeyan, Scientist'F' & Dr. S. Arumugam, Botanist ***New Project***	2024-2027	**Q1:** Literature survey and forest permission **Q2:** Literature, herbarium consultation in MH and field visit to proposed study area **Q3: One Field Tour** to the study area. **Q4: One Field Tour** to the study area. Preparation of herbarium specimens and identification of collected specimens. **Total tours: 2**
66.	***Ex situ* Conservation of Endemic and Threatened Plants (Orchids, Medicinal, Economical important and ornamental plants)**	2024-2025	**Q1**: Maintenance, multiplication and conservation of Endemic and Threatened Plants (Orchids, Medicinal, Economical important and ornamental plants) **Q2: One Field Tour Meghamalai Wildlife**

	Dr. S. Kaliamoorthy, Scientist-'F' Dr.T.S.Sarvanan, Bot. Asstt. Mr. S.K. Arjun, Bot. Asstt. ***New Project***		**Sanctuary**. **Q3: One Field Tour Meghamalai Wildlife Sanctuary**. **Q4:** Maintenance, multiplication and conservation of Endemic and Threatened Plants (Orchids, Medicinal, Economical important and ornamental plants) **Total Field tours: 2**
67.	**Threat Assessment of Palms and Rattans of Southern Western Ghats, India** Dr. S.S. Hameed, Scientist-F Dr. M. Murugesan, Scientist-D Dr. M.U. Sharief, Scientist-F Dr. V. Ravichandran, Sr. Pres. Asst. ***New Project***	2024-2026	**Q1**: Scrutiny of literature and consultation of herbarium holdings at MH. Preparation of preliminary checklist. **Q2: One Field Tour to Tirunelveli Hills and the adjoining Areas.** **Q3: One Field Tour Anamalais Area (Tamil Nadu & Kerala Part).** **Q4:** Processing of collected specimens, Identification of plants, preparation of description, taxonomic keys, etc. **Total Field tours: 2**
WESTERN REGIONAL CENTRE, PUNE ***Note: Tours to be clubbed as per the requirement and budgetary availability of the centre.***			
68.	**Bambusicolous Fungi of Goa.** Dr. Rashmi Dubey, Scientist-F	2020-2024 *Extended for 6 months, upto* ***September 2024.***	**Updation and final submission of project report.** ***Note: The report to be submitted by September 2024.***
69.	**Maintenance of the Botanic Garden of BSI, Pune** 1. Dr. M. Y. Kamble, Scientist E 2. Shri B.P. Kadam, Bot. Asstt. ***Note: The report to be submitted by March 25th every year.***	Ongoing	**Q1 – Q4:** Preparation of database on live plants of garden (real time data). Maintenance and development of Phytodiversity section of Konkan and adjoining areas of Western Ghats
70.	**Conservation through Micropropagation of selected Endemic and Threatened Pteridophytes from Central Western Ghats of Karnataka** 1. Dr. A. Benniamin, Scientist F 2. Mr. Kaushik Sarkar, Bot. Asst. 3. Mr. Rajeshwar Dayal, Bot. Asst. ***Note: The final report to be submitted by March 25th 2026.***	2023-2026	**Q1:** Subculture of gametophytes with different medium and PGRs and the study the sprorophyte development. **Q2: One field tour** to Central Western Ghats of Karnataka for collection of Pteridophytes with mature spores for *in-vitro* spore and tissue culture **Q3: One field tour** to Central Western Ghats of Karnataka for collection of Pteridophytes with mature spores for *in-vitro* spore and tissue culture. **Q4:** Processing and study of collected specimens. **Total Field tours: 2**
71.	***Ex-situ* conservation of selected Endemic, Endangered and Threatened species of Northern Western Ghats and Konkan, Maharashtra** 1. Dr. M. Y. Kamble, Scientist E 2. Mr. Anubhav Mandal, Pres. Asst. cum Garden Overseer ***Note: The final report to be submitted by March 25th 2026.***	2023-2026	**Q1: One Herbarium Consultation** tour to SUK, Kolhapur. One Field Tour to Northern Western Ghats and Konkan. Collection, Introduction, Multiplication and Maintenance. **Q2**: **One Herbarium Consultation tour** to BLAT, Mumbai. One Field Tour to Northern Western Ghats and Konkan. Collection, Introduction, Multiplication and Maintenance of collected species in the garden. **Q3: One Field Tour** to Northern Western Ghats and Konkan. Collection, Introduction, Multiplication and Maintenance of collected species in BSI, WRC, Garden. **Q4: One Field Tour** in Northern Western Maharashtra and Konkan. Collection,

			Introduction, Multiplication and Maintenance of collected species in BSI, WRC, Garden. **Total Field tours: 4 (2 FT+2 HCT)**
72.	**Morpho-Molecular systematics and Bio-potency of terrestrial microfungi of Bhagwan Mahavir (Mollem) National Park , Goa** Dr. Rashmi Dubey, Scientist-'F' Amit D. Pandey, Bot. Asstt. ***New Project***	2024-2027	**Q1:** Molecular identification of remaining Bambusicolous Fungi. Collection of literature. **Q2**: Writing and submission of final manuscript (Bambusicolous Fungi of Goa). **Q3: One Field Tour** to study area. **Q4:** Identification of host substrates. Processing of samples. Molecular characterization and Phylogeny of some interesting species. **Total Tour: 1**
73.	**Flora of Goa** Dr. Prashant K. Pusalkar, Scientist-F ***New Project***	2024-27	**Q1:** Herbarium and literature study and Completion of floristic account of 150 species. **Q2**: Herbarium and literature study and Completion of floristic account of 150 species **Q3: One Field Tour** to North Goa. Herbarium and literature study and Completion of floristic account of 150 species **Q4:** Herbarium and literature study and Completion of floristic account of 150 species. **Total Tour: 1**
74.	**DNA Barcoding of Endemic Plants from the Northern Western Ghats of Maharashtra** Dr. Nithaniyal Stalin A, Botanist Dr. A. Benniamin, Scientist F Kaushik Sarkar, Bot.Asst *(Targets: 30 plants to be studies every year)*	2023 – 2027	Q1: Herbarium consultation of endemic taxa of Northern Western Ghats housed at BSI, WRC. Literature survey of DNA barcoding studies and on type locations of targeted species. Setting up of DNA Barcoding Lab. Q2: DNA Isolation protocol standardization at WRC laboratory and PCR amplification of collected samples using rbcL barcodes. **One field tour** to NW Ghats of Maharashtra. **Q3:** Wet Lab work on DNA Barcoding. Purification of PCR amplified samples. Preparing samples for DNA sequencing **Q4: One field tour** to the Northern Western Ghats of Maharashtra to collect targeted endemic species for DNA Barcoding. **Total Field tour: 2**
INDUSTRIAL SECTION INDIA MUSEUM, KOLKATA ***Note: Tours to be clubbed as per the requirement and budgetary availability of the centre.***			
75.	**Barcoding, Database and Digitization of BSIS Herbarium.** 1. Mrs. Sushreya Pal, Botanical Assistant 2. Ms. Shrabasti Das, Sr. Prev. Asstt ***Note: The report to be submitted by March 25th every year.***	2024-2026	**Q1 – Q4:** Total target **10000** Herbarium sheets to be digitized each year.
76.	**Collection of economically important plants/ plant products for enrichment of Botanical Gallery, ISIM, BSI with special emphasis on development of new Ethnobotanical Section.** Dr. Debasmita Dutta Pramanick, Scientist-D, Mr. Ranjit Patra, Sr. Preserv. Assistant Dr. Manas Bhaumik, Scientist F,	2024-2025 (Onging)	**Q1 - Q3:** Literature survey onethnobotany of tribal groups inhabiting in Southern-Western Districts of West Bengal; listing of tribes with restricted population (PVTGs) in West Bengal**.** **Q.2 One field tour** to Assam and Arunachal Pradesh in Q3, for economically important and Ethnobotanical collection of plants and plant products (Dr. M. Bhaumik, Scientist F) **Q4: One Field Tour** to selected tribal inhabited regions of South-Western Districts of West Bengal for procurement of plant products along with collection of information for new

	Botanical Asstt, & MTS. ***New Project***		Ethnobotanical Section at Botanical Gallery (Dr. Debasmita Dutta Pramanick). **Total Tour: 2**
77.	**A Comprehensive Study on Museum Visitor's Behaviour Numerical Analysis, Statistical Insights, and Modernization of Botanical Gallery- a Pilot study**. Dr. Debasmita Dutta Pramanick, Scientist-D, Mrs. Sushreya Pal, Bot. Asstt. & all Gallery staffs, ISIM, BSI ***New Project***	2024-2026	**Q1. – Q4.**: i) Regular interaction with visitors of different age groups by random sampling method; ii) interviewing the visitors and compilation of set of questionaries given to the visitors to resolve; iii) counting footfall data manually/by footfall counting machine; iv)compilation of visitors' comments and noting down suggestion of visitors for development of the Gallery
TECHNICAL DIVISION, HEADQUARTERS			
78.	**Wild useful/edible plants of Arunachal Pradesh** 1. Dr. Umeshkumar L. Tiwari, Scientist-D 2. Dr. S.S. Dash, Scientist-F 3. Dr. K. Chowlu, Scientist-D, APRC	2021-2024 *Extended for 6 months, upto September 2024.*	**Updation and final submission of project report.** ***Note: The report to be submitted by September 2024.***
79.	**Documentation of economically important seaweeds of the Indian Coast** Dr. S. K. Yadav, Botanist ***Note: The final report to be submitted by March 25th 2025.***	2022-2025	**Q1 – Q3.** Documentation and taxonomic study of the economically important seaweeds from the various coastal states. **Q3. Q4.** Finalinaction and submission of the final report.
80.	**Study of Floristic Diversity and the impact of pollution on selected wetlands in 5 district of West Bengal** Ms. Sinchita Biswas, Bot. Asstt. Dr. Umeshkumar L. Tiwari, Scientist-'D' ***New Project***	2024 - 2027	**Q1-Q4:** Literature survey, **One Field Tour in each quarter**, Data Collection and Analysis, Identification of plants. **Total Field Tours : 4**