

Annual Report 2023 - 2024

Including Audit Report



Kerala State Biodiversity Board



KSBB
ANNUAL REPORT 2023 - 2024

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Cover Page Picture : Kattuchamba, Manjachamba (*Syzygium laetum*) - Endemic to Southern Western Ghats
Credit- Dr. P Sujanapal

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Picture:- Kasaragod Manjadukkam, Panathady Reserve Forest, Panathady BMC



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Key achievements of the 2023- 2024 and progress towards biodiversity conservation/management targets to be achieved by 2030

In the past year, the Kerala State Biodiversity Board (KSBB) has made significant strides in its mission to conserve and sustainably manage the state's rich biological resources. Guided by the principles of the Biological Diversity Act of 2002 and in close partnership with the Biodiversity Management Committees, KSBB concentrated its efforts on four key areas: Biodiversity Conservation, Research & Legal Framework, Extension and Capacity Building.

Throughout these domains, KSBB successfully implemented numerous projects and initiatives that enhanced local biodiversity management and fostered community engagement. Among the major results was the upgradation and verification campaign of People's Biodiversity Registers (PBRs) in 227 local bodies, which involved substantial participation from local students. Additionally, KSBB established a few urban green spaces and conservatories aimed at promoting biodiversity in urban settings. The launch of innovative research projects on invasive species, coupled with the creation of new biodiversity clubs and training programs for youth and local stakeholders, highlights KSBB's commitment to environmental education and sustainable practices.

Under Biodiversity Conservation Action Area, KSBB provided financial assistance to 25 Biodiversity Management Committees (BMCs) for the preparation of Local Biodiversity Strategy and Action Plans (LBSAP). The successful implementation of the Native Inland Fish Stock Enhancement Project and the conduction of district-level training for BMCs to upgrade PBR Volume II were also noteworthy. Furthermore, KSBB led a PBR upgradation and verification campaign in 227 BMCs, upgraded PBRs for three Ramsar sites—Sasthamcotta Lake, Ashtamudi Wetland, and Vembanad-Kol Wetland—and convened meetings with 335 local bodies. The initiation of the Butterfly Garden Project at the Asramam Biodiversity Heritage Site and the establishment of five Miyawaki Model Urban Forests across different locations further exemplify the board's commitment to conservation.

In the, Access, Benefit Sharing, and Legal Issues Action Area, KSBB initiated a project assessing the impact of invasive *Nymphaea* species in Kerala's wetlands. The establishment of a model ethnobotanical plant garden by four local institutions showcased collaborative efforts in research and conservation. KSBB also received and submitted reports on ecological restoration and agro-diversity conservation in Vellayani lake of Agriculture College, Vellayani. The announcement of winners for the Youth Ideation Challenge and the awarding of three Doctoral Fellowships to research scholars are further testament to KSBB's commitment to fostering academic engagement and innovation.

The Extension and Training Action Area conducted nine virtual trainings for Biodiversity Club coordinators, registering 228 new clubs with KSBB. The successful organization of the 16th District-level Children's Biodiversity Congress, along with the publication of the quarterly e-newsletter "EKAA" (Environment Kerala Awareness Action), demonstrates the board's dedication to education and community involvement. Noteworthy celebrations included International Biodiversity Day and World Environment Day, alongside terrarium training for clubs and green audits conducted at selected schools.

In summary, the past year has been transformative for KSBB, with substantial achievements that lay a strong foundation for future biodiversity conservation efforts in Kerala. These achievements reflect KSBB's dedication to preserving Kerala's biodiversity and underscore its efforts to integrate conservation into local governance frameworks.

The board looks forward to actively promoting sustainable livelihoods and ensuring equitable sharing of benefits arising from the utilization of biological resources. It is hoped that such collaborative efforts will facilitate the achievement of state-level/international biodiversity conservation targets by 2030.

30 November 2024

Nadesapanicker Anil Kumar
Chairman





Preface

The Kerala State Biodiversity Board (KSBB) was established under the Biological Diversity Act of 2002 and the Kerala State Biological Diversity Rules of 2008 to help the state to achieve the triple objectives of the Convention on Biological Diversity. It operates as an autonomous body under the Kerala State Environment Department, headquartered in Thiruvananthapuram.

KSBB is entering its 20th anniversary in March 2025. The official constitution of the Board was adopted by an order signed on 28th February 2005 and initially functioned under the Kerala State Council for Science, Technology, and Environment. Following the department's formation in 2006, it was later transferred to the Environment Department, enabling enhanced coordination for Biodiversity environmental management in the state.

The primary function of the Kerala State Biodiversity Board (KSBB) is to advise the State Government on biodiversity conservation matters, based on guidelines from the Central Government and the National Biodiversity Authority (NBA). KSBB promotes the sustainable use of biological resources found in its territory and ensures fair and equitable sharing of benefits derived from their utilization. The National Biodiversity Authority, formed in 2003 and based in Chennai, is a statutory body responsible for implementing the Biological Diversity Act at the national level under the Ministry of Environment, Forests, and Climate Change.

The State Biodiversity Board has the authority to grant or reject approvals for commercial use, bio-surveys, and bio-utilization of biological resources by Indian entities. The Board performs

duties necessary to enforce the provisions of the Biological Diversity (Amendment) Act, 2023, aligning its objectives and strategies with the Act's principles of conservation, sustainable management and benefits creation and sharing.

The Act sets a decentralized framework for biodiversity management, including Biodiversity Management Committees (BMCs) at the local level, State Biodiversity Boards at the state level, and the National Biodiversity Authority at the national level.

This report outlines the key achievements and activities across three action areas: i) Biodiversity conservation ii) Access, Benefit Sharing, and Legal Issues iii) Extension and Training. The Chairman's introduction provides an overview of the year's highlights and key learnings. Additionally, the report includes a list of publications produced during the year, as well as the queries addressed under the Right to Information Act. A comprehensive expenditure statement and financial plan are also provided towards the end.

We would like to express our sincere gratitude to all supervisors, supporters, and well-wishers for their invaluable assistance in executing our work, and to the Biodiversity Management Committees and the respective local government authorities for helping translate many of our achievements into local projects and programs. Special thanks are extended to Dr. Rathan U Kelkar IAS, Secretary to the Environment Department, and Dr. George C Thomas, Chairman of the Board and all the Board members during the reporting period, for their guidance and support.

V. Balakrishnan
Member Secretary

30 November 2024

Results of the Year : *At a Glance*



ACTION AREA 1

Biodiversity Conservation

- Provided financial assistance to 25 Biodiversity Management Committees (BMCs) for the preparation of Local Biodiversity Strategy and Action Plan (LBSAP).
- Implemented the Native Inland Fish Stock Enhancement Project in 7 BMCs.
- Conducted district-level training for BMCs to upgrade People's Biodiversity Registers (PBR).
- Led a PBR upgradation and verification campaign in 227 BMCs, involving local students.
- Upgraded the PBRs of three Ramsar sites: Sasthamcotta Lake, Ashtamudi Wetland, and Vembanad-Kol Wetland.
- Convened BMC meetings with 335 local bodies.
- Initiated the Butterfly Garden Project at the Asramam Biodiversity Heritage Site, Kollam.
- Established five Miyawaki Model Urban Forests (Urban Green) across different locations.
- Developed *ex-situ* conservatories for red-listed plant species.

ACTION AREA 2

Access, Benefit Sharing, and Legal Issues

- Initiated a two year project on the impact assessment, sustainable management, and value addition of invasive *Nymphaea* species in Kerala's wetlands through four institutions.
- Facilitated the establishment of a model ethnobotanical plant garden by four institutions.
- 125 lakhs project was launched at Agriculture College, Vellayani for ecological restoration and agro -diversity conservation. Annual report submitted.
- Announced the winners of the Youth Ideation Challenge, with details uploaded on the KSBB website.
- Awarded three Doctoral Fellowships to research scholars.
- Provided internship training on biodiversity to 30 postgraduate students.



ACTION AREA 3

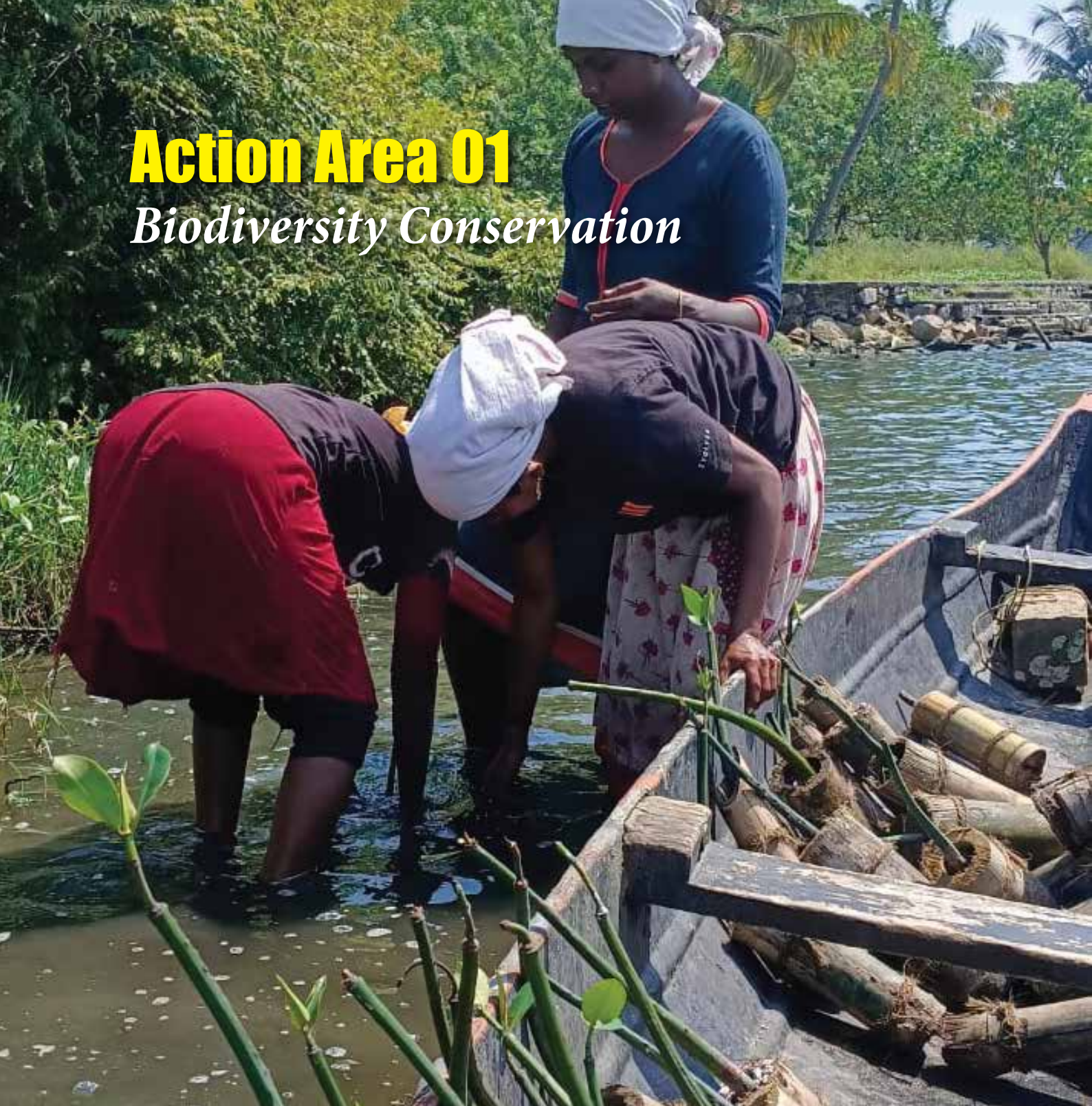
Extension and Training

- Conducted nine virtual trainings for coordinators of Biodiversity Clubs.
- Registered 228 new Biodiversity Clubs with KSBB.
- Organized the 16th District-level Children's Biodiversity Congress.
- Published 'EKAA' (Environment Kerala Awareness Action) quarterly e-newsletter.
- Celebrated International Biodiversity Day 2023 and World Environment Day 2023.
- Conducted terrarium training for Biodiversity Clubs.
- Completed a green audit at Government College, Chittur.
- Celebrated World Ozone Day 2023 and National Nutrition Month 2023.
- Marked International Women's Day through an online celebration.
- Participated in the PANACEA Expo held in Mumbai.
- Observed World Forest Day, World Water Day, and World Meteorological Day with online events.
- KSBB received the Best Video Documentary Award from the state government.
- Hosted the Kerala State Biodiversity Conservation Awards.
- Provided financial support to colleges, institutions, and NGOs to organize seminars, symposia, and workshops.
- Conducted green audits in selected schools of Thiruvananthapuram District.
- Welcomed 5,109 students and 760 adults from 66 institutions to the Biodiversity Museum.



Action Area 01

Biodiversity Conservation



KSBB provided financial assistance to 25 Biodiversity Management Committees (BMCs) for the preparation of Local Biodiversity Strategy and Action Plans (LBSAP). The successful implementation of the Native Inland Fish Stock Enhancement Project and the conduction of district-level training for BMCs to upgrade PBR were also noteworthy. Furthermore, KSBB led a PBR upgradation and verification campaign

in 227 BMCs, upgraded PBRs for three Ramsar sites—Sasthamcotta Lake, Ashtamudi Wetland, and Vembanad - Kol Wetland—and convened meetings with 335 local bodies. The initiation of the Butterfly Garden Project at the Asramam Biodiversity Heritage Site and the establishment of five Miyawaki Model Urban Forests across different locations further exemplify the board's commitment to biodiversity conservation.



Highlights of the Year

- Provided financial assistance to 25 Biodiversity Management Committees (BMCs) for the preparation of Local Biodiversity Strategy and Action Plan (LBSAP).
- Implemented the Native Inland Fish Stock Enhancement Project.
- Conducted district-level training for BMCs to upgrade People's Biodiversity Registers (PBR).
- Led a PBR upgradation and verification campaign in 227 BMCs, involving students.
- Upgraded the PBRs of three Ramsar sites: Sasthamcotta Lake, Ashtamudi Wetland, and Vembanad-Kol Wetland.
- Convened BMC meetings with 335 local bodies.
- Initiated the Butterfly Garden Project at the Asramam Biodiversity Heritage Site, Kollam.
- Established five Miyawaki Model Urban Forests (Urban Green) across different locations.
- Developed *ex-situ* conservatories for red-listed plant species.

Preparation of Local Biodiversity Strategy and Action Plan (LBSAP)

During the reporting period, financial assistance was provided to 25 selected Biodiversity Management Committees (BMCs) for the preparation of Local Biodiversity Strategy and Action Plans (LBSAPs), following KSBB guidelines. Agreements were executed with each BMC to ensure project implementation.

In line with global targets from the Kunming-Montreal Global Biodiversity Framework, as well as the updated National Biodiversity Strategy and Action Plan (NBSAP) and the National Biodiversity Targets (NBTs) 2023, KSBB modified the LBSAP guidelines to align with these frameworks.

To support the project, KSBB conducted an online orientation program for the selected 25 BMCs on 22nd March 2024.

The list of BMCs selected for this initiative is provided below:

Table 1: List of BMCs selected for LBSAP preparation

Sl. No.	District	Selected BMCs for the preparation of LBSAP	Amount given (in Lakhs.)
1	Thiruvananthapuram	1. Chirayinkeezhu Grama Panchayat	2.0
		2. Vembayam Grama Panchayat	2.0
2	Kollam	3. Kareepra Grama Panchayat	2.0
		4. Kadakkal Grama Panchayat	2.0
3	Pathanamthitta	5. Mallappuzhassery Grama Panchayat	2.0
		6. Mezhuveli Grama Panchayat	2.0
4	Alappuzha	7. Devikulangara Grama Panchayat	2.0
5	Kottayam	8. Veliyannur Grama Panchayat	2.0
		9. Kallara (Vaikkom) Grama Panchayat	2.0
6	Idukki	10. Peruvanthanam Grama Panchayat	2.0
7	Ernakulam	11. Karumalloor Grama Panchayat	2.0
		12. Marady Grama Panchayat	2.0
8	Thrissur	13. Sreenarayanapuram Grama Panchayat	2.0
		14. Elavally Grama Panchayat	2.0
9	Palakkad	15. Muthuthala Grama Panchaya	2.0
		16. Thirumittacode Grama Panchayat	2.0
10	Malappuram	17. Marancherry Grama Panchayat	2.0
		18. Vettom Grama Panchayat	2.0
11	Kozhikode	19. Kadalundi Grama Panchayat	2.0
		20. Kayanna Grama Panchayat	2.0
12	Wayanad	21. Thondernadu Grama Panchayat	2.0
		22. Vythiri Grama Panchayat	2.0
13	Kannur	23. Karivellur Peralam Grama Panchayat	2.0
14	Kasaragod	24. Valiyaparamba Grama Panchayat	2.0
		25. Udma Grama Panchayat	2.0
		Total	50.0

Stock Enhancement of Native Inland Fishes in Major Rivers of Kerala through Monsoon Floodplain Fishery Management

Monsoon Floodplain Fishery (MFF) is one of the most unsustainable fishing practices in Kerala, widely conducted during the southwest monsoon. This activity, embraced by both traditional fisherfolk and non-conventional fishermen, is driven by the high demand for spawning fish. Unfortunately, this practice has led to a significant

decline in the population of native inland fish species in Kerala's major rivers, pushing several species towards the brink of extinction.

In response, KSBB launched a project in 2022-2023 aimed at conserving migratory fish species during MFF and enhancing their populations in rivers, tributaries, and associated water bodies. The project was implemented in five districts—Pathanamthitta, Alappuzha, Kottayam, Ernakulam, and Thrissur—selected for their major rivers, (Pampa, Meenachil, Moovattupuzha, and Chalakkudy), rich native fish diversity,

and high MFF activity. These rivers are known for their migratory native fish populations and the phenomenon of monsoon floodplain fish migration.

The project focused on stock enhancement by conserving various species of spawning fish caught during MFF. These fishes were reared in selected grow-out ponds under the care of Biodiversity Management Committees (BMCs). After 3-4 months, the fingerlings were reintroduced into the rivers. The project was successfully carried out in seven BMCs: Mallappuzhasseri, Mannar, Koruthodu, Ramamangalam, Valakam, Elavally, and Annamanada Grama Panchayats. Key fish species conserved include *Labeo dussumieri*, *Dania malabarica*, *Horabagrus brachysoma*, *Channa striata* and *Anabas testudineus*.

Public awareness campaigns, supported by the respective BMCs, were conducted through posters and brochures to highlight the importance of conserving spawning fishes during MFF.



Manjakoory (*Horabagrus brachysoma*)



Striped snakehead (*Channa striata*)



Malabar Labeo (*Labeo dussumieri*)



Climbing perch (*Anabas testudineus*)



Malabar danio (*Devario malabaricus*)

Preparation of People's Biodiversity Register (PBR) Volume II

During the reporting period, KSBB identified local bodies that had allocated funds for the preparation of PBR Volume II in their plan budgets, in coordination with the District Planning Office. KSBB provided district-level training to 402 local bodies across the state, following its guidelines and formats.

Detailed information on the number of training sessions conducted in each district is provided below.

Table 2: List of the BMCs trained on PBR preparation Volume II

Sl. No	District	No. of BMCs trained	No. of training conducted	Date of training
1	Thiruvananthapuram	16	1	12.09.2023
2	Kollam	45	1	13.09.2023
3	Pathanamthitta	37	1	12.10.2023
4	Alappuzha	19	1	19.09.2023
5	Kottayam	12		
6	Idukki	6	1	20.09.2023
7	Ernakulam	62	2	04.10.2023 & 05.10.2023
8	Thrissur	67	2	09.10.2023 & 10.10.2023
9	Palakkad	19	1	16.10.2023
10	Malappuram	20	1	18.10.2023
11	Kozhikode	41	1	20.10.2023
12	Wayanad	18	1	16.09.2023
13	Kannur	19	1	18.09.2023
14	Kasaragod	21	1	08.09.2023
	Total	402	15	



PBR Updating and Verification Campaign

As directed by the National Biodiversity Authority (NBA), KSBB organized a campaign for the upgradation and verification of People's Biodiversity Registers (PBRs) in conjunction with the celebration of International Day for Biological Diversity 2023, from May 23rd to June 3rd. This initiative was part of a nation wide program. The campaign, conducted in 227 BMCs across Kerala, involved students who played a vital role

in updating and verifying the PBRs. During the campaign, students and BMC members took the "LiFE" (Life style for environment) pledge, held placards, and engaged in activities related to the upgradation of PBRs. Geo-tagged photos and brief reports were uploaded to the "Meri LiFE" portal in the prescribed format. KSBB also developed and distributed a brochure to the BMCs to guide the program. A total of 435 students participated, and certificates of participation, signed by NBA and MoEF & CC, were awarded to them.

PBR updating of Ramsar Sites

As part of the Amrit Dharohar Scheme, launched by the MoEF & CC to ensure the healthy management of Ramsar sites, KSBB was directed by the NBA to update the People's Biodiversity Registers (PBRs) for the Ramsar sites in Kerala. KSBB worked with 93 BMCs across the three Ramsar sites in the state: Sasthamcotta Lake (3 BMCs), Ashtamudi Wetland (12 BMCs), and Vembanad-Kol Wetland (78 BMCs). The project involved updating the flora and fauna records of these wetlands, with the assistance of the concerned BMCs and the Technical Support Group (TSG). Certificates of compliance were collected from each BMC, and the updated data were submitted to the NBA in the prescribed format.

Butterfly Garden Project at Asramam Biodiversity Heritage Site, Kollam

As part of KSBB's model biodiversity conservation projects, a butterfly garden was developed at the Asramam Biodiversity Heritage site in Kollam, Kerala's first Biodiversity Heritage Centre. This initiative was undertaken in collaboration with the Kollam Corporation BMC, based on the approved management plan of the heritage site. Technical assistance was provided

by the Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI), Thiruvananthapuram.

The first phase of the project has been completed, and the Kollam Corporation BMC is now taking steps to begin the next phase for the successful completion of the butterfly garden.

Miyawaki Model Urban Forests (Urban Green)

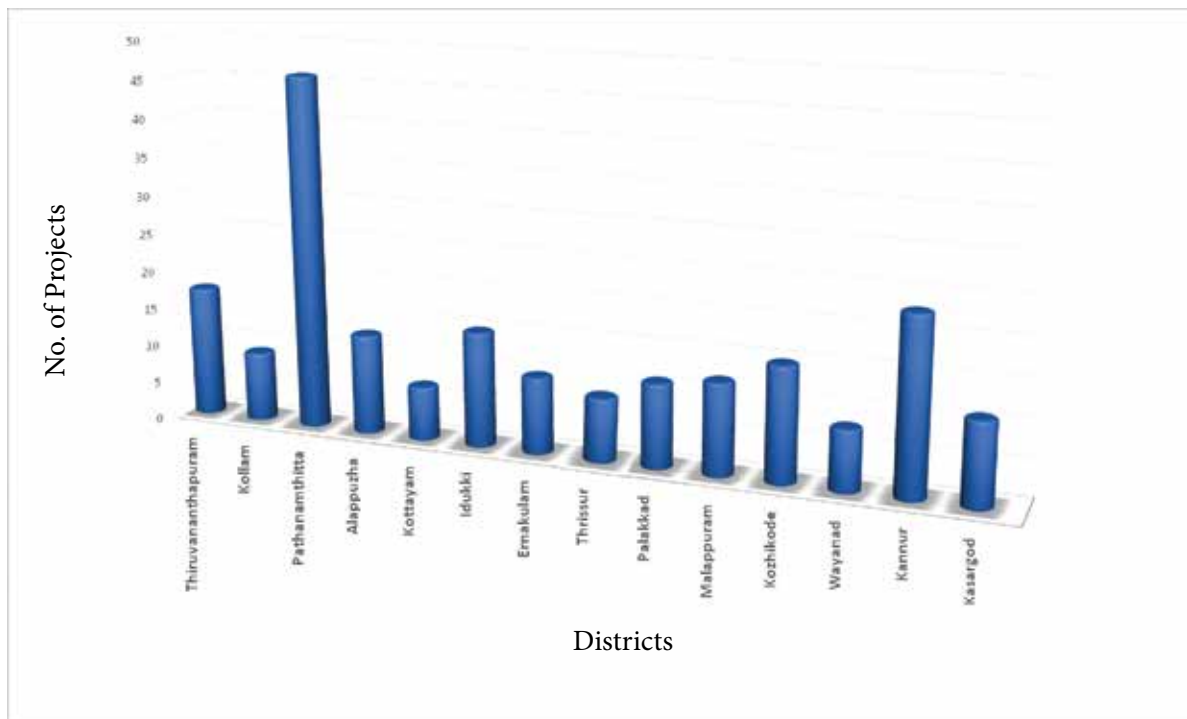
Under the KSBB's 2020-2021 scheme, a Miyawaki Model Forest project was launched to create sustainable urban biodiversity models with active public participation. Four BMCs from Thiruvananthapuram and one from Kollam were selected to implement the project. Project papers were submitted by the selected institutions, and each BMC was allotted Rs. 4 lakh to establish the Miyawaki Model Forest.

The Agricultural and Ecosystem Management Group was chosen as the implementing agency, and an MoU was signed to formalize their role. The project is currently in progress, with ongoing efforts to establish these dense, small-scale urban forests based on the Miyawaki method, which promotes rapid growth and biodiversity conservation.

Sl.No.	BMC	Project Site	Status
1	Kollayil Grama Panchayath Thiruvananthapuram District	Govt. I.T.I Dhanuvachapuram Thiruvananthapuram	Completed
2	Pulimath Grama Panchayath Thiruvananthapuram District	Dewaswom Board High School, Pulimath Thiruvananthapuram	Completed
3	Neyyattinkara Municipality Thiruvananthapuram District	Govt. M.T.H.S Oruttuakala Thiruvananthapuram	Progressing
4	Edava Grama Panchayath Thiruvananthapuram District	Govt. Higher Secondary School, Kappil Thiruvananthapuram	Progressing
5	Kollam Corporation Kollam District	Near Gandhi Park Kollam beach area Kollam	Nearing completion

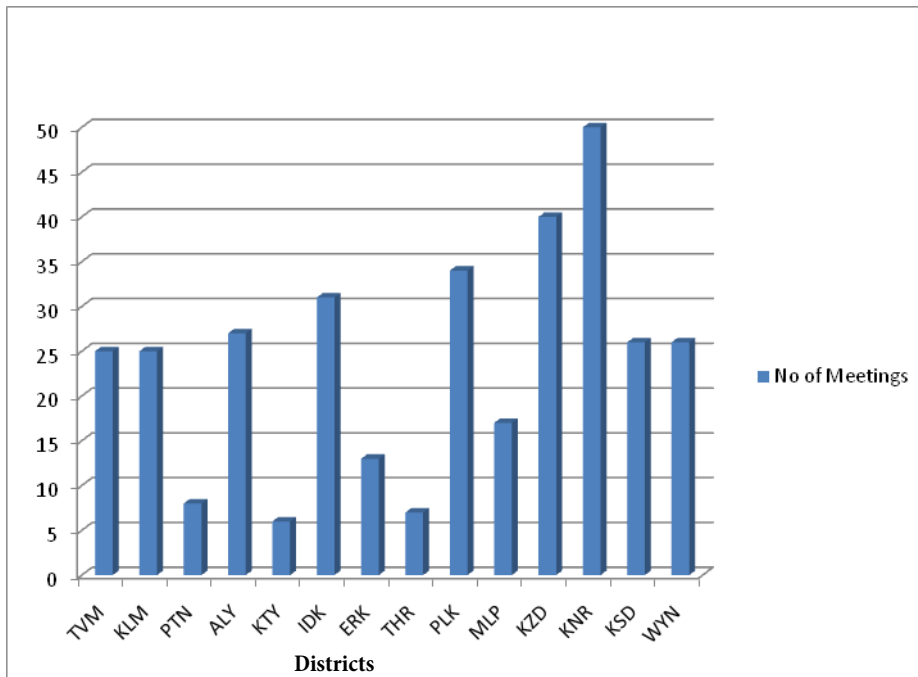


No. of Projects implemented by BMCs during the year 2023 – 2024



Meetings of BMCs in Various Districts:

A total of 335 local bodies held BMC meetings during the reporting period. The district-wise split up of these BMC meetings is provided below:



Ex-situ Conservatories for Red-Listed Plant Species

As part of the 2019-20 plan scheme, KSBB developed a Kerala-specific Red List of endangered plant species. Based on this report, KSBB initiated the development of nurseries for these priority plant species for *ex-situ* conservation. This approach conserving biodiversity outside the natural habitats is sometimes the only viable option for the preservation of rare and endemic plant species.

In the 2022-23 plan scheme, KSBB launched a project aimed at creating *ex-situ* bio-conservatories for the identified priority species, in collaboration with research and development institutions within the State. This project will contribute to the long-term conservation of Kerala's red-listed plants and will gradually evolve into human-made forests through natural succession. An expression of interest was invited from potential institutes and organizations, and after thorough scrutiny, 11 institutes were selected to carry out this important conservation work.



Action Area 02

Access & Benefit Sharing and Legal Issues



The KSBB has made significant strides in biodiversity research, access and benefit-sharing, and legal issues in the reporting period. Through various initiatives, the KSBB has fostered research, supported internships, and launched projects aimed at sustainable biodiversity management

and conservation. Key achievements include the awarding of doctoral fellowships, the implementation of biodiversity-related projects, and the successful completion of the first phase of several research programs.



Major Highlights of the Year

- Awarded three Doctoral Fellowships to research scholars.
- Conducted internship training on biodiversity for 30 postgraduate students.
- Initiated a two-year project on “Ecological Impact and Value Addition Assessment for Sustainable Management of Invasive Nymphaea Species in Kerala’s Wetlands” through four institutions.
- Sanctioned the establishment of a “Model Ethnobotanical Plant Garden” project at four institutions for a one-year period.
- Submitted the first-year report on “Ecological Restoration and Agrodiversity Conservation” by College of Agriculture, Vellayani.
- Announced winners of the Youth Ideation Challenge on the KSBB website.
- Released second instalments of project “Identification, Creation of Database, Propagation, Conservation, and Value Addition of Wild and Underutilized Agricultural Crops” after receiving the first-year report, Utilization Certificate (UC), and Statement of Expenditure (SoE) from 18 institutions.

Highlights

Biodiversity Research

KSBB, an approved research center under Kerala University, supported three doctoral fellows during 2023-24 in biodiversity research with the following topics:

1. **Isolation, characterization, and efficacy testing of bioactive compounds** with antimicrobial/antiviral properties from bioresources.
2. **Population studies, species distribution modelling, and vulnerability analysis** of priority threatened species in Kerala.

3. **Evaluation and characterization of traditional crop varieties/landraces** for stress tolerance.

Ecological Impact and Value Addition Assessment for Sustainable Management of Invasive Nymphaea Species

Wetlands in Kerala are rich ecosystems supporting diverse species and local livelihoods. However, invasive Nymphaea species have threatened this balance. To address this, KSBB initiated a two-year project to evaluate the environmental impact of Nymphaea and explore value addition mechanisms for sustainable wetland management.

The project aims to:

- Assess the ecological impact of *Nymphaea* in Kerala's wetlands.
- Conduct phytochemical profiling.
- Explore livelihood-enhancing solutions for managing the species.

Kerala State Biodiversity Board Internship Scheme

KSBB provides internship opportunities for postgraduate students to enhance their knowledge, skills, and research experience in biodiversity. Interns are required to submit a report of their research work, and successful completion is certified by KSBB. In 2023-2024, 30 students from various colleges and universities completed internships under this scheme.



The project is being implemented in the wetlands of Alappuzha-Kottayam, Pathanamthitta, and Ernakulam districts through the following institutions:

Name of the project	Name and address of Principal Investigator	Total Budget (in Lakhs.)
Ecological impact and value addition assessment for sustainable management of invasive <i>Nymphaea</i> species in the wetlands of Kerala	Prof. (Dr.) E.A. Siril Professor and Head Department of Botany University of Kerala Kariavattom Thiruvananthapuram	11.04
	Dr. K. B. Rameshkumar Principal Scientist Phytochemistry and Phytopharmacology Division Jawaharlal Nehru Tropical Botanic Garden and Research Institute (KSCSTE-JNTBGRI) Palode, Thiruvananthapuram	11.04
	Dr. Midhun Dominic C.D (PI) Asst. Professor and Dean of Research Department of Chemistry Sacred Heart College Thevara, Kochi	9
	Dr. Jose Mathew Assistant Professor Department of Botany Sanatana Dharma College Alappuzha	10.54



Establishment of a Model Ethno-Botanical Plant Garden

Ethno-botanical plant species, often linked to specific tribal communities, are declining due to forest loss, lifestyle changes, and modernization. This diminishing connection to traditional knowledge and practices threatens the survival of these plant species. To counter this trend, the Kerala State Biodiversity Board (KSBB) has sanctioned four institutions to establish a model ethno-botanical plant garden over the next year. This garden aims to serve as a living repository of cultural and ecological knowledge, fostering conservation, education, and community engagement.

Ecological Restoration and Agrobiodiversity Conservation at College of Agriculture, Vellayani

In 2022-23, a project to restore the Vellayani lake ecosystem was initiated at the College of Agriculture, Vellayani. Extensive surveys were conducted to collect germplasm, resulting in the acquisition of around 130 rice varieties from Kerala and Tamil Nadu. Seedbed preparations for these varieties are currently underway. A Millet Museum has been established to preserve diverse millet germplasm, and renovation of a crop museum initiated in 1972 has been completed. Additionally, biodiversity documentation and digitization efforts are ongoing.

Youth Ideation Challenge

Under the KSBB Plan Schemes 2023-24, the Youth Ideation Challenge was launched to engage college students, start-ups, and the public in addressing key biodiversity challenges in agrobiodiversity, forest biodiversity, and aquatic biodiversity. A total of 86 applications were received, with 30 shortlisted for the second stage. Ultimately, 20 detailed proposals were presented, with winners receiving cash prizes and certificates for their innovative ideas.

Identification, Creation of Database, Propagation, Conservation, and Value Addition of Wild and Underutilized Agricultural Crops

Launched in 2022-23 with an investment of Rs. 159.75 lakh, this project aims to identify and propagate underutilized wild edibles, creating a database and developing value-added products in collaboration with 18 partner institutions. The project will run for two years, from April 2023 to March 2025, with the first-year report and progress updates submitted by all participating institutions.

Legal Issues

Several legal issues regarding biodiversity conservation have been addressed:

- **WP (C) No. 3645/2023:** Addressing illegal dredging and mining in the Meenachil River; details submitted to the standing counsel.

- **WP (C) No. 3320/2023:** Case filed by Sri. Vishwam Koothupara; statement of facts submitted and case disposed of.
- **Kole Wetlands Threat:** Report submitted to the government regarding threats from alien plant species.
- **Various WP (C) Cases:** Ongoing cases relating to biodiversity heritage sites and alien plant threats, with submissions and inspections conducted as required.

Court cases related to Access and Benefit Sharing (ABS)

Several court cases involving various herbal and natural product companies have been documented, with ongoing monitoring and actions taken by the KSBB.



Action Area 03

Extension and Training



The Kerala State Biodiversity Board (KSBB) actively engages in various extension activities aimed at fostering environmental awareness and promoting biodiversity conservation across the state. These initiatives encompass a range

of programs, workshops, and green audits that not only educate participants about sustainable practices but also empower communities to manage their biodiversity in sustainable and equitable manner.



Major Highlights of the Year

The Extension and Training Division of the Kerala State Biodiversity Board (KSBB) has accomplished several key initiatives

- Conducted **nine online training sessions** for biodiversity club coordinators statewide.
- Registered 228 new biodiversity clubs.
- Organized the 16th District-Level Children's Biodiversity Congress across all districts.
- Published the EKAA (Environment Kerala Awareness Action) quarterly e-newsletter.
- Celebrated International Biodiversity Day, World Environment Day, World Ozone Day, National Nutrition Month, International Women's Day, World Forest Day, World Water Day, and World Meteorological Day.
- Conducted terrarium training for biodiversity clubs and green auditing at the Government College in Chittur, as well as selected schools in Thiruvananthapuram District.
- Awarded the Best Video Documentary for KSBB and completed field verifications for the Kerala State Biodiversity Conservation Awards.
- Provided financial support for seminars, workshops, and symposia to colleges, institutions, and NGOs.
- Engaged 5,109 students and 760 adults in visits to the Biodiversity Museum at Vallakkadavu, representing 66 institutions.

Monthly Online Training Series for Biodiversity Clubs

To enhance the capabilities of registered biodiversity clubs, KSBB launched a year-long monthly online training series. The program was inaugurated on June 3, 2023, by Dr. George C Thomas, Chairman of KSBB, who emphasized the importance of instilling biodiversity conservation values in youth. The series commenced with a session on “**The Goals and Responsibilities of Biodiversity Clubs,**” led by board member Sri. K.V. Govindan, highlighting the role of teachers and students in conservation efforts. Subsequent training sessions covered various topics, including model projects for biodiversity clubs, wetland biodiversity, sensory and healing gardens, medicinal plant gardens, butterfly parks and the conservation of sacred groves. Approximately 2,000 teacher coordinators participated in these training programs, contributing to capacity building within the biodiversity clubs.

New Biodiversity Clubs Registered

The Kerala State Biodiversity Board (KSBB) has been actively promoting biodiversity conservation, particularly among students, by encouraging schools and colleges to establish biodiversity clubs. During the reporting period, **228 new biodiversity clubs** were formed and registered with KSBB, receiving both technical and financial support to implement conservation initiatives.



16th Children's Biodiversity Congress (CBC)

For the past fifteen years, KSBB has partnered with the General Education Department to organize the Children's Biodiversity Congress, aimed at fostering biodiversity awareness among students. This year, district-level competitions were held with the theme “**Biodiversity Conservation and Sustainable Development: Role of Students.**” Approximately 2,000 students participated in various competitions, including project presentations, pencil drawings, essay writing, and painting. Winners received certificates and KSBB publications, with state-level winners to be selected in the next evaluation round.

EKAA E-Newsletter Published

The online quarterly newsletter **EKAA (Environment Kerala Awareness and Action)** was published covering activities and initiatives from April 2023 to March 2024.

International Day for Biological Diversity 2023

On May 22, 2023, KSBB celebrated International Day for Biological Diversity with a workshop on “**Conservation of Sacred Groves with People's Participation.**” The event aimed to raise awareness about sacred groves and foster community engagement in their conservation. Notable guests included Sri. K. Radhakrishnan, Hon'ble Minister for Scheduled Castes and Scheduled Tribes, who

announced a new award for the Best Sacred Grove in Kerala. A Malayalam handbook titled “**Sacred Groves: Treasure House of Biodiversity**” was released, and a critically endangered plant species, *Madhuca diplostemon*, was reintroduced after its rediscovery in Kollam district. The workshop attracted around **375 participants**, including experts who delivered sessions on various aspects of sacred grove conservation.

World Environment Day Celebrated

On June 5, 2023, KSBB, in collaboration with the Department of Botany at the University of Kerala, celebrated World Environment Day by planting and conserving rare and threatened plants. The event featured the planting of a *Madhuca diplostemon* sapling, a highly threatened species recently rediscovered in southern Kerala after 180 years. The event was attended by over a hundred participants, including faculty and students from various institutions, highlighting the significance of conservation efforts led by KSBB.

Training on Terrarium Making

Various programs were implemented to strengthen registered biodiversity clubs across the state. As part of these efforts, KSBB conducted a state-level livelihood enhancement program on terrarium making for students and teacher coordinators of biodiversity clubs on July 3, 2023, at SN College, Kollam, in collaboration with the college's biodiversity club. Terrariums are

miniature representations of terrestrial ecosystems housed in eye-catching glass vessels, featuring live green plants as their main attraction. With growing interest in terrariums, they are emerging as a lucrative business opportunity, appealing to green enthusiasts both nationally and internationally. Many youths are venturing into entrepreneurship focused on terrarium making. In urban areas, where green open spaces are limited, individuals seek miniature gardens to alleviate job stress. Creative entrepreneurs can design customized or theme-based terrariums tailored to customer's interests.

The technical session and hands-on training were conducted by professional terrarium expert Mr. Pranav N Pradeep. Participants displayed a keen interest in terrarium making, with ten student groups creating beautiful terrariums that were showcased in the program hall post-training.

Green Auditing Conducted at Government College, Chittur

The Kerala State Biodiversity Board conducted a green campus audit at Chittur Government College, Palakkad, from August 3 to 5, 2023. This marked the first collaboration between KSBB and a college for a green audit project. The audit team, comprising team leaders from KSBB and students and teachers from the college, assessed various aspects such as carbon sequestration, waste management, water quality, biodiversity, and energy usage on campus. The team collected data through campus walks and direct observations,

engaging in face-to-face interactions with the campus community. The audit provided insights into existing waste management practices, flora and fauna, energy consumption, and greenhouse gas emissions on campus.

Observance of World Ozone Day 2023

The Kerala State Biodiversity Board celebrated World Ozone Day 2023 on September 18, 2023, at the Seminar Hall of KSBB headquarters, commemorating the signing of the Montreal Protocol in 1987. Prof. (Dr.) George C Thomas emphasized the importance of the Montreal Protocol in limiting the production and use of ozone-depleting substances, particularly chlorofluorocarbons and halons. He covered topics related to various international agreements, including the Vienna Conventions and the Kigali Agreement.

Women's Day Celebration of KSBB

The Kerala State Biodiversity Board celebrated International Women's Day 2024 by organizing an online talk by Prof. T.S. Swapna (Board member of KSBB & Professor, Department of Botany, University of Kerala) on the topic 'Women as Biodiversity Champions'. Dr. T.S Swapna highlighted the vital roles of women at local, national, and international levels in promoting environmental and biodiversity causes. She presented numerous examples of women leaders in biodiversity conservation, inspiring the entire KSBB community.



National Nutrition Month 2023

In alignment with the National Biodiversity Authority's recommendation, the Kerala State Biodiversity Board conducted awareness programs for National Nutrition Month, focusing on the theme "Adopting Sustainable Food Systems by Promoting Millet & Nutri Gardens." On September 30, 2023, KSBB held a webinar titled "Millets as a Part of Sustainable Food Systems." Dr. George C Thomas, Chairman of KSBB, presented on the topic to KSBB staff and biodiversity club coordinators statewide. He highlighted the significance of millets in enhancing food and nutrition security and sustainable consumption, emphasizing their high nutritional value, climate resilience, and status as a superfood.

KSBB Participated in PANACEA Expo Conducted by NBA

The Kerala State Biodiversity Board actively participated in the 'PANACEA 2024 - the 11th Natural Expo India' held at the World Trade Centre, Mumbai, from February 29 to March 2, 2024, organized by the National Biodiversity Authority. The aim of the expo was to showcase indigenous products of India on an international platform. KSBB showcased selected GI-tagged products, including soaps made from seaweeds, wild and underutilized edible flower products, and value-added items from indigenous crops, along with posters and videos highlighting Kerala's biodiversity success stories. This initiative provided an opportunity for state products to reach a global audience, many of which were outcomes of conservation projects funded by the Kerala State Biodiversity Board. Hundreds of visitors explored the state's stall during PANACEA 2024.

Webinar Series for International Forest Day, World Water Day, & World Meteorological Day

The Kerala State Biodiversity Board organized a webinar series to commemorate International Day of Forests, World Water Day, and World Meteorological Day on March 21, 22, and 23, respectively. Sri. Pramod G. Krishnan, IFS, Additional Principal Chief Conservator of Forests, Kerala Forest Department, delivered a lecture on "Forests and Innovation: New Solutions

for a Better World" for International Day of Forests on March 21, 2024. Dr. Sunny George, Director, SCMS Water Institute, presented "Urban Water Security – Case Studies from Kerala" for World Water Day on March 22. Dr. Pradeepan Periyat, Associate Professor, Department of Environmental Studies, Kannur University, discussed "Sustainable Green Technologies for Reducing Carbon Emissions and Climate Change" on World Meteorological Day, March 23. The webinars attracted participation from scientists, lecturers, students, researchers from various universities in Kerala, KSBB board members, officials, district coordinators of the Biodiversity Board, convenors and members of Biodiversity Management Committees, technical support groups (TSGs), and biodiversity club members.

Best Video Documentary Award for KSBB

A video documentary titled 'Biodiversity Conservation for a Better Future,' produced by the Kerala State Biodiversity Board and directed by Sri. K.S. Rajasekharan, received the Best Video Documentary Award from the Government of Kerala. The documentary, awarded in the Science and Environment category for television programs aired in 2022, aims to educate the public and students about the importance of biodiversity conservation.

Kerala State Biodiversity Conservation Award 2022

The Kerala State Biodiversity Board invited applications for the Award for Biodiversity Conservation, aimed at recognizing efforts in environmental conservation, biodiversity assessment, and awareness programs. The award seeks to honor individuals, NGOs, educational institutions, and media members for their contributions to environmental protection. A total of 105 applications were received across 11 categories, including Haritha Vyakthi, Best Custodian Farmer (Plants), Best Custodian Farmer (Animal/Bird), Best Journalist, Best Biodiversity Management Committee (BMC), Best Sacred Grove Conservation, Best Biodiversity Conservation School, Best Biodiversity Conservation College, Biodiversity Conservation Institute (Government, Cooperative Sector, Public Sector), and Biodiversity Conservation Institute (Private Sector).



Green Auditing at selected schools in Thiruvananthapuram District

Green auditing is a comprehensive and systematic process that evaluates an organization's environmental performance, ensuring compliance with environmental regulations and assessing commitment to sustainable practices. This auditing process is essential for establishing accountability, promoting transparency, and enhancing sustainability across various sectors, including industries, organizations, and educational institutions.

The green auditing framework includes several components: Biodiversity Audit, Energy Audit, Waste Management Audit, Water Audit, and Carbon Audit.

In a pioneering initiative, the Kerala State Biodiversity Board conducted green auditing at 12 schools in Thiruvananthapuram District, marking the first such studies in the state. This initiative aims to assess the environmental practices of educational institutions and promote sustainability among students and faculty.

Seminar Symposia and Workshops

The Kerala State Biodiversity Board invites applications from colleges, research institutions, university departments, professional associations, and registered voluntary organizations with a minimum of three years' experience in conducting seminars, workshops, and symposia dedicated to fostering awareness and enthusiasm for biodi-

versity conservation. Under this scheme, 99 applications were received, with 64 selected for financial assistance. Of these, 54 institutions submitted reports, utilization certificates, and statements of expenditure, with a total of ₹8,99,548 disbursed.

KSBB successfully completed its second batch of the online certificate course titled 'R' Programming for Biologists'

The Kerala State Biodiversity Board (KSBB) successfully completed its second batch of the online certificate course titled "R Programming for Biologists". This course was designed to equip participants, particularly those in biodiversity research, with essential data analysis skills and emphasize the significance of 'R' programming in the field of data science. The course was attended by 202 participants from various parts of India, all with backgrounds in life sciences, including research students, postgraduate students, assistant and associate professors, scientists, and researchers. Participants also gained valuable insights into the future prospects of data science. The course delivered through a virtual classroom environment, powered by the Moodle Learning Management System, proved to be highly effective in fostering an interactive and engaging learning experience for the participants. The course materials included a rich collection of 47 lecture videos, totaling 770.68 minutes, along with supplementary notes, source code for hands-on practice, and sample data for data analysis. By promoting a data-driven approach and providing training in 'R' programming, the course has made a significant contribution to empowering



researchers and scientists with the fundamental knowledge required to make data-informed decisions and advocate for sustainable practices in biodiversity conservation.

Biodiversity Museum

The Kerala Biodiversity Museum, initiated by the Kerala State Biodiversity Board, aims to raise awareness about the importance of biodiversity and its conservation among people of all ages, particularly students. The museum has welcomed a significant number of visitors, including over 5,000 students and nearly 800 adults from 66 colleges and institutions. In addition to showcasing the rich biodiversity of Kerala, the museum hosts various activities and celebrations, including award evaluations and publication sales. It also provides internship opportunities for students from local universities. Through strategic publicity efforts across multiple media platforms, the museum continues to promote its mission of environmental education and conservation.

Major Activities in the Museum

- Students who visited during this period: 5,109
- Adults who visited during this period: 760
- Visitors from 66 colleges and institutions have toured the KSBB Museum

Other Activities/Celebrations Conducted in the Museum

- KSBB Award evaluations
- Sales of KSBB publications

Internship Program

- College of Agriculture, Vellayani: 4 students
- Kannur University: 2 students
- CUSAT: 14 students

Publicity Efforts for Museum Promotion

- News 18 (visual media)
- Kerala Vision (visual media)
- ETV Bharat (visual media)
- Mathrubhumi (print media)
- The Best by Bejoy (online media)
- All India Radio
- Outreach to various schools and colleges via telephone

Maintenance and Upkeep of the Museum

- Regular maintenance is conducted to keep equipment clean
- Air conditioning maintenance
- Kiosk repairs by KELTRON
- Ongoing construction of a mini seminar hall by KADCO, installation of a 20 UPS inverter, aquarium maintenance, and UV filter installation
- Maintenance of the water purifier



Annexures

Annexure 1

Publications during the Year

1. Annual Report 2022-2023
2. Cherudhanyangal by Dr. George C Thomas.
3. Kavukal: Jaivavaividhyathinte Kalavara by Sri. K.V. Govindan and Dr. Preetha. N
4. Riverine Biodiversity Rejuvenation: Pampa River by Dr. George C Thomas, Sri. K.V. Govindan, Dr. Satheesh Kumar. K, Dr. T.S. Swapna, Dr. K.T. Chandramohan, Dr. Santhosh Kumar. A.V, Dr. Sudheesh. N and Mrs. Mitrambika. N.B
5. Kerala State Biodiversity Strategies and Action Plan 2022-2023 (SBSAP) (Malayalam) by Dr. George C Thomas, Dr. R.V. Varma, Dr. Satheesh Kumar. K, Dr. T.S. Swapna, Sri. K.V. Govindan, Dr. K.T. Chandramohan, and Dr. Preetha. N
6. Checklist of Floral Bioresources and Bioresources-Based Manufacturing Industries by Dr. George C Thomas, Dr. Satheesh Kumar. K, Dr. T.S. Swapna, Sri. Govindan K.V, Dr. K.T. Chandramohan and Dr. Santhosh Kumar. A.V
7. Tradable/Commercially Potential Floral Bioresources of Kerala by Dr. George C Thomas, Dr. Satheesh Kumar. K, Dr. T.S. Swapna, Sri. K.V. Govindan and Dr. Santhosh Kumar. A.V
8. Tradable/Commercially Potential Aquatic Bioresources of Kerala by Dr. George C Thomas, Dr. Satheesh Kumar. K, Dr. T.S. Swapna, Dr. K.T. Chandramohan, Sri. K.V. Govindan, and Dr. Santhosh Kumar. A.V
9. Case Studies of Sustainable Use of Biodiversity by Dr. George C Thomas, Dr. Satheesh Kumar. K, Dr. T.S. Swapna, Dr. K.T. Chandramohan, Sri. K.V. Govindan, and Dr. Santhosh Kumar. A.V
10. Tradable/Commercially Potential Bioresources of Kerala and Economic Valuation by Dr. George C Thomas, Dr. Satheesh Kumar K, Dr. T.S. Swapna, Dr. K.T. Chandramohan, Sri. K.V. Govindan, Dr. Santhosh Kumar A.V and Dr. Preetha. N
11. Guidelines for the Preparation of PBR II Volume published by KSBB
12. Guidelines for the Preparation of Local Biodiversity Strategy and Action Plan (LBSAP) published by KSBB

1. a. Details of Sales Made During the Year (2023-2024)

Sl. No	Publication	Total Numbers Sold (April 2023 - March 2024)
1	Common Trees of Kerala	45
2	Keralathile Oushada Sasya Vaividhyam	41
3	Kerala Theerathe Kadaljeevikal	28
4	Keralathile Chitrashalabangal	318
5	Invasive Plants of Kerala	311
6	Keralathile Shudha Jala Maltsyangal	32
7	Jaiva Krishi Oru Prayogika Padam	33
8	Mushrooms of Kerala	27
9	Caecilian Diversity of Kerala	17
10	Prakrithi Geethangal	30
11	Paristhithi Vijnhanavum Jaivavaividhya Naattarivum	30
12	Marine Gastropods of Kerala	20
13	Mangroves & Mangrove Associates of Kerala	39
14	Common Amphibians of Kerala	25
15	Feathers of Vellayani	18
16	Snakes of Kerala	30
17	Vrikshayurveda	68
18	Biodiversity Richness of Kerala	25
19	Flying Colours of Vembanad	17
20	Jaivavaividya Samrekshena Paripalanam Jenangaliloode	123
21	Cherudhanyangal: Vaividhyam, Krishi, Upayogam	169

Total KSBB Publications Sold from April 2023 to March 2024:
₹1,34,872 (One Lakh Thirty Four Thousand Eight Hundred and Seventy Two).

1. b. Publications Printed for KSBB during April 2023 to March 2024

1. Kavukal: Jaiva Vaividhya Kalavara (Malayalam)
2. Kerala State Biodiversity Strategies and Action Plan 2022-2023 (SBSAP) (Malayalam)
3. Bioresource of Kerala and Economic Valuation (English)
4. Tradable Commercial Bioresource of Kerala and Economic Valuation (English)
5. Case Studies of Sustainable Use of Biodiversity (English)
6. Tradable Commercial Potential Aquatic Bioresource of Kerala (English)
7. Tradable Commercial Potential Floral Bioresource of Kerala (English)

8. Checklist of Floral Resources and Bioresources-Based Manufacturing Industries (English)
9. Riverine Biodiversity Rejuvenation: Pampa River (English)
10. Cherudhanyangal (Malayalam)

1. c. Brochures Printed for KSBB during the Year

1. State Level PBR Updating Campaign Brochure (English)
2. State Level PBR Updating Campaign Brochure (Malayalam)
3. Kavukal Brochure (Malayalam)
4. Oothayilakkam Malsyungalude Prajananam Poster (Malayalam)
5. Oothayilakkam Malsyungalude Prajananam Brochure (Malayalam)



Annexure 2

Details of the Information processed under the Right to Information Act Queries

a. Implementation of Right to Information Act

Officers In- charge (during the reporting period)

Name & Designation of Officer (s)	Designated post
Dr. George C Thomas Chairman 23.02.2021 - 22.02.2024 Dr. Rathan U Kelkar, IAS (In Charge) 23.02.2024 to 22.09.2024	Appellate Authority
Dr. A.V. Santhosh kumar Member Secretary 26.04.2022 – 25.04.2023 Smt. Mini. V Member Secretary (in-charge) 26.04.2023 – 30.06.2023 Dr. V. Balakrishnan (Member Secretary) 04.09.2023 – 31.03.2024	State Public Information Officer
Dr. Sereena J Technical Assistant	State Assistant Public Information Officer

SUO MOTO DISCLOSURE UNDER SECTION 4(1) (b)
Reporting Year: 2023-24

Sl. No.	Department	No. of Public Authorities	No. of Public Authorities which published the 17 manuals under section 4(1) (b)	No. of public authorities which updated the 17 manuals during the year	No. of public authorities which displayed the 17 manuals online
(1)	(2)	(3)	(4)	(5)	(6)
	Kerala State Biodiversity Board	1	1	1	1

DESIGNATION OF PUBLIC INFORMATION OFFICERS/ APPELLATE AUTHORITIES
Reporting Year: 2023-24

Sl. No.	Department	No. of Public Authorities	No. of Public Information Officers designated	No. of Assistant Public Information officers Designated	No. of Appellate Authorities Designated
(1)	(2)	(3)	(4)	(5)	(6)
	Kerala State Biodiversity Board	1	1	1	1

DISPOSAL OF INFORMATION REQUESTS BY PUBLIC INFORMATION OFFICERS
Reporting Year: 2023-24

Name of the Department	No. of requests pending at end of last year	No. of requests received during the year	Total No. of requests	No. of requests disposed	No. of requests rejected	No. of requests deemed to be refused under section 7(2)	% of cases access to information denied
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Kerala State Biodiversity Board	1	22	23	23	NIL	NIL	0%

INFORMATION REQUESTS REJECTED BY PUBLIC INFORMATION OFFICERS
Reporting Year: 2023-24

Name of the Department	Total no. of requests rejected	No. of requests rejected under section 8	No. of requests rejected under section 9	No. of requests rejected under section 11	No. of requests rejected under section 24	No. of requests rejected other sections
(1)	(2)	(3)	(4)	(5)	(6)	(7)
KSBB	NIL	NIL	NIL	NIL	NIL	NIL

DISPOSAL OF FIRST APPEALS BY DESIGNATED APPELLATE AUTHORITIES

Reporting Year: 2023-24

Name of the Department	No. of first appeals pending with appellate authorities on 1.4.2022	No. of first appeals preferred during the year	Total no. of first appeals with appellate authorities (2+3)	No. of first appeals disposed	No. of first appeals rejected	% of first appeals rejected	No. of first appeals pending for more than 45 days
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Kerala State Biodiversity Board	NIL	NIL	NIL	NIL	NIL	0%	NIL

PENALTIES IMPOSED & COLLECTED

Reporting Year: 2023-24

Name of department	Penalties imposed in previous year pending for collection	Details of penalties imposed by information commission under section 20 (1)	Total	Details of penalties collected
(1)	(2)	(3)	(4)	(5)
Kerala State Biodiversity Board	NIL	NIL	NIL	NIL

DISCIPLINARY ACTION TAKEN AGAINST OFFICERS IN RESPECT OF ADMINISTRATION OF RTI ACT

Reporting Year: 2023-24

Name of department	Details of disciplinary action recommended by information commission under section 20 (2)	Details of disciplinary action taken based on recommendation of information commission	Other disciplinary actions taken (other than those recommended by information commission)
(1)	(2)	(3)	(4)
Kerala State Biodiversity Board	NIL	NIL	NIL

SUMMARY OF COSTS, FEES & CHARGES COLLECTED BY PUBLIC AUTHORITIES

Reporting Year: 2023-24

Name of the Department	Cost collected section 4 (4)	Fee collected section 6 (1)	Fee collected section 7 (1)	Fees Collected Section 7 (6)	Other charges collected (specify)	Total collection
(1)	(2)	(3)	(4)	(5)	(6)	(7)
KSBB	NIL	₹80	₹71	NIL	NIL	151

Annexure 3

Details of Board members

SL.No	Name and Designation	Post
1.	Chairman Dr. George C Thomas* Dr. Rathan U Kelkar, IAS # (In Charge) *From 23.02.2021 to 22.02.2024 #23.02.2024 to 22.09.2024	
2.	The Executive Vice President Kerala State Council for Science, Technology and Environment, Sasthra Bhavan, Pattom, Thiruvananthapuram	Ex-officio Members
3.	The Principal Secretary to Government, Forest and Wildlife Department, Government Secretariat Thiruvananthapuram	"
4.	Additional Chief Secretary to Government Fisheries Department Government Secretariat, Thiruvananthapuram	"
5.	The Additional Chief Secretary to Government Environment Department, Government Secretariat Thiruvananthapuram	"
6.	The Agriculture Production Commissioner Government Secretariat, Thiruvananthapuram	"
7.	Dr. K. Satheeshkumar Principal Scientist & Head (Retd.) Biotechnology, JNTBGRI, Palode	Non-official Members*
8.	Sri. K.V. Govindan Member, D.P.C. Kannur Madhavi Nilayam, Chuzhali P.O., Kannur	"
9.	Dr. T.S. Swapna Associate Professor Department of Botany, University of Kerala, Karyavattom Campus, Thiruvananthapuram	"
10.	Dr. K.T. Chandramohanan Department of Botany Govt. Brennan College, Thalassery, Kannur	"
11.	Dr. Pramod G Krishnan IFS Additional Chief Conservator of Forests, Vanalakshmi Forest Headquarters, Vazhuthacaud, Thiruvananthapuram (G.O (MS) No.08/2022/Env. dt 29.11.2022)	"
12.	Dr. Santhosh kumar. A.V 26.04.2022 - 25.04.2023 Smt. Mini. V(Addl.Charge) 26.04.2023 - 30.06.2023 Dr. V. Balakrishnan 04.09.2023 - 31.03.2024	Member Secretary

Details of the Board Meetings conducted during 2023-24

During the reporting period, two board meetings were conducted as follows

- 60th Board meeting was held on 19/06/2023 at Room No. 357 (A), Government Secretariat, Main Block, Thiruvananthapuram.
- 61th Board meeting was held on 9/11/2023 at South Conference Hall, Government Secretariat, Thiruvananthapuram.

Annexure 4

Details of Technical Support Group Members to the Board

TRIVANDRUM		
SL. No.	Name, Designation	Area of Expertise
1	Prof. A. Biju Kumar Head, Dept. of Aquatic Biology and Fisheries University of Kerala	Taxonomy, Aquatic ecology and fisheries
2	Prof. Dr. Shiburaj. S Professor Department of Botany, University of Kerala	Molecular Microbiology
3	Prof. E. Kunhikrishnan Associate Professor (Rtd.), Dept. of Zoology, University College, Thiruvananthapuram	Faunal diversity/Zoology
4	Prof. Sabu Joseph Professor Dept. of Environmental Sciences University of Kerala	Biogeochemistry, Hydrogeochemistry, Environmental Geology
5	Sri.Nizammudin. A Land Use Commissioner Dept. Of Planning & Economic Affairs Govt. of Kerala, Trivandrum	Geology/land use
6	Dr. Sindhu Thulaseedharan HoD, Dept of Law, Kariavattom Campus University of Kerala	Environmental Law
7	Dr. Dinesan Cheruvat IAS Director, LSGD (Rural)	Fisheries, Aquatic, Biology
8	Dr. E.S. Santhoshkumar Technical Officer, JNTBGRI, Palode	Taxonomist -Riverine diversity/ floral diversity
9	Dr. Asha. V.G Assistant Professor, Dept of Zoology, MG College Thiruvananthapuram	Faunal diversity/Zoology
10	Dr. Preetha. T. S Assistant Professor Department of Botany, University of Kerala	Botany/ Conservation Biotechnology
KOLLAM		
11	Adv. Jaya Kamalasanan Advocate Kala Bhavan, Mathilil, Perinad P O, Kollam	Environmental Law
12	Dr. Kiranraj M. S Associate Professor Department of Botany, SN College, Kollam	Botany& Grass Systematics
13	Dr. Madhusoodanan Pillai. G Executive Director- Sredha Scientific Charitable Society	Biology, Ecology, Climate change & Microbiology
14	Dr. Mathew K. Joseph Associate Professor & Head (Rtd.) Department of Geology, SN College, Varkala	Geology

- 15 **Sri. Ramanujan Thambi. K. V** Watershed Expert
Dist. Soil Conservation Officer (Rtd.)
Chandrikapadmam, Kunnathoor P O, Kollam
- 16 **Dr. Sabu. T** Conservation & Taxonomy
Technical Officer
JNTBGRI, Palode, Thiruvananthapuram
- 17 **Dr. Sulekha. B. T** Zoology/ Toxicology
Assistant Professor & Head
Research Department of Zoology
SN College, Kollam
- 18 **Dr. Ambili. S** Biochemistry/Environmental
Assistant Professor Science
Department of Biochemistry, SN College, Kollam
- 19 **Dr. Hari. B** Zoology
Associate Professor
Department of Zoology, SN College, Kollam
- 20 **Dr. Vilash. V** Botany/ Pharmacology
Assistant Professor
Department of Botany, SN College, Kollam
- 21 **Dr. Bobby. T. Edwin** Botany
Assistant Professor
Department of Botany
KM College of Arts and Science, Kollam
- 22 **Dr. Shaiju. P.N** Botany, Biodiversity
Assistant Professor of Botany
Fatima Matha National College, Kollam
- 23 **Dr. Shibu P. Varghese** Botany (Mycology)
Assistant Professor, Department of Botany
St. Stephen's College, Pathanapuram
- 24 **Dr. Sreeja. V** Aquatic Biology
Assistant Professor
Department of Zoology
MMNSS College Kottiyam, Kollam

ALAPPUZHA

- 25 **Dr. Jose Mathew** Taxonomy, Plant diversity
Assistant Prof. in Botany
SD College, Alappuzha
- 26 **Sri. Sandeep Unnikrishnan** Environmentalist, Bird watcher,
Block Project Coordinator in BRC Alappuzha wild life photographer
(General Education Dept)
- 27 **Dr. G. Nagendra Prabhu** Zoology, Bio Technology,
Assistant Prof. in Zoology Invasive species
SD College, Alappuzha
- 28 **Dr. K.G. Padmakumar** Farming and Agriculture
Spl. Officer & Director, International Research and
Training Centre Below Sea level Farming (IRTCBSF)
Kuttanad

- 29 **Dr. Sary. P. S**
Senior Research Fellow, Central Marine Fisheries
Research Institute (CMFRI), Ernakulam
Fish Taxonomy and Diversity
- 30 **Adv. Jibin Thomas**
Kariyampuram House, Thekkekkara PO, Kuttanadu
Environmental Law
- 31 **Dr. Prakash Williams**
Asst. Prof. of Biotechnology
Dept. of Botany & Biotechnology
Microbiology Marine Microbes
- 32 **Dr. Mini. V**
Assistant Professor
Onattukara Regional Agricultural Research Station
Kayamkulam
Soil Science
- 33 **Sri. Asok Kumar**
Geologist and Geophysicist in Kerala State Ground Water
Department (Rtd.)
Geophysist (Rtd)
- 34 **Dr. A.P. Sreekumar**
(Rtd. DMO, Indian Systems of Medicine)
Vydyamadom, Chengannur PO, Alappuzha
Ayurveda Medicine/
Medicinal plants

PATHANAMTHITTA

- 35 **Dr. Christin Pothan Robert**
Senior Scientist and Head, ICAR-Krishi Vigyan
Kendra, CARD, Thelliyoor, Kolabhagam
Pathanamthitta
Plant Pathology
- 36 **Dr. Thomas. V.P**
Assistant Professor & Research Guide, Research and
Postgraduate Department of Botany, Catholicate College
Makkamkunnu, Pathanamthitta
Applied Botany, Systematics,
Ecology
- 37 **Dr. R. Jithesh Krishnan**
Assistant Professor & Research Guide
Department of Botany, NSS College, Pandalam
Fresh water Phytoplankton,
Environmental Biology,
Microbiology, Phytochemistry,
Pharmacology, Taxonomy
- 38 **Dr. M.G. Sanal Kumar**
Associate Professor & Research Guide
Department Zoology, NSS College, Pandalam
Zoology, Biodiversity
Conservation, Soil Biology,
Biomonitoring, Environmental
Science, Microbiology
- 39 **Dr. Robi. A. J**
Assistant Professor & Research Guide
Post Graduate Department of Botany, B.A.M. College
Thiruvalla
Plant Taxonomy
- 40 **Dr. Anju V Jalaj**
Assistant Professor, P.G. & Research Department of
Botany, St. Thomas College Kozhencherry
Plant diversity Studies
(Morphological and
molecular characterization),
Phytochemistry, Cytology
- 41 **Dr. Abhilash. R**
Assistant Professor and Research Guide, Post Graduate
Department Zoology, Christian College, Chengannur
Alappuzha
Environmental Science,
Biodiversity Conservation
(Birds, Butterflies, Fishes)

- 42 **Dr. Raju Thomas. K**
Assistant Professor & Research Guide Research and
Postgraduate Department of Zoology, Marthoma
College, Thiruvalla, Pathanamthitta Systematics, Fish and Fisheries,
Biodiversity
- 43 **Smt. Athira. S**
Resource Person, Haritha Kerala Mission
Pathanamthitta Geology
- 44 **Adv. Vishak K Johnson**
High Court Lawyer
Kakkurumpil House, Velliyar, Ayroor, Ranni Environmental Law

KOTTAYAM

- 45 **Dr. Jomy Augustine (Rtd.)**
Head of the Department, Dept. of Botany
St. Thomas College, Arunapuram, Pala Floral biodiversity
- 46 **Dr. N. Unnikrishnan**
HOD, Dept. of Biotechnology, CMS College
Kottayam & Secretary, Kottayam Nature Society Botany, Biotechnology
- 47 **Dr. Biju George**
Assistant Professor, Dept. of Botany, S B College
Changanassery Botany, Taxonomy
- 48 **Smt. Sreelatha. M**
Project Co-ordinator, Fisheries Department,
Kottayam Fisheries dept
- 49 **Adv. Jani Bava**
Judicial First Class Magistrate Court, Changanassery Environmental Law
- 50 **Dr. Prasanth Narayanan. S**
Research Associate, Advanced Centre of Environmental
Studies and Sustainable Development, Kottayam Earthworm taxonomy,
Ornithology
- 51 **Dr. Syllas. V. P.**
Assistant Professor, School of Environmental sciences
Mahathma Gandhi University, Kottayam Wetlands ecology, Invasive
plants, Water pollution
- 52 **Smt. Manju Mary Cherian**
Teacher, Mary Matha Public School
Edakkunnam & Member of TIES
Travancore Nature society & Aranyakam nature Society Identify Birds, Butterfly &
Dragonfly
- 53 **Smt. Ashalakshmi. C. N.**
Assistant Professor, Department of Biotechnology
CMS College, Kottayam Environmental Science,
Ecology & Molecular Ecology,
Environmental analysis,
Environmental microbiology
- 54 **Dr. Vijo Thomas Kurien**
Assistant Professor, Dept of Zoology, CMS College
Kottayam Climate Change, Soil Carbon
dynamics, Coleoptera taxonomy

IDUKKI

- 55 **Dr. M. Murugan**
Prof. & Head, Kerala Agriculture University
Cardamom Research Station, Pampadumpara, Idukki
Agriculture
- 56 **Dr.Saju Thomas**
Rtd. Professor, Nirmala College, Muvattupuzha
Zoology -General ecology and
environmental science
- 57 **Prof. Sajan Jose. K**
Rtd. Professor, Dept. of Zoology, St. Joseph's College
Moolamattom, Arakkulam, Idukki
Zoology, Meliponiculture
- 58 **Sri. N. Ravindran**
BMC Convener-Thodupuzha Municipality & Former
DC,KSBB Idukki
Botany/BMC activities
- 59 **Sri. Shijumon lukose**
HSS Teacher & Former Project Fellow, KSBB Idukki
Botany/BMC activities
- 60 **Dr. Sajan Abraham**
Associate Professor & HoD. Newman College
Thodupuzha
Ethnomedicine, Medicinal Plant
and Biodiversity conservation.
Environmentalism
- 61 **Sri. R. Mohan**
President, Munnar Wild Life Society &
BMC member, Munnar Grama Panchayath
Environment & wild life
- 62 **Adv. Renish Mathew**
Advocate, Pendanath (H), Kuninji, Thodupuzha
Environmental Law
- 63 **Sri. Kausthubh. K.N.**
Kizhakkannattu House, Manakkadu P. O, Thodupuzha
Ornithology
- 64 **Sri. A.T. Thomas**
Rtd. Session Forest Officer
Azhukomparambil, Moolamattom
Environment & Wild life

ERNAKULAM

- 65 **Dr. Giby Kuriakose**
Assistant Professor, Dept. of Botany
Sacred Heart College, Thevara, Kochi
Botany, Taxonomy
- 66 **Sri. Ramachandran. P.K**
Former District Coordinator, KSBB
Pranavam House,Vadakode PO, Kochi
Botany Medicinal plants
- 67 **Sri. Vishnupriyan Kartha. K**
Joint Registrar (academic), CUSAT & Founder Secretary
Cochin Natural History Society, Ernakulam
Ornithologist
- 68 **Dr. Anil Kumar. M**
Assistant Professor & HoD, Dept of Botany
Union Christian College
Botanist
- 69 **Sri. Manoj Kumar. I.B**
Co-ordinator of Haritham Vypin Project
Ecologist, Butterfly expert,
Bamboo/mangrove propagation
expert
- 70 **Dr. K. Madhusudhanan**
Assistant Professor, Dept. of Botany, St.Alberts College
Mushroom Biotechnology,
Mycorrhizal Studies, Plant
Pathology

- 71 **Dr. I. G. Rathish**
Asst. Professor
Inter University Centre for IPR Studies (IUCIPRS)
Cochin University of Science and Technology
Legal (IPR Appellate)
- 72 **Dr. Sunish. K.S**
Asst. Professor
Zoology Department, Maharajas college, Ernakulum
Zoology (Taxonomy)
- 73 **Dr. Prakasan. K**
Asst. Professor
Zoology Department, Maharajas college, Ernakulum
Parasitology and Entomology
- 74 **Dr. Stephen Sequeira**
Asst. Professor
Botany Department, Maharajas college, Ernakulum
Botany (Lichens)

THRISSUR

- 75 **Dr. Swapna Johny**
Assistant Professor
Department of Zoology, Little Flower College
Guruvayoor
Aquaculture & Fishery Biology
- 76 **Dr. M. K. Harinarayanan**
Assistant Professor, Dept. of Botany, Sree Krishna College
Guruvayur
Botany/Ethno botany
- 77 **Dr. A.V. Raghu**
Senior Scientist
KSCSTE - Kerala Forest Research, Institute, Peechi
Thrissur
Botany/Medicinal plants
- 78 **Dr. Jiji Joseph**
Professor & Head, Dept. of Plant Breeding
& Genetics, College of Agricultural, Vellanikkara
Plant Breeding, Genetics
- 79 **Dr. Subin K Jose**
Assistant Professor
Dept. of Geology & Environmental Science
Christ College, Irinjalakuda
Environmental Science
- 80 **Sri. Sachin K Aravind**
Assistant Professor, Wildlife Department
College of Forestry, Kerala Agricultural University
Forestry
- 81 **Dr. M. K. Narayanan**
Professor
Dept. of Veterinary Surgery and Radiology
College of Veterinary and Animal Sciences
Mannuthy, Thrissur
Animal sciences
- 82 **Dr. Jain J Theratil**
Asst. Professor
St.Aloysius College, Elthuruth, Thrissur
Forest ecology, Mangrove
- 83 **Dr. Anto Francis**
Asst Professor (Geology)
Govt. Engineering College, Thrissur
Geology

- 84 **Adv. Sivasankaran. V. S** Environmental Law
Judicial First Class Court, Chavakkad

PALAKKAD

- 85 **Dr. P. Pramod** Ornithology
Senior Principal Scientist
Salim Ali Centre for Ornithology and Natural History
(SACON) Anaikatty, Coimbatore
- 86 **Sri. Pankajakshan. P** Geography, Expert in landslides,
Assistant Professor, Earth Science, Govt. College, Chittur Geology technical committee.
- 87 **Dr. Preethi. N** Taxonomist, Zoology
Assistant Professor and HoD,
Zoology, NSS College, Ottappalam
- 88 **Sri. E.K. Yuse** Agriculture
Asst. Director (Rtd), Dept. of Agriculture
Karakurishi
- 89 **Dr. K.K. Seethalakshmi** Bamboo
Chief Scientist (Rtd), Former Coordinator
Bamboo Technical Support Group, KFRI, Karimba
- 90 **Dr. Bijoy. C** Entomology
Asst Professor, Entomologist, Dept. of Zoology
Christ College, Irinjalakuda
- 91 **Adv. Radheesh Gopalan** Environmental Law
Parvathy, Vihar, Nr Civil Station, Palakkad
- 92 **Dr. Suresh. V** Botany (Plant Systematics)
Assistant Professor, Dept. of Botany
Govt. Victoria College
- 93 **Dr. Sojan Jose** Plant systematics, Wetland
Assistant Professor, Dept. of Botany, Govt. College Ecology & Conservation Biology
Chittur
- 94 **Adv. L. Nammashivayam** Ornithologist
Secretary, Kerala Natural History Society, Palakkad

MALAPPURAM

- 95 **Dr. A. K. Pradeep** Botany, Plant taxonomy
Assistant Professor
Dept. of Botany, University of Calicut
- 96 **Dr. Anoop Das. K. S.** Entomology, Biodiversity
Assistant Professor, Dept of Zoology, MES College
Mampad, Mampad P. O. Malappuram
- 97 **Dr. Rajool Shanis** Aquaculture & Fisheries
Asst. Professor and Research Guide
PG Research Dept. of Aquaculture & Fishery Micro
Biology, MES College Ponnani
- 98 **Dr. K. Seethikoya** Ornithology
Retd. Professor, Dept. of Zoology, Mampad College



- 99 **Dr. Musthafa Kunnathody**
Professor & Head (i/c), Agricultural Research Station
Anakkayam, Malappuram Agriculture, (Agronomy)
- 100 **Sri. Abdul Jabbar. P. K**
Director, Krishi Vijnana Kendram
Thavanur Agricultural Extension
- 101 **Dr. Dhanya. R**
Director/Asst Professor, School of Environmental Studies,
Thunchan Ezhuthachan Malayalam University Tirur Ecology and Environmental
Sciences
- 102 **Dr. Gopalakrishnan. K**
Associate Prof & HoD (Rtd), Dept. of Applied
Geology, MES College, Ponani Geology
- 103 **Adv. Tom K Thomas**
Advocate Environmental Law
- 104 **Dr. Manju C Nair**
Associate Professor, Department of Botany
University of Calicut Bryophyte Taxonomy,
Ecology, Molecular Biology

KOZHIKODE

- 105 **Dr. Kishore Kumar. K**
HoD, Department of Botany, Farook College
Kozhikode Forest Botanist, Specialised in
Angiosperm Taxonomy, Ecology,
Ethnobotany, and Biodiversity
- 106 **Dr. Rajesh K.P**
Professor, Dept. of Botany
Zamorins Guruvayoorappan College, Calicut Botanist, Specialised in
Pteridophytes, Bryophytes, and
Flowering plants
- 107 **Sri. K. Abdul Riyas**
Asst. Professor, Dept. of Zoology
Govt. Arts and Science college, Meenchanda, Kozhikode Zoologist, Specialized in Wildlife
and Conservation Biology
- 108 **Dr. Jobiraj. T**
Asst. Professor, Department of Zoology
Govt. College, Kodanchery Entomologist, Specialized
in Taxonomy of Bees and
Environmental Biology
- 109 **Dr. Vinod. K**
Principal Scientist, ICAR-CMFRI, Kozhikode Marine Biodiversity Expert,
Specialised in Marine
Biodiversity and Ecosystem
functioning
- 110 **Dr. P.K. Asokan**
Principal Scientist (i/c)
Calicut Research Centre Marine Sciences - Mariculture
and Marine Ecology
- 111 **Dr. Abdul Hameed. E**
Scientist (Rtd.)
CWRDM, Kozhikode Hydrologist - Specialised in
Ground Water Engineering/
Hydrology
- 112 **Dr. C.P. Priju**
Scientist, Hydrology and Climatology Research Group
CWRDM, Kozhikode Geologist- Specialised in
Ground water Geology- Ground
water Prospecting, Ground
water Resources Evaluation and
Management

- 113 **Dr. N.S. Pradeep**
Senior Scientist, Malabar Botanical Garden and
Institute of Plant Sciences (MBGIPS)
Guruvayurappan College
Biotechnology and
Biodiversity
- 114 **Dr. P.K. Venugopal**
Pranavu, Payyoli, Kozhikode
Medicinal plants Expert

WAYANAD

- 115 **Sri. Sivan. V.V**
Senior Scientist
M S Swaminathan Research Foundation Community
Agrobiodiversity Centre (MSSRF)
Plant taxonomy
- 116 **Dr. P.K. Prasad**
Head, Department of Zoology, Kannur University
Manathavadi Campus
Biodiversity and ecological
parasitology
- 117 **Sri. Vishnudas. C. K**
Hume Center for Ecology and Wildlife Biology
Subash nagar, Kalpetta, Wayanad
Ornithologist, climate change
studies.
- 118 **Sri. E.G. Joseph**
Joint Director (Rtd), ST development, Dept.of Kerala
Tribal community social activist
- 119 **Adv. Joseph Zacharia**
Advocate
Greece tower, Opp Dist.court, Kalpetta
Environmental Law
- 120 **Dr. Raji. R**
Assistant Professor
Dept. of Botany, St. Mary's College, Sulthan Bathery
Traditional knowledge
- 121 **Dr. George Chandy**
Director, Centre for Wild Life Studies, KVASU, Pookode
Wayanad.
Veterinary surgeon
- 122 **Sri. Manikandan. R**
Assistant Director of Agriculture, Panamaram
Agriculture development.
- 123 **Sri. Rajesh Krishnan**
NGO, Vayalorath house, Trisilerry, Manathavadi
Traditional farmer, Traditional
seed farmers NGO
- 124 **Dr. Dhaneesh Bhaskar**
Regional Vice Chair for Asia at IUCN SSC Grasshopper
Specialist Group
Ecology

KANNUR

- 125 **Dr. Ratheesh Narayanan. M. K**
Assistant Professor
Dept. of Botany, Payyannur College, Edat
Payyannur, Kannur
Botany (study on RET plant
species of Western Ghats)
- 126 **Dr. R. Sheik Mohammed Shamsudeen**
Associate Professor
Dept. of Zoology, Kannur University, Manathavadi
Campus
Biodiversity assessment,
mapping and conservation,
Insect taxonomy, Molecular
taxonomy, Forest entomology

- 127 **Dr. P. R. Swaran**
Associate Professor, Dept. of Zoology
Payyannur college, Edat, Payyannur, Kannur
Zoology (Entomology)
- 128 **Dr. Sapna Jacob**
Assistant Professor, Dept. of Zoology, Payyannur College
Edat (PO), Payyannur, Kannur
Zoology, Parasitology
- 129 **Dr. Pramod. C**
Assistant Professor
Dept. of Botany, Calicut University
Botany
(Angiosperm Taxonomy &
Floristics)
- 130 **Smt. Manjula. K. T**
Assistant Professor
Dept. of Zoology, Govt. Brennen College,
Thalassery, Dharmadam
Zoology
- 131 **Dr. Sreeja. P**
Assistant Professor
Dept. of Botany, Sir Syed College, Taliparamba
Karimbam, Kannur
Ecology , Mangroves,
Biodiversity studies
- 132 **Dr. Siby Philip**
Assistant Professor, Department of Zoology
Nirmalagiri College, Kuthuparamba
Comparative genomics,
Conservation biology,
Taxonomy, Evolutionary biology,
Biogeography
- 133 **Dr. T. K. Prasad**
Associate Professor and Head, Dept of Geography
Kannur University, Kannur
Applied Geomorphology for
Disaster management
- 134 **Adv. Vinod Kumar Chambalon**
Advocate, District Court Complex, Thalassery
Environmental Law

KASARGOD

- 135 **Prof. V. Gopinathan**
Deputy Director of Collegiate Education (Rtd.)
Geology
- 136 **Dr. Subramanya Prasad. K**
Assistant Professor, Dept. of Botany, Nehru Arts and
Science College, Kanhangad
Botany
- 137 **Sri. Sudheer Kumar. P.V**
Teacher at Puthiyangadi Jamath Higher Secondary School
Marine conservation,
Natural Science
- 138 **Dr. Ramachandran Kotharambath**
Assistant Professor
Dept. of Animal Sciences, River side transit campus,
Central University of Kerala, Padannakad, Kanhangad
Taxonomy and Systematics,
Molecular Phylogenetics,
Anthrozoology, Conservation
Biology
- 139 **Sri. V. V. Raveendran Valiyavalappil**
Teacher, Govt. Higher Secondary School, Cheruthazham
Edatummal, Thrikaripur, Kasaragod
Environmentalist,
Environmental Writer,
Coordinator of SEEK
- 140 **Dr. Muhammed Haneef. K.A**
Assistant Professor
Govt. Brennan College, Thalassery, Khaman Villa
Koolikunnu
Odonates, Butterflies

141	Sri. Abdul Jaleel. K Assistant Professor Department of Zoology, Govt. College Kasaragod	Genetics, Molecular biology, entomology and Developmental biology.
142	Sri. M. Kannan Nair Senior Superintend (Rtd), Panchayath Department	KILA trainer (25 years of experience)
143	Adv. K. Kumaran Nair Advocate Garden City complex, Vidyanagar Kasaragod	Environmental Law
144	Dr. Baiju. P Asst. Professor Dept. of Botany, Govt. College Vidyanagar, Kasaragod	Environmental Sciences, Taxonomy

Annexures 5

Details of Staffs (During the report period)

Executive Staff Details

Staff (On deputation)

Sl. No.	Designation	Sanctioned Strength	No. of staff working	Mode of appointment
1	Member Secretary	1	1	Deputation
2	Administrative Officer	1	1	Deputation
3	Finance Officer	1	1	Deputation
4	Principal Scientific Officer	2	1	Deputation
5	Scientific Officer	1	1	Deputation
6	Technical Assistant	1	1	Deputation
7	Assistant cum Cashier	1	1	Deputation
8	Data Entry Operator	1	0	Deputation
9	Confidential Assistant	1	0	Deputation
10	Helper	1	1	Deputation

Persons who held as the Member Secretary during the period

1.	Dr. SanthoshKumar. A.V	26.04.2022 – 25.04.2023
2.	Mini.V (In Charge)	26.04.2023 – 30.06.2023
3.	Dr. V. Balakrishnan	04.09.2023 – 31.03.2024

Sl. No.	Name	Designation
<i>On Deputation</i>		
1	Mini.V	Administrative Officer
2	Nazarudheen.A	Administrative Officer
3	Thushara George	Finance Officer
4	Dr. Vimal Kumar. C.S	Principal Scientific Officer
5	Dr. Sudheesh. N	Scientific Officer
6	Dr.Sereena. J	Technical Assistant
7	Lekshmi. R.C	Assistant cum Cashier
8	Ajin. V.S	Helper
9	Prabhakumari. V	Part Time Sweeper
<i>On Contract</i>		
10	Dr. Preetha. N	Senior Research Officer
11	Dr.Baijulal. B	Senior Research Officer
12	Dr.Akhila S Nair	Senior Research Officer
13	Mitrambika.N.B	Research Officer
14	Dr. Gigi C Rajan	Research Officer
15	Dr. Sreedharan. K	Research Officer
16	Satheesh.K.S	Assistant Administrative Officer
17	Sajeev. S	Accounts Clerk
18	Adarsh. V	Assistant Accounts Clerk
19	Subramanyan Chettiyar	Head Clerk
20	Gopika Gopi	Computer Assistant
21	Jithika.M.	Research Assistant
22	Aneesha Ani Benedict	Research Assistant
23	Priya S Nair	Data Entry Operator
24	Arya Anand. A	Data Entry Operator
25	Praveen.K.P	Graphic Designer
26	Sudheeshlal. V	Library Assistant
27	Jijin J Smith	Inward Clerk
28	Jithin K.K	Driver cum Peon
29	Alexander. C	Security Staff
30	Retnakaran	Security Staff
31	Sunitha	Part Time Sweeper
32	Remya. S	Part Time Sweeper
33	Ajitha. L	Helper
<i>Museum</i>		
34	Vishnu. T	Research Assistant
35	Prinson Francis	Demonstrator
36	Arun Kumar.R.P	Electrician cum 3D Theatre Operator
37	Monisha. T	Helper
38	Jayan.S	Security Staff
39	Sajakumar.S	Security Staff
40	Arun Kumar	Security Staff

	<i>District Co ordinators</i>	<i>District</i>
41	Akshaya Anil	Thiruvananthapuram
42	Dr. Sujithkumar. S	Kollam
43	Sruthy Jose	Alappuzha
44	Arun C Rajan	Pathanamthitta
45	Dr. Thomson Davis	Kottayam
46	Sreeraj. N.K	Ernakulam
47	Aswathy. V.S.	Idukki
48	Febin Francis	Thrissur
49	Sini Mol V	Palakkad
50	Anilkumar R	Malappuram
51	Dr. Manju K P	Kozhikode
52	Sreeraj P R	Wayanad
53	Suhada A	Kannur
54	Akhila V M	Kasargod
	<i>Reserch Fellows</i>	
55	Hanna Thomas	NBA Intern
56	Amaldev S.K.	Data Entry Operator
57	Renju R	Data Entry Operator



Audit Report

Kerala State Biodiversity Board

(A Government of Kerala Undertaking)
Kowdiar Thiruvananthapuram Kerala
Statement of Affairs as at 31/03/2024

Particulars	Note	As at 31 Mar	
		INR	
		2024	2023
I Source of Funds		72,03,527	1,72,92,128
1 Own Funds			
Capital Reserve	1	105	97
Surplus	2	3,79,791	-1,09,526
2 Current liabilities		68,23,631	1,74,01,557
Government Grant balances	3	-1,25,909	1,11,47,647
Funded Projects	4	48,23,611	46,16,737
Other current liabilities	5	21,25,929	16,37,173
II Application of Funds		72,03,527	1,72,92,128
1 Long Term Assets		37,105	37,097
Fixed Assets		105	97
Tangible Assets	6	105	97
Long Term Investments			
Long Terms Loans and Advances		37,000	37,000
Deposits	7	37,000	37,000
2 Current Assets		71,66,422	1,72,55,031
Prepaid Expenses		6,334	0
Cash and cash equivalents	8	70,51,588	1,70,99,031
Short-term loans and advances	9	1,08,500	1,56,000

The accompanying Notes form an integral part of these Financial Statements

Auditor's Report

As per our Report of even date



CA Gautham Sreekumar

For and on behalf of the Board



Finance officer



Administrative officer



Member Secretary

Mem No: 237284

Designated Partner

G S P and Company LLP (FRN: 018184S/S000048)

UDIN: 24237284BKAHEO2743

Thiruvananthapuram

22/11/2024

Dr. V. BALAKRISHNAN
Member Secretary
Kerala State Biodiversity Board
Thiruvananthapuram



Kerala State Biodiversity Board

(A Government of Kerala Undertaking)

Kowdiar Thiruvananthapuram Kerala

Income and Expenditure Account for the year ended 31/03/2024

INR

Particulars	Note	for the year ended 31 Mar	
		2024	2023
I Income		1,11,36,160	1,56,84,079
1 Grant from GoK			
GoK 2406-02-110-59-31 (NP) Salary		95,49,241	1,35,62,501
GoK 2406-02-110-59-36 (NP) Non Salary		8,21,460	13,84,374
2 Other Income	10	7,51,859	7,16,636
3 Nominal value of grant funded assets		-	-
4 Interest Received	11	13,600	20,568
II Expenditure		1,06,46,843	1,50,20,361
Employee Expenses	12	97,25,393	1,39,26,013
Repairs and Maintenance, Upkeep	13	82,297	2,36,162
Utilities	14	2,62,864	4,90,333
Other Expenses	15	5,75,315	3,66,584
Finance Costs	16	974	1,269
Exceptional Items	17	0	0
Round Off		-	-
III Surplus/ Deficit		4,89,317	6,63,719
IV Allocation		4,89,317	6,63,719
Transfer to Accumulated surplus/deficit		4,89,317	6,63,719

The accompanying Notes form an integral part of these Financial Statements

Auditor's Report

As per our Report of even date


CA Gautham Sreekumar

Mem No: 237284
Designated Partner
G S P and Company LLP (FRN: 018184S/5000048)
UDIN: 24237284BKAHEO2743

Thiruvananthapuram
22/11/2024



For and on behalf of the Board


Finance officer


Administrative officer


Member-Secretary

Dr. V. BALAKRISHNAN
Member Secretary
Kerala State Biodiversity Board
Thiruvananthapuram



Kerala State Biodiversity Board

(A Government of Kerala Undertaking)

Kowdiar, Thiruvananthapuram

Statement of Cash Flows for year ended 31 March 2024

Particulars	Note	INR for the year ended 31 Mar	
		2024	2023
1 Cash Flow from Operations		-1,00,47,435	72,02,713
Capital Reserve		8	6
Surplus/ Deficit as per Statement of I&E		4,89,317	6,63,719
Add/ Deduct Non Cash Items		-	-
Movement in Working Capital		-	-
Government Grant		-1,12,73,556	80,13,897
Funded Projects		2,06,874	-26,30,727
Prepaid Expenses		-6,334	
Other current liabilities		4,88,756	12,96,818
Short-term loans and advances		47,500	-1,41,000
2 Cash Flow from Financing Activity		-	-
Share Capital		-	-
Interest paid		-	-
3 Cash Flow from Investing Activity		-8	-6
Fixed Assets			
Tangible assets		-8	-6
4 Round Off		-	-
Net Increase in Cash and Cash Equivalents		-1,00,47,443	72,02,707
Opening Balance of Cash and Cash Equivalents		1,70,99,031	98,96,324
Closing Balance of Cash and Cash Equivalents		70,51,588	1,70,99,031

figures indicate net cash flows (inflow less outflow)

negative figures indicate outflow of cash

The accompanying Notes form an integral part of these Financial Statements

Auditor's Report

As per our Report of even date

CA Gautham Sreekumar

Mem No: 237284

Designated Partner

G S P and Company LLP (FRN: 018184S/S000048)

UDIN: 24237284BKAHEO2743

Thiruvananthapuram

22/11/2024

For and on behalf of the Board

Finance
officer

Administrative
officer

Member Secretary

Dr. V. BALAKRISHNAN
Member Secretary
Kerala State Biodiversity Board
Thiruvananthapuram



Kerala State Biodiversity Board
 Kowdiar Thiruvananthapuram Kerala
 Annexures to Accounts for the year ended 31/03/2024
 Annexure 1 - Grant Accounts

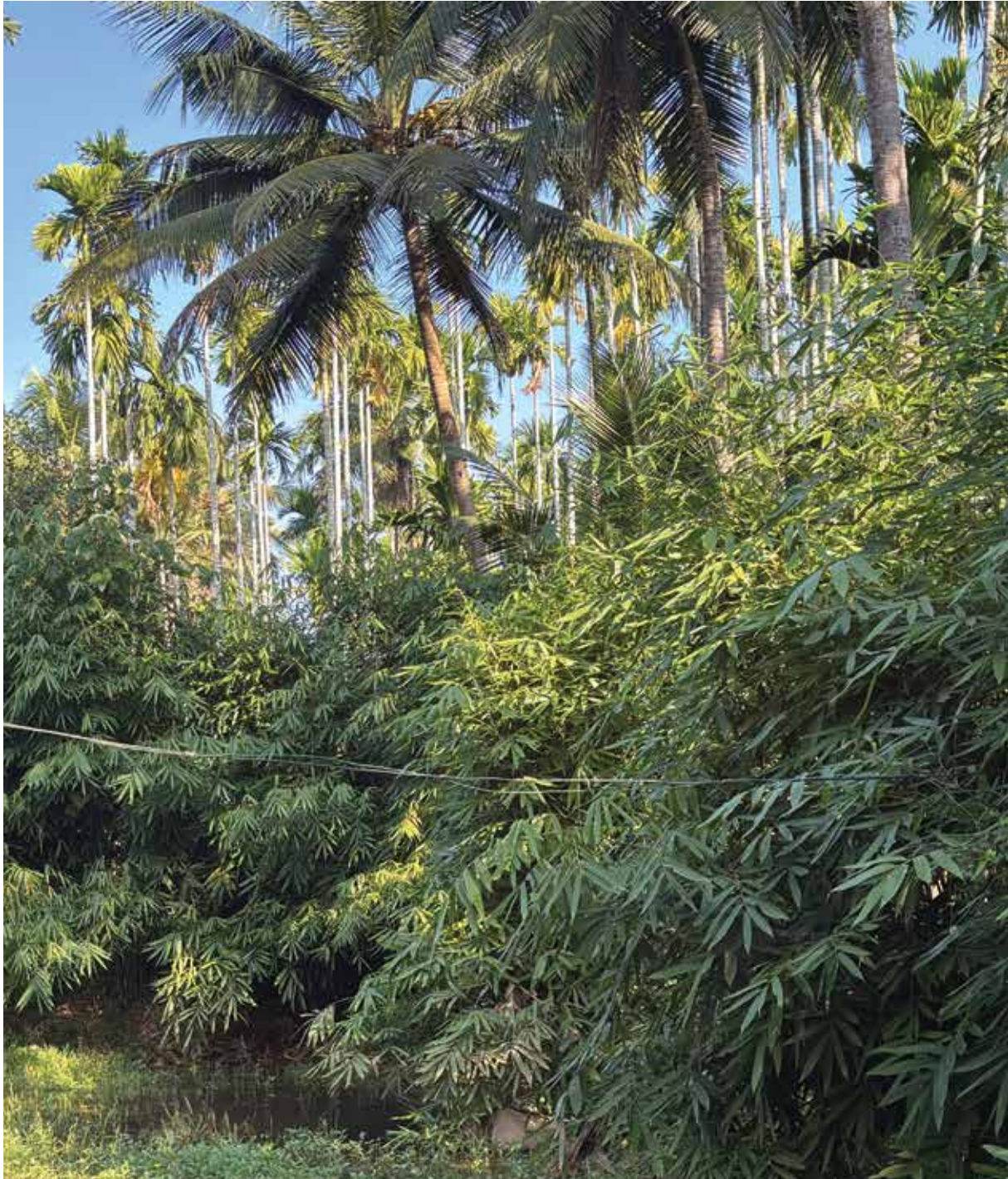
Particulars	As at		Receipt			Transfer			Payment			As at	
	01-04-2023	31-03-2024	Grants	Oth ers	Total	Trf of balance	Trf (InterHead)	Utilized Revenue	Utilized Assets	unutilized grant refunded	Total	31-03-2024	
Total	1,11,47,647	5,24,01,413	5,24,01,413	-	5, 6,0 ,413	-	-1,50,80,627	-4,83,15,698	-3,81,851	-96,793	-4,74,45,917	-1,25,909	
1 Gok 3435-09-101-99 (Plan)	1,35,31,695	3,75,00,000	3,75,00,000	-	3,75,00,000	-	-	-3,65,31,400	-3,55,107	-	-3,68,86,507	1,39,45,188	
Non-moving prior balances	4,15,495	-	-	-	-	-	-	-	-	-	-	4,15,495	
unidentified project balance	2,55,355	-	-	-	-	-	-	-	-	-	-	2,55,355	
Agrobiodiversity conservation	9,305	-	-	-	-	-	-	-	-	-	-	9,305	
Coastline conservation	65,600	-	-	-	-	-	-	-	-	-	-	65,600	
unidentified credits	14,300	-	-	-	-	-	-	-	-	-	-	14,300	
19-03-2015	7,162	-	-	-	-	-	-	-	-	-	-	7,162	
15-06-2015	36,025	-	-	-	-	-	-	-	-	-	-	36,025	
interest accrued	27,748	-	-	-	-	-	-	-	-	-	-	27,748	
Gok Plan 2018 - 2019	-14,78,697	-	-	-	-	-	-	-	-	-	-	-14,78,697	
Gok Plan 2019 - 2020	-13,71,496	-	-	-	-	-	-	-	-	-	-	-13,71,496	
Gok Plan 2020 - 2021	1,53,39,902	-	-	-	-	-	-	-	-	-	-	1,53,39,902	
Gok Plan 2021-2022	27,14,250	-	-	-	-	-	-	-	-	-	-	27,14,250	
Gok plan 2022-23	25,95,338	-	-	-	-	-	-	-95,000	-	-	-95,000	25,00,338	
Gok plan 2023-24	-	3,00,00,000	3,00,00,000	-	3,00,00,000	-	-	-2,58,17,844	-1,73,044	-	-2,59,90,888	40,09,112	
Elms 2022 - 23	-	75,00,000	75,00,000	-	75,00,000	-	-	-70,35,904	-1,63,064	-	-71,98,968	3,01,032	
Elms 2023 - 24	-	-	-	-	-	-	-	-35,87,652	-18,999	-	-36,01,651	-48,83,097	
returned by government	-48,83,097	-	-	-	-	-	-	-	-	-	-	-48,83,097	
2 State Biodiversity Fund	-29,99,070	-	-	-	-	-	-	-65,172	-	-	-65,172	-1,81,32,367	
2011 - 2012 to 2013 - 2014	3,10,300	-	-	-	-	-	-	-	-	-	-	3,10,300	
2014 - 2015	5,01,188	-	-	-	-	-	-	-	-	-	-	5,01,188	
2015-2016	5,04,265	-	-	-	-	-	-	-	-	-	-	5,04,265	
2016-2017	4,83,558	-	-	-	-	-	-	-	-	-	-	4,83,558	
2017-2018	3,61,258	-	-	-	-	-	-	-	-	-	-	3,61,258	
2018 - 2019	-14,89,606	-	-	-	-	-	-	-	-	-	-	-14,89,606	
2019-2020	-45,000	-	-	-	-	-	-	-	-	-	-	-45,000	
2020-2021	-	-	-	-	-	-	-	-	-	-	-	-	
2022-2023	-36,25,033	-	-	-	-	-	-	-65,172	-	-	-65,172	-36,90,205	
2023 - 24	-	-	-	-	-	-	-	-2,00,439	-	-	-2,00,439	-2,00,439	
Returned by Government	-	-	-	-	-	-	-	-1,48,65,686	-	-	-1,48,65,686	-1,48,65,686	
3 Gok 2406-02-110-99-31 (NP) Salary	87,499	99,00,000	99,00,000	-	99,00,000	-	-	-95,49,241	-	-87,499	-96,36,740	3,50,799	
Trf to I&E Account	87,499	99,00,000	99,00,000	-	99,00,000	-	-	-95,49,241	-	-87,499	-96,36,740	3,50,799	
4 Gok 2406-02-110-99-36 (NP) Non Salary	9,294	8,50,000	8,50,000	-	8,50,000	-	-	-8,21,460	-36,744	-9,294	-8,57,498	1,796	
Trf to I&E Account	9,294	8,50,000	8,50,000	-	8,50,000	-	-	-8,21,460	-36,744	-9,294	-8,57,498	1,796	
5 Returned by Government (NP)	-22,83,413	32,83,413	32,83,413	-	32,83,413	-	-	-32,582	-	-	-32,582	-32,582	
Returned by Government -Gok Non Plan	-22,83,413	32,83,413	32,83,413	-	32,83,413	-	-	-32,582	-	-	-32,582	-32,582	
6 RRI Scheme	30,01,642	20,68,000	20,68,000	-	20,68,000	-	-	-13,48,425	-	-	-13,48,425	97,21,217	
RRI 2020 Scheme - I/A 5475-00-115-94	4,00,00,000	20,68,000	20,68,000	-	20,68,000	-	-	-	-	-	-	4,20,68,000	
Conservation of Agro Biodiversity	-1,57,04,536	-	-	-	-	-	-	-9,65,053	-	-	-9,65,053	-1,66,69,589	
Disease Tractable/Commercial Potential Res	-69,81,858	-	-	-	-	-	-	-2,82,378	-	-	-2,82,378	-72,64,236	
Institutional charges	-	-	-	-	-	-	-	-	-	-	-	-	
Pampa Riverree Biodiversity Rejuvenation	-1,43,11,904	-	-	-	-	-	-	-1,00,994	-	-	-1,00,994	-1,44,12,958	



Kerala State Biodiversity Board
Kowdiar Thiruvananthapuram Kerala
Annexure 2 - Funded Projects

Particulars	As at 01-04-2023		Receipt			Transfer			Payment			As at 31-03-2024	
	Funds	Inte est	Refund	Others	Total	Trf	Trf	Utilised	Assets	Refund	Others	Total	Total
6 MeEF		23,631											23,631
WGEEP		23,631											23,631
7 National Medicinal Plants Board (NMPB)		1,02,239											1,02,239
NMPB 2014 - 2015		-9,05,343											-9,05,343
NMPB 2018 - 2019		-1,19,148											-1,19,148
Resource Augmentation, Sustainable Harvesting and Value addition of		11,26,730											11,26,730
8 National Centre for Sustainable Coastal Mfr (NCSCM)													
Preparation of DPR for Conservation of Sacred Grove													
9 PCC 2020-21		-82,950											-82,950
Project Coordination Cell		-82,950											-82,950





Acknowledgement

The Kerala State Biodiversity Board (KSBB) sincerely acknowledges and expresses its heartfelt gratitude to the guidance, support and contributions of Dr. Rathan U Kelkar, Secretary, Environment Department & former Chairman(i/c), Dr. George C Thomas, former Chairman, former Board members, all the line Departments, State Level Steering Committee members, District Biodiversity Co ordination Committee members, all the BMCs of Kerala and Staff members of KSBB and Environment Department for their invaluable guidance, support, and contributions towards the successful completion of the activities mandated under the Biodiversity Act & Rules.

Picture:- River Rejuvenation at Uduma Panchayat



Kerala State Biodiversity Board