

# Annual Report 2021 - 2022



**Kerala State Biodiversity Board**



**KSBB**

**ANNUAL REPORT 2021 - 2022**

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**Kerala State Biodiversity Board**

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# Kerala State Biodiversity Board

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## PREFACE

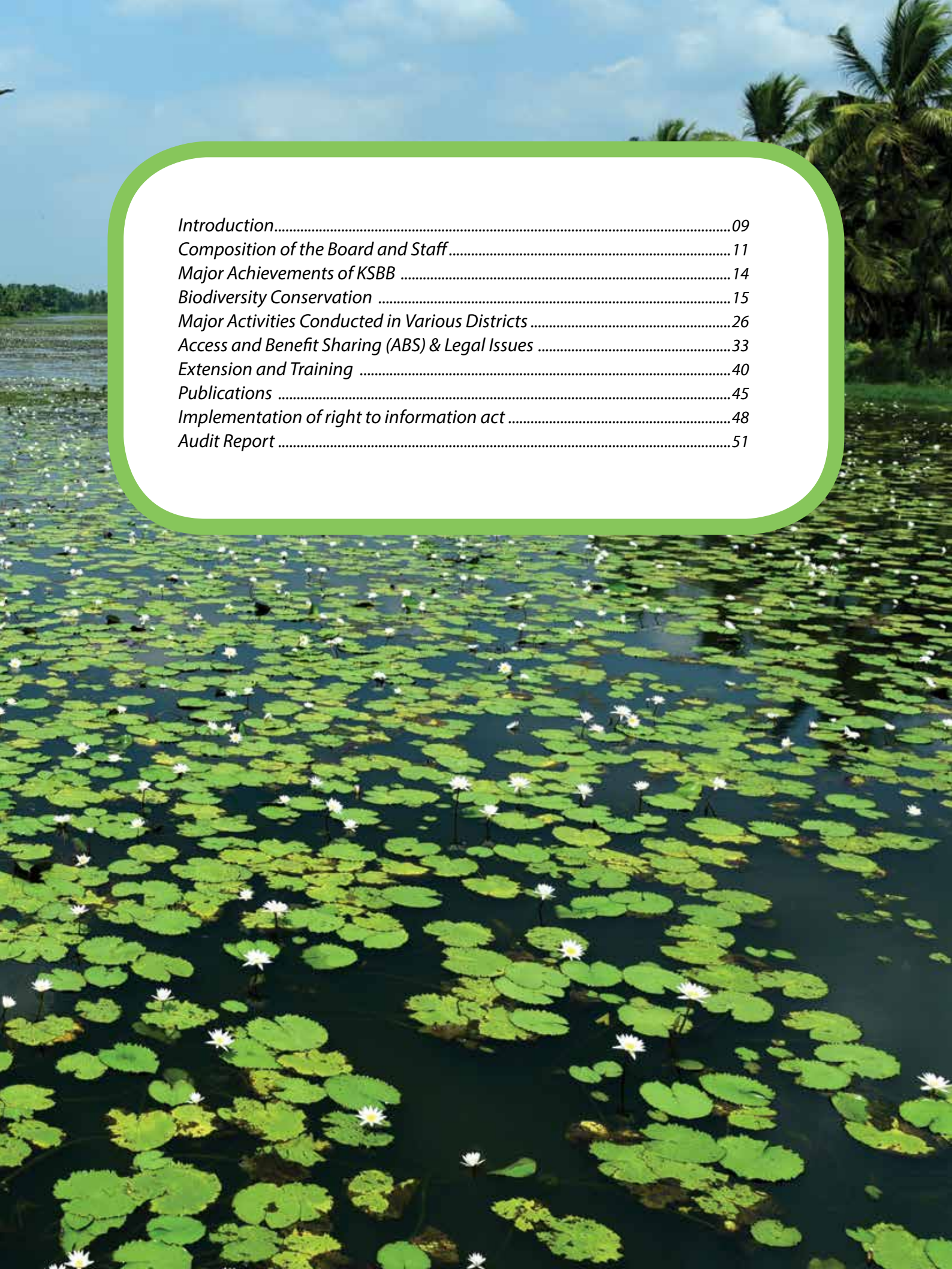
I am delighted to present before you the gist of various activities taken up by the Kerala State Biodiversity Board during the year 2021-2022 through this Annual Report. Various activities and programmes in biodiversity conservation, extension, and related fields have been documented in this Annual Report. The easing of COVID situation in the country enabled the Kerala State Biodiversity Board to complete many of the ambitious projects initiated during the previous years. An ambitious programme taken up during the period was the updating of State Biodiversity Strategies and Action Plan (SBSAP), which would be applicable for the coming 10 years. Along with this, as a model, local biodiversity strategies and action plan was prepared for Athirapilly in Thrissur district.

Two projects under the Rebuild Kerala Initiative have been completed. A database of tradable/commercial potential of bio resources and their economic valuation was prepared. The project initiated to conserve agrobiodiversity through custodian farmers in eight districts ravaged by the fury of 2018 floods was completed. In each district, 20 farm schools were organised with the help of custodian farmers. Apart from this, seed fests were also conducted in eight districts where farmers could exchange their seeds. Riverine Biodiversity Rejuvenation of Pampa river was another key project under the Rebuild Kerala Initiative. It was implemented as a model riverine biodiversity conservation project involving various stakeholders such as local bodies, Biodiversity Management Committees (BMCs), Forest Department, MGNREGS, R&D institutes, educational institutes and local people.

Another important activity was the preparation of red data book and assessment of threatened species of Kerala. Distribution of biodiversity awards and Children's Biodiversity Congress were other achievements. District level trainings to Biodiversity Management Committees were organized in all the districts as a part of capacity building. Other major activities included establishment of biodiversity parks, theme based biodiversity conservation projects, and various research projects. I am extremely grateful to the honourable Chief Minister of Kerala, Sri. Pinarayi Vijayan under whom Kerala State Biodiversity Boards functions, for the constant support in all our programmes. I express my sincere thanks to the support given by Dr. V. Venu, Additional Chief Secretary to Government and all the other officials of the Department of Environment for their active support and co-operation. I would also like to place on record the co-operation from the Board Members and all the line departments in implementing various activities of the Board.

**Dr. C. George Thomas**  
Chairman





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# 1

## Introduction

### 1.1 Background

Kerala State Biodiversity Board (KSBB), an autonomous body of the Government of Kerala, is among the 28 State Biodiversity Boards established in India. The Board started functioning on 28<sup>th</sup> February 2005 with its headquarters at Thiruvananthapuram. The Board has been constituted under the Biological Diversity Act, 2002, Rules, 2004 and Kerala State Biological Diversity Rules, 2008. Led by a Chairperson, Member Secretary and a team of expert officials, leading the Board in its vibrant activities, KSBB is dedicated to the conservation and sustainable utilisation of the State's bioresources and fair and equitable sharing of benefits from the use of bioresources.

### 1.2 The Biological Diversity Act, 2002

The Act was promulgated to meet the objectives of the UN-Convention on Biological Diversity (CBD). The Act provides a legal framework for the conservation of the biological diversity of the country, sustainable use of its components and fair and equitable sharing of the benefits arising from the use of biological resources. The Biological Diversity Act, 2002 envisages decentralised biodiversity management with Biodiversity Management Committees (BMCs) at the local level, State Biodiversity Boards at the State level and National Biodiversity Authority (NBA) at the National level. Following the provisions of the Act of 2002, the Kerala State Biodiversity Board (KSBB) was established in 2005, and subsequently, the Kerala Biological Diversity Rules were framed in 2008.

### 1.3 The National Biodiversity Authority (NBA)

The National Biodiversity Authority (NBA) was

set up in 2003, with its headquarters in Chennai. The NBA is a statutory, autonomous body, which provides advisory functions for the Government of India.

### 1.4 Constitution of Kerala State Biodiversity Board (KSBB)

The Board was constituted on 28<sup>th</sup> February 2005 vide GO (Ms) No. 1/2005/STED dated 01 June 2005 under the provisions under section 22-25 of the Biological Diversity Act, 2002. Initially, the Board was housed under Kerala State Council for Science Technology and Environment (KSCSTE).

Later on, in February 2006, when the new Environment Department was formed in Kerala [vide order GO (Ms) No. 10/2006/GAD dated 6.1.2006], the KSBB was attached to the Environment Department [vide order GO (Ms) No.64/2006/GAD dated 16.2.2006]. In exercise of the power conferred by section 63 of the Biological Diversity Act, 2002, the Government of Kerala formulated the Kerala Biological Diversity Rules, 2008 (vide GO(P) No.1/2008/Env. dated 10<sup>th</sup> June 2008). Rule 12 specifies the functions of the State Biodiversity Board.

### 1.5 Functions of KSBB

The primary function of the State Biodiversity Board is to advise the State Government on any guidelines issued by the Central Government on matters relating to biodiversity conservation. SBB also advocates for the sustainable use of biological resources and equitable sharing of the benefits arising from utilising these resources.

The Board has the authority to grant approvals on requests for commercial utilisation or bio-survey and bio-utilisation of any biological resource by Indians. The Board also performs

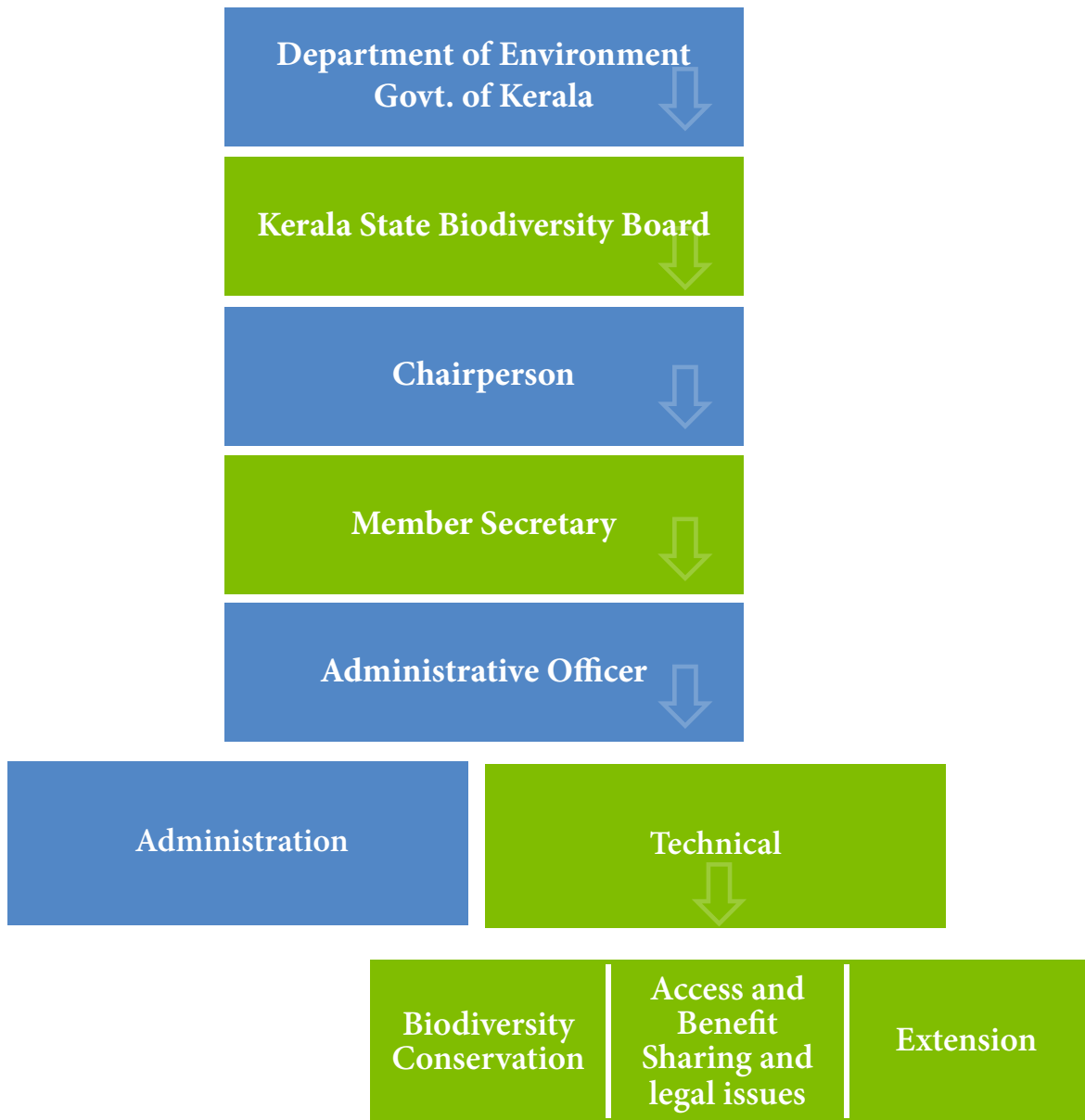
functions necessary to carry out the provisions of the Biodiversity Act or as prescribed by the State Government.

The functions, objectives and strategies of the Kerala State Biodiversity Board reflect on the recitals of the Biological Diversity Act 2002, under which the Board is constituted.

# 2

## Composition of the Board and Staff

### 2.1 Organisational structure



## 2.2. Details of Board members

The Board was reconstituted vide order No.GO (Ms) No.4/2018/Env. dated 27.07.2018.

SL.No	Name and Designation	Post
1.	<b>Chairman</b> <b>Dr. C. George Thomas</b>	23.02.2021 - Continuing
2.	<b>The Executive Vice President,</b> Kerala State Council for Science, Technology and Environment, SasthraBhavan, Pattom,Thiruvanahtapuram	Ex-officio Members
3.	<b>The Principal Secretary to Govt.,</b> Forest and Wildlife Department, Government Secretariat, Thiruvananthapuram	"
4.	<b>Additional Chief Secretary to Govt.,</b> Fisheries Department, Government Secretariat, Thiruvananthapuram	"
5.	<b>The Additional Chief Secretary to Govt.,</b> Environment Department, Government Secretariat, Thiruvananthapuram	"
6.	<b>The Agriculture Production Commissioner,</b> Government Secretariat, Thiruvananthapuram	"
7.	<b>Dr. K. Satheeshkumar</b> Principal Scientist & Head (Retd.), Biotechnology, JNTBGRI, Palode	Non-official Members
8.	<b>Sri. K.V. Govindan,</b> Member, D.P.C. Kannur Madhavi Nilayam, Chuzhali P.O., Kannur-670142	"
9.	<b>Dr. T.S. Swapna</b> Associate Professor, Department of Botany, University of Kerala, Karyavattom Campus, Thiruvananthapuram	"
10.	<b>Dr. K.T. Chandramohan</b> Department of Botany, Govt. Brennan College, Thalassery, Kannur.	"
11.	<b>Vacant</b>	"

### Member Secretary

**Smt. Reney.R.Pillai**

Member Secretary From 09.12.2020 – 08.12.2021

**Smt. Mini V.**

Member Secretary in-charge from 09-12-2021

## 2.3. Staff Strength of the Board

### 2.3.1. Permanent staff (On deputation)

SL No	Designation	Sanctioned strength	Working
<b>Sanctioned staff on deputation</b>			
1	Member Secretary	1	
2	Administrative Officer	1	1
3	Finance Officer	1	1
4	Principal Scientific Officer	2	2
5	Scientific Officer	1	1
6	Technical Assistant	1	1
7	Assistant cum Cashier	1	1
8	Data Entry Operator	1	1
9	Confidential Assistant	1	1
10	Helper	1	1
11	Part-time sweeper	1	1

### 2.3.2. Contract Staff

1	Research Staff	9
2	Supporting staff	11
3	District Co-ordinators	14
4	Staff funded by NBA	4

## 2.4. Board meetings conducted during 2021-22

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

- » 54<sup>th</sup> Board meeting was held on 15.07.2021 at KSBB Headquarters
- » 55<sup>th</sup> Board meeting was held on 25.10.2021 at Layam Hall, Secretariat Annex-2
- » 56<sup>th</sup> Board meeting was held on 08.03.2021 at Layam Hall, Secretariat Annex-2

# 3

## Major Achievements of KSBB

### 3.1. Major achievements under Conservation Division

- Reconstitution of Biodiversity Management Committees (BMCs)
- Establishment of Biodiversity Parks at the local level through BMCs
- Biodiversity Conservation through BMCs
- District level BMC Training Programme
- PBR updation is progressing in 14 BMCs
- e-PBR: BMC level data entry is progressing in many BMCs
- PBR Quality Evaluation Monitoring Committee: As per the direction of the Principal Bench of the Hon'ble NGT, National Biodiversity Authority(NBA), with the approval of MoEF&CC had constituted PBR Monitoring Committee at the National level to oversee the quality of PBRs prepared by the States
- Conservation of LBHS sites/trees
- Rebuild Kerala Initiative – Riverine Biodiversity Rejuvenation of River Pampa

### 3.2. Major achievements under Access and Benefit Sharing & Legal Issues Division

- Updating of State Biodiversity Strategies and Action Plan (SBSAP)
- Preparation of red data book and assessment of threatened species of Kerala
- Development of nurseries and propagation of RET species/species notified under the biological diversity act.
- Preparation of the Local Biodiversity Strategies and Action Plan for Athirapilly, Thrissur district
- Biodiversity monitoring studies of selected biodiversity - rich areas outside the forest area

- Preparation of a Database of tradable/ commercially potential bio-resources and their economic valuation in Kerala
- An experimental pilot project to construct a multilayered biowall (Biofencing) with Screw pines (Pandanus) at Poovar beach
- 22 Biodiversity conservation projects supported by funds accrued through ABS
- Biodiversity internship program conducted

### 3.3. Major achievements under Extension Division

- “ENTE THAI” mobile app was made available in the Google play store
- Published KSBB Newsletter from March 2021 onwards
- 13<sup>th</sup> Children’s Biodiversity Congress was conducted
- Celebrated significant days associated with Biodiversity like International Day for Biological Diversity, Environment day, Bird day, World wetland day etc. Online competitions were conducted, and prizes were distributed to the winners.
- Biodiversity Award distribution was conducted.
- RKI – Conservation of Agro diversity



# 4

## Biodiversity Conservation

### Major achievements

- Reconstitution of Biodiversity Management Committees (BMCs)
- Establishment of Biodiversity Parks at the local level through BMCs
- Biodiversity Conservation through BMCs
- District level BMC Training Programme
- PBR updation is progressing in 14 BMCs
- e-PBR: BMC level data entry is progressing in many BMCs
- PBR Quality Evaluation Monitoring Committee: As per the direction of the Principal Bench of the Hon'ble NGT, National Biodiversity Authority (NBA), with the approval of MoEF & CC had constituted PBR Monitoring Committee at the National level) to oversee the quality of PBRs prepared by the States
- Conservation of LBHS sites/trees
- **Rebuild Kerala Initiative** – Riverine Biodiversity Rejuvenation of River Pampa

#### 4.1 Reconstitution of Biodiversity Management Committees (BMCs):-

BMCs are the statutory bodies constituted to ensure biodiversity conservation at the local level as per the provisions of Section 41 of the Biological Diversity Act, 2002, Rule 22 of the Biological Diversity Rules, 2004 and Rule 20 of the Kerala Biological Diversity Rules, 2008. In Kerala, BMCs have been constituted in all the 1200 local bodies of the State including three tiers of Panchayats. As per the guidelines of the National Biodiversity Authority (NBA), the tenure of the BMCs is fixed as five years; or it will be co-terminus with the tenure of the local body. Hence, after the 2020 Kerala Local Body Election

held in December, the Board and the Department of Local Self Government have directed all the newly elected local bodies to reconstitute their BMCs following the guidelines and prescribed format. Accordingly, 59% of BMCs were reconstituted during the reporting period and BMC reconstitution has been completed in all the 1200 local bodies. District wise details of BMCs are mentioned below:

District	Total no. of BMCs (GPs + BPs + DPs + M + C)*
Thiruvananthapuram	73 + 11 + 1 + 4 + 1
Kollam	68 + 11 + 1 + 4 + 1
Pathanamthitta	53 + 8 + 1 + 4
Alappuzha	72 + 12 + 1 + 6
Kottayam	71 + 11 + 1 + 6
Idukki	52 + 8 + 1 + 2
Ernakulam	82 + 14 + 1 + 13 + 1
Thrissur	86 + 16 + 1 + 7 + 1
Palakkad	88 + 13 + 1 + 7
Malappuram	94 + 15 + 1 + 12
Kozhikode	70 + 12 + 1 + 7 + 1
Wayanad	23 + 4 + 1 + 3
Kannur	71 + 11 + 1 + 9 + 1
Kasaragod	38 + 6 + 1 + 3
<b>Total</b>	<b>941 GPs + 152 BPs + 14 DPs + 87M + 6C</b>

\*GPs- Grama Panchayats; BPs-Block Panchayats; DPs-District Panchayats; M-Municipalities & C-Corporations

#### 4.2. BMC Strengthening Activities:

##### 4.2.1 Model BMC projects

In 2019-20, the Board gave financial and technical assistance to selected 28 BMCs (2 from each district) for various location-specific biodiversity conservation projects. Of the sanctioned amount

of Rs. 5 lakhs to each BMC, Rs. 3 lakh has been released as the first instalment. On evaluating the progress of the project during the reporting year, a second instalment of Rs. 2 lakh has been released to each of the 12 BMCs viz., Kalliyoor GP, Kattakada GP, Karuvatta GP, Veeyapuram GP, Ayarkunnam GP, Njeezhur GP, Thodupuzha Municipality, Mariyapuram GP, Kadamakkudy GP, Njarakkal GP, Kodakara GP and Vellinezhi GP for completing these projects in a time bound manner.

#### 4.2.2 Establishment of Biodiversity Parks at the local level through BMCs:-

As part of establishing Biodiversity Parks with the support of BMCs, KSBB released a sum of Rs. 60 lakh to 13 BMCs (14 sites) in 11 districts during 2020-21. To implement the project in the identified sites of selected BMCs, KSBB engaged an agency named PETARDS (Pazhassi Eco-Tourism and Rural Development Society) in Kannur by inviting Expressions of Interest and selecting through a competitive mechanism. As directed, PETARDS demarcated the land with an area ranging from 10 cents to 15 cents and prepared DPRs accordingly in each selected site. The project was initiated in all 13 sites (except at Cheranalloor GP in Ernakulam district) after executing a tri-partite agreement with the selected agency (PETARDS), the BMC concerned and the Member Secretary of KSBB. In Chernalloor GP, KSBB directed the BMC to refund the allotted amount as per the Government norms because, the identified site was unsuitable for the project,

and BMC could not identify an alternate area. Also, during the reporting, the second instalment of Rs. 63,000/- had been released to each of the three BMCs viz., Poothakkulam GP, Mundur GP and Pilicode GP based on the assessment of progress achieved.

#### 4.2.3 Local Biodiversity Heritage Sites (LBHS):-

As per the G.O.(MS) No. 5/2020/Envvt dated 03.03.2020, the Kerala government has permitted BMCs to conserve local biodiversity-rich areas/ ecosystems/ trees as 'Local Biodiversity Heritage Sites/ Trees (LBHS)' with the consent of the Board.

For the conservation and management of Local Biodiversity Heritage Sites/ Trees declared by the BMC and approved by KSBB, a plan of action is prepared by the KSBB officials after visiting the sites. Based on the Plan of action, each of the BMCs (*i.e.*, Anchuthengu, Chirayinkeezhu and Mudakkal Grama Panchayats in Thiruvananthapuram district; Pandalam Municipality and Pandalam Thekkekara, Mallappuzhasseri, and Pallikkal Grama Panchayats in Pathanamthitta district; Ayarkunnam Grama Panchayat in Kottayam; Alakkode Grama Panchayat in Kannur) have prepared suitable proposals for the conservation and management of their LBHS/ Trees. Financial assistance was provided to the following BMCs based on their proposals for conserving LBHS/ Trees after executing MoU with the BMCs concerned.

Sl. No.	Name of BMC and District	Details on declared LBHS	The amount released (₹)
1.	Pandalam Thekkekara GP, Pathanamthitta	Conservation and Management of LBH Tree (200 year-old Cashew nut tree) at Nombizhi Govt. LPS. <ul style="list-style-type: none"> <li>• Nakshatra garden</li> <li>• Butterfly park</li> <li>• Protection of premises of trees and nearby areas from water logging.</li> <li>• Placing of hoardings.</li> <li>• Preparation of School Biodiversity Register.</li> <li>• 'Vriksha chikilsa' (treatment) for the LBH Tree's protection.</li> </ul>	1,53,500/-



2.	Anchuthengu GP, Thiruvananthapuram	Conservation and management of 250 year old two LBH Trees (Champaka trees) at Nedumkanda M.M.M.Govt. LPS. <ul style="list-style-type: none"> <li>Establishing Biodiversity Park in the nearby area of the trees.</li> <li>Placing of hoardings.</li> <li>Eco friendly construction around the base of the trees for its protection.</li> </ul>	4,00,000/-
3.	Ayarkunnam GP, Kottayam	Conservation and management of 200 year old Nattumavu seen along the banks of Meenachil river. <ul style="list-style-type: none"> <li>Collection of seeds from the tree and planting its saplings.</li> <li>Bio fencing.</li> <li>Placing of hoardings.</li> </ul>	2,00,000/-
<b>Total</b>			<b>7,53,500/-</b>

### 4.3 Biodiversity Heritage Sites (BHS):-

**4.3.1 Kalasamala :- Proposed BHS :-** Kalasamala is a well known natural habitat of Kulavetti (*Syzygium travancoricum*), an endangered plant species. The region is coming under the jurisdiction of Akathiyur Village of Porkkulam Grama Panchayat in Thrissur district. All the procedures for declaring BHS has been completed as per the guidelines of NBA. The proposal was submitted to the Government for draft notification.

**4.3.2 Madayipara :-** A proposed BHS site at Madayi GP in Kannur. As directed by the Government for expediting the process of declaring Madayipara as BHS, KSBB has recommended that the BMC and local body authorities of Madayi GP initiate further action for restarting the procedures of BHS declaration.

**4.3.3 Chombal-Kallupara :-** Chombal-Kallupara is a coastal rocky area about 50 metres from the Chombal coast in Azhiyur Grama Panchayat in Kozhikode district and extends to an area of about 5 acres. Based on the recommendation of the BMC of Azhiyur GP, the biodiversity study of the area is progressing with the assistance of TSG and scientists of CMFRI. Further procedures will be initiated based on the biodiversity report of the proposed site.

**4.4 Biodiversity Conservation through BMCs :-** During the reporting period, based on the proposal submitted by various BMCs for undertaking local specific biodiversity conservation projects, the following proposals were selected and financial assistance provided to BMCs concerned for its implementation.

Sl. No.	Name of BMC and district	Project sanctioned	Amount released (Rs.)
1	Azhiyur GP, Kozhikode	Theerathanal project <ul style="list-style-type: none"> <li>Conservation of coastal area in 7 wards of the local body.</li> </ul>	3,02,500/-
2	Elappully GP, Palakkad	Fruit tree garden <ul style="list-style-type: none"> <li>Establishment of a fruit tree garden in an area of one acre at Pokkanthode LPS</li> </ul>	3,00,000/-

3	Kandalloor GP, Alappuzha	Conservation of Aleppey turmeric • Conservation of Aleppey Turmeric – an indigenous variety cultivated in Onattukara region	5,00,000/-
3	Veliyancode GP, Malappuram	Conservation of Sea Turtles along the coast of Pathumuri region.	5,00,000/-
4	Kodakara GP, Thrissur	Development of Biodiversity Park in association with Apollo Tyres, Thrissur.	5,00,000/-
5	Muthukulam Block Panchayat, Alappuzha	Theeram Kakkan Kandal, Kandal Kakkan Nammal (Planting of mangroves along the banks of inland water bodies seen in association with Kayamkulam lake).	2,50,000/-
6	Akathethara GP, Palakkad	Forest Food Garden	3,00,000/-
7	Purathur GP, Malappuram	Biodiversity Conservation of Murikkummadu Island	1,00,000/-
8	Omassery GP, Kozhikode	Afforestation and Biodiversity Park	2,00,000/-
9	Koyilandy Municipality, Kozhikode	Jaiva samrudhi – Development of Biodiversity park and butterfly garden	2,00,000/-
10	Ambalavayal GP, Wayanad	Planting of bamboo, reeds and mangroves along the bank of Karappuzha dam	1,10,000/-
11	Mayyil GP, Kannur	Islands of life - Biodiversity Park	2,00,000/-
12	Kathirur GP, Kannur	Planting of Mango saplings along the roadsides	1,00,000/-
13	Narath GP, Kannur	Conservation of Vadakkekav- Vallikkavu	2,00,000/-
14	Anjarakandy GP, Kannur	Development of Biodiversity Park at HFC Compound, Kannadivelicham.	2,00,000/-
15	Peralassery GP, Kannur	Valiyakandy Edakkadavu Cherumavilayi Biodiversity Park	2,00,000/-
16	Eramam-Kuttoor GP, Kannur	Punarnava – Medicinal Plant Park	1,00,000/-
		<b>Total</b>	<b>41,62,500/-</b>

#### 4.5. District level BMC Training Programme:-

In Kerala, BMC constitution was completed in 2019 in all the 1200 local bodies of the State including three tier PRIs and Urban bodies (including 941 Grama Panchayats, 152 Block Panchayats, 14 District Panchayats and 87 Municipalities and 6 Corporations). As per the guidelines of NBA, the tenure of the BMC is for five years, or it will be co-terminus with the tenure of the concerned local body. Accordingly, the reconstitution of BMCs in Kerala was carried out in 2021 in continuation with local body elections held in November 2020. As a statutory body, BMCs are responsible for ensuring biodiversity conservation and the sustainable utilisation of biological resources in their jurisdiction with the support of the local bodies concerned. In order to perform the roles and responsibilities of BMCs as envisaged in the Biological Diversity Act and Rules, they must be strengthened regularly through capacity-building workshops and training. Hence, during the reporting period, KSBB has conducted district level BMC training programmes in all 14 districts. The programme was initiated in the Thiruvananthapuram district on 21.12.2021.

In the training programme, classes were provided for imparting knowledge on Biodiversity and its importance, to make the BMCs/ local bodies aware of their roles as envisaged in the Biological Diversity Act and Rules, the need for local biodiversity conservation and its implementation. The Chairman and Members of KSBB handled the classes. A hand book envisaging the roles and responsibilities of BMCs was prepared and distributed to the various BMCs in these training programmes. Out of the 1200 BMCs, a total of 911 BMCs (76%) actively participated in the training programmes, which include 76% Grama Panchayats, 79.6% Block Panchayats, 93% District Panchayats and 65.6% Urban bodies (viz. Municipalities and Corporations). District wise details of BMC participation are given below:

Sl. No.	District	Date of Training	Total No. of Local Bodies/ BMCs*	Local bodies/ BMCs participated in the training*	Percentage of participation
1	Thiruvananthapuram	21.12.2021	90 (73GPs+11BPs +1DP+ 4M +1C)	69 (57GPs+6BPs +1DP+ 4M +1C)	76.6%
2	Kollam	04.01.2022	85 (68GPs+11BPs +1DP+ 4M +1C)	63 (51GPs+8BPs +1DP+ 2M +1C)	74.1%
3	Pathanamthitta	05.01.2022	66 (53GPs+8BPs +1DP+ 4M)	59 (48GPs+6BPs + 1DP+ 4M)	89.4%
4	Alappuzha	09.03.2022	91 (72GPs+12BPs +1DP+6M)	74 (56GPs+12BPs + 1DP+5M)	81.3%
5	Kottayam	15.03.2022	89 (71GPs+11BPs +1DP+6M)	72 (58GPs+11BPs + 1DP+2M)	80.9%
6	Idukki	16.03.2022	63 (52GPs+8BPs +1DP+2M)	54 (43GPs+8BPs + 1DP+2M)	85.7%
7	Ernakulam	23.03.2022	111 (82GPs+14BPs +1DP+13M+1C)	60 (45GPs+6BPs+ 1DP+8M)	54.0%
8	Thrissur	04.03.2022	111 (82GPs+16BPs +1DP+ 7M +1C)	79 (59GPs+14BPs+ 1DP+ 4M +1C)	71.2%
9	Palakkad	05.03.2022	109 (88GPs+13BPs +1DP+ 7M)	70 (56GPs+9BPs+ 1DP+ 4M)	64.2%
10	Malappuram	22.03.2022	122 (94GPs+15BPs + 1DP+12M)	79 (59GPs+11BPs +1DP+8M)	64.8%
11	Kozhikode	28.02.2022	91 (70GPs+12BPs +1DP+ 7M +1C)	86 (68GPs+12BPs +1DP+ 4M +1C)	94.5%
12	Wayanad	18.03.2022	31 (23GPs+4BPs +1DP+3M)	23 (17GPs+3BPs +1DP +2M)	74.2%
13	Kannur	12.01.2022	93 (71GPs+11BPs +1DP+ 9M +1C)	85 (69GPs + 10BPs+6M)	91.4%
14	Kasaragod	02.03.2022	48 (38GPs+6BPs +1DP+ 3M)	38 (30GPs+ 5BPs+1DP+ 2M)	79.2%
			<b>1200 (941GPs+152BPs +14DPs+87M+6C)</b>	<b>911 (716GPs+121BPs+ 13DPs+57M+4C)</b>	<b>76%</b>
*GPs- Grama Panchayats; BPs-Block Panchayats; DPs-District Panchayats; M-Municipalities; C-Corporations					





#### 4.6. Rebuild Kerala Initiative – Riverine Biodiversity Rejuvenation of River Pampa:-

The project is designed as a model people participatory riverine biodiversity conservation project involving stakeholders such as Local bodies, BMCs, Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Kerala Forest & Wildlife Department, R&D institutions, Educational Institutions, local people etc. The project is being implemented in selected 14 Grama panchayat BMCs (viz., Ranni, Ranni-Angadi, Ranni-Pazhavangadi, Ranni-Perunadu, Vadasserikkara, Naranammoozhi, Vechoochira, Kozhencherry, Cherukole, Ayiroor, Koipuram, Thottappuzhassery, Mallappuzhassery and Aranmula) belonging to Ranni, Elanthoor, Koipuram and Pandalam Block Panchayats in Pathanamthitta district.

#### Objectives:

- Restoration of riparian vegetation on degraded river banks.
- Ensure sustainable livelihood for the local people through providing training for developing microenterprises.
- Develop a sustainable community based management and production model of riverine ecosystems.
- Create awareness and sensitise local people and students to the promotion of riparian ecosystem services and the development of an interpretation centre

During the reporting period, the following activities were undertaken as part of the second phase activities of the project:

#### A. Participatory sustainable management of the Riverine ecosystem

- a. Sustainable management of the Riverine ecosystem, including regeneration of degraded riparian zone: The main objective of this project is to rejuvenate the riverine Biodiversity of the Pampa

River, which the flood had seriously destroyed. Hence, in this project, with the support of 14 BMCs, KSBB planted around 2,50,000 plant saplings belonging to more than 95 species procured from various R&D institutions such as KSCSTE-Kerala Forest Research Institute (KFRI), State Medicinal Plants Board, Kerala (SMPB), Aromatic & Medicinal Plants Research Station, Odakkali and Oushadhi, and maintained in a temporary nursery developed at Kozhencherry BMC till planting. These include 200000 tillers of Vetiver and 50000 saplings of various riverine-specific plants, fruit plants and medicinal plants. The BMCs selected the planting sites, and MGNREGS workers planted and maintained each site. Regular monitoring is done directly by KSBB officials, BMCs concerned, and District Project Monitoring Committee chaired by District Panchayat President Pathanamthitta. The 2<sup>nd</sup> phase planting activities was inaugurated on 20<sup>th</sup> January 2022 by the District Panchayat President, followed by BMC level inaugurations held at 14 BMCs.

- b. Enhancement of homestead biodiversity:- As part of the project, medicinal plants and native fruit plant saplings were distributed to around 3000 households in the project area selected by the BMCs to enhance the homestead biodiversity in the project site to generate biodiversity awareness among the local people.



- c. Rejuvenation of tributaries of Pampa River and removal of invasive species and aquatic weeds. Tributary rejuvenation has a vital role in the rejuvenation of any river. Pampa River is charged by numerous small and large rivulets and streams. This project selected ten streams suggested by the seven BMCs for rejuvenation. The removal of mud/sludge and plastic waste from the tributaries was initiated. In continuation, major invasive plants and aquatic weeds will be removed from Pampa River and its major tributaries with the support of local bodies and MGNREGS workers.
- d. Nursery development & Technical training: As part of the project, two nurseries were developed in the project sites, one at Perunad BMC and the other at Ranni Angadi BMC. Native fruit plants would be developed at Perunad BMC Nursery, and medicinal plants at Ranni Angadi BMC nursery. Training local people in nursery techniques for developing riverine plant saplings at the local level is necessary. Krishi Vigyan Kendra, Pathanamthitta, provided technical training to the selected local people in the BMCs.

- e. Development of biodiversity garden/ medicinal plant garden: Biodiversity gardens are being developed in the project area in the premises of schools of selected BMCs, to generate awareness among local people and students. Ten biodiversity gardens, each with 10 cent land area, are being developed in 10 schools on the project site. In addition to various theme based gardens, the parks would have bio fencing, a sitting area, and a play area. All the plants would be labelled to create biodiversity awareness.



- f. Development of interpretation centre: An interpretation centre is planned in the project along with the support of BMCs to create awareness among the local people, students, tourists, etc., on the importance of riverine Biodiversity and its conservation. This centre will focus on the Pampa River's history, importance, biodiversity richness, and the actions needed to conserve it through

people's participation. This interpretation centre will also focus on the general Biodiversity of Kerala and its significant threats. With the support of District level project monitoring committee, KSBB identified the site for developing the proposed interpretation centre at Ranni- Angadi Grama panchayat.

- g. Enhancement of indigenous inland fish diversity in Pampa: The native fish biodiversity of Pampa River is facing serious threats from human activities and natural calamities. Hence, in order to enhance the indigenous inland fish biodiversity of Pampa, KSBB, with the support of the Fisheries Department and Agency for Development of Aquaculture Kerala (ADAK), had developed 50,000 fish fingerlings of native species of Climbing perch (*Anabas testudineus*), Green chromide (*Etroplussuratensis*) and Cat fish (*Heteropneustesfossilis*). These fish fingerlings were released to selected sites of Pampa with the support of BMCs. The programme was inaugurated by Hon'ble Minister for Fisheries, Shri.Saji Cheriyan, in the presence of Presidents and Members of various BMCs.



**B. Sustainable livelihood training for microenterprise development (training on entrepreneurship and value-added products from pandanus, bamboo, canes, medicinal plants, edible fruits, etc.)** for Kudumbasree/MGNREGS through recognised agencies/ institutions: For the success of any projects, people participation, as well as acceptance, is most important. Hence, KSBB has designed various livelihood training programmes on nursery development of medicinal plants and fruit plants, mushroom cultivation, and bee cultivation to be provided to around 40 people in the project area through the technical support of Krishi Vigyan Kendra, Pathanamthitta.

The participants will also be provided necessary materials for initiating the work based on the training programme. These training programmes will support the management of nurseries being developed in Perunad BMC and Ranni Angadi BMC in future. This project will also support the development of the people participatory centre at the Valiyakavu area of Ranni Angadi BMC for the development and marketing of medicinal plants with the support of the Forest Department of Kerala, which will generate livelihood opportunities for the local people.

**C. Mass awareness regarding the implementation and importance of the project through video clips/ brochures/booklets/ posters, etc.:**

For any people participatory project, proper awareness creation is necessary. In this project which involves 14 Grama panchayats, 4 Block Panchayats, District Panchayat, local people, different line departments, etc., proper awareness creation is very much needed. Hence, KSBB has developed four short videos (20 minutes) based on subjects such as (1) *Biodiversity conservation, its current status, threats and future actions*, (2) *Rebuild Kerala Initiative through people's participation and BMCs*, (3) *River conservation for the betterment of river and people* (4) *Medicinal plant cultivation for the livelihood*. These videos, along with a smaller version, will be published through social media, local channels, and in the proposed interpretation centre to be developed as part of the project for giving awareness to the local people and line departments on these aspects. KSBB has released a handbook on the Pampa riverine rejuvenation project, detailing the aim, objectives, mode of action, list of plants planted and uses of the different medicinal plants included in the project.

#### **4.7. PBR updation**

PBR updating is a mandatory duty of each BMC. During the reporting period, 14 BMCS have requested technical guidance and support for the updation of existing PBRs in their BMCs, namely Kalliyur GP (Thiruvananthapuram district), Padanna GP (Kasaragod district), Chengalayi GP, Kathiroor GP & Mangattidam GP (Kannur district), Kadalundi GP, Azhiyur GP and Valayam GP (Kozhikode district), Chittoor Municipality (Palakkad district), Marangattupilli GP & Teekoy GP (Kottayam district), Tirurangadi Municipality (Malappuram district) and Thumpamon GP (Pathanamthitta district). The updation is progressing in these BMCs with the technical support of KSBB. As per the requests from Kadalundi GP and Kathiroor GP, online training was given to BMC members and volunteers selected for the data collection on 18/02/2022 and 15 /03/2022, respectively.

#### **4.8. ePBR**

To make timely updates and protect from physical damages of the current PBRs, KSBB has initiated steps to convert them into electronic Forms(ePBR). The whole responsibility for digitising PBRs rests with the respective BMCs, and to support them, KSBB has developed software with the help of the National Informatics Centre (NIC), Thiruvananthapuram. With the support of the Local Self Government Department (LSGD), Technical Assistants (TA) working in the LGDCs had been made responsible for digitisation activities. KSBB had given technical training to the selected 136 Technical Assistants working at the Block level (Information Kerala Mission) as master trainers on 30.06.2021 via online mode. The e-PBR works are progressing in many BMCs.

#### **4.9. PBR Quality Evaluation Monitoring Committee**

As per the direction of the Principal Bench of the Hon'ble NGT, National Biodiversity Authority (NBA), with the approval of MoEF & CC constituted the PBR Monitoring Committee at the National level to oversee the quality of PBRs prepared by the States. Consequently, to solve the practical difficulty of this Committee in conducting an extensive evaluation of a large number of PBRs in different States, NBA had advised the State Governments to constitute a 5-7 members State level PBR Quality Evaluation Monitoring Committee. This Committee comprised subject matter experts including superannuated forest service officers. Environment Department, Govt. of Kerala, had constituted a six member State Level PBR Quality Evaluation Monitoring Committee for the State of Kerala(G.O.(Rt)No.82/2021/Env. dated 16/11/2021). The first meeting of the Committee (online mode) was convened on 23.11.2021. Dr. K.K. Joshy, Principal Scientist & Head, Marine Biodiversity Division (MBDD), Central Marine Fisheries Research Institute (CMFRI), Kochi has been selected as the Chairman of the PBR Quality Evaluation Monitoring Committee for Kerala.

#### **4.10. Butterfly park at Asramam Biodiversity Heritage site, Kollam**

As per the approved management plan of the Kollam Asramam Biodiversity Heritage site, the 1<sup>st</sup> BHS of Kerala, KSBB has decided to set up a Butterfly Garden as a model biodiversity conservation project in this BHS area. This project is being implemented through the technical expertise of Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI), Thiruvananthapuram. During the reporting period, a BMC meeting was convened to implement this project, and officials from KSBB participated in the meeting and explained the project in detail. Later, the proposed site for establishing Butterfly Garden was visited by a delegation comprising of Kollam Municipal Corporation BMC Chairperson & Mayor Smt. Prasanna Ernest, Deputy Mayor Sri. Madhu, BMC members, officials from JNTBGRI, (implementing agency of butterfly garden) and officials from KSBB on 29.09.2021 and assessed the situation.



#### 4.11. Theme-based biodiversity conservation projects:

**A. Conservation of Sacred grove at Kollam with Community participation:** Habitat restoration and protection of PoredamKavu is a theme-based biodiversity conservation project awarded to Chadayamangalam BMC in Kollam. The project has two phases: a) Establishment of conservatory and habitat restoration and b) Awareness programmes. During the reporting period, all the components of the first phase, such as the establishment of native mango orchards, lesser-known fruit plants and herbal garden, were completed..

**B. Neyyar riverine conservation and Biodiversity Garden project:** Project is implanted through Maranalloor BMC in the Thiruvananthapuram district. This project has two phases a) the Biodiversity garden at Kukkirippara and b) the Restoration of Neyyar riverine biodiversity conservation. The project's first phase, such as establishing the butterfly garden, medicinal plant garden and native mango orchards in Kukkirippara, was completed in the reporting period. BMC has initiated replanting process which is progressing, as some developmental activities are ongoing in the proposed site.

#### 4.12. Miyawaki Model Urban Groves (Nagarapacha)

KSBB, in order to enhance the biodiversity richness of urban areas, came up with the idea of popularising urban groves made in the Miyawaki model in selected locations coming under Govt. institutions/public areas under the heading '*Sustainable model of biodiversity conservation with public participation*' & '*Identification of biodiversity rich areas and their conservation as BHS/Local Biodiversity Heritage areas*' in the plan scheme of 2020-'21. Hence, four BMCs in the Thiruvananthapuram district and one BMC in the Kollam district were selected for implementing the project. Following this, consent letters from the institutions/BMCs were collected to establish the Miyawaki model forest. KSBB has identified an external agency, Agriculture and Ecosystem Management Group (AGES), for establishing the Miyawaki model forest in all five BMCs through a competitive selection mechanism and a budget of 4,00,000./- was sanctioned to each BMC for developing Miyawaki model urban groves in an area of 10 cents. BMCs and institutions selected for the project area follows.

Sl. No.	BMC	Institutions
<b>Thiruvananthapuram district</b>		
1	Neyyattinkara Municipality	Erattinpuram, on the bank of Neyyar river
2	Kollayil	Govt. ITI, Dhanuvachapuram
3	Pulimath	Devaswom Board HS, Pulimath
4	Edava	Govt. LPS, Venkulam
<b>Kollam district</b>		
5	Kollam Municipal Corporation	Near Asramam Maithanam

The KSBB conducted field visits to assess the developments of the project. Furthermore, among the five BMCs, the land preparation process has been completed in Kollayil BMC as part of the project, and planting will be done soon.

# 5

## Major Activities Conducted in Various Districts

### 5.1. BMC meetings held in Thiruvananthapuram district

Sl.No.	Name of BMC	Date of Meeting
1	Perumkadavila	07/05/2021
2	Malayinkeezhu	15/07/2021
3	Pallichal	15/07/2021
4	Kallikkadu	06/07/2021
5	Chirayinkeezhu	08/07/2021
6	Pullampara	13/07/2021
7	Ampoori	15/07/2021
8	Kattakkada	14/09/2021
9	Kalliyoore	22/09/2021
10	Chirayinkeezhu	01/10/2021
11	Perumkadavila	06/10/2021
12	Balaramapuram	25/10/2021
13	Pullampara	25/10/2021
14	Pallichal	03/11/2021
15	Malayinkeezhu	16/11/2021
16	Neyyatinkara Municipality	23/11/2021
17	Kollayil	23/11/2021
18	Karakulam	3/12/2021
19	Kutichal	4/12/2021
20	Kallikkadu	7/12/2021
21	Thiruvananthapuram Corporation	08/12/2021
22	Pulimath	09/12/2021
23	Pullampara	14/12/2021
24	Amboori	16/12/2021
25	Chirayinkeezhu	20/12/2021
26	Anchuthengu	29/12/2021
27	Pallichal	7/01/2022
28	Kallikkadu	20/01/2022
29	Anchuthengu	22/01/2022
30	Chirayinkeezhu	23/01/2022
31	Kadinamkulam	24/01/2022
32	Kottukal	3/02/2022
33	Chirayinkeezhu	12/02/2022
34	Kadinamkulam	19/02/2022
35	Kottukal	21/02/2022
36	Perumkadavila	23/02/2022
37	Pallichal	23/02/2022
38	Kottukal	24/02/2022
39	Nagaroor	26/02/2022
40	Perumkadavila	07/03/2022
41	Parassala	14/03/2022
42	Pullampara	15/03/2022
43	Vilappil	16/03/2022
44	Parassala	22/03/2022
45	Perumkadavila	23/03/2022



BMC Meet - Balaramapuram



BMC Meet - Vilappil

## 5.2. BMC meetings held in Kollam district

Sl.No.	Name of BMC	Date of Meeting
1	Kadakkal	25/10/2021
2	Kadakkal	12/01/2022
3	Munroe thuruth	31/01/2022
4	Kareepra	04/02/2022
5	Thekkumbhagam	17/02/2022



BMC Meet - Kalluvathukkal grama panchayat

6	Alappad	11/02/2022
7	Alayaman	10/03/2022
8	Ittiva	11/03/2022
9	Perinad	14/03/2022
10	Poothakkulam	17/03/2022
11	Kalluvathukkal	19/03/2022



BMC Meet - Kadakkal grama panchayat

## 5.3. BMC meetings held in Pathanamthitta district

Sl. No.	Name of BMC	Date of Meeting
1	Kozhencherry	19.07. 2021, 05.08.2021 & 28.02. 2022
2	Cherukol	22.07. 2021
3	Ayroom	22.07. 2021
4	Ranni-Perunad	20.07. 2021
5	Ranni-Angadi	26.07. 2021

6	Ranni- Pazhavangadi	26.07. 2021
7	Ranni	27.07. 2021
8	Vadasserikkara	27.07. 2021
9	Naranamoozhy	28.07. 2021
10	Vechoochira	28.07. 2021
11	Pandalam Thekkekara	11.03. 2022
12	Eraviperoor	



BMC Meet - Vadasserikkara GP



BMC Meet - Ranni-Angadi

#### 5.4. BMC meetings held in Alappuzha district

Sl. No.	Name of BMC	Date of Meeting
1	Karuvatta	17/4/2021
2	Mararikkulam south	25/6/2021
3	Punnapra south	29/7/2021
4	Ambalappuzha North	3/8/2021
5	Edathwa	11/8/2021
6	Muhamma	16/8/2021
7	Dist Panchayat	25/8/2021
8	Thanneermukkom	2/11/2022

9	Mannanchery	5/11/2022
10	Mararikkulam north	6/11/2021
11	Purakkad	28/1/2022
12	Kanjikkuzhay Block	9/11/2021
13	Ambalappuzha Block	19/11/2021
14	Kanjikkuzhay Block	7/12/2021
15	Karuvatta	7/1/2022
16	Perumbalam	24/2/2022
17	Thykkattusery	7/02/2022



BMC Meet - Karuvatta



BMC Meet - Mannanchery

#### 5.5 BMC meetings held in Kottayam district

Sl. No.	Name of BMC	Date of Meeting
1	Njeezhoor	02/07/2021
2	Ayarkunnam	08/07/2021
3	Ayarkunnam	23/07/2021
4	Njeezhoor	01/08/2021
5	Kanakkary	04/09/2021
6	Theekoy	28/10/2021

7	Theekoy	26/11/2021
8	Kallara	29/11/2021
9	Puthuppally	30/11/2021
10	Kallara	16/02/2022
11	Erattupetta Municipality	22/02/2022
12	Kallara	23/02/2022
13	Vazhoor	24/02/2022
14	Marangattupilly	28/02/2022
15	Ramapuram	24/03/2022

#### 5.6 BMC meetings held in Idukki district

Sl. No.	Name of BMC	Date of Meeting
1	Edavetty	12/04/21
2	Purappuzha	01/07/21
3	Arakkulam	14/07/21
4	Udumbannoor	15/07/21

5	Ayyappancoil	17/07/21
6	Edavetty	22/07/21
7	Velliamattom	26/07/21
8	Purappuzha	02/08/21
9	Vattavada	07/08/21
10	Mariyapuram	10/08/21

11	Udumbanchola	15/09/21
12	Kodikulam	30/09/21
13	Thodupuzha municipality	05/10/21
14	Kudayathoor	08/10/21
15	Mariyapuram	20/10/21
16	Purappuzha	23/10/21
17	Kudayathoor	27/10/21
18	Mariyapuram	29/10/21
19	Edavetty	01/11/21
20	Arakkulam	03/11/21
21	Arsakkulam	08/11/21
22	Manakkad	17/11/21
23	Arakkulam	24/11/21
24	Kodikulam	26/11/21
25	Manakkad	29/11/21
26	Munnar	07/12/21

27	Purappuzha	09/12/21
28	Edavetty	14/12/21
29	Edavetty	22/12/21
30	Arakkulam	29/12/21
31	Elamdesm block panchayath	15/01/22
32	Munnar	31/01/22
33	Edavetty	08/02/22
34	Elamdesam block panchayat	24/02/22
35	Thodupuzha municipality	05/03/22
36	Arakkulam	18/03/22
37	Edavetty	21/03/22
38	Edavetty	26/04/22
39	Rajakumari	21/04/22
40	Kodikulam	07/04/22



BMC Meet - Kudayathoor



BMC Meet - Thodupuzha municipality

### 5.7 BMC meetings held in Ernakulam district

Sl. No.	Name of BMC	Date of Meeting
1	Poothrikka	29/07/2021
2	Valakom	25/09/2021

3	Kothamangalam	15/12/2021
4	Thrippunithura	23/12/2021
5	Ernakulam District Panchayat	07/01/2022

### 5.8 BMC meetings held in Thrissur district

Sl. No.	Name of BMC	Date of Meeting
1	Elavally	15/08/2021
2	Edathuruthi	20/09/2021

3	Perinjanam	28/01/2022
4	Vallachira	16/02/2022
5	Chowanur Block	15/03/2022



BMC Meet - Vallachira GP



BMC Meet - Chowanur Block

### 5.9 BMC meetings held at Palakkad district

Sl.No.	Name of BMC	Date of Meeting
1	Nellyampathy	11.08.2021
2	Palakkad Municipality	05.04.2021
3	Kappur	28.10.2021
4	Koppam	22.09.2021
5	Parudur	12.10.2021, 29.07.2021
6	Kuthannur	22.05.2021
7	Mathur	12.07.2021, 13.09.2021

8	Elappully	12.02.2022, 21.03.2022
9	Pattancherry	04.03.2021
10	Melarcod	12.12.2021
11	Nemmara	08.09.2021
12	Kavassery	19.04.2021, 18.08.2021
13	Kizhakkancherry	11.02.2022
14	Vellinezhi	05.04.2021, 01.06.2021, 21.06.2021

### 5.10 BMC meetings held in Kannur district

Sl No.	Name of BMC	Date of Meeting
1	Ezhome	27/11/2021
2	Eramam-Kuttur	4/12/2021

3	Kurumathur	17/12/2021
4	Kadirur	14/02/2022
5	Kurumathur	30/03/2022

### 5.11 BMC meetings held in Malappuram district

Sl. No.	Name of BMC	Date of Meeting
1	Malappuram Municipality	19.4.2021
2	Perumpadappu	23.4.2021
3	Perumpadappu	26.5.2021
4	Perumpadappu	5.6.2021
5	Perumpadappu	16.7.2021
6	Iripiliyum	22.7.2021

7	Tirur Municipality	17.8.2021
8	Malappuram Municipality	25.8.2021
9	Perumpadappu	26.8.2021
10	Keezhuparambu	2.9.2021
11	Perumpadappu	28.9.2021
12	Malappuram Municipality	12.10.2021
13	Perumpadappu	23.10.2021
14	Perumpadappu	6.11.2021
15	Kondotty Municipality	10.11.2021

16	Malappuram Municipality	12.11.2021
17	Nilambur Municipality	15.11.2021
18	Areekode Block	23.11.2021
19	Malappuram District Panchayath	24.11.2021
20	Kondotty Municipality	24.11.2021
21	Veliyamcode	25.11.2021
22	Tanur Municipality	29.11.2021
23	Ponnani Municipality	3.12.2021
24	Pandikkad	8.12.2021
25	Anakkayam	22.12.2021
26	Kuzhimanna	11.01.2022
27	Nilambur Municipality	18.01.2022
28	Vazhikkadavu	27.01.2022
29	Vazhikkadavu	7.02.2022

30	Ponnani Municipality	18.02.2022
31	Koottilangadi	24.02.2022
32	Malappuram Municipality	19.03.2022
33	Nilambur Municipality	29.03.2022



BMC Meet - Pandikkad GP

#### 5.12 BMC meeting held in Kozhikode district

Sl. No.	Name of BMC	Date of Meeting
1	Perumanna	05-11-2021
2	Kozhikode corporation	08-11-2021
3	Kadalundy	10-11-2021
4	Mukkam Municipality	22-11-2021
5	Vanimel	23-11-2021

6	Omassery	27-11-2021
7	Azhiyur	30-12-2021
8	Olavanna	05-01-2022
9	Kozhikode block panchayat	04-02-2022
10	Panthalayani block panchayat	10-02-2022
11	Perumanna	18-02-2022
12	Chelannur	10-03-2022

#### 5.13 BMC meeting held in Wayanad district

Sl. No.	Name of BMC	Date of Meeting
1	Wayanad Jilla panchayath	13/7/2021, 12/11/2021, 5/2/2022
2	Edavaka	08/11/2021, 08/02/2022,14/2/2022, 26/4/2022, 19/5/2022
3	Thavinjal	9/3/2021, 3/1/2022
4	Mullankolly	16/8/2021, 3/11/2021, 3/1/2022, 14/3/2022
5	Bathery municipality	18/11/2021

6	Meenagadi	26/11/2021, 27/8/2021, 14/1/2022
7	Ambalavayal	24/11/2021, 18/3/2022



BMC Meet - Wayanad Jilla panchayath

#### 5.14 BMC Meetings held in Kasaragod district

Sl. No.	Name of BMC	Date of Meeting
1	Udma	15/09/2021, 11/03/2022
2	Palikara	23/09/2021
3	Kinanoor-Karindalam	24/09/2021

4	Trikkaripur	25/09/2021
5	Trikkaripur	10/11/2021
6	Palikara	11/11/202
7	Kasaragod Municipality	15/03/2022
8	Mangalpady	16/03/2022
9	Mogral-Puthur.	17/03/2022
10	Kumbala Block	18/03/2022



# 6

## Access and Benefit Sharing (ABS) & Legal Issues

### Major Achievements

- Updating of State Biodiversity Strategies and Action Plan (SBSAP)
- Preparation of red data book and assessment of threatened species of Kerala
- Development of nurseries and propagation of RET species/species notified under the biological diversity act.
- Preparation of the Local Biodiversity Strategies and Action Plan for Athirapilly, Thrissur district
- Biodiversity monitoring studies of selected biodiversity - rich areas outside the forest area
- Preparation of a Database of tradable/ commercially potential bio-resources and their economic valuation in Kerala
- An experimental pilot project to construct a multilayered biowall (Biofencing) with Screw pines (Pandanus) at Poovar beach
- 22 Biodiversity conservation projects supported by funds accrued through ABS
- Biodiversity internship program conducted

### 6.1. Plan schemes

#### 6.1.1 Preparation of red data book and assessment of threatened species of Kerala

Kerala State Biodiversity Board, in 2020, initiated a project for listing comprehensive details of floral and faunal species under various threatened categories of IUCN, Schedule species, and other notifications/ legislations in Kerala with the support of Jawaharlal Nehru Tropical Botanical Research Institute (JNTBGRI), Zoological Survey of India (ZSI) and Central Marine Fisheries Research Institute (CMFRI). The project aimed to suggest recommendations for sustainable management measures for commercially important species.

As per the report on threatened marine faunal species of Kerala prepared by CMFRI, the IUCN

Red List Assessment of 975 species of fishes showed that 20 species are Critically Endangered. 53 are Endangered, 47 are Vulnerable, 37 are Near Threatened, 59 are Data deficient, 198 are Evaluated and 561 under Least Concern category. The critically endangered species includes two pieces of grey sharks, one species of hammer-headed sharks, three species of rays, two species of guitar fishes, and two species of saw fishes. The vulnerable species include sharks, stingrays etc. The CMFRI also recommended that the conservation and management of marine fisheries can be achieved through a participatory management approach and specifically ecosystem-based fisheries management.

An assessment of threatened animals of Kerala was conducted by a team of scientists from the Zoological Survey of India supported by KSBB. Ten animal groups include Mammals (excluding marine species), Birds, Reptiles (excluding marine species), Amphibia, Freshwater fishes, Butterflies, Odonata, Freshwater crabs, Non-marine molluscs and Myglaomorph spiders are selected for the threat assessment studies. Among these, Butterflies and Non-marine molluscs were not assessed by IUCN to date. Except for these groups, a total of 234 species of animals face the threat of extinction under various categories of IUCN global red list assessment in the Kerala scenario. Birds and freshwater fishes of Kerala are assessed regionally by following the guidelines of IUCN Regional level assessment by expert groups, and 20 species of birds and 35 species of freshwater fishes face the threat of extinction in Kerala. For the remaining groups, species are assigned various threat categories based on rarity, endemism, taxonomic distinctiveness, microhabitat preferences, threat level, etc., at the regional level (Kerala). The possibility of

upgrading or downgrading global IUCN status is also proposed. A total of 37 animal species belonging to the above groups are recommended for inclusion under section 38 of the Biological Diversity Act, 2002, considering the various threats they face. Amphibians, followed by freshwater fishes and reptilia, have the maximum endemic species among the vertebrates. Among invertebrates, non-marine molluscs are represented by the maximum number of endemic species, followed by freshwater crabs. The report also outlines some of the major recommendations for improving the conservation efforts of these species in Kerala.

### **6.1.2 Development of nurseries and propagation of RET species/species notified under the Biodiversity Act.**

A project for developing nurseries of rare, endangered and threatened plants and their propagation through Kudumbasree in Thiruvananthapuram and Kollam districts of Kerala has been initiated. It aims to provide livelihood opportunities to the Kudumbasree workers and ensure quality planting materials of RET species.

#### **Objectives of the project:-**

- Imparting training to the selected 500 Kudumbasree workers of 10 units each from Thiruvananthapuram and Kollam Districts on different propagation techniques, setting up of nurseries, planting operations and after care.
- Supply of 3500 seedlings/planting materials of different species including RET species and indigenous variety of fruit trees.

The project is jointly implemented with the support of KSCSTE - Jawaharlal Nehru Tropical Botanic Garden & Research Institute, Palode, Thiruvananthapuram and Kudubasree. Activities envisaged under this project are already initiated.

### **6.1.3 Biodiversity monitoring studies of selected biodiversity rich areas outside the forest area**

One of the primary mandates of the Kerala State Biodiversity Board (KSBB) is the documentation of Biodiversity. Although PBR has been prepared in all Panchayaths, Municipalities and Corporations, several small ecosystems outside forest areas are rich in Biodiversity and are being threatened due to various factors. As part of the documentation of biodiversity-rich areas, two projects were taken up

1. A biodiversity inventory of 13 sacred groves was done, and a detailed report in a prescribed format was submitted to NBA for consideration under Other Effective Area Based Conservation Measures (OECMs). They include Idayilakkadukavu, Amaramkavu, Chamakavu, Cheruvallikkavu, Chaniyilkshethrakavu, Idasseriylkavu, Kalathurkavu, Kurinjikavu, Neelagiri green biovalley, Pachallooranagarukavu, KunnumelParambukavu, Vayalilkavu, Thrikkangode panayamkandathu kavu.
2. KSBB has undertaken biodiversity monitoring studies of selected ecosystems scientifically based on biodiversity monitoring tools such as Simpson's diversity Index. The project is being implemented with the help of TSG members/citizen scientists through BMCs. Thus, nine ecosystems satisfying the following criteria have been identified in five districts.
  - a. The areas located outside protected forest areas.
  - b. The area is medium to high biodiversity rich/ significant areas and relatively little studied.
  - c. Wetland/marshy place/ lakes/ coastal areas/ hilly areas/ breeding site of birds, amphibians, turtles etc/ mud puddling site of butterflies/ areas rich in plant diversity/ riparian vegetation/ endemic plants etc.

The nine sites selected for the same are - Pazhamchirakulam (Chirayinkeezhu Grama Panchayath), Kadinamkulam Lake (Kadinamkulam Grama Panchayath), Karichal lake and mangrove area (Kottukal, Kanjiramkulam and Karumkulam Grama Panchayaths) in Thiruvananthapuram district, Perumbalam island (North east area of Alappuzha district) and Pallipuram Mangrove patch (Pallipuram- Thykkattussery-Arookutty area) in Alappuzha district, PonnakudamKavu (Kalamassery Municipality) in Ernakulam district, Ramassery Heritage Hill in Palakkad district, Thaevarmala, (Bharananganam Grama Panchayth) and Kallara-Mudakkali area and Kallukadavu area (Kallara Grama Panchayath) in Kottayam district. Biodiversity monitoring studies are completed in some of the study areas and are in progress in the rest.

#### **6.1.4 An experimental pilot project to construct a multilayered bio-wall (Biofencing) with Screw pines (*Pandanus* species) at Poovar beach.**

Loss of shoreline leads to loss of coastal Biodiversity, fishing practices and habitat. Attempts have been made to build a concrete wall to protect the coast, but many have failed. In this context, the KSB, in collaboration with the Poovar Biodiversity Management Committee (BMC), has initiated a pilot project to create bio-walls on Poovar beach, an experimental study. An amount of 5 lakh has been sanctioned to BMC for this project, which is being implemented in association with the Mahatma Gandhi National Rural Employment Guarantee Scheme. The inauguration of the project was held on 08.03.2022 at Poovar with Adv. M. Vincent, MLA, planting screw pine saplings. A nursery of the Screw pine saplings will be developed and planted at suitable locations during the favourable condition.



### **6.2 Externally funded projects**

#### **6.2.1 State Biodiversity Strategies and Action Plan (SBSAP)**

Kerala State Biodiversity Board, with the support of GoI-GEF-UNDP is developing a Biodiversity Action Plan for the next ten years by mapping programmes/activities by various state-level departments and agencies for contribution to biodiversity conservation and identifying key issues relating to the sector and prioritised activities for the next ten years. The critical sectors covered are Forest and Biodiversity, Agriculture and Animal Husbandry, Coastal and Inland biodiversity, Environment and climate change, Local Governance and Tribal Development. A resource mobilisation strategy for implementing SBSAP is also being undertaken with Prof. Rita Pandey, International Public Policy Specialist (Biodiversity, climate Change and Sustainable Development) in Gurugram, India, to estimate the additional funding required to implement the SBSAP in the State. The ten-year action plan has been prepared based on the vision of KSB “To protect Biodiversity in its own right and ensure its enrichment and sustainable use for the development of Kerala”. Forest and Biodiversity have 21 strategies, Coastal and Inland biodiversity (16), Agrodiversity(6), Animal husbandry (7), Social sector (9), Environment and climate change (14), Local Governance (6) and Infrastructure (10). The action plan has been developed through three state level workshops and extensive sectoral consultative workshops of subject experts and was published on the Kerala State Biodiversity Board website for public opinion. Public opinion and expert suggestions were incorporated into the report, and the final State Biodiversity Strategies and Action Plan have been prepared.

## 6.2.2 Local Biodiversity Strategies and Action Plan for Athirapilly, Thrissur district

A Local Biodiversity Strategies & Action Plan exclusively for Athirapilly, Thrissur district, was prepared to demonstrate practical implementation of State Biodiversity Strategies and Action Plan locally. It was developed through a consultative process with Biodiversity Management Committees and the local community, the first of its kind in Kerala. The LBSAP document of Athirapilly includes the general profile, physiography, land use and vegetation, socio-economic and cultural aspects and Biodiversity of the area covering flora, fauna, major ecosystems and agrobiodiversity. Baseline information on the Biodiversity of the Athirapilly Panchayat was compiled from the PBR and a Flood impact study supported by KSBB, during 2018-2019 at Athirapilly Grama Panchayath. The major projects and schemes undertaken in the productive sectors were reviewed based on the developmental plans of the Panchayat for plan proposal, 2019-2020. The LBSAP is categorised into five focus areas with a total of 6 strategies and appropriate action plans. A guiding note for probable projects which can be developed is also provided.



## 6.2.3 Database of tradable/commercially potential bio-resources and their economic valuation in Kerala

As part of a project funded by the Rebuild Kerala Initiative, KSBB has documented the commercial utilisation of bio-resources and their economic valuation. Tradable bio-resources sourced from different ecosystems/sectors such as forests (wild fruits, wild vegetables, medicinal plants, timber, honey, mushroom etc.) and aquatic and marine (fish, crabs, bivalves, sea grass, sea weeds, etc.), agriculture, horticulture, floriculture, livestock etc. is of immense significance. These resources and the associated traditional knowledge (TK) are the base for manufacturing different consumer products to enhance human wellbeing. As part of the project, systematic documentation of the biological wealth of Kerala, which is entering trade and manufacturing as raw-materials, was undertaken. In addition, specific case studies relating to forest bioresources, Agroforestry, and aquatic resources were conducted. A primary survey for value/supply chain analysis of selected bio-resources representing the major ecosystems of the State was done. The economic valuation of bioresources and their contribution to the economy of Kerala was also analysed.

The project covered the following :

- 250 raw drug dealers
- 800 Plant nurseries
- 138 marine landing center
- 4000 fishermen

The total annual value of the bioresources at their origin in Kerala was estimated as ₹ 66,883.11 crore.

This indicates the magnitude of the contribution of biodiversity in the State. Besides, the State's biodiversity/ecosystems also provide several non-marketed services. The export, import and balance of trade of bioresources and bioresources-based products of Kerala through its major seaports were also documented. The balance of trade of ₹. 17,347 crore indicated the richness of Kerala's bio-wealth. The analysis carried out in the report with respect to bioresources collection (quantity and value) at its origin, its commercial utilisation (manufacturing) with supply chain / value addition, trade, and the overall ABS potential highlights the importance as well as the need for conservation of the biodiversity / bio-wealth of Kerala and its sustainable utilisation.

### **6.3 Asian water bird census**

KSBB staff and Technical Support Group members participated in the online training conducted by National Biodiversity Authority held on 21<sup>st</sup> & 25<sup>th</sup> of January 2022, in connection with Asian water census (AWC). In addition, an orientation session to bird watching and identification of water birds for all the stakeholders was conducted by State Co-ordinator, Asian Water Bird Census and bird watchers. Four wetlands- Kattukonam, Vattappaythara, Arunnoorupadam, Nalupadam were surveyed as part of this. A survey team of 24 members, grouped into four was involved in the study. Besides bird watchers, teachers and students from TKM College, Nangyarkulangara also participated. Bird watchers from Alappuzha Natural History Society, BMC Members and volunteer students participated.

During the census, Painted storks, Woolly necked storks, White Ibis, Purple herons, Jacanas were the major groups noted.

### **6.4 Access and Benefit Sharing**

Access and Benefit sharing envisages sharing the benefits accrued from commercial utilisation of bioresource with the local community conserving these resources. As mandated by the Biological Diversity Act 2002 any foreign entities accessing bioresources from India must obtain approval from National Biodiversity Authority (NBA). The benefits accrued shall be shared with the Biodiversity Management Committees (BMC). NBA had transferred the benefits accrued from access to bioresources from Kerala so received to Kerala State Biodiversity Board, and KSBB, in turn, had invited project proposals from BMCs. The funds so received were shared with selected BMCs, and various conservation projects were initiated. A certificate of recognition was awarded to the selected BMCs, and a video of the activities undertaken at the local level was released during the function held in association with the Biodiversity Award distribution. The list of projects funded is given in Annexure I

- During the reporting period, three consultation forms in Form I was received from NBA and approval given

### **6.5 Biodiversity education programs: Internships**

- A total of 20 students from Department of Environmental Sciences, All Saints College, Trivandrum completed their internships at KSBB on various topics relating to flora and fauna
- A total of 10 students from CSI Law college completed their internship on topics relating to Environmental and Biodiversity legislations
- A minor project on Bio-resources of Kerala: A study on Short Neck Clam fishery, at Ashtamudi Lake was done by a student from TERI School of Advanced Studies, New Delhi
- A study on the Impact of climate change on Biodiversity of Western ghats was done by two internship students St. Johns College, Kollam

## 6.6 Major Conferences held

1. A four days conference on 'Bio – resources and Commercial Utilization-Prospects, Supply chain and Sustainability' was held from 27.09.2021 to 30. 09.2021. The prime objective of the conference was to collect data on commercial utilisation of bioresources, recent innovations, trends, future potential as well as practical challenges encountered and solutions adopted for the sustainable utilisation of bioresources in Kerala. The conference was inaugurated by Dr.V.Venu IAS, Additional Chief Secretary, Department of Environment Govt. of Kerala, and Dr. V. B. Mathur, Chairman, National Biodiversity Authority, delivered the keynote address. Scientists and researchers presented papers on the potential utilisation of bioresources and production of value added products for food, nutraceuticals, plant-based extracts, healthcare, biofuel and environmental protection. The following were the major sub-themes :

1. Agricultural bioresources
2. Medicinal plants
3. Aquatic resources
4. Biological waste management.

2. Carbon Neutral Panchayaths

In recent years, climate change has caused frequent occurrences of extreme climatic events, including floods and drought, leading to the loss of people's lives and livelihoods, all with significant impact on the economy of Kerala. As Environment watch groups BMCs have a pivotal role in promoting sustainable development at the local level. A consultative workshop with the focal theme 'Carbon neutral panchayat' was conducted to develop guidelines for BMCs for Low carbon development on 22/12/2021. A guideline for BMC for conducting baseline assessment is being prepared, and KSBB will technically support interested BMCs. Experts in the field attended the workshop.



## 6.7 Legal issues

- Six court cases relating to ABS are pending in the High Court of Kerala. The petitioners are industries commercially utilising bioresources. The petition is given in response to the order sent by KSBB directing all companies commercially utilising bio-resources to comply with provisions of Section 7 of Biological Diversity Act 2002 and Rule 16 of Kerala Biological Diversity Rules 2008.
- KSBB is a respondent in W.P (C) No. 21048 of 2020 regarding encroachments and illegal construction at the Asramam Biodiversity Heritage Site.
- Report filed in connection with WP (C) No 27162 of 2021 regarding the conservation of sacred groves filed by Kerala Sarpakavu samrakshana samithi
- During the reporting period, two cases were heard in National Green Tribunal. One of which was

alleging that the first respondent Kunnathunad Grama Panchayath is, attempting to destroy the patch of forest coupled with a sacred pond with its presiding deity “Nagaraja”, known locally as KuruvichiraNagaraja Temple in Ernakulam District. The case was disposed off.

- In the cases filed in National Green Tribunal regarding the widening and removing obstructions in the Meenchil river, KSBB officials conducted a site visit and submitted a report.
- KSBB submitted report on the NGT case O.A. No. 15/2020- River bank protection and Restoration of Biodiversity along Bharathapuzha
- KSBB had submitted report on the Writ Petition filed by Sri. Lal Kurian before the Central Empowered Committee, New Delhi
- The Government of India had constituted a Joint Parliamentary Committee on the Biological Diversity (Amendment) Bill, 2021. The KSBB chairman had attended the committee on behalf of the Government of Kerala, and submitted a report on the proposed amendments.

#### Annexure I

Sl.No	Districts	LSG	Project
1	Thiruvananthapuram	Amboori	Bio Park-Fruits and medicinal plant garden
2	Thiruvananthapuram	Kallikkad	Medicinal Plant & Fruit Plant Conservation
3	Thiruvananthapuram	Pallichal	Afforestation
4	Thiruvananthapuram	Malayinkeezhu	Biodiversity Park-Unique fruit trees, Butterfly Park, & Aquatic Biodiversity Conservation Project
5	Thiruvananthapuram	Pullampara	Revival of endangered medicinal plants
6	Thiruvananthapuram	Pullampara	Salabhodhyanam
7	Thiruvananthapuram	Pullampara	NadanKizhangu Vila Puanrujeevanam
8	Thiruvananthapuram	Pullampara	Chakkakadu-moozhi river bank protection and greenery
9	Thiruvananthapuram	Chirayinkeezhu	River, Kayal bank protection -
10	Kollam	Kadaikkal	Chennilam Kavu Samrakshanam
11	Ernakulam	Valakom	Conservation of unique fruit trees, destruction of invasive plant species
12	Ernakulam	Chellanam	Documentation of rice varieits
13	Idukki	Arakkulam	Biodiversity Park
14	Thrissur	Vallachira	Weed control in Vallachira - Mannumkuzhi lake & Biodiversity Conservation
15	Palakkad	Mathur	Butterfly Garden
16	Palakkad	SreeKrishnapuram	Fruit Forest Project
17	Wayanad`	Edavaka	Aquatic Biodiversity Conservation Park
18	Kannur	Aanthur Municipality	Aavas Anthur Project
19	Kannur	Ezhome	Documentation of Rice varieties
20	Kannur	Chengalayi	Biodiversity park
21	Kasargod	Trikarippur	Haritha Veedhi- Fruit plants
22	Kasargod	Pullur-Periya	The tributaries of the Chittaripuzha

# 7

## Extension and Training

### Major achievements under Extension Division

- “ENTE THAI” mobile app was made available in the Google play store
- Published KSBB Newsletter from March 2021 onwards
- 13<sup>th</sup> Children’s Biodiversity Congress was conducted
- Celebrated significant days associated with Biodiversity like International Day for Biological Diversity, Environment day, Bird day, World wetland day etc. Online competitions were conducted, and prizes were distributed to the winners.
- Biodiversity Award distribution was conducted.
- RKI – Conservation of Agrodiversity

### 7.1 Commemorative day celebrations

#### 7.1.1 Earth Day

The theme for Earth Day 2021 was ‘*Restore Our Earth*’, which focuses on natural processes, emerging green technologies, and innovative thinking that can restore the world’s ecosystems. KSBB celebrated Earth Day 2021 online with an invited talk by Dr. Anilkumar, Scientist, NCESS, Thiruvananthapuram.

#### 7.1.2 International Day for Biological Diversity

The International Day for Biological Diversity (IBD) is celebrated each year on 22<sup>nd</sup> May, to raise global awareness about the importance of protecting biological resources and the global Biodiversity that shapes our environment. In recent times of pandemics such as the latest COVID-19 (corona virus) outbreak, we must reconsider the protective role that Biodiversity plays in the future of humankind, since its many advantages result in one fundamental benefit: protection from infectious diseases. This year 2021, the international body wanted to shift the focus and fundamentally remind humanity that “We’re part of the solution”, that the answer lies within us, and that, without the commitment of

every single human being, restoring the balance of our ecosystems will always be but a dream.

The biodiversity day 2021 celebrations were held in a virtual mode globally because of the pandemic situations. Kerala State Biodiversity Board celebrated this year’s International Day for Biological Diversity with various people participatory programmes. The event was inaugurated by Dr. V. Venu, Additional Chief secretary (Planning, Higher education and Environment). The event had an online webinar with two sessions, a forenoon session for public & line departments and the afternoon session for the students. The forenoon session started with the lead talk by Dr. Muralee Thummarukudy, Chief, Disaster Risk Reduction, United Nations Environment Programme, based on the topic, “Biodiversity Conservation and Disaster Risk Reduction. In his talk, he opined that ecological imbalance is one of the primary reasons behind the calamities in Kerala. He also reminded us about the importance of awareness creation to the local people living in the disaster-prone areas of Kerala. The technical talk by Prof. E. Kunhikrishnan, Renowned Environmentalist and Retired Professor from University College, Trivandrum, followed it. In his talk, he emphasised



the importance of the Western Ghats and its Biodiversity. He also explained the significant challenges these areas face and the need to conserve them for our future. The third talk was delivered by Dr. T.R. Keerthi, Retired Professor, Department of Biotechnology, MG University, about the importance of Biodiversity with particular reference to marine Biodiversity and its major challenges. The afternoon session for children started with a talk on the role of small creatures in the world of Biodiversity by Mr. Vijayakumar Blathur, renowned famous science writer and observer. The Guest of Honor of the programme was the renowned magician Sri. Gopinath Muthukad. He advised the students about the importance of biodiversity conservation and its role in our daily life.

The official launching of the monthly online quiz competition for students –a new venture of Kerala State Biodiversity Board was done by Sri. K V Govindan KSBB Board member. The monthly online quiz competition is for students of different levels, such as Lower Primary (1<sup>st</sup> to 4<sup>th</sup> Standard), Upper Primary (5<sup>th</sup> to 7<sup>th</sup> Standard), High School (8<sup>th</sup> to 10<sup>th</sup> Standard), Higher Secondary (11<sup>th</sup> to 12<sup>th</sup> Standard), and College level (UG & PG) to create biodiversity awareness among the students. The April edition of KSBB e-Newsletter ‘EKKA’ was released by Dr. K.T. Chandramohanam, KSBB Board member.

### **7.1.3. Children Biodiversity Congress**

KSBB declared the results of the 13<sup>th</sup> Children Biodiversity Congress winners, conducted online under various competitions for senior and junior level students. Competitions were held in Essay writing (Malayalam and English), Poster presentation, Photography, Painting, Project preparation, Pencil drawing and Mobile video making. The winners of each of these competitions were announced by Dr. K. Satheeshkumar, Board member, KSBB. Nearly five hundred public students participated in the online programme.

### **7.1.4. World Environment Day Celebrations**

World Environment Day is the United Nations day for encouraging worldwide awareness and action to protect our environment. The theme for World Environment Day 2021 was ‘Eco-Restoration’. This World Environment Day also kicked off the UN Decade on ‘Ecosystem Restoration’, a global mission to revive billions of hectares in various ecosystems through restoration programmes.

Kerala State Biodiversity Board celebrated World Environment Day 2021 by engaging students and people in diverse activities. An online event to celebrate the day was presided by the Chairman of the Board, Dr. C. George Thomas. The e-newsletter of KSBB for May was released during the event. A mobile app for monitoring plant growth created with the technical support of the National Informatics Centre was released by Shri. K. V. Govindan, KSBB member, during the online programme. The app is an excellent initiative for monitoring tree seedlings from their planting date through all their growth stages. This will be available in Google Play Store and could be utilised by students or others interested in plant growth monitoring.

The online event also provided a platform for sharing the experience of individuals actively involved in biodiversity conservation activities in Kerala. Individuals include Mr. Shaji. N.M, ‘*The tuber man of Kerala*’, Smt. Devaki Amma who made a forest by herself on five acres and Sri. Surendran, ‘*A mangrove conservationist*’ based in Thalassery. The students across Kerala participated in the event and actively discussed the opportunities and constraints in biodiversity conservation activities. The event also witnessed presentations of the winners of various programmes conducted as part of the Children’s Biodiversity Congress.

### 7.1.5. World Oceans Day

The United Nations celebrates World Oceans Day every year on 8<sup>th</sup> June to celebrate human kind's benefits from the oceans and create awareness of the individual and collective responsibility to use its resources sustainably. The focus for World Oceans Day 2021 was "The Ocean: Life and Livelihoods," as well as a statement of intentions to meet the Sustainable Development Goal 14, "Conserve and sustainably use the oceans, seas, and marine resources," by 2030. The latest UNESCO report, published in April 2021, shows that, without this protection, the ocean's crucial role in climate control might, in the future, be diminished.

KSBB organised a scientific talk on 'Ocean literacy Community participation' by Aneesha Ani Benedict, KSBB, on the event of World Oceans Day on 8<sup>th</sup> June 2021 to create awareness on the importance of Ocean biodiversity.

### 7.1.6. Vigilance Awareness week 2021

Kerala State Biodiversity Board celebrated Vigilance Awareness week from 26<sup>th</sup> Oct 2021 to 1<sup>st</sup> Nov 2021. The theme for the Vigilance Awareness programme was "Independent India @75: Self Reliance with Integrity".

### 7.1.7. National Bird Watching Day Celebration

India's National Bird Day falls on 12<sup>th</sup> November 2021, commemorating the birthday of India's Bird Man Dr. Salim Ali. Kerala State Biodiversity Board joins the celebration of flying colours and supporting hands. In connection with this KSBB organised an online Webinar and Bird Photography Contest named 'Thoovalsarsam' on 12<sup>th</sup> November 2021 and conducted an online quiz (based on birds of India) and a webinar. Dr. Anoop Rajamony, a member of the Travancore Nature History Society and famous Bird Watcher cum Bird Photographer in Kerala with many species reports and photography awards to his name, delivered a speech. The topic was 'Bird Watching & Bird Photography: Window to eternal happiness'. Hundreds of people from all walks of life around the State attended the webinar. Bird Photography Contest was open to all and received 175 entries from bird watchers all over Kerala. A panel of judges assessed the entries, selected First, Second and Third prize winners, and awarded cash prizes and certificates.

Cash prize First Prize: Rs. 10,000/-, Second Prize: Rs. 5000/-, Third Prize: Rs. 3000/- and a certificate was distributed to Winners.

### 7.1.8. Kerala State Biodiversity Conservation Award

The Kerala State Biodiversity Conservation Award distribution ceremony was held on November 25, 2021 at Ayyankali Hall, Palayam, Thiruvananthapuram. On this function Hon'ble Chief Minister of Kerala Shri. Pinarayi Vijayan distributed the awards to the winners.

This award is mainly for the recognition of environmental conservation, biodiversity assessment and awareness programmes.. Total 13 categories were selected for the award as Haritha Vyakthi, Best Custodian Farmer (Plants), Best Custodian Farmer (Animal/Bird), Best Journalist, Naatusasthanjan, Best Biodiversity researcher, Best Biodiversity journalist, visual media, Best Biodiversity Management Committee (BMC), Best Biodiversity Conservation School, Best Biodiversity Conservation College, Best Biodiversity Conservation Institute (Government, Co-operative Sector, Public Sector) and Best Biodiversity Conservation Institute (Private Sector). "***Jaivavaividhya Samrakshana Paripalanam***

*Janangalilude - Sadhyathakalum Niyamavum*” written by Sri. K.V.Govidan , Member KSBB was also released by Hon’ble Chief Minister of Kerala Shri. Pinarayi Vijayan during this occasion



### 7.1.9. World Wetland Day

World Wetland Day was celebrated on 2<sup>nd</sup> February 2022 by conducting online competition on data collection of wetlands in the locality. Cash prizes were distributed to the winners

### 7.2 In House Capacity Building Programme for KSBB

26.04.2021 : Scientific Writing and Reporting - Dr. George Thomas, Chairman

28.04.2021 : RTI Rules and Regulations - Mr. Manoj K, Under Secretary, Forest and Wild life, Govt. Of Kerala

29.04.2021 : Environment related Legislations - Mr. Jacob Joseph, Assistant Professor, NUALS

30.04.2021 : Access and Benefit Sharing - Dr. R.V. Varma, Former Chairman, KSBB

03.05.2021: Introduction of application of GIS in Biodiversity conservation - Mr. Anand Sebastian MR, IRTC

### 7.3 RKI Project - Conservation of Agrodiversity- Field level activities

“Conservation of agrodiversity of flood affected selected eight districts of Kerala in 2020-21” was oriented to meet the Global Biodiversity Framework and National Biodiversity targets, which maintain the genetic diversity of cultivated plants and wild relatives, including domesticated animals, as well as

documentation and conservation. In order to study the agrobiodiversity, 100 custodian farmers (CFs) were selected from each district as the custodians of agrobiodiversity after a rigorous screening procedure (a total of 800 CFs). A total of twenty Municipalities, Ninety five block panchayats, and five hundred and thirty-eight village panchayats in the eight districts of Kerala were covered under the project. Documentation on how agrobiodiversity can help improve the adaptability and resilience of the farming systems managed by rural communities and indigenous peoples world wide will be advantageous for rebuilding Kerala. The details of these farmers were collected and published in the book "A case study of Agrobiodiversity Custodian farmers from Kerala". The Traditional knowledge and agricultural sayings from eight hundred farmers of eight districts of Kerala were collected during the farm school programs conducted by custodian farmers. This information was collected and categorised in a book entitled "*Karshika Jaiva Vaividhya Nattarivuka!*" (Malayalam) - (Traditional knowledge on Agrobiodiversity). There are a total of 160 farm schools in eight districts, with 20 farm schools per districts, The survey identified 10170 varieties/ types of plants from the eight districts under 18 groups. A database of agricultural crop diversity in eight districts of Kerala was developed using an in-house designed GPS enabled Open data kit software. Seed fests were organised in all the eight districts covered under the program exchange of genetic stock, which provided a platform for the CFs and the public to exchange planting materials and breeds of animals and birds among the public. Major outcomes include the development of a database of agricultural crop diversity, sustainable utilisation, and community participation, identifying custodian farmers and farm schools for improvement of awareness and livelihood, developing of policies and publications. Documentation and conservation of agro diversity in our State are essential to fight for our country's food security.



#### 7.4 New App: “Ente Thai”

KSBB has developed a new App "Ente Thai" to monitor the plants' growth as part of various planting projects in our State. "Ente Thai" is developed to monitor plant growth with real-time data and provide system control for effective management. This app is an integrated version of GIS and android application designed for collecting information on planted saplings by taking its periodical growth status, picture and location using mobile devices for uploading data to server through a web based interface for managing and analysing data. The administrators restrict the access of the mobile app through Mobile OTP verification. This mobile app will quickly survey plant distribution and health status within a reasonable time and effort.

#### 7.5 Biodiversity Museum

Kerala Biodiversity Museum is an initiative under the auspices of the Kerala State Biodiversity Board.

The museum's main objective is to create awareness about the importance of Biodiversity and its conservations, to different levels of people and students.

After the lockdown, Museum reopened and started functioning strictly following Covid protocol declared by Government. The pandemic largely affected the museum's number of visitors and working conditions.

### **7.6 Major activities done in the Museum**

Number of students visited during this period – 360

Number of adults visited during this period – 353

#### **Colleges / Institutions visited KSBB Museum**

- SN college Cherthala (10 students)
- B.Ed College Kumarapuram. (42 students)
- Govt. H.S.S Kulathoor, TVM(50Students)
- B.Ed College Venjaramoodu, TVM (43students)
- Mar Ivanios College TVM (56Students)
- LMS LPS , Kakkaravila, TVM (28 Stusents)
- Sreechithra Home, TVM (35 Students)

### **7.7 Expert Committee representation and major meeting attended**

#### **Travel details of the Chairman, Dr. C. George Thomas for the financial year 2021-2022**

- 12.01.2022 - District Level BMC training, Kannur
- 21.01.2022 - Inauguration of planting of seedlings as part of RKI Pampa project at Aranmula.
- 08.02.2022 Sitting of Joint Committee on the Biological Diversity (Amendment ) Bill 2021 at Parliament House Annexe, New Delhi

#### **Travel details of Member Secretary, Reney R Pillai for the period of financial year 2021-2022**

- 10.08.2021 - Human Rights Commission- Protection of Ashtamudi Lake Kollam Guest House Conference Hall
- 16.08.2021- Preparation of Management Plan 2022-2032 - Shenduruny Wildlife Sanctuary Stakeholders Workshop
- 02.09.2021- RKI Pampa Rejuvenation Project Meeting- Pathanamthitta

### **7.8 Publications during the year**

1. Bio – resources and Commercial Utilization-Prospects, Supply chain and Sustainability, ISBN: 978-93-5620-348-8, George C Thomas and Preetha, Kerala State Biodiversity Board February 2022
2. Status of Plant Bioresources utilised in Herbal Industries and the need for conservation in Kerala 2022 Shahnas Kariampilly Faizal, Reshnu Raj Rajan Sheela and Preetha Nilayangode International Journal of Conservation Science Volume 13, Issue 1, January-March 2022: 267-278
3. Karshika Jaivavaividhya Padasala - Pariseelana Sahayi, Kerala State Biodiversity Board
4. Jaivavaividhya Samrakshana Paripalanam Janangalilude - Sadhyathakalum Niyamavum, Sri. K.V.Govidan, Kerala State Biodiversity Board

5. Jaivavaividhyathile Akakazhchakal - Rogaprathirodhanira Sajjamakkan Vanya Bhakshya Sasyangal, Kerala State Biodiversity Board

### 7.9 Details of sales made during year (2021-22)

Sl. No	Name of Publication	Total numbers sold during April 2021 to March 2022
1	Common Trees Of Kerala	07
2	Keralathile Oushada Sasya Vaividhyam	04
3	Kerala Theerathe Kadaljeevikal	10
4	Keralathile Chitrashalabangal	09
5	Jaiva Krishi Oru Prayogika Paadam	03
6	Invasive Plants Of Kerala	25
7	Keralathile SudhaJala Maltsyangal	07
8	Common Amphibians Of Kerala	10
9	Mushrooms of Kerala	05
10	Mangroves& Mangrove Associates Of Kerala	07
11	Marine Gastropods Of Kerala	07
12	PrakrithiGeetangal	54
13	Paristhithi Vidijnhanavum Jaivavaividhya Naattarivum	55
14	Feathers Of Vellayani	06
15	Biodiversity Richness of Kerala	54
16	Snakes of Kerala	08
17	Caecilian Diversity of Kerala	04
18	Vrikshayurveda	26
19	Flying Colours of Vembanad	02
20	Jaiva Vaividhya Samrakshena Paripalanam Jenangaliloode (Sadyathakalum Niyamavum)	3609

Total KSBB publications sold from April 2021 to March 2022 from KSBB Library for an amount of Rs. 3,89,705/- (Three Lakh Eighty Nine Thousand Seven Hundred and Five only/-)

### 7.10 The Books Printed for KSBB during 2021 April to 2022 March

1. Java Vaividya Samrekshena Paripalanam (Sadyathakalum Niyamavum) Priced Publication. Rs 90/- (5000 nos)
2. Jaivavaividya Padashala Parisheelena Sahayi (Booklet) (5000 nos)
3. Annual Report 2019-2020 (Malayalam) (300 nos)
4. Annual Report 2019-2020 (English) (100 nos)
5. *Wild Edible Plants* (Immuno Boosting) Jaivavaividyaathile Akakazhchakal Roga Prathiroda Nira Sajjamakkan Vanya Oushada Sasyangal (Insight Into Biodiversity) Booklet (500 nos)
6. *Wild Medicinal Plants* (Immuno Boosting) Jaivavaividyaathile Akakazhchakal Roga Prathiroda Nira Sajjamakkan Vanya Oushada Sasyangal (Insight Into Biodiversity) Booklet (500 nos)

### 7.11 Distributed Booklets & Brochures in different events during 2021 April to 2022 March

Sl.No.	Title	Distributed Quantity
01	“Jaivavaividya Padashala Parisheelena Sahayi” Malayalam (Booklet)	4500 nos in 8 districts as part of training and awareness programme
02	Experiences of Decentralised Biodiversity Management – Kerala (Book)	480 nos distributed to NBA, State Biodiversity Boards, Govt Firms Related with Biodiversity
03	Jaivavaividya Prapthikulla Nyantranangal (Malayalam Brochure)	250 nos in RKI Training & major events
04	Book on Oushda Sugandha Sasyangal, Thadi Ithara Vana Vibhavangal, Susthira Shekaranam (Margarekha) Malayalam (Booklet)	350 nos in 4 districts as part of training
05	Theeradesha Nyantranangal / Kadal jaivavaividyaathinte Kalavara (Malayalam Brochure)	250 nos in RKI Training & major events
06	Karshika jaivavaividya Samrekshenam (Malayalam Brochure)	250 nos in RKI Training & major events
07	Key Achievements 2016 to 2010 (Booklet)	200 nos in major events
08	Kerala State Biodiversity Board (Booklet Brochure)	250 nos in RKI Training & major events
09	Thannerthadangal (Malayalam Brochure)	250 nos in RKI Training & major events
10	Jaivavaividyam Mukyadharayilekku (Booklet Brochure)	150 nos in RKI Training & major events
11	Kerala Biodiversity Museum (Booklet Brochure)	500 nos in RKI Training, Museum, major events

**Implementation of Right to Information Act**  
**Officers In- charge**

<b>Name &amp; Designation of Officer (s)</b>	<b>Designated post</b>
<b>Dr. C. George Thomas</b> Chairman	Appellate Authority
<b>Smt. Reney.R.Pillai</b> Member Secretary From 09-12-2020 – 08-12-2021 <b>Smt. Mini V.</b> Member Secretary (in-charge) From 09-12-2021 continuing	State Public Information Officer
<b>Dr. Sudheesh. N</b> Scientific Officer	State Assistant Public Information Officer

**SUO MOTO DISCLOSURE UNDER SECTION 4(1) (b)**  
**Reporting Year: 2021-22**

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	NIL	NIL	NIL

**DESIGNATION OF PUBLIC INFORMATION OFFICERS/ APPELLATE AUTHORITIES**  
**Reporting Year: 2021-22**

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: 2021-22

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	Nil	15	15	15	NIL	NIL	0%

## INFORMATION REQUESTS REJECTED BY PUBLIC INFORMATION OFFICERS

Reporting Year: 2021-22

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: 2021-22

Name of the Department	No. of first appeals pending with appellate authorities on 1.4.2019	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	2	2	2	NIL	0	NIL

## PENALTIES IMPOSED & COLLECTED

Reporting Year: 2021-22

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: 2021-22**

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: 2021-22**

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	150	190	NIL	NIL	340

**Kerala State Biodiversity Board**

(A Government of Kerala Undertaking)  
Kowdiar Thiruvananthapuram Kerala  
Statement of Affairs as at 31/03/2022

	Note	As at 31 Mar 2022	Amount in Rs. 2021
<b>I Source of Funds</b>			<b>1,40,51,389</b>
<b>1 Own Funds</b>		<b>99,48,415</b>	
Capital Reserve	1	91	83
Surplus	2	-7,73,245	24,70,675
<b>2 Current liabilities</b>		<b>1,07,21,569</b>	<b>1,15,80,630</b>
Government Grant balances	3	31,33,750	-22,86,060
Funded Projects	4	72,47,464	1,23,97,697
Other current liabilities	5	3,40,355	14,68,993
<b>II Application of Funds</b>		<b>99,48,415</b>	<b>1,40,51,389</b>
<b>1 Long Term Assets</b>		<b>37,091</b>	<b>37,083</b>
Fixed Assets		91	83
Tangible Assets	6	91	83
Long Term Loans and Advances	7	37,000	37,000
Deposits		37,000	37,000
<b>2 Current Assets</b>		<b>99,11,324</b>	<b>1,40,14,306</b>
Cash and cash equivalents	8	98,96,324	1,37,69,665
Short-term loans and advances	9	15,000	2,44,641

The accompanying Notes form an integral part of these Financial Statements

For and on behalf of the Board

 Chairman  
 Member Secretary  
 Finance Officer

Auditor's Report

As per our Report of even date



For JVS & ASSOCIATES  
Chartered Accountants  
ARN 0116736  
  
R. VIJAYARAJUMAR, FCA  
M.NO. 217216  
Partner

Thiruvananthapuram

23.01.2023

**Kerala State Biodiversity Board**

(A Government of Kerala Undertaking)  
Kowdiar Thiruvananthapuram Kerala  
Income and Expenditure Account for the year ended 31/03/2022

	Note	for the year ended 31 Mar 2022	Amount in Rs. 2021
<b>I Income</b>		<b>82,23,798</b>	<b>1,04,27,667</b>
<b>1 Grant from Govt</b>			
GoK 2406-02-110-59-31 (NP) Salary		64,94,697	1,02,33,332
GoK 2406-02-110-59-36 (NP) Non Salary		13,00,000	-
<b>2 Other Income</b>	10	<b>2,52,040</b>	<b>1,64,945</b>
<b>3 Nominal value of grant funded assets</b>			
4 Interest Received		1,77,061	29,390
<b>II Expenditure</b>		<b>1,14,67,718</b>	<b>98,55,453</b>
Employee Expenses	11	1,20,00,824	77,40,389
Repairs and Maintenance, Upkeep	12	1,15,840	2,48,413
Utilities	13	1,15,899	8,82,830
Other Expenses	14	3,87,076	9,66,801
Finance Costs	15	920	1,792
Depreciation		-	-
Exceptional Items	16	-11,52,840	15,228
Extraordinary Items			
<b>III Surplus/ Deficit</b>		<b>-32,43,920</b>	<b>5,72,214</b>
<b>IV Allocation</b>			
Transfer to Accumulated surplus/deficit		-32,43,920	5,72,214
		-32,43,920	5,72,214

The accompanying Notes form an integral part of these Financial Statements

The accompanying Notes form an integral part of these Financial Statements

For and on behalf of the Board

 Chairman  
 Member Secretary  
 Finance Officer

Auditor's Report

As per our Report of even date



For JVS & ASSOCIATES  
Chartered Accountants  
ARN 0116736  
  
R. VIJAYARAJUMAR, FCA  
M.NO. 217216  
Partner

Thiruvananthapuram

23.01.2023

### Kerala State Biodiversity Board

Kowdiar Thiruvananthapuram, Kerala  
Annexures to Accounts for the year ended 31/03/2022  
Annexure 1 - Grant Accounts

	As at		Receipt		Transfer			Payment			As at	
	01-04-2021	Grants	Reallotted Resumed fund	Total	Trf 0 balance	Trf (InterHead)	Utilized Revenue	Utilized Assets	Payment unutilized grant refunded	Total	31-03-2022	
1 Gok 3435-03-101-99 (Plan)	-22,86,060	7,22,48,348	1,31,86,730	8,54,35,078	-	-77,94,697	-5,85,90,116	-3,15,651	-1,33,14,804	-7,22,20,571	31,33,750	
prior balances	-1,48,89,601	2,90,00,000	-	2,90,00,000	-	-	-2,59,70,099	-3,15,651	-10,00,000	-2,72,85,750	-1,31,75,351	
unidentified project balance	4,15,495	-	-	-	-	-	-	-	-	-	4,15,495	
Agrobiodiversity conservation	2,55,355	-	-	-	-	-	-	-	-	-	2,55,355	
Coastline conservation	9,305	-	-	-	-	-	-	-	-	-	9,305	
unidentified credits	65,600	-	-	-	-	-	-	-	-	-	65,600	
19-03-2015	14,300	-	-	-	-	-	-	-	-	-	14,300	
25-03-2015	7,162	-	-	-	-	-	-	-	-	-	7,162	
15-06-2015	36,025	-	-	-	-	-	-	-	-	-	36,025	
interest accrued	27,748	-	-	-	-	-	-	-	-	-	27,748	
Gok Plan 2018 - 2019	5,81,52,000	-	-	-	-4,36,79,175	-	-	-1,59,51,522	-	-14,78,697	-14,78,697	
Gok Plan 2019 - 2020	3,08,10,000	-	-	-	-3,21,81,496	-	-	-59,76,630	-	-74,48,126	-74,48,126	
Gok Plan 2020 - 2021	5,00,00,000	-	-	-	-3,36,60,098	-	-	-2,38,18,175	-	-74,78,273	-74,78,273	
Gok Plan 2021-2022	-	2,90,00,000	-	2,90,00,000	-	-	-2,59,70,099	-3,15,651	-	-2,62,85,750	27,14,250	
expenditure of earlier years resumed by government	-10,95,20,769	-	-	-	10,95,20,769	-	-	-	-	-	-	
2 State Biodiversity Fund	-4,47,46,327	-	1,16,79,369	1,16,79,369	-	-	-2,02,600	-	-1,12,12,952	4,47,46,327	70,69,010	
2011 - 2012 to 2013 - 2014	68,05,193	-	-	-	-	-	-	-	-	-	3,10,300	
2014 - 2015	3,10,300	-	-	-	-	-	-	-	-	-	5,01,188	
2015-2016	5,01,188	-	-	-	-	-	-	-	-	-	5,04,265	
2016-2017	5,04,265	-	-	-	-	-	-	-	-	-	4,83,558	
2017-2018	5,88,558	-	-	-	-1,05,000	-	-	-	-	-	3,61,258	
2018 - 2019	3,61,258	-	-	-	15,000	-	-2,02,600.00	-	-	-14,89,606	-14,89,606	
2019-2020	-13,02,006	-	-	-	-	-	-	-	-	-	-45,000	
2020-2021	-45,000	-	-	-	90,000	-	-	-	-	-	-	
Resumed by Government	59,76,630	-	1,16,79,369	1,16,79,369	-	-	-	-	-1,12,12,952	-1,12,12,952	64,43,047	
3 Gok 2406-02-110-59-31 (NP) Salary	-	72,00,000	-	72,00,000	-	-64,94,697	-	-	-7,05,303	-7,05,303	-	
Trf to I&E Account	-	72,00,000	-	72,00,000	-	-64,94,697	-	-	-7,05,303	-7,05,303	-	
4 Gok 2406-02-110-59-36 (NP) Non Salary	-	13,00,000	-	13,00,000	-	-13,00,000	-	-	-	-	-	
Trf to I&E Account	-	13,00,000	-	13,00,000	-	-13,00,000	-	-	-	-	-	
5 Resumed by Government (NP)	-	-	15,07,361	15,07,361	-	-	-	-	-3,96,549	-3,96,549	11,10,812	
Resumed by Government - Gok Non Plan	-	-	15,07,361	15,07,361	-	-	-3,24,17,417	-	-3,96,549	-3,96,549	11,10,812	
6 RKI Scheme	57,96,348	3,47,48,348	-	3,47,48,348	-	-	-3,24,17,417	-	-	-3,24,17,417	81,29,279	
RKI 2020 Scheme - H/A 5475-00-115-94	57,96,348	3,47,48,348	-	3,47,48,348	-	-	-3,24,17,417	-	-	-3,24,17,417	81,29,279	



## Kerala State Biodiversity Board

Kovvilar Thiruvananthapuram, Kerala

Annexure to Accounts for the year ended 31/03/2022

Annexure 2 - Funded Projects

	As at		Receipt		Payment		As at	
	01-04-2021	Funds received	Interest	Refund IN	Utilised	Total	31-03-2022	
<b>1 DoECC</b>	1,23,97,697	44,28,480	47,217	63,804	45,39,501	96,89,734	72,47,464	
Canal Works 2015 - 2016	27,20,000	-	-	-	-	-	27,20,000	
Gramavnam 2013 - 2014	25,00,000	-	-	-	-	-	25,00,000	
	2,20,000	-	-	-	-	-	2,20,000	
<b>2 UNDP</b>	7,66,057	8,78,480	29,720	-	9,08,200	7,87,668	8,86,589	
GEF Munnar Landscape Project 2014 - 2015	-18,307	-	-	-	-	-	-71,107	
GEF Munnar Landscape Project 2015 - 2016	2,23,952	-	-	-	52,800	52,800	2,23,952	
GEF Munnar Landscape Project 2018 - 2019	-4,04,405	-	-	-	-	-	-4,10,863	
GEF Munnar Landscape Project 2019 - 2020	7,99,920	-	-	-	6,458	6,458	-4,10,863	
Updating State Biodiversity Strategies & Action Plan 2020-2021	-	8,78,480	-	-	-	-	7,99,920	
Interest Received	1,64,897	-	29,720	-	8,78,480	7,28,410	1,50,070	
	87,14,694	35,50,000	17,497	63,804	36,31,301	88,23,162	1,94,617	
<b>3 National Biodiversity Authority (NBA)</b>	-	-	-	-	-	-	35,22,833	
Component Training Material and Printing (14 - 15)	-	-	-	-	-	-	-	
Developing and Revamping of Website (14-15)	-250	-	-	-	-	-	-250	
Peer to Peer Learning (14-15)	14,04,919	-	-	-	-	-	14,04,919	
Plan Fund From NBA	-	-	-	-	-	-	-	
Thematic Expert Committee (14-15)	4,242	-	-	-	-	-	4,242	
Printing of BMC Reports (14-15)	77,52,666	-	63,804	63,804	77,01,769	77,01,769	1,14,701	
Benefit Sharing Component to Concerned BMC	6,10,119	10,00,000	-	-	10,00,000	61,398	61,398	15,48,721
NBA - Capacity Building	-11,49,600	-	-	-	-	-	-11,49,600	
NBA Fund (COP 11 engagement) 2018-19	66,393	-	-	-	-	-	-	
NBA Fund (COP 11 engagement)-2019-20	-	-	-	-	9,049	9,049	57,344	
NBA Fund (COP 11 engagement)-2020-21	13,50,000	-	-	-	13,50,000	8,50,946	4,99,054	
NBA Fund (COP 11 engagement)-2021-22	10,00,000	-	-	-	10,00,000	-	10,00,000	
NBA -Updatuon Quality Improvement of PBR	3,511	-	-	-	-	-	3,511	
International Biodiversity Day	-	-	-	-	-	-	-	
International Biodiversity Day 2021	2,00,000	-	-	-	2,00,000	2,00,000	-	
Biodiversity Award	-18,000	-	-	-	-	-	-18,000	
State level workshop on biodiversity action plan	-73,894	-	-	-	-	-	-73,894	
Interest received	1,14,588	-	17,497	17,497	17,497	-	1,32,085	
<b>4 Coastal Ecosystem Conservation 2011 - 2012</b>	43,215	-	-	-	-	-	43,215	
<b>5 Plan Fund EMA</b>	31,907	-	-	-	-	-	31,907	
<b>6 MoEF</b>	23,631	-	-	-	-	-	23,631	
WGEEP	23,631	-	-	-	-	-	23,631	
<b>7 National Medicinal Plants Board (NMPB)</b>	1,81,143	-	-	-	78,904	78,904	1,02,239	
NMPB 2014 - 2015	-9,05,343	-	-	-	0	0	-9,05,343	
NMPB 2018 - 2019	-40,244	-	-	-	78,904	78,904	-1,19,148	
Resource Augmentation, Sustainable Harvesting and Value addition of medicinal plant resources through BMC	11,26,730	-	-	-	-	-	11,26,730	
<b>8 National Centre for Sustainable Coastal Mfr (NCSCM)</b>	-	-	-	-	-	-	-	
Preparation of DPR for Conservation of Sacred Grove	-82,950	-	-	-	-	-	-82,950	
<b>9 PCC 2020-21</b>	-82,950	-	-	-	-	-	-82,950	
Project Coordination Cell	-	-	-	-	-	-	-	







**Kerala State Biodiversity Board**