



KERALA STATE BIODIVERSITY BOARD

EKAA

Environment. Kerala. Awareness. Action
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PBR CAMPAIGN

16th CBC

NBA VISIT

COP 28

NBA Chairperson visited the proposed BHS site and Kadalundi BMC in Kozhikode

The Honourable Chairman of National Biodiversity Authority (NBA), Sri. Achalender Reddy (IFS) Rtd. visited the Calicut University Herbarium repository and Botanic garden and later the Kadalundy Gramapanchayath BMC in the Kozhikode district on 9th December 2023. The Kerala State Biodiversity Board and the Dept. of Botany at Calicut University jointly facilitated his official visit in the district. KSBB Member Secretary Dr. V. Balakrishnan, Principal Scientific Officer Dr. C.S Vimal Kumar, and the Kozhikode district co-ordinator Dr. K.P. Manju were associated with the Chairman during his visits to the sites. On the 9th morning, the Honourable Chairman visited the Botanical Garden at the University Campus, which was the proposed Biodiversity Heritage Site. He was highly impressed with the diversity of floral species in the botanical garden. Later on, the Chairman- NBA visited the herbarium repository at the Botany

department, followed by a meeting with the Pro-Vice Chancellor of Calicut University Dr. M. Nasser, and other officials of the University. There was also an interactive session of the chairman with the UG and PG students of the Botany department chaired by the pro-vice chancellor in the presence of the HoD of Botany and the Member Secretary of KSBB.

Later, the NBA chairman visited Kadalundy BMC and had an interaction with BMC members. The program was presided over by the Kadalundy BMC president Smt. Anusha. V. The Chairman, the NBA officially inaugurated the launch of the 'Marine Biodiversity Register' programme of the BMC. NBA chairperson appreciated Kadalundy BMC for accomplishing the second volume of the state's first PBR. The Chairman whole heartedly extended his full support on behalf of NBA towards the conservation and management activities of the BMC



District level 16th Children's Biodiversity Congress (CBC)

For the last fifteen years, Kerala State Biodiversity Board has been organizing the Children's Biodiversity Congress in association with the General education department. Biodiversity awareness generation among students is the aim of the Children's Biodiversity Congress. This year, as part of the 16th children's Biodiversity Congress, Kerala State Biodiversity Board has organized district-level competitions for school students in all the districts. 'Biodiversity conservation and sustainable development: Role of students' is the theme of the 16th children's Biodiversity Congress. As part of district-level children's biodiversity congress, Project presentation, pencil drawing, essay writing, and painting competitions were conducted for junior and senior students in all districts. Approximately 2000 students across the state actively participated in the district-level events. Certificate of merits and KSBB publications were awarded to the prize winners of district-level competitions. State-level winners will be selected from district-level winners after the next round of evaluation.



Inauguration of 16th Children's Biodiversity Congress at Thiruvananthapuram District

Glimpses of district level CBC



Kasaragod



Pathanamthitta



Alappuzha



Kottayam



Ernakulam



Idukki



Kannur



Kollam



Malappuram



Kozhikode

2nd volume of People Biodiversity Registers (PBRs): District-level trainings completed

KSBB has successfully organized and completed the district-level training programs for various BMCs on the preparation of the 2nd volume of People Biodiversity Registers (PBRs) in the Financial Year 2023-24. The training programs are intended for the BMCs who have included PBR 2nd volume preparation in their plan projects during this financial year. The 2nd volume preparation of PBR involved the identification of data gaps in the existing PBR by a team of experts, training volunteers for data collection, field-level data collection, and incorporation of new data to the 2nd volume. KSBB has conducted the training programs in all 14 districts of Kerala, in collaboration with the District Planning Offices of all districts. 350 BMCs of the state are currently progressing with the preparations of 2nd volume of PBR.



Inauguration of PBR updation training at Pathanamthitta District

Online training for Biodiversity clubs

KSBB has organized three online training sessions for registered biodiversity clubs, from October to December 2023. 'The role of Sensory and healing gardens for biodiversity conservation', 'Birds-The winged beauties around us' and 'Sacred Grove Conservation' were the subjects for the training, in which the sessions were carried out by Prof. Bindu R. Nair (Dept. of Botany, University of Kerala), Mr. Anoop S.S. (Nature photographer and Teacher) and Dr. M. Rajendraprasad (Principal scientist, JNTBGRI Palode) respectively. Prof. Bindu specified the need to promote innovative ideas such as sensory, healing, and digital gardens for the sake of biodiversity conservation. Mr. Anoop focused on the significance of local and migratory birds in Kerala and described the principles of Bird watching. Dr. Rajendraprasad reminded the audience about the status of endemism existing in sacred groves of Kerala and various strategies for the insitu conservation of biodiversity. Around 600 teacher coordinators of biodiversity clubs across the state actively participated in the sessions.

'Shalabha Vidyalayagal' of Mattannur Municipality BMC, Kannur District

The pollinators play a pivotal role in the existing biodiversity of the earth. For the conservation and awareness creation about pollinators, the Mattannur Municipality BMC initiated a project named 'Salabha Vidyalayagal'. The project comprises establishing butterfly parks in all the schools coming under the municipality. Butterfly-attracting host plants will be planted in all the sites based on the availability of land. The monitoring and management of the garden will be done by a team of the school communities and the



ward councilors. According to the BMC persons, the butterfly park will provide a great chance for the students to observe the butterflies closely and thus get practical knowledge about their life cycle and host plants.

Pampa Riverine Biodiversity Rejuvenation Project

Pampa Riverine Biodiversity Rejuvenation Project: Biodiversity Gardens inaugurated

The "Pampa Riverine Biodiversity rejuvenation" is one of the major projects of the Kerala State Biodiversity Board as part of the Rebuild Kerala Initiative Scheme of the Government of Kerala. The project aims to rejuvenate the biodiversity of the Pampa Riverine area, which was affected by the flood, in 2018. The flood impact assessment studies of Kerala State Biodiversity Board with the support of Biodiversity Management Committees (BMCs) and various Institutions reported that the Riverine biodiversity of the Pampa was destroyed and the river Pampa is one of the major rivers, mostly affected by the 2018 flood. Following this study, the project is implemented through the Biodiversity Management Committees in 14 Pampa Riverine Grama Panchayats coming under Ranni, Elanthoor, Koipuram and Pandalam Block Panchayats of Pathanamthitta District. The riverine Biodiversity rejuvenation, Homestead Biodiversity enhancement, Livelihood enhancement, Plant nursery development, Tributary rejuvenation, Inland Fish diversity enhancement, Biodiversity Gardens in Schools, and eradication of invasive species are the major components of the project.

The Biodiversity gardens are *ex-situ* conservation in schools and public spaces to enhance the Biodiversity richness and awareness among the students and public. There are ten biodiversity gardens sanctioned as part of the Pampa project. This biodiversity garden creates an ecosystem for birds, butterflies, ants, honey bees, other insects, microbes, etc through the selective planting of various plant species. Medicinal plants, fruit-bearing plants, Butterfly host plants, climbers, Bamboo varieties, indigenous trees, ornamental plants, etc were planted and labeled scientifically. The metal structured hoods with climbers and seating arrangements are one of the attractions of the garden. In addition, the walking pathways, watering facilities, etc are arranged in the Gardens.

Biodiversity Garden at Govt. LPS, Thalachira

The biodiversity garden at Govt. Thalachira of Vadasserikkara Grama Panchayath is inaugurated by Smt. Latha Mohan, Grama Panchayath President on 12th October 2023. The program was presided over by Sri. K.V. Govindan, Member, KSBB and Smt. Komalam Anirudhan, the Block Panchayath Member released the Brochure. Ward members, BMC members, the KSBB District Coordinator, the Headmaster, students, teachers, parents, and the public participated in the program.



Biodiversity Garden at SCHSS, Ranni

The biodiversity garden at SCHSS, Ranni of Ranni Pazhavangadi Grama Panchayath is inaugurated by Smt. Anitha Anilkumar, Grama Panchayath President on 12th October 2023. Dr. K T Chandra Mohan, Member, KSBB presided over the program and Dr. K Satheesh Kumar, Member, KSBB released the brochure and delivered the Key talk. Rev. Johnson Varughese, the school manager is the chief guest of the program, and Ward members, BMC members, the Principal, students, teachers, parents, and the public participated in the program.



Biodiversity Garden at PCHS, Pulloopram, Ranni

The biodiversity garden at PCHS, Pulloopram, Ranni of Ranni Angadi Grama Panchayath is inaugurated by Adv. Bindhu Reji, Grama Panchayath President on 12th October 2023. Dr. K. Satheesh Kumar, Member, KSBB presided over the meeting and Dr. K.T Chandra Mohan, Member, KSBB released the brochure and delivered the Key talk. Grama Panchayath Vice President, Standing committee chairpersons, Ward members, BMC members, headmaster, students, parents, and public participated in the program.



Biodiversity Garden at Kozhencherry

The biodiversity garden Kozhencherry (Near Thanungattil Bridge) of Kozhencherry Grama Panchayath was inaugurated by Sri. Roy Philip, Grama Panchayath President on 24th November 2023. Sri. K.V Govindan, Member, KSBB presided over the program, Smt. G Indira Devi, Block Panchayath President released the brochure and Dr. V Balakrishnan, Member Secretary, KSBB delivered the Key talk. Grama Panchayath Vice President, Standing committee chairpersons, Ward members, BMC members, KSBB District Coordinator, PTA President, and the public, participated in the program.



Biodiversity Garden at Govt. LPS, Kunnam

The biodiversity garden at Govt. LPS, Kunnam of Vechoochira Grama Panchayath is inaugurated by Sri. T. K. James, Grama Panchayath President on 7th December 2023. The program is presided over by Smt. Rema Devi, Standing Committee Chairperson, and Sri. EV Varki, Standing committee Chairperson released the brochure. The Ward members, BMC members, KSBB District Coordinator, Headmistress, PTA President, students, parents, and public participated in the program.

Biodiversity Garden at Govt.HSS, Edamury

The biodiversity garden at Govt. HSS Edamury of Naranamoozhy Grama Panchayath was inaugurated by Sri. K.V Govindan, Member, KSBB on 24th November 2023, and the program is presided over by Smt. Sonia Manoj, Grama Panchayath President. The Brochure released by Smt. Jessy Alex, District Panchayath Member, and the Key talk delivered by Dr. V Balakrishnan, Member Secretary, KSBB. The Standing committee chairpersons, Ward members, BMC members, KSBB District Coordinator, Principal, Headmistress, students, parents, and the public participated in the program.



Biodiversity Garden at MTHS, Mathappara

The biodiversity garden at MTHS, Mathappara of Ayiroor Grama Panchayath is inaugurated by Sri. K.V Govindan, Member, KSBB on 24th November 2023, and the program is presided over by Smt. Ambili Prabhakaran Nair, Grama Panchayath President. Dr. V Balakrishnan, Member Secretary, KSBB released the brochure and delivered the Key talk. School Manager Sri. Simon Abraham was the chief guest of the program. The Standing committee chairpersons, Ward members, BMC members, KSBB District Coordinator, Headmaster, students, parents, and the public participated in the program



Biodiversity Garden at GUPS, Cherukol

The biodiversity garden at GUPS Cherukol of Cherukol Grama Panchayath is inaugurated by Sri. K R Santhosh, Grama Panchayath President on 5th December 2023 in the presence of the chief guest of the program Smt. G Indira Devi, President, Elanthoor Block Panchayat. The program is presided over by Smt. Annamma Joseph, Elanthoor Block Panchayath Member and the Grama Panchayath secretary Smt. R Sreelekha released the brochure. The Standing committee chairpersons, Ward members, BMC members, KSBB District Coordinator, Headmistress, PTA President students, parents and public participated in the program.



Sacred grove restoration project Initiated at Velliamattom

Kulangara Kavu is a sacred grove under Velliamattom Grampanchayat BMC of Idukki District. Spread over half an acre, this sacred grove and the adjoining pond are centuries old. The BMC and the public noticed several environmental threats to the sacred grove, though the local communities have been trying to protect it. BMC has requested KSBB for financial and technical support to protect the sacred grove. KSBB has included

the proposal under ‘Restoration of endangered habitats at the local level’ and has sanctioned Rs.3 lakhs to the Velliamatam grama panchayat BMC for restoration of the sacred grove. On 20th November 2023, Gram Panchayat President Smt. Indu Biju started the project by planting saplings. The project aims for the restoration of the sacred grove by planting endemic herbs, shrubs, trees and creepers in the sacred grove. Panchayat Governing Council members, BMC members, Biodiversity Board District Coordinator and nearby residents participated in the program. The project is being implemented under the leadership of BMC with the cooperation of Panchayat administration and local residents.



Avasatheeram- Mangrove ecosystem restoration project - Inaugurated

Mangroves are the bioresources, which can provide exceptional ecosystem benefits. Due to several anthropogenic interventions, majority of the mangrove forests are facing threats these days. Kerala State Biodiversity Board has funded Rs 5 lakh for ‘Avasatheeram’ a mangrove ecosystem restoration project, proposed by Pothencode block panchayat BMC in the year 2022. Pothencode block panchayat in convergence with MGNREGS completed the project in 2023 and the inauguration of the project was held on October 15 2023 at Azhur Panchayath Community Hall by the Honorable Civil Supplies minister Shri. G.R. Anil. Shri. V. Sasi MLA presided over the function. District Panchayat Vice President Adv. Shylaja Begum, Block Panchayat president Shri. Hari Kumar, District Coordinator of KSBB Smt. Akshaya Anil, block panchayat members, and BMC members participated in the function. BMC is planning to make the mangrove system a model site for future generations, by collaboration with concerned departments and organizations.

The first BMC in India declared its own official Flower, Tree, Bird and Species

Kasaragod district panchayath BMC recently declared the official flower, tree, bird, and species of the district and thus became a role model for all other BMCs of the country. The district BMC noticed the threats faced by various local species and initiated several efforts to conserve them. One such effort by the BMC is the declaration of district species which include the *Strychnos nuxvomica* tree as district species, the White-bellied sea eagle, scientifically *Haliaeetus leucogaster* as district bird, The flower of *Crinum malabaricum* as district flower and Cantor’s Giant Softshell Turtle as district species.

Nuxvomica is a tree with medicinal value and was once seen as abundant in the laterite areas of Kasaragod district. The number of trees in the district drastically came down mainly due to the changes in the land use patterns and the destruction of the laterite ecosystems.

White-bellied sea eagle scientifically *Haliaeetus leucogaster* is a rare and endemic bird once abundant in the locality. But recently due to the destruction of the heronries in the area, the bird species is facing serious life threats.

The flower of *Crinum malabaricum*, an aquatic endemic plant species of Amaryllidaceae member, is declared as a district flower. The plant seen in the springs originates from the laterite hills of the district. Various threats to the laterite hills directly cause harm to the aquatic plants and thus the conservation of the species is very much essential.

Cantor’s Giant Softshell Turtle (*Pelochelys cantorii*) is the district species, which is one of the rarest and biggest aquatic turtles of the world, listed under Schedule 1 of the Wild Life Act. Unscientific sand mining and ghost fishing are the major reasons threatening the lives of the turtle species.

Biodiversity Seminars/Symposia/workshop

Kerala State Biodiversity Board invited applications from Colleges/Research Institutions/University Departments/Professional Associations/Registered Voluntary Organizations with a minimum 3 years of experience in conducting seminars, workshops, and symposia dedicated to fostering awareness and enthusiasm for biodiversity conservation. Under this scheme, several institutions organized seminars, symposia, and workshops during October – December 2023. A **two-day Odonate workshop**: In collaboration with Kerala State Biodiversity Board (KSBB), a Two-day workshop on Odonates was conducted by the Department of Museums & Zoos at Government Women's College, Thiruvananthapuram. The program was inaugurated by Dr. C. George Thomas, Chairman of KSBB. 70 students attended the workshop. The workshop provided hands-on training to identify and learn about the micro habits and preferences of odonates.

National Seminar on “Biosustainability: Concerns and Challenges”

A two-day National seminar was organized by Vimala College, Thrissur with the financial assistance of the Kerala State Biodiversity Board on 12th – 13th December 2023. Shri. K.V. Govindan, Member, Kerala State Biodiversity Board inaugurated the seminar.



Inauguration of National Seminar on “Biosustainability: Concerns and Challenges”

Seminar on “Climate Change and its Impacts on Biodiversity”

A one-day seminar on “Climate Change and its impacts on Biodiversity” was conducted by St. Joseph's College (Autonomous), Irinjalakuda in association with Kerala State Biodiversity Board on 5th December 2023. The seminar was inaugurated by Dr. C. George Thomas, Chairman, KSSB.



“Climate Change and its Impacts on Biodiversity” inaugurated by Dr.C.George Thomas

COP 28

The Conference of the Parties (COP) is a significant annual event attended by countries that are parties to the United Nations Framework Convention on Climate Change (UNFCCC). It is the supreme decision-making body of the convention. COPs serve as a platform for member nations to evaluate progress, negotiate agreements, and enhance international cooperation on climate change mitigation and adaptation. The first COP meeting was held in Berlin, Germany in March 1995. Since then COP meetings have been presided over by different countries in the recognized UN regions. COP 28 was held during a challenging period, marked by increasing global temperatures, extreme weather events, and rising concerns regarding environmental sustainability.

IPCC AR6 has highlighted the present irreversible changes and damages that environmental changes can cause and the vulnerability to humans and the ecosystem. As the year 2023 marks the first global Stocktake of the Paris Agreement, it is a great opportunity to assess the progress made towards achieving the goals of the agreement. In this context, IUCN came up with crucial topics for discussion in COP28 held from 30th November to 12th December 2023 in UAE. The 28th edition of COP highlighted several key outcomes, primarily focusing on strengthening commitments under the Paris Agreement and addressing the urgency of climate action.

The importance of limiting the warming to 1.5°C is essential not only to minimize the damage to nature but

also to continue to enjoy the ecosystem services from nature. This highlights that a time-bound phase-out of fossil fuels is essential to reduce global GHG emissions by 43% in 2030 from 2019 levels. This was the first time when the countries formally assessed their progress under the 2015 Paris climate agreement. The parties agree to step up efforts in this crucial decade and acknowledge that, by 2030, global greenhouse gas (GHG) emissions must be lowered by 43% below 1990 levels in order to keep global warming to 1.5 °C. By 2030, the parties are expected to triple the world's renewable energy capacity and double the rate at which energy efficiency is improving worldwide. They need to step up their effort in mitigation to phase out unabated coal power and move toward net zero emission energy systems. They must also 'transition away from fossil fuels in energy systems, in a just, orderly and equitable manner, accelerating action in this critical decade, so as to achieve net zero by 2050'. They should also plan to reduce non CO₂ emissions and reduce emissions from road transport. 66 national signatories committed to a 68% reduction in cooling related emissions by 2050.



Transitional fuels may play a part in easing the energy transition while maintaining energy security, according to the text. Although the inclusion of fossil fuels was met with resistance from nations that produce oil, this is the first time that a UN climate change conference has explicitly acknowledged the need to move away from fossil fuels in order to meet the targets of the Paris Agreement. The COP 28 decision also calls on parties to maintain and repair sea and coastal habitats, emphasizing the significance of safeguarding and restoring nature and ecosystems as well as intensifying efforts to stop and reverse deforestation by 2030.

India has consistently advocated for a sustainable and equitable approach to climate negotiations, considering its developmental needs and aspirations. India, in COP 28, highlighted the necessity of using coal for developmental needs and emphasized adherence to nationally determined contributions (NDCs). It has also come up with initiatives like the Global River Cities Alliance covering 275+ river cities in 11 countries as a momentous step towards river conservation and sustainable water management, the Green Credit initiative to minimize global carbon footprint, and the Green Development Pact to achieve energy, climate, environment, and disaster resilience-related objectives.

The next round of nationally specific contributions, which is expected in the first quarter of 2025, will be informed by the results of the global stock take. Article 6 of the Paris Agreement negotiations, which were not completed at COP 28, will carry on into the following year, as will the debate over a collective quantifiable target for climate funding after 2025. In November 2024, COP 29 will be held in Baku, Azerbaijan, and 2025, Brazil will host COP30 in Belém do Pará.

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