FROM THE STATE DIRECTOR’S DESK

The center page article in The Hindu titled “Reviving the Kerala Model of Development” by Shashi Tharoor and Vinod Thomas gave a lot of food for thought. On Education, we have high-quality, and high-levels of education. But does that reflect in our civilized manner as a State? In Health - Cancer is on the increase and I attribute it mainly to the very evident unscientific waste management, mainly from the burning of unsegregated waste (there may be many other reasons like fast-food culture, mobile towers, and radiation, poison-laden food items, etc.) across the State. Why are we not able to find a proper solution to this fundamental need as a developing society? In Infrastructure - Development is there. But intra-generational and intergenerational inequity is so evident. The rift between haves and have-nots is widening with each passing day and that is very much reflected in the increasing crimes in the State like robbery, chain snatching, etc. Our Environment - Almost all spheres of life - air, land, and water is under a lot of pressure and degradation, mainly from our unchecked development projects and programs. When will we start giving priority to the environment and ensuring development is sustainable? In Transportation - The pathetic condition of our roads explains it all. We are still heavily dependent on fossil fuel-based vehicles, which are carbon emission intensive. When will we make the major shift to modern and more efficient modes of transportation? (obviously not K-Rail). As for Energy - As of now, maybe 40-50% of our energy needs are met by the Central Grid which is powered by carbon emission-intensive coal-based thermal power plants located in other states of India. We do not have any scope of increasing our energy production; whereas our per capita energy consumption is increasing daily. When will we make the major shift to Renewable Energy, which is available, affordable, clean, and sustainable? With regard to our Food - We are attracted to only white-collar jobs. Hence cultivation and agriculture are waning in our society and State. We are dependent on Central India states for our grains, import from foreign countries and other states within the country for our fruits, and our neighboring state Tamil Nadu for our vegetables. And many of these are sometimes laden with chemicals/ poisons which makes storage and long-distance transportation possible. There is absolutely no slaughterhouse even in the Capital City of Thiruvananthapuram and no checks on the sale of meat in the City. Meat sellers just buy animals available for the lowest price, slaughter them in crude ways and sell the meat. Where are we headed on food safety? In our Finance - We are not a production state – no major industries or businesses. What we have is IT, gold, and real estate. Our major inflow of funds was foreign remittances from our NRKs. Now with the Covid pandemic, many losing their jobs and many coming back to Kerala, this is steadily decreasing. And on top of this, the State Government is trying to take foreign loans left, right, and center without any serious thought on how they will be repaid. The Chief Minister and the Cabinet of Ministers, the administrators and bureaucrats, State and Central Government Officers, Communities, Families, Individuals - the People per se need to take stock of the situation seriously and chart the way forward. Because we “Need a New Deal, we cannot continue Business as Usual”. The earlier the better.

Renjan Mathew Varghese
State Director

IMPORTANT NEWS ON NATURE AND ENVIRONMENT

GLOBAL

Chemical pollution has passed safe limit for humanity, say Scientists.

A study calls for cap on production and release as pollution threatens global ecosystems upon which life depends. The cocktail of chemical pollution that pervades the planet now threatens the stability of global ecosystems upon which humanity depends, Scientists have said. Plastics are of particularly high concern, they said, along with 350,000 synthetic chemicals including pesticides, industrial compounds, and antibiotics. The study concludes that chemical pollution has crossed a “planetary boundary”, the point at which human-made changes to the Earth push it outside the stable environment of the last 10,000 years. The chemical pollution planetary boundary is the fifth of nine that Scientists say have been crossed, with the others...
being global heating, the destruction of wild habitats, loss of biodiversity, and excessive nitrogen and phosphorus pollution (Source: The Guardian, 18 January 2022).

**Australia designates Koalas as endangered species**

Australia has designated the Koala an endangered species amid unprecedented pressure on the marsupials’ eucalyptus tree habitats across the country’s eastern states. The decision follows years of lobbying by conservation groups amid catastrophic declines in iconic species’ populations. WWF-Australia, the International Fund for Animal Welfare (IFAW), and Humane Society International all proposed the listing to the government in April 2020 after research found population declines of about 50 percent in Queensland since 2001, and 62 percent in New South Wales. “The Endangered status of the Koala means they and forest homes should be provided with greater protection under Australia’s national environment law,” the group said on Twitter. “Not only will this protect the iconic animal but many other species living alongside them.” (Source: Al Jazeera, 11 February 2022)

**State**

**Hospice for big cats in Wayanad, Kerala**

The Kerala Forest Department is gearing up to open the first Animal Hospice for Palliative Care Unit for big cats in Kerala at Wayanad Wildlife Sanctuary (WWS). The unit has been set up on the premises of Vanalakshmi, an abandoned pepper plantation of the Department near Pachadi in the Kurichiyaad Forest Range at a cost of 1.12 crore. The project envisages treating aged and injured/diseased animals after capturing them from the wild and either releasing them into the wild after treatment, depending on the health condition. (Source: The Hindu, 25 February 2022)

**The count of waterbirds in Thiruvananthapuram goes up by 36%**

Birdwatchers identify 74 species of avians in 11 sites as part of the Asian Waterbird Census. A 36 percent hike was observed in the total count of birds compared to the previous year during the Asian Waterbird Census (AWC) carried out by PAN Asia AWC. The sites covered include Kesavadasapuram paddy fields, the Zoo premises and Kannamoola thodu, Akkulam lake, Veli, Punchakkari paddy fields, Vellayani lake, Kadinamkulam, Aruvikkara, Pappanamcode, Poovar and Perumkuzhi. Asian Waterbird Census in the Capital validates the need for wetland conservation. A total of 4,372 individual birds, including 30 migratory species, were observed. In 2020, 3,206 individual birds belonging to 52 species were noted in 10 sites. WWF India, Kerala State Office in partnership with Kerala Forest and Wildlife Department conducted the census. (Source: The Hindu, 12 March 2022)

**National**

**Forest, and tree cover in India up by 2,261 sq. km. in two years**

According to the India State of Forest Report 2021 there has been an increase in the forest and tree cover in India since the last report in 2019. The forest cover increased by 5,140 km² and the tree cover increased by 721 km². The Environment and Forest Minister released the Report and said that the total forest and tree cover was 80.9 million hectares which accounted for 24.62% of the geographical area of the country. The top three States showing an increase in forest cover are Andhra Pradesh (647 Km²) followed by Telangana (632 Km²) and Odisha (537 Km²). Madhya Pradesh had the largest forest cover followed by Arunachal Pradesh, Chhattisgarh, Odisha, and Maharashtra. The total mangrove cover in the country has increased by 17 Km² to reach 4,992 Km². The total carbon stock in forests was estimated to be 7,204 million tonnes, an increase of 79.4 million tonnes from 2019. The Ministry said that the survey used mid-resolution satellite data followed by ‘rigorous ground truthing’ and information from other sources. (Source: The Hindu, 13 January 2022)

**Sunderbans is home to 428 species of birds, says Zoological Survey of India (ZSI)**

Indian Sunderbans, which is part of the largest mangrove forest in the world, is home to 428 species of birds, a recent publication of the Zoological Survey of India (ZSI) states. The publication, “Birds of the Sundarbans Biosphere Reserve not only documents the avifauna of the Sunderbans, but also serves as a comprehensive photographic field guide, with detailed distribution and locality data for all the species from the region. Out of the 428 birds listed, some, like the Masked Finfoot and Buffy Fish Owl, are recorded only from the Sunderbans. The area is home to 9 out of 12 species of Kingfishers found in the country as well as rare species such as the Goliath Heron and Spoon-billed Sandpiper. The Indian Sunderbans, which covers 4,200 sq km, comprises the Sunderban Tiger Reserve of 2,585 sq km — home to about 96 Royal Bengal Tigers (as per the last census in 2020) — is also a World Heritage Site and a Ramsar Site. (Source: The Hindu, 24 January 2022)
It is a species of dragonfly in family Libellulidae. It is a small blue dragonfly with bulged abdomen, closely associated with water, commonly found among reeds in ponds and tanks. The male adult has blue marking but the female has yellow marking. The species has a very weak and short flight. Breeds in marshes associated with tanks and ponds.

**ACTIVITIES OF WWF-INDIA KERALA STATE OFFICE**

**Paaristhithikam – State Environment Awareness Campaign focusing on the theme of Air Pollution with the support of the Department of Environment and Climate Change, Govt. of Kerala**

The Paaristhithikam project for 2019-2020 which was held up due to Covid 19 restrictions was finally revised and conducted in 2022 January. Poster and sticker sets were designed. A Handbook on Air Pollution was prepared as part of this project. A short video on the theme “Give Up to Give Back - Give Up Single Use Plastics and Burning of Waste” was made with the help of Jithu Prabhakar, WWF Volunteer. Webinars were conducted for three schools of Trivandrum – Loyola School, Holy Angels ISC School, and Saraswathi Vidyalaya on 18th January. One hundred and three students registered and participated in the

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**Key: Across: nectar, compost, landfill, mule, deforestation, iceland, nitrogen, volcano, ostrich, Taiga. Down: aquifer, desert, chlorophyll, seismic, pesticide, volatile, smoke, pest, shield, grass.**

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**ACROSS**
1 Sweet liquid inside a flower
4 Mixture of decaying organic matter
6 Area designated to receive large amount of waste
8 Offspring of a male donkey and a female horse
9 Destruction of forests
10 System comprising of ecosystems and organisms
12 The world’s cleanest country
15 Most abundant element found in air
16 Opening of the earth’s crust from which lava flows out
19 Bird which lays the largest egg
21 The world’s largest biome

**DOWN**
2 Underground layer of water bearing permeable rock
3 The driest biome
4 Substance that makes plants green
5 The wave energy released by earthquake
7 Substance that kills plants or animal pests
11 Any substance that evaporates quickly
13 Extended period of no water
14 Mixture of smoke and fog
17 Chemical substance contained in all plants and animals
18 Fastest cat in the world
20 Largest plant family
webinar. Mr. Bharath Govind C S, Co-founder and CEO of Climatehood Foundation, and Abijith R Mohan, Capacity Building Associate of the Foundation were the resource persons for the webinars. Another webinar was conducted for three colleges – Christian College, Kattakada, All Saints College, Thiruvananthapuram, and Government Women’s College on the Zoom platform on 25th January 2022, and Ninety-three students participated. There was a good interactive session after the webinar where many students asked relevant questions.

One Planet Academy

We hosted the Educators Workshop Series on the theme of Air Pollution as part of Paaristhithikam (State Environment Awareness Campaign) on 31st January and 28 teachers participated in the workshop. Staff team attended the closing ceremony of MCoP 2. In February, we conducted the Educators Workshop Series titled “Butterfly Gardens - Story of Plant Animal Interaction” led by Mr. V C Balakrishnan with the participation of 25 School Teachers. The session was very informative and was followed by very good interaction. Many teachers are eager to start butterfly gardens with the students from their respective nature clubs as soon as school begins in the next academic year.

Eco-Trails

The 11th session in the Eco-Talk Series for January was conducted via Zoom platform on 26th January 2022. The talk was titled “Hiss Stories”, and Mr. David Raju, Naturalist, was the Resource Person. Around 91 students attended the webinar. In February we conducted Eco-Talk on “Primates of Western Ghats” led by Dr. Gigi K. Joseph, Asst. Professor, Nirmala College, Muvattupuzha. Around 99 students attended the program.

Magical Mangroves

The volunteers are continuing with awareness sessions in January 2022. Due to the increase in Covid cases in the State, on-ground outreach programs were not conducted. The volunteers conducted 4 webinars in January and there was an outreach of 165. Nominated Dr. Sreeja P as the Best Volunteer for Magical Mangroves 2021-22 and she will be interviewed by Times of India. We are also in the process of developing a Mangrove Herbarium Protocol with the input from Dr Jain Therattil, our Volunteer. A model script for making a one-minute documentary was prepared and shared with the volunteers and we are awaiting their response.

Coordinated with Maharashtra State Office for arranging Mr. Rafi Neelankavil and two other Volunteers for the Concluding Session of Magical Mangroves 2021-22. KLSO
Team along with other Volunteers from Kerala attended the Volunteer Felicitation Ceremony of Magical Mangroves.

**Volunteer Talks**

The Volunteer Talk #48 “Great Backyard Count (GBBC)” was taken by Mr. Praveen J of Bird Count India on 20th January 2022 which was useful for the citizens volunteering for the GBBC this year. The session was very interesting and many students participated in the Q and A session and asked relevant questions. It was presented in a way that everyone can easily engage in the GBBC and to equip them to lead sessions on the same. Around 165 Volunteers attended the Volunteer Talk.

The Volunteer Talk #49 on “Green Homes - The OEOH Story” was presented by three Best Performer Students in OEOH program-Vismaya Padmaraj and Hari Ranjan Bimal from Bhavans Adarsha Vidyalaya, Kakkanad and Sudakshina Mattatholi from The Choice School, Thrippunithura.

The Volunteer Talk #50 on “Earth Hour 2022” was led by the State Director, Renjan Mathew Varghese and 77 Volunteers participated. He spoke about Earth Hour, its background, the various programs envisaged for 2022 in Kerala and how Volunteers can get involved.

**Biodiversity Festival – Dragonfly Festival 2021-22**

Work on Handbook on Odonata Watch Protocol is now complete after the final review. The Regional Expert Talk was taken by Mr. Sujith V Gopalan on the topic “Odonates in Ecosystem Conservation” on 26th January 2021. The participants were 24 teachers from the Trivandrum and Kollam chapters of Zoology Association, Kerala. Wetland Biomonitoring is now completed in all the four wetlands and the data has been uploaded to iNaturalist.

The KLSO Team, Society for Odonate Studies (SOS) - National Partner from Kerala, and Online Media Partner Thumbipuranam participated in the Closing and Felicitation Ceremony of the Dragonfly Festival 2021-22. Ms. Aswathy S from NSS College, Ottapalam spoke about DFF in Kerala, on behalf of the Wetland Bio-Monitoring Volunteers on the occasion.

**Asian Waterfowl Census (AWC) - Thiruvananthapuram**

AWC was conducted in eleven sites in 2022. The whole exercise was successfully completed by 29 participants which included expert birders and volunteers of WWF India. Unlike pre-covid AWC's, when this was done in a single day, the current pandemic forced us to conduct the Census in three days, 22nd, 24th and 26th January 2022 as many of the volunteers were either Covid positive or primary contacts. An Orientation Program was conducted online on 21st and 15 volunteers participated.
Asian Waterfowl Census (AWC) - Kollam

Completed the AWC in Kollam District covering 18 sites with the engagement of forty Volunteers.

Annual Bird Survey – Shendurney Sanctuary, Kollam

KLSO staff participated in the Annual Bird Survey in Shendurney WLS and mobilized Volunteers for the same. Our 22 Volunteers participated in the event and observed 194 species of birds in the WLS.

Republic Day Celebrations

The KLSO Team along with immediate family members celebrated Republic Day on 26th January at 8:30 AM by hoisting the National Flag and singing the National Anthem at the State Office.

One Earth, One Home – Oru Bhoomi, Oru Bhavanam in Kerala

We successfully conducted the Closing Ceremony of OEOH and EP Movie screening along with the Workshop “When learning is rooted in Nature, India grows!” in association with Bhatatiya Vidya Bhavan Schools on 19th February 2022. Ninety participants including teachers and students attended the workshop. The three Best Performing Students were invited to lead the Volunteer Talk of the month on 17th February and they shared their OEOH learnings and experience. About 73 participants were present for the talk.

ECHO – Building Environment Conservation Heroes

All the 6 College Teams (24 Students and 6 Teachers) reworked their proposals based on recommendations given. Then collected the modified proposals from the colleges based on the Review Meeting. Hosted a session on Ecological Footprint for Sree Sankara College, Kalady under ECHO, led by Ms. Anushreedha Sivanandan and was attended by 141 students.

An online session on “Ecological Footprint” was taken by our active Volunteer Ardra S. Asok, for the students of Sree Ayyappa College, Eramallikkara in which 37 students participated.

Great Backyard Bird Count (GBBC)
The KLSO Team coordinated the GBBC in Thiruvananthapuram District and Campus Bird Count in five colleges. Around 24 Volunteers participated with an outcome of 131 checklists on eBird. We also actively participated in the Big Bird Day as well on 20th February.

Observation of Environmentally Important Days with other external partners

Kerala State Office organized the World Wetlands Day (WWD) 2022 with a very interesting programme. The Volunteer Teams who were engaged in the Wetland Biomonitoring event under the Dragonfly Festival were invited to present their experience and findings. Nine volunteers representing seven teams led the sessions and the experience they shared was very interesting. Around 85 students and volunteers attended the event.

World Wildlife Day was observed by the students of Nature Club of Choice School, Kochi with an awareness session “Wildlife of Western Ghats” led by Ms. Anushreedha S.S., Project Officer. The session was lively in which around 25 students actively participated.

Kerala State Office and Sangam Guild Scout & Guide Fellowship jointly observed World Wildlife Day 2022, with an online technical talk led by Mr. Sanjayan Kumar, IFS, CCF (Southern Circle) on the topic “Biodiversity Conservation and Livelihood Security - Experiences from Periyar and Parambikulam Tiger Reserves”.

Kerala State Office observed International Day of Forests at MG College, Thiruvananthapuram on Monday 21st March in association with the Botany Dept and Agastya Forestry Club. State Director took a session on Forests & Forest Products – Sustainable Production and Consumption. A short movie titled “Marymolude Kandal Jeevitham” on the theme of Mangrove Forests and Conservation was screened followed by another technical session on Citizen Science by Ms Anushreedha and interactive quiz program led by Ms. Ardra S. Ashok, an active WWF Volunteer from Thiruvananthapuram.

The State Director delivered the talk titled “Leadership Skills in Combating Climate Crisis” for the Climate Leadership Programme on 10th March 2022, organized by Chengannur Christian College jointly with Department of Environment and Climate Change, Govt. of Kerala.

Earth Hour

This year also, more than on-ground engagements, we decided to do more aggressive online campaign as part of Earth Hour 2022. In this regard, short interview videos by Conservation Heroes from Kerala - Geetha, Tribal Chieftain of Kadar Community at Vazhachal, M R Hari on Miyawaki Forests, K Sivaparasad on Volunteering for the Environmental Causes and N J James on Turtle Conservation were made. Similarly, short videos by our Volunteers on the sub-themes like Food, Water, Air, Clothing, Housing and Energy were made. All these videos and web banners were
circulated on social media handles between Monday, March 21st to 26th through Facebook, Instagram and LinkedIn.

On the day of Earth Hour 2022, a Cyclothon in partnership with Indus Cycling Embassy was conducted in Thiruvananthapuram City which was flagged off at 6:30am by Mr Prakash Gopinath, Thiruvananthapuram Bicycle Mayor with the participation of 35 cyclists. They covered 5kms in the heart of the City. At the Museum and Zoo premises interactive session was also held in the morning and evening which included games, photobooth and “Shape Our Future” tree.

At 8:30pm, Switch-Off and Candle Light Vigil was observed within the Museum & Zoo premises. Thirty Volunteers participated with us in the campaign on 26th March 2022. The Band Stand also played the news during this hour, which covered Earth Hour.

In addition, “Switch Off” was observed at the Kerala Legislative Assembly Building and the Speaker also spoke about Earth Hour in a short video broadcast through ‘SabhaTV’, the official channel of Kerala Legislative Assembly. (https://www.youtube.com/watch?v=wKfW-w9Dr7Y&t=2s)

Earth Hour 2022 was observed at two restaurants in Kerala. “Cafe17”, Kochi and “Ovenly”, Thiruvananthapuram. Placemats were given which had games and activities that the customers could play to assess their carbon and energy footprint.

The State Director was contacted by the Noorul Islam College of Dental Sciences to conduct an on-ground seminar on Earth Hour on 24th March 2022. Along with the seminar, a Quiz was organized on the theme by the Senior Education Officer. As many as 44 participants including students and staff took part in the event.