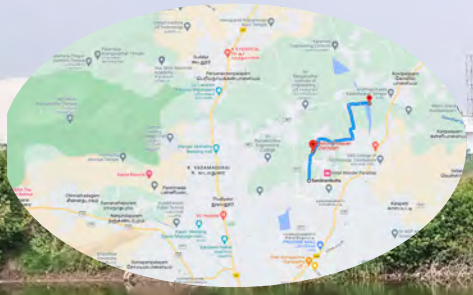
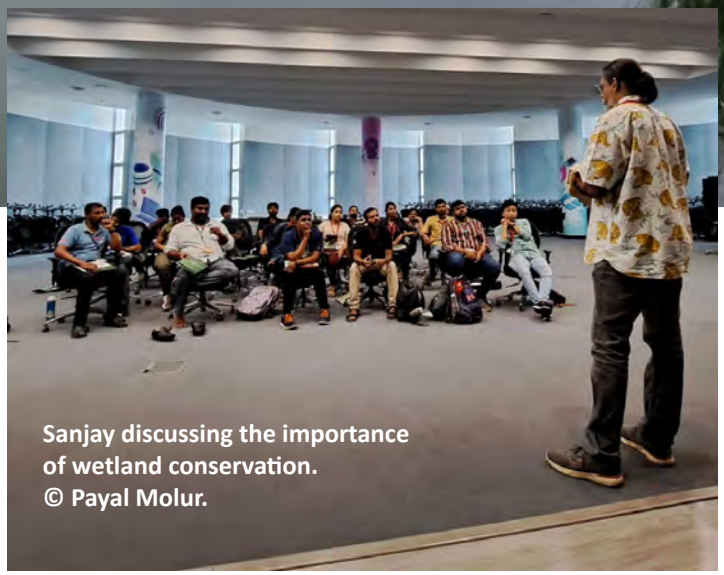
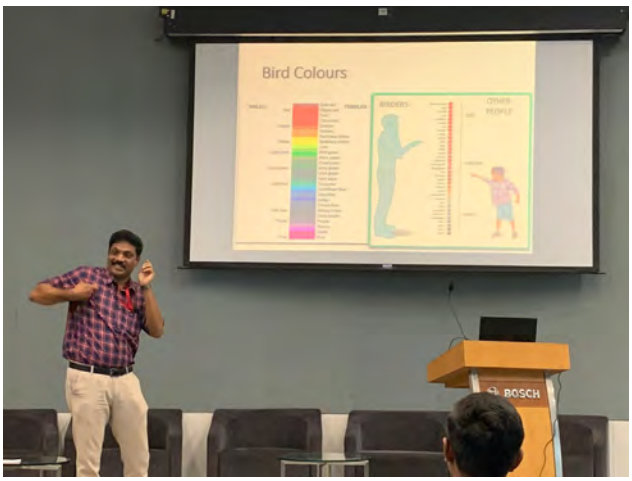
Corporates in Conservation- a model of nature education





Sanjay discussing the importance of wetland conservation.
© Payal Molur.

The scale of the ecological damage is incomprehensible, sometimes it is irreversible and irreparable. Conservation is often regarded as the responsibility of only environmentalists and conservationists. In an unprecedented climate emergency like this, conservation needs collective efforts of all the stakeholders like local communities, businesses, policymakers, scientists, and even children. And all stakeholders have a role to play, but how to go about it is the real question. Scientific data trapped in technical reports or in academics has to reach the social domain and translate into action. Unscientific conservation actions will again add to the problem.



Byju explaining the color spectrum of birders.
© Payal Molur.

Nature education backed up by science is an effective tool Zoo Outreach Organisation (Zooreach) uses to educate the common public.

Involvement through CSR (Corporate Social Responsibility) is one of the ways to create awareness among corporate employees about local ecosystems, the threats and the need for conservation. One such project in which Zooreach is involved is restoration of the Nallusamy checkdam.

The wetland- Nallusamy checkdam

The Nallusamy checkdam, once was a vital water body sustaining the local ecosystem. It was a source of livelihood for the neighboring two villages- Keeranatham and Sambrani Kuttai. The wetland starts from Sambrani Kuttai along a canal to the Nallusamy checkdam and connects to a larger lake called the SS Kulam lake. Unfortunately, it now faces a grim fate due to an improper sewage system and real estate pressures. The unchecked influx of sewage and wastewater has led to the catastrophic contamination of the dam's water, rendering it not only unusable but also detrimental to the surrounding environment.

One of the most distressing consequences of this pollution is the severe decline in species diversity. One can see the invasive plant species all along the canal. A part of the canal has already been turned into a tar road. There we saw many fishermen still trying to find some meal from the degraded waters of the checkdam. Can we imagine the amount of microplastics and other deadly pollutants flowing through the food chain!? The loss of biodiversity not only disrupts the local ecosystem but also has ripple effects on the entire food chain. The future of the Nallusamy checkdam appears bleak. The socio-economic impact is equally concerning, as communities that once depended on the dam for their water supply have already lost the connection with that landscape and migrated to the city.

This checkdam is under the Grama panchayath of Keeranatham. Many other NGOs like RAAC- (Residents Awareness Association of Coimbatore), also have taken initiatives to clean

up the canal. Implementing a robust sewage management system, raising awareness about the importance of clean water, and undertaking habitat restoration efforts can help restore this vital water body to its former glory. Without such efforts, the Nallusamy checkdam will join the list of thousands of other wetlands as a tragic symbol of environmental degradation.

CSR initiation by Bosch

CSR is a management concept, whereby companies integrate social and environmental concerns in their business operations and interactions with the stakeholders. It could be financial support or in-kind support by providing equipment or necessary materials. The support can also be by contributing their skills or expertise like software people can help with technology support or providing support for spreading awareness by conducting seminars and workshops or volunteering for the social or environmental cause.

As a part of the CSR initiatives of Bosch Global Software Technologies located at CHIL SEZ IT Park, Keeranatham Road, Coimbatore, Zooreach is involved in the restoration of the wetland at Nallusamy checkdam region just in front of the special economic zone (SEZ). Some parts of the canal have been encroached by the SEZ itself. Bosch is getting involved through providing financial support for the restoration project.

The project has three main components:

- Restoration of wetland (Rapid biodiversity assessment, perception studies of local communities).
- Education and outreach - training workshops for local NGO partners, local influencers, educator, and Bosch employees.
- Volunteering opportunities for Bosch employees.

Zooreach has already done the 'rapid biodiversity assessment' over different seasons in the first year. The assessment includes Sambrani Kuttai, Nallusamy checkdam, SS Kulam,

Some of the speices documented during the rapid biodiversity assessment

and the canal that connects these three places. It is both surprising and a good news to still have vast biodiversity there—they have documented 120 species plants, 30 species of birds, 15+ species of herpetofauna, and 120+ species of invertebrates! (Zooreach 2023).

When we, the RHATC fellows visited the checkdam, we thought that the primary challenge was to stop the influx of untreated sewage water into the water body and get the sewage treatment plants (STPs) running efficiently. There is a need to convince the authorities about the atrocious sewage water suffocating native wildlife, as well as reach out to the common people about the importance of effective waste management to maintain a clean and healthy ecosystem, concluding an immediate requirement to look for an alternative sink to redirect the water or reinforce options to reutilize and recycle the treated sewage water for other activities like toilet flushing and watering of plants or construction work within the sector. Using algae as a bio-absorption agent has been proven to be a very cost-efficient methodology to follow for sewage treatment (Almomani et al. 2019).

2-day workshop at Bosch

As part of the above Wetland Restoration Project, the 2-day educator training workshop was held on 27 & 28 October 2023 at the Bosch office. Payal and Priyanka being the lead educators, started the day by tying the Zooreach 'rakhi' and taking the oath to protect the land and share the learnings with at least 10 people everyday. The workshop was the ideal mix of fun, learning, games, and hands-on experience. Payal's creative activities and games have always proven to be unique and comprehensive.

A game to improve observation skills. © C.K. Arjun.

Busy in journaling and playing the sticker game. © B. Ravichandran.

Playing the stripes and spots game. © Payal Molur.

Sanjay giving out the certificates to one of the Bosch employee. © C.K. Arjun.

On the first day, Priyanka taught us about the lentic and lotic systems and how they work. Following the explanation, we all played the 'Ecosystem Jump' game, in which we had to jump down when any type of lotic system was called out and jump up when any of the lentic systems were called out.

Bosch employees at the Coimbatore campus are originally from different parts of India. A question that arises is, why should we restore a canal in Coimbatore which is not our hometown? Well, this training is for them to become educators and spread environmental awareness. The learnings can be applied anywhere. Understanding how to restore will help the individual to start such initiatives in their respective hometowns. And secondly, the Bosch office is very near to the checkdam, a stinking and nasty water body will cause more trouble to everyone working and living around the area. People were convinced when Sanjay addressed these questions in detail. Importance of wetland and wetland species diversity were also discussed. Byju's presentation on common birds of India was a key attraction in the workshop. It was a fun-filled, informative talk especially for the beginners. We all burst into laughter when he explained how a birder looks at the color spectrum and how common people look at it, especially the women :).

The second day we visited the checkdam to observe the biodiversity and recall the previous day's learnings. We spotted many species from the 'spots and stripes' game played the day before. Everyone journaled the list of birds and insect species they saw in a small stretch. We also played the 'sticker game'. We were given two sheets, one with the stickers of birds,

The builders in deep discussion. © Payal Molur.

Panchayat officials listening to the villagers story. © Payal Molur.

The game identify the species. © C.K. Arjun.

The sticker game.

Friends of wetlands certificate.

animals and insects of the checkdam and the other was the pond. As soon as we spotted a species, we stuck the respective sticker in the pond sheet.

The final list was surprising for all! We were proud of our improved identification skills and also of the species richness. In that small stretch, we could list at least 15 species of birds, five species of butterflies, varieties of spiders, garden lizards, etc. Returning to Bosch after the refreshing morning session, we did a role play acting in teams as various stakeholders interested in using the degraded water body like villagers, panchayat heads, builders, NGO and media personnel. One group of builders were interested in using the land for real estate, some wanted to restore the biodiversity, a few villagers didn't want the lake and wanted to create a park on the lake itself, while some wanted to build cement walls and create a recreational site along the lakeside.

The corrupt Panchayat officials (played by Nagoor, Sanjay, and Byju) listened to us but talked only about money instead of resolving the issue. We did not reach a conclusion but this way, we were able to understand the complexities involved in any conservation effort. We could understand the other perspectives of different stakeholders too, which is very necessary while working on any socio-ecological issue.

The education packet designed by Zooreach team.

As filthy as it can get. © Payal Molur.

Happy faces after the clean up drive at the checkdam. © Obuli Chandran.

The final thoughts

The workshop was successful in inspiring all of us to take action. We all enjoyed the activities and also loved the education materials. They are very thoughtfully and creatively designed, making anybody fall in love with nature. The participants also understood that cleaning and restoring the Nallusamy checkdam is a collective social responsibility. At the end of the workshop every participant was certified as 'Friends of Wetlands'. Hopefully, everyone holds on to the core message and applies the learnings in future. The workshop participants from Bosch were also given 20 education kits each of which they can use to educate others.

SEZ has more companies, for example, Microsoft and Cognizant. Though the priorities and mandates are different, it would be great if all of them come together as volunteers in their free time for the restoration, clean up drive or education. We felt happy when a few of the Bosch employees were really inspired and joined us the other day for the cleanup drive at the checkdam. Small steps like this will definitely add up to the larger impact.

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