

Annual Report

2022 - 2023



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Overview

Who We Are

Arulagam is a non-profit organization working to conserve flora and fauna in South Asia with people's active participation (through field-based action, research, education, campaign and advocacy efforts).

Our Mission

Conserve nature through active and participatory civic engagement in awareness campaigns, field actions, research, and education.

Our Vision

A society that cares about the environment in order to protect and conserve nature to ensure "sustainable development"

Preamble

'Arulagam' is delighted to present its intended and implemented

project activities for the year 2022-23. 'Arulagam' implemented the need based projects and adopted community driven development approaches towards an integrated development with a sustainable and sound environment. Annual planning meeting convened with the participation of the board of directors, staff and representatives of the community.

'Arulagam' project activities contribute to the following United Nations' Sustainable Development Goals :



2023 at a glance

TOTAL AMOUNT RAISED IN 2023

3,29,90,407
INR

AREA COVERED

65
Villages

24
Taluks

15
Districts

5
States

4
Tiger reserves

4
Sanctuaries

PEOPLE BENEFITTED

850
Students

800
Tribal families

532
Health workers

113
Cattle farmers

17
Forest Front line Staff

16
Medical doctors

443
Veterinary doctors

Flora & fauna conservation



Critically endangered Vultures (White rumped Vulture, Long billed Vulture, Red headed vulture) and Endangered Egyptian Vulture



Hyena



Tarantula spider



Bats



Lesser known species such as Chameleon and Madras Hedgehog



Marine mammals



Asian Elephant



Tiger



85 Endemic plant species

Highlights of the year



Local communities were enabled to **act as protectors**



Tribal children education has been ensured by the functioning of **10 Tuition centres**.



'Arulagam' project was selected as a **high priority project** by Fondation Segré, an organization which will support our organization for **36 months**.



Trident Pneumatics Private Ltd joined hands for vulture conservation.



Rufford foundation extends its support in **fifth consecutive terms**.



Farmers Producers Organization baseline work initiated in **three areas**.



Helped to establish **Marine Mammals Mobile App** in the **Tamil language**



A **new nesting site** for vultures has been **identified** in the Sathyamangalam Tiger Reserve by Arulagam and the team. Previously, it was thought that vultures only used the STR area for foraging. However, our study reveals that STR is also used for roosting and nesting purposes, which is a significant development.



Trained 532 health workers on effectively handling Bio-Medical Waste



Green Park and Indus Project support the **removal of invasive species and the rewilding of the Earth** by planting indigenous species in the Bandipur area of Karnataka.

Nursery Development

A unique nursery for native species run by Arulagam. Thanks to the correspondent of Kumaraguru Colleges of technology and Kaumaram Sushila International Residential School.

★
Stock of 85 varieties with 3 lakhs saplings.

★
Technology incorporated in nursery - Mist chamber and sprinkler established.

★
7 Rural women including 3 single women and a physically challenged person were employed through nursery activities.

★
Sangam plants garden established in Coimbatore town with the help of Kaumaram Sushila International Residential School.

Recognitions and Accolades



Bharathidasan Subbaiah, Secretary of 'Arulagam', has been inducted as a member of the Tamil Nadu State Wildlife Board, Department of Environment, Climate Change and Forest, Government of Tamil Nadu.



Arulagam's secretary Bharathidasan Subbiah was invited.

- To share his thoughts at the annual meeting of Saving Asia's Vultures from Extinction (SAVE), which was held in Nepal.



State Vulture Conservation Committee, has been formed under the Department of Environment, Climate Change and Forest, Government of Tamil Nadu. Bharathidasan Subbaiah, Secretary, 'Arulagam', has been inducted as a member of the committee. We hope that it will help us to raise the voice for vultures.

- By the Director of Vanvihar National Park, Department of Forest, Madhya Pradesh, to give a presentation among the top policymakers.
- By the Chairman, the Biodiversity Board, Department of Forest, Jharkhand to share the successful intervention made by Arulagam.



"Vanam India Foundation" honoured Arulagam secretary during their Annual Meet.

Days observed with awareness events



World Wetlands day



Environment day



International Vulture Awareness Day



Wildlife Week



Tiger day



Lead Poisoning Prevention week



Migratory bird day



Arul memorial day

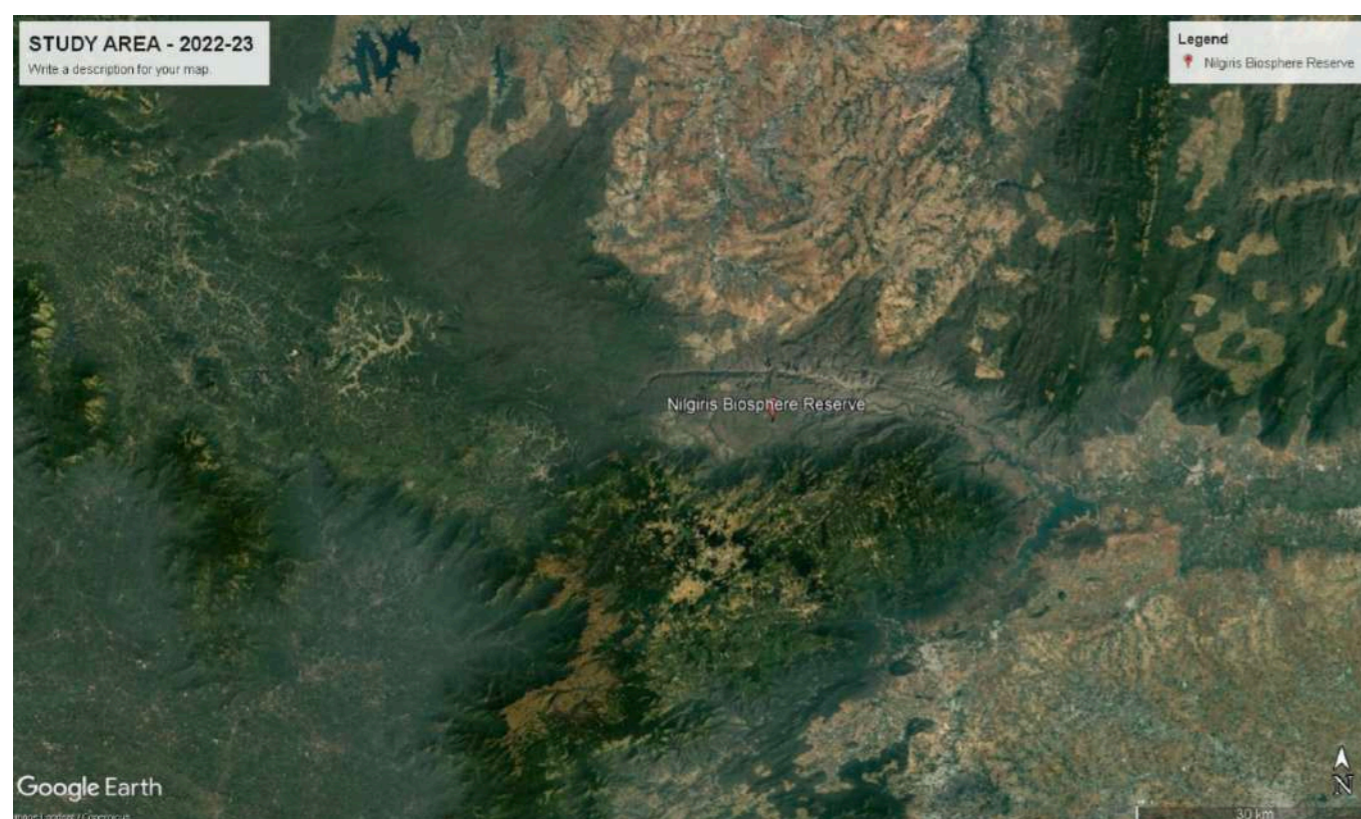
Species Conservation



Vulture Conservation

Project

Vulture Population, Nest Monitoring, Carcass Monitoring, and feeding behaviour monitoring and Ecology of Vultures in The Nilgiri Biosphere Reserve.



Project summary

Gyps vultures have declined catastrophically in the Indian subcontinent during the last few decades. The current estimates of various vulture species are estimated to be less than 5% of the original population. Vultures being keystone scavengers they play an imperative role in the terrestrial ecosystem, on environmental health, and also prevent the spread of dangerous diseases such as anthrax and rabies, which could cause havoc in wild animals, livestock, and humans. Of the seven species of vultures reported from the Nilgiri Biosphere Reserve (NBR) of Southern India, three Critically Endangered species are resident in the Mudumalai Tiger Reserve (MTR).

The present study was carried out on Vulture Population, Nest Monitoring, Carcass Monitoring, feeding behaviour and Ecology of Vultures; and local people's knowledge of vulture conservation in The Nilgiri Biosphere Reserve.

A total of three White-rumped vulture nesting colonies were recorded in the study area from 2022 to 2023 and a Long-billed vulture breeding site was newly recorded in STR. The breeding success was calculated from the total number of eggs hatched out divided by the number of nests



seen under incubation. Overall 70.4% of breeding success was recorded in all four White-rumped vulture nesting colonies altogether.

The rearing of livestock is one of the major economic activities in the study villages. A total of 5531 livestock were recorded from thirteen villages belonging to 443 livestock holders during the study period. Among the wild carnivore depredation, the tiger reasoned for the major cause of the loss of livestock (n=44).

Female respondents showed a positive attitude toward vulture conservation compared to male respondents ($\chi^2=23.960$). The study also positively indicated that youth were more in the knowledge of vulture conservation than middle and old age respondents ($\chi^2=7.29$). Among the youths, learned person showed positive attitudes toward vulture conservation compared to others ($\chi^2=28.081$). Personal attitude is the most important factor in determining people's intention towards supporting vulture conservation in the MTR. Therefore, education programs should continue to be targeted stakeholders.

Road transect results showed that very few





vultures had been recorded compared with similar studies. In the present study, Red-headed, white-rumped, and long-billed vulture encounter rates were 1.08 and 0.13, respectively, in 2022 – 2023.

Totally 888 (M±SE, 126.85+7.32) individuals of all three species of vultures altogether were recorded in 406 Km transects with an encounter rate of 2.1 individuals/Km in the study area between October and April 2022. A total of five vulture nesting colonies, among three nesting colonies of White-rumped Vultures and two nesting colonies of Long-billed Vultures, were monitored during the study period.

Highlights of the study

1

A new nesting site for vultures has been identified in the Sathyamangalam Tiger Reserve by Arulagam team. Previously, it was thought that vultures only used the STR area for foraging. However, our study reveals that STR is also used for roosting and nesting purposes.

2

Arulagam team has been continuously interacting with stakeholders through various awareness activities, and we have sensitized 30,000 people in the NBR in association with the Forest department.

3

A survey was conducted among 443 livestock owners, and data on their attitudes and livestock were generated.

4

More than 15 articles have been published in popular news media in Tamil, English, and Malayalam.

5

The Forest Department conducted a synchronized vulture survey for the first time, and the Arulagam team actively participated and assisted in the survey.

6

113 cattle owners benefited from the cattle compensation initiative.

7

A Participatory Rural Appraisal (PRA) program was conducted in 6 villages in the Mudumalai Tiger Reserve (MTR), and the impacts of invasive species were identified.

Tarantula Conservation

Project

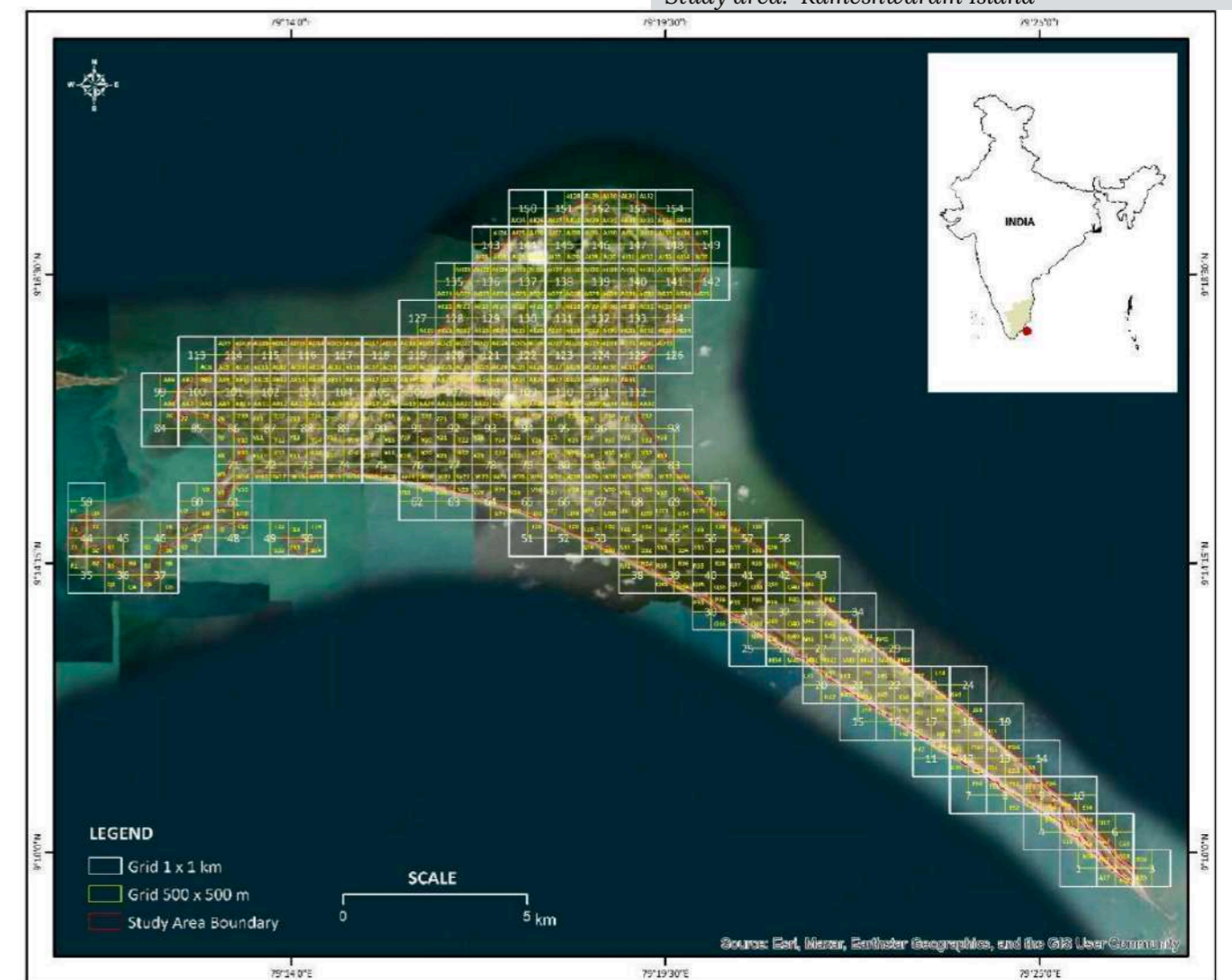
Tarantula species status assessment, in-situ conservation, preparations to include under CITES and involve stakeholders for conservation in Rameswaram Island, Tamil Nadu, India.

Project summary

The purpose of this project is to counter the illegal trade of the Tarantula spider (*Poecilotheria hanumavilasumica* -CR) in Rameswaram Island, Tamil Nadu, India and to involve the community in species conservation. We are conducting studies to generate species information on population trends, habitat and habitat quality, spider distribution mapping, laboratory observation on biology,

behaviour & reproduction, develop species conservation action plans, empower the local community and stakeholders and involve them in conservation through education. After the proposed project period, we aim to establish a spider sanctuary on Rameswaram Island and hand over the responsibilities to the local community.

Study area: Rameshwaram Island



Population estimation studies

Population estimation study has been initiated in a few locations (Hanumavilasum Sacred Grove, Aarkaadu, Kudiyiruppu, and Temple palm plantation at Nadutheru) and the estimation study is in progress. Till now, within the Island, we have observed with coordinates ca. 300 individuals including juveniles, subadults and adults.

The project has four main objectives and corresponding activities. A pre-visit to the project site was made in November but the entire research team and also with a couple of collaborating institutes. This trip is mainly to have a discussion with the forest department and the local governing bodies, to set up a field station and visit some of the prime research locations in the Island and the mainland. Following the pre-visit, we prepared a systematic activity chart for the entire project period and allocated responsibilities within the research team to take up a systematic approach to fulfil the activities of the project. Most of the activities except objective 4, were initiated within the first two months.

The primary work is to understand the distribution of the *Poecilotheria* species within the Island and to mark them on the map so that further activities could be done based on it. It was completed in December 2022 and the activity chart was revisited for any alteration required. Surveys both for physical observation and interviews were conducted with a standard questionnaire.

The data generated were pooled in Tables and analysed. Literature related to the species and the trade information was collected and a database was developed. Data on species presence-absence, habitat types, quality of habitats, suitability of habitats for translocations, preparations for captive breeding of these spiders, collection of data to design and develop education materials, discussion with the institutes for future awareness programs, preparations for the network of interested people to take up the project in the future were all carried out since the initiation of the project. A micro plan has been planned for the next three months. One of the prime activities in the coming months will be getting all the education materials ready with the logo of OPCFHK and LIFE Trust India so as to reach out to the local people. So far we have not encountered any problems or issues in executing the project, we have gained lot of support from the local communities and governing bodies to take the project further. Thanks to OPCFHK for the generous support.



Empowering Communities

Agro Ecology

Community farming- Tulasikere village community practicing agro-ecological farming

Arulagam led a climate change mitigation workshop on the benefits of moving towards community led agro ecological farming in Tulasikere village. Picking up the threads from their heritage knowledge, leveraged with the new ideas from the community farming workshop organized by Arulagam.

In this case, family farming patriarch, Mahadeva motivated his traditional joint family to break the age old family farming mold and offer their collective land (5 acres of farmland) to practice community farming.

Arulagam was instrumental in helming the district wide field visits, conducting trainings and advocacy amongst other interested villagers helped them to take an informed decision to join hands with Mahadeva for the betterment of the village community's financial and environmental health.

Funds utilized for facilitation of solar pumps, drop pipes, serfs, nursery tie ups, input costs and subsistence funds.

Impact

Arulagam has also been instrumental in advocating and strengthening community rights in both Tulasikere and Medagnane villages. We motivated representatives from the villages to take part in the NTFP bid (tamarind and honey) held by the panchayat. They won the bid and harvested nearly 1.2 tons of tamarind and sold it in our online market and farmers market in Mysore. This is a step towards building a solidarity economic activity to generate livelihood. 5 families-women, men and 3 individuals began collective farming from the month of August. They are also taking part in selling produce directly to the consumer and weekly fairs.

Crops sown



- Three varieties of banana
- Groundnut
- Papaya and tomato (two varieties)
- Chilly, ladyfinger, beans, brinjal, creepers like ash gourd, ridge gourd, snake gourd, bitter gourd, chow-chow.
- Bush varieties- *avarekayi*, cluster beans were sown.

Agro Ecology

Arulagam supported the setting up of local markets in nearby villages and towns to help this community sell their farm produce as well as the value added products made to achieve zero wastage status during the production process.

A weekly local market was set up in Chamarajanagar town and villages surrounding the farms of all the volunteering farmers in the Arulagam network.

As a result, along with the community farming at Tulasikere, volunteer-led community farming in Amrita Bhoomi, Chamarajanagar, which we had collectively initiated and many more organic farmers joined the farmers market.

Team Arulagam is at present working on laying a strong market base in Mysore city, Karnataka for agro ecological practitioners. To stabilize demand vs supply issues, 'NAMDU' Farmers Market in Mysuru with the farmer collective. Organic Farmers from MM Hills and nearby areas sell farm produce in a retail store and 'Bhoomi Basket' for online market.

Empowering Local Communities by facilitating farmers markets and organising Women Group Farming

Project: Women's Food Processing and Value Addition Unit

Location: Chamarajanagar, Karnataka

No of beneficiaries : Ten Women

Description: It is not enough to grow crops and sell them as raw materials. If it is value added and converted in to many different By products, the income level of rural people can go up. Women are traditionally in to food processing. Summer season is used to sun dry and make many snacks like the *Pappadams*, Pickles.



Arulagam trained women in value addition of crops grown in rain fed conditions like the Millets and Pulses. We organized a monthlong training on Millet Baking. Around thirty women learnt about making biscuits, cakes from different types of millets. They got trained in making different spices mix, value addition of turmeric, ginger to name a few.



Project: Building a Territorial market for the natural and organic farmers

Description

Farmers Market Initiative initiative started as a Covid Relief for the farmers who had produced perishables like the fruits and vegetables. During the lockdown in 2020 and 2021 farmers who produced perishables like the vegetables and fruits suffered a lot without access to market. Arulagam with the support of Local Farmers in Chamarajanagar District started a helpline and worked with the District administration to facilitate farmers market.



Farmers were given rented vehicles to pick up the produce and set up farmers market where ever it was possible in taluk centers and District head quarters. More than 500 farmers were able to sell their produce because of our intervention during Covid and took care of their livelihoods.

Since then, Farmers Market is still running with some ups and downs. Second half of 2021 and the whole 2023 was affected by heavy rains in the area which resulted in the heavy crop loss.

Farmers had lost more than 40% of farmers produce. Farmers Market was shut for six months due to non-availability of vegetables and fruits and it has been restarted from January this year.

Project Objectives

Farmers Market is a platform for natural farmers to sell their produce directly to the consumers.

Farmers avoid the role of a middlemen in the supply chain and get a better income by selling directly.

Consumers know their farmers and build a bond with the farmers.

Farmers are the decision makers of the price of their produce based the cost of production of the crop.

Project activities – as per above objectives:

We have rented a shop with a store room and a space for the Weekly Farmers Market.

Procured seasonal cereals and oil seeds, turmeric, ginger from the vulnerable farmers.

Organized several trainings on Natural Farming.

Project : Women Group Farming, Value Addition Centre, Building a Territorial market for the natural and organic farmers, Conservation of Local varieties, Organize Seed Fairs

Funder/s : Thousand Currents, Agroecology Fund

Project location: Women Group Farming, Chamarajanagar hosted at Amrita Bhoomi Agro-ecology School Campus

Beneficiaries: Twelve Families

Description :

Women Group Farming is an ongoing project involves twelve landless single women to build their source of livelihood through natural farming.

They lease a small piece of land to produce Greens and vegetables using natural farming techniques and market their produce directly in their own community. This is a way of building farming based socio economic models for the rural communities through Group Farming.

In Group farming all the members of the group together put their labour and together reap the harvest and share the profit equally among the group.

Project Objectives

To recognise women as farmers as well. To create farm based decentralized economic models.

To Build women friendly agricultural tools reducing the drudgery and the dependence on men labour.

To empower the women as trainers and and train the other women to become farmers as them.

To achieve food sovereignty through agro ecology.

Project activities – as per above objectives:

Got four acres under lease and installed the drip irrigation system.

Trained the women in preparing the Bio-stimulant for the soil microbes like Jeevamrutha, Panchagavya, Bio pesticides like Agniastra, Neemastra, Brhamsatra and other concoctions.

Built Jeevamritha Units.

Designed and purchased women friendly agricultural tools.

Purchased local seeds of Greens and Vegetables.

Purchased two cows to make Jeevamrutha and Panchagavya for the Project.

Rented the vehicle to set up market on wheels.

Purchased four Goats for the group.

Purchased fencing net to protect the crop from the animal raids.

Paid them an honorarium of 200 Rs. a day as a daily stipend to support their livelihood until the harvest started.

Results**1**

Women were very happy that they were getting the land, irrigation facility, fencing, Cattle and Goats for the milk and manure.

2

Able to grow greens and vegetables successfully for the first term and learnt about companion cropping, the value of the local seeds against the hybrid seeds, importance of mulching to take care of the soil health etc

3

Every evening they used to take home a small portion of the fresh vegetables for their families and also sold the greens in their own village which took care of the nutritional security of their family.

4

Consumers appreciated the quality of chemical free vegetables and used to wait for it in the evening. But, the rain which started continuously during the 2022 destroyed all the crops and did not allow the women farmers to sow it again until December 2023.

Challenges

There are many challenges. Firstly it is not possible to execute something without any support. The women are in a very vulnerable situation. They are the victims of landlessness, class, caste and gender discrimination. Having lost the man of the family, the whole burden of the family is borne by these women. They are emotionally broken. They just need some money everyday to sustain their lives and their dependents. In this scenario to encourage them to get involved in something like this takes a lot of effort of explaining to them the whole idea and the ultimate goal of the project and to convince them to accept and sign in the project.

Since it is a Natural Farming Project, they have to unlearn what ever they have learnt working with the conventional farmers and learn a whole set of new knowledge about Natural Farming. This takes some months of handholding and regular interactions.

Opportunities

Women's Group Farming is an excellent way of building livelihoods for the rural women based on agriculture. Women have been doing majority of work in farming. They inherit a whole set of skills required for working in the soil. Women's perspective to farming and and life in general is very different. It is closer to the idea of a local economy and a decentralized economy. This project has taught us that it is possible to reverse the whole narrative of crisis in the agrarian sector.

Forest Rights Act Implementation

Objective 1: File CFR claims (to get CFR rights, Forest Rights Committees must file CFR Claims).

1. Claims filed (100 IFRs and 2 CFRs) from 2 villages in Gudalur.

2. **Filed 17 IFRs in Kottayamedu Grama Sabha** (out of a total of 50 households). CFR is in processing (mapping underway). In Vachikoli village there are 48 households (completed 1 and 3 above). In Mundakoli village, people trained (IFR and CFR both- stage 1 above). The Bennai village in Mudumalai Tiger Reserve has grama sabha and will claim CFR eventually (no IFR) (stage 1).

Objective 2: Community Organizing (Continue to identify the villages where communities are suitable for CFR claims in Niligiri district. Work with interested community leaders to convene grama sabhas and establish Forest Right Committees-FRC)

a. Gudalur: We are active in 14 villages. In five villages, we collected documents and household data (Oct-Nov) to fill up the CFR/IFR claim form. Printed claims to fill the form in the villages.

b. Conoor and Kotagiri: Our team supported the bridge between government and community in 18 villages. Four grama

Sabhas were renewed and in many other villages we followed up IFR claims that had been subverted, followed up the survey. Team has effectively understood what is FRA, but neither the government nor the community knows. So they have to teach both sides. This work is supported by 2 elders based in this area, and we join them for regular meetings, trainings. They have experience working on these issues and we provide them support. Team can be strengthened if they are stronger as advocacy experts.

c. Ooty: Supporting Toda, Irular, and Kurumbar families (52 claims total) which are stuck in process of land redistribution (not FRA). Also supporting the follow up of pending IFR claims in Suloor Kokal.

d. Ooty: Government came and measured 66 claims (out of 72) in Suloor Kokal. The other 6 claims are reapplied. Working to get the title issued.

Objective 3: (a) Build village-level awareness of FRA in Nilgiris district through cultural communications (storybook, songs, and meetings) and (b) through advocacy with concerned government departments (Tribal welfare department, revenue department, forest department).

1. Our forest Dreams book has been translated into 5 languages

(Bettakurumbar, Kattunayakar, Paniyar, Irular, Alu Kurumbar) and the audio recording is done. The audio mastering is underway for four and one is completed.

2. **Ongoing:** Our Forest Dream book and Our Forest lives album continue to be used in the villages and in the tuition center to create awareness. Approximately 500 out of 1000 copies of Our Forest Dream (in Tamil) available.

3. **Ongoing:** Finding out next steps to produce the OFD books in Marati, Bengali, Malayalam, and Hindi. Back burner: Kannada. Need to find a person to anchor the work

4. Did a campaign against forest conservation act 1980 reformations. Produced pamphlets, videos, online meetings.

5. Attended Tribal Sub plan meeting and SC/ST Commission Introduction meet

6. Presentation with Tribal Research Center- Challenges of Implementation of FRA in Tamil Nadu state. Presentation to Government.

7. Attended review meeting on implementation of FRA in the Nilgiris Constituency with Minister. (A Raja – MP). Asked all govt bureaucrats to understand FRA and implement according to what community needs. Reform committee members and create more awareness on FRA among community and bureaucrats is initiating the process.

8. **Train the FRC members and community leaders on FRA, mapping, advocacy.**

Objective 5: Train Field staff support network on GPS mapping (community mobilisers).

1. **Attended** National Meet to Review FRA Implementation and Eviction of Tribals 28th and 29th

2. **Attended** State level consultation meeting on defending the Forest Rights Act implementation and situation analysis among the Tribal Communities in Tamil Nadu at Dharmapuri on October 2, 2022. *Results: improved understanding of the FRA at national level, reported in state level. Built a relationship with HRLN and they later visited our site and a fact-finding. They conducted several follow up meetings which we were involved in.*

Objective 6: Work with legal team to discuss issues on alienated land. Work with Tribal Development Council to recover land.

Ongoing - Collected land surveys for 2 tribal villages (Thenvayal, and marthommanagar). By analysing the land records, our team found available land where they could build houses and submitted information to government. Government surveyed the land and provided the titles. 16 houses were constructed, facilitated by arulgam. As of Sept 2022, Facilitating to get 8 acres of land claimed.

Ongoing since 2017 and : Erani land alienated cases follow up and the case files are Collected from the lawyers and sent letter to the government to take action against the land grabber. In April 7, 2022, visited to expedite the process. We divided the land in three and the three sisters will do agricultural development work in their land. Fellow filed a case and we went to court in August 2022. Hearing will happen in September 2022.

Community Economic Initiatives

Revitalised traditional medicine center in Coonoor Taluka (Alu Kurumbar community)

Purchased equipments. Managed by approximately 10 members, women and men. Collecting the herbal medicine from the forest and minor forest produce. Make traditional ointments and oils. Marketing the medicine. Requires a bit more promotion and need an outlet.

May 13, 14, 15, 2022

Government gave stall to sell minor forest produce at Summer Camp. Then, government gave three outlet in weekly market. Currently working on outfitting the locations and one is operational.

May 27, 2022

Gudalur Paniyar Pengal Nara Sangam
(Gudalur Paniyar Women Welfare group).

A spin off organization of Arulagam which has the purpose of facilitating Paniyar community to take initiative to address their Own issue. Paniyar community is facing issues such as early marriage, alcoholism and related health issues, bonded labor, child mortality, suicide. This organization will identify 30 young adolescent girls to work for their own community for 1 year, so that they can establish a future plan. The 30 girls will also receive training on their skills, starting micro entrepreneurship, direct marketing of community agricultural products. Sensitize the farmers about the product of their agricultural produce.

Quality Education

Follow up work on Interrupted due to government program competing and schools started post-COVID. Many school drop outs; we have started a census on all of the government residential schools – want to run evening tuition center in these schools and also in some villages. One MMK staff member appointed warden.

April 2022

Fact finding about child abuse in Ekalavya residential tribal school in Ooty run by Tribal Research Center.

May - June, 2022

Initiated a survey about the GTR school status in Gudalur block 13 schools with approximately 25 teachers with 737 Children are studying the schools. Some schools have Hostels but no basic facilities. Made a report and submitted to the state tribal welfare department. They came in August/ September for a field visit. We are negotiating to see if they can hand over some schools to MMK trust.

June, 2022

Bennai village – set up transportation and placed teacher there because the children weren't going to the GTR School because it is elephant zone and they live 3-4 km to school.

September, 2022

6 villages active, 4 on the way.
October month Tamil Nadu State Tribal Welfare Department were allocated three boleros to the three (kanchikolli, Mukkatti, and Ponnani) Government Tribal Residential Schools to transport children from Tribal Villages.

Health and Sanitation

Biomedical Waste Cascade Training

Overview

Immunization is considered a key intervention for the protection against vaccine preventable diseases. India is a signatory to the Sustainable Development Goals and is dedicated to achieving them through its numerous Immunization Program (UIP). The Covid-19 vaccination drive has generated a vast amount of Biomedical waste (BMW) in India, necessitating highly specialized handling and disposal, by the Biomedical Waste Rules, 2016, and subsequent guidelines by the Central Pollution Control Board. While these guidelines and regulations are in existence, its implementation is faced with multiple challenges on account of sheer volumes, generation at dispersed locations, poor governance mechanisms and inadequate training and infrastructure. Hence the need of the hour is to augment and strengthen the current structure and develop a more comprehensive system to address the handling and disposal of vaccination waste.

Toxics Link, a Non-Governmental Organization, based in New Delhi, implements the Bio Medical Waste Management program across India. 'Arulagam' based in Coimbatore, is the implementation partner for the state of Tamil Nadu.

Training

16 District Training Medical Officers

2 Medical Officers

Cascade Training conducted in 5 districts

538 Health workers and Nurses trained



Issues and Suggestions

Health Workers

Generally, the reusable gloves will last for 30 to 40 days. But, they are only provided with one or two in a year. There is not enough supply of bins and liners. No weighing scale available and available weighing scale is not in working condition.

Staff Nurse

There are no coloured bins in labour room to segregate the waste. The BMW is not collected within 48 hours. There is no enough awareness on needle prick injuries and precautionary measures and PEP treatment.

Common Issues

1

Not enough Bins, Covers/Liners, no weighing machine

2

No proper collection of BMW in a scheduled manner. They come for collection after phone call only

3

CBWTF gives priority to city based health centres but not to the rural PHC.

4

Sometimes, Doctors are spending their personal money. No Reimbursement on such expenditure.

Urban Issues

1

Not enough bins and liners/Bags.

2

BMW Management Fund is sufficient only for block PHC but not enough for remote PHC.

3

Most of the fund is being allocated for Transportation needs.

Rural Issues

1

No sufficient supplies of Bins, Bags and liners. No right colour bags. Sometimes, only blue bags.

2

No proper facility for Bio-Waste storage area. Hence, they either do deep burial or burn the waste inside or nearby HCF premises. 90% of the BMW are burnt and 10% are buried.

3

No proper transportation facilities.

4

No proper response from CBWTF (Common Bio medical waste treatment facilities). Sometimes, CBWTF vehicle comes once in 4 Months.

Suggestions

1

Sufficient bins to be made available in every corner of the hospitals.

2

Ensure to collect waste at least once a week.

3

CBWTF team also to be attended the training sessions so they could realise the importance of collection and transportation of waste at the proper time.

4

It is good idea for all the doctors to take these issues to State Pollution Control Board (SPCB) in writing or in direct meetings.



Namakkal



Madurai



Photos of Training events



Vellore



Coimbatore



Tiruchirappalli

செவிலியர்கள், சுகாதார பணியாளர்களுக்கான மருத்துவக் கழிவு மேலாண்மை பயிற்சி



தர்மபுரி, மார்ச்.3-
தர்மபுரி மாவட்டத்தில் உள்ள அரசு ஆரம்ப சுகாதார நிலையங்கள் மற்றும் துணை சுகாதார நிலையங்களில் பணியாற்றும் செவிலியர்கள், சுகாதார பணியாளர்களுக்கான மருத்துவக் கழிவு மேலாண்மை குறித்த பயிற்சி முகாம்தர்மபுரி கலெக்டர் அலுவலக வளாகத்தில் மாவட்ட சுகாதார துறை அலுவலக கூட்ட அரங்கில் நடைபெற்றது. இந்த முகாமுக்கு சுகாதார பணிகள் துணை இயக்குனர் சவுண்டம்மாள் தலைமை தாங்கினார். மாவட்ட மருத்துவ பயிற்சி அதிகாரி சனிமொழி மற்றும் அருளகம் இயற்கை பாதுகாப்பு அமைப்பின் நிர்வாகிகள் மருத்துவ கழிவுகளை கையாள்தல், முறையாக அப்புறப்படுத்துதல் குறித்து செவிலியர்கள் மற்றும் சுகாதார பணியாளர்களுக்கு பயிற்சி அளித்தனர். மேலும் மருத்துவ கழிவுகளை அகற்றும் போது கடைபிடிக்க வேண்டிய பாதுகாப்பு முறைகள் குறித்து விளக்கமளிக்கப்பட்டது.

Print media coverage of the cascade training conducted in Dharmapuri.

Media Coverage

Puppet shows organised in the Nilgiris to create awareness about vultures

The Hindu Bureau
UDHAGAMANDALAM

Arulagam, a conservation NGO working on protecting vultures in the region, organised puppet shows recently for school students and the residents of Ebbanadu, Kookalthorai, Chinna Coonoor and Uthatti, to create awareness on the importance of vultures and the threats they face.

S. Bharathidasan, secretary of Arulagam, said there were three species of



Students watching a puppet show held in the Nilgiris.

vulture that inhabit the Nilgiris - the long-billed vulture, white-rumped vulture, and the Asian king vulture, while occasional migrants such as the Egyptian vulture, cinereous vulture and the Himalayan griffon vulture have also been recorded in the past.

Over the years, the use of non-steroidal anti-inflammatory drugs (NSAIDs) to treat cattle have led to the crash in vulture population across India, with the Nilgiris remaining as the last stronghold for vulture population in southern India. Mr. Bharathidasan said the NGO was working with the Forest Department, Department of Animal Husbandry and the district administration to limit the use of NSAIDs harmful for vultures and instead promote use of safe drugs to treat cattle.

"The audience were shown with the use of puppets, how vultures serve to maintain forests healthy by scavenging on the carcasses of dead animals," said Mr. Bharathidasan. The puppet shows also showcase the impact that poisoning carcasses of animals killed by predators has on vulture population, while it was also emphasised that animals killed naturally in vulture habitats should be left for the birds to scavenge to ensure food availability.

Such work was not bound to go unnoticed. When the Tamil Nadu Government set up a state-level committee for vulture conservation, Bharathidasan was made a member. Now part of a team preparing the Tamil Nadu Action Plan for Vulture Conservation (TNAPVC), he has his task cut out for him. "My aim is to establish a safe zone for vultures and ensure the availability of safe food so that their population might increase," he says. He also suggests opening rescue centres and engaging ambulances to take the carcasses of animals found in the city to vulture habitats as one such means. Farmers living close to reserved forest areas often lose their cattle to periodic attacks by tigers and leopards. To prevent the farmers from poisoning the carcasses of the dead cows as an act of revenge (because the carcasses are eventually eaten by vultures who die of it), Arulagam, with the help of Mariamma Trust, hands out 5,000 as compensation to farmers who lose their cattle to such attacks.

SENTILKUMAR SUBRAMANIAM
@ Coimbatore

Kovai's Bird Man spreads his wings to give vultures a shade

Bharathidasan's love for Mother Earth dates back to his student days in Nineties. He became a member of the Bombay Natural History Society (BNHS) way back in 1991, while he was pursuing his masters in Geography. Soon enough, he was devouring nature and wildlife magazines and deepening his knowledge of the natural world. In 2002, he founded Arulagam, a non-profit organisation dedicated towards the conservation of endangered flora and fauna. In his home base of Coimbatore. Named after Arulmozhi, a close friend whose zeal for envi-

ronmentalism he closely shared, Bharathidasan serves as Arulagam's secretary. Close to 10 years after he founded Arulagam, he would pick up one cause and make it his life's mission. A survey he undertook in 2011 along with the BNHS revealed a sharp decline in vulture population in Tamil Nadu,



with the last remaining habitat recorded in the Sathyamangalam Tiger Reserve (STR) in Erode, which is now home to four vulture species - the Egyptian vulture (the red-headed vulture), the white-rumped vulture and the long-billed vulture. His efforts towards conserving and increasing the vulture population earned him international recognition in 2016 at the International Union of Conservation of Nature in Hawaii, where he was honoured with the Biodiversity Hotspot Hero Award.

Such work was not bound to go unnoticed. When the Tamil Nadu Government set up a state-level committee for vulture conservation, Bharathidasan was made a member. Now part of a team preparing the Tamil Nadu Action Plan for Vulture Conservation (TNAPVC), he has his task cut out for him. "My aim is to establish a safe zone for vultures and ensure the availability of safe food so that their population might increase," he says. He also suggests opening rescue centres and engaging ambulances to take the carcasses of animals found in the city to vulture habitats as one such means. Farmers living close to reserved forest areas often lose their cattle to periodic attacks by tigers and leopards. To prevent the farmers from poisoning the carcasses of the dead cows as an act of revenge (because the carcasses are eventually eaten by vultures who die of it), Arulagam, with the help of Mariamma Trust, hands out 5,000 as compensation to farmers who lose their cattle to such attacks.



PIC: S SENTILKUMAR

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People residing near tiger reserves sensitised to vulture conservation

The Hindu Bureau
UDHAGAMANDALAM

Conservation non-governmental organisation, Arulagam, recently conducted an awareness campaign to sensitise people living in villages near vulture habitats in the Sathyamangalam (STR) and the Mudumalai Tiger Reserves (MTR).

S. Bharathidasan, secretary of Arulagam, said the conservation group, which is working to conserve vultures in the Sigur plateau, has been conducting regular awareness campaigns in villages near vulture habitats in the Sathyamangalam (STR) and the Mudumalai Tiger Reserves (MTR).



Vultures seen at the Sigur range in the Mudumalai Tiger Reserve buffer zone earlier this year. M. SATHYAMOORTHY

residents about the factors that have led to the drastic decline in vulture populations across India.

Members of the conservation group visited villages in MTR and STR between June 28 and July 5, staging plays and also singing songs to sensitise local

matory Drugs (NSAIDs) in cattle had led to the deaths of a majority of the vultures in India over the last few decades, and urged residents not to use the NSAIDs to treat their cattle. The members also spoke about how retaliatory poisoning incidents, tar-

geted at carnivores that prey on the domestic cattle, was also severely impacting vultures that happen to scavenge on the carcasses.

Mr. Bharathidasan said the fact that the Nilgiris and Sathyamangalam had the largest population of vultures in south India was a matter of pride, and urged residents to help conserve the three different species of vultures that are resident in the Sigur plateau.

The awareness programmes were conducted in Theppakudai, Anaikatty, Siriyur, Bokkapuram, Moyar, Masinagudi, Chemmanatham, Boothanatham, Mavanallah, Vazhaitottam, Chokkanalli, Ebbanadu and other surrounding villages as well as within Udhagamandalam town.

Government plans synchronised vulture census across Tamil Nadu, Kerala, Karnataka

Geetha Srimathi
CHENNAI

The State-level Vulture Conservation Committee (SVCC) has decided to conduct a synchronised vulture census in Tamil Nadu, Kerala and Karnataka. The census has been planned before March as the nesting season is in progress, Chief Wildlife Warden Srinivas Reddy has said.



Around 60 villages, 20 in each State, have been identified as hotspots. FILE PHOTO

At the SVCC's first meeting held on January 25, other conservation plans - such as operationalising rescue centres in Tirunelveli, Tiruchi and Coimbatore; designating a Vulture Safe Zone (VSZ) around the Mudumalai Tiger Reserve; and future strategies -

were discussed. "Since this was the first meeting, there were a lot of ideas that came from different members. The only concrete decision taken was about the census," Mr. Reddy said.

Around 60 villages, 20

each in Tamil Nadu, Kerala, and Karnataka, have been identified as hotspots, based on vultures' feeding and nesting areas and areas where there is a notable cattle-carnivore conflict, said S. Bharathidasan, secretary, Arulagam, a non-profit organisation working towards environmental conservation.

Animal welfare camps Mr. Bharathidasan, who is also a SVCC member, said proposals had been made for conducting animal welfare camps, sensitising people to ethical animal husbandry, and providing opportunities for sale of pesticides based on cow dung.

He said that designating the VSZ would be an important step in conservation. "Vulture Safe Zone is only a concept now; it must be legalised by the government so the do's and don'ts can be implemented," he said.

The SVCC consists of the Director of the Department of Animal Husbandry; the Director of Drugs Control, Food Safety and Drug Administration Department; experts; and NGOs working towards vulture conservation.

Mr. Bharathidasan said steps must be taken gradually for the entire State - and not just areas around Mudumalai - to become a safe zone for vultures.

கிழக்கு தமிழ்நாடு 2 சென்னை, ஜூலை 4, 2023

அழிவில் இருந்து மீளுமா பாறு கழுக்குகள்

நீலகிரியில் விழிப்புணர்வு பிரச்சாரம்

பாறு கழுக்குகள் என்பதும் பிணர்ச்சியில் கழுக்குகள், இறந்த விலங்குகளைத் தின்ற கழுக்குகள் என்பதும், மனிதர்களையும் விலங்குகளையும், மனிதர்களையும் காத்து வருகின்றன. இந்நிலையில் பல்வேறு காரணங்களால் கழுக்குகளை வளர்ப்பதற்கு குறைந்தது.

பாறு கழுக்குகள் வளர்ப்பதில் கவனம் செலுத்த வேண்டும். இவ்வகை கழுக்குகள், மனிதர்களைப் போலவே உணவு உட்கொள்ளும் வகையில் இருக்கின்றன. இவ்வகை கழுக்குகள், மனிதர்களைப் போலவே உணவு உட்கொள்ளும் வகையில் இருக்கின்றன. இவ்வகை கழுக்குகள், மனிதர்களைப் போலவே உணவு உட்கொள்ளும் வகையில் இருக்கின்றன.

நீலகிரி விலங்கியல் காப்பகத்தில் பாறு கழுக்குகளைப் பற்றிய விழிப்புணர்வு பிரச்சாரம்.



The campaign on vulture conservation commenced at Sirumugai higher secondary school in the Nilgiris district | EXPRESS

Street theatre campaign to raise awareness on vultures

EXPRESS NEWS SERVICE
@ Coimbatore

THE forest department along with NGO Arulagam is conducting street theatre campaigns to create awareness about protecting the vulture population in Sathymangalam Tiger Reserve (STR) in Erode district and its adjoining areas in Sirumugai forest ranges in Coimbatore district on Wednesday.

The campaign commenced at Sirumugai higher secondary school and then went to Ooliyur tribal settlement, where the farmers and cattle owners have been sensitised about conserving vultures. A total of three types of vultures, including red-headed, white-rumped and long-billed vultures are found at Ooliyur and its neighbouring area 'Kandhavayal'.

Secretary of Arulgam S Bharathidasan told TNIE that they have decided to cover over 20 villages in STR and its adjoining areas in Sirumugai as long-billed vulture's nesting site was found in a cliff near Thengumarahada in Erode district recently for the first time in a decade.

"We have been requesting the farmers and cattle owners to use meloxicam and tolfenamic acid drugs, which are safer for cattle as recommended by the central and state governments and requested them to leave dead cows and goats as a feed for vultures. We have told them that many vultures will die if the farmers apply poison over the dead cattle as revenge. Farmers take this extreme step to kill leopard or tiger if they kill the cattle," he said. The group members are expected to complete the campaign on July 2, following which they are going to carry out the similar campaign in villages in Muddumalai Tiger Reserve.



முதுமலை புலிகள் காப்பகத்தில் பாறுக் கழுக்குளை பாதுகாக்க கிராமங்களில் விழிப்புணர்வு

கடல், சிந்தி, பொக்கா புரம், மாயாறு, மின்னாடி, செம்மந்தம், பூநந்தம், மாவின்னலா, தோட்டி, லீன்டி, வரையத்தோட்டம், சொக்கநல்லி, எப்பநாடு, ண்டி, போள் பகுதிகளில் இந்த விழிப்புணர்வு பிரச்சாரம் மேற்கொள்ளப்பட்டது. இதில் ஊர்ந்தலைவர்கள் முன்னிலை வகித்தனர். சிங்காரா, சேடர், மன்னக்குடி, வனச்சேரி, கிரிப்பு அழைப்பாளர்களாகக் கலந்துகொண்டனர். கடந்ததில் பாறுக் கழுக்குள் பாதுகாப்புக் குறித்தும் அத்துடன் காஸ்ட்டைக் குறித்து ஏற்படும் தோயில்களைக் குறித்து தேவையான முன்னெச்சரிக்கை குறித்தும் துண்டறிக்கை விநியோகிக்கப்பட்டது.

முன்னதாக இந்தக் கழ்ச்சியை அருளகத்தின் செயலர் பாரதிதாசன் தொடங்கி வைத்துப் பேசும்போது, தமிழ்நாட்டிலேயே பாறுக் கழுக்குள் முதுமலை மற்றும் சதீயமங்கலம் பகுதிகளில் வாழ்ந்து வருவது நம் ஊருக்குப் பெருமை. மனிதர்களால் பல்வேறு அச்சுறுத்தல்களுக்கு ஆளான நிலையிலும் இங்கு இவை இருப்பது பாராட்டுக்குரியது. மக்கள் பங்கேற்று புடன் இவ்வினத்தை அறிவிக்கும் முடிவு செய்து விட்டு முடியும் என்ற நம்பிக்கை உள்ளது, என்றார்.

Photo Gallery

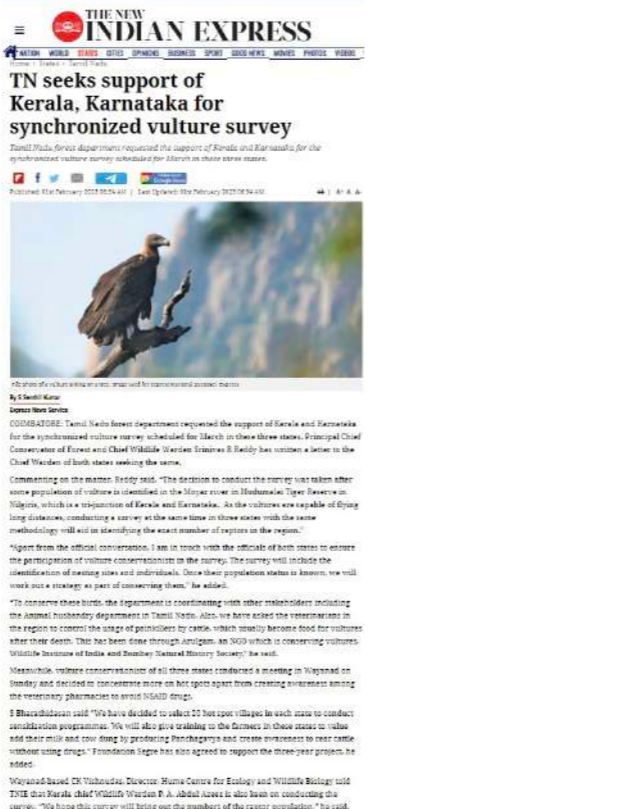



ஆறுமலை சிவாலி அழிந்துவிட்டிருக்கிறது.

கழுக்குள் சமரக்சணம்: ஸோயவல்சுரணம் நடணி

ஊர் • காலில் ஆறுமலை சிவாலி அழிந்துவிட்டிருக்கிறது. அதை சமரக்சணம் நடணி ஆறுமலை சிவாலி அழிந்துவிட்டிருக்கிறது. அதை சமரக்சணம் நடணி ஆறுமலை சிவாலி அழிந்துவிட்டிருக்கிறது.

கழுக்குள் சமரக்சணம் நடணி ஆறுமலை சிவாலி அழிந்துவிட்டிருக்கிறது.



THE NEW INDIAN EXPRESS

TN seeks support of Kerala, Karnataka for synchronized vulture survey

Tamil Nadu forest department requested the support of Kerala and Karnataka for the synchronized vulture survey scheduled for March in these three states.

Published: 15th February 2023 05:44 AM | Last Updated: 15th February 2023 06:44 AM

By Sanku Kumar

COIMBATORE: Tamil Nadu forest department requested the support of Kerala and Karnataka for the synchronized vulture survey scheduled for March in these three states. State Forest Officer, Coimbatore and Chief Wildlife Warden, S. Balaji has written a letter to the Chief Warden of both states seeking the same.

Commenting on the matter, Balaji said, "The decision to conduct the survey was taken after some population of vulture was identified in the Sirumugai Tiger Reserve in Nilgiris, which is a region of Kerala and Karnataka. As the vulture is capable of flying long distances, conducting a survey at the same time in these states with the same methodology will aid in identifying the exact number of vultures in the region."

"Apart from the official conversation, I am in touch with the officials of both states to ensure the participation of vulture conservationists in the survey. The survey will include the identification of nesting sites and individuals. Once their population status is known, we will work out a strategy as part of conserving them," he added.

"To conserve these birds, the department is coordinating with other stakeholders including the animal husbandry department in Tamil Nadu. Also, we have asked the veterinarians in the region to control the usage of pesticides by cattle, which usually become food for vultures after their death. This has been done through meetings. An NGO which is conserving vultures, Wildlife Institute of India and Wildlife (Specialist Society)," he said.

Meanwhile, vulture conservationists of all three states convened a meeting in Wayanad on Monday and decided to collaborate more on bird spots apart from creating awareness among the veterinary pharmacies to avoid NSAID drugs.

S. Balaji said, "We have decided to select 50 bird spots in each state to conduct identification programs. We will also go to villages in the States in these states to value add their milk and cow dung by producing biochar and create awareness to rear cattle without using drugs." Foundation League has also agreed to support the three-year project, he added.

Wayanad-based Dr. Vigneshwar, Director, Centre for Ecology and Wildlife Biology said, "The bird spots identified across the three states will also have an impact on the survey. We hope this survey will help out the numbers of the vulture population," he said.

Partnerships

We collaborate with the following organisations to achieve our goals



Thanks to our supporters, partners and well-wishers.

Financial Statement

Receipts and Payments for the year- 2022/23

Receipts Particulars	Income Cost (₹)	Payments Particulars	Expenditure Cost (₹)
Grants from Donors	1,42,09,386	Programme expenses	₹ 1,52,01,574
Donations	70,50,973	Nursery Activities	₹ 25,58,316
Members' subscription	3,100	Administrative expenses	₹ 17,48,466
Bank Interest	4,74,011	Capital expenses	₹ 22,35,260
Other Source	6,146		
Total	2,17,43,616		₹ 2,17,43,616

(Balance amount will be carried forward to ongoing project. Detailed audit report can be availed by requesting, Auditor : M/s. R.J. Gopinath)

Arulagam is registered under Tamil Nadu Societies Registration act 1975, Regn. No; 156/02 , Regd. u/s 12A, 80G of the IT Act; Regd. under FCRA to accept foreign donations.

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