RAMANATHAPURAM



Aatrangarai - Vaigai River Emptying Site at Bay of Bengal



Valgal River originates from Moola Valgal in Varushanadu, Theni district, passes through Theni, Dindugal, Madural, Sivagangal and Valgal emptles in Bay of Bengal at Aatrangarai village in Ramananathapuram.

National Council for Science and Technology Communication, Department of Science and Technology, Govt. of India and Dept. of Communication, Madurai Kamaraj University jointly organized an Information Sharing Session at Aatrangarai Village on 26th May, 2017.

Only when Periyar dam is filled with 182-feet-level water, we can get 10.5 TMC of water in Vaigai River. Only then Ramnanathapuram can request for one or 1.5 TMC of water.But, the situation today is, water level is not raised beyond 136-142 feet. Even the Supreme Court has passed the judgement to increase the water level.

Only after fulfilling the water requirement of 15,000-acre of farm lands in Cumbum valley, the remaining water should reach Periyar dam. Other than that, water sourced from 8,000 sq.km area including Moola Vaigai, Mayiladumpaarai and Vellimalai should be considered as Vaigai water source. Valgai dam is the only dam in India with two different water sources. Vaigai is not a big dam. It only has 6.800 TMC water. Out of which, 4 TMC is from Periyar and 2.800 TMC from Valgai. There is 21 feet silt. Right from Nilayur canal to Ramnanathapuram, 13,600 acre of farm land require Vaigai water. Most importantly, 67,833 acre of farm land is from Ramanathapuram third ridge region.

This region has many tanks. In Ramanathapuram, there are 1,670 tanks. There are many tanks in Sivagangai and Ramanathapuram. The erstwhile integrated Ramanathapuram district had 10,000 tanks. There were over 10,000 Jamin tanks. In total, there are 1,670 system tanks. Out of which, 502 tanks are PWD tanks, which are bigger ones. RS Mangalam tank, which extends to 19.5 kms, is the second largest in Tamil Nadu and supplies water to 12,000-acre of farm land and supplies water to 72 other tanks. Next one is RamnadBig Tank which was constructed during KizhavanSethupathi period. He combined eight tanks to construct Periva Tank which extends to 10.5 kms. Next one is Kalari tank, which extends to 8 kms and supplies water directly to 2,000 acres of farm land and indirectly to another 1,000 acres. Next one is Singarakottai tank. So. Ramanathapuram is known for its biggest tanks. Erstwhile kings have connected the tanks one after another in a seamless way. Because of decreasing level of river water, check dams were constructed. There should not be any sand mining in Ramanathpuram and Sivagangai districts.

Report of Field Study/Work
Project Under Mission ECO-NEXT, NCSTC,
Department of Science Technology
Government of India



National Council for Science & Technology Communication (NCSTC)



Department of Science and Technology, Ministry of Science and Technology, Government of India



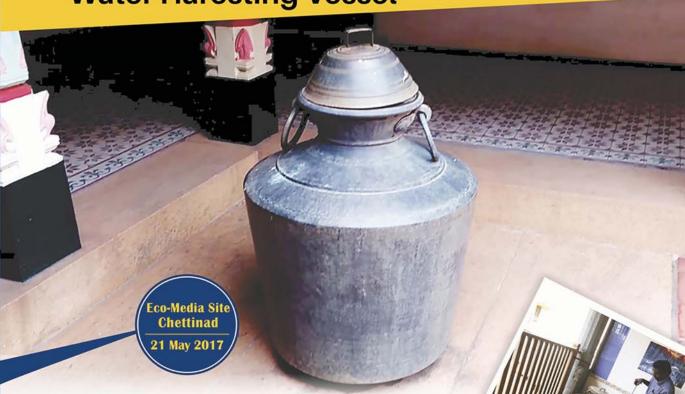
Department of Communication

Madurai Kamaraj University



KIDARAM - Water Haresting Vessel

Mission Eco-NEXT



Located in South Eastern side of Tamil Nadu, Chettinad encompasses 56 towns in Sivagangai district and 20 towns from Pudukkottai district. The people living here are called Nagarathaar. The architectural beauty of Chettinad houses are well-renowned globally. The houses where Chettinad Nagarathaar live are bigger in size. Each and every house here beautifully reflect the traditional Chettinad construction style. In Chettinad houses there is a big open courtyard, which brings wind and light into the house.

National Council for Science and Technology Communication, Department of Science and Technology, Govt. of India and Dept. of Communication, Madurai Kamaraj University jointly organized a field study on Chettinad Kidaram Water Storage vessel on May 21, 2017. Chettinad is a dry and hot area. In the past, bore wells to fetch water are rare. Rain water was the main source of drinking water.

Chettinad Nagarathaar have long been constructing houses in such a way to collect rain water for their needs. During rainy season, the water from these sliding roofs get directed towards four edges and falls on the courtyard. The water collected from the sliding roofs were saved in the metal vessel kept in the corners of the courtyard. Kidaram is the biggest among the vessels used in Chettinad houses. Bigger-sized Kidaram adds beauty to the courtyards of Chettinad house.

Kidaram is used for rain water harvesting. Since 18th century, this has been widely used in houses in Chettinad. The specialty of this vessel is its capability in preserving rain water for one year. This vessel is made up of Copper and Brass. It is 3 feet tall. During functions and marriages, this vessel was used to store rain water or for collecting water from ponds or other sources. Nowadays, it is rarely used. Even the vessel making has reduced. Only those vessels that are in Chettinadhouses are still in use. Overall, it is rarely used. Let us cherish our tradition. Let us save rain water.

Report of Field Study/Work Project Under Mission ECO-NEXT, NCSTC, Department of Science Technology Government of India



National Council for Science & Technology Communication (NCSTC)











Eco-Media Site Madurai city 27 Apr. 2017

Madurai Vandiyur Lake is only wetland in Madurai Dt. It is a main water source for the city. Vandiyur Lake is in north block surrounded by areas in Madurai city including, Vandiyur, Managiri, Uthangudi and Tallakulam. Now, Vandiyur Lake is spread across 572 acres. When it is full of water, it looks like a sea. As the Vandiyur Lake is covered with water hyacinth filled with silt, the water storage level has decreased. The blockage in water passage and delayed rainfall are leading to decrease in underground water level.

We believe that developing a strong bond between the public and water resources is vital for protecting the water bodies. A canal from the new bridge in Sellur passing through the underground passage covering American College and Managiri Bypass brought Vaigairiver's water. Even before Periyar water, which started 100 years ago, lake had Vaigai water source. We have constructed roads and in the name of urbanization, we have spoiled the canals and water sources of the lake.

The Walkers Club actively met the Collector multiple times to protect this water source. Supply channels help us to know the water source of Vandiyur Lake. Approximately lake gets 300 Cusec of water from Vaigai. During flood in Vaigai, this lake would fill in 40 mins. Another important source is, Sathiyar Dam, which enters as streams via Maattuthaavani. The capacity of that water is 400 Cusec. Another source is, Periyar Main Canal. From 30th sluice, we get 3 Cusec every day. There is one other source -- Periyar Main Canal 5, which is routed via lyer Bungalow towards Maattuthaavani flower market. If public were well aware during those days, we would have guided them not to close the water passage. From 2012 to 2015, there was surplus water.

A Storytelling event was organized as part of the National Council Science and Technology Communication, Department of Science and Technology, Govt. of India. Students from Depat. of Communication, Madurai Kamaraj University, youth and local volunteers met at Vandiyur Lake and participated in this event on Apr 27, 2017. Federation of Vandiyur Tank, Coordinator MrRagavan; Secretary MrPandi, Founder of Nature Secure Foundation Mr. Selvam Ramasamy, Prof. Baburaj and PWD Asst. engineers Mr.Subramani and Mr. Mohan Kumar participated in this event. Let us protect Vandiyur Lake. Let us save Madurai's ground water resources.

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KADAMBA TREE

ENDEMIC AND ENDANGERED TREE SPECIES



Kadamba trees, the place was called as Kadambavanam. Kadamba trees are mentioned in ancient Tamil literature.

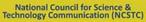
Kadamba tree is the auspicious tree of Madurai Meenakshi Amman Temple. The main reason for its extinction is the lack of seed setting. Impact of the ecosystem is another reason. The condition of the soil and drought are also responsible. Cross-pollination is very important, but the growth and pollination of Kadamba trees are very slow. When Vaigai River was filled with water, there were lush green forest.

As part of the 10-day workshop jointly organized by the National Council Science and Technology Communication and Department of Communication, Madurai Kamaraj University, visited Vellimalai temple grove to document Kadamba tree, the team shocked that the tree was chopped off and smuggled out. Earlier the tree was used in Calico printing. It can be used to make sculptures. Kadamba tree is very apt for sculptures with intricate design.

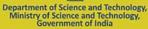
An another full-grown Kadamba tree in Sokkalingapuram near Vadipatti, Madurai Dt., was identified for documentation. The village was earlier called as KadambanSolai. The documentation work held on Apr 23, 2017. Mr. Baburaj, Former Botany Professor, and Azhagu Raja, Samayanallur President of Oyaatha Alai led the event. Let us increase the number of Kadamba trees. Let us preserve the natural beauty of Madurai.

Report of Field Study/Work Project Under Mission ECO-NEXT, NCSTC, Department of Science Technology Government of India











Madurai Kamaraj University





KACHCHIRAYIRUPPU TANK

Session of Storytelling



Kachchirayiruppu Village is located in the lush green and bounty of Nature, which is close to Melakkal-Vikkiramangalam road, Madurai Dt.,. This village attracted "PattikaadaPattanama" film makers. In 1972, then popular actors Sivaji and Jayalalitha were acted for a scene in Kachchirayiruppu near Melakkal Tank.

The scene is entirely different now. Students, local public were sitting on the bed of totally dried Melakkal Tank near Kachcirayiruppu for a Nature Visit on the eve of Earth Day programme jointly organized by National Council for Science and Technology Communication (NCSTC), Department of Science and Technology, Govt. of India and Department of Communication Madurai Kamaraj University, on 21 April, 2017.

Mr. Machakaalai local resident of Kachchirayiruppu told the story of the glorious past of the Tank: Melakkal Tank receives water from Vaigai through Nilayur Canal link. More than thousand buffaloes graze here. In a half an hour, one family can catch at least one kg. of fish for their food. This tank supported livelihood of people of 10 villages.

Those times were golden to the locals as lease system of tanks was not introduced. Now silt prevents the storage capacity and more than 400 hectares of Agriculture land became dry lands. Farmers and workers face severe problems here. Vaigai dried and streams from Nagamalai hills also need maintenance. Prosopis Juliflora has occupied in many places of the Tank, Mr. Subramanian local leader of Kachirayiruppu, students of Madurai Kamaraj University and local youth were present during the storytelling session.

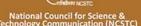
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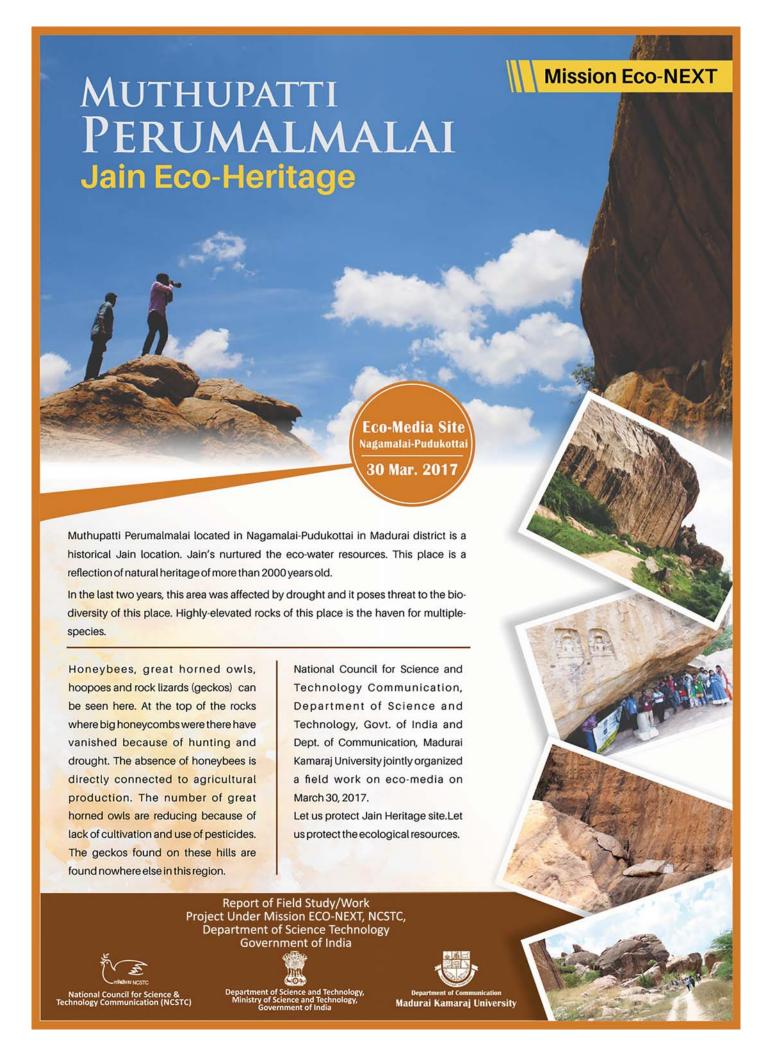


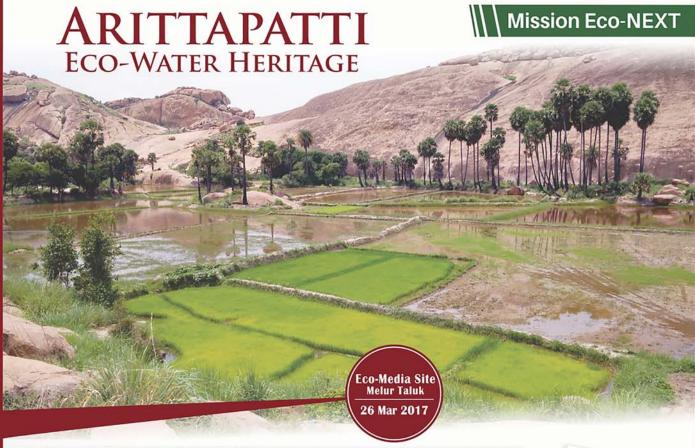












Arittapatti, the eco-friendly village, is located in MelurTaluk in Madurai District. The mountain range fencing the western side of the village is called as Kizhinjamalai or Arittapatti hills. In the stone inscriptions it is also referred as Thirupilayan hill. On the northern slope of the hills, below the elevated rock structure, there is a natural cave formation, Inside the cave formation, a stone bed used by Jains is still there. Above the cave, the rock is carved like an eyebrow to prevent rain water from entering the cave. There are two Brahmi stone inscriptions from BC200 on the outer wall of the cave. Outside, on northern side of the cave, there is a sculpture of Tirthankara meditation under triple umbrella. Below that there is an abugida stone inscription dated back to BC 1000. During ancient period and after that Arittapatti hills was renowned for Jainism.

Joins highly respected the water resources and they lived near those water bodies. Agriculture remains as the major source of Income for majority of people living in Arittapatti. Agriculture is highly reliant on rain water. Arittapatti hills function as nature's gift for people to save the valuable rainwater.

National Council for Science and Technology Communication, Department of Science and Technology, Govt. of India and Dept. of Communication, Madurai Kamaraj University jointly organized a field study in this area on March 26, 2017. In continuation of that a fieldwork was conducted on May14, 2017.

The main main reason for Arittapatti being a heritage village is its water bodies. There are 52 specific water bodies.Like rivers, tanks, small waterfalls and streams on the hill There are three water tanks. One is Aanaimelkondaan tank, second one is Periyakulam tank and the third one is Kaamankulamtank.Among these three tanks, for Aanalmelkondaan tank, Periyar river Is one of the water sources. But the main water source is from the tank above the hills and Puthukulam tank Water from both the sides join together to form major water source that fills this tank.

In case of Periyakulam tank it depends on only 20% of the Periyar water. Because the water comes from a small canal located six kilometres away. So, they are not relying on Periyar water. water storage above this hill is called Melappam tank This was constructed during British period. If we get heavy rain for one day, for 30 days, we would get continues flow of water from the hills. This is how the hill stores water and route it to the tank Within 20-50 feet, the bore well water is available anywhere in Arittapatti village in Meturtaluk.

Similarly, the underground water is readily available well within 150 feet. This village is that much eco-friendly. The third tank Kaamankulam tank, mainly relies on rain water. Water stored on the hills pours down once in a week. It is called Aayakettu (Irrigation Capacity). Kaamankulam tank is capable of supplying water to approximately 170 acres of farmland.

Similarly, a valley is located above the tank There are about 50 acres of agricultural land. For all the agricultural needs, water stored on the hills is mainly used. The tank supplies water to almost 220-230 acres. On both sides of the tank, there are over 500 old big trees. Those high grown trees make this tank unique. During the Mullai Periyar water project planning, from each dam canals were constructed. Government authorities asked people of arittapatti for constructing canal for enabling Periyar water to fill the Kaamankulam tank. But they told them that rainwater itself is enough for them. We don't need the Mullai Periyar water. They didn't construct canal for that tank. Kaamankulam tank is that much special One of the auspicious water body in Arittapatti is called Darmam. Darmam water storage is only for drinking purpose. Even during harsh summer, this water won't dry up. People use this water for cooking purposes. Towards southern side of this hill there are two ponds Kollankulam 1 and Kollankulam 2. Those were also constructed during British period.

This eco-water Heritage site hosts many birds because of the presence of water on hills. This village is in fact a pioneering village in Madurai. Let us preserve the ecosystem and natural beauty of Arittapatti.Let us get the benefits of water resources.On 2nd June 2018 during Regional ECO-NEXT Media Lab programme, Arittapatti was developed as Eco-Water Heritage site.



Report of Field Study/Work Project Under Mission ECO-NEXT, NCSTC, Department of Science Technology Government of India



National Council for Science & Technology Communication (NCSTC)





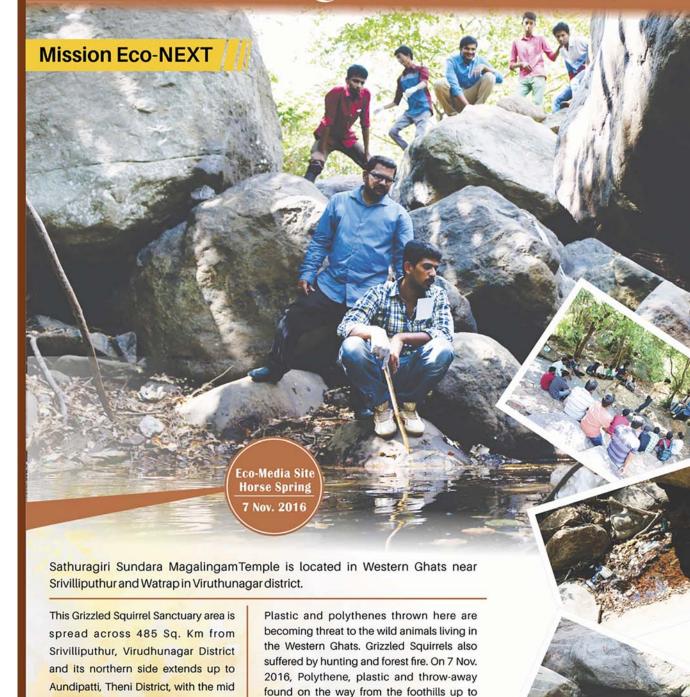








Western Ghats – Sathuragiri– GRIZZLED SQUIRREL SANCTUARY



KudhiraiOotru (Horse Spring) were removed.

Impact: Eco-dialogue driven activism-Members from Social Organizations

participated - Kalasalingam University

students also participated.

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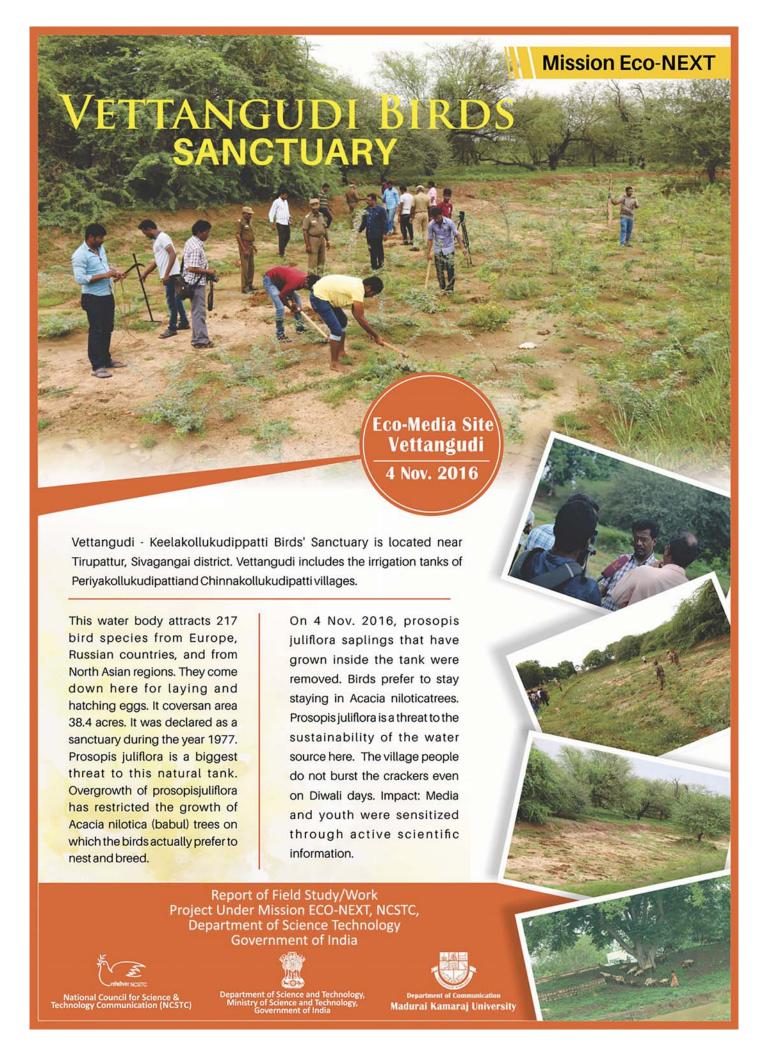


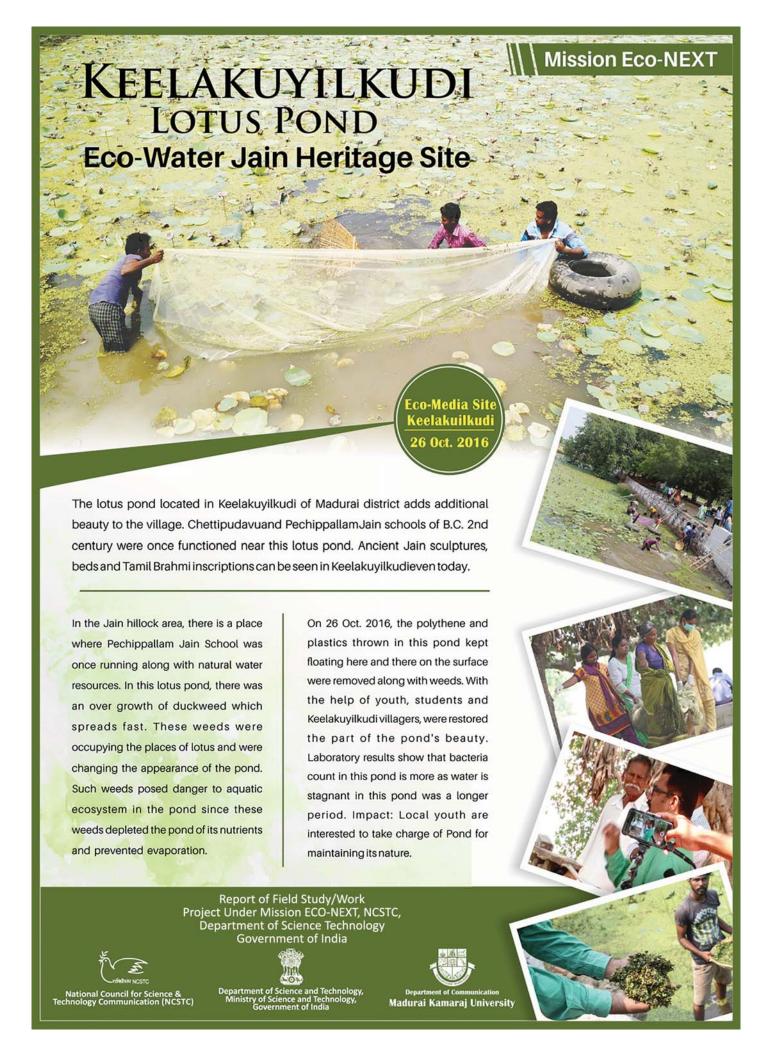
portion lies in Madurai District and the

south side extends up to Tirunelveli

District. We could find hills, forests,

valleys and tourist spots in this area.

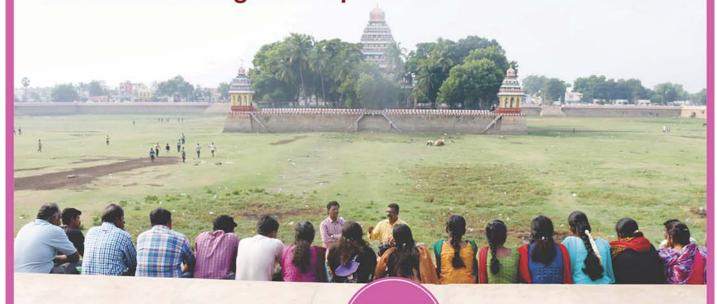




TEPPAKULAM-

Mission Eco-NEXT

Tamil Nadu's Largest Temple Tank



Eco-Media Site
Madurai City
25 Oct. 2016

Vandiyur MariammanTeppakulam in Madurai is the biggest temple tank in Tamil Nadu. Teppakulam was the place where sand was dug to construct the ThirumalaiNayakar Mahal in 1645. The tank that looks magnificent when it brims with water, is now littered with garbage and human waste.

The length and width of the tank is 304.5 meters. The surrounding wall of the tank is of 15 feet high. There are underground pipes to bring in water into the pond from nearby Vaigai River. This tank acts as the underground water source for the people living around this area.

Burning plastic, Styrofoam wastes that accumulate from nearby shops and eateries leave carcinogens in the air. This threatens the residents with several health hazards including cancer. People use this dried tank as a place of open defecation. On 25 Oct. 2016, during eco-media drive, garbage was cleaned and the activities were documented in Teppakulam Tank.

Nearby general public, Thiagarajar College students, lecturers, social activists also participated in this eco-work. North eastern part of the tank was cleaned of all wastes dumpings. Impacts: Shopkeepers were sensitized not to burn Styrofoam, plastics inside the tank and insisted them to use dust-bins. And Public were sensitized for stopping open defecation. Newspaper reports on the event alarmed the authorities with realities of the Tank – which is culturally important to the people.

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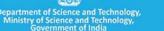














GUNDAR RIVER





GundarRiver originates from small streams from the catchment area of Western Ghats in Aundipatti, Theni district. Issues including insufficient rainfall, encroachments, Prosopis Juliflora trees, sand mining have stopped the river's flow.

Farmers have been requesting to get water from Vaigai and to implement the inter-linking project of Cauvery, VaigaiandGundar. On 22 Oct. 2016, Prosopis juliflora trees grown under the new bridge near the Aarukan Bridge in Thirumangalamwere removed. Students from Kalasalingam University also joined hands with local youth.

Prosopis juliflora trees big and small were uprooted and removed from the river bed. Municipality Health Officer Mr.Rajarathinam and Health Inspector Mr. Sikkanthar participated in this event. Impacts: Increase of media sensitivity on the river. Good support from media.

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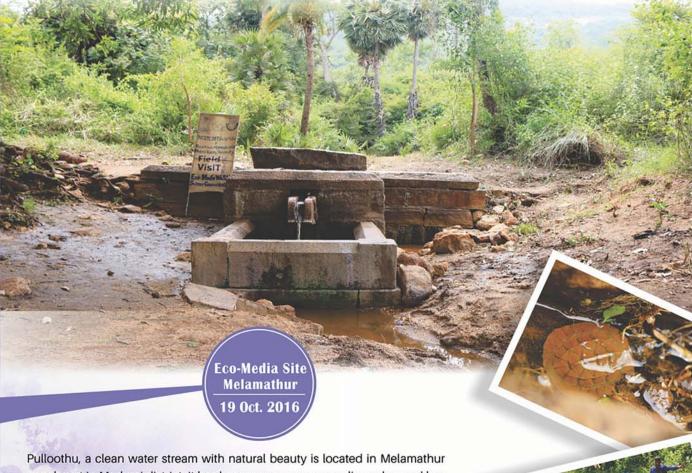






PULLOOTHTHU - Natural Water Stream





Pulloothu, a clean water stream with natural beauty is located in Melamathur panchayat in Madurai district. It has become an open space liquor bar and has lost its glory. Since this is a herbal spring this had been a place where women, children and families were visiting often.

Since, this place is infested by alcoholics and anti-social elements, general public refrain from visiting this place as often as they once used to. On 19 Oct. 2016, shrubs had grown densely blocking the path of the water flow were removed. Now, birds, turtles animals and monkeys that live near this place can easily access the drinking water.

Plastic bottles, liquor bottles, polythene bags, other wastes thrown here were also removed. Melamathur Panchayat President Mr. Karupaiah participated in this event. Impacts: Involvement of Local Public. Support from Panchayat for public place for everyone's entry - not a place for open-bar.

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