Sri Aurobindo Society
SVARNIM PUDUCHERRY
TOWARDS THE GOLDEN FUTURE

AURO FOOTPRINTS

A Monthly Newsletter

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Give all you have, this is the beginning. Give all you do, this is the way. Give all you are, this is the fulfillment.
--The Mother

Dear Reader,

Welcome to the fourteenth edition of Svarnim Puducherry's monthly newsletter. With the blessings of Sri Aurobindo and the mother, Svarnim tries to take on the roles of social and environmental responsibility in a way that reflects their vision of nature and social relations ought to be. In this endeavour, we would be very grateful to receive your feedback and reviews, as that would help us move forward together. Thank you for being with us!

SCHOOL AND COMMUNITY WATER LITERACY PROJECT

The School and Community Water Literacy Project of the Svarnim Puducherry program aims to enhance understanding of water's impact on livelihoods, nutrition, health, and other related domains, while developing ecologically sound campaigns for water resource conservation through inclusive, accountable, and participatory efforts.

WATER FEST '24

KALAJATHA-POTHU SOTHU

In March 2024, the Svarnim Puducherry Crew held a community-level water festival called Kalajatha-Pothu Sothu, involving street theatre performances in **14 villages** in the Puducherry region which included Bahour, Kirumampakkam, Embalam, Karikalampakkam, SS Nagar Villianur, Uruvaiyar, Koodapakkam, Senthanatham, Karaiyamputhur, Pandasozhanallu, Purana Singa Palayam, Thirukkanur, Abhishekapakkam, and T.N. Palayam. The festival aimed to raise awareness about water conservation and its impact on future generations. The initiative was launched in conjunction with World Water Day to promote water sustainability, aiming to influence public behaviour and manage water scarcity effectively.

POND RESTORATION

Manappattu, a village in southern Puducherry, boasts a range of ecosystems, including serene ponds, traditional trees, dunes, and lush paddy fields. The 23 ponds in Manappattu were once essential waterways that provided for the everyday requirements of the people. Unfortunately, they lost value over time with the advent of borewell farming and modernity.

The Svarnim group, with the direction of the Sri Aurobindo Society, has restored 20 ponds in Manappattu with community cooperation. The group aims to rekindle interest in conventional water management methods and promote a sustainable future by bringing traditional ways back into the spotlight. The ponds' revitalization indicates the community's acceptance of this process and its dedication to heritage preservation. Manappattu is moving toward a more positive future in which cooperation and dedication will ensure that the enduring beauty of its natural resources is preserved.

HARMONY OF WATER CONFERENCE '24

The "Harmony of Waters" conference, held from March 19th to 22nd at Sharanam, Puducherry under the direction of Sri Aurobindo Society aimed at addressing water conservation, sustainability, and ecosystem restoration challenges in India. The speakers and participants included national-level experts on wetlands, research scholars, conservationists, activists, and students from all around India. The inaugural session started with a keynote address from T.P. Raghunath, Director of Svarnim Puducherry, followed by bioregional experts who presented their findings.

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The conference focused on community, economics, law, and policy, with presentations on aquaculture, coastal transformation, and fishermen's well-being. The next day focused on ecosystems and restoration, with presentations on groundwater management in India, microplastic and heavy metal accumulation in mangrove and lagoon ecosystems, avian diversity in the Puducherry Bioregion, citizen science initiatives, and odonates. The final day's plenary talk delved into the limnology of wetlands. Mr. Avinash Madhale discussed topics such as the Centre for Environment Education,(CEE) Development vs. Environment Discourse, Society and Economics, and Sustainable Development Competence. In addition, the attendees had the opportunity to explore the Aranya Forest and Aurovanam with the help of Svarnim Puducherry's team. The conference concluded with a valedictory function at Gandhi Thidal as part of World Water Day 2024, featuring a skit on Water Commons, Water Hyacinth handicrafts, and a recycle stall exhibition.

LAKE WATER QUALITY ANALYSIS

The water quality assessment in the Bahour region of Puducherry revealed significant variations in key parameters. Bahour had the highest pH level at 8.8, while Chittheri had the lowest at 4.8. Kirumampakkam outlet recorded the highest Total Dissolved Solids (TDS) at 711 mg/L, contrasting with the lowest TDS at Ulleripet. Turbidity levels were elevated at Manamedu (24 NTU) compared to the Thirupanampakkam outlet (3.7 NTU). Uchimedu had the highest total nitrogen concentration (27 mg/L), while Manapet had the lowest (7.1 mg/L). Thirupanampakkam had the highest dissolved oxygen content (5.6 mg/L), while Bahour had the lowest (3.8 mg/L). Thirupanampakkam had the highest Chemical Oxygen Demand (COD) at 12.7 mg/L, while Kirumampakkam had the highest Biochemical Oxygen Demand (5.6 mg/mL).

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The study found that Bahour has the highest levels of total coliforms and E. coli, indicating potential pollution sources like agricultural runoff and sewage contamination. Lakes in densely populated areas have higher pollution levels due to untreated or partially treated domestic sewage, which introduces nutrients, organic matter, and microbial contaminants into the aquatic environment. This highlights the importance of human activities, particularly domestic sewage discharge, in affecting the ecological integrity and water quality of lakes near densely populated areas.

WATER HYACINTH

Svarnim Puducherry launched a Handicraft Training Program during Water Fest 2024 that empowered women in the Bahour region by educating them on handicraft making using water hyacinth. The program attracted over 65 women and ran from February 27 to March 22, 2024. Trainers from Assam, Rita Das, Pankaj Deka, and Bipul Chandra Kalita, facilitated the training sessions, ensuring quality and effectiveness. The program aimed to foster entrepreneurship and self-reliance among participants and address environmental concerns associated with water hyacinth's rapid growth. The Handicraft Training Program demonstrates Svarnim Puducherry's commitment to women's empowerment and sustainable livelihoods. The ability to produce water hyacinths not only enhances and empowers women's lives but also supports conservation efforts by providing a source for livelihoods from invasive plants.

OPEN WELL SURVEY

The Bahour region has seen a significant decline in open wells due to the shift towards borewells for agricultural water needs. A survey revealed that **53 open wells** are now non-functional due to higher time consuming nature, higher maintenance when compared to borewells. Despite this, open wells around settlements are still used for drinking water. However, these non-functional wells pose environmental and sustainability concerns due to vegetation overgrowth, waste dumping, and siltation. Despite suitable water quality for crop cultivation, elevated levels of nutrients in Karayamputhur and Uchimedu raise concerns about nutrient pollution and eutrophication risks. Farmers' perspectives on the neglect of open wells highlight the need for efforts to revive and maintain these wells while addressing their concerns for sustainable water management practices.

WATER QUALITY ANALYSIS OF OPEN WELLS

The water quality analysis of open wells in the Bahour region provides important information about their physical and chemical characteristics. The pH levels vary from 7.7 to 8.6, which affects mineral solubility and biological processes. Total Dissolved Solids concentrations range from 202 mg/L to 2346 mg/L, potentially impacting water taste and suitability. Turbidity levels range from 3.2 NTU to 11.2 NTU, indicating the presence of suspended particles that affect water clarity and aquatic habitats. Nutrient levels such as total nitrogen and total phosphorous offer insights into nutrient loading, which can lead to algal growth and eutrophication. Dissolved Oxygen levels ranging from 4.1 mg/L to 5.6 mg/L are important for aquatic life, while high Chemical Oxygen Demand and Biochemical Oxygen Demand values suggest organic pollution. Microbial contamination, indicated by total coliforms and E. coli counts, poses health risks. Neglected open wells raise concerns about water quality, highlighting the need for monitoring and maintenance. Efficient management strategies and community involvement are crucial for addressing pollution and ensuring access to safe water sources in the Bahour region.

ECO CAMPUS

Under the direction of Svarnim Puducherry, the Eco Campus Initiative seeks to encourage a green lifestyle in government schools in the Bahour commune by installing kitchen gardens, medicinal plant gardens, and rainwater and greywater collection systems. Students learn about biodiversity, traditional medicine, and sustainability through these educational initiatives. Water resource management and repurposing projects have been adopted by schools such as TN Palayam, GPS Moorthykuppam, Makidrishnapuram, Arachikuppam, Parikalpet, and Makidrishnapuram. The program promotes ecologically responsible behaviour and community participation in environmental education.

WORLD WATER DAY CELEBRATION

As part of World Water Day, the Svarnim Puducherry team organized the Water Fest '24 valedictory event at Gandhi Thidal. Dr. Vinoth Kumar of Svarnim Puducherry, SAS, gave a welcome speech during the occasion, which was organized by the Sri Aurobindo Society. The event was introduced by Raghunath T.P., director of Svarnim Puducherry, SAS, and Joy Ganguly from Svarnim Puducherry, SAS. The event was honoured by a handful of groups, including the Confederation of Puducherry Government Employees, the Alliance for Good Governance, and Mahindra Holidays and Resorts. Dr. T. Sundararaman, from Pondicherry Science Forum, delivered a special address, and Geetha D., from Svarnim Puducherry, SAS, presented the vote of thanks. Furthermore, the Svarnim Puducherry group engaged the **public with street theatre, Water Hyacinth handicrafts display, and a recycle stall exhibition at Gandhi Thidal** and enlightened them about the vital role of water and the necessity for it for future generations.

AURO VANAM

The Aurovanam team engaged in the Eco Campus Initiative of the Svarnim Society, which was initiated in March 2024 to encourage environmentally responsible behaviour and sustainable practices in Puducherry's Bahour district schools. The group recommended the plant that was traditionally used for the greywater system and assisted in creating the concept for the kitchen garden's rain hose setup, and proper chain link fencing, and chose the herbal and medicinal plants for the plantation.

BRIDGE EDUCATION

Bridge education centres in Bahour commune and Cuddalore aim to fill learning gaps for children from vulnerable sections who were excluded from school during the Covid pandemic. Volunteers plan various activities and periodic assessments. In March 2024, Bridge Education staff assisted students with academic exam preparation, focusing on curriculum knowledge, under the umbrella of Svarnim Puducherry.

DEL (DEVICE ENGINEERING LAB)

The DEL initiative is a three-year training program for rural middle government school students in Puducherry, focusing on product mechanisms, 3D printing basics, advanced product handling, and 3D printing technology. The program aims to equip students with innovative thinking and technical knowledge for the student's future.

DEL sessions on loudspeakers, and binoculars concluded in March 2024 at GHSS Murungapakkam, Puducherry.

EXPERIENTIAL LEARNING THROUGH BASIC ELECTRONICS/DYNAMIC TOYS

The National Council for Science and Technology Communication (NCSTC) in India has supported a project on robotics and dynamic toys in 15 government schools in the Puducherry district. The aim is to introduce the children to advancements in electronics and robotics, exposing them to innovative concepts.

In March 2024, the robotics team presented course completion certificates to government students at Ariyankuppam Government Higher Secondary School, N. Varadhan Govt. Middle School, Pillaichavady, Sulthanpet Government School, and Ilango Adigal Government Higher Secondary School in the Puducherry region.