

**TAMILNADU SCIENTIFIC RESEARCH ORGANISATION
PUDUKKOTTAI - 622 003, TAMIL NADU**



**Annual Report
2022-2023**





2022- 2023



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2023



Forward

We have great pleasure in presenting you 2022-2023 annual report of **TamilNadu Scientific Research Organisation(TNSRO)**.TNSRO is a registered institution, which is duly registered by the govt. of Tamilnadu under Indian Trust Act. TNSRO was started on 1997 by a group of social and scientific volunteers for the welfare of down trodden people. An institution has carried outstanding multi disciplinary activities in the field of science and society development. TNSRO has got registration from Income Tax department for 12A and 80G exemption under act 1961. TNSRO is a catalog organization working for the development of lower strata through the scientific application. Our organization to promote the advancement, transfer and sharing of scientific knowledge, science education, raise public awareness of sustainable development issues by launching co-operative activities with major groups. The institution is working for the application of science and technology in rural villages in Pudukkottai dist. Our main aim is to conserve our nature and propagate the simple scientific techniques for rural prosperity among the rural and scientific community since 1997.

In this mentioning period we could able to reach the unmet, unloved, uncared and unwanted communities through various programs with the support of government and from self-generated Local Communities contributions through fees. Since we keep the community in designing of an intervention through proposal preparation, implementation, monitoring and evaluation we could able to achieve the desires and demands of the disadvantaged more comprehensively. In the mentioning year we considered huge need of climate change effect on the disadvantaged communities in their poverty eradication programs and livelihood sustainability. Considering this we have organized ourselves in energy and environment conservation, climate change mitigation practices and combat against exploitations. In harnessing the rich inherited knowledge and experience of poor we have planned to accommodate the most vulnerable and deprived communities in capacity building, cadre building and socio-economic and political empowerment. TNSRO in its journey through the development of disadvantaged sections continues with the support and coordination of humane people like you and local grant agencies. I am extremely indebted to present this annual report to the communities, supporters for the year 2022-2023. Because of communities participation our interventions have explored new corners. Our sincere and honest pledge to all of you and request the continuation of supports in the coming years as well. Together we would reach new heights and make productive changes in the lives of the deserved. Our institution has received Govt. of Tamilnadu Best Institution Award (**Ariger Anna Award-State First Prize**) for 2011 environmental conservation and educational activities.

I am extremely happy that this 2022-2023 period is a truly one of the big mile stone of our institution. We implemented lab facilities for students project. Many of the programmes

closely benefited to the community, especially in Community Radio Programme. Programmes related to the students also conducted to this community. I express my hearty thanks to all donors, Govt. departments, Panchayat raj institutions, NGO friends and our institutional members for their valuable involvement for our achievements. We would continue to comply with the norms and regulations and legal aspects to demonstrate our transparency and accountability of the organization.

**S.Vijikumar,
Director.**



1.About us

TNSRO created a greater impact through various types of programmes in different field with the aspects of science and society development. Research and development programmes for villages. i.e. Water resource management, health and hygiene, forest and environment management and social welfare of the rural people. And also TNSRO has been organizing seminar and training workshops related our target issues. Publish and co-publishes books, reports and documents collection for information services, creates and supports other research and social networks of co-operating institution. A multi disciplinary team of TNSRO workers along with the experienced technical and other supporting staff are now pursuing their research and development, social awareness programmes in view of the various development problems of the target area.

The people of Pudukkottai dist. are economically, socially and educationally very backward, it is officially announced by the Govt. of Tamilnadu most of our target groups are belongs to SC/ST/MBC and their families earn livelihood by working as agricultural and constructional labours. The organization is encouraged in the service of the society by popularizing and enhancing public and students understanding of modern science & technology through interactive, popular lecture, exhibit, science club and research activities, thereby creating a scientific temper and social strength. The other sphere of our activity involves planning organization and contact of innovative activities towards education, Social Welfare, Health and Medicine, Rural Development through the scientific approach. The organization is thus involved in the planning organization and execution at rural development programmes.

The overall objective at the TNSRO is to provide expertise and assistance to rural maser in building their capacity to reduce poverty, tackle environmental problem, and assure responsibility for their health and pursuer education. The organization has developed infrastructures consisting at social workers, medical personals, and Para-medicals, to act with a holistic approach. Since India's seventy percent population lives in villages, the key to its long term growth and all round development lies in the development at its rural sector. Despite India's massive development achieved during the last decades, vast number of people still lives in object poverty, often without accepts to basic health care education, clean drinking water and sanitation, employment opportunities.

2. Organization Profile

1	Name of the Organization	TAMILNADU SCIENTIFIC RESEARCH ORGANISATION
2	Acronym	TNSRO
3	Registered Address	No.11, NAGAPPA ROAD, ARIMALAM- 622 201. Pudukkottai ,TamilNadu
4	Administration office Address	No. 39,Mura Bhavan, Koodal Nagar RajagopalapuramPost,Pudukkottai-622003 TamilNadu,India
5	Phone Nos.	04333-261088, 9952886637, 8778365515
6	E. mail Website	tnsroindia@gmail.com www.tnsroindia.org.in
7	Legal status (a) Nature of the organization (b) Registered Act (c) Regd.No. (d) Place of Registration	Registered Voluntary organization TRUST Indian Trust Act 1982 No:542/BK4/97 dated: 31.10.1997. District Registrar Office, Pudukkottai
8	Income Tax Registration (a)Tax Exemption Registration (b)80GG Registration No. (c)12AA Registration No. (d) PAN Card No.	1961 AAATT9322JF20027 Dated: 28.05.2021 AAATT9322JE20214 Dated: 10.03.2022 AAA TT 9322J dated: 04.11.1997
9	Affiliation	
	(a) For Science Popularization	Vigyan Prasar, Dept. of Science & Technology, New Delhi. Affiliation No: VP-TN0158 Dated: 03.12.2022
10	Banking Details for TNSRO Name of the Bank A/c. No. Type of A/c Branch Code IFSC /RTGS Code	Indian Bank (IB) 850149667 Saving 1372, Rajagopalapuram IDIB000P137
10A	Banking Details for IJONS Name of the Bank A/c. No. Type of A/c Branch Code IFSC /RTGS Code	Indian Bank (IB) 892497210 Saving 1372, Rajagopalapuram IDIB000P137

11	Membership	Member in Tamilnadu Federation of voluntary Agencies, Chennai Regd.No.718/2007 Member in Network for Rural Development, Pudukkottai Dist.
12	NGO Partnership system	Registered with Planning Commission , Govt. of India. Unique ID.TN/2010/0031352
13	Chief Functionary/ Director	Dr.S. VIJIKUMAR Director, Tamilnadu Scientific Research Organisation No. 39,MuraBhavan,Koodal Nagar Rajagopalapuram Post,Pudukkottai-622003. TamilNadu, India

3.Vision and Mission of the Organization

Vision

To improve the resources of our nation and rural prosperity through the application of science & technology and also we dedicate the sustainable development of agriculture, ecology, health, education, employment and food security by the way of transferring valuable informations and action research with the community response and participation.

Mission

To provide expertise and assistance to rural community in building their capacity to reduce poverty, tackle environmental problem and promote sustainable agriculture, rural prosperity assure and responsibility for their health and pursuer education through science and technological application.

4.Objectives

- *To promote popularization of science & technology among the public and students by way of organizing awareness programmes, seminars, lectures, exhibitions, training Programmes and research activities.*
- *To identify areas for the applications of science & technology for the developmental needs, in particular, to the prevailing conditions of backwardness, rural, unemployment and poverty.*

- *To form and maintain farmers field schools, farmer's science clubs, students science club and youth clubs.*
- *To formulate and implement any successful environmental programme it is necessary to make it socially relevant*
- *To institute awards & fellowships for distinct fellow in the field of environmental conservation and science popularization.*
- *To formulate and implement the community based health promotional programmes.*
- *To conserve our biodiversity through the effective implementation plan.*
- *To promote and conduct research and development programmes in the field of health, environment, agriculture, education etc*
- *To publish research journals, books and local community news paper in the view of promotion of environmental science.*
- *To encourage the rural community in Sustainable Agriculture through Natural farming.*

Current Target Area: -Pudukkottai District and TamilNadu.

Major Target Groups: - Rural Communities, Small Marginal Farmers, Land less Farmers and labourer , Students, Youth groups, SC/ST weaker sections, Rural Teachers, Women groups, Techno entrepreneurs, Innovation groups, BPL groups, Children groups and under privileged groups etc.

TNSRO

5. Board of Managing Committee

S.No	Name	Address	Qualification	Designation
1	Dr.S.Vijikumar	Plot No.1 , K.K Nagar, Kavinadu West, Rajagopalapuram post, Pudukkottai – 622 003, Tamil Nadu. 9952886637, 877 836 5515	D.Sc.(A.M.) FNVA.,	Director/ Managing Trustee.
2	V.Muthulakshmi	Plot No.1 , K.K Nagar, Kavinadu West, Rajagopalapuram post, Pudukkottai – 622 003, Tamil Nadu. 6381 112 637	B.A., D.M.L.T. FNVA.	Financial Trustee.
3	A.Gomathy Shankar	1/38, Sivapuram, Namanasamudram po, Thirumayam Tk, Pudukkottai 622 404 , Tamil Nadu 98420 07439	B.E.,M.B.A	Trustee.

6.TNSRO Hierarchy



7.TNSRO working fields

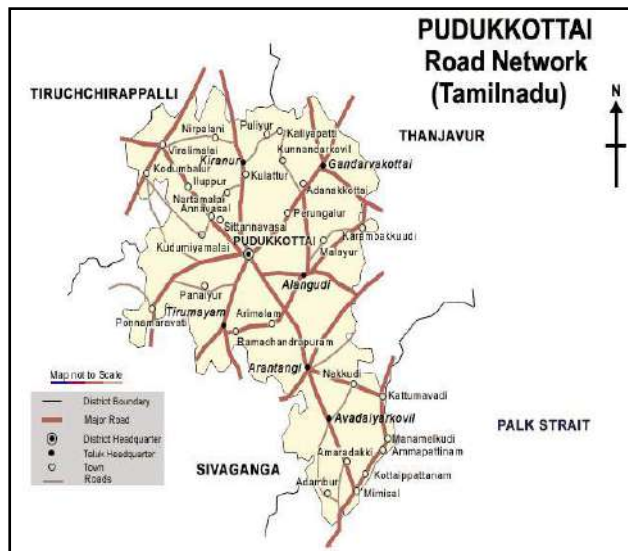
- Bose Science Society – Science popularization
- Bio tech for Villages – Village promotion through Biotechnology Climate change –IEC and Research Activities
- Conservation of Biodiversity.
- ICT for Rural Prosperity-Village Information Centre (VIC)
- Environmental Education and Conservation-Village Biodiversity School, Tree plantation, NEAC etc
- Vocational Education and Training - Self Employment Generation. Plant Science Research Division – Medicinal Plants Research
- Protection of Indigenous Culture and Knowledge System-Documentation and Research. Farmers Training School- Farmers Promotion and Development
- Publication and Library Division- Publish journals & Books, Library develop. Village Health Services-Free Medical Camps
- Disaster Risk Management- Training and Research
- Community Radio Programme

8. Staff Particulars

S.No.	Name	Qualification	Designation	Part time/ Full time
1	Dr.S.Vijikumar	D.Sc (AM),FNVA.	Director	FT
2	Mrs.V.Muthulakshmi	B.A., MLT, FNVA	Project Officer	FT
3	Dr.E.S.Karthy	M.Sc., Ph.D., PGDBF	Research Associate	PT
4	Mr.K.Ramanathan	M.Sc.,M.Phil,	Research Associate	PT
5	Mr.C.Karthikeyan	M.Sc.,M.Phil.,	Administrative Officer	FT
6	Mis.V.Bhuvaneshwari	M.Sc.,M.Phil.,	Project Associate I	PT
7	Mis.V.Priyadharshini	B.Sc.,	Project Associate II	PT
8	Mis.C.Nagajothi	M.Sc.,	Project Assistant	FT
9	Mis.C.Nivetha	B.Sc.,	Project Assistant(CRS)	FT
10	Mis.B.Nithyakalyani	B.Sc.,	Project Assistant	FT
11	Mr.M.Naganathan	M.Sc.,M.Phil.,	Project Coordinator	FT
12	Mr.S.NirmalSaravanan	M.Sc.,	Executive Assistant	FT
13	Mis.S.Bhuvaneshwari	M.Sc.,	Project Assistant	FT
14	Mrs.V.Akshaya	M.Sc.,	Research Assistant (PSRD)	FT
15	Mrs.S.Pichaiyammal		Sweeper	PT

9. Project Area Details

District Profile



Pudukkottai District was formed on 14 January 1974 by merging Pudukkottai revenue division of Trichy District and Arantangi and Avudayarkoil taluks of Thanjavur District. The district is bounded by Tiruchirapalli in the North and West, Sivagangai District in the South and Bay of Bengal and Thanjavur District in the East. The district lies between 9° 50' and 10° 40' of the northern latitude and 78° 25' and 79° 25' of the eastern longitude. It comprises 9 taluks, 13 development blocks and 764 revenue villages.

The district is generally a drought prone area an analysis of the rainfall data of the previous 10 years brings to light that expect for the three years of 1998, 2004 and 2005 the district witnessed deficient rainfall; and the deficiency ranged from 0.3 (1996) to 30% (2003). The total population of the district as per the 2001 census was 1459601 comprising 724300 males and 735301 females. There are 3 Major Rivers flowing through the district besides small rivers. However, they do not form the main source of irrigation as they are jungle streams and remain dry for most part of the year. As such, tanks are the major source of irrigation in the district, followed by canals and wells. The net irrigated area in the district is 70 percent of the net cropped area. The major food crop cultivated in the district is paddy covering around 1.02 lakh hectares representing about 64 percent of the net sown area. Groundnut is the major oilseed crop grown in about 30500 hectares. The other crops include millets, pulses, sugarcane, banana, and cotton. The district is industrially backward. There is no industrially graded raw-material except pockets of granite deposits. Irregular power supply and acute water shortage stand in the way of speedy industrialization. A sugar factory has been set up in the private sector which covers majority of the farmers growing sugar cane in the district.

Historical brief

Pudukkottai was formerly one of the princely states of India. It was under different dynasties during the first half of the 15th century and under Mughals till the 17th century. Thereafter Pudukkottai came under the suzerainty of the Thondaiman Kings who had

reined the state till it was merged with the Government of India after independence. The Thondaiman Kings were noted for the able and clean administration. During their rule they have augmented creation of irrigation sources for agriculture, evolved a sound revenue administration, education systems etc., the palatial administrative buildings for public offices constructed during their period are still remaining as monuments and serving the same purpose till date. The noted British administrator Alexander Loftus Tottenham was the administrative executive under the Thondaiman rulers. He evolved the famous "Tottenham System" of file maintenance and other office procedures, which are still being followed by government departments with a little change then and there.

Revenue Administration

There are two revenue Divisions namely Pudukkottai and Aranthangi. There are nine taluks and thirteen Panchayat unions with 763 revenue villages and 498 village panchayats. There are also two Municipalities and eight town panchayats in this District.

Soil Type

According to Geological reports rocks, granite, stone and limestone occurs in this District. White clay and other building stones are available in plenty.

Industries

Pudukkottai is one of the industrially backward district of Tamil Nadu. The total numbers of small-scale industries are 634.

Historical Architectural Monuments

There is one famous Shiva Temple at Avudaiyarkoil. It is internationally famous for its beautiful stone sculptures. Viralimalai in Madurai - Trichy High way is a pilgrim centre where a beautiful temple is situated over the hilltop for Lord Murugan. Sithannaval is a tourist attraction in this district, where one can see the rock beds and cave temples erected during the Samana period.

Road Communications

This District is sufficiently linked with other parts of the country with Railways and Highways.

General

The nature of the district is purely agrarian with the major crops Paddy, Banana, Sugarcane, Groundnut and cashew nut. There is an All India Pulses Research Station at the village “Vamban” and one State Agricultural farm at Kudumianmalai.

Predominant economic activities of the district

Agriculture is the predominant economic activity being pursued in the district. There are no major industries in the district. Dairy and goat/sheep rearing are the allied activities pursued in villages. Synthetic gem cutting is being done in Viralimalai block of the district. Stone and granite quarrying are the other economic activities worth mentioning.

Major food / commercial and plantation / horticulture crops

Paddy is the major crop cultivated in the district covering around 102750 hectares forming 64 percent of the net sown area followed by groundnut in an area of 30544 ha. The other major crops are sugarcane, millets, gingelly, cotton and pulses. Among the horticulture crops, cashew nut tops the list covering an area of about 15432 ha. Followed by coconut in an area around 4067 ha. Further, the district has around 6418 ha under fruit crops like mango, banana, acid line, etc. Vegetables are also cultivated in an area of 2586 ha. The area under sugarcane has been increasing since the commissioning of a sugar factory under private sector in the district.

Special/additional/other features of the district

Other economic activities include stone quarries, granite quarries, coir rope making, marine fishing, gem cutting, small business, mat weaving, pottery, pith work, etc.

Other factors affecting the district

The district is generally a drought prone area. The industrial progress in the district is sluggish due to low capital formation and absence of any raw material.

10. PROGRAMMES /ACTIVITIES 2022-2023

1. Science Popularization Programme

Science popularization relates to the dissemination of scientific knowledge, the introduction of science to the general population, and the encouragement of a scientific mindset. Science popularization specifically refers to the general public's comprehension of science and public communication of scientific undertakings. Tamil Nadu Scientific Research Organization and Bose Science



Society conducted Science Popularization Programme on 09.04.2022 ,17.04.2022 ,07.06.2022 ,12.07.2022 ,12.09.2022 ,15.10.2022 ,21.11.2022 ,28.12.2022 ,20.01.2023, 09.03.2023 at Govt school Sandhapettai, Onangudi, Malayeedu high school Pudukkottai. S.Vijikumar, Director, and M.Naganathan Project coordinator, Tamil Nadu Scientific Research Organization, Pudukkottai has participated in the programme and offered felicitations. More than 150 students and book readers took part in the programme. The importance of library, how the books are to be read and utilized, books catalogue was discussed in this presentation. The role of science in our day today activities was also talked in this programme. The students from the Govt. School, Santhaipeetai showcased their abilities.

2. Environmental Conservation and Awareness Programme



Environment is anything surrounding us. It comprises both biotic like plants, animals, microbes and abiotic factors like soil, water, landforms etc. As all living beings are dependent on the environment, protecting the environment would increase the survival rate of all living organisms. Environmental conservation is the process of protecting the environment to stop it from collapsing due to human activities like unsustainable agriculture, deforestation, and burning fossil fuels. Tamil Nadu Scientific Research Organization and Bose Science Society conducted an environment conservation and awareness programme on 19.04.2022, 24.05.2022, 22.06.2022, 16.08.2022, 13.10.2022 ,08.10.2022 ,10.11.2022 ,14.12.2022 ,06.02.2023, 20.02.2022 at Arimalam, Melur, Kadaiyakkudi. The people from these places interacted in this awareness programme. S.Vijikumar, Director, Tamil Nadu Scientific Research Organization, Pudukkottai delivered a speech about Forest Conservation, Soil Conservation , Managing Waste , Recycling, Reducing Our Water Consumption ,Control Pollution.

3. Biotechnology for Research Students



Biotechnology utilizes living cells and cellular materials to create pharmaceutical, diagnostic, agricultural, environmental, and other products to benefit society. It is also used to study and to alter genetic information in animals so that human diseases can be modeled and studied. Tamil Nadu Scientific Research Organization organized a Biotechnology Training Programme which was conducted on 12.05.2022, 18.01.2023 at Plant Science Research Division , TNSRO. Students from J.J college , Bharathidasan University were participated in this training program. Dr.C.Ravendar Singh, Chief Scientist, AAKASH Green Research Private limited has participated in the programme and offered felicitations. Research Experts of Biotechnology field addressed the students. They taught basic techniques of

Biotechnology like Plant Tissue Culture, Molecular biology , Phytochemical analysis etc....we also motivated the students to improve their career in biotechnology field.

4. Climate Literacy Campaign



A climate-literate person understands the essential principles of Earth system governing climate patterns; knows how to gather information about climate and weather, and how to distinguish credible from non-credible sources on the subject; communicates about climate and climate change in a meaningful way; communicates. Tamil Nadu Scientific Research Organization organized a Climate Literacy Campaign which was conducted on 04.04.2022, 06.05.2022, 13.06.2022 , 18.07.2022 , 07.08.2022, 23.09.2022, 11.10.2022, 10.11.2022, 09.12.2022, 04.01.2023, 02.02.2023 ,16.03.2023. The people from Rangiyam, Alavayal, Kadiyapatti, Nallammal Samuthiram were participated in this awareness programme. S. Vijikumar, Director and M.Naganathan Project coordinator, Tamil Nadu Scientific Research Organization, and G.Samynathan, Pudukkottai has delivered a lecture to the people on the topic of Climate literacy. Many people came forward and discussed in this session. Climate information can be used to reduce vulnerabilities or enhance the resilience of communities and ecosystems affected by climate change.

5. Observation of National Days

A national day is a day on which celebrations mark the statehood or nationhood of a state or its people. It may be the date of independence, of becoming a republic, of becoming a federation, or a significant date for a patron saint or a ruler (such as a birthday, accession, or removal). Tamilnadu Scientific Research Organization conducted a programme on Observation of National Days. This Programme is organized on 15.08.2022 ,26.01.2023 . A National day is a special day where people celebrate their country or nation each year .Dr.S.Vijikumar, Director, Tamil Nadu Scientific Research Organization, Pudukkottai participated in the programme and offered felicitations. Students from various schools , staffs of TNSRO were participated in this program. On that day, a lecture was given about national holidays like Gandhi Jayanti, National Science Day, Republic Day, and Independence Day.



6. National Science Day

The main objective of celebrating National Science Day is to encourage the Indian youth to develop an interest in and understand the importance of Science. On this day, students from across the country take part in state-level, and national-level competitions to



demonstrate their science projects. Tamilnadu Scientific Research Organization conducted a programme on National Science Day. This program completed on 20.02.2023. S.Vijikumar, Director, Tamil Nadu Scientific Research Organization, Pudukkottai participated in the programme and offered felicitations. There are more than 80 students were participated on the programme.

Simple Science Experiments were conducted to the students.

7. Corona Awareness and Nutrition Programme



The COVID-19 virus may survive on surfaces for several hours, but simple disinfectants can kill it. Virus can be transmitted to others from someone who is infected but not showing symptoms. Together, we can slow the spread of COVID-19 by making a conscious effort to keep a physical distance between each other. Tamilnadu Scientific Research Organization , Naina Mohammed College organized a programme on Corona Awareness and Nutrition. This program was conducted at Naina Mohammed College , 15.09.2022. This programme focussed on Maternal Nutrition, Infant and Young Child Feeding Norms, Treatment of mam/sam and Wellness through AYUSH. Welcome speech is delivered by Professor C.Eswari, Principle, Naina Mohammed College S.Vijikumar, Director, Tamil Nadu Scientific Research Organization, Pudukkottai participated in the programme and offered felicitations. Vote of thanks was delivered by R. Tamil ilakiya Head of the Nutrition Department.

8. Skill Development Training Programme



Skill development helps build a strong foundation for students at the school level. It helps build self-esteem, confidence, and leadership skills. It develops problem-solving skills and collaboration. It helps students become independent thinkers and encourages them to plan for their future. As schools in India are primarily academic-centric, introducing skill development through the curriculum is essential. It helps students explore and learn things outside of their textbooks. It also gives them the freedom to think independently and make choices at an early age. It builds team spirit, creativity, inquisitiveness, trustworthiness, assertiveness, and sympathy in students. All of this goes on to create a solid foundation for a successful academic and professional future. Pudhugai FM and Naina Mohammed College , Aranthangi organized a Skill Development Training Programme which was conducted on 21.09.2022 at Naina Mohammed College. Welcome speech is delivered by Professor C.Eswari , Principle, Naina Mohammed

College . Dr.S.Vijikumar, Director, Tamil Nadu Scientific Research Organization, Pudukkottai participated in the programme and offered felicitations. Vote of thanks was delivered by Professor S.Namitha Department of Tamil.

9. 12th National Conference on Natural Sciences

Bose Science Society and Pushkaram College of Agricultural Sciences jointly organized 12th National Conference on Natural Sciences (NACON) on 28.02.2023 . Dr.S.Vijikumar, President of Bose Science Society presided over the function. Mr. Ilayaraja Kannan , Founder, Sanjeevan Research Institute was the chief guest for the occasion. At the morning seminar and at the afternoon felicitations were conducted on this occasion. More than 150 professors and 300 students were participated. The vote of thanks were presented by Dr.Prince Prakash Jebakumar , Scientist E, Postal & Environmental Engineering Division, National Institute of Ocean Technology, Ministry of Health & Science, govt. of India . Bose Science Society and Pushkaram College of Agricultural Sciences made the arrangements for the function.



10.
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Schools can improve their campuses by planting trees, which also creates a favorable environment for studying. The presence of trees encourages the circulation of clean air and aids in the fight against air pollution, which eventually improves student concentration and academic performance.



Tamilnadu Scientific Research Organization conducted a free plant distribution programme for community people and school students. This programme is organized on 22.06.2022 ,19.01.2022 ,04.01.2023. at Keelapanaiyur. S.Vijikumar, Director, Tamil Nadu Scientific Research Organization, Pudukkottai participated in the

programme and offered felicitations. More 100 than students and teachers participated in this programme .People from the community also participated in this programme. Director presented free plant samplings to the students and community people.

11. Plastic Awareness Programme



Plastic pollution can alter habitats and natural processes, reducing ecosystems' ability to adapt to climate change, directly affecting millions of people's livelihoods, food production capabilities and social well-being. Everyday, plastic waste negatively impacts the ecosystem, habitats, human health and sustainable development across the world. Despite the vast scale of the problem, the general public and other important stakeholders have not been adequately engaged and educated on how they can become part of the solution. Tamilnadu Scientific Research Organization conducted a programme on Plastic Awareness. This programme is held on 25.07.2022. Dr.S.Vijikumar, Director, Tamil Nadu Scientific Research Organization, Pudukkottai participated in the programme and offered felicitations. The programme started with the welcome address and ended with felicitation. Our Organization presented a tips for reducing plastics consumption. The students from various departments participated in this programme.

12. A Programme on Poshan Abhiyaan



Food is one of the basic necessities of life. Food contains nutrients—substances essential for the growth, repair, and maintenance of body tissues and for the regulation of vital processes. Tamilnadu Scientific Research Organization organized a awareness programme of Poshan Abhiyaan on 21.09.2022. This programme focussed on Maternal Nutrition, Infant and Young Child Feeding Norms, Treatment of MAM/SAM and Wellness through AYUSH. Dr.S.Vijikumar, Director, Tamil Nadu Scientific Research Organization, Pudukkottai participated in the programme.

13. Meet with Expert Programme:



TamilNadu Scientific Research Organisation organized a programme which is entitled as Meet with expert. this programme was conducted on 24.06.2022, 22.08.2022, 05.10.2022, 30.12.2022. This programme initiated for the motive of Biotechnology and Bioinformatics research studies. Students from Bsc/Btech and Msc/Mtech and professors from the community were participated in this programme. Dr.S.Vijikumar, Director, TamilNadu Scientific Research Organisation participated in this programme and discussed with the students. Dr. Ramanathan, Assistant Professor, Department of Biotechnology, Marudhu padiyar college participated in this programme. He interacted with the students about the biotechnology research particularly tissue culture processes. The students also interacted in this discussion and learned the techniques related to biotechnology. This programme is mainly focussed to guide the students who were interest in research ideas for their carrier purposes.

14. Screening on Phytochemical Research Studies :

Phytochemical is a broad term meaning plant (phyto) chemical referring to a wide variety of compounds that occur naturally in plants. The confirmatory qualitative phytochemical screening of plant extracts was performed to identify the main classes of compounds (tannins, saponins, flavonoids, alkaloids, phenols, glycosides, steroids, and terpenoids) present in the extracts. TamilNadu Scientific Research Organisation organized a programme which is entitled as Screening on Phytochemical Research Studies. This programme was conducted on 20.02.2023. Students from Bsc/Btech and Msc/Mtech from the community were participated in this programme. Dr.S.Vijikumar, Director, TamilNadu Scientific Research Organisation participated in this programme and discussed with the students. Students extracted the various plants for the screening of phytochemicals. The phytochemicals were characterized by UV visible spec, FTIR, XRD. From this screening the students got different secondary metabolites.



15. Students Entrepreneurship Programme



Promoting Education Awareness. Education broadens the horizons of the mind and prepares the students to face challenges. It helps inculcate integral values, knowledge, intelligence and confidence. This phase of transformation is the beginning to great things ahead for every student. Tamilnadu Scientific Research Organization organized a Students Awareness programme based on simple science experiments. This programme is conducted on 24.06.2022, 10.09.2022, 15.12.2022, 13.03.2023. Dr.S.Vijikumar, Director, Tamil Nadu Scientific Research Organization, Pudukkottai participated in the programme and gave lecture to the students. This program creates awareness about the science and its development. More than 100 students interacted with the resource person. The Students learned some simple scientific experiments and exhibited their talents.

16. Swasthiya Sankalpa Programme:

Hygiene is a set of practices performed to preserve health. According to the World Health Organization (WHO), "Hygiene refers to conditions and practices that help to maintain health and prevent the spread of diseases." Personal hygiene refers to maintaining the body's cleanliness. Tamilnadu Scientific Research Organization in collaboration with UNICEF and Community Radio Association Conducted a **Swasthiya Sankalpa Programme** on 12.12.2022. Dr.S.Vijikumar, Director, Tamil Nadu Scientific Research Organization, Pudukkottai participated in the programme and gave lecture to the students. Mr.G.Swaminathan Attended as chief guest to this programme and motivated the students about nutrition and hygiene. More than 50 students were participated in this programme.



17. Community Radio Programme



The prime role of community radio is giving a voice to people who do not have access to mainstream media to express their views on community development. Tamilnadu Scientific Research Organization in collaboration with Commonwealth Educational Media Centre for Asia conducted a Community Radio Programme on . Dr.S.Vijikumar, Director, Tamil Nadu Scientific Research Organization, Pudukkottai started the programme. A program related to Covid-19 vaccination, Nutrition , Har ghar Tiranga, International Yoga Day were communicated through radio.



18. Microbial Fuel Cell Pilot Study:

Microorganisms' metabolic activity is used to generate power in a system known as a microbial fuel cell (MFC). The ability of MFCs to remove impurities and convert wastewater's organic matter into power makes them suitable for use in wastewater treatment plants. Microbial fuel cells can help lower atmospheric carbon dioxide and environmental contaminants like wastewater by using it to rebuild fuels. They might also be used as a renewable energy source. In microbial fuel cells, microbes are employed to produce power. Less microorganisms are present in the soil and air today than in the past. Tamilnadu Scientific Research Organization attempted a research on microbial fuel cell pilot study research on 25.03.2023. Dr.S.Vijikumar, Director ,Tamil Nadu Scientific Research Organization, Pudukkottai participated in the programme . We cultivated many microorganisms which are useful in energy source.

19. Documentation of RET species Plants :

Human existence directly benefits from the protection of endangered animals. Keystone species and plants that improve soil fertility are only two examples of how rare species support their ecosystems and human existence in various, frequently surprising ways. Endangered vegetation controls the carbon dioxide/oxygen ratio in the atmosphere, provides cover for a wide range of plants, alters the climate, lengthens the rainy season,

and may even prevent soil erosion. TamilNadu Scientific Research Organization under Plant science Research Division listed out some of the Rare Endangered Species of India on 30.03.2023. Dr.S.Vijikumar, Director ,Tamil Nadu Scientific Research Organization, Pudukkottai participated in the programme . We created awareness about the cultivation of Rare Endangered Species to the farmers and Distribution of plant products.

20. School of Holistic Health Sciences and Research



Under the guidelines of our TamilNadu Scientific Research Organization, (SHHSR) was established with the educational goal of offering top-notch instruction and therapeutic programs that make use of the mind and body's natural healing abilities through the use of acupuncture, Bach Flower Remedies, herbal remedies, and nature cure methods. The school will provide therapeutic educational programs to help people and professionals achieve greater understanding and experiences of perfect health, rejuvenation, transformation, and higher states of awareness as well as an upgrade of skill-based training through remote learning and personal contact programs. The school attempts to offer qualified teachers and course materials to help students and practitioners reach the highest level of proficiency and attainment of truth and knowledge in their chosen field of study, which can range from the most concrete studies on the physical plane to the most esoteric in the exploration of consciousness. This course offers an exceptional chance for people of all ages to thoroughly investigate the field of complementary and alternative medicine. This course aims to give students a thorough understanding of several well-known natural and holistic therapies as well as the necessary credentials to engage in professional practice. Students who completed the PG Diploma Program at the TNSRO SHHSR, which began in the academic year 2021–2022, received certificates in holistic health science. The ability to regulate the disease is provided by alternative medicine, which includes Bach flower therapy, aromatherapy, herbal remedies, biochemical remedies, and nature cure approaches. English medicine, Ayurveda, Siddha, and homeopathy are additional effective treatments for a variety of illnesses.

The main aim is to create the talented Holistic Health Therapist to solve many problems. The peoples can avail these medicines through NGO or Rural Community Health Center. These studies can available only in the distance education but in the TNSRO we can initiate this PG Diploma Programme with our own syllabus focused on Rural Holistic Medicines and alternative medicines. TNSRO SHHSR creates a pathway to pursue the research in the field of Holistic Health Medicines. The major objective is to develop skilled Holistic Health Therapists who can address a variety of issues. The public can obtain these

medications via a rural community health center or an NGO. These courses are only offered through remote learning, however TNSRO is able to launch a postgraduate diploma program with a curriculum centered on rural holistic medicine and complementary therapies. A avenue is opened up for study in the area of holistic health medicines by TNSRO SHHSR.

21. Bose Science Society



1. Students Wing -The School Students can join in our society with free of cost
2. Professor Wing – The Professors, Scientists, Research Scholars are joined as a member in the Bose Science Society.

Every year, Bose Science Society consented to issue the awards to the Scientists, Professors and Research Scholars based on their qualification and research publications. Bose Science Society conducted Awareness Programmes to the School students every year. The members from the professors wing may provide their contribution to the programmes in any way. There are 742 members in Bose Science Society joined as a Fellow Members.

22. Indian Journal of Natural Sciences-Research Publication

TNSRO has been publishing **Indian Journal of Natural Sciences - IJONS** from **August 2010**. Also the board of management approved the agenda for journal establishment with ISSN registration (0976-0997). The Journal is peer reviewed **International Bi monthly Journal** for publication of Original Research papers /Reviews/ Short communications/ Book reviews/Reports on conferences/ Seminar, Important events, News of interest etc. IJONS published by our Institution was running successfully. Famous Scientific Information, Research Solution have been published. Above 100 and above Scientists and Professors have joined as a member from India and abroad.



A key component in the publication of research papers is the Indian Journal of Natural Sciences, which was founded in 2010. We have currently released issues in the number of 79 . The Indian Journal of Natural Sciences has a number of research papers written by authors from both our nation and other nations. The volumes 12 and 13 contains 2342 research and review papers. Many of the research publications were in the areas of chemical, physical, agricultural, veterinary, geoscientific, mathematical, engineering, information and communication technology, biotechnology, biomedicine, medical science, and computer science. These studies pushed for the preservation of the environment and the safeguarding of endangered plant and animal species. We are happy to announce that Thomson Reuters' Clarivate Analytics has included the Indian Journal of Natural Sciences in its index. Our Journal focused in various databases ,etc. we have applied for Index

Copernicus IC value and got the impact factor of ISRA – 4.918, ISI -1.628 and Root Index - 5.79. More than 100 Professors and Scientists are Editorial Committee and Review Committee member in IJONS.

11. Partner Organizations



The TNSRO partners with select organizations. These partnerships vary in nature, depending on the identified need – and can be technical, financial or strategic. The Foundation maintains a broad network of contacts in all key areas, is constantly scouting for innovative rural technologies, and for the organizations doing high quality work in the area of rural development.

- Technical Partnerships–AWE Care analytical and Research Laboratories, Erode.
- Community Awareness - Rural Development Society, Gandarvakkottai
- Strategic Partnerships- Rural Development Organisation, Pudukkottai
- Educational support partnership- Bonsecurs College for Women, Thanjavur, Holy Cross College, Trichy & Nagercoil
- NGO partner – Roland foundation, RDO, Pudukkottai.

12. MoU signing Institutions

Tamil Nadu Scientific Research Organization signed MoU with following Educational and Research Institutions in the period of 2022-2023

1. MoU signed between TNSRO and NIFTEM-T, Govt. of India on 06.04.2022.
2. We signed MoU with MECHNIDO startup company for Research and Development signed on 29.12.2022

With this, Tamil Nadu Scientific Research Organization signed MoU with 21 Institutions. We have planned to establish Tissue Culture Technology, Medicinal Plants Conservation, Bioenergy Production and Bioproducts laboratory.



13.Awards and Appreciation for Environmental Education and Awareness



In 2013 our organization has received best institution award (**Aringer Anna Award**) from Department of Environment, Govt. Of TamilNadu for best efforts and services in the field of Environmental awareness and education since 1997. Our hon'ble minister of environment and forests Mr.Pachaimal issued to our hon'ble director. **Mr.Mallaseppa IAS**, Hon'ble director of environment and Principle secretary **Mr. Mohan Verghese Chunkath IAS** also appreciated our organizations best activities in the field of environment. Already our organization has received 2 times (2008 & 2010) from peace trust, regional resource agency, ministry of environment and forests, Dindigul for NEAC programme.

14.Future Plans and Activities

- Biodiversity conservation –flora and fauna species diversity Endangered conservation
- Publish books and magazines related biodiversity and environmental issues and medicinal plants.
- Sustainable Agriculture for Food security
- Popularize biotech application for rural prosperity
- Herbarium centre for research and conservation
- Phytochemical analysis for herbal drug research
- Climate change and water conservation
- Community Radio Programme

15.Available Facilities

- Laboratory
- Research Papers Publication
- Textbook Publication
- Research Library with reference texts
- Training Hall
- Computer with Internet facility
- Herbarium
- Bioinformatics and other life science research facility etc.

Our Auditor

Mr.S. Jayaraman, B.Sc,F.C.A.,
Chartered Accountant,
Regd No. 200/27903.
7A, Visalakshi Nilayam,
Marthandapuram,
Pudukkottai – 622 001

Report presented by

S.Vijikumar

Director/Managing Trustee

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