



Vivekananda Kendra - ~~nardep~~
Kanyakumari -629 702

Annual Report **2020-21**



Dear Friends and Well-wishers,

Namaskaram.

The year 2020-21 turned out to be a Corona year - a year for introspection. We are reproducing a thought provoking write up by Vivienne in Spain.

"The earth whispered but you did not hear.
The earth spoke but you did not listen
The earth screamed but you turned her off.
And so I was born...

I was not born to punish you..

I was born to awaken you..

The earth cried out for help...

Massive flooding. But you didn't listen.

Burning fires. But you didn't listen.

Strong hurricanes. But you didn't listen.

Terrifying Tornadoes. But you didn't listen.

You still don't listen to the earth when.

Ocean animals are dying due to pollutants in the waters.

Glaciers melting at an alarming rate.

Severe drought.

You didn't listen to how much negativity the earth is receiving.

Non-stop wars.

Non-stop greed.

You just kept going on with your life..

No matter how much hate there was..

It was more important to get that latest iPhone than worry about what the earth was trying to tell you..

But now I am here.

And I've made the world stop in its tracks.

I've made YOU finally listen.

I've made you take refuge.

I've made you stop thinking about materialistic things..

Now you are like the earth...

You are only worried about YOUR survival.

How does that feel?

I give you fever.. as the fires burn on earth.

I give you respiratory issues.. as pollution filled the earth's air.

I give you weakness as the earth weakens every day.

I took away your comforts..

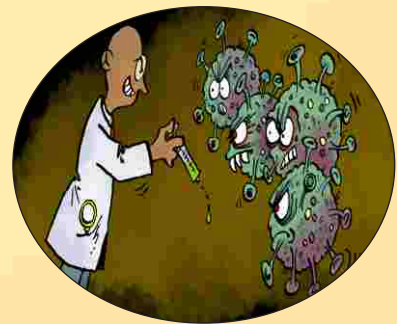
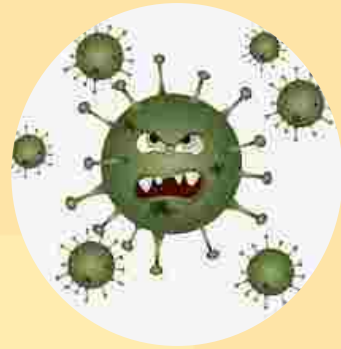
Your outings.

The things you would use to forget about the planet and its pain.

And I made the world stop...

And now...

Earth has better air quality.. Skys are clear blue because factories are not spewing pollution unto the earth's air.



The water in Venice is clean and Because the gondola boats that pollute the water are not being used.

YOU are having to take time to reflect on what is important in your life.

Again I am not here to punish you.. I am here to Awaken you...

When all this is over and I am gone...

Please remember these moments..

Listen to the earth.

Listen to your soul.

Stop Polluting the earth.

Stop Fighting amongst each other.

Stop caring about materialistic things.

And start loving your neighbors.

Start caring about the earth and all its creatures.

Start believing in a Creator.

Because next time I may come back even stronger...."

Let us hope and pray that we will learn the lessons and will change our lifestyle.

In this year's report, we are covering the usual verticals such as (i) Eco-friendly construction (ii) Water management (iii) Holistic agriculture (iv) Green health (v) Bio-energy (vi) Networking (vii) Publications (viii) Collaboration and finally relief work during the pandemic.

Due to lockdown for most of the period, we carried out our activities in virtual mode. In fact, the situation helped us in empowering our staff members as well as stakeholders in making use of the digital mode for communication. We organised a series of webinars on various topics and kept ourselves more active than usual during the pandemic.

We thank all our donors, patrons, well-wishers and all the stakeholders for their kind cooperation and help during this critical period.

With Prayers and Best wishes,



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1. Eco Friendly Construction

We made use of the pandemic by carrying out our activities within our campus as field work was not possible.

We made mud road at our Technology Resource Center by using Rammed earth technology



Various stages of construction of mud road..... nobody can make out that it is a mud road.



Also experimented with beautiful craft items by using ferrocement technology such as varieties of water fountains, leaves, pumpkins etc.



2. Water Management

No	Topic	Date	Nbs
1.	Webinar - Water Management in Rameswaram - Past, Present and Future Shri.Pakshi Sivarajan, Ramanathapuram	11.06.21	26
2.	Webinar on Jal Shakti for NSS College Coordinators of Tamilnadu Mahatma Gandhi National Council of Rural Education (MGNCRE), Hyderabad Shri.V.Ramakrishnan gave a presentation on 'Water management'	21.06.21	90

Arivu Nachiar Teertham

Ariyanaatchi Teertham or Saradha Teertham is named after the mighty protecting Devatha Ariyanaatchi ancestral goddess to many. It was believed that there might be an existence of Ariyanaatchi temple nearby. Due to sand dunes it might have disappeared. Naming girls as Ariyanaatchi is also quite common in Rameswaram.

Electric pole – Standing inside the Teertham area

Green Rameswaram team started locating the Teertham with the help of local leaders and old documents. To their surprise, they found electric pole inside the Teertham area. As electric line was passing through the pole, we have to request Tamilnadu electricity board to shift the electric pole and relocate it at a suitable place.

Sewage Pipeline

In addition, underground Sewage pipe was also planned near the Teertham area and so we requested the Municipality and Revenue department to locate sewage pipeline away from the Teertham area.

Thus, although we have identified the Teertham in the year 2016 itself due to all these factors we could commence the Teertham renovation work only by November 2020 after cleaning the bushes and thorny trees by way of JCB. After clearing the area, we found two damaged walls of the Traditional water body.

On 9th November 2020 we started the Ariyanaatchi Teertham Renovation with a pooja involving the local stakeholders. Shri. Joseph, Identified Teertha Mitra spear-headed the pooja. Following works were completed after two months: i. Desilting ii. foundation iii. Bund Strengthening iv. Wall construction v. Inlet and outlet construction vi. Steps and door for entry.



Stages of Renovation - Arivunachiar





2. Water Management

Gaja Teertham

Searching the Traditional water body – Gaja Teertham was a herculean task. From literatures survey such as Sthala purna, we started searching the Gaja Teertham. During our survey, we found many elephant idols in broken condition, both small and medium size near Ayannar temple as well as a small dilapidated pond like structure. We started shouting Eureka - Eureka....

However, our joy was short lived as the local people did not support the theory. A couple of years passed and then suddenly one day a person came to Green Rameswaram office and informed us that he knows the location of Gaja Teertham. But somebody else has already occupied the area and so his name should not be disclosed. He also narrated his childhood days when he used to swim in that pond 60 years back. He showed us the area from a long distance. Afterwards, we started talking to the local community leaders and convincing them about the usefulness of Traditional water body which belongs to HR & CE. Finally village people agreed to cooperate in the Revival and Renovation work.

The area was almost like a mini jungle, full of thorny trees and bushes which were cleared with the help of JCB. And although the original area of Gaja Teertham was big, we decided to have a reduced size keeping in mind the new realities and availability of rain water in that area.

Gaja Teertham Renovation pooja took place on December 21, 2020. Sister Saraswathi spearheaded the function along with the officials of HR&CE and Rameswaram Municipality. Shri.Gopi Sankar of Hand in Hand India and Father of Anthonyar Church, Olaikuda attended the function along with few locals.

Green Rameswaram team has been well received by Olaikuda people and our construction workers has been provided a well-constructed hut in the village and occasionally village people served them with tea and snacks.





2. Water Management

Stages of Renovation -Gaja





3. Sustainable Agriculture

This year, we organised virtual training programmes and many webinars on different topics with the help of scientists from reputed organisations such as (i) Tamil Nadu Agri Business and Marketing, Trichy (ii) National Research Center for Banana, Trichy, (iii) Krishi Vigyan Kendra, Tirupathisaram etc

Date	Topic	No.	Resource persons	Language
05.06.20	Organic method of Weed Control	55	Shri.Radhakrishnan, Tamilnadu Agri Business and Marketing Trichirapalli	Tamil
12.06.20	Webinar - Banana cultivation and crop management	95	Dr.S.Backiyarani, Dr.V.Kumar, Dr.J.PooraniNational Research Center for Banana, Tiruchirappalli	Tamil
19.06.20	Webinar - Banana Cultivation - Pest and disease Management	75	Dr.MS.Saraswathi, Dr.KJ.Jeyabaskaran, Dr.R.Thangavelu, National Research Center for Banana, Tiruchirappalli	Tamil
26.06.20	Webinar - Banana Cultivation and Value added products	120	Dr.D.Ramajeyam, Dr.KN.Shiva, Dr.R.Selvarajan National Research Center for Banana, Tiruchirappalli	Tamil
03.07.20	Banana cultivation - Value added products	78	Shri.Arumugam, Agriculturist, Kanyakumari	Tamil



3. Sustainable Agriculture

Date	Topic	No.	Resource persons	Language
17.07.20	Weinar - Miner fruits and value added products	73	Dr.T. Prabhu Dr.CissieTheeblyn David, KVK, Tirupatisaram	Tamil
24.07.20	Webinar - Micro greens and Health	55	Dr.CissieTheeblyn David, KVK, Tirupatisaram	Tamil
21.08.20	Webinar " why evenafter spraying medicines crop insects are not dying	46	Dr. L. Murugesan Former profoessor, Cotton Research College, Srivilliputhur	Tamil
28.08.20	Organic Farming - Dept. of Agriculture, Padmanabanputhur	46	Shri.Rajamani	Tami
03.09.20	Organic farming - Dept. of Agriculture, Auchankulam	40	Shri.Rajamani	Tami
31.10.20	Online training programme on "Vermi compost and Vermi Wash technology"	05	Smt.Premalatha	Tamil
10.11.20	Awareness programme on "Vermi Wash technology"	19	Shri.Vijayaragavan	Tamil
21.11.20	Training programme on "NPK Rich Bio- manure"	23	Shri.Vijayaragavan	Tamil
21.11.20	Awareness programme on "Vermi Wash technology"	31	Shri.Vijayaragavan	Tamil
26.11.20	Training on "Farming practices" ATMA, Kanyakumari Dist.South Thamaraikulam, Kanyakumari Dist.	40	Shri.Rajamani	Tamil
12.12.20	Training programme on 'Vermi composting' Sevalaya, Suchidrum Manalikadu, Pechiparai, Kanyakumari Dist	20	Shri.V.Ramakrishnan and Shri.S.Rajamony	Tamil
13.12.20	Training programme on 'Azolla technology' Sevalaya, Suchidrum	35	Shri.V.Ramakrishnan and Shri.S.Rajamony	Tamil



3. Sustainable Agriculture

Date	Topic	No.	Resource persons	Language
14&15. 12.20	Online training programme on "Agricultural related technologies" Agricultural college, Thiruvananthapuram	95	Shri.G.Vasudeo, Shri.V.Ramakrishnan Smt.S.Premalatha	English
26.12.20	Online training programme on "Agricultural related technologies" Agricultural college, Padannakkad, Kerala	65	Shri.V.Ramakrishnan and Smt.S.Premalatha	English
22.01.21	Awareness programme on 'Farming technologies' SWASAM Trust, Ambasamudram	60	Shri.Rajamani	Tamil
22.02.21	Training programme skill development for unorganized women labours Stella Maris Institute of Development Studies, Kanyakumari	.50	Shri.Rajamani	Tamil
24.02.21	Farmers' Training programme on "Azolla & AM fungi" Tamil Nadu Agricultural University, Coimbatore	60	Smt.Premalatha	Tamil
13.03.21	Training programme on "NPK rich Bio-manure" preparation Rohini Engg. college, Andarkulam & Athalavilai village	60	Shri.Rajamani & Shri.Vijayaragavan	Tamil





3. Sustainable Agriculture



Shri. Rajamony interacting with the trainees during vermi compost training



field visit to our nursery



Visit to Harit Surabhi shop



terrace garden in Vivekanandapuram



3. Sustainable Agriculture

Vermiwash - An Elixir for Farmers

Comparative Study of Vermi Wash

"comparative study of vermi wash with a control plot on maize was carried out. Four parameter such as (i) height of the plant (ii) No. of leaves per plant (iii) No. of corns and (iv) weight of the yield, were recorded. Plot with vermi wash showed 20% extra growth which is substantial.



Shri.Gopi, District Coordinator, Hand in Hand India who are maintaining the Resource Recovery Park says that the Vermi Wash liquid is very effective and the plants were blooming like anything. He expressed that he would like to go for one more unit and thereby he can use Vermi wash for more plants and the yield can be more.

My name is Shri.Arumugam, Thalakulam, Monday Market Post, Kanyakumari District, Kuranthancode Block. I am a progressive farmer and having 1-acre horticulture garden and have planted sapota, guava, jack fruit, Mangoes and spices. I have established a Vermi wash unit with the help of Vivekananda Kendra – Nardep. Earlier, leaves of my mango trees were yellowish and the growth was not up to the mark. After the application of vermi wash, I found a good change within 2 months. Now, my trees are lush green



My name is B.Dinesh, G.P.N.Nursery, Pottayadi, Kanyakumari District. I am doing the business of nursery raising and selling of plants. My nursery is famous as I have varieties of plants such as: Ornamental plants, Medicinal plants, Agricultural plants, Horticultural plants, Floriculture plants and orchids etc., I find a tremendous difference in the growth of the nursery as well as plants after establishing vermi wash unit. Now, (i) my seedlings are growing fast (ii) seedlings developed more roots and (iii) cuttings are germinated without any wastage. Thanks to Vivekananda Kendra – Nardep for providing me this new technology of vermi wash.



4. Holistic Health

This year, we used the lock down situation to our advantage by arranging series of webinar. participants were from different parts of India as well as from Singapore and Sri Lanka. More than the lecture, question and answer sessions after the lecture were interesting

Date	Topic	Nbs.	Language
20 April 2020	Building Immunity to fight Corona by Dr.V.Ganapathy, Director, Varma Research Centre, Vivekananda Kendra	76	Tamil
21 April 2020	Productive usage of time for wellbeing by Shri.Krishnamoorthi, Senior Life Worker, Vivekananda Kendra, Kanyakumari	81	Tamil
27 April 2020	Building Immunity to fight Corona by Dr.V.Ganapathy, Director, Varma Research Centre, Vivekananda Kendra	54	Tamil
28 April 2020	Mind Development in Indian Culture by Shri.Krishnamoorthi, Senior Life Worker, Vivekananda Kendra, Kanyakumari	59	Tamil
5 th May 2020	Importance of family in the present contexts by Shri.Krishnamoorthi	49	Tamil
6 th May 2020	How to improve immunity in daily life by Dr.V.Ganapathy	43	Tamil
9 th May 2020	Building immunity with Beta-Carotene by Dr.VasantSavangikar, Nasik	41	English
11 th May 2020	De-toxifying the body to improve the immunity by Dr.V.Ganapathy	38	Tamil
12 th May 2020	Role of Rituals, Puranas and Tattvas in regulating the humans by Shri.Krishnamoorthi	48	Tamil



4. Holistic Health

Date	Topic	No.	Language
16 th May 2020	Dr.Mahadevan - COVID 19 and Ayurveda	87	English
18 th May 2020	Dr.V.Ganapathy - Kayakalpa herbs	65	Tamil
19 th May 2020	Shri.N.Krishnamurthi - Raga - Dwesha - Viveka	67	Tamil
23 rd May 2020	Naturopathy and yoga as preventive measures for COVID 19 by Dr.UmaMaheswarai	72	English
25 th May 2020	Herbal medicines to improve immunity by Dr.V.Ganapathy	50	Tamil
26 th May 2020	Moral and ethical basis for all round growth by Shri.N.Krishnamurthi	68	Tamil
1 st June 2020	Varma for improving health and immunity by Dr.Ganapathy	56	Tamil
2 nd June 2020	Bhagatgita in daily life by Shri.N.Krishnamurthi	42	Tamil
4 th June 2020	Self-dependent Rameswaram by Pakshi Shiva	22	Tamil
8 th June 2020	Ethnic medicine by Dr.Ganapathy	61	Tamil
9 th June 2020	Environment in day to day life by Shri.N.Krishnamurthi	34	Tamil
10 th June 2020	Question and answers by Dr.Savangikar on beta carotene	15	English
19 th June 2020	Ayurveda for wellbeing and harmonious life Dr.L.Mahadevan, Darisanacope	64	English
27 th June 2020	Webinar - Corona and the need for new way of life - Dr. Dilip kulkarni, Maharashtra	46	English



4. Holistic Health

Date	Topic	Language	Parti.
21.09.21	Virtual (online) Question and Answers session on "Traditional Siddha Varma" DST Core Support, New Delhi Resource Person: Dr.V.Ganapathy and his team	Tamil	43
09 & 10 .01.21	Yoga Sangamam "Nokku Varmam". Show on magic herbs. Dr.Ganapathi and his team	English	65
10 .01.21	Role of Traditional Siddha Varma Therapy for Fever Dr.Ganapathy and his team & Vice Chanchellor , Noorul Islam University, Kumarancoil as a Chief Guest	Tamil	147

Green Health Home - 44 days - 1294 patient

Varma Research and Resource center have started massage therapy from July 2019.

This year 220 patients took massage treatment from the center. Due to the pandemic, the center was not running regularly.



I am Manonmani resident of Mahadhanapuram in Kanyakumari dist. I am 69 years young but had a fall while walking on 31st January, 2020 and then had severve pain near my ankle joint. VK - Varma Research and Resource Center Doctor suggested me to apply "Vatha Varma Thylam" and "Surabhi Balm" for a couple of months. I did as per his advice alongwith pack of cloth with hot water . I received total relief. Thanks to Vivekananda Kendra,,,,,,,,,



4. Holistic Health



Prof.Dr.R.Perumalsamy, Vice Chancellor, Noorul Islam University receiving the memento during the seminar - Role of traditional siddha varma therapy for fever



Tenkarai Maharaja Pillai and Dr.Ganapathy - show on magic herbs during Yoga sangamam

Attentive audience during the seminar





4. Holistic Health

Green health department of VK-Nardep came out with the following four herbal remedies during the pandemic - 19. (i.Sanjeevi choornam, ii. Surabhi for body pain, iii.Nilavembu kashayam and iv.Shakti choornam)

Anti-infective and Health Promotive Therapy (Including Corona and other infections)

The following are anti-infective and health promotive medicines. The herbal medicines have been prepared on the basis of (i) old texts (ii) traditional therapy experience (iii) modern scientific researches and (iv) years of experience in its usage. Standard operating procedures have been followed in its preparation.

Package of
4 medicines

1. Sanjeevi Chooram



- Thetram seed, Vakula flower, Sathakuppai, Atimadhuram, Malli, Jeera and other ingredients have been used.
- It is a Kalpa medicine that gives disease resistance power to the body and mind.
- Useful in cases of Vomiting, Stomach ailments, Liver complaints, Eye diseases, Inner heat and Gonorrhea

2. Surabhi for body pain

- Nilavembu, Tippili, Dry ginger, Black pepper, Basil tulsi, Chittarattai, Atimaduram, Black jeera, Lavangam, Tooduvalai and a few other herbs (total 20 nos.) in compound form.
- Good medicine for increasing disease resistance and curing diseases.
- The process of preparation is used for more than 20 years under the direct supervision of the doctor.
- Cough, Cold, Body pain, Running nose, Throat pain, Loss of appetite, Nose-blockage, Head ache, Migraine etc. - for these diseases, it is a proven medicine.
- Useful to all patients, quick healing medicine
- Prevents virus and other infection and gives resistance against Corona and infective and contagious diseases.



3. Nilavembu Kashayam



For many types of Fevers, Body ache, Tiredness, Fatigue, Nose-block, Phlegm, Cough, Dengue, Chikungunya. This is a good preventive medicine. Improves the body strength. Nilavembu, Black pepper, Tulasi leaves have been used in this preparation.

4. Shakti choornam (Varma choornam)

- This medicines have no side effects. Everybody can use it. A good medicine against contagious diseases.
- Amukkara, Tippili, Sirutekku, Kungileum are used in this preparation.
- Cough, Breathlessness, Breathing problems, Giddiness, Body ache, Varma catch, Vayu, Throat stuffiness. This medicine cures all these problems and also improves the body resistance.





5. Bio- Energy

This year, Mahatma Gandhi National Council of Rural Education (MGNCRE), Hyderabad arranged a series of webinars on Solid waste management for NSS college coordinators, teachers of education university and principals of colleges from Tamilnadu. VK-Nardep participated in the seminars and gave presentations mainly on "Bio-methanation technologies". In addition, there were a few training programmes which are listed below:

No	Topic	Date	Nos.
1.	Webinar on Solid waste management for NSS College Coordinators of Tamilnadu Mahatma Gandhi National Council of Rural Education (MGNCRE), Hyderabad Shri.V.Ramakrishnan gave a presentation on 'Bio-methanation technology'	30.06.21	60
2.	Webinar -Waste Management of College Campus Principals of Tamilnadu Teachers education university MGNCRE, Hyderabad Shri.Ramakrishnan - Shakti Surabhi Bio-methanation plant Shri.G.Vasudeo - Need of change in life style after pandemic	03.07.21	140
3.	Online training programme on "Kitchen waste based bio-methanation plant" DST Core Support, New Delhi Shri.V.Ramakrishnan	11 -12.07.21	22
4.	Webinar -Waste Management of College Campus With an efficient Action Plan for Campus Swacchta Principals of Alagappa university` MGNCRE, Hyderabad Shri.V.Ramakrishnan gave a presentation on 'Bio-methanation technology'	23.06.20	45
5.	Webinar -Waste Management of College Campus With an efficient Action Plan for Campus Swacchta Principals of Puducherry University and Jal Shakti , MGNCRE, Hyderabad Shri.V.Ramakrishnan gave a presentation on 'Bio-methanation technology'	24.07.20	170
6.	Webinar -Waste Management of College Campus With an efficient Action Plan for Campus Swacchta Principals of University of Madras , MGNCRE Hyderabad Shri.V.Ramakrishnan gave a presentation on 'Bio- methanation technology'	25.07.20	70



5. Bio- Energy

No	Topic	Date	Nos.
7.	Webinar -Solid Waste Management Principals of Manonmaniam Sundaranar University MGNCRE, Hyderabad Shri.V.Ramakrishnan gave a presentation on 'Bio-methanation technology'	27.07.20	130
8.	"Bio-methanation technology - V.Ramakrishnan	31.10.20	04
9.	"Bio-methanation technology" - Shri.V.Ramakrishnan	21.11.20	27
10	Training programme on "Bio-methanation technology"	22.11.20	48
11.	"Bio-methanation technology Shri.V.Ramakrishnan	28.11.20	32
12.	"Bio-methanation technology" - Shri.V.Ramakrishnan	28.11.20	01
13	Bio-Methanation technology - Kasi Sewa Samithi, Kasi Shri. G.Vasudeo	15.12.20	14
14	Tranoinig on Bio Methanation Technology	23.01.21	01

Installation of Shakti Surabhi Bio-Methanation plants -16 nos.



6cum portable plant installed at School in Rameswaram



V.Ramakrishnan interacting with the participants during the webinar



Resource Recovery Park, Pottayadi, Mylaudy Town Panchayat - Bio-methanation plant based on kitchen waste



Stakeholder pouring the waste in the Bio-methanation plant - project supported by NABARD, Chennai



5. Bio- Energy

During the pandemic, we completed the project "Innovative portable biogas plant from cattle dung and Agricultural farm waste", sanctioned by NABARD, Chennai. We made a series of experiments on different farm waste before finalising the prototype. Based on the results, we field tested six portable biogas plants with cow dung as an input material and seven Bio-methanation plants based on farm waste.



Portable Biogas plant from cattle dung worked satisfactorily. However, we found that in the case of farm waste based plant is concerned, a batch type plant is preferable to the continuous type. Based on our experiments, we came out with a book "Bio-energy from Biomass" and a small documentary on this subject.



Our Sincere Thanks to



NATIONAL BANK FOR
AGRICULTURE AND RURAL
DEVELOPMENT
Regional Office, Chennai
For sponsoring this project under
Farm Sector Promotion Fund



5. Bio- Energy

Use of Biogas slurry as an organic fertiliser, growth promoter or pest repellent

VK-Nardep made a series of experiments with the help of a regular Shakti Surabhi plant by feeding fine powders of the following:

- i. Non-edible oil cake such as Pongamia, Neem etc.
- ii. CO4 Napier grass
- iii. Nochi
- iv. Gliricidia etc.



The gas output depends on the quality of biomass fed. Ideally, one should feed the same type of biomass regularly as the bacteria get used to is. Any sudden change will hamper the gas production. In such plants, gas output may be very less but the output slurry can be used as an organic fertiliser, growth promoter or pest repellent. The advantage of digested slurry is that the plants absorb the nutrients more effectively because of chelating (attraction) effect.





5. Bio- Energy

Repairing of Bigger size plant

Uthamapalayam Town Panchayat, Theni District were contacting VK-Nardep office desperately with a request to send our supervisor to check up 100 cum plant operating on kitchen waste and manufactured and commissioned by other agency.

The plant remained idle for 2 – 3 months. Neither the original vendor was coming for the check up and repairs nor other vendors working in the field of Biogas could solve the problem. Finally, VK-Nardep sent their supervisor who was working in the field at Pollachi at that time.



THENI DISTRICT – UTHAMAPALAYAM TOWN PANCHAYAT
SOLID WASTE MANAGEMENT – BIO METHANATION PLANT

The authorities were so desperate that they lifted our supervisor in a car from Pollachi and took him to Theni which is 270 kms away.

Our supervisor checked every aspect as per the inspection protocol starting from inlet, outlet, gas holder, pipeline etc. Surprisingly everything was ok. The balloon was full of gas but the burner was not burning.

Our supervisor intuitively understood that there must be water in the pipeline. His guess was correct. He drained all the water and fitted one



extra valve for draining the water in future. After removing the water, he was sure that the burner would start burning. However, to his disappointment, there was no flame coming.

Again, our supervisor started checking each and every part of the plant and then his attention went towards gas flow meter. He thought of taking a chance of removing the gas flow meter and giving direct connection of the pipeline to the burner.

This time he was triumphant as a big flame came out of the burner. Everybody started clapping for the success of mission as the mystery was solved and the culprits were water in the pipeline and gas flow meter, which were blocking the passage of gas going to burner.





5. Bio- Energy

27 years old Bio gas plant still going strong

Vivekananda Kendra – Nardep constructed 3 cum. Deenabhandu type biogas plant in the year 1993 at Sitamoni house, Perumalpuram, Tirunelveli. The owner was not getting gas since 8 – 10 days and so he contacted Vivekananda Kendra.

Our supervisor Shri.Muneeswaran visited the house and was pleasantly surprised to see the name of Vivekananda Kendra – Nardep inscribed near the plant along with the year of commissioning – 1993.



Shri.Muneeswaran, to his surprise found everything perfect except the scum formation at the inlet. He requested the owner to clean the entire plant, as they have not done it after commissioning the plant 27 years ago.

With the help of slurry pump, they removed all the slurry from the plant. Then our supervisor requested the labourers to enter inside the plant through inlet as there was lot of scum and mud accumulated inside. Labourers were

afraid to enter and so Shri.Muneeswaran himself went inside first and started cleaning the dirt accumulated inside the plant. Afterwards, other workers joined him and removed lot of scum as well as sand and soil deposited in the plant. After cleaning with water, the house owner again started feeding the plant with fresh cow dung slurry.





6. Adaptive Research

1. Bio-Toilet

Vivekananda Kendra – Nardep has constructed several biogas plants earlier which are working on night soil. It is a proven technology provided one does not use acid or detergent to clean the pan and the toilet, as it kills the methanogenic bacteria which is responsible for producing methane gas. We used this experience in designing Bio-toilet

The Bio-Digester Toilets have the same look and feel like any other normal toilet. The only difference is in the manner in which the human waste (faecal matter) is treated.

In Bio digester, faecal matter is converted into harmless residual water by way of Anaerobic reaction using methanogenic bacteria. The residual water from bio toilet is colourless, odourless and devoid of any solid particles. Residual water does not require further treatment and can be sent into a soak pit or can be used for the plants. Usual septic tank system requires occasional removal of sludge which is expensive. This can be avoided by retrofitting Bio toilet system. In addition, in our system, we get some additional Bio gas for usage.

Advantages of Bio toilet system are :

1. No infestation of cockroaches and flies
2. No clogging of digester.
3. No maintenance required.
4. Reduction in faecal matter by 90%.
5. No need of removal of solid waste.
6. No contamination of water table.



We also tried our hand in Manufacturing the following products :

2. Dhupam (sambrani)



Ingredients:

- (i) Indigenous Cow dung powder,
- (ii) Charcoal powder
- (iii) Kungiliyam (White Dammer)
- (iv) Sambrani
- (v) Guggal – Dhoop Khada) and
- (v) Rose water

3. Drumstick soup powder



Technology of making powder from Drum stick for preparation of soup given to Sri Amutha surabhi women's Federation (SHG). This powder has multiple benefits including of Immunity

4. Organic Kumkum



Ingredients:

- (i) Turmeric powder,
- (ii) lemon and
- (iii) Lime water



6. Adaptive Research



5. Eco - friendly Vinayaka

Ingredients: (i) Indigenous Cow dung powder, (ii) Clay, (iii) Turmeric, (iv) Water, and (v) Rubber mould.

For the first time, cow dung based Eco friendly Vinayakas were prepared by VK-Nardep. Everybody appreciated the efforts which will help in reducing the pollution by adapting such Green technology.

6. Cost effective Solar still

VK-Nardep prepared solar still from waste material for preparing Gomutra concentrate— Cow urine Ark at Technology Resource Center, Kalluvilai.

The bottom plate is made of fiber glass while the top cone is made of low density polyethylene



7. Organic Vibhuti (Bhasmam)

It is very difficult to get good quality Bhasmam (Vibhuti) in the market. Most of the brands are using chemicals for getting white colour and aroma. So we tried our hand in making organic vibhuti from the indigenous cow dung. Initial results are good although there is a scope for further improvement



8. Idols made from Fibre glass

Vk -nardep used the pandemic-19 by venturing into new fields like preparing idols from fibre glass.

There is a huge market for good quality items. Unfortunately, they are exorbitantly costly. We tried a few idols of Ganesha, Hanumana and swami. Vivekananda. The overall quality was good but not extraordinary. We have to solve a major issue of getting high quality rubber silicon for preparing moulds .





7. Publications

Producing Bio gas from Biomass at a bigger scale is becoming common. However, it is a challenging proposition when it comes to designing small and portable plants at a reasonable cost. The book covers cattle dung as well as agricultural farm waste as a feed material. Interestingly, it also covers batch type biomass based bio-methanation plant.



Ferro cement Technology is a Green technology which requires promotion at all levels. The book covers different facets such as vaults, domes, doors, windows, tanks, toilet blocks etc. It also covers curing techniques, method of transportation etc. A true guide for those interested in using Ferro cement technology.



Very informative chart which covers (i) Rasi vanam (ii) Nakshatra vanam (iii) Navagraha vanam (iv) Astra karma vanam and (v) Rejuvenating herbs which are useful for one's health.



Vivekananda Kendra Varma Research and Resource Center organises regular training programmes for Doctors, Vaidyas and Laymen who are interested in this Traditional Varma Chiktisa. This is a second part of Varma Maruthuva Kaiyedhu which covers the leg. It is used as a text during the training programme



8.1 Linkages with Local Stakeholders

Many Govt. departments, colleges, voluntary organisations and schools are visiting our Technology Resource Center, Gramodaya park as well as J. C. Bose Nursery etc., for exposure and training

S.N	Place	Date	Nos.
1.	ATMA, Virudhunagar Dist	19.01.21	30
2.	ATMA, Block Agriculture Extension Center, Thackalay, Kanyakumari Dist.	02.02.21	50
3.	ATMA, Block Agriculture Extension Center, Kurunthancode, Kanyakumari Dist.	05.02.21	50
4.	ATMA, Block Agriculture Extension Center, Munchirai, Kanyakumari Dist.	08.02.21	50
5.	ATMA, Block Agriculture Extension Center, Tiruvattar, Kanyakumari Dist.	09.02.21	50
6.	ATMA, Block Agriculture Extension Center, Rajakamangalam, Kanyakumari Dist.	10.02.21	50
7.	ATMA, Block Agriculture Extension Center, Melpuram, Kanyakumari Dist.	11.02.21	50
8.	Green Agri Club, Marthandam, Kanyakumari Dist.	16.02.21	50
9.	Krishi Vigyan Kendra, Tirupatisaram, Kanyakumari Dist.	25.02.21	35
10.	Scott Christian College, Nagercoil	17.03.21	35
11.	Sri Sarada Niketan College of Science for Women, Karur	20.03..21	56
12.	Thuya Aavi Middle School, Manapad, Thoothukkudi Dist.	23.03.21	23





8.1 Linkages with Local Stakeholders

Harit Surabhi organic shop started functioning in Vivekanandapuram campus during pandemic-19 on Tamil new year day (14th April). Following items are available for Green Living. i. Agri tools for gardening ii. Seeds – flowers, vegetables, horticulture tc. iii. Different types of composts, Bio-pesticides, Growth promoters etc. iv. Azolla and related kit v. Different type seedling and plants vi. Honey and honey bee boxes etc. vii. Herbal cosmetics and siddha medicines viii. Cow related products such as bhasmam, panchagavya and Gomutra etc. ix. Different types of portable biogas plants and accessories x. Publications in English, Hindi and Tamil





8.1 Linkages with Local Stakeholders

Corona Relief work

S.N	Date	Description of Items
1.	April, 2020	Financial help for very poor families across tamilnadu - 24 nos. @ Rs.5000/-
2.	24 th to 30 th April 2020	8 days meals for impoverish and mentally sick persons at Kanyakumari .
3.	07.05.2020	Provision purchased for Bharat SewasramSangh, Kanyakumari (50 pilgrims who could not go back to home because of lockdown staying at ashram)
4.	01.05.2020	Rice 5kgs bag. - Kalluvilai Village - 80 houses distributed
5.	06.05.2020	Rice 5kgs bag - Valukkamparai - 25 houses
6.	06.05.2020	Rice 5kgs bag - Lakshimipuram & Madavapuram- 45 houses
7.	06.05.2020	Rice 5kgs bag - Puviyur village - 80 houses
8.	06.05.2020	Rice 5kgs bag - Panchalingapuram village - 25 houses
9.	09.05.2020	Rice 5kgs bag - Swaminathapuram = 30 houses
10.	09.05.2020	Rice 5kgs bag - Peruselvilai village - 30 houses
11.	09.05.2020	Rice 5kgs bag - Leepuram village - 80 houses
12.	10.05.2020	Rice 5kgs bag - Pujapuravilai, Agasteeswaram - 30 houses -





8.1 Linkages with Local Stakeholders



Anjaneya Fitness Farm

Anjaneya fitness farm started at TRC, Kalluvillai (Anjaneyapuram) on 11th September (Universal Brotherhood Day). Shri.A.Balakrishnan, President, Vivekananda Kendra inaugurated it and also gave a lecture on Swami Vivekananda's clarion call on "Universal Brotherhood". The Gym is helping the youths of near by villages as they are realising that : Health is Wealth.



Mask and Hand wash Sanitiser

We received masks and Hand wash Sanitiser through Dept. of Science and Technology, New Delhi. We distributed 2500 nos. of good quality masks to SHG members, Auto drivers and locals at Kanyakumari and Rameswaram during pandemic. Hand wash Sanitiser installed at School and office premises



8. 2 Linkages with Media

All in India Radio, Nagercoil



1.	Role of Cattle in Green Agriculture	02.01.21	Shri.V.Ramakrishnan
2.	Mud block technology	10.01.21	Shri.V.Ramakrishnan
3.	Gau Ark	26.01.21	Shri.V.Ramakrishnan
4.	Tree Plantation	27.01.21	Shri.V.Ramakrishnan
5.	Omam Ark & Natural farming Technologies	28.01.21	Shri.V.Ramakrishnan

Webinar - Environment in day to day life Shri.N. Krishnanmoorthi, Vivekananda Kendra, Kanyakumari

09.06.20 - 34 participants attended



8.3 Linkages with Institutions and scientific bodies

Meeting of the consortium partners of IMPRINT Project
"Multi-Crop Residue Processing Technology Package
for Production of Fuel and Fertilizer"

Tezpur University

Shri.G.Vasudeo attended the virtual meeting -27.07.20

G.Vasudeo visited Tezpur university on
12th February 2021 and had interaction
with Dr.Baruah and his staff about Imprint project.



- Online Project review meeting, NABARD, Chennai - 19.8.2020

Shri.Ramakrishnan presented "project report"

- Project Monitoring committee of NABARD, Kanyakumari .

21.8.2020 and 16.10.2020



UGC STRIDE Mentoring and Monitoring Committee

Central University of Tamilnadu

Thiruvarur - 610 005

Shri.Ramakrishnan, being a member of the committee,
attended virtual meeting on 11th June, 2020
and meeting at Tiruvarur on 30th March 21

District advisory committee meeting Collectorate, Nagercoil

Shri. S.Rajamani attended the following meetings

Dept. Agriculture, Kanyakumari -

- 10.02.21, 29.09.21 & 10.12.21

Dept. of Horticulture, Kanyakumari - 18 .02.21



Empanellment under SFURTI scheme

V.Ramakrishnan presented VK-nardep proposal on 16th October,2020

Vivekananda Kendra - Nardep has been empanelled as "Technical agency" for implementing
SFURTI (Scheme of Fund for Regeneration of Traditional Industries) by Khadi and Village
Industries Commission, Mumbai.





8.3 Linkages with Institutions and scientific bodies



Science for Equity, Empowerment & Development
(SEED) Division
DEPARTMENT OF SCIENCE & TECHNOLOGY

Vivekananda Kendra – Nardep is having a long association with SEED Division of Dept. of Science and Technology, Govt. of India. This year in December 2020, we completed the 2nd phase of core support grant.

Sl.N	Subject	Dates	Remarks
1.	Data based interventions by S&T capable NGO's for Economic Growth in Post COVID Scenario at Community level	8th May 2020	Faculty- NRDMS Division
2.	Webinar -Mainly review of work during pandemic	20 & 21st of October 2020	SEED Division
3.	Web clinics - STI for Society and Socially Relevant STI	5,6,10th &11th of November 2020	MSME Economic sector

Camp for Solapur students

28 students from A.G. Patil Institute of Technology, Solapur, Maharashtra underwent training programme on "Technologies for Sustainable Development". The training was held from 20th to 25th March at Technology Resource Center, Kalluvillai.

Students learnt various green technologies such as (i) Cost effective construction technologies (ii) Water management (iii) Low input sustainable agriculture (iv) Green health (v) Bio-methanation technology. In addition, there was an emphasis on "Inner Sustainability" by regular practice of yogasana, pranayam, devotional songs etc. It was a beautiful combination of Karma Yoga, Raja Yoga, Bhakti Yoga and Gnanya Yoga.

The speciality of the programme was that the students ventured out during pandemic and came to Kanyakumari from all the way from Solapur, Maharashtra. Parents as well as the institute were confident that they will be taken care properly by Vivekananda Kendra - Nardep and will get empowered in the process.

All the participants enjoyed their one week stay at Kanyakumari and will cherish the memories through out their life.





Contact :

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