SREEKRISHNAPURAM
V.T. BHATTATHIRIPAD COLLEGE

Aided and Affiliated to University of Calicut, NAAC Accredited with B+ Grade
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CRITERION – VII
INSTITUTIONAL VALUES AND BEST PRACTICES

7.2 Best Practices

7.2.1 Best Practice 2 - spandanaṃ - An initiative of social welfare and Sustainability

Food Forest

FOOD FOREST

Introduction

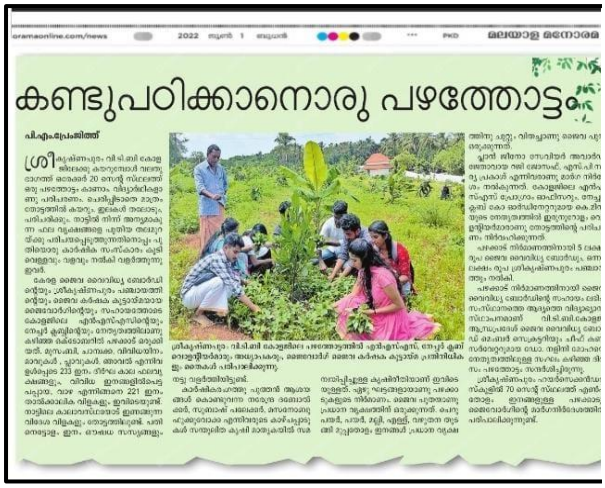
Food Forest, a project in collaboration with Kerala State Bio-diversity Board and Sreekrishnapuram Grama Panchayath, was officially inaugurated in our college on October 18, 2021 by Ottappalam MLA Adv. K. Premkumar. It was initiated with the technical support of Organic Farmers' Organization, JAIVORG, which is led by the Plant Genome Saviour Award Winner, Sri. Reji Joseph. It is the first such project initiated by Kerala State Bio-diversity Board in an educational institution in Kerala. The Project was initially funded by contributing ₹5,00,000/- and ₹1,50,000 by Kerala State Bio-diversity Board and Sreekrishnapuram Grama Panchayath respectively. The remaining fund was contributed by Management and Sponsorship arranged through NSS and Nature Club Volunteers.

Concept of Food Forest

With a view to connect the people with nature and presenting a natural way for balancing the echo-system, a new concept named FOOD FOREST which is conceived by the Organic Farmers' Organization, JAIVORG, which is lead by the Plant Genome Saviour Award Winner, Sri. Reji Joseph at Sreekrishnapuram. The slogan of this Food Forest is One Solution for Seven Mission. Seven missions are 1. Bio-diversity conservation 2. Food security 3. Eco-system restoration 4. Reconnecting human and nature 5. Water preservation 6. Ecological balance and 7. Soil Enrichment.

The Concept of Food Forest is a farming system that integrates the views of great Organic farmers Narendra Dabholkar, Subhash Palekar, Masanobu Fukuoka who brought new ideas in the field of agriculture into Permaculture Approach. In order to ensure the Canopy Management, one sapling is plated in every 10 feet distance so that the canopy of one plant will not disturb the canopy of another one that makes this concept a Forest.

This project is a forest that gives food at all times which is a combination of pragmatic aspects of traditional and modern agricultural methods that is a golden opportunity for the students to learn and research on the topic of innovative agriculture. This is the main vision and mission of starting such a project in the college. It is essential to retake the lost culture and precious food trees back to our life. We are in deep belief that we can protect the bio diversity through the continuous maintenance of our Food Forest.


കണ്ടുപഠിക്കാനൊരു പഴത്തോട്ടം

The two highlights of this project are **Live Mulching** and **Live Shading.**

Live Mulching: In agriculture, a **living mulch** is a cover crop interplanted or undersown with a main crop, and intended to serve the purposes of a mulch, such as weed suppression and regulation of soil temperature. Living mulches grow for a long time with the main crops, whereas cover crops are incorporated into the soil or killed with herbicides.

The big circled portion of land shows live mulching. Also, you can note that the people entering into the land shall not use chappals because it hurts the seeds of mulching

Other benefits of mulches are slowing the growth of weeds, and protecting soil from water and wind erosion. Some living mulches were found to increase populations of the natural enemies of crop pests.[1] Legumes used as living mulches also provide nitrogen fixation, reducing the need for fertilizer.

Live Shading

In order to protect the land and tree saplings from the excess exposure to sun light, a system of shading, known as live shading is implemented in this project. For that, we plant millats, grains, dainja, oil seeds, flowers, etc. in the free land of the selected area so that it will grow and give us necessary food items and in addition to that, it protects

the land from sun light. It also gives micro elements to the land that enhance the soil quality so that the main trees grow to its fullest potential.

The grown up greeneries are the Live Shading of our Food Forest

Area of Project: The project is spread over 1.25 acers of land in the college campus. It consists of 457 food trees saplings with 130 tree varieties and medicinal plants, 30 varieties of millats, grains, dainja, oil seeds, flowers. This 457 trees includes some rare varieties of indigenous plants that faces extinction threat and also includes some foreign varieties of trees that suit our climatic conditions. Through this, we are indented to introduce a new system of agriculture to new generation.

Making of Food Forest

There are seven stages through which the Food Forest becomes functioning.

Stage 1

Resource Mapping:

Identifying the location, identifying water sources, soil nature, etc.

Stage II

Planning:
Deciding where to plant, what all tree saplings shall be planted, deciding the distance between plants, deciding the tree varieties, etc.

Stage III

Preparation of Compost Fertilizer: Organic Compost fertilizer is the life blood of this project. The scientifically developed fertilizer is essential for the healthy survival of the food forest.





Stage IV

Land Clearing and Development:


Stage V

Marking the Spot: Each saplings are planted with 10 feet distance by following canopy management strictly. So the spot in which plants are planted are spotted well in advance.

Stage VI

Pitting and Filling the compost: Taking a pit of 3 feet depth and 2 feet radius which will be filled with the compost.

Stage VII

Planting the Tree Saplings

Training on Sustainable Food Forest (In Association With *Gaivorg* Karshaka Koottayma – An NGO

In order to enhance the attitude in the students regarding the organic agriculture, we have conducted a one-day Work Shop on on November 7, 2021. As part of training we have conducted workshop on Making of Organic Fertilizer – Jeevamrutham – and Food Forest Technology, Live Mulching, Live Shading etc. Also students have the opportunity to taste the traditional food items with organic food products.

Action Photos

Making of Organic Fertilizer

Making of Jeevamrutham

Rain Water Harvesting

Surveying the Plants with Graphical Representation

Development of Food Forest in 10 days..... Day 1 and After the Planting

Daily Maintenance by NSS Units and Nature Club Volunteers

The project was officially started on October 18, 2021. The saplings were planted on 23rd October, 2021. After that, the regular and daily maintenance work has been done by the volunteers of NSS and Nature Club. There are 15 lines of trees in the food forest and 4 volunteers are assigned to each line and they are doing the work daily. Each line is under the control of leaders and there are two assistant leaders under the main leader to look after the line. These 4 volunteers assigned to each line is changing on a rotation basis so that all the 200 NSS volunteers have been involved in the Food Forest activities.

1. **Managing the Live Mulching**: The volunteers on a regular basis, inspect the growth of live mulching and trim the growth of plants to protect the main trees. These waste plants are put into the main trees so that it becomes bio fertilizer for the main trees. In such a way, this project can contribute 4000 tones of bio mass to the soil.

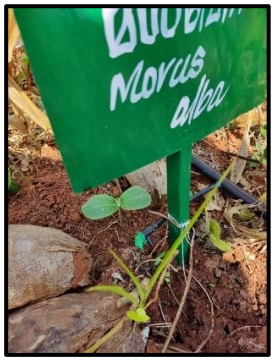
2. Removing Anathottavadi

Anathottavadi is an alien plant that disturb the growth of main plant. So that the volunteers of NSS, on a regular basis remove the alien plant. The alien plat is plucked and removed from the land.

Drip Irrigation in our Food Forest










Making of Jeevamrutham (Organic Fertilizer)

Jeevamrutham is a very effective organic fertilizer which is made off 20 kg cow dug, 10 litres of cow urine, 2 kg vellam and 2 kg cherupayar podi and a handful of mud. It is diluted and fermentized with three days so that it enhancec the population of microms in the fertilizer. With this, we can make 400 litres of jeevamrutham. Once in every month we apply Jeevamrutham to the plants.

Fermenting for three days

Fixing Name Board for the Trees

Name board fixing inauguration. The name boards are sponsored by Palakkad Indian Oil dealers.

Getting Food items from the Food Forest: The food items that we get from the food forest is given to the students, teachers, general public. This the value of the food forest.

Receiving the guests with food forest food……

Famous Personalities/Organizations who visit Food Forest

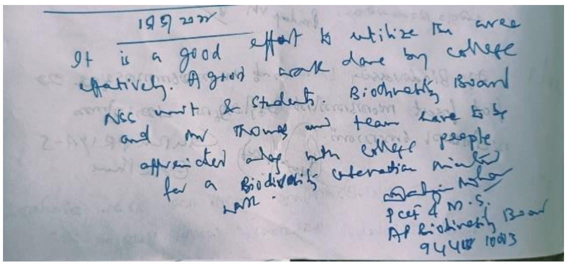
1. **Sri. Nalini Mohan, IFS and Team, Bio-diversity Board, Andra Pradesh. Dated 15.05.2022**

PKD PM

ശ്രീകൃഷ്ണപുരത്തെ പഴക്കാട് കണ്ടുപഠിക്കാൻ ആന്ധ്രയിൽനിന്നുള്ള സംഘമെത്തി

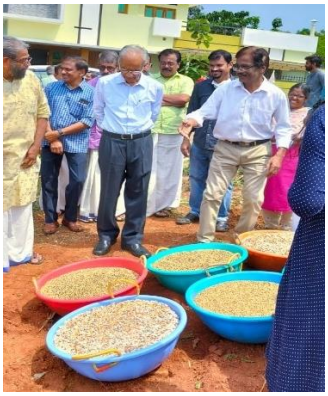
ശ്രീകൃഷ്ണപുരം ▸ പാലക്കാട് ജില്ലയിലെ ജൈവവൈവിധ്യ പ്രവർത്തനങ്ങൾ പഠിക്കാനെത്തിയ ആന്ധ്രയിൽനിന്നുള്ള സർക്കാർ പ്രതിനിധിസംഘം ശ്രീകൃഷ്ണപുരത്തെ പഴക്കാടുകൾ സന്ദർശിച്ചു. പഴക്കാടിനൊടൊപ്പം ജൈവവൈവിധ്യ ബോർഡിന്റെ ഫാം സ്കൂളിലും സംഘമെത്തി.

ആന്ധ്രപ്രദേശ് സംസ്ഥാന ജൈവ വൈവിധ്യ ബോർഡ് മെംബർ സെക്രട്ടറി ഡോ.നളിനി മോഹൻ, സംസ്ഥാന കോ-ഓർഡിനേറ്റർ ഡോ. വരലക്ഷ്മ അമ്മ, ശാസ്ത്രജ്ഞൻ ഡോ. കോട്ടേശ്വര റാവു എന്നിവരുടെ നേതൃത്വത്തിൽ ആന്ധ്രയിലെ 8 ജില്ലകളിൽ നിന്നുള്ള 15 അംഗ സംഘം ശ്രീകൃഷ്ണപുരം വിടിബി കോളജിലെ ഫുഡ് ഫോറസ്റ്റ് സന്ദർശിച്ചപ്പോൾ. ജില്ല ബയോ ഡൈവേഴ്സിറ്റി കോ-ഓർഡിനേറ്റർ ബാബു ഡോണബെഞ്ചർ, പഞ്ചായത്ത് അംഗം സി. ഹരിദാസൻ, ദ്വാരക നാഥൻ. ജൈവ കർഷക കൂട്ടായ്മ പ്രതിനിധികളായ റെജി ജോസഫ് , സൂര്യപ്രകാശ്, നേച്ചർ ക്ലബ് കോ-ഓർഡിനേറ്റർ കെ.മിനി, , വൊളന്റിയർമാരായ എം.അനിത്, അലി അഖിൽ മുഹമ്മദ്, സി.നമിത എന്നിവർ പങ്കെടുത്തു.

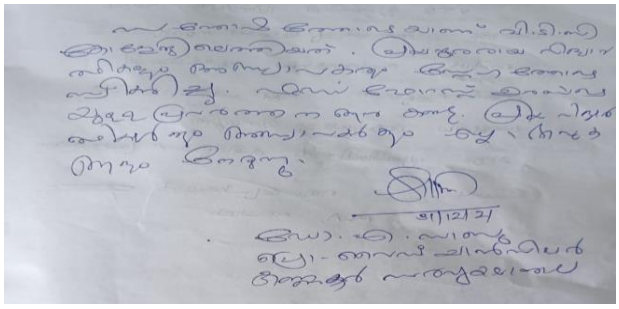


Notes in the Visitors' Diary

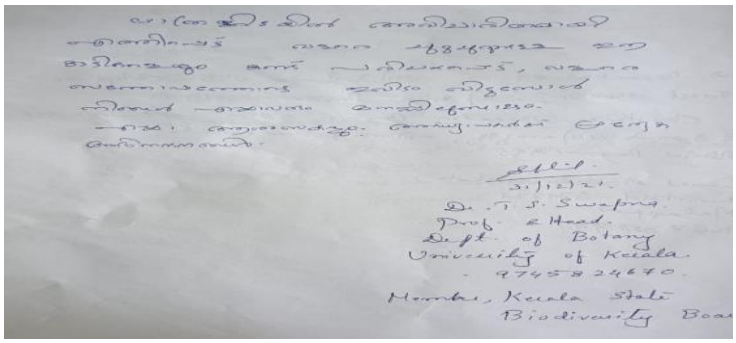
2. **Dr. S Jayakumar, Former Chief Secretary and Famous Poet**



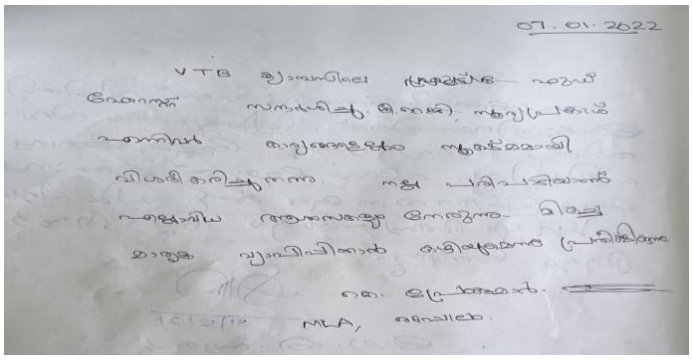

3. **Dr. A Sabu, Pro-vice chancellor, Kannur University.**

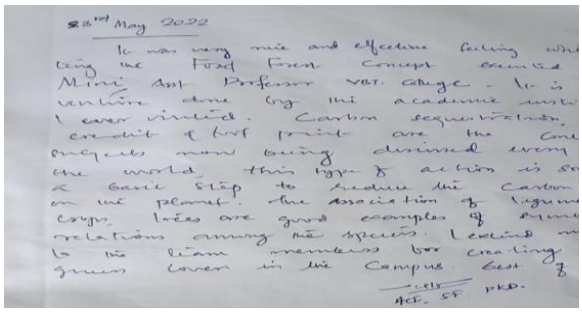
4. **Dr. T S Swapna, Prof. and Head, Dept. of Botany, University of Kerala**



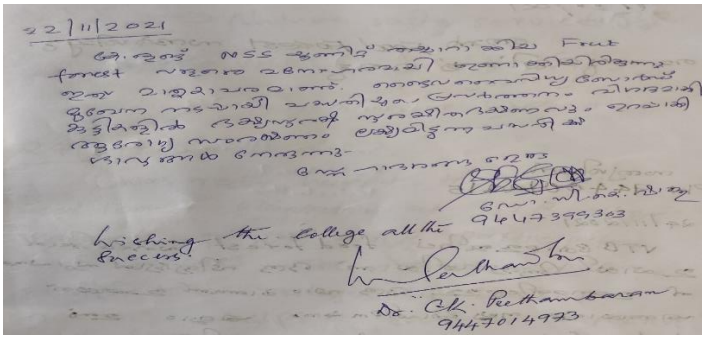
5. **Adv. K Premkumar , MLA, Ottappalam**

6. **Dr. Sibin Assistant Conservator of Social Forestry, Palakkad**



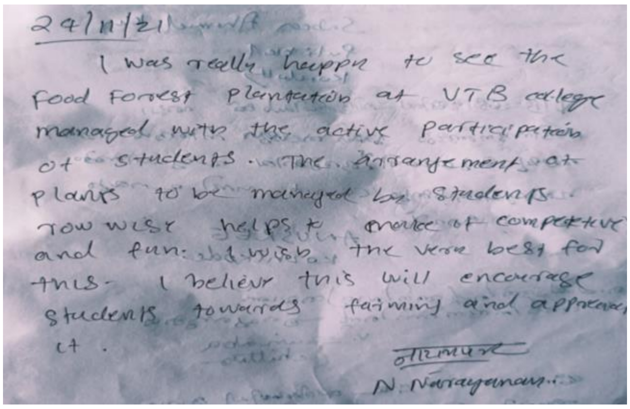
7. **Dr. C K Peethambaran, Expert, Kerala State Bio-diversity Board**



8. **Sri Babu Bonaventure A M, District Coordinator, Kerala State Bio-diversity Board, Palakkad**

9. **Sri Aravindan Pompra,** National and State Level Award Winner for Agriculture

10. Dr. T Narayanan, Assistant Profession, IIT, Madras

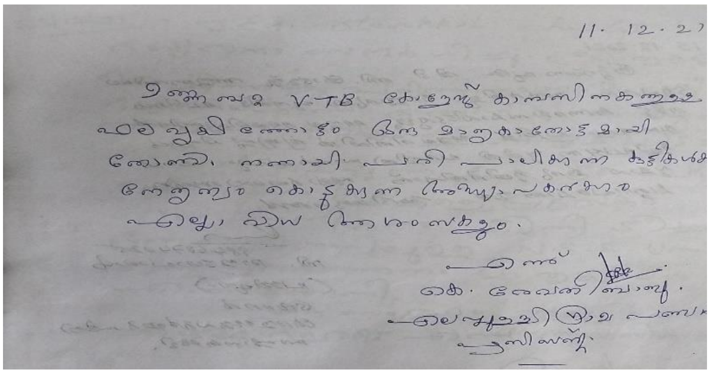


24/11/21

I was really happy to see the food forest plantation at VTB college managed with the active participation of students. The arrangement of plants to be managed by students row wise helps to make of competitive and fun. I wish the very best for this. I believe this will encourage students towards farming and appreciate it.

N. Narayanan

11. Elapully Panchayath President and Members



11. 12. 21

ഇന്ന് VTB കോളേജ് കാമ്പസിനകത്തെ ഫലവൃക്ഷത്തോട്ടം ഒരു മാതൃകാതോട്ടമായി തോന്നി. നന്നായി പരിപാലിക്കുന്ന കുട്ടികൾക്കും നേതൃത്വം കൊടുക്കുന്ന അദ്ധ്യാപകർക്കും എല്ലാ വിധ ആശംസകളും.

എന്ന്
കെ. രേവതി ബാബു.
എലപ്പുള്ളി ഗ്രാമ പഞ്ചായത്ത്
പ്രസിഡന്റ്

Inspection report of Food Forest Farm at VTB College, Sreekrishnapuram on 10.11.2021

Visited the Food Forest Farm at VTB College today. The farm was raised utilizing the fund of Rs.5 lakhs allotted by the Kerala State Biodiversity Board to Sreekrishnapuram Gram Panchayath. In raising a successful plantation, the foremost thing is the identification of ideal site, which was promptly done by the President and the Secretary of the Panchayath. Then comes site preparation, procurement of the suitable planting materials, etc. The Panchayath authorities entrusted the same to the mentors of the Food Forest Farm S/Sri. Reji Joseph and Sooryaprakash. They complied the same to the astonishment of all by finishing the planting in 120 cents of land within one week time from 17.10.2021 to 23.10.2021. A wonderful feat.

Above all, the NSS team and Nature club of the College under guidance of the Program Officer are taking adequate interest for the maintenance and upkeep of the Farm from day one onwards till today. Results of their interventions are visible felt on the Farm. The performance of all the plants is exceedingly well.

What remains to be completed is drip irrigation facility for the plants. Since completion of planting on 23.10.2021 the area is getting good rain, which may not prolong more. So immediate steps have to be taken to set up drip irrigation system otherwise, the whole amount spent might go down the drains. Hence, immediate steps are needed in this regard.

As of now, this is best plantation I have ever visited in the recent past. I am sure; this will grow as a model plantation, provided the remaining work of irrigation facility is provided on time and the upkeep and maintenance by the NSS and Nature Club continue as being done currently.

Date: 11-11-2021

Babu Bonaventure.A.M

Figure 1Inspection Report by Kerala Bio-Diversity Board Palakkad

Inspection report of Food Forest Farm at VTB College, Sreekrishnapuram on 17.12.2022

Visited the Food Forest Farm at VTB College on 17.12.2022. The farm was raised utilizing the fund of Rs.5 lakhs allotted by the Kerala State Biodiversity Board to Sreekrishnapuram Gram Panchayath and Panchayath share of Rs.1,50,000. The planting has been done on 120 cents of land after the planting season from 17.10.2021 to 23.10.2021 taking advantage of the delayed rains.

Within a month of the planting, the rains receded leaving the plants to the vagaries of nature, such as scorching sun and the barrenness of land.

The procedural delayed formalities by the Panchayath in providing drip irrigation traumatized the health of the plants to some extent. Sri. Reji Joseph, the mentor of the Farm having seen the plight of the plants, instantly arranged the drip irrigation system by advancing Rs. 86000 personally by December end. Or else, the whole amount spent in raising the Farm would have gone down the drains.

The NSS team and Nature Club of the College under guidance of the energetic and vibrant Program Officer Ms Mini K, is vital in the upkeep of the Farm.

Anyhow, as of now, the casualty is around 10% which is ideal in the infertile land of sloppy terrain, though the health of the plants are a little perturbed due to delayed installation in drip irrigation facility.

Babu Bonaventure.A.M,
District Coordinator,
KSBB, Palakkad.

Figure 2Inspection Report by Kerala Bio-Diversity Board Palakkad

Second Phase of Food Forest Development

Giving directions to the Volunteers

Clearing the land

Inauguration of second phase of sawing by S Jayakumar, Former Chief Secretary, Kerala and Famous Poet

ശ്രീകൃഷ്ണപുരം വി.ടി.ബി. കോളേജിൽ 'പഴക്കാട്' രണ്ടാംവർഷ പരിചരണം തുടങ്ങി

പിന്തുണയുമായി ജൈവവൈവിധ്യ ബോർഡും

ശ്രീകൃഷ്ണപുരം വി.ടി.ബി. കോളേജിൽ പരിചരണം മുൻ ചീഫ് സെക്രട്ടറി കെ. ജയകുമാർ ഉദ്ഘാടനം ചെയ്യുന്നു

ഒരേക്കറിൽ 454 ഫലവൃക്ഷങ്ങളുമായി പഴക്കാട്

Tilling of the land

Soaing the seeds for live mulching and shading

Evolution of Food Forest till the date: From waste land to Food Forest that gives continuous and nutritious food to all…… a long view of various stages….

Monetary Value of the Project:

Sl.No	Particulars	Amount (₹)
1	Preparation of the 1.25 acers of land for plantation (Waste land development, JCB works, Labour charges, etc.)	93,000.00
2	Organic Compost fertilizing of land	1,80,000.00
3	Sapling (454 saplings + pellets, seeds, etc)	2,27,000.00
4	Planting of saplings	1,13,000.00
5	Drip irrigation materials	3,39,000.00
6	Fencing of land	98,000.00
7	Name Board (350 @ ₹30)	10,500.00
8	Arranging Water facilities for summer seasons (per day 3,000 litres@₹1 per litre of water for 6 months)	5,40,000.00
9	Yearly Live Mulching and Shading	45,000.00
10	Daily labour by Volunteers (₹100 per volunteer for 60 volunteers a day – 1 ½ Hours daily – 90 Labour Hours a Day X 290 days = 24,300 labour hours) 15 lines of 31 plants each	18,20,000.00
11	Monthly Jeevamrutham (Organic Fertilizer) Cow dug of Vechur Cow @ 30 per kg for 20 kg - 600 Urine of Vechur Cow @ 30 per ltr for 10 litres - 300 Green gram (Cherupayar) @ 120 for 4 kg - 480 Unda Sharkkara @45 for 4 kg 180 Total ₹1560 for making 400 litres of Jeevamrutham per month. For 9 months 1560 X 9 = 14,040 3 Barrels @₹1000 per barrel = 3,000 Total Expense = 14,040 + 3,000	17,040.00
	Total	34,82,540.00

PRINCIPAL
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Mannampatta, Palakkad - 678633

Sreekrishnapuram V.T.Bhattathiripad College P.O Mannampatta Palakkad Dist Pin-678 633