



Holistic, Integrated, Eco-Friendly

&

Sustainable Development of Vellangallur Panchayat

being executed by

Sálim Ali Foundation

&

Vellangallur Panchayat

Seed funding: Manappuram Foundation



SÁLIM ALI FOUNDATION

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Project in Brief

Holistic, Eco-friendly, Sustainable Development Programme for Vellangallur Grama Panchayat

Sálim Ali Foundation (SAF) is a Charitable Trust, registered under the Indian Charitable Trust Act 1882, in memory of Dr. Sálim Ali, the father of Indian conservation movement and a scientist of International repute in bird study. The Mission of SAF is to **help ensure food security, sustainable development and, biodiversity conservation.**

In the present context of development focusing solely on attaining maximum growth of GDP (Gross Domestic Product), at the expense of biodiversity, environment and food security and, unmindful of the basic requirements of the people and the needs of the generations to come, SAF proposes to undertake a project to demonstrate how GDH (Gross Domestic Happiness) could be ensured while ensuring the integrity of ecology and environment - a development without sacrificing the ecology, environment. The project is in compliance with Dr. Sálim Ali's basic principle that conservation and development should go hand-in-hand and not excluding either of them and, that it is the only way for sustainable development.

The project envisages welfare of each individual, family, and the entire society within the Panchayat without any discrimination of caste, creed and religious faith. It is an integrated multidisciplinary, multi-departmental endeavour where all activities of the government departments, non-governmental organisations, and various groups will be coordinated avoiding all possible conflicts.

The vision of the project is to ensure every citizen:

- **clean air,**
- **clean water,**
- **clean food,**
- **a roof to live,**
- **hygienic surroundings,**
- **basic education,**
- **basic medical facilities and,**
- **to improve the living standards of each citizen while enriching environment.**

The basic approach would be to formulate each component of the project according **to the needs and aspirations of each household, and implement them in a time-bound, democratic and transparent manner.**

The project would *inter-alia* cover:

- 1. Agriculture** with two slogans: a) *“convert every inch of cultivable land into food crops,”* b) *“make mother’s milk free of poison”*. Emphasis would be given to mixed and rotation farming and kitchen garden in all the 9,500 houses in the Panchayat. Promotion of traditional varieties, seed farming, establishment of nurseries, production of organic manure and pesticides will be the priority, while all agricultural practices would be organic. The panchayat will declare itself as an **Organic Panchayat**.
- 2. Fisheries** with the slogan: **“fisheries: a source of income, additional protein and water security.”** Commercial fish culture in every pond, tank, canal and water body and, aquarium fishes in tanks would be promoted, depending on the interest of individual families.
- 3. Animal husbandry:** *“help ensure adequate manure and bio-pesticides, additional nutritive food and, source of income”*. Farming cattle, goat, poultry, duck, and honey bee would be tried according to the interest of individuals. Breeding farms for each are envisaged to make sure supply of young ones to the needy. Here again traditional varieties will be given importance.
- 4. Cottage /small scale industry:** *“income generation by every individual using maximum local raw material without polluting air, water and soil and, without depleting the ground water level.”* Depending on the physical fitness, aptitude and interest of every individual/housing units/residential association/kudumbashree, options could be worked out. Retired hands are not excluded. Among the various products under consideration, LED lamps are also included.
- 5. Housing:** with a slogan to *“use least quantity of non-renewable resources.”* ensuring *environment-friendly* houses to those who do not have a house.
- 6. Water security:** *making use of maximum amount of natural sources of water and least or no dependence on tap water; recycling of water wherever possible.* A sizeable population in the panchayat has water scarcity during summer, in spite of having wells/ponds. An all out attempt to restore the recently dead and dying wetlands (ponds, tanks, streams, lakes, rivers, mangroves) would be made. Water harvesting system in each of the houses.
- 7. Energy:** reduce power consumption by switching over to LED lamps and then switch over to solar facilities for each house, government and private institutions, commercial buildings, religious establishments, markets and street lights. Making biogas plants for cooking in every house at an affordable price. The slurry from the plants to give regular manure to the kitchen garden.

8. **Health care:** free medical checkup regularly; facilities for treatment by all disciplines of medicines and, awareness programmes in anganvadies, schools and housing units to prevent occurrence of diseases and lead a healthy life. Make sure that the needy gets health insurance.
9. **Education:** providing exposure and training for livelihood skills within the existing system to ensure that each one is enabled to secure livelihood once out of the school. And, creating awareness on the need for sustainable use of natural resources.
10. **Waste management:** waste management in each house including biogas plant; nondegradable to be collected and used for recycling; avoidance of non-degradable as much as possible.
11. **Sanitation and clean surroundings:** sanitation for each house, open sanitation to be completely replaced, cleaning up of surroundings, canals, ponds, streams.

The components of the project will be finalised after discussion with and getting the consent of each KudumbaKootayma (cluster of 15 houses). Most of the components of the project would come under the various existing schemes of the Panchayat. For the rest, funds have to be raised from the Central and State Governments, public undertakings, and committed corporate bodies. The differences from the existing projects of the Panchayat are:

1. The project would be completely environment - friendly
2. Increases the income of each family
3. Creating opportunities for income generation for each individual according to the physical fitness and technical/educational background.
4. Establishment of a healthy marketing strategy: a **Producers' Company** where the producers could sell their products directly so that the individual who toils get the maximum benefit, avoiding middlemen. All producers would be shareholders of the Company.
5. Creation of a new brand called "**Vellangallur Brand**" for the sale of all products from the panchayat
6. Ensuring 100% financial and social security for farmers.
7. Regular health monitoring programme for each needy person in the panchayat
8. Making the panchayat independent of the Electricity Board, as much as possible, for its power requirement
9. Ensuring adequate vegetables for each family from their own home garden and, making it a source of regular income
10. 100% organic farming
11. Making each housing unit self reliant on water supply and, reducing the dependence on public water supply to the maximum possible
12. Creation of hygienic surroundings even for the poorest of the poor and thus arresting diseases caused by unhygienic situations
13. Making 100% beneficiaries for each of the programmes of the panchayat

14. Supervision and evaluation of the implementation and success of the project by a team including representatives of Kudumbakootayma (cluster of houses) and experts in each ward
15. Working out the GDP (Gross Domestic Product) and GDH (Gross Domestic Happiness) of the panchayat

Such a project ensuring basic requirements of every citizen as envisaged in this project may not be there in the whole of the country. Hence, it would be a model - a model showing how a panchayat could strive to become self sufficient, without destroying the natural resources.

The project intends to be a project of the people, for the people and by the people with the overall supervision and guidance of the panchayat and the Sálim Ali Foundation. The planning would begin from each KudumbaKootayma (a cluster of 15 to 20 neighbourhood houses); there would be some 500-600 such units in the entire panchayat).

A Pachayat Planning Board will be created with representatives of kudumbaKootayma, kudumbashree, ward members and experts.

It would be executed through and by the panchayat with financial and technical support from various agencies.

If executed the way it is envisaged, it would achieve one of the cherished dreams of Mahatma Gandhi: "a self sufficient village"

We are grateful to the Manappuram Foundation for financially supporting us by creating the **V. C. Padmanabhan Chair for Ecology and Environmental Conservation**, without which this model project would not have been even initiated.

Project in Detail

Holistic, Eco-friendly, Sustainable Development Programme for vellangallur Grama Panchayat

The project envisages integrating all the activities that are required to fulfill the basic requirements of individuals and families in the Panchayat, and implementing these in a democratic and transparent manner, ensuring ecological security and equitable distribution of the benefits of the project to all irrespective of religion, caste, creed and political identity. It intends to make the Panchayat self-sustainable to the possible extent while ensuring individual, social and cultural security. By and large, in letter and spirit, it intends to realize Mahatma Gandhi's dream of a self-sustainable village.

The vision of the project is to ensure that every citizen has:

1. clean air,
2. clean water,
3. clean food,
4. a roof to live under,
5. hygienic surroundings,
6. basic education,
7. facilities for a healthy life, and
8. improved living standard

The **underlying principle** of the project is to ensure the above while enriching biodiversity, ecology and environment. The project also envisions increasing the economic income of each family while ensuring the physical and mental health of each individual.

General philosophy

According to the needs and aspirations of each household, sub-projects will be formulated and implemented in a time-bound, democratic and transparent manner. The project in letter and spirit would be a project of the people, by the people and for the people. The Sálím Ali Foundation (SAF), Panchayat or the funding agencies will not impose any of their options and interests on the people without their demand.

Vellangallur Grama Panchayat

The Vellangallur Grama Panchayat with 21 wards spread over 26.61 sq km is situated within Mukundapuram Taluk of Thrissur District. It has a population of 39,332 and 9,497 houses as per the 2011 census. There are 368 Kudumbashrees covering 6,544 families.

Land use pattern: More areas are under coconut cultivation followed by reclaimed paddy land with plantain and coconut cultivation, mixed trees, paddy cultivation, water bodies. It may be noted that 321 ha is fallow. 4.5 ha are used for construction of buildings (Fig 1, 2)

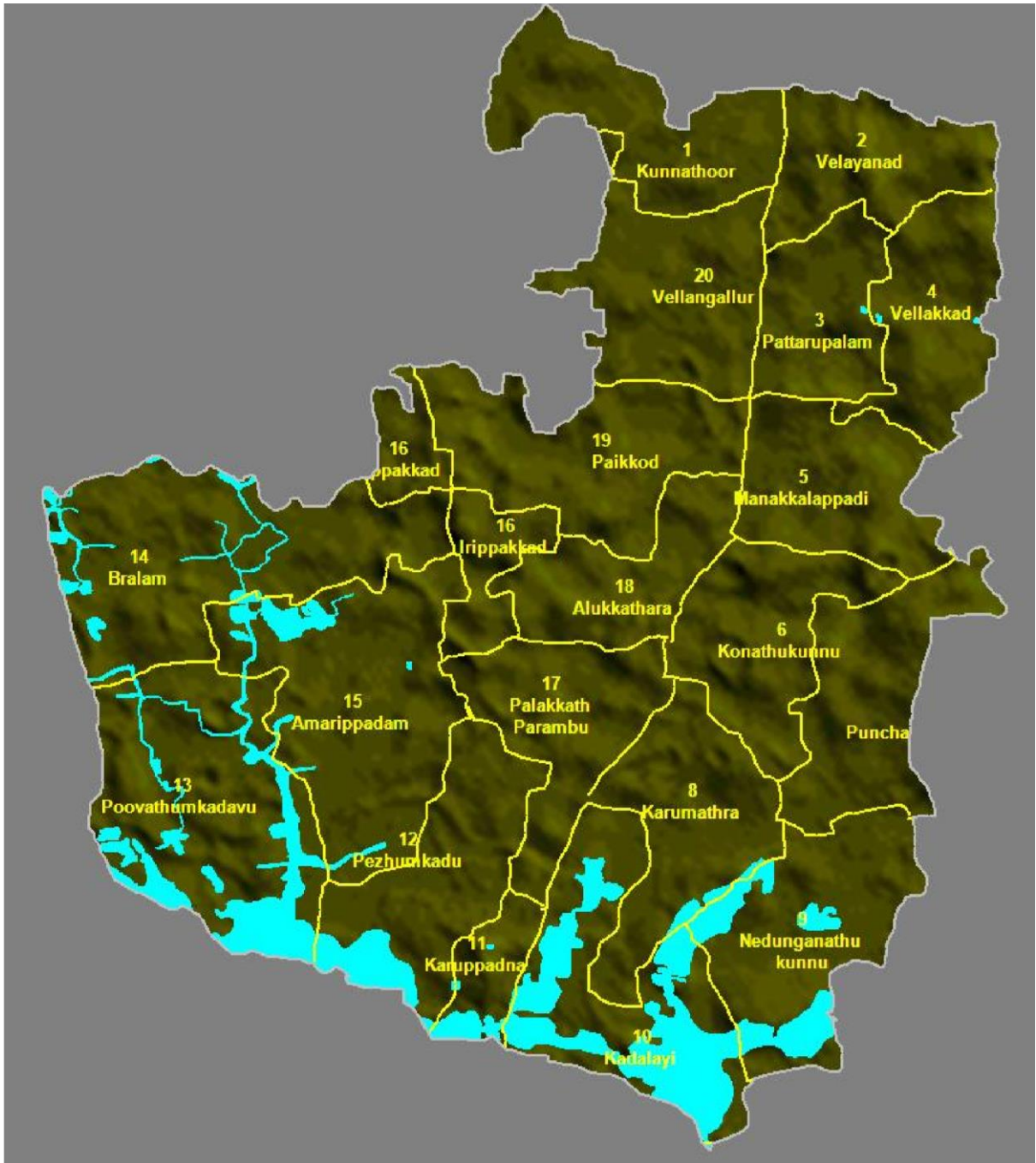


Fig. 1: Map of the Vellangallur Panchayat

Fig. 2 details of land use

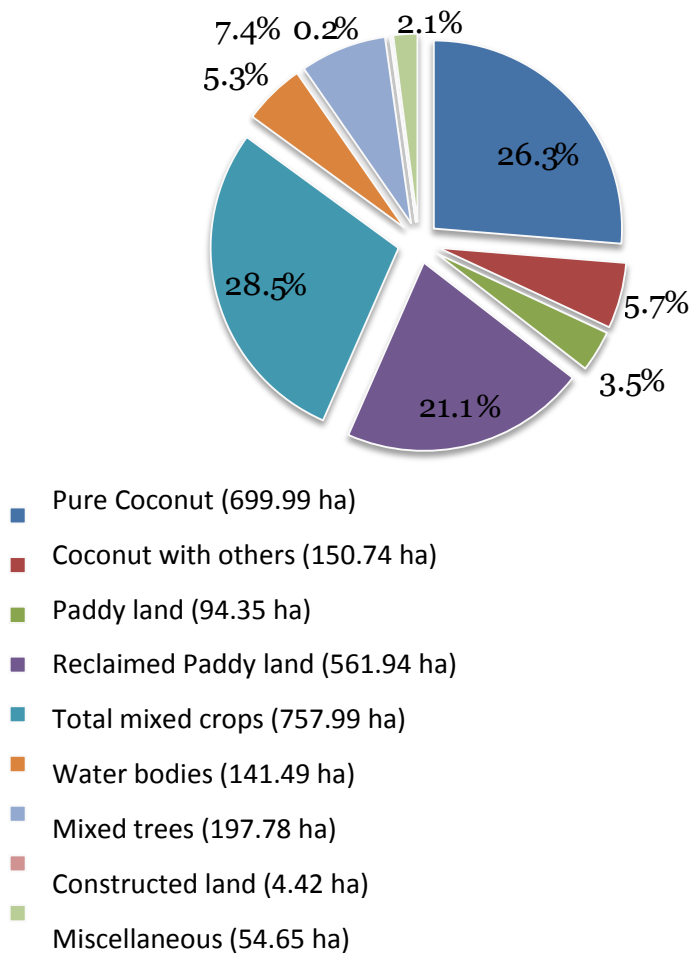


Table 1. Land use

No.	Land use	Area(ha)	
	Areca	2.7	
	Constructed land	4.42	
3	Plantain	11.36	
4	Burial ground	1.06	
5	Coconut	699.994	27.71
6	Coconut +areca	150.39	5.94
7	Coconut + plantain	0.35	
8.	Cultivable fallow	7.06	
	Mixed crops	757.99	30
	Swamps	19.8	0.78
	Mixed trees	197.78	7.83
	Paddy – Virippu (season 1)	56.82	2.24
	Paddy – Virippu (season 1) + Mudakan (Season 2)	37.06	1.47
	Paddy – Mundakan (Season 2)	0.47	0.02
	Reclaimed paddy land – Plantain	2.09	
	Reclaimed paddy land - coconut	202.7	8.02
	Reclaimed paddy land – cultivable fallow	319.41	12.17
	Playground	0.1	
	Cashew	9.21	
	Black wattle	0.3	
	Rubber	1.29	
	Reclaimed paddy land – mixed crops	37.43	1.48
	Reclaimed paddy land – tapioca	0.31	
	Prawns	73,83	2.92
	Sand mining	0.03	
	Fallow	1.74	
	Water bodies	141.49	5.6
	Total	2526.294	

Action Plan

Formulation of the project

- 1. Data collection:** To start with, even before planning, we need to have a clear picture on the kind of requirements of each family, their sources of food, water, energy, health, education facilities, housing, sanitary facilities and, income and its major source/s. To obtain all these inputs, a detailed socio-economic survey has to be conducted.
- 2. A detailed project proposal** with budget requirements would be prepared accordingly after getting the individual requirements of each family. The draft of the same will be discussed with the KudumbaKootayma, each comprising 15 - 20 neighbouring houses, with the Kudumbashree, ward and with panchayat (Fig 2). The inputs thus received will be incorporated before finalizing the project, an absolute bottom up method.
- 3. Budget requirements:** Once the budget for each activity is clear, try and accommodate them within the existing schemes of the Panchayat as much as possible. The Project team would interact with the Panchayat while preparing its budget for 2015-2016. Additional funds will be sought from the Governments of the State and Centre, in addition to Public sector undertakings and committed corporate bodies.
- 4. Implementation:** Each scheme of the project will be implemented through the Panchayat with full participation of the people, through Kudumbakootayma, Kudubahrees, gramasabha, panchayat wards and, local civil societies.
- 5. Monitoring implementation:** Staff of SAF will closely interact with the KudumbaKootayma, Kumbashrees and ward members on a regular basis, apart from a Committee comprising local people monitoring the implementation of the scheme. Correction/modification, if any, would be done as and when required.
- 6. Monitoring biodiversity and ecology:** The current status of the biodiversity and ecology, will be assessed in the first year of the project and then at two year intervals. Aquatic and terrestrial flora, benthic fauna, insects, amphibians, reptiles, birds and mammals are envisaged to be covered. Attempts will be made to attract PhD students for each. Also organisations such as Kerala Forest Research Institute will be invited to make such studies. What is expected of these studies is a document to show, the changes if any, in the ecology and, flora and fauna with the implementation of this sustainable development programme.
- 7. Monitoring environmental contamination:** Measure the quantity of pesticides and heavy metals in the soil, sediments, key biodiversity indicators such as fish, amphibians and birds at the beginning and every two years of the project. Vegetables available at market also will be assessed for pesticides.
- 8. Monitoring the economy of each family:** Evaluate the income of each household at the beginning and once in every two years
- 9. Monitoring overall happiness of each house:** It appears to be very tricky to assess the happiness. However, an attempt will be made to evolve a suitable methodology, considering

the methods followed in Bhutan. The relationship, if any, between the happiness and income will be examined.

- 10. Monitoring the environmental impact of the project:** Any major scheme under the proposed project or from outside to be executed in the Panchayat will have to be subjected to a Cumulative Environment Impact Assessment. Such a team should comprise residents, representatives and experts

Project components

1. Agriculture

In the current context of increasing health issues and demand for increasing food crops, the need of the hour is to provide pesticide free food and raise food crops in every inch of cultivable areas lying vacant. Therefore, agriculture will have the twin slogans, namely “**food crops in every inch of cultivable land**” and, “**make mother's milk free of poison**”

The agricultural practices in the panchayat, according to ATMA(Agricultural Technology and Management Authority, 2013) are rice (421 ha), ladies’ finger (2 ha), guards (4ha), ginger (4ha), turmeric (4 ha), pepper (28 ha), nutmeg (20 ha), cashew (20 ha), legumes (5 ha), greens (2ha), tapioca (10 ha), yams and amorphophallus (5 ha), pine apple (5 ha), Banana (35 ha), plantain (15 ha), coconut (964 ha) and Areca (40 ha). Extent of areas under each has to be examined. In any case rice cultivation in the panchayat, according to Agricultural Officer is only to the tune of about 100 ha, whereas ATMA records it as 421 ha which may be inclusive of fallow land.

Florey culture and mushroom could be introduced, as many are interested. The project would arrange training for the same for interested people.

Expansion of paddy cultivation is to be taken on priority, as there is a wide scope for the same. Currently it covers only about 97 ha. However, about 320 ha of cultivable fallow land are available which could be brought back to paddy cultivation under the present project.

Organic/ecological farming will be strictly followed with no external inputs. All the manure and pesticides required will be manufactured by Kudumbahrees/ KudumbaKootayma and interested groups. Every bit of it will be organic. This will not only reduce the farming cost quite substantially, but also provide a different avenue for income generation.

Traditional varieties will be encouraged to the maximum extent. Such varieties of paddy have disappeared with the advent of and replacement with hybrid varieties. Attempts would be made to bring them back. Land rice will be tried, especially among the coconut groves.

Awareness creation among the people on the deleterious effects of pesticides and heavy metals would be one of the major areas where the project would focus on. This has to go down to household level if the farming in the entire Panchayat has to be toxic-free and fully organic.

An **Ecological Farm Fostering Centre (EFFC)** would be opened to cater the needs of the farmers providing adequate technical inputs as and when required. The EFFC will be managed

by a team of farm trained people from the Panchayat who would visit particular farm on a call basis. They would be paid a nominal incentive from the Project and allowed to collect nominal fees for each visit to the farm on the respective owner's request. Tools such as tiller that a farmer could hardly afford will be made available on reasonable rent. All organic inputs necessary for farming such as organic pesticides, manure, and growth promoters would be made available at the Centre. Method of application would be demonstrated at the site on a nominal fee. Adequate leaflets dealing with them also will be made available. Management of the EFFC will be vested with the Kudumbashree/kudumbakootayma.

Utilisation of fallow/cultivable land for farming: Currently, according to the ATMA report 2013, attempts are made to utilize only 17.82 ha of the total 319 ha of land identified as fallow land. There will be more areas. All such areas lying vacant in the entire panchayat in bits and pieces would be brought back to suitable cultivation. If owner of the land is not willing to undertake any farming operation, with his/her consent interested groups such as Kudumbashrees will be encouraged to take up farming. Reasonable lease amount will be paid as fixed between the Agricultural Officer and the owner of the land.

Conservation of Paddy land: The panchayat already has lost around 525 ha of paddy land. Only less than 100 ha are left for cultivation. In spite of the Conservation of Paddy land and Wetland Act, 2008, there have been serious inroads into the extend of wetlands and paddy lands in the State. Therefore, it is felt that the panchayat has to initiate a proactive step to curtail further decimation of the wetlands. The project would persuade the panchayat to demarcate the borders of the paddy land and declare them as **Paddy Reserve** something like the forest reserve. The State Government would be persuaded to make such move in the entire State.

2. Animal Husbandry

A recent survey conducted by the *Agricultural Technology Management Agency (ATMA)* shows that there are only 713 cattle, 348 goat and 283 buffalo in the panchayat, a panchayat having about 9500 houses. However, according to the veterinary doctor of the area cattle heads come to 1200 and that of buffalo around 800. Other livestock in the area is poultry, currently 6378, ducks 3354 and pigs 10. Almost 99% are hybrid. The project would encourage native varieties. Of the 9,500 families in the Panchayat, only 1,895 are having livestock; just 20%. The project would encourage attracting more into livestock farming depending on their interest. Mini diaries of three to five cattle will be encouraged among Kudumbashrees. The income generating potentials of cow urine, dung and goat droppings for the organic farming will be demonstrated. Apart from the above, bee-keeping will also be encouraged at a commercial level.

3. Fishery

The fishery expansion is intended with the triple objective of: (i) supplementing protein intake of people, (ii) ensuring protection of water resources and, (3) enhancing the livelihood. As a policy, the project would encourage fisheries in all the ponds, tanks, rivers, streams, lakes and other water bodies wherever it is technically and economically feasible. Tank fisheries and aquarium fisheries will also be promoted

depending on the interest of the people. Paddy – fishery (Orunellumorumenum) project of the Government will be promoted.

The project would demonstrate that the wetlands are not wastelands but a waterlogged wealth whose economic potentials could be trapped by the local community without harming the biodiversity resources or ecosystem services such as augmenting the ground water resources.

The project would also try to pay the owners of the wetlands a kind of incentive for preserving them. The amount will be worked out on the basis of the ecosystem services that they provide. According to the United Nation's study, the back waters provide such services worth Rs. 1,08,00,000/ha every year, and the same values for the fresh water ecosystems are fixed at Rs. 22,24,350/ha every year. A reasonable percentage of this should be paid to the owners of the respective wetlands, which would make them convinced that even leaving the wetlands just idle will bring them income. It provides the yeomen service of recharging the water resources of the area. Many countries such as Australia are practicing it. Launching of this system in the Panchayat may lead to adoption of the same in the State and National level.

4. Water Security

Water scarcity is felt in many parts of the Panchayat, in spite of enjoying an annual rainfall of 3,000 mm. Japan drinking water supply scheme is in operation. The project envisages ensuring water security for the entire panchayat to the maximum extent without depending much on the external supply.

Water harvesting from the roof top will be made compulsory for each house. Subsidies for the same will be arranged. Other measures suggested are: digging ditches for rain water collection wherever possible, especially around wells for facilitating recharge; recycling and reuse of waste water from houses, hotels, hospitals, and other public places; restoration of temple ponds, natural and man-made ponds, wells, tanks, canals; restoration and conservation of paddy fields, wetlands and mangroves; restoration of catchments of wetlands; promotion of social forestry in all vacant lands, road-sides, homesteads, river banks using indigenous, preferably edible fruit yielding species; and conservation of sacred groves

A mass awareness programme for optimal use of water will be a part of the project

5. Cottage/Small Scale Enterprises

Cottage and small scale enterprises are aimed at creating new avenues for income and also make everyone active and healthier, especially retired teachers and other officers. Each one will be free to pick up suitable enterprise of one's choice. The menu put forth initially consists of spices and condiments, organic farming inputs, handicrafts, plant nurseries, aquarium fish culture, toys, LED lamps, handlooms and, processed foods. More options may come once the survey is over. The choice is left

to the individuals. Before launching the productions, a proper market survey will be made and demand assessed.

Local biodiversity will be utilised to the maximum extent possible. Cultivation of medicinal plants in homesteads, pond banks and suchlike habitats; pandanus for raw material for handicraft/cottage industries and, lotus at a commercial scale for flower, stem and tuber will be encouraged. Apart from these, Water hyacinth, an ecological disaster, will be effectively utilised for handicrafts.

Project would try to get necessary technical and financial support from various sources to begin with. Once established they are expected to run on their own.

The cottage industries/small scale industries, as a whole are approached with the twin slogan of “livelihood security, and environmental security”

6. Industry

The bio-eco-geography of the area is not suitable for large scale industries. The nature of the terrain with hills and plains interspersed with canals, streams, ponds, lakes and, land area with fertile soil is suitable eminently for agriculture. However, industries which use local resources, consuming least amount of ground water, without polluting air, water, soil and food can be considered as per the demand of the housing units.

One of the major issues confronting many families is the large scale migration of people to cities within or outside the State; or to abroad for better earnings. This although helps better income, does not, in many cases, lead to family contentment. The aged parents either alone or with wife and children are left to live by themselves. This scenario is not particular to the Vellangallurpanchayat but for the entire State. Therefore, income generating avenues according to the calibre of people have to be developed within a healthy commutable distance.

Developing an IT hub in Vellangallur block panchayat would attract youngsters back home where they can commute. For social security and nurturing family bonds, creation of such a system is a must. As a policy, instead of creating a few IT parks in the cities causing ecological and environmental problems, they should be decentralised to block level so that many could commute by bicycle reducing the carbon foot print while ensuring safety to the aged parents.

Established IT companies, talented individuals with entrepreneurship will be invited to initiate the experiment; an experiment which is the need of the hour.

7. Health care

The general approach of the Project is not ensuring medical facilities to treat individual ailments, but to ensure that people are healthy and not become patients often or fall

victim of chronic diseases; on a “prevention is better than cure” mode. It is with this motto that organic farming has been accorded utmost priority to ensure toxic - free food to all. It may be recalled that before the introduction of ‘green revolution,’ contaminating and killing the soil and, making the food contaminated with pesticides, there were not even standard hospitals even at the district level. Now that the cities are crowded with specialty and super specialty medical hospitals with world class equipments standing as unquestionable proof for the ever increasing number of patients, there is little doubt that toxic food has played havoc with human health. Therefore, the project would focus on toxic – free food and a massive awareness programme from anganwadi level to the college students, parents and public on the need to avoid vegetables from the markets and also to avoid all kinds of junk food.

The project envisages the following: regular health status survey; blood test for suspected cases of ailments and accumulation of pesticides and heavy metals; free medical camp to be conducted by all disciplines of treatment, namely ayurveda, homeo, yoga, unani, siddha, naturopathy, allopathy; awareness programme for balanced diet in anganwadis and schools; health awareness programmes in each family unit and schools; regular monitoring of water quality; food culture awareness to bring back the traditional, nutritive food items and food habits; waste disposal at each house ensuring hygienic environment; 100% sanitation and recreation facilities, especially for the children and aged.

8. Education

The project does not intend to make any changes in the existing education system, although there is wide scope for the same. All that we propose is only to formulate appropriate projects that could be accommodated within the present system with a focus to familiarise children with activities for livelihood security, taking out children for nature studies on holidays, educational tour focusing biodiversity conservation and sustainable use.

For the budding farmers educational visits would be arranged to established organic farming areas. Awareness programmes for the children and housing units on civic responsibilities and hygienic environment will also be conducted.

9. Housing

Currently the new houses required in the Panchayat, according to the present estimate, are 200. Project would demonstrate environment-friendly construction with minimum use of natural resources. A building code will be evolved considering the existing guidelines, rules and regulations. It would contain, *inter-alia*, fixing the maximum size of a house for a family depending on the number of members; minimum use of nonrenewable resources (steel, laterite, sand, granite, marble); regulation of expansion of houses as the family grows: expansion should be vertical (up to three stories), instead of lateral thereby saving the agricultural land; making it mandatory to each new and existing house to provide energy efficient sources of power, non-conventional energy, roof water harvesting, waste treatment, bio-gas for

cooking and vegetable garden. Monitoring team of the KudumbaKootayma would ensure these. The draft building code will be discussed at the KudumbaKootayma, Kudmbashrees, GramaSabha, Ward and Panchayt. Legal implications, if any, for enforcing a building code of the Panchayat will be discussed with the legal advisors of the project.

10. Energy

Project envisages minimum dependence on the grid. It would encourage energy-saving practices, solar energy in each house, all government institutions, offices, educational institutions, religious and commercial establishments, and for street lamps.

Total energy requirement of the Panchayat will be assessed by door to door survey, Affordability and willingness to opt for solar power will be determined. Those who do not require any financial support will be provided with technical assistance and arrangements will be made immediately for installing the system. For others, the cost would be worked out once the requirement survey is completed.

Biogas would be utilised to the maximum extent for household uses. Organic waste from vegetable markets, and from the Irinjalakuda Municipality, if necessary, will be collected and used for biogas production. The slurry from these will be utilised as manure for farming. Attempts will also be made to use night soil. It is indented to make biogas as the main source of power for cooking.

11. Waste management

Simple, user-friendly and inexpensive methods would be adopted for the waste management in houses and housing flats. Organic wastes from each house will be utilised for biogas as explained under section 10 above. Educational institutions will be encouraged to use the organic waste for compost for their own vegetable garden to be started under the project. Awareness and training programmes will be conducted on the methods of waste management for the KudumbaKootayma level to make their own choice of the method of management.

Polythene bags will be collected at the KudumbaKootayma level once in two weeks and arrangements would be made to gather them by organised collectors from Trichur. Paper bags would be manufactured massively and sold to shop keepers at minimal rates.

12. Marketing strategy

Various farm products, value added products, handicrafts, LED lamps and other products that would be cultivated/manufactured in the Panchayat should be marketed in such a way that maximum profits reach the people who toil, avoiding middlemen. Towards achieving this, a brand name for all the products from Vellangallur Panchayat will be accorded. And, a producers' company will be established. All the farmers and producers of each of the items that have to be marketed will be the members of the company. They elect the President and other office bearers from among themselves. No outsiders will be eligible for contesting the

elections. Bylaws and rules and regulations will be formulated in such a way that no political parties will ever be able to encroach into the company's administration.

Farmers' job will be reduced to the minimum, once the harvest is taken. Each person could directly sell their product to the company and collect the money, directly and immediately. The buying price from the farmer will be higher than that of the market price for each organic product. The company will find suitable market. A market survey has to be conducted and the demand assessed before production of any item. However, organic vegetable for regular use has a high demand and hence, they could be the first commodity for sale. The profit will be shared equally.

Distinctions from the existing projects of any Panchayats in India

The project, as envisaged, is strikingly different from most of the existing projects in the country. Several components of this project may be there in the projects of other panchayats, but all the components together in a panchayat may not be there. The distinguishing features of the project are:

1. The project would be completely environment – friendly
2. Increases the income of each family in the panchayat
3. Creating opportunities for income generation for each individual according to the physical fitness and technical/educational background.
4. Establishment of a healthy marketing strategy so that the individual who toils get the maximum benefit, avoiding middlemen.
5. Creation of a new brand for the sale of all products from the panchayat - "Vellangallur Brand"
6. Ensuring 100% financial and social security for farmers.
7. Regular health monitoring programme for needy person in the panchayat
8. Making the panchayat self-sufficient as much as possible for its power requirement
9. Ensuring adequate vegetables for every family from their own home garden and, making it a source of regular income
10. 100% organic farming with zero external inputs
11. Making each house self-reliant on water supply, reducing the dependence on public water supply to the maximum possible
12. Creation of hygienic surroundings even for the poorest of the poor and thus arresting diseases caused by unhygienic situations
13. Making 100% beneficiaries for each of the programmes of the panchayat
14. Supervision and evaluation of the implementation and success of the project by a team comprising representative of KudumbaKootayma and experts in each ward.
15. An attempt to assess the Gross Domestic Happiness

Progress of the Project

Holistic, Eco-friendly, Sustainable Development Programme for Vellangallur Grama Panchayat

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EXECUTIVE SUMMARY

The Manappuram Foundation, under their CSR programme, have offered Rs. 70 lakhs for five years to establish the V. C. Padmanabhan Chair for Ecology and Environmental Conservation at Sálím Ali Foundation (SAF) from July 2014 onwards.

Project

The project identified under the Chair is “Holistic, Integrated, Eco-friendly Sustainable Development of Vellangallur Panchayat”.

Objectives

The main objectives of the project are to help ensure that everyone in the Panchayat has access to clean air, water, food, housing, non-conventional energy, job, medical care, education facilities, income-generating activities and social security.

Project Outline

In order to achieve these, work in the following areas are taken up on priority — agriculture, fisheries, water security, dairy farming, duck rearing, poultry farming, cottage industries, health, non-conventional energy, education and housing.

The basic philosophy of the project is to identify the needs of individual houses and formulate the project accordingly, in a totally bottom-up approach.

PROGRESS

The project was inaugurated by the Honorable Agriculture Minister, Shri. K. P. Mohanan on 31 August 2014 by distributing seedlings. He appreciated the project and desired to take up similar project at least in one Panchayat in each district.



Dr. V.S. Vijayan Presented the project

Section 1. Socio-economic Survey and Mapping

Socio-economic surveys were conducted targeting households within Vellangallur Panchayat with a detailed questionnaire covering 68 parameters to assess the requirements of each house. 1,579 students from 11 colleges from the neighboring areas participated in conducting the survey during January- February 2015.



Survey Team from Vimala College



Survey Team from KKTm College & St Joseph college



Before student teams conducted surveys, technical details and methodology of the survey were explained to all teams of each college. Awareness classes on the project were conducted and handbills on the project circulated to encourage clearer understanding of the goals of the project. Socioeconomic surveys conducted by the Kudumbashree using our proforma are also being used.

60% of the 10,000 houses have been surveyed and the data entered and analyzed.

The data collected and analyzed from the surveys include the following:

1. ***Household-level water availability analysis***
 - a. We have analyzed data pertaining to the water source for 6000 households where the socio-economic surveys were conducted.
 - b. SAF has generated ward-level thematic maps showing wells, ponds, taps and rainwater harvesting systems and, issues such as drying up, salinity and scarcity.

2. ***Creation of spatial database of household socio-economic data***
 - a. Preparation of a software platform for integrating household level socio-economic data to specific house locations for spatial analysis.
 - b. Generation of sample thematic maps showing distribution of vegetable farmers, dairy farmers etc. within one ward.

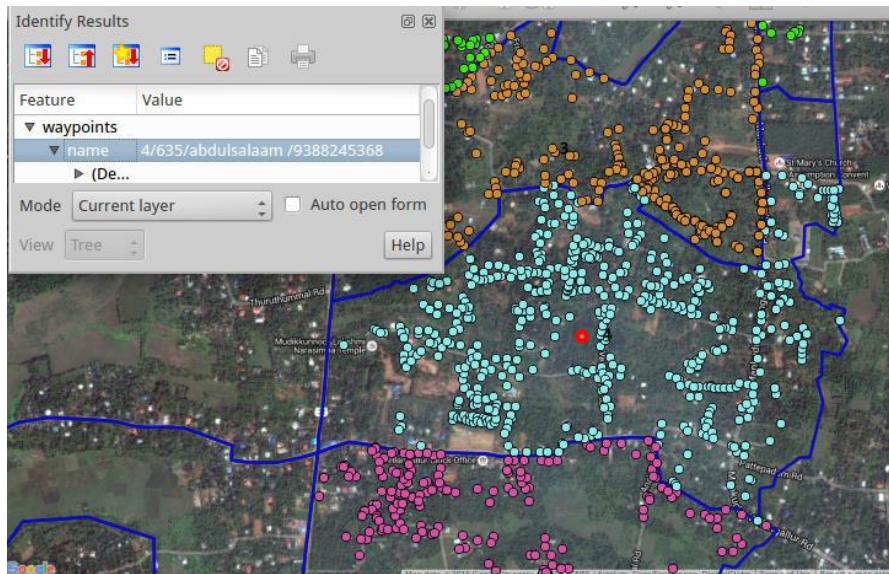
3. ***List of households interested in aquaculture and animal husbandry***
 - a. Analysis of the data pertaining to animal husbandry and fishery was completed for 6000 households surveyed.
 - b. Separate lists of households interested in farming cow, buffalo, goat, hen, duck, rabbit, pig and honey bee were created.
 - c. Separate lists were prepared of households interested in fish-farming in ponds, wells, canals, paddy fields and wetlands.

4. ***Location mapping for neighbourhood group formations using Geo-tracker***
 - a. We recorded the exact locations of each house with house number, owners name and telephone number.
 - b. Training sessions were conducted for 164 volunteers from four academic institutions to do the same.
 - c. We completed mapping of the houses in 15 wards.

5. Geo-referencing and digitization of 1999-2000 Panchayat Resource Maps (Land Use and Water Bodies) to capture the changes in land use and loss of water bodies in the last 15 years. These are currently being prepared.

6. Our GIS expert, Mr. Kishore attended training in Geographical Information Systems conducted by Open Source Geospatial-India at International Institute of Information Technology Hyderabad between 8-19 December 2015. It gave him opportunity to:
 - a. Learn techniques for processing and analysing raw satellite imagery.
 - b. Gain exposure to free and open source software tools available for setting up a low-cost collaborative information system for sustainable rural development.
 - c. Familiarize himself with tools available in web and mobile GIS for enabling the contribution of geographical information by even people with no technical background.

- d. Learn the use of database management systems and query languages to efficiently handle large quantities of geographical data.
7. Data entered earlier were checked, prepared the list of houses covered in each ward and found out the houses to be surveyed for the socio-economic data.
 8. Boundary maps of the household groups have been prepared for the seven more wards to be mapped with the locations of houses.



Boundary Map of the household groups

The following activities are currently underway:

9. Creation of a web GIS portal for easily accessing, viewing and analysing geographical data of Vellangallur Panchayat by people who do not have a GIS background.
10. Open interactive web map for handling geographical information regarding the Panchayat in a form that is easily accessible for people with no technical background.
11. Analysis of satellite imagery from 1980 to the present to evaluate the changes in Land Use and Land Cover.
12. Efficient procurement system for Producers' Company: exact locations of farmers and other producers will enable an efficient procurement system.
13. Migration of the socio-economic survey data from the existing text format to a more efficient database management system like Postgresql.

Section 2. Agriculture - Vegetables

14. The project was initiated with the distribution of 1, 50,000 vegetable saplings between September-October 2014 to the 10,000 houses—15 for each house. This was arranged by the Salim Ali Foundation, and was distributed by the Agriculture Officer and ward members of the Panchayat. The expenses were met by the Agriculture Department of the Panchayat.



Vegetable seedlings being distributed in ward 10 by the member Smt. Naseema Nazar

15. **Training** was given beforehand to select farmers for preparing vegetable beds to plant the seedlings and to nurture them using organic manure and pest-repellants.



Participants at the workshop preparing organic manure and pest repellants

16. **A workshop was conducted** for two days in 2014 for training the farmers (two from each ward) for the preparation and application of bio-pesticides and organic manures. The same was repeated on 16th April 2016.



Mr. Deepak taking class at the trainers' training workshop for organic farming

17. **Monitoring of vegetable gardens** in the houses was conducted by the staff of SAF and advice for improvement was provided on site. This is being continued.



18. A random check of 122 vegetable gardens that followed our methods indicate that these gardens alone produced 2.4 tons of vegetables in a single season, mainly brinjal, peas, tomato, ash gourd, pumpkin, greens and chillies, worth approximately Rs. 45,000/.





Farmers at their home gardens with snake gourd, pulses, cabbage and cauliflower

19. **Vegetable nurseries:** To avoid repeated transporting of seedlings from Mannuthy (KAU), and as part of the decentralization programme, it was decided at a meeting of the farmers, Panchayat and Salim Ali Foundation to establish nurseries in each ward.

20. We established 16 vegetable nurseries under the leadership of selected farmers as a part of the project. Seeds for the same were provided from the project and the rest of the expenses were borne by the respective farmers. The idea was to produce required number of seedlings for the Panchayat within the Panchayat itself.



Ward 16 Nursery

21. **SAF distributed seeds** of 5 varieties of vegetables for 16 nurseries and 6 other varieties for about 100 farmers and conducted training classes in all the wards in 2015. Similarly seeds were distributed in 2016 also to the nurseries and 250 farmers. We continue to visit them regularly and also on request to provide technical support. Vegetable seedlings were made available from the nurseries at subsidized cost to farmers in association with Vellangallur KrishiBhavan through the Kera Gramam project.

22. Salim Ali Foundation procured winter vegetable seedlings of cabbage and cauliflower (12,000) from the Kerala Agricultural University in October 2014 and distributed to the farmers at subsidized rates. Similarly in November 2015 we procured 8400 saplings from VFPC, Govt. of Kerala and distributed to the 16 vegetable nursery owners at subsidized rates. These seedlings were also distributed to farmers in association with VellangallurKrishiBhavan through the KeraGramam project and also sold to other interested people.
23. **Local Seed conservation:** The SAF team collected seeds of traditional varieties of various vegetables from different parts of the Panchayat and started a conservation farm around Salim Ali Foundation's Konathakunnu office (10 varieties of chilli, 6 varieties of okra, 5 varieties of brinjal, 3 varieties of ash gourd); seeds of these were harvested, preserved and stored for further use. These are also distributed to farmers and sold outside at Arangottukara Harvest Festival. We are continuing it in 2016 also.
24. SAF along with the INOFO (Intercontinental Network of Organic Farmers Organizations) initiated a project to protect local varieties of seeds in VellangallurPanchayat as a part of their project entitled "Conservation, Revival and Sustainable Use of Agro-Biodiversity for Food Security and Livelihoods of Farming Communities in India". It is being executed under the leadership of Ms. ShamikaMone (Research Director, Organic Farming Association of India). We created a team of four women farmers for working in a farm of 50 cents area. This needs to be expanded for generating our own seeds for cultivation in the coming years.



INOFO & SAF seed conservation farm: the group preparing seedling trays and vegetable bed



Jackfruit festival at Vellangallur Panchayat community hall;
Panchayat president shri Anil Manthuruthi inaugurated

25. **A Jackfruit Festival** was organized in April 2015 to popularize and educate the public about the health values and commercial potentials of jackfruit, which is abundant in the Panchayat.



Kdumbasree members cleaning jackfruit

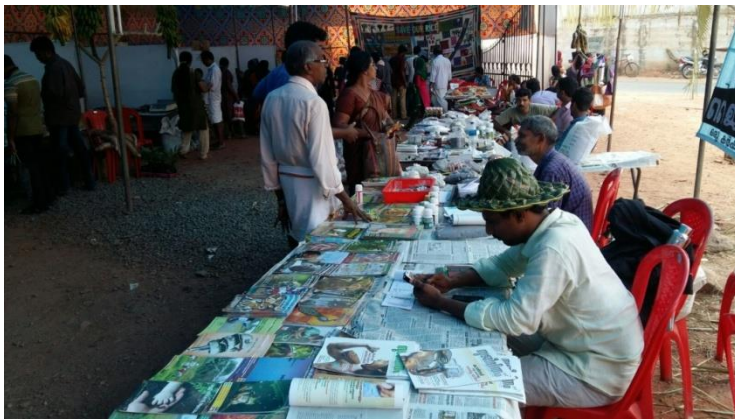
Seed Festival: SAF along with the Panchayat and Thanal organized it during 12 - 13 March 2016 in VellangallurPanchayat with the funding provided to Thanal by NABARD. Classes by scientists and farmers from different regions and experience sharing of farmers from all over Kerala were very encouraging. We organized display and sale of 200 traditional varieties of paddy, 80 varieties of tubers, all organic products from the panchayat, local vegetable seeds and rice, cotton bags, value added products etc. About 2500 people attended this programme, among them 597 were farmers.



Seed festival Inauguration



Thanal rice campaign on seed festival



Organic stall on seed festival day

26. **Krishi Calendar and other information:** We distributed to the participants of the seed festival a notice on our project with highlights and major achievements for the last one and a half years. Also prepared and distributed a handbill on organic farming with details on the farming methods including the preparation and application of manure and pest-repellants supported by funds from Manappuram Foundation. Similarly, distributed a Krishi Calendar to the farmers and other people interested in organic farming.
27. **Model Farm and Resource Centre:** A model farm is being established as a resource centre for the interested farmers. We started the work in March 2016 in 1.4 acres taken on lease near Vallivattam Church. We planted twenty different types of tubers from different parts of Kerala, ginger and turmeric. Other vegetables are also planted in May 2016. This is expected to be a referral farm for those interested in organic farming.



Model farm prepared at Vallivattom and 20 varieties of tubers being planted by the staff of SAF

28. **Large scale vegetable farming:** SAF convened a meeting of farmers interested in large scale vegetable farming for ensuring regular market for the Producers' Company. So far, altogether around 10 acre could be identified.
29. **Vegetable gardens in schools:** SAF team visited and conducted training classes in various schools in the Panchayat to initiate vegetable cultivation under the leadership of students.

Section 3. Agriculture - Paddy

30. **Study classes:** Classes were conducted for the rice farmers to teach the best practices of organic paddy cultivation.
31. **Onsite technical support:** Regular visits to paddy clusters are continued to provide technical help to farmers for organic rice cultivation.

32. Discussions were held separately for farmers of each Padasekharam (cluster of contiguous paddy lands) and the various issues and difficulties related to paddy cultivation were recorded.



Our team visited Amaripadam paatasekharam and discussed the problems with the patasekhara samiti



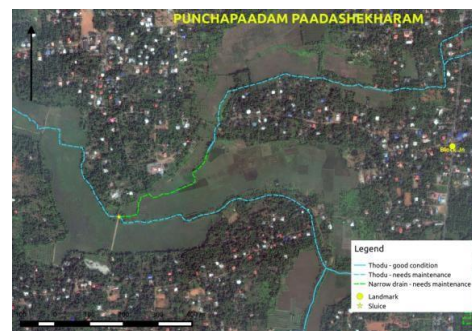
33. After these discussion meetings, the SAF team inspected each of the Padasekharams and verified the issues mentioned by the farmers. (Need for sluice gates to regulate water, de-silting of streams and canals to ensure water flow, deepening of ponds and canals etc.).

Paddy land lying fallow because of watershed management problem

34. A list of these with exact locations was given to the Block Panchayat, who have funds under the Integrated Watershed Management Programme, within which the current work could be undertaken.

35. **Conversion of fallow land:** The following actions have been taken to bring fallow land under cultivation:

- a) Collection of field level plot-ownership data for two clusters (Kannolichira and Aanakkalchira) with the help of farmers to identify owners of fallow lands to convert them for cultivation.
- b) Preparation of maps of the above two paddy field clusters.



- c) Verification of Govt. Paddy/Wetland data bank with the help of farmers and satellite imagery.
- d) Identification of around 85 acres (60 acres in Kannolichira, 25 acres in Aanakkalchira) of fallow land that can be brought under cultivation next season; A list of owners of each area is also prepared.
- e) SAF convened a meeting of paddy farmers of the Paalakkattu paddy cluster and conducted an awareness class on the importance of bringing all fallow land into cultivation. Within one year, the extent of paddy cultivation increased from 80 acres to 100 acres.
- f) SAF convened a meeting of farmers of Aanakkalchira paddy cluster, where currently only 2.5 acres is under cultivation. We drafted a plan under the moderation of Agriculture officer and Ward member to make the paddy cluster fallow-free next year, and visited the houses of landowners and talked to them to get their consent.

36. **Arranging harvesting machine:** Assistance was provided to needy farmers to secure harvesting machine for harvesting their paddy on time.

37. **Preparing the farmers for farming:** We visited the houses of land-owners and talked to them to get their fields ready for farming in the next year once the problem of water is solved with the help of the Integrated Watershed Management Programme.

38. **Trainer's training:** One of our staff, Mr. Illias participated in the National Training on Rice Characterization conducted by the famous traditional seed saver and organic farmer in Odisha, Dr. DebalDheb, in three sessions. Training was provided in various techniques.

39. **Traditional rice seed conservation:** We cultivated 24 varieties of rice obtained from Dr. DebalDheb at the conservation farm around Salim Ali Foundation's field centre at Konathakunnu office in sample bags. Seeds of some of these were harvested and preserved.

40. Mr. Illias participated in the Kisan Expo in Pune for a day, where a farmer-friendly mini rice processing machine was exhibited. It is a simple machine which can de-husk paddy without removing bran. We purchased one which is being used by the farmers.



Mr. Illias Taking class for farmers

41. **Field visit of Farmers:** SAF took a selected group of 16 farmers on a study tour to Wayanad to take part in the Traditional Rice Seed Conservers' Gathering organized by 'Thanal' on 28, 29 November 2015. Our farmers attended the classes and visited the field along with other farmers.

42. Non-availability of seeds was one of the complaints of the farmers. To meet this, we made arrangements of seeds from Kannur, a local variety called orkaima.
43. **Land variety of rice:** Since some of the farmers evinced interest in land variety of paddy, we provided a land variety (Koyyala) from Wayanad on an experimental basis.
44. Awareness programme: As a part of the annual meet of the small farmers group at Vallivattom, a class was held on 19th April at Government U P School Vallivattom. Cine actors and organic farmers Shri. Salim Kumar and Anoop Chandran and, Dr P A Radhakrishnan, Dr. v. S. Vijayan addressed the public containing more than 100 people.

Section 4. Fisheries

45. **Training programme:** Three classes were conducted by experts from the State Fisheries department to popularize fish cultivation and to explain various projects of the Fisheries department.
46. **Budget for fisheries development:** According to feedback and the interests of participants, a draft annual plan was prepared highlighting the funds required and submitted to the Panchayat and Fisheries Department.
47. **Survey for suitable areas for fish cultivation:** Surveys were conducted to identify suitable ponds and backwater areas for fish farming in each ward.
48. **Distribution of fish fingerlings:** On the basis of applications received from interested farmers for inland fish farming during 2015-16 fish seeds of Katla, Rohu, Mrigal and grass carp were distributed to the 36 farmers. A total of 15,840 seeds (fingerlings) were distributed freely for the farmers for an area of 3.96 ha, organized through the Fisheries Department.
49. For 2016-17 fresh water fish-farming applications are received from 36 farmers; the seeds will be distributed in July 2016 with an increase to 7 hectare as against the 3.96 ha in the previous year. It will be a great achievement for SAF as the area will be increased with our effort.
50. Out of the 33 applicants for brackish water fish farming, 31 farmers received prawn juveniles for an area of 32.92h.
51. Ponds and farms where fish seeds were released are being monitored. Some of them are having problem of water.
52. Prawn harvest was done in May 2016 with a catch of 3812 kg of good quality prawns from 7.43 hectare of eight farmers. Asokan Chirayil, Vallivattom had the maximum harvest of 1250kg of

prawns from 1.80 ha. In 2015-16 prawn farming was done in 35.11 hectare providing 14, 04,400 seeds. Harvest in the rest of the farms will be done after one or two months.

53. As a part of the District Action plan of the Fisheries Department action is taken for Ornamental fish-farming and Polythene sheet tank fish farming; approved three applications for the former and four for the later with subsidy for farming in 2016.
54. Discussions were held with the officers of the Fisheries Department at the District level and at the Head Office, Thiruvananthapuram regarding the budget, which was then revised and submitted. It is being pursued.

Section 5. Small-scale Industries

55. Discussions were held with the Kudumbashree and Panchayat on the promotion of cottage industries with the main objective of creating job opportunities to everyone in the Panchayat according to his/her age, health condition, educational qualification and technical back ground; accordingly a budget was prepared.
56. A training programme was conducted for 25 people on 5th December 2014 on assembling LED bulbs.



Prof Nambiar Demonstrating the assembling of LED bulbs

57. Training programmes are planned for handicrafts with the local resources such as screwpine, Eichhornia, coir and coconut shell.
58. Discussions were held with Director, Oushadhi, for establishing medicinal plant gardens in the Panchayat. As suggested by him, a separate proposal is being prepared in consultation with experts for selecting plants suitable for the area.

Section 6. Energy Conservation

59. The objective of the project is to provide non-conventional energy for the entire Panchayat within the next five years.
60. While presenting the entire project at the Planning Board, the Board constituted a committee consisting of Chief Engineer of KSEB, Director ANERT, Director Energy Management Centre and

Chairman Salim Ali Foundation and entrusted the Committee with formulation of a detailed project report.

61. This Committee met twice. As a policy it was decided that an awareness programmes for energy management to reduce the total energy consumption have to be conducted, b) all the lamps and tubes should be converted into LED, c) provide solar energy for public buildings with support from ANERT and EMC and d) install solar energy in individual houses.
62. The first awareness programme was conducted by the Director EMC on 11 September 2015 at Konathukunnu.
63. From the existing programmes, ANERT could provide support for choola, biogas, solar lantern, also solar lights for individual houses on demand. SAF has to organize this. A special project for the VellangallurPanchayat could be given for the next year for central funding.
64. With the help of ANERT we distributed 30 solar lanterns of 5W LED bulb each with solar panel in Vellagallurpanchayatduring February –March 2016.
65. Dr. V.S. Vijayan had discussions with concerned officers at the Ministry of New and Renewable Energy (MNRE) requesting them to consider VelleangallurPanchayat as a model Panchayat.

Section 7. Water Security

66. There is water scarcity in almost all the wards. One of the main approaches to ensure water security is to provide water harvesting system in all the houses in the Panchayat with a priority to water scarcity areas.
67. With our effort a grant of Rs. 25 lakhs has been sanctioned by the Department of Environment, Government of Kerala for making roof-water harvesting systems in 350 houses to be executed under the supervision and advice of a committee involving Panchayat and SAF. First instalment of Rs. 10 lakhs is released and steps are being taken to select the beneficiaries in consultation with the ward members.
68. Discussions were held with the Block President, the new BDO and Joint BDO regarding the Integrated Watershed Management programme in VellangallurPanchayat. A meeting of the coordination committee (consisting of various departments and institutions of the Govt. of Kerala) was conducted. Members and presidents, and Agriculture Officers of other Panchayats in the Block also participated. Chairman, SAF explained the project. Block President desired that the SAF should extend its projects to the entire Block.

69. The Environmental Economics Study Centre, KAU conducted a workshop for farmers regarding water conservation which was attended by representatives of our farmers. They organized a seminar in collaboration with Sálím Ali Foundation and VellangallurGramapanchayat at Konathukunnu on 23 March 2016 titled “Climate Change: Water Scarcity and Social Implications” which included classes and discussions.



Seminar on Climate change: water scarcity & social implications

Section 8. Waste-free Panchayat

70. A project is being prepared with Mr. Shibu of Thanal for submitting to Suchitwa Mission. As a first step, a meeting was held with the Panchayat where Mr. Shibu explained the outlines of the project. With the inputs received, a project is being prepared for making the Panchayat “Waste-free”.

71. As a part of the “Waste-free panchayat” programme, we took an initiative and arranged a meeting with members of VellangallurPanchayat, the Merchants Association, and Kudumbashree. First decision was to avoid plastic carry bags from our panchayat and introduce paper bags of different types and sizes in the shops. We arranged a class by an NGO from Thrissur named “Bhagidhari” who are active in popularizing making eco-friendly bags of various kinds. After discussions it was decided to start a Paper bag unit in the panchayat. A group of women from Kudumbashree showed willingness to do the work. Merchants Association was keen to support it. Panchayat was requested to take a decision that plastic carry bags will be banned in the panchayat and the follow up is under way.

Establishment of Vellangallur Foundation

72. One of the major issues preventing the farmers from entering organic farming is the lack of proper marketing facilities. Therefore it was decided to set up a producer company to ensure marketing of organic agricultural products and all other products from the Panchayat and also to ensure 100% profit to the producer without middlemen. After several rounds of discussions with the farmers it was decided to establish a non-profit company under section 8 of the Companies Act 2013. The distinction of this company is that profit that could be generated through the company will not be shared among the Board of Directors, but will be ploughed back into the Panchayat for various development projects as well as philanthropic activities as decided by the Board of Directors.
73. Prior to this, we visited Sahaja Organics, Sahaja Seeds and Lumiere in Bangalore, GhaniAgri & Rural Development Trust at Kirugavalu, MandyaDt and Sangham Organics in Medak, Andhra Pradesh under the Deccan Development Society which are well established organic farmers as well as producer companies. We had consultations with them regarding the formation of their companies, production of materials and marketing.
74. Three rounds of discussions were held with the people of the Panchayat, mainly farmers and other entrepreneurs along with the Panchayat members regarding the formulation of the Producer Company.
75. Thirteen Board of Trustees were elected and the company is registered in December 2015 under the name "Vellangallur Foundation for Self-sufficiency".
76. Land for the same is offered by the Panchayat and the cost of building was promised by the Local MLA from the MLA funds. An environment friendly design is prepared by COSTFORD.
77. **Sale of organic vegetables:** The Company inaugurated the sale of organic vegetables on April 11 as Vishu Chanda. It was a three day programme and the sale was for Rs.18542 with a profit of around Rs.4000. Regular



Inauguration of Producer Company on Vishu Chanda

F. Social Auditing

A social auditing is being got done by the Malappuram Foundation who has been providing us with the seed money for the project.

Awareness Programmes

78. Various awareness classes were conducted in different wards on organic farming of vegetables and paddy, fish farming, energy saving methods and biodiversity conservation.

79. Classes were conducted on organic farming of vegetables in different regions outside the Panchayat and for the NSS volunteers of different Schools and colleges.

80. A total of 6768 people participated in our programmes between August 2014 and May 2016.

Method of Implementation and Monitoring

81. It was envisaged at the conception of the project itself that we should follow a bottom up approach.

82. Apart from the active involvement of the Panchayat, we made sure of the participation of the Kudumbashree.

83. However, since the Kudumbashree unit has up to 40 members, we found that it fails to reflect the needs of individual families.

84. Hence, we decided to organize Kudumbakootayma of 15-20 neighbouring houses. The activity is catching up. Location of each house of the Kudumbakootayma is being marked on the map showing the house number and owner's name with participation of researchers from KFRI and students from various colleges. From each group one leader will be elected to represent the group.

Funds for the Financial Year 2016 – 2017

85. The budget for the year was prepared with the input received through the socioeconomic survey. Total budget for the year is in the tune of **Rs. 9 crores** without the provision for solar energy which if provided for 1000 houses it may add another 10 crores making it to 29 crores.
86. It was discussed with the State Agriculture Minister who arranged meeting of all the senior staff and Principal Agriculture Officer of the district. The Minister gave instructions to accommodate the requirements of the project under the existing schemes to the extent possible and the rest to be submitted as a special project.
87. Planning Board's Vice Chairman held a meeting of the heads of all related departments where Chairman, Salim Ali Foundation gave a power point presentation of the full project along with the budget for the year.
88. The Vice Chairman instructed the department heads to accommodate the respective component of the project in their existing project to the extent possible and provide the total requirements for the next year in advance so that it can be projected as a separate project for funding.
89. Budgets for Agriculture, animal husbandry and fisheries were worked out in consultation with the Panchayat and district level officers of the concerned departments and got them forwarded to their respective Directors in Trivandrum.
90. Besides these, discussions were held with NABARD in Thiruvananthapuram and Thrissur, so also with Suchitwa Mission and Registrar of Societies in Thiruvananthapuram exploring possibilities of funding.
91. Discussions were held with the Minister for LSG as well as with its Secretary and they decided to place our project in the Coordination Committee as various departments are involved.
92. Discussions were also held with the Ministry of Panchayat Raj of the Union government which also has promised support and coordination with other Ministries.
93. Discussions were held with the Ministry of Non-conventional Energy, Department of Science and Technology, Department of Biotechnology, and Ministry of Environment, Forest and Climate Change of the Union Government. All evinced keen interest in the project. Individual project within the mandate of each is being prepared.
94. Funding for individual module of the project is being vigorously explored with Private and Public Undertakings also.

Sign of Acceptance of TheVellangallur Model

95. At the request of NattikaPanchayat, the project was presented and they decided to undertake the same.
96. At the request of film actor Shri. Sreenivasan, the project was presented at his Panchayat, namely Udayamperoor which also decided to undertake the same with required changes according to the local conditions.
97. At the request of the Manappuram Foundation, presentation was given in the Valappad Panchayat which also passed a resolution to take up a similar project.

PROJECT FACILITIES

Ecological Farm Fostering Centre (EFFC)

To provide Information on organic/ecological farming to the needy, a small facility has been set up since December 2014 at a site having high visibility. It is housed in the building complex of the Panchayat adjacent to its office.

Project Office

Another building is hired to house the project office, about a kilometer from the Panchayat. It has facilities for holding meetings of smaller group of about 15 – 20 and to accommodate the office for the project team. It also has facilities for a seed farm as part of the project.

Project Team

Members of Salim Ali Foundation

1. Dr. V. S. Vijayan, Honorary Chairman
2. Dr. LalithaVijayan, Honorary Director
3. Ms. A Pavithra, Project Officer
4. Shri. A. Kishore, Consultant (data management, GIS mapping etc.)
5. Shri. K. P. Illiyas, Consultant (paddy farming)
6. Smt. C. G. Raghi, Data entry operator
7. Smt. C. Krishnakumari, Office Assistant
8. Smt. PriyaSaneesh, Agriculture Field Assistant
9. Smt. VidyaShaji, Field Assistant for fisheries
10. M/s. Thanal, Trivandrum, Consultant (Agriculture & Waste management)

Other Consultants

1. Dr. Dinesh Cheruvath, Joint Director Fisheries
2. Dr. S. N. Prasad (Remote Sensing and GIS)
3. Dr. P. VijayaKumaran Nair (Resource mapping and data analysis)
4. Dr. M. P. Parameswaran (Energy and local level planning)
5. Dr. A. Latha (Water resources)
