

Site Visit: Bharathi Resource Center

September 17-18, 2008

Site Visit by Bhaskar & Savitha.

Link to photos and videos:

<http://picasaweb.google.com/savitha.sridharan/SiteVisitBharatiTrustResourceCenter#>

Summary:

The primary purpose of this visit was to get an idea on the progress of the resource center since the last site visit. This document covers the highlights of the trip, conversations with Siddamma, Ramesh who is one of Nammalvaar's assistant, meetings with people of Pallavakam village, meeting with the Sarpams and information on the resource center.

The trip:

We were picked up by Siddamma from the Chennai Railway station at around 11:00 am and drove with her, Ramesh, her driver Ravi and Ramesh. A couple of Sarpams members and women from Pallavakkam village joined us on the way. Ramesh is one of Nammalvaar's assistant with a M.Sc in Chemistry and extensive knowledge and experience in organic farming practice. He has been providing invaluable assistance to the people at the resource center on organic cultivation. The sarpams were traveling with Siddamma to stay at the resource center where they were convening for a meeting.

The entire trip from Chennai to the resource center takes nearly three and a half hours and this gave us a great opportunity to interact with her on various issues related to the resource center and the Irula community. On the way we picked two villagers from the Pallavakam village who were also headed to the resource center for the evening meeting and to discuss the project freedom related issues with us.

The trip was also a tutorial on the issue of agrarian crisis in India and effects of cash-crop and fertilizer based farming. The signs of industrialization are all over the area and we saw a lot of industries including a coke bottling plant and a Kingfisher factory who consume a large amount of groundwater and dump effluents into a man-made lake nearby. There was evidence of bad road way planning where precious trees were being cut in order to widen a two-lane road without giving due considerations to alternate plans. We had a long discussion on the effects of SEZs and uneven industrialization and the effects of government policy on rural India. The Tamil Nadu government has been following a populist policy like free television and Re.1 rice while doubling the prices of essential items like match boxes and salt. These policies have made life harder for the poor people who are feeling the pinch of rising prices on one side while their incomes are not really going up.

We reached the resource center around 4pm and were greeted there by Siddamma's sister and their family (husband and son (Vishwas)) who live at the resource center. She and her family work at the resource center and help maintain it during Siddamma's absence. We had excellent lunch which was made from the produce grown in the resource center and included some jowar roti, smoked eggplant curry, a chili chutney and some fresh lemon grass tea which grows naturally in the mountains surrounding the resource center.

Resource center:

The resource center is an organic farming community where crops are grown without the use of pesticides and fertilizers. It is meant to serve as a model farm for the community so that they can understand the age old practices of sustainable agriculture which were used extensively in India. The idea is to lead by example and show the farmers that organic farming is a sustainable form of agriculture which is symbiotic with nature.

After lunch, we went for a walk where we visited most parts of the resource center. It was our first time in an organic farm and it was a very instructive experience. When we visited most of the farms were being prepared for cultivation. The resource center crops are grown in cycles which coincide with the various seasons. When the fields are not in use, they are tilled and the leaves that are fallen down are added to them. This leads to the decomposition of the plants which provide nutrients to the farm. It also allows the farms to rejuvenate and recover the nutrients used up in the last cycle. The crop planting season begins right after the first rains. Although, the resource center has a well and a bore well, by waiting for the rainy season they conserve the ground water. When we visited the main crops which were growing were three fields of paddy, one field of Ragi and Jowar, one field of plantain and two fields of cow fodder. Next we visited the seed nursery, where the seeds are planted and the once the plant shoots grow they are transferred to the main field where they grow. The seed nursery is a great example of organic techniques at work.

1. The nursery is surrounded by "neri" plants which have dense leaves and serve for dual purpose, where they act as wind-breakers and also as manure for the field. These plants have ribosome which also helps provide nitrogen to the soil, while the leaves are added to the soil once the field has been used.
2. There are also some particular weeds which are allowed to grow with the seeds, these weeds provide nutrition to the soil and provide natural pest control. These also provide some additional benefits; some of these weeds are actually used as natural rodent killers while not harming any other animals.
3. Another interesting technique used is to grow multiple crops in the same field and not growing the same plant next to each other, like growing eggplant next to tomato which is grown next to chili and making sure the eggplant does not grow next to eggplant. This ensures that the same nutrient does not get exhausted and any pests which affect on a particular plant do not spread because the next plant is different. For example, lemon, plants are susceptible to citrus cancer which does not spread to non-citrus plants like eggplant.
4. The plants are cultivated in rows and are separated by plantain trees and weeds which provide natural nutrients and prevent the spread of pests.
5. The nursery provides a natural supply of seeds which reduces the dependence on seeds from outside the farm. It also allows them to weed out plants which are more susceptible to infection.
6. We noticed a large number of insects in the nursery including grasshoppers and bees. These insects help transfer pollen and live in symbiosis with the plants.



The plants currently being grown in the nursery include tomatoes, eggplant, drum sticks, gourd (in Tamil : podalanga, thirkakai), bitter gourd (in Tamil : pavakai), spinach (In Tamil :keerai). The food crops being grown are ragi, jowar and paddy.

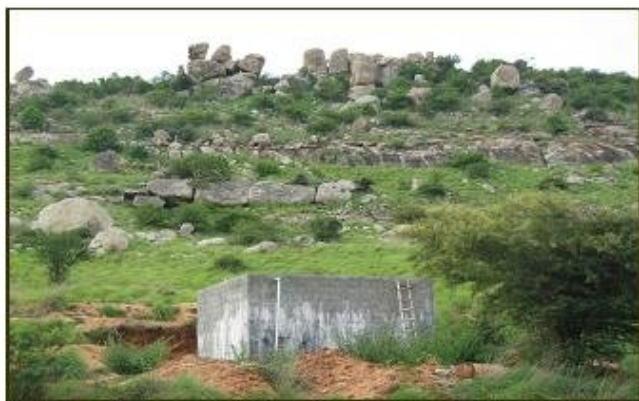
Next we visited the field where they were growing fruits for the first time. These fruits include pomegranate, papaya, orange, lemon, guava and jackfruit. They are also attempting to grow wood trees including teak, rosewood, sandalwood and mahogany. **The end goal of this is to be able to completely eliminate the need to buy food, fruits and wood outside while sell the extra produce grown in the farm.**

After this we visited the check dam, near which was the bore well which is placed next to the dam since the ground water table is a bit higher there. There were 4 such check dams along the course of the water flow.



After this walk, we sat with Siddamma, Ramesh and a couple of the Pallavvakam villagers and chatted for sometime about the whole vision which Nammalvaar and Siddamma have for the resource center. The idea is to make this into an organic university which is entirely self-sufficient and self-replenishing. There is also a goal to build a laboratory where these techniques can be verified in a scientific fashion. By verifying these techniques through rigorous experimentation, it provides for a proof for these methods. This will also allow organic cultivation to get a broader audience and can be used to validate the claims and affect public policy on a broad scale. Some of these techniques could be published and patented so that they reach a broader audience and are not used for profit by companies. The vision is to start an organic revolution in India with a scientific validation for the various claims.

Water Tanks used for water storage



Sarpams Meetings – local governance at work :

After a brief period of rest, we observed a sarpams meeting in action. This was a unique experience where we saw local governance in action. The initial discussion was about the Krishnan issue. Krishnan was one of the co-founders of Bharathi Trust and was the head of the Irula sarpams. The issue was getting way more complicated than expected and Siddamma decided to allow the Irulas figure the issue out among them since it was an issue of her commitment to the cause of the Irulas.

During this meeting the sarpams presented the issue from their perspective and the method in which they resolved it is a tribute to the system of democracy and local governance.

1. They convened an emergency session of the sarpams in which they discussed the issue in detail.
2. They investigated Krishnan's claims and found them to be untrue, once they figured this out they called Krishnan and asked him pointed questions regarding this.
3. This way the Irulas dealt with this issue with unity and removed Krishnan from his position

We also spoke to all the field workers at the resource center and about their experience of working in a farm like this. One of the field workers had newly started working at the resource center (4 months) looked very excited about all that he was learning at the resource center and expressed interest to take up lot more responsibility at the Resource center in the next few months.

After this discussion, the sarpams met to discuss other problems which some villages were facing currently. One of the main discussions was about Pallavakkam and Project Freedom .

Project Freedom:

During the sarpams meeting there was a brief discussion of the project freedom, which involves setting up a recycling paper mill in the Pallavakam village. The women of the village (Nagamma and Ellemma) gave a description of the issue they were facing. It was pretty sad to hear that part of the village doesn't have electricity and some of the villagers have to travel 5 to 6 km every day to just charge their phone for Rs.5/-. Some men travel to nearby mango groves and farms to find a job to do but this is definitely not sustainable.

Once the meeting was over, we had dinner made from the crops grown in the farm (Ragi mudey, methi seed chutney). Then we heard a folk song which the Irulas sang for us. The song was one of hope and survival against the odds. It was a very incredible experience to see them signing of hope and joy.

By around 11:30pm, we started feeling sleepy and we disbursed and decided to talk some more in the morning.

Day 2 (More of the resource center)

Siddamma woke us up at 6:00am in the morning, just in time for the sunrise. We walked around the resource center for a bit, brushed our teeth with neem sticks and had fresh lemongrass tea made from the lemon grass that grows along the hills around the resource center.

Then, Bhaskar and I offered to help the field workers who were sprinkling vermin compost to the paddy fields. (also called **worm compost**, vermicast, worm castings, worm humus or worm manure) is the end-product of the breakdown of organic matter by some species of earthworm. Vermicompost is a nutrient-rich, organic fertilizer and soil conditioner. The process of producing vermicompost is called *vermicomposting*. More about compost tanks later in this report.

Current State of resource center:

Storehouse:

The storehouse was in good shape and they have been storing grains which are in excess after internal consumption. The long term goal is to be able to sell these to the market. There was rice which had recently been harvested and was drying. There were also large storage containers where rice from previous harvest was being stored. A large number of sintex tanks were also there for the same purpose. Hay from the last harvest and fodder were also stored for the cows to eat.



Cowshed:

The cowshed was being used as a shelter of 10 cows in it. These included 4 calves, 2 cows for purpose of milk and the rest were for tilling the fields. The cows were taken for a walk everyday by a cowherd to the surrounding mountains and return after a full day of grazing. The cow dung is used as manure and is removed periodically.



Panchakavya Tanks:

There were 2 Panchakavya tanks which are made of concrete. When we visited the resource center these were not in use. **Panchakavya** is a concoction prepared by mixing five products of cow. The three direct constituents are cow dung, urine, and milk; the two derived products are curd and ghee. These are mixed in proper ratio and then allowed to ferment. The mixture which is made using yeast as a fermenter, bananas, groundnut cake, and the water of tender coconut, is a potent organic pesticide and growth promoter.

The last round of Panchakavya had been prepared and the tanks were being dried.

Compost Tanks:

When we visited 2 out of the 4 tanks were being used to generate compost. The compost is grown in cycles where at any given time two tanks are in use while the others are being prepped for the next season. The composting pit is made of a bottom layer of clay (non-porous) followed by a layer of green leaves from plants. These leaves are then covered with some top soil and cow dung which is then made a bit firm. Then some earthworms from a previous batch are introduced here. The earthworms tend to dig from the top soil all the way down to the leaves which they consume.



The earthworm excreta is rich in nutrients and is what ends up being the compost. The earthworms also churn the soil as they move up and down and this makes the soil more porous. We were able to check the two pits and noticed that a large number of earthworms had grown in the pits. The pits are covered by a mesh to prevent birds and lizards from eating the earthworms. There is also a layer of anti-repellant since ants tend to kill earthworms by biting them. The composting process usually takes 6 weeks after which the compost is spread in the fields. The earthworms are also re-introduced into the fields, this allows for natural compost production in the field itself.

Trenches:

During the rains, last year there was some significant flooding. In order to prevent this in the future, some trenches have been dug in the side facing the mountains. These trenches help slow down the water coming down the mountains. The trenches are the first line of defense against flash floods. The trenches are surrounded by windbreaker trees, which also double for flood prevention. These natural means of flood prevention enable the resource center to conserve water on one side as well as prevent nature's fury from destroying the crops.



Honey bees:

The resource center had bought some honey bee hives which are used to produce honey in house. Honeybees are also an invaluable source of pollination since bees get nectar from flowers and in the process pollinate the plants and help disperse the seeds.



Equipments(Supported by Asha Austin in 2008):



Adieu:

At around noon, after a good breakfast after working in the fields, we decided to head back to Chennai. Ramesh, the car driver, expressed some kind words about our visit and requested us to bring back more friends to visit the resource center. Siddamma had a call from the local collector. So she left in a hurry.



From Left (Standing): Vishwas (Siddamma's sisters son), Field worker, Field worker, Field worker, Ramesh (Nammalvaar's assistant), Sarpam leader, New field worker, Sarpam leader, Gowramma (Siddamma's sister), Ravi (Car driver), Siddamma, Nagamma (Project Freedom)

From Left (Kneeling): Bhaskar & Savitha (Asha Austin volunteers), Ramesh (Car driver)

Ramesh, Gowramma, Bhaskar and Savitha decided to take a bus back to Chennai and reached Chennai at 4pm .