FINAL REPORT ON KADAMBANKULAM INTEGRATED LAND DEVELOPMENT PROJECT

1. IMPORTANT CHANGES AND OCCURRENCES

2. Project Holder:-

SPEECH has been implementing per development activities is Kadambankulam Village since 1987 with the view to uplift the living standards of most deprived sections. While working is close relation with the community the issue of land development was brought is one the PRA seasons. Subsequently focus group elections were conducted to the actual problems of the waste lands in particular area. Further the issue was fire turned through various participatory methods and the land owners have come to conceusus of rehabilitating 65 areas of rain fed lands which were not in regular use. Basically it was anticipated to value 50% of yeild at the amd of the project period as the small and marginal farmers had taken 30 years back. During the two years of implementation there had been not middle of changes occurred against what had planned. The staff team remained the same with an Agricultural officer, Veterinary officer, Community orgainser in the field team an Accountant, and Project Director, from the administrtation. As planned at the beginning a motor cycle Bullet 350cc was lought. During the reporting period the tractor trailer which was purchased is 1992 uneler the assistance of German Agro Action was sold with the permission of seveatlody of SPEECH and a new trailer has been purchased. Due to the recurring expenses incurred in maintaining the old trailer the arrangement was made.

A computer was brought for effective documentation on the change living standards of women using Nanayam groups and security cards. Resource persons from Tamil Nadu government Agriculture departments, Agriculture Engineering, Veterinary, Horticulture and Micro enterprises department were imported training and developed in the request.

Right now SPEECH is involved in a Research on Rural and urban Interaction is which few field staff member are engaged is covering 5 southern districts of Tamil Nadu . During the respecting period SPEECH has expanded its working area towards the head quarter the below and the initial work has been already started with a core team. Other than these few changes the organisation structure remains the same.

1.2. Frame work conditions:-

Since there was not enough rains during the start of the project there had been adverse impacts on food grains other essential commodities. The prices of food grains, vegetables, seconds hand gone up and the common pasants had to completely dependants on rice sikd in public distribution system on subsidised rate. The wet land farmers had to aepend on the big farmers who have irrigation wells. Tue earned huge way since there

was very acute searce for irrigation. The farmers specially the small and marginal farmers of Thiruchuli were not given any sort of drought relief for their crop loss becomes Tiruchuli block has been already declared as industrial block. Before hand the subsidies were also claimed by the big farmers in the name of small and marginal farmers. In the following season there was enough rains but at the sometime the prices of agricultural input went high. The small and marginal farmers had to depend of on the money lenders for want of money to purchase the inputs. The farmers were little bit affected because of lower price for their produces since there was plenty during that season. In the Kandambankulam watershed area since there is a permanent source of irrigation level before the commencement of monsoon the farmers have source ground must, sorghum,gingelly, almost and minor millet this year. The seeds, which were preserve from the previous the yeild helped the farmers in, continue the agricultural operations in time. The timely action will give them better yeild this year cimpared to yester year. The cluster level federation has submitted a proposal to an agency which supports grassroots level organisation to set up a grain bank in the region. Once the grain learn / second bank iis set up the farmers in that area can store the grains and can bargain with the middle persons. By this definely the produces will get more price and the consumer will get a quality product.

The Tamil Nadu government has started Extending credit linkages to the women self help groups under NABARD scheme through which Kadambankulam women self help groups (Nanayam group) have awailed loans from the branch for productive purposes. After the election the new government has announced agricultural subsidies to small and marginal farmers but yet to be implemented.

1.3. Target Groups:-

No changes have occurred during the reporting period interms of size of project area, location and in member of the target group.

1.4.Other parties invalid:

Since the land was not used for long years at the initial stage of relaliations the partners had to identity their own lands accurately. Hence it was decided to approach the Revenue department for land survey and the same has been completed to continue further development activities. Aiming at establishing apport with the main stream government departments and to avail the assistance the activities like to topography survey, contour like fixing, water cliving for well construction, establishing percolation pond were completed with the assistance and guidance of Agriculture Engineering department. Nursery vetivev raising, done with the supoort of Agricultural university and horticulture department. For selection of dairy animals vaccination working and periodical check up were assisted by the department of veterinary. The soil testing laboratry developed us is analysis of soil and water.

The Insurance Company, Micro enterprises department of Madurai Kamaraj University, Agriculture department was involved in imparting training programs for the partners. Apart from these partners the local self government (Panchayat Raj Institutions also involved is desiging pro farmer schemes is Kadabamkulam. The DANIDA assisted veterinary team was also involved is condition Mass Contanct Program and conducting Village Based Training Program for selected 45 farmers. The women Development corporation of Tamil Nadu have been associating with the women development sangam / self help groups in capacity building process in which 40 women were trainer on different respects .

As a result of Integrated land development of Kadambankulam the partners, villagers, women groups have established very good relationship with the government officials, bankers and other important stakeholders which has reduced the contribution of SPEECH.

Since may stakeholders were involved is implementation there had been a contribution of scientific knowledge and local conventional knowledge and the activities have been implemented is time .

- 600? Good quality hybird seconds have been planted
- 34 Crossbred cows have purchased and 4 periodical mediehl check up has been conducted and the leather of the animals is ensured.
- Established marketing linkages.
- The partners started practicising organice farming thereby the expenditure has slighlty reduced to 10% of the chemical farming.
- The partners have improved abirilty b water and soil conservation measures with appripriate management tecknology.

2. ASSESMENT AND perspectives of attaining the project effectives

To bring under cultivation of degraded waste land is the set objective of the project land development program of Kandambankulam and it was anticipated that the 34 small marginal farmers would increase their yeild by 50%. In the first year due to monsoon failure there was not enough yeild and in the following season the farmers were alobe to take first yeild from the lands after long years approximately 25% of yeild taken 30 years lack. In the final quarter the monsoon started in time helped the farmers to agriculture operation. Though there was no contiruation of rain the farmers started using the well water as survival watering. The partners have planted ground must , Singelly, dhal, green gram, cow pea, sorgheren and 3 farmers have used small pieces of their lands for growing padcly verseny. The horticultural trees have grown well Expected to give yeild from next year onwards.

As planned the farmers would not have increased the yeild by 50% but at the same time other indirect impacts have taken place. Specially the lands have been brough under continuous usage and the land value has been increased. Now the cost per area is 15000/= After the implementation of the project the land seebs in the village and nighbouring villages has been completely stopped.

3. Results, Activities and important assumptions:

1. Project result:
Recultivation of barren land with appropriate soil and water conservation:

Indicator 1:
Land brought into continue usage:

The patch of land at Kadambankulam village was barren for more than 30 years. The 65 acres of barren land belong to 34 small farmers. The analysis quite clearly shows that 31 farmers stared using the land during the season. Though all these 65 acres have been treated and the water, soil conservation and the water harvesting structures are in place the 3 farmers have not used the land for agriculture purposes but each has 60 trees in place. The farmers has developed interest in organic agriculture in this patch of land after witnessing the well and water yield. The quality and quantity of the water is good and sufficient for the trees and survival watering for the crops. The practice will continue even after our withdrawal.

Indicator 2:
Increased production:

Crops	**Cultivated area in acreage**	**Total yield**	**Price**	**Remarks**
Ground nuts	41	422 bags (each bag 36 Kgs.)	Rs. 15, 192/-	
Gingally	7	14 bags of 100 kg each	Rs. 21,000/-	
Sorghum	12	60 bags of 100 kg each	Rs.36,000/-	
Mixed crops: Cow pee Dhal Green gram Minor millets	3	No data available	No data available	Household use and fodder for animals
Green fodder	2	No data available	No data available	Used for the dairy animals

The above table clearly summarizes the information generated the kind and yield of crops cultivated by the farmers at Kadambankulam village. The average yield of various crops seems to be low when we compare with the well irrigated and high chemical fertilizers application by the neghibouring village farmers. However, the farmers have taken yield for the first time which is very much encouraging. Generally the results in the land development programme of Kadambankulam village is positive and very few farmers faced difficulties in cultivating the desired crops due to non availability of input on time. This helped the farmers to discuss and debate on a future strategy to get timely input from Government.

The farmers are not very clear about their expenses to raise the crops and harvest. Therefore we are unable to strike the profit during this analysis. However, the farmers have decided to record the expenses in future. SPEECH has decided to organize series of training on keeping accounts on the daily expenses.

The table clearly shows the revival of indigenous practices of crop cultivation. The mixed crops, which are very traditional and used for household consumption. But the % of farmers who are interested to go back to tradition is very low. This analysis help us to redesign our training module based on this training need, which will emphasis more on traditional practices and uses. The farmers are very informative and knowledgeable on this topic but practicing is quite difficult and the training and future programme should have space for promoting traditional agricultural practices.

The outcome of the analysis shows a significant increase in ground nut, gingelly, sorghum cultivation and yield. The gingelly seems to be very profitable when compared with other crops. When we look at from the usage point of view, the sorghum is topping up. It is used for fodder for animal, sorghum for human beings and the waste is used as manure. But when it is compared with income, it is very low. Gingelly and groundnut fetches more money but the household consumption is very low and sometime nil in most of the household.

By and large the farmers of Kadambankulam village, have utilized the barren land and proved it productive. This in general, created a belief that this barren lands also can become productive and useful. This will further encourage the farmers to concentrate more on this land and increase the food production.

Indicator 3:
Improved agriculture income:

The outcome of the analysis shows that the farmers of Kadambankulam village have taken mere a crop during this season. Last year the monsoon had failed and they were unable to raise any crop. It is very evident that this land is very much productive and profitable. This year, this particular patch of land has provided additional food and income for those 31 farmers who have risked to start their agriculture operations.

However, we have not done any systematic analysis comparing with the present income. But it is proved that the agriculture production has improved and we believe that the agriculture income automatically increase. It is proposed to do a systematic study on this.

Indicator 4:
Increase land value:

With regard to the land value, there is a significant increase from Rs. 2,000/- to Rs. 15,000/-. The farmers of Kadambankulam village have taken a stand that not sell their lands to anyone even the price has gone up. There was heavy land alienation in our block few years back and this particular village also was negotiating this patch of land to a factory owner. The land alienation campaigns and this land development programme have motivated the farmers, not to sell the land to any one. But now, this programme practically convinced the farmers that it is productive. Therefore, the farmers have decided not to sell any land to outsiders.

Indicator 5:
Replicable models established:

The watershed team within the village as well in neighboring village undertook a systematic watch on the impacts of this watershed programme at Kadambankulam village. There were 58 farmers, men and women visited and discussed about this programme and the impact. 6 farmers from the neighboring villages (Notchikulam, Udayanampatti, K.Pudur) have cleared and derooted the prosophis (the thorny bushes) and established simple water & soil conservation and water harvesting structures. They have planted 150 trees, which have been supplied, from the Kadambankulam watershed nursery.

Moreover the Thamaraikulam village project proposal was evolved during the implementation of Kadambankulam watershed. The whole village paid a visit to this project once on their own. They had a good interaction between farmers of Kadambankulam and Thamaraikulam. So it is very evident that the Kadambankulam watershed has created awareness among the other village farmers.

Project Result 2:
Indicator 1:
Ensured irrigation:

With regard to water resources, according to the actual plan, there is an open well and a percolation pond. The well was planned with a specific size of 9mtr. X 8mtr. The soil depth is upto 14 feet and during the process of digging, the four sides of the well slided and the size became 11mtr.X10mtr. The construction was necessary to the entire soil depth. It is perfectly done. The total depth of the well is 39feet. And during this summer the water level was upto 12 feet and it is a high level if it is compared with other wells around and was useful to irrigate the trees and crop for more than 8 hours a day by a slow speed oil motor. The analysis clearly shows that an hour 60 trees could be irrigated by

flood irrigation method. There are 600 agro-horticulture trees, which needs at-least two days to be irrigated. Since it is red soil and the soil depth is high, lot of water is being wasted. This was again discussed with the farmers and decided to have pipeline or install drip irrigation system. This has to be done collectively next year by the farmers and conserve the water.

Percolation pond: The farmers have decided a place where the rain waters inflow is there. Half an acre was dedicated to establish the percolation pond. This was executed manually as well mechanically. The following table explains the activities and out put clearly.

Sl. No	Method of excavation	Total hours/Total person power	Total area excavated in cubic meter	Water holding capacity	Remarks
1.	Manually	690 p/days	11,500	?	Including free labour
2.	Mechanically	116 hours	142,100	?	Per hour 1225 cubic meter
		Total	153,600	?	

The establishment of percolation pond is in a right place where enough inflow is there during the raining season. During the first season there was no monsoon and we could not generate any data. But this season was pretty good and there was enough water inflow into the percolation pond and the seepage is obvious because the soil depth is considerably high. There is a significant increase in water holding capacity in this land development area according to the above table. This particular patch of land had no ware harvesting structure except a traditional rain fed irrigation tank in the lowest slope of the area. Now the percolation pond has additional facility to hold water to give recharge to the existing wells as well to the watershed well.

Indicator 2:
Increased ground water level:

The data generated during the projects period clearly shows that there is an increase in water yield in the neighboring wells. We have a systematic way of recording the water levels in the observation wells. There are two wells which have been monitored. The results encourage us because during the summer there was 6 feet water in both wells and in past years there used to be no water in the wells. We have recorded for two years from the date of soil and water conservation started. This drastic increase in water level could have been due to various other reasons. Further observation is needed to make it authentic. Therefore it is decided to continue the observation for another two years.

Result 3:
Indicator 1:
Optimum usage of water:

Basically the principle in the watershed association need to be acknowledged. They have decided to give the water right to the landless also. They have a share in the water marketing. The members and non members of the association are eligible to purchase water at the rate of Rs.30/- and 40/- respectively. The priority for water usage is based on tree species first and then the survival water for any crops. There is monitoring committee monitor this distribution and record the income. The income is utilized for fuel, maintenance of motor, remuneration for the motor care taker etc. and the profit goes to the common account and it belongs to everyone who are the members of the association, the land holders or the landless.

It has been resolved in the association that if monsoon fails and less water in the well, the area for agriculture operation need to be limited and equal to everyone. The water should not be exploited rather use it optimum.

So far there is no quarrel among the farmers have witnessed or registered. The local monitoring committee and the farmers association resolve conflicts during the monthly meeting. The members practice whatever is decided in the association meeting.

Result 4:
Improved dairy management:
Indicator 1:
Increased animal population:

Though this community is basically shepherds, had very few animals in the beginning of the project. The interest was there but green fodder and milk marketing weren't there. This was discussed during the meetings and decided to increase the animal population by creating proper joint marketing system and green fodder availability. After the project period there are 36 cows and 36 calves. Now, 40% animals are conceived and pregnant. The farmers use the dairy waste in the watershed area and the agriculture expenses also considerably reduced.

Indicator 2:
Increased income:

The farmers have an additional income of Rs.30/- on an average through out the year, considering the dry period. The analysis clearly shows that, the first 90 days the milk yield was 8 liters, average yield for 36 animals, and the next 45 days the average milk yield is 5-6 liters and it goes on decreasing for another 90 days. If the animal was inseminated on the 45^{th} day of calving the animal starts giving the next yield after 3 months of dry period. But 78% of animals were inseminated after missing two three heats. So the dry period and income loss increases together.

The maintenance cost goes up and the repayment status and ability go down. So far the farmers are repaying the loan according to their weekly income of milk. 55 % of farmers cleared 50% of loan and the rest are 40, 30, 20%.

Indicator3:
Rapport with government departments:

The importance and relationship with the government departments based on the capacity to provide assistance in terms of information, resources, skills and techniques. It is very evident that the special importance and relationship with Veterinary dept., Agri. Engineering Dept. and market. Apart from these institutions, they are in fare relationship with BDO office, Cooperatives, Banks, Forest department, Agriculture dept.

Note: Annachi please contribute something for the indicators which I have no idea. Sorry for the inconvenience.