March 2008

Development Matters

Monthly Development update from DHAN Collective

Feature

Seed Village

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The process of involving majority of the farmers of a particular village to take up one particular crop, mainly for seed production purpose.

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From the Editors' Desk

Dear Readers!

Greetings!

Sorry for the delayed issue of March. The March issue brings you an innovative idea of the Pavagada team in building corpus for the federation through seed village programme. M. Karthikeyan's write up about the land development activities carried out in Nattarampalli tells us the impact of focused interventions and various dimensions of land development.

No doubt, you will enjoy reading the write up of Sangeetha, Tata-Dhan Academy on her professional development training experience she underwent in IIMA. She brings in-depth reflection on her training experience and its relevance to her work. The rural journey experience by a group of NRIs with DHAN and a few other development works in India brings us the pride in what we are doing and their commitment to contribute community initiatives.

As usual, we look forward for your feedback, contributions, comments, critiques, feedback and encouragement to enrich the quality of this magazine.

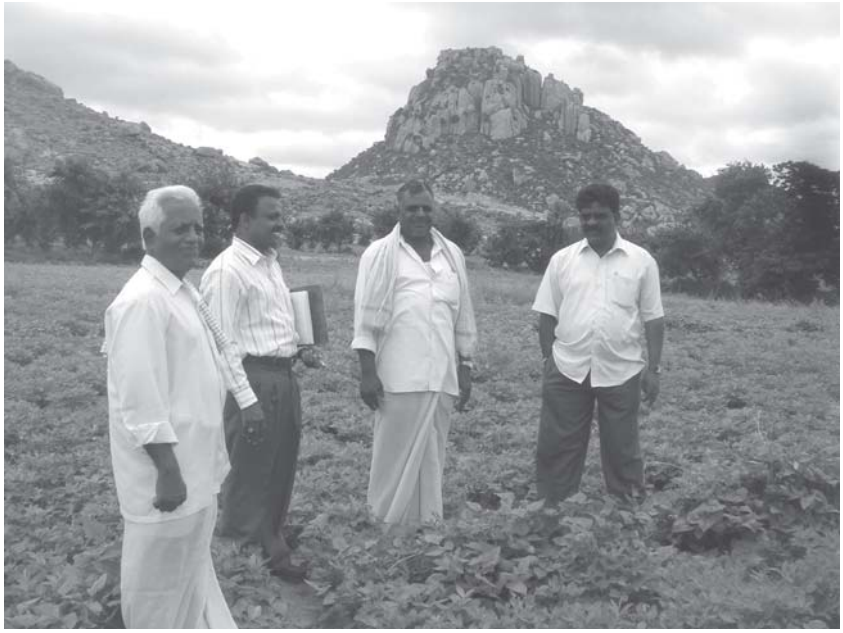
Happy reading!

Contents

Seed Village

K.T. Ramappa*

Pavagada is one of the most backward and drought prone taluks of Tumakur district in Karnataka. The average rainfall of this taluk is 415 mm. It is not evenly distributed because of orographic effect and proximal effect of the sea. Agriculture is the backbone of the economy of this block. Dryland agriculture surpasses the wet and Horticulture. The taluk consists of four *hoblis* covering 33 Panchayats and 145 villages. The total population of the taluk is 2.50 lakhs of which 43.6 % belongs to SC/ST community. As per the 2001 census the literacy rate of the taluk is 56.5% much lower than the state average of 67.5%. Total cultivable area of the taluk is 77,709 hectares, of which oil seeds occupy 85 % of the cultivable area. Ground nut is the major crop which covers 92.1% of the total oil seeds and is the only life line for farmers. Most of the farmers acclimatized to this crop and are hesitant to switch over to other crops.



What is seed village programme? The seed village programme is one of the main activities of the NSP (National Seed Project), a project set up by the Indian Council of Agriculture Research (ICAR), New Delhi. **It is the process of involving the majority of the farmers of a particular village to take up one particular crop, mainly for seed production purpose**. For the operational viability of the activity, a minimum of 30-50 farmers of the particular village has to cultivate a particular crop for seed production purpose. The objectives of this activity are.

- **To increase the seed replacement ratio**: To look in to the states average percentage of seed replacement of any crop, it is only 12%. Almost all the farmers are using their own crop seeds repeatedly year after year for the crop cultivation. This result in poor crop yield due to higher susceptibility to pests and diseases attack because of reduced seed viability.
- **To increase seeds production**: Presently the oil seeds requirement of the state is taken care by state agriculture department and the Karnataka Oil Federation (KOF). But only 10-15 percent of farmers need can able to meet by both these organizations. Both these organizations trying their best to produce as much seeds as possible.
- **To ensure seeds requirement of the Farmers**: The state's Agriculture department is in tremendous pressure to supply the certified quality seeds to all farmers during the monsoon season. The condition will be even worse if there is a continuous drought for 2-3 years. Small and marginal farmers are facing lot of problems to procure good quality seeds in time.

Seed village programme in Pavagada

Being a drought prone area and the largest producer of groundnut crop, the farmers in the Pavagada taluk faced a lot of problems in getting quality seeds during the monsoon season. If the

***K.T. Ramappa,** Regional Coordinator, DHAN Foundation, Pavagada

seeds are not available at the time of first rain in the month of June, they will be loosing precious time of sowing and consequently the crop yield. Because of scanty rainfall and no other irrigation facilities, they used to harvest always below the average yield. The worst hits were the small and marginal farmers. The big farmers used to keep aside seeds grown up in their field, whereas the small and marginal farmers cannot afford it as the harvest they get might not even meet their own consumption. Usually government supplied the seeds during the season at subsidised rate but it could meet only 10-15 % of their demand, that too not timely. They had spent a lot of money in bringing good seeds from long distance, most of the time they were not sure of getting quality seeds. For the DHAN Foundation team, which is working in this taluk since five years, it was one of the main issues to tackle and they decided to find a collective solution for this.

The team members discussed this with the farmers and introduced them the National Seed Programme (NSP) for forging alliances to address the issues of quality seeds. Event though the NSP is interested in broad basing their seed programme, due to manpower shortage and the remoteness of the area they couldn't concentrate all over the state with the farmers. The team along with the farmers to approached NSP for exploring any possibility of joint work. They came out with a plan of undertaking their seed programme.

Salient features of the programme:

- **Seeds distribution at 50 % seed cost**: In order to facilitate farmers to take up this activity, NSP supplies seeds to the farmers at 50% initial seed cost. The remaining 50% amount farmers can repay at the time of marketing. This arrangement is mainly to build confidence among the farmers and also facilitate farmers to sell the produce to NSP.
- **Regular monitoring and technical support to farmers regarding package of practice and post harvest handling of crops**: At regular interval the NSP official would visit the farmer's field for crop monitoring. As per the requirement they will guide farmers by giving suitable recommendation to control pest and disease. If possible they will also use this opportunity to suggest farmers some intervention at critical stage for better crop yield.
- **Buy back of produce at fairly good price**: Here the market price for the produce would be fixed well in advance and the NSP is abiding for that price whatever may be the market price. In case of higher market price as compared to NSP price, there is a possibility of revising the agreed price so that farmers will get at least 15% higher rate compare to market price to meet the purpose.
- **Seed certification arrangements**: The one of the main purposes of the seed village programme is to ensure seed requirement of the state. In order to bring authenticity and to ensure quality of the farmer's produce, the NSP is making arrangement for seed certification. The farmer's name will be enrolled under district certification agency to take appropriate steps to look in to the quality aspects before certifying the seeds for future marketing.

Our approach of implementation: Though the NSP hasn't insisted Dhan to go like this or the other way, we have followed our own way to implement the programme. As we have been involved in the promotion of people institutions to tackle context specific development issues and also networking them in to cascades and federation, we felt it is appropriate to implement the seed village programme through people federation. So the federation was encouraged to initiate this programme as an entry point activity as it brings identity to the people institution and also bring confidence to the people to take many more programmes in the future. The processes followed were:

- **All activities were undertaken through the federation**: The Pavagada Taluk Keregala Jalasamvardhane Vayalagam Okkoota (PTKJSVO) is the network of 41 TFAs that were promoted to implement the JSYS project in Pavagada. Though this was first of its kind, response from the people was overwhelming as all the TFA members expressed the need of sustainable institution and decided to network themselves in to federation. As an entry point activity of the federation, we discussed with the federation leaders. The leaders accepted the idea and all the activity of the seed village programme are taken through the federation. The activities like seeding the concept, taking appropriate

decisions, cash collection etc are done through the federation.

- **TFAs and Cascade meetings act as bridge between farmers and federation**: The networking is of three tire systems where TFA and Cascade are the other two to link under federation. There are two members representation from each cascade in the federation executive committee and the farmers selected for the seed village programme are from these villages only. So for any information dissemination these people institutions act as bridge between farmers and federation to make life easy and also for smooth functioning.
- **Federation leaders were involved fully:** In principle, we have placed the community at the centre in all the stages of implementation. We encouraged the farmers' leaders to carryout the coordination activities, so as to instill in them the value of collective efforts. The leaders worked proactively and responded positively at all stages of implementation.
- **Federation and cascade meetings were used for building their capacities:** Since the village representatives were from the cascade and TFAs, the meetings of these institutions were utilised for information collection, dissemination and for taking collective decision.

Process followed for the programme implementation: Though the NSP has been in this business for quite a long time, it was the first time NSP has taken up such a large scale project with the community in association with an NGO. It was just to demonstrate with the farmers, the concept of collective seed production. The processes followed during the project was

Concept seeding/ orientation about the programme

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Advance seed amount collection (50% of seed cost in cash)

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Continuous contact with NSP officials for follow-up for good seeds

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Seed distribution to farmers

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Monitoring the crop sowing with seed treatment

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Regular crop monitoring and suggesting recommendation for pest and diseases

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Field day celebration at the time of harvest by inviting VC, UAS, Bangalore

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Orientation on post harvest handling of crop (Stocking, Cleaning, winnowing etc)

↓

Procuring seeds from the farmers

↓

Quality testing of the produce

Physical observation for maturity of seed, pod colour, size etc, Grading of ground nut pod, Sample weight (75: 25 ratio of seeds to shell and 80% SMK)

↓

Payment through cheque

Benefits to the farmers

From the farmers point of view the benefits from this programme were many. Farmers were able to visualize the benefits and felt very happy that they haven't imagined such an impact. Some of the direct benefits people recognized were.

- ***Getting quality seeds in time***: Getting quality seeds in time during the monsoon season itself was a very big achievement. Earlier, they faced a lot of problems in acquiring quality seeds in time. As there was a lot of demand for the seeds and the department was unable to supply the required quantity. Now the farmers felt very happy that they got good quality seeds in time, which is one of the main prerequisites for better yield.
- ***Less investment on seeds (Only 50% initial costs)***: As the NSP supplied seeds at 50% initial seed cost, it gave an additional advantage for the people who were struggling a lot for the initial investment. As the taluk is prone for frequent drought and majority of the farmers are small and marginal, this option was really a boon for them.
- ***Technical support on crop management*:** Because of this programme, the NSP officials as well as DHAN professionals gave continuous support to the farmers on crop package of practice. There was a continuous field visit from these officials at regular intervals of the cropping period to monitor the crop. The farmers have got timely advice in controlling the pest and disease attack.
- ***Better yield because of quality seeds*:** Quality of seeds is the one of the most important parameter which has direct impact on crop yield. It may be from better

germination or from resistance to pests and diseases. By getting quality seeds farmers definitely benefited by better yields. As per the farmers view there was around 0.5 to 2 quintal increase in the yield per acre because of quality seeds, good rain and technical support.

- ***Middle men were avoided in marketing*:** Earlier, because of fragmented land and independent farming, people bound to depend on middlemen for the marketing of their produce. As majority of the farmers of the same village were involved in this programme, there was every possibility for collective marketing. This system definitely helped farmers in avoiding middlemen and in turn increased the profit.
- ***Less transportation cost due to collective marketing*:** Again it was a group activity under the association; the marketing was collectively done. The transportation cost was shared by all the farm holdings which have reduced the cost considerably and increased the profit.
- ***Getting precise weight for the produce (Weighing by digital balance):*** Earlier the farmers were easily deceived by the traders through improper weighing practices. Again there was a custom of deducting 1-3 kg per quintal of produce in traditional marketing system. Because of the collective marketing the farmers reaped all these benefits by avoiding this menace and got precise weight for their produce by weighing with digital balance.
- ***Loading and unloading by the farmers*:** It was decided collectively by all the farmers that, instead of employing coolie / hamali, the farmers themselves to provide their labour. They had to face resistance from the licensed coolies. The farmers ultimately succeed in dealing with this issue. By eliminating the cost of loading and unloading, the farmers could get the additional benefit.
- ***Better price***: During the initial period itself, the price for the produce was offered fairly better price. Rs. 2800.00 per quintal was fixed as purchase price irrespective of market price. Accordingly farmers got an additional benefit of Rs.750.00 per quintal as the market price during the period was only between Rs.1800-2300 / quintal.
- ***Timely payment*:** The NSP responded very well and ensured the timely payment for the farmers. By this way also farmers got benefited.
- ***Additional benefits through promotional incentives***: In ordered to motivate and encourage farmers to involve in the seed village programme in the future, the government waived off the remaining 50% of the seed cost. Because of this, farmer could save Rs.1400 per quintal. Since they did not anticipate and the amount was collected at the time of marketing, farmers have collectively agreed to contribute this to the corpus of the federation meeting.

Challenges of the programme: Fortunately we didn't come across any major problems during the entire programme, but it is worth to discuss the anticipated challenges to foresee in the programme to minimize the risk as these bound to happen in the future initiatives. Some of the challenges of the programme are listed here under.

- ***Programme success depends on climate***: Pavagada has received good rain and there was no major pest/ disease attack in this season. Because of this everything went on as planned and there was fairly good crop yield. At the same time the market price for the ground nut at the time of harvest was

between Rs.1800 to 2300 per quintal as against the price fixed earlier by the NSP as Rs.2800 per quintal. So people felt very happy to sell their produce at the NSP and the purpose of the programme was also the same.

- ***Timely supply of seeds***: As the programme under taken was on a large scale spread over vast area, the timely supply of quality seeds to all the farmers of different villages is again a big challenge. There was no stock at the NSP to supply the seeds at the first monsoon, we struggled a lot to procure seeds and finally succeeded to supply the seeds to the farmers at right time.
- ***Repayment of balance 50% seed cost***: This is again a very big challenge if there is a crop failure. We were very much fortunate to have good crop as well as waived off the balance amount so that the federation was able to gain considerable amount of corpus.
- ***Ensuring varietal purity (Avoiding adulteration)***: The farmers who did not participate in the programme in the same village have also grown the crop of their own variety. It was a Herculean task to prevent any adulteration in the wake of good price offered by NSP. Because of our rapport with the farmers and the care taken at every stage in handling this situation we succeed in this aspect.
- ***Storage facilities for stocking***: This is the first time NSP and DHAN have taken up this type of activity on a large scale. As all the farmers went for marketing at the same time, we have faced lot of difficulties in storing the procured produce. But APMC (Agricultural Produced Marketing Committee) officials responded positively by giving five godowns for storage.
- ***Security of stored product mainly against pest attack***: The stored groundnut is highly susceptible to pest attack. Utmost care is needed to ensure that there is no damage for the seeds. So, safe storage of the produce is again a major challenge.
- ***Timely payment to the farmers***: Timely and transparent financial transaction is one of the main prerequisites for the success of any collective activity. Though NSP has first time involved in this type of major programme, the response we got in the timely payment for the produce was very much appreciable.

Learnings of this programme: Learnings from the programme are immense. Every day brought us new learnings and they were so exciting. Some of the important learnings of this programme are as followed.

- ***Proper planning must be there through out the programme:*** There are so many processes through out the programme like cash collection, seed distribution, material procurement, quality control; storage etc., so there must be proper planning for all these activity for the smooth running of the programme.
- ***Grader facilities should be available well in advance***: The groundnut grown under this programme is mainly for seed production purpose. To ensure good quality groundnut pod, the grading of the produce is very much essential. In order to ensure the quality of seeds, efficient grading machine facility should be made available well in advance.
- ***Storage facilities to be ensured:*** Safe storage is very much essential to maintain the quality of the stored product. So, safe and hygienic storage facilities need to be arranged well in advance for smooth operation of the programme.

Impact on the Federation: From the point of view of Federation, the seed village programme has created very good impact both at village as well as at block level.

- *This is one of the unique events undertaken in Pavagada taluk for the first time and around 430 small and marginal farmers from 34 villages have participated in the programme.*
- ***Very good identity to the federation and to the DHAN Foundation:*** The programme has created very good identity to the federation. It also demonstrated the strength of the people institution for doing this kind of collective action. The programme also gave very good identity to DHAN Foundation, which in turn created a lot of scope for many such partnerships.
- ***Very good exposure to the line departments:*** The programme also gave exposure for both federation leaders as well as people about various line departments. The various functions conducted in between the programme have helped people and the department officials to know each other and the facilities available.
- ***Confidence for collective action:*** The programme helped the people of Pavagada, to know the strengths of collective action. It has really brought confidence among the farmers to take up similar initiatives in the future.

Statistics

Some of the important statistics of the seed village programme are stated as under. Though the exact production of the groundnut was not known, but there was crop yield of 5 – 7 quintal per acre of crop.

Area covered under groundnut crop	:	720 acre
Groundnut crop varieties selected	:	TMV-2, JL-24
Groundnut seeds supplied	:	331 quintal
Farmers benefited from the programme	:	430No.(47big,258 marginal, 125 small)
Villages covered under the programme	:	34
Panchayat covered under the programme	:	12
Total crop production	:	4320 quintal
Seeds procured from farmers	:	3050 quintal

Particulars	Quantity	Rate	Amount
Seeds supplied	331 Qtl	2800.00	9,26,800.00
Seeds purchased	3050 Qtl	2800.00	85,40,000.00
Seed certification incentives	1400 Qtl	1000.00	14,00,000.00
Total			**1,08,66,800.00**

Service cost/corpus generated from the programme: As the programme was undertaken as an entry point activity of the federation, the idea was to generate some corpus for the federation for its self reliance. All the important decisions including corpus/service cost generation were taken in the federation meetings. Though the balance 50% seed cost was waived by the government but at the last moment, after the repayment the farmers agreed to contribute this as federation corpus.

Particulars	Quantity	Rate	Amount
Repayment of 50% balance seed cost	331 Qtl	1400.00	4,63,400.00
Service cost as per resolution	3050 Qtl	50.00	1,52,500.00
Certification incentives	1400 Qtl	600.00	8,40,000.00
Total			**14,55,900.00**

Incremental benefits per acre: As mentioned earlier, an attempt was made to know the incremental benefits received by the farmers per acre of crop cultivation. Additional yield per acre was around 0.5 to 2 quintal, on an average 0.5 quintal/acre was taken in to consideration for calculating the incremental benefits from this seed village programme.

Particulars	Quantity	Rate	Amount
Additional yield	0.5 Qtl	2800.00	1375.00
Saving from hamali/coolie	2 kg/bags	22.00	200.00
Savings from weight loss	2 kg/bag	28.00	616.00
Additional price	5 Qtl	550.00	2750.00
Incremental benefit (Rs. Per acre)			**4941.00**

Field day celebration: During the harvesting stage of the crop, the field day was conducted in one village called Gundarlahalli. The main reason for selecting this particular village was easy mobility to all the other villagers. The Vice Chancellor, Agriculture University, Bangalore was the chief guest. The purpose of this programme was to share the learnings and to motivate the farmers for further propagation of seed village technology. The response from the farmers for this programme was overwhelming. The VC has promised to set up a KVK in Pavagada.

Groundnut sandy day: In order to motivate and facilitate farmers for groundnut marketing, groundnut sandy day was organised. The farmers sold the left out groundnut during the event. The purpose of this event was to buy back the groundnut as much as possible to meet the seed requirement. This programme also gave very good result as around 500 quintal of groundnut was procured from the farmers during the event. ■

Survival of the Commons: Tanks of South India

M.P. Vasimalai*

Background

Tanks are traditional irrigation common situated in many parts of Indian sub-continent to capture monsoon runoff in arid and semi arid areas. As per Minor Irrigation Census of 1986, tanks numbering around 500,000 are one of important irrigation resources serving 33% of Net irrigated area in the country. They are found in all soil types except in sand, but found in all socio ecological, agro-climatic and rainfall areas of the country. They are in existence for several centuries serving the water needs of underprivileged communities namely small and marginal farmers. As one of the oldest man-made ecosystems, the tank systems consists of water spread areas, physically constructed structures namely bund, sluices, surplus weirs and water flow structures like feeder canals and surplus courses, wetlands, flora and fauna and inland fishes. Tanks have been serving both as flood moderators in times of heavy rainfall and as drought mitigators in times of long dry spell.

Rationale for Stakeholders' perspective on Tanks survival

Tanks being widely dispersed, if revived to their original capacity, the tanks would ensure direct irrigation and ground water recharge in water stressed, rain 'insufficient' areas. Nonetheless, they are a basis life supporting system in most parts of the state. Being numerous, small in size and spread over thousands of villages, tanks lend themselves to decentralized local management, whose maintenance and management are currently centralized with 'State' government. The irrigation services are far superior in terms of conveyance and water use efficiencies. Moreover, tanks are resource complexes for multifarious uses of the local communities. The most prominent uses include the following:

- Set the agenda for all the primary stakeholders, philanthropic organizations and the community.
- Irrigation, drinking water for people & animals, domestic use for people & animals and recharging ground water acquifers
- Space for animal to graze, to grow fuel wood and timber, fodder, avail silt for manure and sand for construction.
- Sanctuary for birds, animals and bio-diversity complex for flora and fauna and place to rear fish.

The Purpose

The centralized administration introduced by the British Colonial rule had almost wiped out the role of the community in conserving and developing them. Even in free and independent India it is continued to be even more retrogressive in keeping people and locals away in matters related to the tanks. Presently the tanks have many stakeholders such as the Irrigation department, the local Panchayats, the Revenue department, the Agricultural Department, Forest department and the local people. These resources need revival and rehabilitation. The situation therefore calls for major changes in governance, and management, activism of the locals, research in engineering and tankfed agronomy, funding by the governments, and donors. The desired changes can be brought about only when the various stakeholders are brought to a common platform to share their views on the need for sustained management. It is therefore decided to consolidate the experience of the constituents dependent on tanks. Some attempts for reforming the system and administration were made by the various stakeholders like the farming community, government and non-government agencies, research and academic institutions. Such efforts were sporadic and did not culminate into any appreciable policy change. Therefore a series of the stakeholders' meets, discussion groups, future search meets and Farmers Conventions were organized to sharpen the understanding on tanks. DHAN Foundation across the state, representing various agro-climatic and sociological setting selected five

***M.P. Vasimalai,** Executive Director, DHAN Foundation. Presented at "Survival of the Commons: Mounting Challenges and New Realities," the Eleventh Conference of the International Association for the Study of Common Property, Bali, Indonesia,

basins to get a glimpse of transition in tanks and tankfed agriculture. The objectives of this exercise was to

- Bring together the major actors involved in the theme, to evolve and shape the future of tanks
- Set the agenda for all the primary stakeholders, philanthropic organizations and the community.

Stakeholders Meet

There are many stakeholders in the tank and tank programs, of which the government agencies, farmers and research institutions are important. The government officials, institutions and farmers were invited for the meet to listen to each one's views on the tank systems. The meet focused on the status of tanks, tankfed agriculture, tank administration, encroachment and the improvements needed on these aspects.

Future Search Meet

The tank as a resource has got multiple uses and users. The Future Search Meet was to ascertain the perspectives of all the users of the tank and village. Representatives of the various users have debated on the subject of the tank. The agenda for discussion included. The past uses of tanks; Tank maintenance; Changes in Tank Productivity, Crops, Well Irrigation and Water Management before and after independence; Reforms proposed for Administration, Usufructs and Water management; Tank Rehabilitation and its need; present & future scope of developing tankfed agriculture.

Farmers' Convention

A Convention of Farmers from 175 villages was organized to hold discussions. Nine preparatory meetings were also held with the participation of around 100 farmers from block towns and key villages. The discussions focused on the topics like – the general status of tanks in the blocks; rehabilitation programs in the area; farmers' participation in the programs; tank encroachments and tank productivity. DHAN Foundation staff organized such meetings.

Conservation: Need of the Hour

The frequent droughts witnessed by the country makes us to think about opting for simple and robust solutions for solving the water problems for all uses and users in the country. Since many parts of the country are endowed with tanks the need of the hour is to safeguard these properties by way of conservation measures. Also, it is important that the new found enlightenment in water harvesting or catch water is good to start with. However, ignoring what we have will be unwise and we may have to regret.

Unfortunately, most of the watershed projects or water development projects across the country irrespective of its title and stated objectives are indulging in creating new structures whether it is scientific or absurd. This new structures in most cases are either short-lived or never bear fruit and become infructuous for want of so many reasons. Therefore, to strike a balance to stabilize the tank dependent communities we may need to think about the conservation of tanks which have existed for such a long time.

The rise of ground water irrigation in the country is forcing the cost of farm production higher and higher leading to bankruptcy of farm households in the countryside. Even, in most acclaimed ground water areas the phenomena of ground water drought is being faced. In most of these ground water irrigated areas agriculture is becoming costlier and unsustainable due to the rapidly falling ground water tables. They are in need of a major recharge programme. To start any recharge programme we have to think of larger surface water

bodies to have an impact. The tanks and ponds spread across the village offers good scope of recharge and at least stabilizing agriculture if not raising the productivity of the farms.

Also it is important that many of the cities and rural household depend on ground water. According to the recent figures around 75% of the drinking water requirements in the country are met by the groundwater recharges. This is by any means is a dangerous signal for the drinking water planners in the country. The reasons are very simple that the extraction will never be made equal by the present recharges including the new found enthusiastic harvesting measures. The geo-hydrology of most parts of the country leaving a few riverine sandy aquifers is hard rock or its variants. In all hard rock areas occurrences and recharges of Ground water is directly related to the storages in the surface water bodies. Therefore, by all means it is wise and simple without wasting money we need to go ahead for conservation of the existing tanks across the country.

Our studies and experiences in South India shows that the scope of preserving the tanks is enormous and only political will and awareness of the situation is needed and nothing more. The money being used in various water programmes and artificial recharge programmes will bear immediate fruit if tanks and ponds are saved simply from the extinction. The conserved tanks and ponds will serve a long lasting multiple uses and purposes for various communities including the urban areas.

Challenges facing Conservation of Tanks

There are three kinds of situations in small scale water sector which include village tanks based on their potential and usage.

Region	Focus
Andhra Pradesh, Karnataka & Maharashtra, Kerala, Tamil Nadu, Gujarat & Rajasthan	Conservation or revival, modernization or adaptation except in selected pockets
Bihar, Orissa, M.P, parts of U.P. and W.B.	Scope for Development (new)
Hilly regions of North East, Himalayas etc.	Both Conservation and Development

Based on situations, either conservation or development, or both assume significance. The challenges to conservation and development are:

- Technological challenge for restoration / conservation and development
- Institutional challenge for revival / conservation and development
- Financial and human resources challenge for revival and
- Redefining the role of the state, research institutions, resource institutions, NGOs and the local community for conservation and development

Technological Challenges

What are the technologies available in small scale water sector? Contribution of the local people with their indigenous wisdom only runs the village tanks. Scientists and engineers are mostly 'attracted' or 'pulled' to major and medium irrigation sector in the country. Their contribution for tanks has been comparatively inadequate. A new ' thrust' should be given to work on this sector on the following lines:

- Developing new technologies to make tanks more relevant in a given context by way of identifying techniques of maximizing tank productivity, ground water recharge and other tank services.
- Documentation of indigenous knowledge system on small scale water technology: CSE, New Delhi has shown the way by publishing 'Dying Wisdom'.
- Initiating R and D in this sector by persuading research institutions to come out with field oriented research projects on the sector's significant contribution to poverty reduction and to tap the full potential of the rural poor.
- Technological intermediation has to be done because "Technology is not class neutral or even scale neutral". What is technological intermediation in SSW sector? Indigenous knowledge system could be validated scientifically for its application and dissemination. A new hybrid of technology could be developed by cross-fertilizing indigenous technology with modern water technology from research institutions. Otherwise, technology related to major and medium irrigation sector could be 'intermediated' to suit to small scale and for the local people's adoption.

Institutional Challenge

Many forms of local institutions, both formal and informal are in existence managing village tanks. Yet so many small structures are without local institutions. Hence a range of actions has to be initiated or evolved.

- Regeneration of local institutions
- Formation of new local institutions
- Development of nested institutions on horizontal and vertical line to build the sector
- Integration of these local institutions with panchayat and other mainstream institutions.
- Development of 'good governance' at all levels of these institutions by systematic capacity building programmes
- Creating a 'new generation of local workers' for the village tanks by systematic training.

Financial and Human Resources Challenge

More and more funds are flowing continuously to major and medium Irrigation sector because of political compulsions and lack of 'pull' from tank sector. A new way of thinking (mindset) has to come among policy makers, development planners, implementers, resource allocators and users. Repeated, strong message and advocacy have to be given to the above categories of people through rigorous field interaction and 'Dialogue Workshops'. There is no dearth of money in this country. Each DRDA in the country on an average spends at least Rs.10 crores annually for various schemes of poverty alleviation in the villages and apex financial institutions like NABARD, and other Banks do have 'loan able funds'. What is needed is an enabling policy and a strong, demand from local institutions and the civil society.

It is found that the local people often ask for 'rights' to use the usufructs, for the conservation and up-keep of tanks and ponds. Therefore empowerment of local institutions with 'rights' over tanks, in consultation with the Panchayat Institutions, and substantial allocation of financial resources (grants and loans) for 'massive' implementation of rehabilitation programme will help to conserve and develop the village tanks and ponds.

Redefining the Role of stakeholders

The institutions working on the tank fed agriculture have acquired those in the height of the colonial days

Institutions	New Role	Role to be dropped
1. State	• Rigorous regulation & enabling policy and empowerment of people's institutions • Encouraging market investments • Technical and • Managerial support • Resource augmentation	• Implementation role & implementation staff • Outdated legal framework • Control perspective
2. Research & resource institutions	• Study and documentation of existing practices • Experimentation • Opening new frontier • Outreach & field oriented research and studies	• Conventional outlook • Outdated curriculum & polices • Exclusive reliance on campus based activities
3. NGOs	• Understanding people's needs and aspirations through committed work and pilot field works • Enlarging into research and resource institutional areas • Liaisoning with Government research & resource institutions & people's organisation	• Conventional social outlook • Ordinary quality staff & programmes • Conventional institutional view
4. People's Institutions / Community Institutions	• Vibrant civil society-sharing governance • Setting agenda for mainstream institutions & social auditing of those institutions	• Expectations of doles & subsides • Divisive parochial views and tokenism

and most of them serve no purpose other than holding offices. Greater challenges are forcing them to be in the race of development in a meaningful manner and our analysis indicates the following matrix of the roles to be dropped and acquired.

Revival of Tanks as measure of Tank Conservation

A tank comprises the catchment area, feeder channels; water spread area, outlet structures (sluices), flood disposal structures (surplus weir) and command area. It is reported that more than 70 – 80 % of the minor irrigation tanks need renovation to restore them for normal functioning. Conventionally the following terminologies are in practice related to tank works.

- ***Tank Rehabilitation/ Restoration/ Renovation:*** The tanks which are dysfunctional are brought to normal functioning by way of undertaking works on breach closing, tank bund strengthening and repairs or reconstruction to the sluices and weirs.
- ***Tank Modernisation:*** Normally functioning tanks are selected to modernize their structures so that their functional efficiency is increased. Typically the traditional sluices are dismantled and sophisticated semi-mechanical sluices and gates are constructed. Also lining of channels and liberal cement works are allowed to undertake.
- ***Tank Desilting:*** Over the centuries of time, tank water spread area has been filled with silt, sand and earth by way of soil erosion. This huge volume of silt is being removed in few places where liberal funds are available. However there cannot be any single way to resolve this massive problem of desilting in all the tanks. ■

Impact

Land development in Rainfed Farming

M. Karthikeyan*

It is essential to understand the mindset of farmers and other contextual features of the area to understand the activities undertaken by them in managing their natural resources, particularly their land. The farmers in Nattarampalli block of Vellore District invest a lot in upgrading their land. In recent days farmers no longer see farming as worth enough for investment. In contrast, farmers in Nattarampalli are continued to invest on their land. Even returned migrant farmers, after meeting immediate family needs, go for investing on their land. More than 80% of the farmers fall under small and marginal category, that too with fragmented parcels of land. Undulating terrain is common in upper part of the watersheds. Another contextual feature is that significant portion of the cultivated land came into private ownership, just before three to five decades. Earlier those lands were part of the forest and village common property.

We have chosen land development approach rather than soil and water conservation approach. Here what we mean by 'land development' is all fixed investment interventions that enhances the suitability of land for cultivation of crops. We followed this approach in alignment with the perspective of the farmers and the experiences of the farmers in such activities. The indigenous methods used to develop lands had a number of advantages. The examples were silt application, *Prosophis* and *Cyanodan dactylon* clearance and conversion of uncultivable land into cultivable land. The land development activities taken up by the farmers on their own were land leveling, stone bunding and silt application. The other common activity was conversion of uncultivable land into cultivable one.

Land leveling

Land leveling is nothing but removing soil from the upper portion of the land and filling the lower portion so that both of them come to

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the same level. The farmers have shown more interest for land leveling in Nattarampalli. They leveled their lands along with earthen or stone bunding. Having convinced on the utility of this work, in spite of heavy investment needed for this activity, the farmers have gone in for this work in many places. It was a common practice to cut surfaces ranging from 0.75 to 3 m in the field area. Another related aspect was that they took up this activity in the areas where the soil depth was very shallow. Farmers said that they will bring back the original fertility level within two to three years by sheep/goat penning and / or by application of silt. One more interesting aspect of this activity was that only well to do farmers has gone for one time investment. The other farmers did this over years step by step. In situ rainfall conservation could be an expected output. But the aspiration of the farmers was not just soil and water conservation. Asset upgradation was their ultimate goal, with the aim of enhancing the production potential of limited parcels of land they own, as much as possible. So far 284 acres of lands were leveled by farmers with 25% contribution. The value of work done was Rs. 23.13 lakhs; but in reality they went beyond this and did works worth of 130 to 200 % of their actual estimate. The following impact was observed in the field.

- Increase in yield due to better rain water conservation
- Increase in income due to conversion of rainfed land to irrigated land as this makes possible assured yield of both food crops like paddy and finger millet but also cash crops like vegetables and sugarcane
- Improvement in food security
- Increase in the value of treated land and so increase in asset base
- Increase in employment due to increase in cropping intensity

Stone bunding: This activity was carried out exclusively or as part of land levelling. We have observed three kinds of stone bunding in Nattarampalli.

Slope stabilizing Stone Bunding is the most common structure, made of one column of stones. It stabilizes the steep slope created during land leveling. When the height was more than one meter, large boulders were used.

Gully Levelling Stone Bunding helps reclaim the land lost through gully formation. It is usually made with two columns of stone bunding, in between space filled with rough stones and wet soil. The breadth depends on the depth of gully and erosive capacity of the water course. This intervention is a classic example of *"concentration"* approach instead of the conventional *"conservation"* approach, where the soil is expected to stay in the same field. Because of the stone bund, soil from far away fields start accumulating (concentrating) in the gully and in a matter of 5 to 10 years the farmer gets a piece of land rich with surface soil, in the place of the gully.

Boundary marking Stone Bunding resembles the slope stabilizing stone bunding but built for marking the field boundary and to ensure that the nearby farmer do not push the boundary.

The stone bunding activity seemed to be very suitable for this area since a lot of stones are available in the local area. Many times stone bunding and rock removal were combined so that the farmer reveive double benefits from a single activity. It is such an old practice in this location that we can see a large number of stone bunding which are up to five decades old. There is even a mini-dam like stone bunding which is more than 80 m length and 2.5 m breadth. Because of our intervention, stone bunding running for a length of 10554 metres was taken up in 10 watersheds with 25% contribution. The value of work done was Rs. 7.70 lakhs. Because of stone bunding, we could observe increase in yield due to better rainfall and soil

conservation and increase in the value of treated land that resulted in increase in asset base.

Earthen bunding: The common type of earthen bunding is done to retain soil brought during land leveling. Earthen bund is to retain run off Soil from upper part of the field is less preferred because the farmers think that they lose significant land area. Even if the third type of bund is created, it is done by scooping soil from the down stream and / or by moving the soil from upstream, and rarely by making trenches in the upstream. So this activity is more like an introduced activity. So far 12,081 running metre of earthern bunding was taken up in 10 watersheds with 25 % contribution. The value of work done is Rs.1.68 lakhs.

Conversion of uncultivable land into cultivable land

This is also a common activity undertaken under NRM component by the farmers. This activity usually involves rock removal, jungle clearance and land leveling in land closer to the cultivated land. The strategy of the farmers was to increase the area under cultivation (i.e. asset building), to the potential limit, as most of them were small and marginal farmers. Sometimes the expenditure was so high to an extent equivalent to buying the same area. Farmers willingly have taken up this activity though they had to contribute 50% of the estimated cost of work. So far 14 acres were brought under cultivation by farmers. The value of work done was Rs.3.23 lakhs; but the farmers did works worth of 150 to 200 % of the estimate. This activity could result in increase in income and employment due to increase in area cultivated, improvement in food security and increase in asset base.

Tapping subsurface flow through ponds

Farmers have tapped subsurface flow by constructing small ponds and shallow well, wherever there was a potential. Even if there was no surface water supply these ponds automatically got supply from the subsurface. It was everyone's surprise that how did these farmers identify such locations. They opine that restoring these structures is the most cost effective activity, as the benefits are immediate and significant. This type of intervention has helped them to increase their income and employment due to increase in area cultivated. Improvement in food security by protecting crop yield was the other major impact as these ponds serve as life irrigation source and some times as sole irrigation source in wet and dry cultivation.

Soil amendment:

Soil amendment is a popular activity in Nattarampalli. Farmers add silt in red loamy field and add red soil in heavy clay and calcareous soils to improve the soil structure. Besides that silt is commonly applied to worn out soils and freshly leveled lands to compensate for lost fertility. Though the state agencies do not recommend this activity due very high possibilities of frauds. So far soil amendment was taken up in 225 acres by farmers with 25 % contribution. The value of work done was Rs.10.79 lakhs; but most of the activities were taken up with an investment which is more than estimated. About 30 percent increase in yield and income due to better rainfall conservation and fertility was the impact realized by the farmers. It also helped in desilting of tanks and ponds.

Following the farmers' way for NRM in watershed scheme

Taking up indigenous/well established activities under watershed scheme helps in,

1. Facilitates easy collection of farmer's share / contribution
2. Implementation by the farmers themselves ensures the highest level of quality
3. Triggers value of work which is significantly more than allowed estimate, both in terms of size of the sanctioned activity and also the additional activities not included in the estimate, but taken up by farmers. This results in increase in private investment as a response to external support.
4. Results in high level of ownership and satisfaction.
5. Results in dispersed treatment of the watershed area, rather than the conventional ridge to valley approach conventionally recommended.

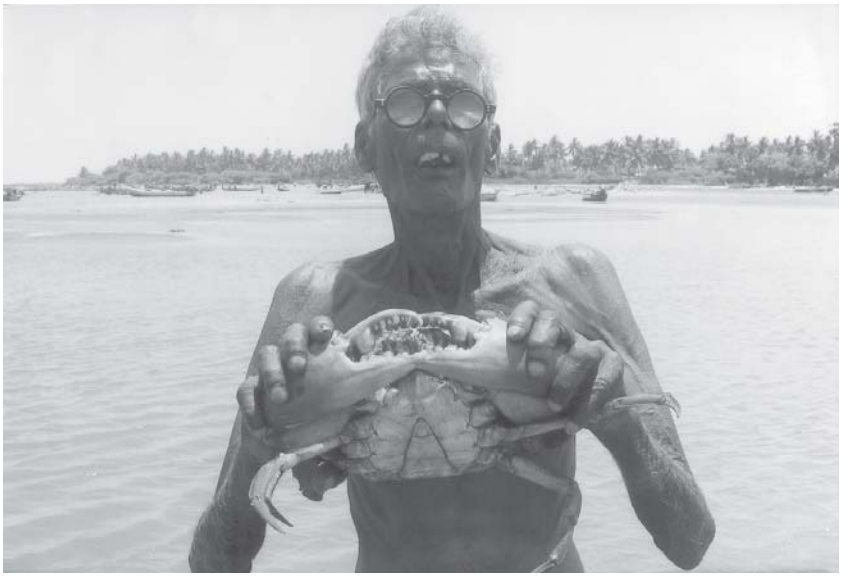
Conclusion

The farmers in Nattarampalli, being small/marginal farmers use asset upgradation and asset building as the main strategy for land development. Soil and water conservation is only a part of the implementation of these strategies. While benefit stream is difficult to calculate for the above mentioned activities in the rainfed situation, the increase in asset value very well compensates for investment made. Following their own strategies for implementation of watershed scheme though deviates from conventional ridge to valley approach, has many operational and impact benefits. ■

Mud Crab fattening

P. Lakshmanan*

Mud crab fattening is undertaken in the states of Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Orissa and West Bengal as a livelihood alternative by the fisher folk. The mud crabs inhabit marine as well in brackish water environments. Two species of mud crabs, namely ***Scylla tanquebarica*** and ***Scylla serrata*** are found in the inshore sea, estuaries, backwaters, coastal lakes and mangroove swamps of all maritime states on the main land and the creeks and bays of Andaman and Nicobar Islands. Both the species co-exist in the inshore sea as well as in the inland brackish waters preferring muddy or sandy bottom.



Crab fattening is essentially a holding operation during which post-moult or water crabs are kept for a short period of 20 days until they 'flesh out' or immature female crabs are held until their gonads develop and fill the mantle cavity. This type of activity has become very popular throughout the Asian countries due to increasing demand for gravid females and large size hard shelled ones in seafood restaurants.

Technical Parameters

Mud crabs grow to a very large size of about 22 cm in carapace and about 2 kg in weight. The crabs belonging to the species S. tranquebarica is free living and grows to a large size with carapace width of 22 cm and those of species S. serrata have borrowing habit and grow to about 12.7 cm in carapace width. Mud crabs are omnivorous and they feed on a wide variety of food items such as shrimps, crabs, bivalve molluscs and fish.

The females reach sexual maturity at a size of about 12 cm in S. ***tranquebarica*** and 8.5 cm in ***S.serrata*** in the brackish water. Both the species are continuous breeders with peak breeding seasons which vary from place to place. The peak seasons of seed abundance is May to October along the southwest coast, December to May in Madras coast and March to June in Chilka Lake. Each crab spawns once in two months. The number of eggs carried by ***S. tranquebarica*** are about 1.1 to 7.0 million and by ***S. serrata*** are 0.5 to 0.9 million. The berried females migrate from estuarine areas to the inshore sea. The eggs hatch out in the sea and undergo metamorphosis and then they migrate to brackish water areas and spread to different parts of the estuarine systems.

Mud Crab seeds: Seeds are available at all sizes. Juvenile crabs can be collected from estuaries, lakes, backwaters, creeks, mangrooves and salt water lagoons by using bamboo traps, lift nets or scissor nets. A hatchery is being set up at the Central Marine Fisheries Research Institute, Kochi for commercial production of crab seed.

Duration of Mud crab fattening:

Mud crab fattening is done by stocking soft shelled crabs or water crabs that are held in smaller impoundments for minimum 25 days to 45 days, it is depending upon size of water crab to till the shells are hardened. The techno-economic parameters required for crab fattening are briefly described.

***P. Lakshmanan,** Regional Coordinator, DHAN Foundation, Karaikal

Soil quality

The soil suitable for crab fattening is sandy or sandy clay. A sand bottom inhibits burrowing.

Suitable place:

Mud crab fattening Suitable places are brackish water/ backwater channel, Near to mangroves plantation, High clay content ponds are suitable and recently we are tried in back water with gauge system to ensure desired out put.

Water quality

There should be availability of abundant and good quality water. Mud crabs are highly tolerant to varying salinity conditions, **so brackish water** would be ideal for crab fattening operation.

Salinity - 10 to 34 ppt.

PH - 8.0 to 8.5.

Temperature - 23o C to 30o C.

Dissolved oxygen content - should be more than 3 ppm.

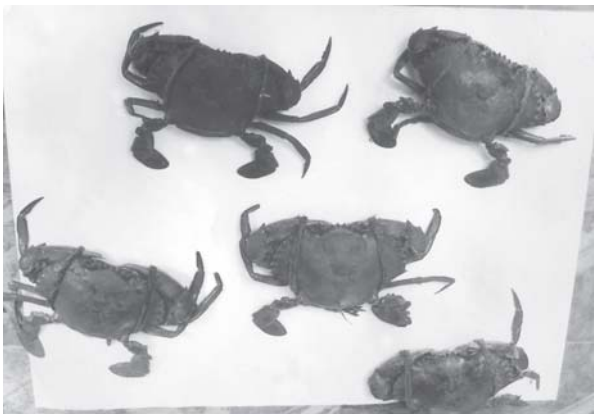
Depth of the brackish water or Backwater channel

The depth of backwater channel is more than 2m is required, during summer, the water temperature may increased in result the mortality rate may increase.

Water supply and drainage

Water exchange is through tidal water is a height of 1.5 m to 2 m.

Suitable villages in the villages where we are working are in Coramental coasts like Kodiyampalayam, Palayar, Madavamedu, Madathukuppam, Thirumullaivasal Karaikal and Nagoor. In addition, Bay of Bengal coastal region is very much suitable for this activity moreover; seed materials are available in large scale.



Number of mud crab per gauge

1. Soft-shelled crabs of size 8 cm carapace width and above or crabs of more than 550 gm required
2. FRP floating Cages :
   - Size: 1Mtr x 1Mtr x 35 cm
   - Compartments: 6 Nos
   - Finolux PVC'3" Floating Pipes
   - Water flow holes 1" dia Mtr.
3. The 15 no. of Mud crab fattening gauge is required per family to earn additional income of Rs.12,600 to 14000 per year.

Feeding

Crabs are fed with bivalve meat or trash fish. Feeding is done daily at the rate of 5 to 10% of body weight. The duration of fattening is minimum 25 to 45 days, depending upon size of water crab to till the shells are hardened. Normally the fishermen used to feed the waste fishes or chicken waste. No special feed is available in the market for mud crab. They could save Rs.2800 per year for seven harvests by using fish wastes as feed for mud crab fattening. Therefore, each family can get Rs. 15000 per year as additional income through this activity.

Harvesting

The crabs are harvested after the shell becomes sufficiently hardened and before next molting. The harvesting is done by removal of gauge from backwater by using rope and the door will be opened using scoop nets and ring nets with baits. Harvesting should be done in the early morning hours or evening to prevent mortality of crabs due to overheating of water during midday. In a year, four to five cycles of fattening can be taken through this gauge system.

Marketing

In India, the importance of live mud crabs as an export commodity has opened up great opportunities for crab farming / fattening. At present, crab has good market and in the future crab is poised to be the next potential sea food in the world market among the edible marine crustaceans after shrimp and lobster.

Financial outlay

The items and cost indicated under the model are indicative and not exhaustive. We prepared this project after assessed and taking into account actual field conditions during last one year under pilot at Thirumullaivasal village in Sirkali block of Nagapatinam District. The capital cost

for I unit has been estimated Rs.45000/ and operational cost for one crop harvest approximately Rs.2000 per harvest of 15 to 20 mud crab per harvest.

The financial viability of the activity

Culture Period	45 days
Stocking density (100 nos of 350 gm each)	6 crab / box
Survival	80%
Weight at harvest	>500 gm.
Expected production	12 to 15 kg / per harvest
Procurement (Market) rate	Rs.125 to 150 per kg.
Cross profit	Rs. 3600
Net profit	Rs. 1800

Recurring cost/Operational Cost for one cycle (20 days)

Particulars	Units	Quantum	Rate (Rs.)	Total
1. Cost of soft crab	15 to 20 nos of 350 to 500 gm each	5.5 to 10 kg	Rs 125 to 150/kg	1500
2. Feed	2 kg/day	45 kg	Rs 10/kg	400-450
3. Labour charges (travel/additional income) half an hours spent per day.		one	Rs 20/day	400-450
Total				**2300-2400**

Production & Income

Survival	95%
Average weight at harvest (gms)	750
Total production (kg)	13 kgs
Market price- Average (Rs)	250
Number of crops per annum	7
Income per crop (Rs.)	1800 to 2000
Income during 1 st year (7 crops)	12,600 to 14000

Financial Analysis

Items	Year
	1
Capital cost/Investment cost	4500*10 boxes=45000
Recurring cost/Operational cost	2000*7=14000
Total cost	59000
Cross Benefits	3600*7=25200
Net Benefit	12,600 to 14000

Market rate Index: (Marketing through local Agent at Cuddalore)

Grade	Weight required to attain grade	Rate per kg (in Rs)	Remarks
1. A- Excel	> 800 gram	360 to 430	Cash payment
2. B- Big Size	500 to 780 gram	230	Cash payment
3. C- Medium Size	< 500 gram	120	Cash payment

Learnings for further improvement:

1. Need to maintain duration (two full moon days) for attaining 1kg per crab, so that more profit can be earned.
2. Cost per seed crab is high that has to be reduced through fishermen tie-up for raw material supply through out the year.
3. Need to maintain 60 crabs per harvest; boxes are available to rear this much. So scale is more important to get more profit.
4. Cost for feed is to be reduced (i.e.) fish and poultry wastes can be used rather than buying feeds
5. Maintaining 60 units will help tie-up with Chennai based exporter, so that Rs. 50 per kg can be earned as an additional income.

Risk and Mitigation

1. Water temperature to be monitored, hot water will increase the mortality
2. Water flow is to be ensured always
3. Daily two times feeding to be ensured
4. Maintenance for a minimum duration of 20 to 22 days should be ensured
5. Wash and dry FRP floating Cages for two to three days to avoid the disease spread or disease out break. ■

Rural India Learning Journey and Indian Americans

Dear Friends

In December 2007, twenty-four Indian Americans including me, accompanied by a couple of Indians, took time off for a week's visit to rural areas in southern Tamil Nadu. We called it a "learning journey". Most of the areas visited fell within what is geographically known as a rain shadow region, i.e they get very little rainfall. The livelihood of the farmers in these areas is heavily dependent on scanty rainfall. They all suffer from acute shortage of drinking water and water for growing crops.

Three of us then branched off to spend an additional week in Karnataka (in the Mysore region) and Maharashtra (in the Pune region), again, mainly in the rain shadow areas. In the last leg we were joined by a fourth colleague.

Before proceeding further, it would be appropriate to quote from Alan Greenspan's book, "THE AGE OF TURBULENCE", which was released just a few months ago. This is what Greenspan has to say about rural India (pages 320-1):

Rural India is mired in a level of poverty as bleak as anywhere in the world outside of sub-Saharan Africa. Here is where a high concentration of India's illiterate (two-fifths of the adult population) and most of the more than 250 million Indians who live on less than $1 a day reside. Half of India's homes have no electricity. Productivity on farms is only one-fourth of what it is in non-farm areas. Rice yields are half of what they are in Vietnam, and a third of what they are in China. India's cotton's comparative yields are even worse. Wheat yields, which so benefited from the enhanced seed of the green revolution of the 1970s, are still only three-fourths of China's. Only in tea is India more productive than its Asian competitors. Moreover, Indian road transport linking farms and cities is so inadequate that output of perishable crops is largely retricted to on-farm consumption; a third of crops is reported to rot en route to market.

All that Greenspan says is substantially true. However, what impressed me most from our trip is that things are changing.

Some of India's dynamic social entrepreneurs, otherwise known as NGOs, are in action lending a helping hand to transform rural India. What we saw and experienced gave us renewed hope that rural India is NOT a basket case — that many villagers in areas of scanty rainfall are pulling themselves up, making heroic efforts to conserve rain water resources, and thereby markedly improving their livelihood. But a lot, lot more needs to be done.

The following despatch will be the first of a series on my impressions (and the impressions of my colleagues) of what's happening in rural India and what the Indian American community can do to lend a helping hand to make sure that rural India catches up with the rest of the country in economic progress over the next decade or two. In preparing this, I have drawn freely from the notes on our trip written by my colleagues, Uma Balakrishnan, Vedanth Kadambi and Ram Krishnan

In southern Tamil Nadu, we met and were taken round by some of India's outstanding social entrepreneurs — who have remarkable achievements to their credit in reducing rural poverty — including the following:

The Gandhigram Rural University at Dindigul We heard an eloquent speech by Prof Palanithurai on what this deemed university is doing to train and extend handholding support to rural India's panchayat leaders in the areas of governance and development from below. An encouraging fact mentioned by him is that 50 percent of Bihar's panchayat leaders work with the university. The university has its focus on employment generation in around 40 villages in nine panchayats.

We divided ourselves into two groups to visit a couple of villages. One of them, with 300 families, subsists on flower growing on account of water scarcity. Lack of public toilets is the first anomaly that strikes us, the urbans, as we listen to the trials and tribulations of the women who have

to defecate in the fields nearby. There is an elementary school, i.e. classes up to the V std, and after this children have to walk or cycle their way to a high school 4 km away in the next village. The nearest primary health centre is again 4 km away and medical emergencies have to be taken there.

In stark contrast to the lack of amenities is the overflowing love in their hearts as we congregate in the first village to partake of the breakfast that the village women served us. This is followed by a group interaction as we sit in a circle and talk to them. One of our group members remarked, 'these people don't need anything from us. See the women are so well groomed and their faces radiate happiness." It must be the typically Indian attitude of accepting their lot stoically and smiling in spite of all adversities!

Our journey has the right balance of theory and practice! I refer to the various talks that we listen to from various volunteer officials who gave us an insight into the work that is going on toward the economic and social development of the villages. A noteworthy feature here is the group of undergraduate students at the Gandhigram Rural University who are called Samaaj Shilpis (community workers) and who act as a bridge between the rural university and the villages.

We visited a school — Sowbhagya Illam (Children's Home) — run by the Gandhigram Trust for indigent and abandoned children which has a strength of 170 — 120 girls and 50 boys. We had a taste of the nutritious food being served to the children. The school depends wholly on donations.

DHAN Foundation (Development of Humane Action) of Madurai — which

"has been working on identifying various development needs [of villagers] and enabling the local community to take charge of the challenge to find solutions for it...The development needs brought to focus so far are, creating safe drinking water sources through reviving the life saving ponds, bringing light to the remote households by providing access to electricity, stabilizing the livelihoods of the dry land farmers through construction of farm ponds, support to set up multi purpose community resource centres, life saving surgical and health care support to the poor, opening new avenues to the under privileged children through education program and bringing back the lost glory to the green fields of rural areas through rehabilitation of tanks."

DHAN has set up the Kalanjiam Foundation which works with 3.5 lakh poor families organized into 22,300 kalanjiams (self-help community banking groups) spread across 6000 villages in 11 Indian States. This has been a highly successful program in organizing women into mutuality groups which has facilitated poor women to take control of their own development by partnering with banks, government departments, insurance companies, markets, to break the shackles of poverty and improve their lives.

We visited some of the Kalanjiams. Each of the women we met looked so ordinary, and yet each one has a tale of extraordinary grit and success as they overcame the trampling of a male dominated, poverty ridden existence. We visited the Vaigai Vattara Kalanjiam Women's Self Help Group and learnt how microfinance is changing their lives. One amazing woman we met was Chinna Pillai Amma —the president of a federation of Kalanjiams consisting of 40,000 women — an "untouchable", supposed to be practically illiterate. She spoke to us and answered questions on what the women were doing to transform their lives. We came back convinced that this so-called illiterate woman had leadership qualities of an unusual order.

The next day at Ramanathapuram we added two new Tamil words to our repertoire, Oorani and Eri. Ooranis, we learn, are natural ponds in existence for centuries where rain water collects during a very brief monsoon. Eris are large water bodies similar to lakes. It's an ongoing task to desilt these ooranis and maintain them so that the village preserves its only storehouse of drinking water for the whole year! Yes, we never can see a single tap or plastic pipe that carries water as there is no running water in these villages. Women walk a distance of 2 -3 kms daily to fetch water for their daily needs! We visit the underdeveloped villages to understand the tank fed agriculture development. A highlight of this day is an impromptu sponsorship of the deepening and development of an oorani in Sengottaipatti village by the visiting group members. All the families in this village of 320 families (1400 persons) belong to scheduled castes ("untouchables"). The existing oorani requires deepening, a draw well and fencing. Cost Rs.4 lakhs — the villagers will contribute 1 lakh by way of labor, DHAN Foundation will contribute Rs.80,000 and the remaining 320, 000 the visiting group agreed to donate.

19th December sees us reach Tuticorin, one of Tamil Nadu's driest regions. We visit the village of Kurlayampatti, in Vilathikulam panchayat. The members of the SHG (Self Help Group) at the Bharathiyar (a Tamil poet and freedom fighter) Community Centre greet us. This is a thatched, temporary building and this centre focuses on water, agriculture and renewable energy. In the village of Veludupatti the locals enthrall us with their native folklore dance called oyil kummi. And so it goes on, endless village roads and dirt tracks, endless agendas that need to be done to bring about self sustainability to these clusters of hamlets.

Vivekananda Kendra in Kanya Kumari — India's lands-end. The Kendra is run by dedicated volunteers who look into sustainable development in the fields of water management, cost- effective construction technologies, sustainable agriculture, holistic health and renewable sources of energy. We learnt that sustainable architecture can build you a house that can benefit the entire planet! The Gramodaya Park for Right Living educates us on the need to have an environmental, social and spiritual consciousness.

We found every village visited to be different. Some are in a really bad situation. Some have made modest progress. Basically the villages all require water, education, health and livelihood. One of the members of our team, Vedanth Kadambi, had the following observations to make:

"I have learned something that I did not know before - the Indian villages, in spite of all the difficulties they experience (lack of water, lack of power, education, etc.), consist of people who are joyful and trying to do their best under extremely difficult circumstances. They are not looking for a dole out from others. They are trying to lift themselves with their own efforts for the most part and need some assistance and direction at times. It was a pleasure to see them and talk to them. Let us do our best to help them in every way we can. We will have discharged our duty to ourselves and to the rest of world through the support we provide them.

"I believe that many of us (including me), would not have known how to begin the process of starting the process of understanding the problems the villagers face, even though we had all heard of some of their difficulties. I had expected to see grinding poverty in the villages with starving children and gloomy faces looking for help from the government and others for everything. What surprised me more than anything else was the cheerfulness that I saw - something that is not seen in the urbanized communities of the world (India and USA included). It shows that affluence is not by itself the answer to a happy life. I had read earlier in a newspaper that Indians were by and large, the happiest people in the world. I had assumed that the results of the survey that the newspaper cited were completely wrong! It may be that the survey is right and the reason is probably the state of mind of the people. They are happy with what they have and will try to improve themselves. However, they are hopeful of the future and will do their best. That is the spirit - that which will lead to success fast if their energy is channelized properly. The old woman at the first village to whom I spoke near Dindigul is right. She has got her children educated even though she has next to no money. One of them who is about to earn a bachelor's degree and told me that she wants to go on for a Master's degree thereafter. These are the types of people who will become the leaders of India in the next few years".

A colleague who was instrumental in making a success of out Tamil Nadu rural learning journey program, Ram Krishnan of Minnesota who is himself

involved personally in the development of the villages in and around Vilathikulam, is connected with some 60 overseas pioneers of Indian origin working in different parts of India. It's our fervent hope that we will be able to find at least 2500 pioneers of Indian origin soon — three for each district of India.

The best thing to have happened in India's rural transformation is the creation of Self-Help Groups (SHG). Practically all the SHGs in South India consist of women. They are still not that common in the North of India. A typical SHG has 20 women who save Rs 50 every month and place it in a savings account. The SHG performs four key functions:

- First, by saving money they extricate themselves from the clutches of the money lender.
- Second, they start loaning money amongst themselves at a monthly interest rate of 1.5 percent per month (money lenders charge an annual rate of 70 percent or more).
- Third, after saving over a period of two years or so, they start engaging in revenue producing economic activities useful to the SHG and the village community.
- In the fourth stage, they become a key part of the Grama Sabha and participate in the development of the village.

A majority of the SHGs in South India are somewhere between stages 2 and 3. There are, of course, a very large number of villages still to be covered in the South as also in the rest of India.

Cheers,

Ram Narayanan
US-India Friendship

The author was one of the organisers of the Learning Journey and this article appeared in the website at http://www.usindiafriendship.net/rural-india/LearningJourneyReport.htm

Events

10000th water purifier!

During the Dream Action, launched by DSM in 2002 on the occasion of its 100th birthday, DSM employees were challenged to use their knowledge to create a better world. The price winning idea was a straw that removes harmful bacteria from water. That dream became reality in the Water4Life project in which the straw has finally evolved into a water purifier for the poor family.

Thanks to this smart invention, the Water4Life project could be set up. In the wake of the tsunami disaster, additional funds were made available by DSM and the province of Limburg, each donating 250,000 euro and by DSM employees, giving 68,000 euro. By the end of 2007, the 10,000th water filter was produced and distributed in one of the 92 tsunami affected villages. It is expected that 20,000th water purifier will be placed before the end of 2008.

Purifying household drinking water

The first idea of the inventors Alex Vrinzen and Paul Vergossen, 'membrane specialists' at DSM, was a straw functioning as a filter. This idea not only appeared to be very expensive, the production costs

amount to 500 euro per cubic meter of water, but also full of risks during usage. The straw could accidentally be turned the wrong way, thus still infecting the user. To really make a difference for third world countries, the idea needed to be adapted to household level. Simple, cheap, safe to use, sustainable and easy to maintain. The water purifier evolved: a metal bucket with two ceramic filter candles inside providing 2 litres of safe drinking water per hour with the help of gravity. The safe drinking water is collected in a separate reservoir mounted underneath the top bucket. In addition, due to the filter candles impregnated with silver, any unwanted micro-organisms which have not been retained by the ceramic filter almost have no chance of contaminating the water. The water purifier removes 99.99 percent of all undesired micro-organisms.

Acceptance and education

As so many good ideas, this invention is brilliant because of its simplicity. However, in order to make the inhabitants accept this clever technique, more was needed. The program was carefully organized with the help of the DHAN foundation. Alex Vrinzen: "We first conducted a 'satisfaction survey' amongst the local population of India, in a region that is not only very poor but was also hit by the tsunami in 2004. These people have tested several models of water purifiers as critical consumers. The results were carefully analyzed and monitored. One of the purifier types was a 'pressure model', equipped with manual pumps assuring more litters of safe drinking water in a shorter period of time. This model turned out to be too complex to use and maintain for the users. If part of the filter broke, the purifier was no longer used. The 'gravity model' was much more appreciated by the community. From the field tests it also became clear that metal was preferred over plastic, of which the first prototypes were made. In poor Indian households, sand is used as a cleaning agent in stead of safe but scarce clean water. Thus, a water purifier made out of plastic will not have a long life. Harry van Lier, expert in waste water technology at DSM, has a wide network in India. The project accelerated when he was asked to joint the Water4Life foundation.

Effective use

Education and good training is an essential part of the Water4Life activities. Uneducated people must learn to understand why they have to do or use certain things. Explanation in their own language, visually supported by pictures about the technical functioning of the appliance, but also about the basic principles of hygiene and toilet use, is necessary to make a program such as Water4Life successful. Therefore, it is fantastic that Water4Life was able to get the help of two volunteers, Kasper Jansen and Agnes Benedictus, who are locally active since mid 2007 for Water4Life in Madurai, India. Kasper and Agnes quit their jobs in the Netherlands to be able to help the poorest of the poor to get access to safe drinking water and thereby drastically reducing the childhood mortality. They instruct selected people from over ninety Indian villages about the use of the water purifier. The acquired knowledge is transferred by the trainees to their fellow villagers. This way, more than 90% of the water purifiers is actually used.

Knowledge transfer

The use of the water purifiers also has a positive economical effect in the regions where they are installed. They are locally produced with local materials, thus creating employment. The DHAN foundation guides the poor steel workshops in Madurai in developing their own water purifier

while the Water4Life foundation assures the quality level. This way, a formula is created which eventually enables the local entrepreneurs to produce (and sell) their own water purifiers. Alex Vrinzen regularly flew to India to guide the project. "We want the Water4Life project to succeed. And then I mean succeed down to the smallest detail", he says. "Our colleagues of the DSM site at Toansa, India are also involved in this activity. The help and dedication of our Indian colleagues Vikram Sharma and Babita Nanchahal have contributed to the fact that the tsunami project could be realized in a very short period of time."

Expanding activities

The Water4Life foundation is willingly available to share experiences and knowledge gained during the project with other interested parties. The local employees are recording all processes in logbooks and on film for an eventual follow up by or with other (aid) organizations. With a view to new projects, contacts have already been established with organizations active in China, Indonesia and Ethiopia. In the past few years, great work has been achieved and a good foundation has been created for a sustainable program that really helps people. The Water4Life team will now focus on expanding its activities. Alex: "We would be honoured if other companies or foundations would adopt our work and would surprise us with good results in the future!"

Water4Life distributes 10 thousandth water purifier in Tsunami area

On January 29th 2008 a delegation of Water4Life and DSM anti infectives India has handed over the 10 thousandth water purifier to one of the victims of the tsunami disaster in December 2004. In the wake of the tsunami disaster, additional funds were made available by DSM and the province of Limburg, each donating 250,000 euro and by DSM employees, giving 68,000 euro. All donated to provide the victims with safe drinking water.

Still now, 3 years after the disaster, there is great need for safe drinking water. The water sources are often still contaminated and some water sources revealed to be permanently not usable.

We made use of the gravity water purifier concept in the tsunami affected area. After several tests this concept appeared to be the best technology for the inhabitants of the affected areas.

The purifiers have been distributed amongst members of the self help groups of Dhan Foundation, throughout the tsunami affected areas. These members of SHG's have an income below approximately 2 euros per day.

Preceding the hand over, several training sessions were executed in various villages. In these training sessions the importance of using the water purifier was explained and also attention was given to simple but effective hygienical measures like washing hands and use of toilets. By means of these trainings and tests a minimum of 70% of the purifiers will be used on the long run. The final goal is to reduce the child death below the age of 5 because of diahroea.

The 10 thousandth filter was handed over by the regional governmental officer of fisheries in the presence of Water4Life volunteers, Vikram Sharma, Agnes Benedictus, Kasper Jansen and DHAN team leader Bharathi. By handing over this 10 thousandth purifier and end has come to the tsunami project of Water4Life. Water4Life will continue to be active in south Indian region to place more water purifiers with the local population, in close cooperation with DHAN Foundation. ■

DHAN North Tribal Programme

Le projet

Oxfam Novib has been supporting DHAN's community banking programme since 1997. This programme has become successful, and is registered under a separate foundation: the Kalanjiam Foundation. Per December 2006 the community banking model covered around 350,000 people. It was an important achievement linking group members with the mainstream commercial banks. The groups have been organised again into 50 autonomous federations. Twenty-five of them are involved with Apex financing institutions for housing and small industries promotion. In this project DHAN is expanding its work area to the more Northern parts of India, where it will work with tribal communities, a group whose social-economic conditions are typically the worst in India. DHAN is confident that it can replicate the successful formula in the Northern tribal areas, based on its experience in tribal areas in Adilabad, Andhra Pradesh and in Tamil Nadu, through direct involvement as well as through the 'Kalanjiam affiliates' or organisations that are willing and able to adopt DHAN's community banking model completely.

DHAN Foundation follows four strategies in implementing its Kalanjiam model of microfinance. The first strategy is to 'enable communities through nested institutions'. Microfinance is seen as an effective tool and a powerful instrument to organise people and build their institutions. The primacy is on building their capacities and enabling them to manage the financial services and build strong, sustainable people's organisations to address their own development and growth. This approach builds the ownership of members, through substantial members' savings, own funds and involvement. These peoples' institutions are built on the principles of self-help and mutual aid. The emphasis is on developing suitable institutions and financial services controlled by the users, mainly women. The second strategy is to reach out to the poorest people in remote areas. It is often claimed that a sustainable micro-credit programme cannot focus on the poorest and cover costs. The Kalanjiam programme has broken this myth and demonstrated that reaching the poorest of poor is no hindrance to microfinance operations becoming financially sustainable.

The Kalanjiam programme has developed a systematic process of identifying the poorest, and through a gradual process of saturation reach out to all the poorest in a given geographical area. The third strategy is poverty reduction through conservation, which is about ending income 'leakages', i.e. the exploitation by the local money lenders for credit, traders for supply of inputs and marketing, local quacks for health services. The approach is to address variables people living in poverty have under their control. Coupled with appropriate savings and credit products, this helps the poor to escape the poverty trap. The fourth and final strategy is to go beyond microfinance and address social development. The Kalanjiam programme has demonstrated that savings, credit and insurance services are interconnected in efforts to address poverty. It has also demonstrated that in order to address the 'complexity of poverty' microfinance intervention need to be linked with other social developmental programmes like drinking water, sanitation, health, education, linking with Panchayats and banks. Such a process demands the mobilisation of people living in poverty and the building of their institutions. In order to sustain the microfinance intervention and enhance income, business development support services were also found to be essential. In the three years to come DHAN plans to reach out to some 27,600 women in tribal areas in Rajasthan, Madhya Pradesh, Orissa and Maharasthra.

Le partnenaire

The Development of Humane Action Foundation (DHAN) was established in 1997 as a spin-off in South India of the programme of PRADAN (Professional Assistance for Development Action) in New Delhi. Since the early 1990s the organisation has focussed on two main areas of intervention: community banking for poor women and tank-fed agriculture for small and marginal farmers. As of March 2004, the DHAN's programmes covered about 250,000 families in Tamil Nadu, Karnataka, Andhra Pradesh and Pondicherry. Especially in the field of community banking, propagating the successful self-help groups to bank linkage model, DHAN is recognised as one of the main players in South India and beyond and has been able to influence the policies and practices of government and the banking sector.

Excerpts from: http:// www.oxfamnovib.nl/id.html ■

DHAN bid for uplifting rural India getting boost

Surendra Ullal*

CHICAGO: DHAN Foundation, an NGO with headquarters in Madurai, (India) has been working for over a decade and a half, with poor communities to improve their quality of life and reduce poverty. It has chalked out an ambitious plan for further strengthening its roots and activities in South India as also make increased inroads in rural side in North India.

DHAN, which stands for Development of Humane Action is a professionally managed development institution and currently works with 700,000 poor families in 10 states of India on different development themes, viz., microfinance, small scale irrigation, dry land agriculture, working with panchayats. One of DHAN's important initiatives is reviving Ooranis. Oorani is a dug-out pond that traps rain water run-off and stores it for drinking water purposes in rural areas where ground water is either inadequate or unfit for use.

Ram Narayanan, a well known community activist and Editor-Coordinator US-India Friendship.net, was visiting India recently and he shed light on new the new DHAN themes in progress. The new initiatives include the Tata-Dhan Academy for grooming development professionals, rain fed farming development to improve the livelihood of farmers, enabling the poor through information technology, and working with panchayats. DHAN has an integrated model of livelihood restoration and rehabilitation program in Tsunami affected coastal regions for fishermen and coastal farming families. Dhan People Academy and DHAN Institute of Vocational Education cater to training and capacity building needs for the leaders and people functionaries.

The Foundation, he said, is also promoting development tourism to showcase art, culture, heritage and development work. DHAN is involved in developing rural tourism model in collaboration with UNDP and Government of India.Presently, according to Ram Narayanan, DHAN works in 10 States of India in the rural, tribal, coastal and urban contexts-Andhra Pradesh in six districts, Assam in one district, Jharkand in one district, Karnataka in five districts, Kerala in one district, Madhya Pradesh in one district, Maharashtra in one district, Pondicherry in two districts, Orissa in two districts and Tamil Nadu in 19 districts.

It has over 750 development staff, including 350 professionals. It currently operates two major themes in Tamil Nadu, namely, Kalanjiam Community Banking Program with poor women and Vayalagam Tank fed Agriculture Program with small and marginal farmers dependent on tanks for their livelihood. The Kalanjiam Community Banking Program has developed the federation model of people's organization.

The model places emphasis on establishing appropriate institutions and services owned and managed by poor women and building sustainable linkages with mainstream banking and government institutions. The women are now going beyond microfinance and are addressing other development needs such as health, education etc. Village tanks and ponds occupy a significant position in irrigation and local ecosystem in South India.

They sustained farming activities. Neglect of these precious water resources led to a decline in their performance as assets and badly affected the livelihood of the community. DHAN Foundation, through the Vayalagam Agriculture Program, has sought to conserve these treasures by organizing the farmers dependent on them and regenerating local management by building their stakes.

He said that the people within India as well as people of Indian origin living abroad, including Indian Americans, have contributed financially to the development of specific projects sponsored by DHAN.

DHAN also has a volunteer program where socially concerned and committed individuals from within India and abroad can offer their expertise in the area of health, education, water, communication, web design, content creation in local language for meeting local needs, for periods ranging from three months to a year. Volunteering could also be virtual for tasks such as web design, editorial support, writing for the web etc. There are also opportunities for donation in kind such as computers, cameras etc. ■

*Courtesy: http://indiapost.com/article/communitypost/2130/

My learnings in Faculty Development Programme

R. Sangeetha

This report is an attempt to consolidate my learnings from the Faculty Development Programme (FDP) in Indian Institute of Management, Ahmedabad (IIMA) between 29th Oct 2007 and 15th Feb 2008. Primarily these are my experiences from the programme, through interaction with the staffs of the institution and my peer group etc. Also, I would like to discuss on the application of these learnings in our work at the Tata - Dhan Academy.

FDP design

The FDP is a fifteen week programme meant for the teachers of Management discipline from all over the country. IIMA aims to build the academic capacity of the management teaching fraternity by giving exposure to various pedagogical tools and techniques. It also aims to inculcate the research interest among the participants and hence imparts knowledge and skills that are relevant to research methodology. Case method of teaching is one of the unique strengths of the institution and it is committed to pass on this strength to other Management institutions through FDP.

I attended the 29th FDP organized by the IIMA, in which there were 32 participants from 29 institutions representing various states. The programme design includes 20 courses. There were five foundational courses, wherein foundations of management, organizational behavior, economic environment policy, management accounting and legal environment handled. There were seven functional courses including human resource management, marketing management, financial management, operations management, project management, business policy, international business. In addition to the two emerging areas such as revenue management and entrepreneurship and innovation there were six academic skill oriented courses including academic writing for management teachers, communication for management teachers, case method of teaching, research methodology, qualitative research methods and information technology for management.

Apart from these courses, Institution visit to IRMA, EDI, SEWA and industrial visit to Aravind and Amul were organized as part of the training. The last week of the programme was allocated to practice teaching segment followed by last three days for integrated case analysis. The practice teaching segment offered opportunity for the participants to design a session using various pedagogical tools and then to handle 60 minutes session.

Expectations I had….

Before registering for the FDP, I had few expectations to acquire required academic skills, learn different pedagogy of teaching to make the students learn theories through practice, how to do academic research and to equip myself in the case method of teaching.

Also I hoped that the FDP would certainly enable me as an individual in terms of contributing to the Academy through improvement in quality of teaching and better understanding on how to foster supportive learning environment for the students. The immediate need was to design new courses and offer electives. I believed that by attending FDP in the premier institute like IIMA certainly I would raise my standards in these areas. As research is a part of my work it would help me to conduct academic research and enable me with needed knowledge and skills to theorize from practice which is one of the core purposes of the Academy. Over these above I was much curious to understand the institution building aspects of such an outstanding academic institution in the country.

What I gained…

Writing Skills

I used to write a lot, but more of general things. But I gained exposure to academic style of writing with proper referencing and following APA style. For the first time, I attempted writing book review and felt confident about it. The course gave a lot of scope for building our writing skills through

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various assignments and of different types. One best learning I gained is to the importance of writing with our voices being heard very strongly and impacting others. I also discovered the areas of concern in my writings through the feedback I received from the faculty. Those are

- To be careful enough in use of words appropriately
- To avoid ornamental words, complex sentences
- To be aware of right use of punctuations, capital letters etc
- To be short and simple in sentence construction.

Moreover, I had an opportunity to experience different types of writings like reflective reports, book review, research proposal and report, case study writing etc. The best part I observed was faculty encouraging more to come out with our own thoughts and ideas rather than depending on other sources. Also, understood very well, how reading compliments the writings.

Communication

There were opportunities for improving our communication skills too. The session on Presentation skills was useful to know our lacuna. The feedback from the peers and the faculty were of great help. As the sessions were all interactive, participating in class discussions, group discussions etc has provided enough space for learning. I consciously pay attention to the faculty and my co-participants whenever they speak. Watching others speak and observing different styles of communication also helped me to constantly work on improving my communication skills.

Writing case study

Right from idea generation for case leads to final stage of developing case studies was one of the best learning that I carry to my institution. We got excellent facilitation from the course teacher to move stage by stage and achieve the final result. In fact, this has inspired me to critically look at the qualities a teacher need to possess and am also contented with this intangible learning. Moreover, another learning I got is how to develop a research proposal/ paper out of the case study.

Teaching skills

The practice teaching segment is yet another significant learning opportunity we had. I got exposed to different pedagogy of teaching such as games, role play, simulation, case method of teaching, using video etc. The following are the key learnings I gained through this

- Importance of planning the session – minute by minute, anticipating the queries, confusions etc and to have prior idea of how to overcome and avoid such situations.
- Reflecting back on the sessions we teach is very important. It needs to be reviewed for its content reach, pedagogy efficiency and the effectiveness of the session in terms of fulfilling the session objective.
- Experimentation on pedagogy will help in improvising the teaching effectiveness.
- Pre-testing the pedagogical tools before using it for class room sessions will help in fine-tuning it.
- The role of facilitator and the challenges to him is very well understood and also the more we practice and experience, the skills will also grow.

Another important learning is to understand the effectiveness of teaching methods, styles from the student's perspective as we now are playing the role of student. To me, it was a very good learning of understanding the Do's and Don'ts of a teacher for teaching effectiveness.

Research Knowledge and skills

Through the courses of Research methodology, Qualitative research methods and Data Analysis, I learnt certain things very concretely, but realize, it has a long way to go further. The learnings I gained in research are

- Framing Hypothesis and understanding of independent and dependent variables.
- Different types of methods in both quantitative and Qualitative research methods.
- How to write a qualitative research proposal
- How to do review of literature
- Learnt use of SPSS for data analysis.
- Orientation to AMOS package for structural equation and modeling

The assignment of developing a quantitative research proposal by

framing hypothesis, developing research tool like structured questionnaire, data collection, data entry in SPSS package and finally doing data analysis has enabled us to gain not only the knowledge and skills but also the confidence and interest to pursue research in future.

My interest for research has grown very well and a thirst has been created for furthering my knowledge and skill. In fact, it was a new insight that research was something more than what I was thinking all about prior coming to this programme.

Use of Excel and IT

This is a revealing thing for me that Excel too could be taught in an interesting manner. I learnt very clearly the use of excel to simplify our work. Use of sensitivity analysis for conference budgeting, designing web page, etc are of very helpful to me as it has direct application value.

Pedagogy of teaching

a. Case method of teaching.

I learnt this mainly by observing how different faculty handles case studies in the class room. All are unique in their own styles but ensured learning happens out of discussion. Some of the insights I gained on case method of teaching are

- To use the case facts to the maximum
- To ensure proper folding of the key learnings from the case.
- How to direct the discussion for constructive learning and avoid digression from the case
- How to force the students to get into the shoe of problem solver and think for decision making.
- Linking case with the theory or concept.

I also observed some faculty restrict themselves within the case boundary and some going beyond and clarifying the subject. I learnt from operations management, an interesting way of clarifying the students on the case using single analogy of cheetah and elephant story for almost all the sessions. From business policy course too, understood, how effective use of analogies to describe the case findings. I also realized the use of quoting epics in the class for clarifying the subject.

b. Exercises for teaching

Lot of games and simulation exercises were used to bring out the understanding of the participants. Most of them were of revealing 'self'. I should admit that I found the course more useful in terms of its content and for the strong life message I got from the instructor for shaping myself as a person. Moreover, I was trying to take with me lot of tips for enhancing my teaching so that I make my students enjoy the joy of learning as I did in this course.

c. Simulation

One of the simulation exercises used for Communications for Management Teachers (CMAT) session was highly relevant to be used for development management courses for teaching social inequalities, relationship between developed and developing countries etc. I found it very interesting as it helped us to bring out the concept.

d. Video documentary

I found here use of video for class room teaching. Having good collection of documentaries and using it for classroom purpose enhances learning very well. One documentary on "Inconvenient Truth" which was screened for Post Graduate Programme (PGP) students was very much useful for me to handle climate change session for disaster management course.

Teaching theories

a. Interesting way of handling theories

I learnt from foundation management course that making the participants to assume the role of particular theorist and making them to understand the theory, the context etc and then asking them to present in the class created great interest. I learnt Taylor and scientific management very well and it will definitely last longer in my memory.

b. Assignments can stimulate self learning

I liked the assignments of Foundation Of Management (FOM) course as it induced me to read the original writings of Weber and his bureaucracy. I enjoyed reading the book and was able to understand Weber as a person, his work, happenings of his period, his theory etc very well. I felt that the assignment made lot of sense and was well thought.

Similarly the second assignment of FOM made me to select social audit as a management practice. This also required lot of efforts from me to trace out the history and how it is relevant in today's context. I gained good learning in that too.

Third assignment helped me to see how others have built over the foundational contributor. Assignments of this sought will help students to seek for knowledge and will push them to library. I remember the day when I sat in library for hours together and got engrossed with Weber. It was a joyous reading I ever had.

Similarly, another assignment, which I could recollect is the assignment in Resource Methodology (RM) course where the five different types of research papers were given to us and were asked to discuss on research problem, hypothesis and methodology used in each of the type. This also has enabled me to gain good clarity.

Hence I learnt, giving thoughtful assignments is one best way of making students learn by themselves.

Impact in my teaching and research activities

The following are some of the important aspects I learnt from different faculty and which I wanted to improve in me.

- In-depth subject knowledge and good hold on what is going on currently by updating the knowledge and skill is non-negotiable for a teacher.
- Also, I found most of them develop themselves in particular field as their specialization and take up consultancy or any assignments around it.
- Here, faculty values industrial consultancy very much as they feel only that could update them and makes them closer to the reality of their teaching. This strongly reinforces the belief of Tata-Dhan Academy too in the field of development sector.
- Research is the must and publishing papers widens the knowledge and skill.
- Academic ethics is something which I found very strong here and I value that. Citation, proper referencing is something which we will never forget even in our sleep.
- Writing cases and developing research out of case studies or doing research and identifying case leads, then developing into case studies etc will build our knowledge and skill.
- Showing a passion for the subject, sincerity in ensuring good learning to the participants will definitely place an indelible mark in the participants mind.
- Reading habits is must and I should at any cost develop the habit of reading as many academic books as I could.
- Giving feedback to students on time and helping them to learn more is very critical for the teacher.
- Being supportive and willingness to spare time with participants for academic discussion by the faculty members are very appreciable.
- Coming to the class 5 minutes earlier by almost all teachers is something very unique and the sense of punctuality as a value in everybody inspires me.
- Being time conscious and time management in class and winding up the class on time are something which I need to learn from these faculties.

Other than the programme

Apart from FDP, learnings I gained by attending "confluence", "amaethon", seminars, research presentations etc are also invaluable. Visit to IRMA, EDI, Aravind mills, SEWA, Blind People's Association were very insightful.

Something I learnt from Institution

There are certain aspects which I admired in this institution during my stay over here.

- First thing, which I liked is the sensitivity with which the building construction is made. I found the building friendlier for the physically challenged people. I also want to carry this message to my institution.
- Secondly, I found the institution is friendlier even for the birds. I had a feeling of co-existence with nature.
- Thirdly, the cooperative and supportive nature of the administrative and other supportive departments such as library, mess, computer centre, publication division etc. We have always received immediate response.
- The system of having common group email id and maintaining good communication through mail. E-mail is very effectively used across students, faculty etc.
- As we have put up for stay in the new campus, it helped as to

interact with participants of other programme like Armed force programme and with some of the PGP students.

- Friendliness and easily approachable nature of the faculty members are encouraging aspects.

Conclusion

Overall, I found the programme very useful and found an excellent learning environment in IIMA. Also, I wish to be instrumental in establishing a long term institutional relationship between IIMA and Tata-Dhan Academy. Regarding the same, I interacted with Prof. Rajeev Sharma and he too expressed his willingness and possibility to start with the joint projects. I wish to conclude this report with a due regard and gratitude to my Institution for the support and encouragement by providing this opportunity to me. ■

Harvesting Goodwill*

For farmers in Vizhunthamavadi village along the Nagappattinam coast of Tamil Nadu, the deadly tsunami wreaked havoc—it claimed 23 lives and destroyed 248 hectares of the total 939 hectares of cultivable land.

Tidal waves damaged cash crops like paddy, ground nut and cashew nut, and inundated arable land, leaving behind heavy salt deposits and rendering it infertile. Even the warehouses where the farmers stored foodgrain were destroyed.

Moved by the plight of these hapless farmers, Care Today with the help of a local partner, Dhan Foundation, a Madurai-based NGO, constructed a warehouse in the village.

The villagers of Vizhunthamavadi and neighbouring Pudhupalli extended their help in the construction of the 250 sq m warehouse which was built at a cost of Rs 13.27 lakh.

The warehouse seemed the perfect answer to the problems of the farmers who needed a place to store their grain. In the absence of a storage place, they had to depend on middlemen to sell their foodgrain.

Taking advantage of the situation, middlemen reaped rich profits—they bought foodgrain from the farmers at abysmally low prices and sold them at high rates in the market.

Dedicating the warehouse to the people of Vizhunthamavadi, Care Today Secretary **Prabhu Chawla** said, "Farmers are the annadatas (providers of food) of the nation and in their growth lies the prosperity of the country. We at Care Today are ready to help them."

Touched by this kind gesture, a villager said, "The warehouse will help us store our foodgrain safely when the prices are low and sell when they are high. Care Today's timely intervention has helped us a lot."

T. Ambigapathi, a local farmer, was relieved because the warehouse meant less dependence on middlemen. "We thank Care Today for their valuable contribution. The middlemen's game is over."

Newly-constructed warehouse in Vizhunthamavadi village

Care Today, which acts as a link between India Today Group's readers, viewers and listeners on the one side and disaster-hit communities on the other, received Rs 2.79 crore in contribution to make life better for people in tsunami-hit areas in India.

Of this, it has so far released grants of Rs 2.23 crore. The organisation has provided relief and rehabilitation to people in tsunami-hit Nagappattinam, Tuticorin and Tirunelveli districts in Tamil Nadu, Kachal in Little Andaman and the southern parts of the Nicobar islands. ■

*Article appeared in India Today

Building on Heritage *of* Water bodies

Tank is a vital resource, having, economic, ecological, social and spiritual functions. Due to its fundamental role in village life, they have a strong cultural dimension. Without understanding and considering the cultural aspects of tanks, no sustainable solutions can be found.

Tanks are the living heritages

Great Civilizations show that their development was directly related to the extent to which they could control and manage water resources. The hydrological characteristics of the Indian monsoon necessitated the creation of storage facilities to hold the rainwater of the monsoon. With extraordinary engineering, managerial and social skills, an extensive system of rainwater harvesting structures like tanks and ponds had been build and maintained by the people for centuries. Behind these existing indigenous systems of irrigation, there are thousands of years of tradition. DHAN Foundation's Vayalagam Tankfed Agriculture Development programme is involved in renovation and upkeep of these tanks in the peninsular india through the farmers' organisations and their federations promoted by it.

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