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The focus of Karunai DHAN Nursery and Primary School is on the quality of education and in particular, consideration for the special needs and talents of each child.



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From the Editors' Desk

Dear Readers!

This July issue of Development matters features on DHAN Karunai Illam, a home for depressed children. Jean Catherine Watson, the founder of Karunai Illam has penned down the evolution of the Home. Article on Karunai DHAN nursery and primary school speaks about activity based learning which believes in learning from life. Value chain study in Madurai Malli (Jasmine of Madurai) details the production and marketing dynamics of Madurai Malli. K. P. Bharathi writes about tourism and Millenium Development Goal. He explains about the "Endogenous tourism for rural livelihoods" which suggests the possibility of learning and scaling up to a wider coverage.

Our colleague Mahantesha writes about the indigenous system of risk management of Peravoor, a village in Ramnad district. As usual, we look forward for your continued support by contributing articles, comments, critiques, feedback and encouragement to enrich the quality of subsequent issues of this magazine.

Happy reading!

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Genesis of DHAN Karunai Illam - a home for distressed Children

Jean Catherine Watson*

Genesis

I traveled to India for the first time in 1984 from New Zealand as a tourist. In Kanyakumari, I met Mr.Subbiah who was collecting money for a local children's home. Back in New Zealand, I started to send donations to that orphanage whenever I could, and I began planning how to return to southern India, a place I recognized as having 'that extra call'. On my third visit three years later, I promised Subbiah to support for a new orphanage in his home village of Nilakottai.

Though many good ideas went through my head, putting them into practice was another matter. Also, I had it in mind that half of the support would eventually come from people in Nilakottai. We would call our children's home "Mahatma Karunai Illam" where 'Karunai' means grace and 'Illam' means home.

We decided on 10 children: five boys and five girls. I asked Subbiah cost it out, set it up and let me know. At this stage he thought approximately Rs.2,000 a month would cover everything. The amount worked out at about 200 New Zealand dollars. I could send 200 dollars a month, even on the dole and then a small wage, I could just do it. I would not have much left to live on but I did not have a mortgage so could just manage. In India, Rs.2,000 a month had not



Jean with Chinnapillai in a function

seemed much and it would include everything: food, rent, clothing. The Mahatma Karunai Illam was inaugurated on 25th September1987 with seven children and the following week three more joined.

Early in 1988, I had a letter from Helen (a reporter friend who had visited the Illam) saying she was sending an article she had written to the Dominion the Wellington newspaper. When the article was published, I was delighted to receive money from interested people, some sent anonymously and some from people I knew. One woman asked for my bank account number and she has been faithfully contributing ever since.

All those circumstances were conspiring to help us. It was 'grace'. And I have to admit I was high on it. I felt we had 'taken the tide at the flood'. Once Subbiah got the orphanage 'up and running', he was very anxious for me to visit India and meet the children. After my visit to the home, I wrote a long descriptive letter, photocopied it and sent one to each contributor. Thus the idea of 'newsletters' evolved.

Though the home was functioning well our main worry was the house in which the children are accommodated. Rural India is absolutely littered with broken down houses that were made of weak cement and bricks. They

decay rapidly in the heat and monsoon rains. Large cracks appear in the cement and the structure begins to crumble; soon the roofs cave in, and eventually there is only a heap of bricks. I could see the best way to develop our Illam and secure its future was to own freehold property. So in 1989, I sold my house in Wellington, to buy a plot of eight acres a kilometer from Nilakottai. There was a small cottage and the rest I hoped would provide vegetables and playing space for the children. But they were still living in rented accommodation.

In 1990 The Karunai Illam Trust was formed in Wellington. The Trust then raised enough money to buy the Illam building in Bypass Road, Nilakottai, in 1991. With our eight acres, the house, 18 children and a dedicated family looking after them, growing goodwill towards us in the town of Nilakottai, and interested and dedicated supporters, we had a solid foundation on which to build.

During 1993, a compound wall was constructed to protect the children in home from the unexpected torrential rains and floods. The home was gradually improving with the needed infrastructures like toilets. study rooms and other basic needs. It happened that soon after the extra troops of children had settled in, we received a surprise donation from the New Zealand High Commission in New Delhi. I had a letter from Margaret Hodgetts, the Commissioner at the time. She said she read about our Illam in the New Zealand Woman's weekly and asked if we were still in existence. After my reply their donation arrived at the Illam. In 1995, we were visited by the New Zealand Deputy High Commissioner to India; a young woman who arrived in an air

Floods and water scarcity in our home

In 1992 there was a flood which broke an eight-year-long drought, as though trying to make up for years of neglect. At that stage, we had no wall around the Illam compound, so flood waters poured through the building.

In 1997 there was another flood in and around Nilakottai; but, because we had the wall, the water did not come into the Illam building. In 1996, the opposite problem had occurred, a terrible water shortage. A new bore well was sunk in the Illam compound in 1996 to solve the problem.



conditioned car to receive a typical welcome. So we appreciated the donations from the Australia and New Zealand Association, a group of wives of New Zealand and Australian diplomats in New Delhi who collect money for charities in India. In a way, the visit was our first official recognition.

Fortunately we had been granted money in 1996 from the Association for India's Development (AID) and could drill for water in the Illam compound. Although the work proceeded efficiently, it was fraught with suspense. There was no guarantee of success. But we were lucky; water was accessed and the problem solved. The Association also sponsored the repair of one of the pump house roofs. The AID group is made up of young Indians working or studying in the United States of America who contribute to their country's future by raising money for Indian non government organizations that are helping the poor.

In February 1998, the New Zealand High Commission gave us a grant to build a cowshed. It seemed very appropriate, New Zealand being a country known for its farming. I still follow the Vedanta Philosophy and it seems to me that there is an element of the miraculous in our progress. The connection between the Illam and New Zealand supporters is as strong as ever. Communication is regular and frequent. The Illam too grew gradually with the number of students and their studies. Three children have even graduated and obtained professional training.

All went well for 20 years, then in 2007 the relationship between Karunai Illam Trust New Zealand and the NGO Mahatma Karunai Illam fell apart and, to cut a long story short, we asked DHAN to take over

management of the Illam and now have a rewarding partnership with them. So over the years step by step the Illam has grown to what it is today and the establishment which started as 10 children in a one room shack with no facilities has become an education complex.

Home Today

The home now consists of several buildings. The original Illam building, which provides a child-friendly living area housing 31 girls and the woman care-giver, and provides two rooms for overseas volunteers, is on the outskirts of the town. Across the road, we have a building which houses a model school with 25 pupils on the ground floor and a community college on the first floor. A kilometer from the Illam. we have a plot of land where we have built a neat cottage for 17 boys and their caregiver. Vegetables for Illams use are grown on the land. Our children come from families that are so poor they can't afford to send their children to school. Some of them come from isolated places where there is no school or a school that teaches early standards only. Many are the children of single households.

After DHAN undertook management of the Illam, it became a multifaceted institution comprising DHAN Karunai Illam (the home for distressed students), Karunai DHAN Nursery & Primary School (a model school with activity based learning method of education), and Karunai DHAN Livelihood Initiative with Functional Education (an institute to provide vocational education to youth and women).

Our School

Karunai DHAN Nursery and Primary School is an alternative



school or a model school. The focus is on the quality of education and in particular special needs and talents of each child. Currently we have 40 children, 3 teachers, an Aayaa, and the Primary Education Coordinator.

The Aayaa is a woman who stands by to take care of physical needs of children such as taking them to the toilet, washing hands, drinks of water, clothes coming adrift and any such needs of little kids. She is also a sort of 'watch-woman' – there to let in any people who come to the outside door which is kept locked while classes are on.

The children are three and four year olds. The teaching is holistic, considering not just the academic angle, but the personality as a whole. Ethics, morals, consideration for others and similar values are instilled. They will be bi-lingual, fluent in English and Tamil. They are happy and exuberant, and I am delighted to hear them shouting the numbers as they learn to count in English. It is intended to take children up to plus 2 level.

Although fees are charged and we hope that in a couple of years the school will become financially self-sustaining and that concessions will be given to the very poor, the fees are relatively cheap and the quality of teaching is very high. Most nursery schools here have one teacher and about forty kids, not a situation to leave enough time for individual attention. At present, parents pay half what is paid to the mainstream nursery schools.

I am overwhelmed with admiration for the teachers who spend all day patiently teaching at nursery level – what amazing patience and devotion! Such people are rare and valuable in any culture. The education, which makes children learn through playful activities, makes learning an interesting one.

Karunai DHAN LIFE (Livelihood Initiative with Functional Education)

It is commonly called as **community college**, and it caters the needs of several groups: young people who are dropouts from the main system and need to be employed, high





school children who need to have extra time at computer practice, housewives who have children at home and would like to add to the family income, and the very young married women at home.

There is a computer room with five modern computers where participants can learn every aspect of computer studies. Broadband is installed so that internet can be taught. The exceptional feature of our community college is its flexibility in matching the courses offered with the employment needs of the community. The courses are reasonably priced and there are scholarships for aspirants

who are so poor they cannot even afford a meager amount have shown they will benefit.

There are three categories of need that this project will fill. The first idea is to equip people for employment and thus empower them. There is surprising variety, or at least some were a surprise to me. Sewing is taught (called tailoring here). If a girl learns sewing she could find employment in a tailor's shop, sew for people in her village and earn a little money and sew for her own family. Then there is what they call a 'beautician' course. It involves such

skills as make up, aroma therapy and massage.

There is another category: the lifeenhancing courses for the young married women at home. Even today, according to tradition, many girls are married off at a young age and these girls are from poor families who may have no facilities at all and no idea of hygiene and health. A simple course in housekeeping will also expand and respond to needs; topics like how to preserve, make pickle, develop small home gardens, and many such things will be added as time goes by.

We hope that in time the college will become self-supporting. We charge a reasonable rate for those who can afford to pay. There are scholarships for those who can't afford to pay a fee. I have also noted schoolboys coming and going wanting extra after-school work. Salugai Thevan is the coordinator of the community college.

Donors

Most of the funding comes from New Zealanders who want to be part of a group that is making a difference in a small rural community. We have supporters who contribute each month by automatic payment or by sending a regular cheque. Occasional and oneoff donations are also welcome. The New Zealand High Commission in New Delhi is interested in our work and has granted us generous amounts for the last several years. We have a few overseas supporters: three in England, three in the U.S.A and five in Australia. All receive regular newsletters telling of the interesting happenings at the Illam and the progress of our children.

Karunai DHAN Nursery and Primary School

T. Raghavan*

There is constant research and **I** improvement in the content and methods of teaching. Young minds can absorb an amazing amount of information and concepts, especially when they are presented in a positive manner and in a free atmosphere, full of fun and devoid of any threats or embarrassment. Learning and growing should be fun. But in reality the importance is given to rot memory, reciting and writing which is far away from practical life application. Almost every one agrees this point and had to adopt due to no other option before them. Criticizing the present education scenario is the easiest job whereas finding an alternative is a Himalayan task.

DHAN Foundation. an organization venturing various need based education programme have attempted to establish a model in primary schooling which plays a vital role in the human development. The principle followed is activity based learning. Government of Tamil Nadu is encouraging this method of education and started implementing in around 38,000 schools. Those who are interested in the education have to appreciate the change in the trend. Activity-based learning promises to do away with school bags, by using practical study material. Bulky books are replaced by educative cards. To learn more about the innovative method, we - a team from DHAN visited some of the schools which already practicing this.



We discovered that the children's curiosity and eagerness to search and learn was very high. The focus is on exposure to many practical experiences, building imagination, learning physical and social skills, learning boundaries of time, place, work and play, understanding the world around the children. Education should be beyond lessons and interactive cards; same should be done by directly linking with life.

Meaningful Education

The life is to live which include thinking and doing things. In other words, life does not mean reading and writing but doing some day to day activities. The real life demands keen observation, hard work, endurance, patience etc. Achievers are found to have these attributes in life. Instead of living a life by learning lessons we must learn from life. I have found many innovators who did not get formal education yet have ended up discoverers and inventors. They have learnt to fight the trouble they face in the life. The reason behind this is they have not read books instead from life. Hence life becomes easy when education coincides with the way of life. Books should facilitate facing life instead of preparing children to face examinations. Every lesson from book should have life application that too in day to day activity. Life attitude and putting into practice should go hand in hand. To try all these ideals in one place, activity based learning is tried by DHAN Foundation.

To initiate implementing this activity based learning, it was planned



to pioneer in nursery education level through model schools, a school with difference. For example, Mathematics, for many students mathematics is the toughest subject. Children fear numbers as they are not taught with life application and its direct applicability in life. Mathematics is used in counting things, money, friends, toys any thing - almost everything. The children should be introduced to mathematics as friend instead of foe. An excessive focus on exams takes away the joy of learning for most children at this age. Children actually learn more through play and a wealth of experiences. It's easier to grasp and retain when learning is imparted through games and activities. Kids' interest will be stimulated when toys are used for teaching and they will show a positive inclination towards learning. Along with these, children also learn basic reading and writing as well as number work.

By play we help in building child's foundation of social skills, cognitive development, physical ability and self-esteem. The school tries to analyse how much of this teaching results in activity based learning, as far as the child/student is concerned. Exposing individual child to the kind of

stimulating experiences promote healthy mental growth, great freedom to be and overall personality development. The right environment and support can help build a happy future for the child. Children can discover new rhythms and dance to different beats. Sing all their favorite songs, and can have fun without any pressure.

The concept behind the model school is

I hear; I forget, I see; I remember, I do; I understand.

Children in this school are found to have the following values imbibed in them which reflect in their life. Each children gains moral values inbuilt in them by developing good habits like helping, cooperating, respecting, and accepting others, developing friendship, appreciating the culture and heritage of others.

Lessons are taught in a playful method in the level of each child. Attention is given to each child in unique way. Some children grasps things fast, some at slower pace. At the school, children are taught with educative tools like toys, picture cards, charts of animals, fruits, flowers and many such visually attracting teaching aids. This helps the children to understand and correlate the words with the visual portraits, games and songs sung with actions. In turn it helps the children to be imaginative, visualizing, explorative, creative, responding, interpreting as well as learning.

Due to personal attention given to each child they spend enough time in playing games. This facilitates developing competence socialisation, taking care of self and others. This method of education stimulates the children to pay attention to education. Meanwhile it nurtures the concept of self, accepting and expressing emotions in socially appropriate ways, coping with change, decision - making skills, accepting challenge and developing independence is seen in each child. ■



A Study on Value Chain of Madurai Malli

S. Aravindan*

Micro Study

Micro study is a study carried out scientifically with optimal use of existing / local resources using flexible methods for decision making and action orientation. It is a study emphasizing on a "here and now" situation and in a local setting. Its finding is to be applied in terms of local applicability, not universal validity. It applies scientific thinking and processes on the areas of exploration. This has the characteristic of research in terms of systematic and objective analysis of facts, resulting in prediction and control of events. Micro study is a type of research conducted because a problem has not been clearly defined. The objective of micro study is to gather preliminary information that will help define problems and suggests hypothesis and future leads.

Micro study values the target group's perceptions and understanding of resource situations and problems for drawing inferences and recommendations which are viable and acceptable in the local context. Micro study enables to determine the research design relevant to the study, use flexible methods for data collection method and selection of subjects. Their chief characteristics of micro study are that they take only a short time to complete, tend to be relatively cheap to carry out and make use of more 'informal' data collection procedures. The techniques rely primarily on observation, coupled



with semi-structured interviewing of members, local leaders and officials. It banks on knowledge and experience of the practitioner which facilitates to define the research problem relatively with less time. Micro studies provide significant insight in to a given situation. It gives indication as the "why", "how" and "when" something occurs but has the limitation that it cannot tell us "how often" or "how many".

Micro study relies on secondary research as reviewing available literature and/or data, or qualitative approaches such as informal discussions with consumers, employees, management or competitors, and more formal approaches through in-depth interviews, focus groups, projective methods, case studies or pilot studies.

Earlier Micro study on the significance of Madurai Malli was carried out . As a follow up study 'Value Chain Study in Madurai Malli' is now undertaken and presented.

'Value Chain (VC)' is an analytical as well as an operational model of a raw material or any one by-product, which is transformed, combined with other products, transported, packaged, displayed etc. until it reaches the final consumer.

In this process the raw materials, intermediate products and final products are owned by various actors who are linked by trade and services, and each add value to the product. Various types of public and private services, like business development services, electricity, transport, financial services, etc., are as



important as favourable framework conditions, i.e. laws, regulations and their enforcement. The value chain model supposes that by understanding these interactions, it is possible for private and public agencies (including development agencies) to identify points of intervention to (1) increase efficiency and thereby increase total generated value, and to (2) improve the competence of intended actors to increase their share of the total generated value.

Why value chain development is important?

Globalisation does not only patch up market gaps and brings producers and consumers closer together; it also brings regional and international competition into local markets. For instance, any agricultural produce not consumed by the farmers' families is a product in the market (local to international) and competes today with products coming from nearby or far away. Therefore, all farmers offering their produce for sale are instantly part of a value chain.

Reasons for a donor funded project or program to intervene may include the following:

- Some people need support for becoming actors in existing value chain.
- 1. 2. The role people play in a value chain is more important than belonging to a value chain i.e. their negotiation power in the value chain.
- Some actors are stuck in value chains that exploit low income possibilities. They require support to explore new opportunities.
- 3. By strengthening one actor in a value chain there is the possibility of creating competitive advantages for the whole system. In such a case a large number of people competing in local, regional or global markets can benefit from these advantages.

N.B. The term 'donor' is used as a synonym for 'development agency'.

Significance of Madurai MALLI

In Madurai district Jasmine is grown in about 900 acres of land area bounded by Aruppukkottai in South, Natham in North, Melur in East and Thirumangalam in West. This area is demarked based on the soil type which helps ordinary Jasmine as special 'Madurai Malli' with the best qualities. Total annual average Jasmine production from Madurai district is 489 tonnes.

The specialities mentioned by the merchants are based on their practical experience. According to the scientists 'There may be some true in their statements and until now there is no justification scientifically'.

- The fragrance of the jasmine grown in Madurai is some what superior to that of others because of the heavy accumulation of the smell causing alkaloids 'Jamone' and 'Alpha Terpineol'. laterite and red soils of Madurai district are rich in Sulphur which is the precursor of these alkaloids. More over presence of higher amounts of Potassium and the supplementary foliar spraying of Borax (Boric acid contains elemental Boron) help the plant to deposit the produced alkaloids in flowers. This is the main reason for the high fragrance of Madurai Malli.
- 2. The second speciality is the thickness of the petals. Madurai Malli has the thickest petals of all the other jasmine flowers grown in other parts of the country which helps in late anthesis. This thick nature of the flower gives it to some stiffness which helps more in garlanding the flower as we wish.

- 3. The colour of Madurai Malli is some what greenish white when it is collected from the plant. After few hours probably at noon, the colour will turn into milky white and turn into shiny creamy white during the evening. So the whiteness of the flower will not turn into brown even after 24 hours if it is not adorned.
- Normally all jasmine flowers grown in other parts open before or around 5 pm. But Madurai Malli opens only after 6pm. Some times even after 7 pm. This is due to the thick petals of Madurai Malli.
- We can preserve Madurai Malli for two days without discolouration which is impossible with the other jasmines.

Based on the practical experience the merchants defined 'Madurai Malli' that the Jasmine flowers come from a specific geographical area. As per them the geographical area of Madurai Malli is bounded by Aruppukkottai in South, Natham in North, Melur in East and Thirumangalam in West. This area is demarked based on the soil type which helps ordinary Jasmine as special 'Madurai Malli' with the best qualities.

The producers reach Madurai Mattuthavani and Villapuram flower markets as per their custom and give the flowers to the agents. The agent employ some persons to sell the flowers. After selling his lot the accountant of the agent entered in the accounts it as income and gives required amount to the farmer. From these commission agents small flower vendors are purchasing the flowers. In Madurai, all the vendors are

depending on the slum women for flower garlanding and slum women are doing this flower garlanding as a part time livelihood after completion of their house works. During the peak season a lady will earn minimum about Rs.30/- per day from flower garlanding. Both male and female are involved in this flower vending business. Majority of the women carry the flowers and sell on road sides, bus stands, temple corridors and other public places. But men carry the flowers by cycles or selling by keeping shops in road sides. Some vendors have regular customers like shops, temples and houses. Some vendors are having shops at public gathering places also.

Value chain in relation to Madurai Malli

On analysing the production and marketing dynamics of Madurai Malli, it found that development of 'value chain' is very essential for the sake of all the actors who play vital role in production and marketing. Beyond its heritage value 'Madurai Malli' serves as the prime livelihood material for many urban families. For 'Madurai Malli', garlands and the woven strings were the end products until two years before. During that period Madurai Malli was also utilized for bride decoration, temple arch decoration, Lord's decoration, etc., in very minimum quantities. Minimal utility in designing and decoration of Jasmine was mainly due to its tiny nature.

Due to the development of computer designing techniques and improved knowledge on the designs the designers as well as the vendors started to introduce small flower designs which are fantastically admired by the ladies. Even though the designers introduced many designs involving Jasmine as one of their components, the designs are not very popular because of limited production and utilization. The limited production is due to lack of knowledge, skill and training of the garlanding women who are living in the slums. Hence, imparting trainings on designing for the flower garlanders is an important step in 'Value chain of Madurai Malli'.

Apart from flower designing and garlanding, Jasmine is also utilized for wax production. This wax is the base product for the Jasmine scent. Now it is tried to prepare souvenir and edible items. Jasmine flowers are exported to Arab and South East Asian countries as loose flowers because the longevity of woven flowers is very low and it will loose its fragrance and charming appearance very quick.

Components of Value chain

Flower Garlanding

Flower garlanding can be done by the women who have some basic knowledge in flower weaving. Flower weaving is a skill acquired through training. Normally in Madurai city all women have the knowledge on flower weaving. In that case learning many types of flower garlanding and designing is not a big task to them. Now there is a demand for eminent flower designers.

According to Murugan, the flower designer from Coimbatore, "We are called by the people from North India often. Some people asked us to stay with them for ever. They also asked us to change our business place too. If many people are coming forward to learn these designs our tension and

pressure will be reduced. We are going to North India and asked to stay there for more than 20 days which is not virtually possible to us.'

But there are so many constraints to the slum women in following up the acquired skill. They are

- All the family members are dependant on the slum women for all of their needs. Hence, work load to all the slum women is too heavy to spend their time to get training.
- Slum women need credit facilities for initial investment for this business.
- This activity should be done only by collective action rather than individual effort.
- Getting cooperation by the 4. family members is very important than any other thing.

There are six types of flower garlanding viz. Uruttu Kattu, Pattai Kattu, normal weaving, Kadhambam, Malai and Thirumbippaar. Except normal weaving, all the other types fetch higher prices. They consume higher amount of flowers than the normal weaving and need some special skill also.

paisa for 1000 flowers during 1970, 15 paisa during 1985 and Rs.2 during 2005. Up to the last year the garlanding charge was Rs.2 for 1000 flowers. But after the strengthening of Mattuthavani Bus stand the vendors of the bus stand came to various places to fulfil their needs and started to give Rs.4 with tea Kasu of Rs 2/- for 1000 flowers. During the peak season a lady will earn minimum about Rs.30/ - per day from flower garlanding.

The other five types are woven by very few garlanders who acquired skill on those types of weaving. If a women learns such types she will earn more what she is now earning. But normally than it not taught individually by the garland shoppers to the individuals besides their interest. Flower merchants engage the skilled persons on daily contract basis. The following table shows the income increasing pattern by acquiring the skills by slum women.

Flower Designing and Decorations

A few years back by using big flowers and other artificial materials brides, marriage compartments, arches, temples were designed. Now due to improved awareness and skills on designing Jasmine also included in those decorations. Jasmine has captured an important place in flower decoration. Now the situation is such that with out Jasmine there is no flower decoration. Some of the designs are Nela Malai (doorway adornment), Thoranam, bed spread, Kreedam (crown), Rakkodi, Muthangi, Mogra (round ornament on crown), Kunjam (tassel), Oddyanam (waist belt), Jadai Patti, Poo Pavadai, Necklace, Haram (long necklace), floral net, flower carpet, flower rangoli and mini souvenir.

Wedding decorations

In general Jasmine is used in all Indian marriages. Normally giving Jasmine is one of the Indian Culture and brides are decorated with Jasmine. In this decoration new computer designs are introduced during the recent years. The designs used for bride and bride groom decoration are Kreedam (crown), Rakkodi, Mogra (round ornament on crown), Oddyanam (waist belt) and Jadai Patti.

Table – 1 Additional Annual Income gained by Slum Women by **Getting Special Skill in Flower Garlanding**

Out of the above six types the slum women are weaving the third type only. This needs no education but skill	SI. No.	Types of Garlanding	1
and interest in learning. The	1	Uruttu Kattu	
garlanding charge is	2	Pattaikkattu	
fixed by the vendors based on demand.	3	Kadhambam	
The pattern of	4	Malai	
garlanding charges gave interesting data	5	Thirumbippar	
that they were paid 5	6	Designs	

e n g /. o	SI. No.	Types of Garlanding	Average present daily income through normal weaving (in Rs.)	Expected income while doing the specialised weavings (in Rs.)	Increase in per day income (in Rs.)	Average days per year the specialised work can be given to the outsiders	Increase in annual income by gaining special skill (in Rs.)
n e	1	Uruttu Kattu	40	120	80	100	8,000
s	2	Pattaikkattu	40	60	20	100	2,000
s I.	3	Kadhambam	40	60	20	100	2,000
f	4	Malai	40	120	80	100	8,000
s a	5	Thirumbippar	40	120	80	100	8,000
5	6	Designs	40	150	110	100	11,000

The marriage halls are now decorated by the artificial decoration materials. They can be decorated with floral decoration materials. The designs used for decorating the marriage halls are Nela Malai (door way adornment), Thoranam, flower carpet and flower Rangoli. The marriage chamber or compartment can also be decorated with the 'Thoranams' and floral arches. Beds for newly married couples can be decorated with the 'floral (Jali) net' and flower bed spreads.

Except the months Chithirai (April), Audi (July), Purattasi (September) and Margazhi (December) all the eight months there will be minimum of 10 wedding muhoorthams and other functions. Hence, by learning the new designs a woman can earn more money than the

earlier. Approximate calcualtions of income increment is given in **table 2**.

From the above table it is inferred that a women can earn additional annual income from Rs.26,000/- to Rs.4.96,000/-.

Temple Garlands and ornaments

All the time is the festival time in any one corner of our Country. Those festivals are combined with the decoration of temples and Gods. In temples we can use Jasmine flowers in arch decorations as well as in car decorations. All devotees are adorning Gods with Jasmine garlands next to Rose garlands. Hence, Jasmine garlands will be sold during the festival days than the other days. At that time they fetch very high price than the other days. The major festival months are Chithirai (April), Audi

(July), Purattasi (September) and Margazhi (December). During the other months also festivals will be held but in minimum. The decorations normally used in temples are Nela Malai (doorway adornment), Thoranam, Muthangi, Mogra (Round ornament on crown), Kunjam (tassel), Oddyanam (waist belt), Poo Pavadai, Necklace, Aaram (long necklace) and flower rangoli.

The following table enumerates the increment in annual income of a slum woman by getting skill in temple designing.

Hotel Industry

Most of the foreigners who visit India are staying at star hotels. Hence, star hotels are the most suitable venues where we can disseminate/ display our culture and heritage. From

Table – 2 Additional Annual Income gained by Slum Women by Getting Special Skill in Wedding Decoration

SI. No.	Types of Decoration	Present daily income for normal weaving (in Rs.)	Expected income for specialised weavings (in Rs.)	Increase in per day income (in Rs.)	Average days per year the specialised work can be given to the outsiders	Increase in annual income by gaining special skill (in Rs.)
1	Kreedam (Crown)	40	500	460	100	46,000
2	Rakkodi	40	300	260	100	26,000
3	Mogra	40	300	260	100	26,000
4	Oddyanam	40	300	260	100	26,000
5	Jadai Patti	40	300	260	100	26,000
6	Nela Malai	40	500 - 4,000	460 - 3,960	100	46,000 - 3,96,000
7	Thoranam	40	500 - 5,000	460 - 4,960	100	46,000 - 4,96,000
8	Flower Joly work on Bed	40	1,000	960	100	96,000
9	Flower carpet	40	3,000	2,960	100	2,96,000
10	Flower Rangoli	40	3,000	2,960	100	2,96,000

	Table – 3 Additional Annual Income gained by Slum Women by Getting Special Skill in Wedding								
SI. No.	Types of Decoration	Present daily income for normal weaving (in Rs.)	come for income for per day income eaving (in weavings (in Rs.)		Average days per year the specialised work can be given to the outsiders	Increase in annual income by gaining special skill (in Rs.)			
1	Nela Malai	40	500-4,000	460- 3,960	100	46,000 - 3,96,000			
2	Thoranam	40	500-10,000	460-9,960	100	46,000 - 9,96,000			
3	Muthangi	40	500	460	100	46,000			
4	Mogra	40	300	260	100	26,000			
5	Kunjam (Tassel)	40	300	260	100	26,000			
6	Oddyanam (waist belt)	40	300	260	100	26,000			
7	Poo Pavadai	40	500-3,000	460- 2,960	100	46,000- 2,96,000			
8	Necklace	40	300	260	100	26,000			
9	Aaram (Long Necklace)	40	500	460	100	46,000			
10	Flower Rangoli	40	300-2,000	260- 1,960	100	26,000 - 1,96,000			

Table – 3 Additional Annual Income gained by Slum Women by Getting Special Skill in Wedding

the star hotels they get linked with the travel guides and travel agencies. Hence, the ways may be explored to utilise the travel agents and travel guides to popularise Madurai Malli. More over on the arrival of the tourists a mini souvenir made up of Jasmine may be gifted or otherwise a small punch of Jasmine scent may be applied on their upper hand. Jasmine scent will fume its fragrance for about four to five hours and even after their hand wash. This will give them a pleasant experience.

If a slum woman who is doing all designs making a linkage with a star hotel she has to supply the required quantities of souvenirs, garlands and tied flowers daily. Similarly at any special occasions she will get chance to decorate the hotel rooms, reception area, conference hall and even dinner

rooms also. By this she will get regular opportunities. By these activities she will earn more income than what now she is. The possible annual income increment is tabulated and presented below (Table 4).

Many types of souvenir made up of frozen Jasmine flower may be displayed for sales at the hotel show rooms will attract the tourists. This may increase the demand for the souvenir made up of Jasmine indirectly it will increase the popularity of the flower.

Table weights and souvenir preparation

A new thinking evolved to prepare Table weight which includes Jasmine flower as an inner design. Jasmine flower is frozen by treating in liquid Nitrogen (-50ÚC). It will not loose its colour and rigid appearance after the liquid Nitrogen treatment. Then this frozen flower is embedded on gel mat and kept in a transparent plastic cube and sealed air tightly. A small write up on 'Madurai Malli' is laminated on any one side of that table weight or other similar products. This product may be displayed in star hotels to attract the visitoRs.Idea on production of souvenir using Madurai Malli is only in concept level. There is no progress in trial production. After the trial production only the cost economics can be worked out.

Other avenues

Loose Flowers

Loose flowers are as such used in flower decoration. Loose flowers may be kept in heap of flowers in small

	Table – 4 Additional Annual Income Gained by Sium Women by Getting Special Skill in Hotel Decoration								
SI. No.	Types of Decoration	Average present daily income through normal weaving (in Rs.)	Expected income while doing the specialised weavings (in Rs.)	Increase in per day income (in Rs.)	Average days per year the specialised work can be given to the outsiders	Increase in annual income by gaining special skill (in Rs.)			
1	Nela Malai	40	500-4,000	460-3,960	25	11,500 - 99,000			
2	Thoranam	40	500-10,000	460-9,960	25	11,500 - 2,49,000			
3	Garlands	40	120	80	50	4,000			
4	Souvenirs	40	200	160	50	8,000			
5	Flower Joly work on Bed	40	1,000	960	25	24,000			
6	Room Decoration	40	500	480	25	12,000			

Table – 4 Additional Annual Income Gained by Slum Women by Getting Special Skill in Hotel Decoration

decorative cups and can be displayed. The loose flowers are exported to the Arab countries and South Eastern countries.

Wax Preparation

Jasmine wax is the base product for Jasmine scent and Jasmine oil which are used for making perfumes and incense. Its oil is also used in creams, shampoos and soaps. During the peak season when it can not be sold by the flower merchants are utilised for wax and preparation.

Edible Uses

Jasmine flowers are used to flavour Jasmine tea and other herbal or black tea. Drinking Jasmine tea regularly helps in curing cancer. Now, from Jasmine sherbet is prepared.

Medicinal uses

The Jasmine flower is used for removing intestinal worms and is also used for jaundice and venereal diseases. The flower buds are useful in treating ulcers, vesicles, boils, skin diseases and eye disorders. The leaves extracts against breast tumours.Drinking Jasmine tea regularly helps in curing cancer. Its oil is very effective in calming and relaxing.

Way forward

a. Formation of Primary Producer Groups (PPGs)

A Primary Producer Group in all the above components based on their skills can be formed based on their skills like comprising the garlanding slum women is to be formed. Similarly a Primary Marketing Group(PMGs) comprising the flower vendors is also to be formed. Both the groups are to be facilitated to create business linkage between them.

b. Skill Building

Impart skill building training to the slum women who have flower garlanding as their part time livelihood. Exhibitions, seminars and workshops are to be conducted with different styles of garlanding, different designs and other by-products of jasmine, which will create awareness among the people and also invite new innovative ideas. Courses on preparation of jasmine by-products may be conducted for poor by DHAN Community college. Training centres for diploma course on the pattern of ITI for training the personnel in floriculture should be set up.

c. Creative market linkage

Market linkages with the hoteliers, big flower vendors and designers are to be facilitated. Production and popularisation of the products like Malli Sherbet, Malli Bouquet, Malli Scent Sachet, etc..

d. Livelihoods of the poor

There is no doubt more than 25 per cent of the slum women are depending up on the flower weaving for their livelihoods. Under this situation giving training in flower designing will help them to increase their family income. Many avenues will be opened to them to utilize their skill in a profitable manner.

Indigenous system of risk management

Dr. H.K. Mahantesh*

xperiences have shown that, **L**development efforts that ignore indigenous knowledge, local systems of knowledge and the local environment generally fails to achieve their desired objectives. Indigenous knowledge refers to the unique, traditional, local knowledge existing within and developed around the specific conditions of women and men to a particular geographic area. Though India, a developing country is trying to combat the risks of common man by means of various sources, reaching poor and addressing their issues is still an upheld task. Apart from government, many non governmental organisations are trying to find out ways and means to understand the rural issues or risks.

Villages from the time immemorial are following their own, indigenous or traditional methods to combat risks. Death (one of the risks), the irreversible cessation of life, has always intrigued and frightened mankind. Every known culture has attempted to provide an explanation of its meaning. Like birth or marriage, it is universally considered an event of social significance, amplified by virtual and supported by institutions. In villages, few family events like marriage, birth or death of a person and other kinds of accidents are making most of the people vulnerable. With the way they are getting support from monsoon to their livelihood, it is getting impossible for them to manage risks on their own. By



understanding this, villagers of Peravoor (Ramnad district) are following community system of celebrating marriages, birth ceremonies and mainly funeral rights to overcome the financial and social burden. This community system is followed from time immemorial.

In this context few organisations are trying to recognise the people practices in overcoming the risks. Almost for all kinds of risks, people are having solutions. Indigenous methods of risk management evolved are in practise from time unknown. The only concern is - these systems are in practice in few patches. Not all the people are following these systems to overcome the natural risks. If government with the support of non governmental organisations can recognise all these risk combating mechanisms and if it can make people

to practise it everywhere, with less financial support, people can easily find solutions to their nature bound problems.

Peravoor village belongs to Ramnad district of Tamilnadu state. It is six kilometers away from Ramnad. There are 498 households in this village. The whole village is divided into two blocks by the main road heading to Chennai. The two blocks are called as east block and west block. East block is having 290 households and the west block is having 208 households. This village is having all the basic amenities like water, electricity, road, library and health centre. Villagers belong to three different castes. Major caste by number is Scheduled caste (358 households), followed by Konar (100 households) and Arundathiyar (40 households).

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Why Peravoor is different!!!

"Both at the good and bad times, villagers standby and support the concerned socially and financially"

Associations working in the village

1. Peravoor elders association

All married men are members of this association. Immediately after marriage, bridegroom should give five rupees to the association. Every week each family should save Rs.5 (until their death). In absence or death of the husband, wife will continue savings. Every Sunday, all members assemble at 10 AM to discuss and to promote the association.

2. Peravoor women association

All the married women of Peravoor should compulsorily become members of this association. Every Saturday at 10 AM, all the women should assemble at one place and should save Rs.10.

3. Peravoor youth association

Whenever situations like marriage, birth ceremony or death events (funerals) demands, youth association will start working under the guidance of elders association. Immediately after baby boy takes birth in the family, he or his family should start contributing 50 paisa/week (until he dies). Youth association meeting is on every Sunday at 10 AM.

4. Kalanjiam groups

There are eight Kalanjiam groups (138 members) in the village, working under the guidance of DHAN Foundation. These Kalanjiam groups are helping the village to maintain its unity by bringing the knowledge of



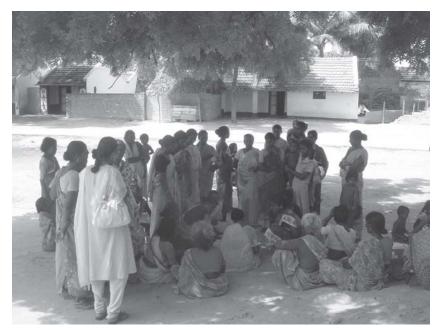
outside world (good and bad practices of other villages). Villagers are surprised to know, this type of community approach what is followed by them is not in practice in most of the villages in Ramnad or even in Tamil Nadu.

This information itself is binding them together to go stronger with their community approach. But they do want their system to happen everywhere.

Best Practices

- They have an association for all the married men called elders association which works for the welfare of the village people.
- 2. Immediately after the marriage, by contributing Rs.100, married men become member of elders association. He continues contributing Rs.5/per week until he dies.
- 3. Elders association contribution is used for the welfare of the village as mentioned below
 - Donate Rs.1,000 to the deceased family.

- Celebration of temple or village festivals.
- During marriage or birth ceremony or death event, interest free loan of Rs.10,000 is given to the decreased family. Amount will be taken back within the span of three months.
- With the contribution amount, they bought Ratham (vehicle to carry deceased to the graveyard) worth Rs.24,000 and purchased one acre of land for common use.
- No court or police station case is reported from Peravoor village. All types of issues are settled by elders association.
- 6. Elders association meets every Sunday at 10 A.M.
- 7. During the death of a villager, all the members participate in the funerals. Funeral works are performed by the villagers with the guidance of the president of the elders association. Deceased family members need not do any kind of funeral works. All funeral



works are looked after by the villagers to reduce the burden of the suffering family.

- 8. All married women of the village are members of women association and save Rs.10 every week.
- 9. All women members of the village assemble at one place on Saturday (10 A.M) to save and discuss problems of women. Families with financial problems are given a loan with soft interest (24%) rates.
- 10. All women members contribute some amount for the development of the village. In 2008, they have contributed Rs.20,000 for the renovation works of the temple.
- 11. On occasions like birth ceremonies and marriages, all women members of the village bring one pot of water to the house of the concerned family. If not, penalty of Rs.100 is posed. Attendance is taken by one of the celebrating family member. This practice is followed even for death ceremonies as mentioned

- the elders association in turn for the development of the village.
- Drunkard person are not allowed to enter into the committee hall.
 If he enters, he has to pay fine of Rs.100 to the elders association.

On an average, normal expenditure to carry out funeral rights in case of other villages is Rs.7, 800 to Rs.13, 050. In Perayoor, because of the community system, average expenditure is only Rs.2, 000. It is very much possible in all kinds of villages where in people are already mobilised in the form of groups or clusters or federations or even in other kind of village level associations. In a village where community is systematically organized like in Peravoor, all government programmes can be initiated through village associations. Any kind of social or agricultural demonstrations can be initiated in these villages. Financial institutions can use these villages for their schemes new demonstrations. Peravoor villagers are proving to the world that, community organisations can address the needs of social security of people based on the concept of mutuality (which enhances humanity and social integration). It is appropriate to ponder over why such systems and practices cannot be instituted in micro finance groups or other people institutions so that the community benefit and security are nurtured over generations. Once community starts practicing this model, other development Programmes from government and NGOs' will become easy to implement and to develop the village as a whole.

Such practices are not prevalent in all villages, but only in Peravoor (village wise). These practices are perfected over years under the guidance of elders association or village level association. Peravoor villagers have proven that, it is possible even with villages having more households. It is very much possible in all kinds of villages where in people are already mobilised in the form of groups or clusters or federations or even other kind of village level associations.

Peravoor villagers are proving to the world that, community organisations can address the needs of social security of people based on the concept of mutuality (which enhances humanity and social integration). It is appropriate to ponder over why such systems and practices cannot be instituted in micro finance groups or other people institutions so that the community benefit and security are nurtured over generations. Once community starts practicing this other development model, programmes from government and NGOs' will become easy to implement and to develop the village as a whole.

Ms. Papamma experience

Ms. Papamma is a widow living presently with her daughter (Ms. Sathyaki and son-in-law). She is having two daughters and one son. Her son and another daughter are living in other villages. In the year 2007, her son in law was hospitalized in Madurai because of brain cancer. He was admitted for a week. Every day from the date of admission to discharge, villagers came to see him in mass (at least 30 to 40 people per day). By seeing this, one of the hospital staff asked Ms.Papamma.[Papamma shared with us the exact conversation happened between her and an unknown hospital staff. Here is the conversation content]



Staff : Is he a celebrity?

Papamma: No, he is my son in law and an ordinary farmer from Peravoor village of Ramnad district.

Staff: Then why so many people are coming to see him?

Papamma: That's the way we live.in our village.

Staff: Are you getting any financial support from them?

Papamma: When some one is visiting us from our village, they used to contribute cash and food pockets.

Staff: I am really amazed to see this but meantime I am feeling sad as my village do not have such good

practices.

Papamma: Please visit my village, Thank you.

Emerging theme

Tourism and Millennium Development Goals

K.P. Bharathi*

Tourism is one of the worlds largest Industries. According to the United Nations worlds Tourism Organization (UNWTO), the business volume that is generating today equals or even surpasses that of oil exports, food products or automobiles. As disposable income continues to increase, the overall number of tourists is forecasted to *grow by 4% per year* between now and 2020.

In addition to this capacity and growth, the tourism industry faces greater challenges than ever before. Potential impact includes harm to the environment, society and local economics of tourist destinations



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around the world. Awareness and action about these concerns are on rise with in the tourism industry, Government and NGOS.

There are limits to using case studies for assessing poverty. However the on going interim evaluation of multi-site project "Endogenous Tourism for Rural Livelihoods" suggests the possibility of learning and then scaling up such a project for widerCoverage. Consideration of the linkages between tourism and MDGs clearly illustrates the potential of tourism to have a greater Socio-economic impact.NGOs like us, government and other stakeholders face the challenges of translating the potential in to actual achievements.

The Millennium Development Goals (MDGs) represent a global partnership aimed at responding to the world's main development challenges, including poverty reduction, opportunities for education, better maternal health, gender equality and reducing child mortality, AIDS and other disease.

The MDGs are an agreed, set of goals to be achieved by 2015 based on all actors working together at global, regional and National level. Strategies based on working with a wide range of partners can help create coalitions for change that support the MDGs at all levels; bench mark progress; and help countries build the institutional capacity, policies and programs needed to achieve the MDGs.

It is generally assumed that international tourism can generate benefits for poor people and poor communities in the context of sustainable tourism development, usually without specifically targeting the poor.

However attention has been given to the argument that tourism could be more effectively harnessed to address poverty reduction in ways that are more direct. For example, according to UNWTO, Tourism can contribute to development and poverty reduction in a number of ways. Although the focus is usually on economic benefit, there can also be socials, environmental and cultural benefits.

Poverty can be reduced when tourism provides employment and diversified livelihood opportunities, which provides additional income. This can contribute to reducing the vulnerability by increasing the range of economic opportunities available to individuals and households living in conditions of poverty. Tourism can also contribute through direct taxation and by generating taxable economic growth since taxes can then be used to alleviate poverty through education, health and infrastructure development .These points refer to the general contribution of tourism at the macro level

When considering targeted interventions aimed at achieving specific MDGs, the action to make tourism contribute to poverty alleviation at local and community level needs to be considered.

At the same time, however, it is equally important to consider how such targeted interventions can be replicated in other communities or scaled up to have a wider impact.

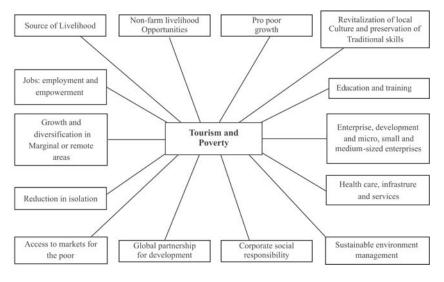
Targeted interventions to address the issues raised in the Millennium Development Goals require that the linkages between tourism and poverty be identified.

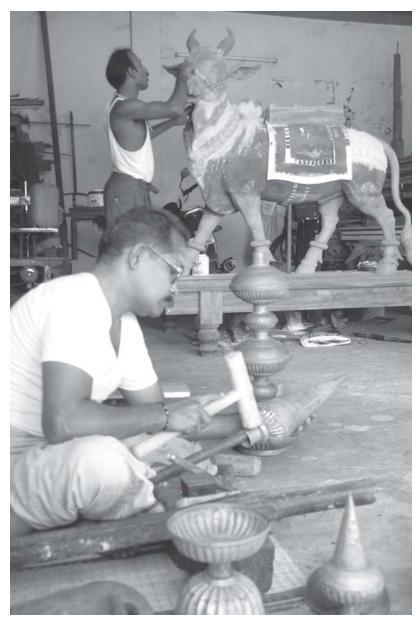
Contribution of Tourism to achieve the MDGS.

Goal 1:Eradicate extreme poverty and Hunger.

- Tourism stimulates economic growth both at the national and local levels and promotes the growth of the agricultural, industrial and service sectors.
- Tourism provides a wide range of employment opportunities early accessible by the poor.
 Tourism business and tourists

Linkages between Tourism and Poverty





purchase goods and service directly from the poor or enterprises employed the poor. This creates opportunities for micro, small and medium—sized enterprises in which the poor can participate.

• International and domestic tourism spreads development to poor regions and remote rural areas of a country that may not have benefited from other type of economic development. • The development of tourism infrastructure can benefit the livelihood of poor through improvement in tourism-linked service sectors, including transport and communication, water supply, energy and health services.

Goal 2: Achieve universal primary education

 The construction of roads and tracks to remote areas for tourists also improves access for school –age children and for teacher Tourism can help local resource mobilization. Part of which can be spent on improvement of educative facilities

Goal 3: Promote gender equality and empower Women

 The tourism industry employs a high proportion of women and creates micro enterprise opportunities for them. It promotes women's mobility and provides opportunity for social networking and financial empowerment.

Goal 4, 5, 6: Reduce child mortality/Improve maternal Health, combat HIV/AIDs malaria and other diseases:

- Construction of roads and tracks to remote areas for tourism also improves access to health services.
- Revenue accruing to national and local governments through taxes on the tourism industry can be used to improve health service and nutrition for young children and their mothers.
- Tourism raises awareness about HIV/AIDS issues and supports HIV/AIDS- prevention campaign.

Goal 7: Ensure Environmental Sustainability

- Tourism can generate financial resources for conservation of the natural environment.
- Responsible tourism will raise awareness about environment conservation and promote waste management, recycling and bio diversity conservation.

Goal 8: Develop a global partnership for development:

- Tourism contributes to the socioeconomic development of least developed countires, land locked countries and island developing countries through foreign exchange earnings and the creation of job opportunities.
- Tourism stimulates the development of transport infrastructure.
- Tourism stimulates internal and external trade and strengthens supply chains.
- Tourism promotes the integration of isolated economics with regional and global flows of trade and investment.
- Tourism reduces the burden on government budgets through implementation of public-private initiatives.
- Information technologies play an important role in integrating tourism enterprises in to global tourism markets.

An illustrative example of demonstrating linkage between tourism and MDGs could be the four year project titled "Endogenous Tourism for rural Livelihoods" being funded by UNDP. The project incorporation strategies designed to work with a wide range of partners to create coalitions for change in support of achieving the MDGs at the local level and build Institutional capacity based on new model known as Endogenous Tourism, which is linked to the workshop of rural tourism.

From 2003 to 2008, the ministry of Tourism and culture, Government of India, has been working with 34 implementing agencies, 30 NGOs and 4 Panchayats at 36 sites across 20 states throughout the country. Alternative models of rural tourism are being developed across India, since the government has identified tourism as a vehicle for generating employment and promoting sustainable livelihoods. Microfiancing is a part of the project.

Cultural heritage and indigenous tradition are the foundations of the project model of rural tourism. Common facility centers for village craft persons and village art centers are set up at the 36 project sites to showcase the culture and living heritage characteristic of each site. Where appropriate, rest houses are built based on local skills and constructive materials. People in the communities are trained in different aspects o hospitality to provide services of international standard.

Community ownership and management is central to the projects strategy. At every stage in the implementation, care is taken to ensure the participation of women, youth and other disadvantaged groups.

By October 2006, most sites were ready to receive tourists and all implementing partners has become sensitized to gender and HIV/AIDS concerns. The project won a world Travel Award in the category of "Worlds Leading Responsible Tourism Project" in 2006.

As part of committment to MDGs, DHAN is progressing in linking Tourism and MDG goal by implementing the Endogenous Tourism project at Karaikudi (Sivaganga district) Kazhugumalai (Thoothukudi dist) with collaboration of UNDP Ministry of tourism, government of India. Now the experiences of this project have given us insights to tap the tourism opportunities in favour of the poor communities to promote responsible Tourism Initiatives as a cross cutting theme in DHAN Collective.



Participatory Ecological Restoration

Case study of River Noyyal in India

Er. S. Sivaraman*

Introduction

The essence of sustainable development is that natural resources must be used in ways that will not limit their availability to future generations. The finite nature of the renewable fresh water resource makes it a critical natural resource, in the context of population growth. Population growth not only increases human water needs, it also helps accelerate environmental disturbance of the "Hydrologic cycle" as a byproduct of the greater production of food and fuel. Industry uses water for cooling, processing, cleaning and removing industrial wastes. Most of the water used for the industrial purposes is returned to the water cycle. However, the chemicals from Industrial wastewater often pollute and damage the remaining fresh water resources. Industrial use varies from less than five per cent in many developing countries to as much as eighty five per cent in Belgium and Finland (Robert Engelman and Pamela Leroy, 1993).

This paper narrates the tale of River *Noyyal* which is torn between Food and Fashion and being killed in the process. The Irrigation development in the *Noyyal* River dates back to several centuries. The River *Noyyal* passes through a fast expanding city of *Tiruppur*, a textile industrial city with hundreds of dyeing

and bleaching units. These units draw fresh water for their process and almost all the water returns as effluent. Thus an acute competition for the *Noyyal* water between food and fashion developed. A perennial river is now a dead river whose waters cannot be used and no one dare to touch the water. An attempt to rejuvenate the river is going on and this paper gives the details of the activities.

Novyal Basin

The *Noyyal* river is the tributary of the Cauvery river which originates in the Velliangiri hills of western ghats. The river Noyyal passes through two important urban centres, Coimbatore, a fast expanding industrial city and Tiruppur, a textile industrial city with hundreds of dyeing and bleaching units and confluences with the river Cauvery near Novyal Village of Karur Taluk. The total catchment area of Novval basin is 2999 Sq.km. The average annual rainfall in the area ranges between 500 to 650 mm. The water resources use in Noyyal River dates back to BC era. The Kodumanal is a place on the banks of river where archeological excavations revealed trade between Roman empire during second century BC. There are remains of anaicuts and evidences for the existence of steel melting units. There are 24 anaicuts across Noyyal river above the *Orathupalayam* reservoir which diverts water for irrigation through 30 tanks. There are two important irrigation structures in the basin:

- 1. *Muthur* barrage, and *Athupalayam* tank
- 2. Orathupalayam reservoir.

Muthur Barrage

A barrage across the *Noyyal* river at *Chinnamuthur* was constructed in the year1981. The water is diverted through a 10 km long canal to *Athupalayam* tank in Erode District. The stored water in the *Athupalayam* tank irrigates an extent of 9625 acres of wet lands in *Karur* district.

Orathupalayam Reservoir

A reservoir was built across river *Noyyal* in the upstream of the *Muthur* barrage during 1992. The reservoir is designed to irrigate an ayaicut of 500 acres in Erode district. In addition, the water stored in the dam is diverted to *Athupalayam* tank through *Muthur* barrage to irrigate further extent of 9875 acres. On completion of *Orathupalayam* dam the total ayacut under *Athupalayam* tank increased to 19500 acres.

Development of Textile industry in Tiruppur

The environmental activists like Green Peace International started a campaign against pollution of rivers

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by the dyeing and bleaching industries in Europe during the late seventies. One Mr. Antony Verona from Italy came to Tiruppur and purchased knitwear. This triggered the large scale export from Tiruppur to Europe due to huge profits. The European nations are happy that their rivers are saved from pollution and Tiruppur is willing to meet their dyeing needs. Though the dyeing and bleaching industries were started as early as in 1940 in Tiruppur, after 1980 the number of units both approved and unapproved increased phenomenally.

record of dyeing and bleaching units in Tiruppur, Coimbatore areas

Treatment Process

The present practice is to collect the dye bath water and add lime and ferrous sulphate to make the suspended solids to settle and allow evaporating. The remaining water is treated and let into river. The residue of solid wastes from the settling tanks are collected in gunny bags and stored for the past ten years. Huge amount of the solid waste are kept in bags in

usage of sodium chloride in huge
quantities in the dyeing process.

The tolerable limits of TDS as stipulated by the Pollution Control Board are

For drinking purpose below 500mg/l

For agriculture below 2100 mg/l

Water used by the units

The dyeing and bleaching process require very high quantity of water. In Winch dyeing process it requires 15,000 litres of water to process 100 kg of cloth. If soft flow process is followed the requirement for 100 kg will be 7000 litres. As per PCB, the units are permitted to process 600 tonnes of fabric per day. Hence they are supposed use 42 to 90 MLD and an equal quantity of effluent water is generated. The effluents are disposed as below:

650 units are letting their effluent into *Novval* river

155 units are letting their effluent on land

19 units are recycling their effluent.

But some of the units are using the treated effluent for their casuarina plantations within the factory premises. This also affected the ground water. The Chief Water Analyst, King Institute, a prestigious institution of the Government tested the water in the Orathupalayam reservoir and furnished the following to the Committee.

- Quality of water is extremely bad with high pollution load
- The mineral content is abnormally high (6250 mg/l)

Year	1941	1951	1961	1971	1981	1986	1989	1992	1994	1998	2005
Number of Units	2	15	42	67	78	99	450	551	713	786	824

The export earnings that was Rs.150 millions in 1985 rose to Rs.60,000 millions in 2005 a whopping figure at what cost of ecology!!!

The population of Tiruppur as per 1981 census was 1,65,223 and in 2001 it rose to 3,51,501. This increase is mainly due to workforce migrated from other parts of Tamil Nadu. Nearly 200,000 people earn their livelihood from the textile industries of Tiruppur. The Pollution Control Board (PCB) furnished the following

all the dyeing units and also dumped along the river banks, roadsides and in the river beds. This is going on for more than 10 years. The PCB considers this waste as hazardous material. The treatment process reduces the COD, BOD, Total Suspended Solids (TSS) and Heavy metals. But the Total Dissolved Solids (TDS) is very high due to addition of Salt in huge quantities for dyeing. The treatment process at present does not reduce the TDS level. The TDS levels of the effluents ranges from 3000 to 11000 mg/l. The main reason is the

Area	Coimbatore	Tiruppur	Total
Total units	87	737	824
Units with Common Treatment Plants	47	281	328
Units with Individual Treatment Plants	10	420	430
Units with No Treatment	30	36	66
Quantity let out in MLD	6.52	87.8	94.32

- High chlorides (3200 mg/l)
- Oils and Grease (51 mg/l)
- Total Nitrogen (5.04 mg/l).
- The abnormally high concentration of Sodium (2054 mg/l) is still dangerous as it replaces Calcium and Magnesium from the soil resulting in the breakdown of granular structure of the soil.
- Trace elements like Mercury are absent.

Damages casued by storing water in the Orathupalayam Dam

During 1996 there was a change in the process of dyeing which created more toxic and highly saline effluents. The water let down for irrigation from Novyal not only reduced the crop yield but also damaged the soil permanently and made it unsuitable for cultivation. The people of the area protested and water are not let down for irrigation from this reservoir since 1996. The river course is caused by incise and the bottom is rocky bed. Hence flowing water will quickly drain without seeping into the ground. But the stagnated water will find entry into the ground through sides and affect the ground water. As the polluted water was stored for 9 years, the damage to ground water had spread in all villages around the reservoir. The livelihood of farmers depended upon wells for irrigation and now they lost their agriculture. Moreover the drinking water scarcity is acute in the villages around the dam both for human beings and live stock.

Damage to Agriculture

There are 23 hamlets in *Anjur* village *panchayat*. Half of the hamlets are along the *Noyyal* bank and

the other half around the Athupalayam tank. Prior to 1996 (the year in which the dam commissioned and the polluted water of the Noyyal was let into the system), the farmers in Athupalayam tank for whom the system created were able to have a good harvest of paddy, sugarcane and gingelly. The polluted water from Noyyal affected the ground water as well as land after irrigation. The crop yield had reduced by 50% in 1996 itself and still further after 1998. There after they refused to receive supply from Noyyal. Some of the farmers used only the return flows of lower Bhavani project ayacut and able to cultivate their lands. But if they use ground water, the crops fail and land gets affected. They depend on the wells for their drinking water needs. But after the well waters became nonpotable due to pollution by Noyyal they have to trek a long distance to get water. The health and livelihood issues are also serious. To sum up the damages are extensive.

64636 ha					
33359 ha					
ltivation					
50% reduction in yield					
66% reduction in yield					
25% of lands have to be kept fallow					

Drinking Water

Erode District 215 habitats
Karur District 308 habitats

Water sources located 1km on either side of these habitats are unfit for both human and animal consumption.

Writ pettition and constitution of expert committee

A writ petition No. 29791 of 2003 was filed by the Noyyal River Ayacutars Protection Association under Article of 226 the constitution of India praying that the High Court may direct the Respondent to implement the orders of the Honourable High court of Madras, Dated 26-02-98 and made in WP No. 1649 of 1996 passed in pursuance of joint memo filed in the consent of all the parties. The Honourable High court of Madras in its order Dated 5-5-2005 has constituted an expert committee to go into the questions formulated by the Honourable High Court. Similar orders were also passed by the Honourable High Court of Madras on 5-5-2005 in Writ Petition No. 39368 of 2003.Writ petition No. 27540 of 2004 and Writ petition No. 12000 of 2005. The Honourable High Court nominated the Collectors of *Coimbatore* and *Erode* Districts as the Coordinators to the Committee. The Court directed the

Committee to inspect the cluster of industrial units in and around *Tirupur* that are discharging trade effluents either directly and indirectly into the *Noyyal*

River and assess the volume of the polluted water discharged into the river every day. The Committee has to suggest ways and means to clean the stored water in the Dam and then release the treated water in the river by adopting any technical industrial process. The Committee was requested to suggest an action plan for

remediation of the *Noyyal* river and in particular the Orathupalayam Dam and the canals and to suggest ways and means for preventing the discharge of polluted trade effluents either directly or indirectly into the *Noyyal* river by the cluster of industrial units in and around Tirupur during the process of cleaning the dam area and later.

Expert committee's findings

Tiruppur

The committee observed that a huge amount of the solid waste are kept in bags in all the dyeing units and also dumped along the river banks, roadsides and in the river beds. This is going on for more than 10 years. The PCB considers this waste as hazardous material. The Committee heard the views of farmers and dyeing Industrialists. The committee took into consideration the request made by several farmers' representatives that the stored water in the dam may be emptied without delay. The farmers belonging to both sides of the bank river expressed that the stagnated water in the Orathupalayam Reservoir is causing pollution to their ground water. The river course is caused by incise and the bottom is rocky bed. Hence flowing water will quickly drain without seeping into the ground. But the stagnated water will find entry into the ground through sides and affect the ground water. This has been observed in the tests undertaken during field inspection by the committee. The damage to ground water will spread farther away as long as the water is stored in the dam. The livelihood of farmers depended upon wells for irrigation and now they lost their agriculture. Moreover the drinking water scarcity is acute in the

villages around the dam both for human beings and live stock.

Coimbatore

There are 87 dyeing and bleaching units in and around Coimbatore. Out of these 87 units, 47 units have grouped themselves and initiated action to install CETPs. But their constructions are partly done and abandoned in the pretext that they are awaiting the grant from Government of India. Another 30 units have no treatment plants and let untreated effluent into the River I. The remaining 10 units have individual treatment plants. However they are not addressing the TDS. The Expert Committee visited one of the 10 units and found that the treatment plants are not performing satisfactorily. Based on the observations of the Expert Committee, the High Court ordered the closure of all the units in river I until they comply with Zero Discharge.

Farmer's views

The farmers expressed that they were well off and happy before the construction of dam and that the dam constructed for helping Agriculture, has now become a storage pond for polluters. The Farmer's wanted to ensure that,

- Production is restricted as per licensed capacity
- Zero discharge is made compulsory
- Shifting of all the units 5 kms away from the river
- Individual treatment plants instead of Common Effluent Treatment Plants

 Permanent vigilance group to oversee the zero discharge represented by experts, officials & affected villagers associations

Recommendations

- 1. Dilution is the feasible and suggested method of treatment of stored water in *Orathupalayam* dam. The release of the stored water has to be completed within the shortest possible time considering the flow in *Cauvery*. River sluices have to be kept open and not to store any water in the dam, until the zero discharge of the effluent to the river is ensured.
- 2. The dyeing & bleaching units have to install treatment plants either individually or as a group and reduce the COD, BOD, Total Suspended Solids (TSS) and Heavy metals. A Reverse Osmosis Unit is to be installed to reduce the TDS level and after reducing the TDS, the effluent is to be recycled by the units and no water/effluent is to be let into the river. This is called as "Zero Discharge". The units are given time of 15 months to comply with and ensure Zero Discharge.
- 3. Sewage disposal, as well as municipal waste, is being dumped into the river. The Tamil Nadu Water supply And Drainage Board (TWAD) and the local bodies concerned have to be directed that this practice stopped forthwith. Particularly the TWAD Board should be directed to install sewage treatment plants within nine months and treated effluent should be recycled.

- 4. For the catchment and command area treatment to rejuvenate *Noyyal* and restore ecology, the following are suggested:
 - The encroachments and obstructions in the Noyyal river have to be removed.
 - Construction of check dams and percolation ponds for rainwater harvesting to improve the quality of ground water affected by the polluted storage.
 - Rehabilitation of tanks and ponds including desilting of the tanks to reclaim the ground water.
 - Treatment to the command area through land reclamation, crop diversification, and water management.
 - Rejuvenation of Noyyal river through improved maintenance and management of river course.

The compensation and fine imposed

The Loss of Ecology Authority, *Chennai* had passed an order that a sum of Rs.247.9 millions have to be collected from 793 industries and disbursed to 28944 affected land owners. The industries have been directed to remit their due in bimonthly installments from 01.04.2005. 16 industries in *Erode* had remitted their first installment totaling Rs.4,20,736. The Collector, *Erode*, informed the committee that

the industries are not forth coming to remit the subsequent installment amounts in spite of his best efforts. The collector had initiated action to recover the amount under the provisions of the Revenue Recovery Act. Three industries have filed writ petitions in the High Court against the use of Revenue Recovery Act for recovering the dues from them for the above purpose. As there are legal impediments in collecting the second and subsequent installments, the compensation amount could not be collected and disbursed to the affected land owners. As a result, the affected land owners are experiencing much hardship and they are making repeated representations to the district administration for expeditious settlement of the compensation amount to them. But continued discharge of untreated effluent and flow of untreated effluent in the river continues to hamper the livelihoods of thousands of farmers living along the riverside villages. The Expert Committee as well as the Monitoring Committee during their visits to the industries and also while checking the flow into the rivers and canals, found that untreated water still continues to flow in the river. This will continue the pollution and cause irreparable damage to ecology and also harming the livelihoods of the community in and around the Noyyal river. As a pollution control measure, the quantity let into Novyal including the units from Coimbatore had to be stopped and then the Noyyal basin had to be rejuvenated.

There were two categories of industries operating in Tiruppur. The first categories are those who

complied with the directions of Honourable Court and installed RO plants to ensure zero discharge and the second are who have not. Hence the problem of untreated effluent is continuing. The Monitoring Committee in their report dated 5th August 2006 had recommended a system of imposing fine on the free riders. The quantum of "fine/penalty" suggested was actually related to the savings made by the CETPs and/their member units who have not implemented the zero discharge concept but gaining commercial advantage of lesser production cost at present when compared to those units who have faithfully implemented the court order and incurring additional cost in reaching zero Discharge. So as to neutralize the commercial advantage gained by the defaulters over compliant units, until they complete the installation and effect Zero Discharge penalty have to be imposed. Monitoring Committee recommended that all CETPs be subjected to an ascending fine from 6 paise a litre beginning 1st August 2006 and increasing month after month to 10 paise a litre in December 2006. Thereafter, if a CETP is not in a position to operate the RO plant and reject management arrangements so as to achieve zero discharge, the CETP and its member units must be shut down till such achievement is possible. The Committee also recommends that these monies along with the fines already levied by this Hon'ble Court on individual units and CETPs be segregated and used for remediation of the Noyyal river and other water bodies such as the Sarkar Periyapalayam Eri, which

have been the recipient of polluted water, after the Orathupalayam Dam is cleared of accumulated sediment and also as a reserve to be used for compensating down stream farmers for continuing damages suffered after the period for which compensation was ordered by the loss of ecology authority. The High Court agreed and imposed the fine to the erring industries. As most of industries are operating at more than the approved limit, the fine amount was very huge.

Participatory river cleaning

An NGO by name VALAM cleaned some reaches of he Noyyal river within Tiruppur a year back. The committee during visit observed that these reaches had again deteriorated and encroached upon. This indicates that a one time improvement will not last long unless followed by sustained maintenance by the community. Hence the committee recommended that the work of cleaning the river to be entrusted to the affected villagers. Normally this type of work will be entrusted to the contractors. The committee approached the High Court with this recommendation. The work of cleaning the Noyyal river downstream of the dam for 45 km was entrusted to the Noyyal River Avacutdars Protection Association. The above association entered into a Memorandum of Understanding with the Executive Engineer, Lower Bhavani Basin Division. An amount of Rs.15.00 lakhs was placed at the disposal of the association as an advance as per the order of the Honourable High Court. The work commenced on 10th June 2006. The

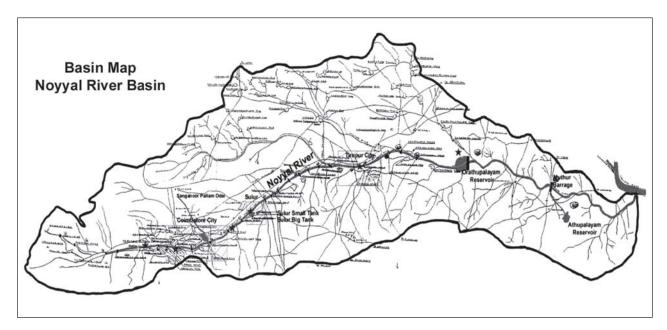
Expert Committee periodically inspected the progress of the work of cleaning the *Noyyal* river carried out by the association. The various components of the work involved are as follows;

- Jungle clearance
- Sludge removal
- Demarcation of river boundaries and fixing of stones
- Planting trees on the banks
- Maintenance of the river course

There was great enthusiasm among the affected villagers as this work provided some income to theme and also the river is cleaned from pollution and encroachments. The District Collectors evinced interest and put the revenue officials in the job of demarcation of boundaries and fixing of stones. The Public Works Department (PWD) also joined as they were able to reclaim the properties hitherto encroached. The works are nearing completion. As soon as the monsoon rains start, the planting of trees will be carried out in consultation with Forest Department and the Public Works Department. The representative of the farmers from Thangamman Koil at Kodumanal informed that he could observe and feel the improvement in quality of water in the wells near the vicinity of temple gradually after the dam has been emptied. Farmers also have an apprehension that the impounding of polluted water in Orathupalayam dam will cause deterioration in quality of their wells and they want the present arrangement of keeping the shutters open till Zero discharge is ensured.

The farmers informed the committee that the stone quarry rubbish is being dumped into the river and sought the committee's intervention to put a stop to this. The committee during one of the inspection visited the places shown by the farmers and observed that the excavated earth from several stone quarry firms is dumped in the river. The committee felt that no one cared about this dumping that has been going on for several years. It is a clear neglect both by government agencies and the people of the nearby villages who should have stopped such atrocious action in the beginning. The committee requested the revenue officials who were present to issue a notice to all the quarry firms nearby to stop immediately the dumping of earth in the river. And it is the firms' responsibility to remove the already dumped earth and put it back to the quarry pits. Otherwise their quarry license will be cancelled. The High Court also ordered the closure of quarries that violated the directions. Unless the farmers brought this to the notice of the Committee, the quarry owners would have formed an earth dam across Noyyal!!!

After this demarcation of river boundaries by the revenue officials number of spots could be identified where people have encroached and prevented the cleaning works. In *Ellagramam* village, a villager has encroached an area and cultivating sugarcane in it. A cattle shed is also in the encroached area. In the same



village other crops like castor are also cultivated. Similar practice is going Maravapalayam village in the opposite bank. In the Vasuvapatti village the person encroached had cultivated palm and coconut trees. After PWD and Revenue authorities demarcated, he had cut all the palm trees. The Committee suggested that the lands reclaimed from the eviction of encroachments may be given to Self Help Groups / Villager's Associations to use them for any income generation activities like planting Flowers, Herbs and Vegetables. In turn, Self Help Groups / Villager's Associations have maintained the river banks within the village boundaries. The farmers' associations have to create a corpus fund and the interest from the fund should be used for maintenance of the river and its banks. The committee also recommended planting of short duration crops like Daincha and Shorgam in the water spread area to absorb the chloride from the soil. After the rainy season the crops can be

removed along with the *Prosofis juliflora* growth in the water spread. The affected farmers may be entrusted with this work. The earning also could be pooled into corpus fund.

Conclusions

An earlier attempt made by an NGO by name VALAM to clean some reaches of the Novyal had resulted in failure as it could not be sustained. This indicates that a one time improvement will not last long unless followed by sustained maintenance by the community. Normally this type of work will be entrusted to the contractors. But at the recommendation of the expert committee and the directions of the High Court, the work of cleaning the river and planting trees along banks was entrusted with the affected villagers. All the expenditures for this work were borne by the polluting industries, which were ordered to deposit Rs.240 millions with Collector.

The industries were directed to install treatment plants and start reusing the treated effluent (Zero Discharge into River). The district administration was directed by the Court to extend all the help in this work. This model of participation by people, government and industries is unique and tried first time. The farmers have understood after nine years of suffering the meaning of the adage "A stitch in time will save nine" to ensure the sustainability of these efforts and are willing to manage the river at their cost in future

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Athangudi Tiles — Testimony to the Rich Cultural Heritage of Chettinad

Er. S.K. Karthich Gopal *

he DHAN Business Development Services team has taken up the Endogenous Tourism Project in Karaikudi, Sivagangai District, Tamil Nadu. DHAN Foundation along with Ministry of Tourism is implementing the project. Karaikudi is located just 40 Km away from Sivagangai. It is the seat of Chettinad culture. Karaikudi enchants all with its refined wood carving, attracting Athangudi tiles, silver embellishment, woven saries, jewellery and the exotic Chettinad cuisine.

The impact of the migration in Karaikudi has also been distinct on the culture of the centres of ancient civilisation. The arts and the architecture have started fading and the livelihood of the rural people has also been affected due to these migrations. But the interest of the people to go back to their villages, stay in their residence and relieve in their own culture is still deep rooted.

"Revival of arts; survival of artisans" - the slogan of endogenous tourism will help the dreams of the several master craftsmen come true. The overall goal of the project is to create a community managed rural tourism model through strengthening sustainable livelihoods of the local communities. The rural tourism would provide life to the arts and thereby improving the livelihood of the artisans. DHAN Foundation has signed MoC (Memorandum of Co-



operation) with EXIM Bank to help the artisans in Chettinad especially the brass metal workers, wood carvers and Athangudi tile makers.

Athangudi is a small village situated 16 Km from Karaikudi. Athangudi tiles, named after their place of manufacture in Chettinad, come in myriad colors and patterns and are made by a unique process using local soil. These tiles are testimony to the rich cultural heritage of the Chettiar community, who effectively adapted many influences to their own brand of local craftsmanship. The designs and colors used in Athangudi tiles are still those of a bygone era. The artisans say the charisma of those tiles is due to sand, which is of just the right composition. Cement, baby jelly and sand along with synthetic oxides make the composition of the tile.

The art of making these tiles is a traditional activity at Chettinad. But

the tiles manufactured now are not of the same quality as those of older days. With stiff competition from ceramic tiles, the demand for Athangudi tiles has declined. To revive this art form and improve the livelihood of its artisans, DHAN Foundation - with the support of UNDP and Government of India in the Endogenous Tourism Project at Karaikudi is working with the producers of the Athangudi tiles. DHAN Foundation has assisted the artisans in forming an association with 26 members, so as to continue the way of life centered on this art form, and to enable them to co-ordinate on various activities associated with tile making. To generate more interest, this activity is also included in the schedule of heritage tours and the results are promising. All the visitors are attracted by the Athangudi tiles and many are showing interest to purchase the tiles.

Kalanja Meenavar Sangam (KMS) in Nagoor

R. Lalitha*

Introduction

Kalanjia Meenavar Sangam (KMS) is one of the initiatives of post Tsunami rehabilitation programme by DHAN Foundation. KMS is for fishermen to enrich their life. Most of the fishermen are wage labourers and a few of them own small boats. These fishermen are forced to sell their fishes to the money lenders and traders from whom they borrowed money at higher rate of interest. They never get the real price for their fishes from these traders. These fishermen are exploited by agents (middle men) as they are not contacting the buyers directly. They do not have huge capital to invest and wait for a week to get the income. KMS is trying to help the fishermen to come out from their problems.

Kalanjia Meenavar Sangam (KMS)

Nagoor, five kilometers away from Karaikal is known for its fish transaction. Five persons (Mani, Kumar, Balaya, Iyyappan and Kaliappan) came forward to start the KMS with twenty members who own boats and 150 fishing labourers. The objective of the KMS is to market their fishes collectively. Karaikal federation (North), a federation promoted by DHAN Foundation provided Rs. Two lakhs to KMS group members as loan. They started their business with this working capital, and started paying for the catches immediately, usually within a day. The amount is also used to purchase



materials to preserve the fishes in ice box, purchasing ice bars and weighing machines. After getting the fish from the fishermen, the KMS informs the buyers about the place and time. The fishes are sold to the marketers to the highest bidder. As KMS has twenty boats with 150 members in KMS, auction commences only after all the boats reach the point.

If the member gives fishes to KMS, he receives the money on that day itself. KMS in turn would collect the amount from the buyers (may be in a week's time). Through this activity, the small fishermen get benefit immediately. The small fishermen contribute five percentage of the amount to the KMS from their sales, of which three percent is taken as service charge and two percent goes as their savings. From the service charge, 50 percent is pooled for corpus to KMS, 10 percent is for service

charge to the federation, 10 percent is for revolving and 5 percent is for conservation and disaster. The remaining 25 percent is shared as profit to the members.

DHAN Foundation provided capacity building and facilitated them to come out from these types of bondages. This encouraged the interested members to join hands and form KMS, so that they can do the marketing with the collective strength. The federation is also providing loans to repay their debts and live a free life. KMS also helps them to buy the icebox of good quality to preserve fish for a longer period of time. The icebox is playing major role in fish marketing. Without icebox, they could not sell the fishes profitable. KMS is collecting the share amount from the member to make them collective owner. At the end of the year, the profit is shared by all members.



The institutional mechanisms of imparting education, extending health services, and development interventions should enable the tribal communities to preserve their identities, traditional knowledge and culture.

Development to preserve cultural indentities

Iulture is an important element for human resource development in a country. Understanding the lifestyle, culture and socio-economic reality of the tribal people, also their unique strengths are critical for creating favorable environment for sustainable development of tribes. With almost a decade for intensive work in the tribal areas of Adilabad in Andhra Pradesh, DHAN Foundation has come out with a package of microfinance plus strategies such as; freeing the tribal communities from financial bondedness of exploitative traders, creating and strengthening forest based livelihoods, water resources development and building health and educational services from the inception.

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