

Information and Communication Technologies (ICTs) in a relatively short period of time of our planet's history have had a major transformative impact across all strata of society. ICTs have played a catalytic role in dissemination of information, knowledge transfer, healthcare, capacity building and improved governance.

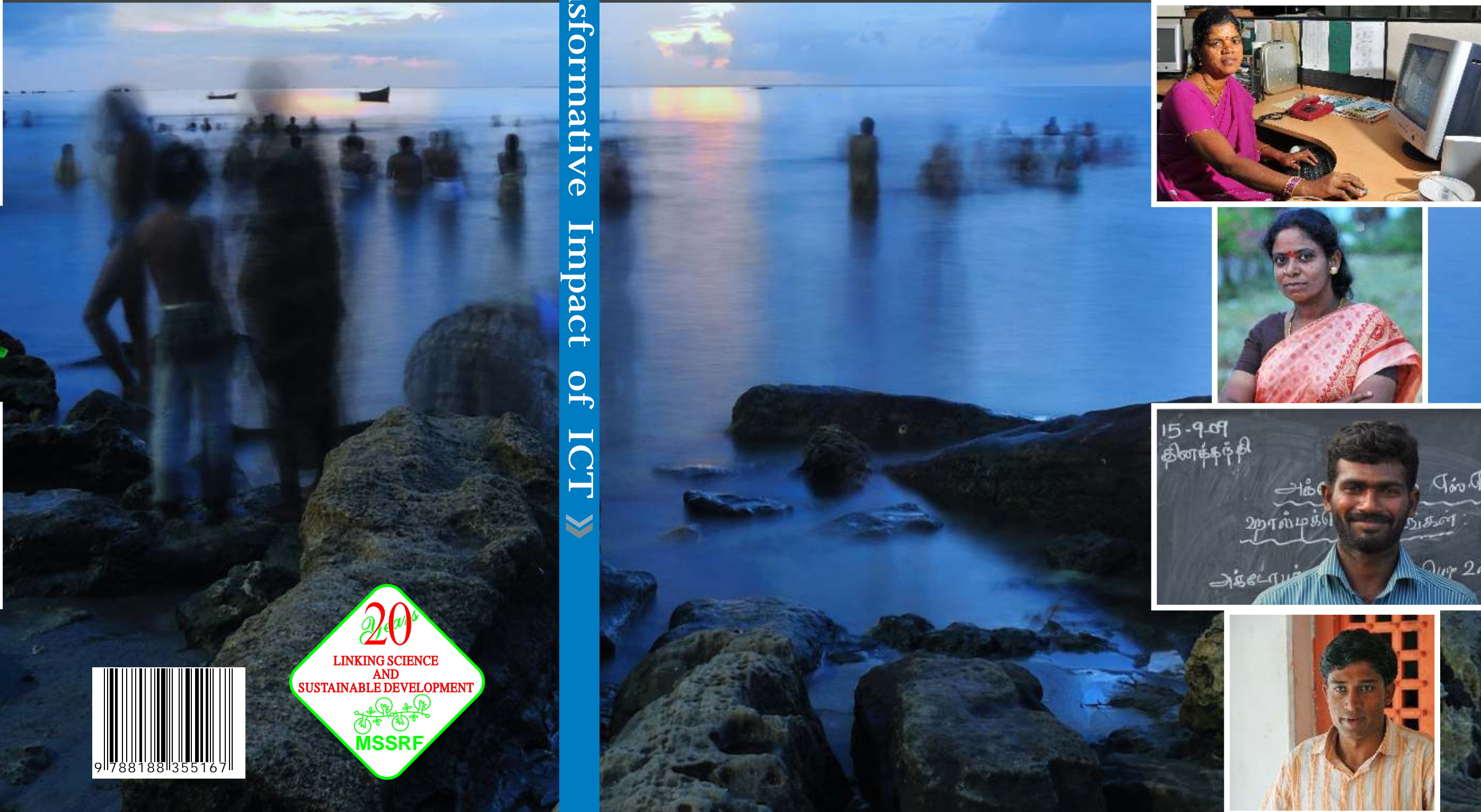
M. S. Swaminathan Research Foundation (MSSRF) has been a pioneer in the use of ICT for Development (ICT4D) particularly in the villages of India. This book presents twelve dramatic life-changing stories of transformation from MSSRF's work in rural India which has impacted thousands of lives and now reaching to other parts of the world as well.



Transformative Impact of ICT »

Transformative Impact of ICT

Change stories from rural India



Transformative Impact of ICT

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The role of information and communication technologies cannot be seen in isolation. Its impact has to be judged by the broad development of people above all. Without people being the centre of the universe of development, the emerging innovations will merely be fads and passing trends limited to a small section of society. For widespread and lasting impact the wider cultural, legal, infrastructural, social aspects that are integral to information, communication and innovation have to be seen holistically along with the real and the potential transformation of the lives of people.

The question of development therefore is not merely about production of resources, but the ability of people and regions to position themselves strategically within these complex networks of data and capital flow to derive benefits. The question of access and relevant knowledge, not just information, then becomes central and pivotal to the question of development.

We are going through complex but fragile transformations in the development of technologies, the use of these technologies, and the effect they have on our individual lives and society as a whole. Do the weakest members of society gain from this? Does this affect in a positive way the poorest-poor? What are the effects of this on our climate, food-chain, health-care, education, poverty reduction efforts? How do we deal with Intellectual Property Rights, development of small & medium enterprises for economic stability, and how do we deal with capturing & dissemination of the indigenous knowledge base? What value systems and principles do we follow in this endeavour? There are lot of open ended questions before us. One guide can be the words of Mahatma Gandhi:

*"Recall the face of the poorest and weakest man whom you have seen,
and ask yourself, if the steps you contemplate are going to be of any use to him?
Will it restore to him control over his own life and destiny?"*

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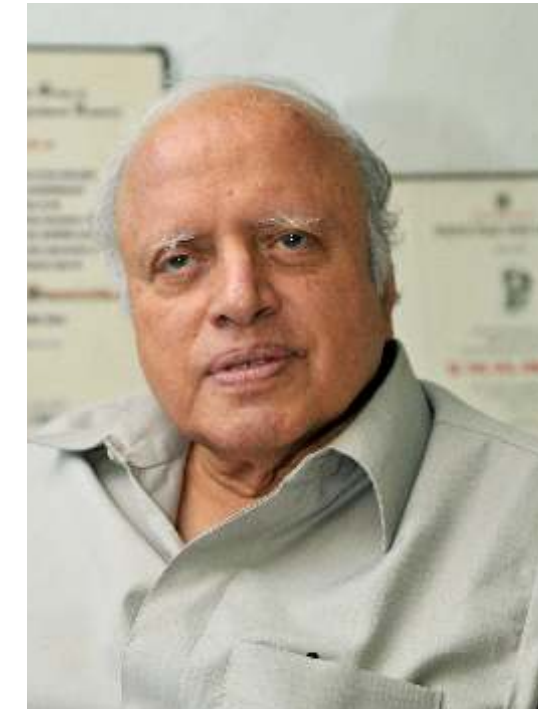
Transformative impact of ICT

Change stories from rural India





Foreword



Prof. M. S. Swaminathan

ICT is now recognized as a technological tool which can serve as a catalytic intervention in respect of transforming the lives and livelihoods of rural families. The economic and income divides between urban and rural areas can be overcome only by the technological upgradation of rural professions. The present publication provides examples of the transformational role of ICT in a wide range of rural professions. For example, artesanal fishermen going out into the ocean in a catamaran can now carry a cell phone with GPS data on the location of fish shoals and information on wave heights at different distances from the shore line. The Village Knowledge Centre or Gyan Chaupal (VKC) provides information on sanitary and phytosanitary measures and Codex Alimentarius standards of food safety, so that Salmonella and other infections can be avoided.

The present publication contains 12 case studies, which illustrate the transformational role of ICT in villages. I hope the men and women who have mastered the technologies and are applying them in day today life will serve as role models for other rural families. We should convert the small programme started by MSSRF in 1992 into a mass movement, bringing hope and cheer in the lives of the rural poor.

My gratitude goes to Mr. Senthilkumaran, Director, Information, Communication and Education, MSSRF for his inspiring leadership.

I am indebted to Mr. Suchit Nanda, Ms. Arundhathi and Prof. Subbiah Arunachalam for their invaluable contributions.

M. S. Swaminathan

M. S. Swaminathan
Chairman





Preface

Information and Communication Technologies or ICTs as they are collectively called have made enormous strides. In a relatively short period of time of our planet's history, its impact has been felt across the globe and through various strata of society. It would not be bold to say that no one has been left untouched in some way or the other. However, the benefits have not been spread evenly. In fact, this has given rise to a new form of divide often called the “digital divide”. Due to the lack of resources and particularly the economic might, the poor never attract the attention and thus never get to draw the full benefit from these emerging developments. As this book will show, what is ironic is that these very same developments hold the key to massive transformative potential in their lives. There is a window of opportunity for the rural masses and the poor to make a game-change switch. So who would play that catalytic role?

People are the centre of the universe in the work of M. S. Swaminathan Research Foundation (MSSRF) which is a non-profit research organization based in India. It is for this reason that MSSRF has all along followed a pro-poor, pro-nature, pro-women, and pro-sustainable livelihood model of development using appropriate technology and dissemination of knowledge. Prof. Swaminathan believes, "Taking the benefits of the new technologies to the economically and socially disadvantaged sections of the rural population is a prerequisite for promoting a new paradigm of rural development based on concurrent and integrated attention to the imperatives of ecology, economics, employment and equity." It is also his conviction from which he said that, “I find that whenever poor people derive some benefit from a technology, rich people benefit. The opposite does not happen.” With a Gandhian ideology, and an earnest zeal, he wanted to take the benefits of technology and new developments to the poorest of the poor.

The impact has been enormous – far beyond the scope of the initial work undertaken by a very dedicated team from the organization and its partners who carried the vision and turned it into a reality. In the twelfth year of this pioneering and untiring work, this book encapsulates twelve transformative stories – change stories if you like of the impact ICTs have had on the lives of people through the efforts of MSSRF. Talking to the villagers, in some cases it was amply evident what a huge change MSSRF's ICT work has had and so the selection was not difficult. In other cases, it was simply overwhelming and a daunting task picking at the end just twelve stories to write about because we came across story after story of the transformative impact the work has had. It was clear and we realize that for every Smt. Usharani or Shri. Mahesh that we have written about, there are hundreds if not thousands of similar stories which could not be written here. Which is why former President of India, Dr. A. P. J. Abdul Kalam said, “It is indeed a celebration of our rural core competence” when he was at the National Virtual Academy for Rural Prosperity (NVA) programme spearheaded by MSSRF. When Marshal McLuhan coined the term ‘global village’ in 1962, he was talking about the removal of space and time barriers. Today, the ‘village is turning global’ with its integration into the world wide networks and communication grids. In that sense, the world is indeed shrinking. As Dr. Muhammad Yunus, Founder of Grameen Bank and Nobel Laureate said, “Indeed, this is a small world today and ICT is making it even smaller.” He went on to say, “ICT is changing the world, creating a distance-less, borderless world of instantaneous communication.” To which he further added, “Ignoring ICT will only lead to further excluding poor countries from the circuit of power and prosperity.”

The work of MSSRF has certainly reached the unreached and touched their lives and made a remarkable positive impact which has irreversibly changed the course of their future and the future of the families as well as the villages they live in. It is for this reason that the work has been adopted as Mission 2007 and now as Grameen Gyan Abhiyan (GGA). We thank everyone who welcomed us into their private space and allowed us to be a part of their domain with a smile and an open heart. With joy, we share with you these twelve stories.

Arundhathi, Suchit Nanda & Subbiah Arunachalam

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Four decades ago when the Island of Rameswaram had only about 40-50 trawler boats, a fisherman family, Mr. Esthalin & Mrs. Esther Rani came and settled in Thangachimadam - a fishing hamlet in Ramanathapuram district of Tamil Nadu. A son was born to them and he was named Altrin. As Altrin was growing, and when he was just 8 months old, he was suddenly affected by polio. Fortunately, due to the timely treatment given to him, he recovered well and today as a grown up man, he has only about 40% of disability in one of his legs.

Altrin completed his primary and high school education at St. Yagappa School and St. Joseph High School in Rameswaram Island. After schooling, he went on to get a Diploma in Computer Technology from the KLN Memorial Polytechnic at Madurai. While he was studying in the Diploma course at Madurai, he chanced to meet the Secretary of the All India Handicapped Disabled Association of Madurai. Altrin was very impressed and got motivated by this meeting to do something for the physically challenged people of his village. He contacted the District Disabled Rehabilitation Office, gathered necessary information, and met the District Disabled Officer at Ramanathapuram. He learnt to work with these organisations to get support and help for the upliftment of the disabled persons in the village.

In the year 1992 for the first time, Altrin, organised the Disabled schemes awareness camp at Thangachimadam. That camp was the first awareness camp ever organised for disabled people of Rameswaram Island. In this camp, 300-400 disabled people participated. It became the turning point of his life, as that was the first incident that made him think about dedicating himself for the service of disabled people.

The group elected Mr. David, the eldest among the disabled in the village and well-known for his helping attitude, as the head of the group. Altrin and David then started a support group for the disabled called *Nesakkarangal*, which in Tamil means Loving Hands. Through the Nesakkarangal Disabled Rehabilitation Association, Altrin assisted the people of the Island in getting many facilities and aids such as: the Disabled Identity card, the National Identity card, the Monthly Grant for disabled, and several financial loan schemes with subsidies.



Prawn pickle making

Before long, he also started special education schemes for the handicapped, and an Economic Development Trust, again to serve the disabled, the socially and economically backward people at Thangachimadam.

Altrin worked with plenty of enthusiasm towards the setting up of the MSSRF Village Resource Center in Thangachimadam village. In December 2001, VRC staff co-ordinated with Nesakkarangal to set up a VKC through MSSRF's Gulf of Mannar project. After that, members of Nesakkarangal visited MSSRF's office, Mandapam and discussed the concept and functions of VKC. Fifty members participated in that meeting, after which, the VRC conducted a series of meetings with different groups for setting up a VKC at MGR Nagar. In 2003, a VKC was set up in a rented building at Dharga Bust Stop, Thangachimadam with the cooperation of Nesakkarangal. Since then they all have been using the VKC in many productive ways. For example, Altrin and a group of 15 disabled people, requested M. S. Swaminathan Research Foundation for training in the preparation of Fish Pickle and Prawn Pickle. Based on their requirements, training was given by MSSRF at the VKC at MGR Nagar.

The trained team prepared the pickle and sold it around the neighbouring houses and later the pickle was introduced in local grocery stores. In addition to this, Virtual Hygienic preparation training was organized at Village Resource Centre through the Government Catering College at Chennai. With the help of all these inputs, the team has been preparing various pickles and marketing them in the local stores as well as in other districts successfully for the past three years.

Associated with the MSSRF Village Knowledge Centre at MGR Nagar, Thangachimadam, Altrin has been assisting the Handicapped Welfare Association for the past 5 years and is a member and district secretary of All India Handicapped Association. He has organized several health camps for physically challenged people in co-ordination with the District Health Department and helps them in getting medical certificates, train concession, etc. from the government departments. As an appreciation for his dedicated service to the physically challenged people, the M. S. Swaminathan Research Foundation awarded Altrin the NVA Fellowship in January 2006.



Ladies sorting prawns for pickle making

Altrin got married to Ms. Brigit in the year 2008. In the same year, the Rotary Club & the Aquaculture Foundation of India selected him for a 28-days training in Advanced Fishing Technology in Vietnam. As a follow up, he assisted CMFRI and other research organisations by sharing his experiences and expertise on new eco-friendly fishing technology. Altrin's occupation is fish trading and he deals in exotic fishes, crabs, prawns, and octopuses. He is a huge promoter of cage fishing and he



Preparation of prawn pickle, John Lane Centre for the Physically & Mentally Challenged Centre

creates awareness on reasons for depletion of fish resources, importance of coral reefs. etc. What was very impressive was that he has set aside at least three days in a week for the service of the people and the other three days he takes care of his business to sustain himself and his family. Even in his business, he does a lot to give job opportunities for those with disabilities. He has formed another NGO called Feed Trust and through this he organises training programmes for ornamental shell craft, for making shell jewellery, tailoring, bookbinding, etc. and most importantly, he takes steps to market these products. Altrin helps those who work to earn anywhere from Rs. 1,000 to 1,500 per month by using any one of these skills. This adds to the self-confidence as well as helps people with disabilities become productive members of society.



Interview at Thangachimadam VRC with Mr. Altrin

Altrin is an active self-help group member and is regular in attending the Grama Sabha meetings through which he raises the awareness related to hygiene and the infrastructure facilities in his village. He is actively involved in the activities of Village Knowledge Centre and motivates youth to become computer literate as himself is. Altrin is ever grateful and very thankful to MSSRF for introducing alternative livelihood methods to his community and is proud to be associated with and works with MSSRF.



▶ *Ms. Amudha Baskaran*

How can a four-member family live with a meager income of less than Rs. 1,500 per month, with two daughters going to school? That was the question Ms. Amudha Baskaran was asking herself constantly.

Both Amudha, 33, and her husband Mr. Baskaran, 43, belong to Thiruvaiyaru. They have been married for more than 18 years and they have two beautiful daughters Madhumitha, 14, and Janani, 11. Both the daughters are students of the Srinivasa Rao Higher Secondary School. The elder one is in Class 9 and the younger one in Class 6. The family lives in Thiruvaiyaru in a simple tiled house on land belonging to the local temple. Her husband, who has studied up to Class 6, works in a rice shop as a wage labourer at a salary Rs. 1,000 per month.

Amudha is a shy woman and since the day she got married she had virtually remained at home. Rarely would she step out of her home other than say for weddings in the families of close relatives or to go to a temple. She had learned tailoring before her marriage and she could make silver anklets worn by girls in traditional families. She earned a few hundred rupees a month through tailoring. There was not much demand for anklets and demand for tailoring was high only during festival seasons like Diwali. Still with the small income she generated, Amudha could support the schooling of the two daughters but certainly the family needed more, especially in these inflationary times.

In 2006, her first daughter Madhumitha came to know from a friend about the Village Resource Centre set up by MSSRF in Thiruvaiyaru about a kilometre from their home and the many activities including free computer courses. She wanted to join the Intel Learn programme recommended by her friend and suggested that her mother could also join a free computer course.

Amudha spoke to her husband and took his consent for Madhumitha to join the course at the VRC. Madhumitha along with a friend got admitted to the Intel Learn programme. Madhumitha liked the centre and the way the staff at the centre taught the children. She tried to convince her mother to join the computer classes pointing out that many housewives were learning to use computers at the centre. Persuaded by her persistent daughter, Amudha and a neighbour went to the centre and the knowledge worker at the centre suggested that they could register for the MUPP course. Amudha returned home that day but did not go to the centre again for almost a year. She was confused and feeling diffident.



Ms. Amudha with her daughter demonstrating jewellery making

She had remained at home for many years; would she be able to take up and complete a computer course? After about a year of dithering, she made up her mind and joined the MUPP course.

However, despite joining, the course, her confusion and fear still persisted. Amudha persuaded her neighbour Ms. Brinda to join the course. Only after Brinda joined, Amudha felt a bit more confident. They went to the classes together. The instructors at the VRC were really patient and would help her till she was satisfied, says Amudha. Not once were they annoyed even when she repeated the same questions and took time to grasp a point. Amudha finished the MUPP course successfully and received a certificate from the centre and her confidence grew.



Ms. Amudha Bhaskaran making jewellery

Subsequently, Amudha used to visit the VRC at least once in two weeks, to collect the community newspaper *Namma Ooru Seithi* and attend meetings held at the centre. When the centre announced a training programme in low-cost jewel making, Amudha enrolled and again requested her friend Brinda also to join. The three-day course was held in February, 2009. As she had not had any prior experience in such training programmes, Amudha once again felt a bit shy but the trainer Ms. Manvizhi was very helpful. She paid attention to each individual although there were 50 trainees. The trainees were divided into small groups of three or four members per group and there was enough material for all groups to make jewels in different designs. At the end of the training Amudha was confident that she could start making jewels independently.



Ms. Janani, younger daughter of Ms. Amudha making jewellery



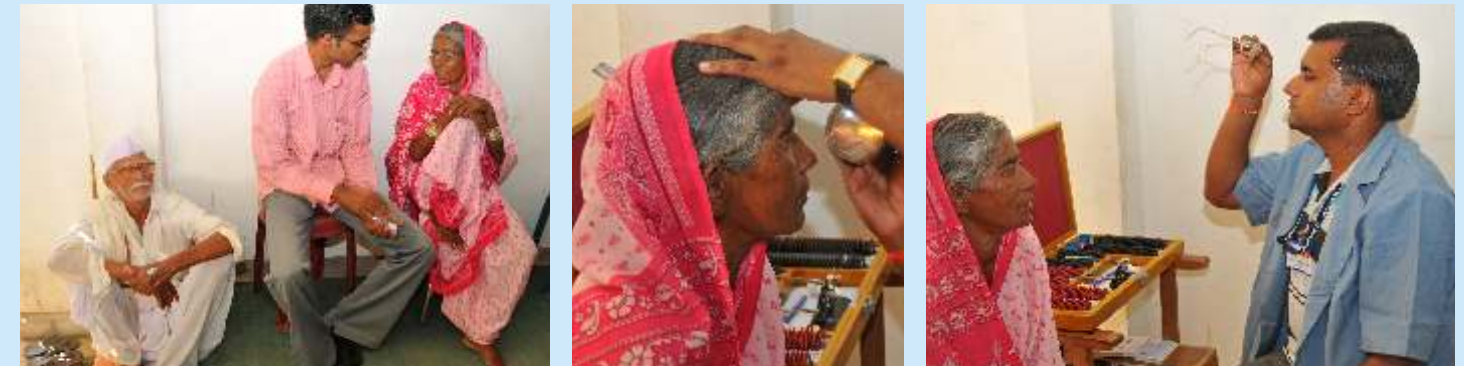
Ms. Amudha with her younger daughter Ms. Janani displaying her jewellery

Within 15 days of the training Amudha and Brinda bought material worth Rs. 1,500 and started making jewels such as ear studs, necklaces, bangles and anklets using beads, artificial pearls, stones and lories. The first item she made, Amudha offered to her family deity, Kakkayi Amman at Mathur, a few kilometres from Thiruvaiyaru. Amudha says that she looks at jewellery in the shops to learn about designs and sometimes thinks up her own designs. With the word of mouth spreading about her talent, she does not have to go out and sell what she makes - people come to her and buy. Her daughters help her both in making jewels and in marketing them. They show the jewels to their schoolmates who in turn bring their mothers and sisters.

Amudha is now earning not less than Rs 1,500 a month through jewel making - at least three time more than what she was earning through tailoring. Normally, she says that if she invests Rs. 150 on the material, she can sell the jewels for anywhere between Rs. 400 and Rs. 500. Many of her clients buy jewels for donating to temples apart from their personal use. When we met her, Amudha had several orders to be executed.

Today, a more confident Amudha has completed another two-day training programme offered by the VRC. This time it is on embroidery. Of course, the trainer is the same, Ms. Manvizhi, who earlier taught her jewel making and they are confident that Amudha will be able to substantially add to her earnings providing stability to the family income. Through MSSRF a once shy, housewife is today not only able to support her family but also has substantially morphed into a more confident and self-reliant person. This has inspired others to follow in her foot steps apart from her two daughters who have seen this change happen before their eyes in such a short period of time. That's why Amudha says, "MSSRF has changed my life".

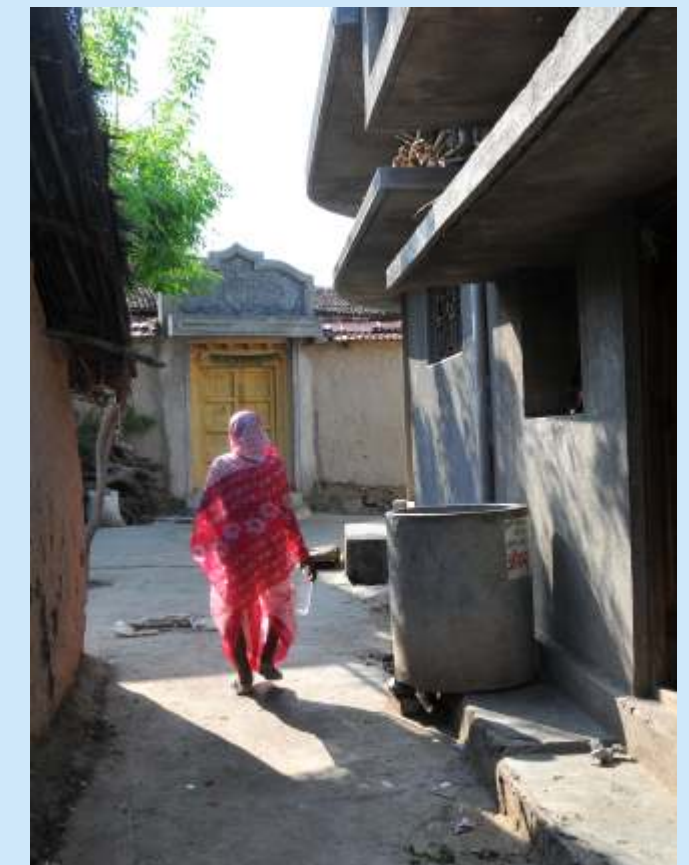




In most societies, and particularly in Asia, elders have a respectful and almost reverent position. So when an old lady bends and touches the feet of others much younger to her, everyone stops to take notice and wonder why. Mrs. Chandrakala Bhaurao Thakare, 57 years, lives in the village of Nimbhi in Morshil Tehsil of Amravati District in the state of Maharashtra. Despite her age, being able bodied and full of life she worked as a farm labourer and as a domestic worker. Like many women in her village, her life revolved around taking care of the farm, her children & grandchildren and advising those who came to her as a village elderly lady. Two years ago, her life changed dramatically for the worse. She started to lose vision in both her eyes and her eyesight deteriorated very rapidly until she was nearly totally blind in both eyes. She consulted eye specialists at the hospitals in Amravati District and on examination, the doctors informed her that there was a major problem with her retina and that it could not be operated upon due to her age. Dejected, she returned to her village and informed her son and daughter-in-law about the medical report. Although she wanted to get checked up again, they discouraged her and asked her not to spend money wastefully. With a feeling of resignation and fait accompli, a strange darkness descended upon her life.

With the loss of vision, her life took a rapid downward spiral. Unable to work, and with her earnings stopped, and her family neglecting her, there was an increased dependency on others due to

which she went into depression. “I could not even go to the toilet without assistance from others”, said Mrs. Thakare. She felt she had become dysfunctional and a major burden on society. She told us, that even her own family told her, “Take poison and end your misery and that way you won't be a nuisance & burden on us”. The day was not far when this unfortunately would have come to pass and turned into a reality had it not been for the timely news that in the nearby village of Naya Wathoda a free eye camp was being organized.



Mrs. Chandrakala walking to her home in her village



Mrs. Chandrakala waiting in the car after her eye examination

With no spark left in her, the zeal to live was fast fading and it was just her inner conviction that kept her going so far. The camp which was organized jointly by M. S. Swaminathan Research Foundation (MSSRF) and Sankara Nethralaya using a mobile van going from village to village doing this noble free service. She consulted her family members who discouraged her from going even for the free camp but this gusty lady had made up her mind and was determined. She requested some of the villagers and with the help of five other villagers, she went to Naya Wathoda.



Mrs. Chandrakala at her village Nimbhi in Morshil Tehsil of Amravati District

MSSRF & Sankara Nethralaya had organized for a mobile van to visit village after village to hold free eye check up and preliminary eye treatment. Uncorrected refractive errors and cataracts are among the largest causes of blindness in the country. Timely detection and correction can help restore vision. After examining Mrs. Thakare, the optometrist noted her case history and background, and suggested that she should undergo an eye operation in Nagpur city. She was told that this could be a slightly risky operation but with near total blindness she said she had little to lose and was more than willing to try. However, she didn't have money nor support from her family. "I asked the villagers around me, and am thankful that they collectively contributed for me to get to Nagpur". Dr. Vinay Nangia of Suraj Eye Institute operated on her left eyes on 20th March, 2008. The operation was successful and on the very same day she was discharged and advised to go home. For Mrs. Thakare this was a miracle and she insisted that the doctor treat her second eye as well. She was told to give her body a little time to recuperate and after due rest she could come again for being treated for her second eye which she did and was operated for her right eye on 20th August, 2008. She now has vision in both eyes.

When Mrs. Thakare returned to her village, she was able to walk without assistance. This amazing feat drew surprise, astonishment and then all round jubilation in the village. The villagers could hardly believe that this lady who was declared blind till that morning was walking on her own without any help or assistance from anyone.



This successful treatment energized the old lady and she arranged for a meeting with the village Sarpanch (Village leader) and spearheaded the initiative to organize an eye camp in her own village through the mobile van which had enabled a complete turn around in her own life. Soon her wish was fulfilled and an eye camp was organized by MSSRF & Sankara Nethralaya which was highly successful. In three days, 275 patients were screened. About ten ladies with varying conditions similar to her were identified and then later treated.

The spark of life returned to Mrs. Thakare and she loses no opportunity to praise the work done by both these organizations in not just restoring eye sight but giving a new lease of life to those like her. The mobile van equipped with diagnostic equipment, satellite link and lens and frame fitting facilities, has so far conducted over 1,000 camps, benefiting nearly 28,000 patients in Maharashtra who had their eyes examined. Thousands more have had consultations through video conferencing.



▶ Mr. David K



As one enters the small town named Thangachimadam in the Ramanathapuram district of Tamil Nadu, the sweet fragrance of jasmine flowers fill the nostrils heralding the presence of jasmine gardens all around the city. It is one of the major exporters of jasmine flowers and seafood. Thangachimadam is located in the holy island of Rameswaram, in the southern part of Tamil Nadu in India.

The M. S. Swaminathan Research Foundation provides the coastal region of Thangachimadam with charts illustrating the wave heights, potential fishing zones and other conditions related to behaviour of the sea based on satellite readings. Under the joint ISRO-MSSRF Village Resource Centre programme, ISRO has sanctioned satellite connectivity to Thangachimadam Village Resource Centre. This center facilitates teleconferences between farming and fishing families here and MSSRF scientists as well as with the experts in the areas of health, education, agriculture, fisheries, marketing, and disaster management.

The first thing we noticed as soon as we stepped in to the Village Resource Centre (VRC) at Thangachimadam is the compassionate and smiling face of Mr. K. David. As we started talking to him, he began by expressing his gratitude to the Lord for giving him an opportunity to serve his fellow beings who are in some way or the other physically challenged. David painfully recalls the times when there was very little help and support available in his region for the people with physical disabilities. In some cases, even their families ignored or ill-treated them causing a lot of sufferings and mental depression in the affected people. This in turn led to quite a few suicides among them and that used to bring about immense anguish and sorrow for David. He could relate to their pain as he himself was affected by polio in his legs when he was just one year old.

David, who is a native of Thangachimadam comes from the fishermen community. His father was a fisherman, mother is a housewife, and both his parents were illiterate. He was the third born among his five brothers and eight sisters and was the eldest son of the family. He lives and serves in the same coastal region from his birth to this day. At the age of one, he was affected by polio, as during those days there was no proper vaccination in Rameswaram island. He studied up to eighth standard in St. Teresa Primary School and St. Yagappa High School with the support of his sisters and brothers. Due to his father's illness and being the eldest of all male children, he started his fishing career from the age of 13.



Mr. David at MGR Nagar VRC

He also gave financial assistance for the marriage of his sisters as well as the education of his brothers up to their 10th Standard examinations. At the age of twenty-eight, David married Ms. Amutha, and has three sons. His wife and children are very sincere & hard working and they work as a team in running their home.

Another physically challenged person from the same village, Mr. Altrin, came to know about the Government programmes for the Disabled and he organised the first meeting of the disabled people. In that meeting they elected David as the Head (President) as he was the eldest among the disabled in the village. Soon they organized a camp for the physically challenged at Thangachimadam & Rameswaram. To their astonishment, 400 people with disabilities from Rameswaram island participated in the camps. This motivated them to register a support group called *Nesakkarangal*, which meant loving hands, with the Disabled Rehabilitation Association in the year 1998. They formed a group of 27 regular members and assisted other physically challenged and mentally retarded people in Thangachimadam to get the Disabled identity cards and some monthly grant etc. In the middle of 1999, David started some income generating activities for those 27 people by getting them trained in making sea shell ornaments at Nesakkarangal centre and guiding them in selling them to the Gandhi Sea Shell Mart and Kalam Sea Shell Mart at Rameswaram.

As a physically challenged person himself, Mr. David has overcome several hurdles and has played a key role in establishing the information center in Thangachimadam village.



Mr. David at his home with his family

In December 2001, VRC staff approached Nesakkarangal to set up the VKC through MSSRF's Gulf of Mannar project. After that members of Nesakkarangal visited MSSRF's office in Mandapam and discussed the concept and functions of VKC. Fifty members participated in that meeting. After the meeting, the VRC conducted a series of meetings with different players regarding the setting up of VKC at MGR Nagar. In 2003, the VKC was set up in a rented building at Dharga Bust Stop, Thangachimadam with the co-ordination of Nesakkarangal. In August 2003, Mr. K David, President, Nesakkarangal was elected as a NVA Fellow. In May 2005, Nesakkarangal shifted the VKC to MGR Nagar. Being the founder President of the Nesakkarangal, David, is regularly conducting several training programmes to empower the rural women and youth through this voluntary body.



Mr. David participating in a video conference at the Thankachimadam VRC



Mr. David and his family at their home

As a born fisherman, David had faced the livelihood problems of fishermen and perceived the needs of new fishing technology. A dedicated advocate of the rural community, despite his own physical disabilities he has been working hard in getting his group involved in all activities that will benefit the fishing community to which he belongs. David has been working as a boundary partner with M. S. Swaminathan Research Foundation since 2002, through the Village Knowledge Centre on a multitude of programmes. The VRC organized several training programmes on the modes to collect and disseminate local specific content. The center also provides several online services such as locating job opportunities, application forms, examination details, and results. They also acquire the weather and wave height information as well as give awareness to the local people about the various entitlements and welfare programmes offered by the government. Now in his forties David is a multi-faceted personality. He is a popular writer in the community newspaper "*Namma Ooru Seithi*" and regularly contributes a column on sustainable fisheries development. He is also a community development worker with special skills in training people in shell-crafts. Being computer-literate, he has been successfully organizing computer-literacy campaigns for the physically challenged people in the region.

David, the entrepreneur-activist regales, "In the beginning people did not know what the word 'computer' meant. Now we are able to find markets for our shell crafts because of the Internet connectivity." With a high degree of commitment and social consciousness and specially with a heart full of love, David, is doing a commendable job in bringing the much-needed change in the emotional as well as the economical status of the physically challenged people in and around the village. He is himself a great motivational example for all the disabled in the community to follow and emulate.

In recognition of his work for the physically disabled of Rameswaram and as the founder of Nesakkarangal, Mr. K. David was awarded a fellowship of the M. S. Swaminathan Research Foundation - Jamsetji Tata National Virtual Academy for Food Security and Rural Prosperity. He received his award on 23rd August, 2003 from the Prime Minister of Sri Lanka, Mr. Ranil Wickramasinghe. In his citation, Mr. David was referred to as "an innovative leader" and "a pioneer in training the physically handicapped persons in making artefacts from seashells and tailoring...He has become a role model in bringing out the ability of the disabled."





A deserted wife, abandoned without any financial support, is left with very limited or almost no choice for her survival. Every now and then, to add to her misery, a woman has to shoulder the burden of their dependent young children as well. In such a case, it takes a lot of determination along with a firm will for her to fight her fate and to start life all over again. Finally what she makes out of her life is what is spoken about all over and if worthy, given as an example to others in admiration of her strength, resilience and the desire to live!

Such is the story of Devasena, from Annavasal of Pudukottai District, in Southern India. Devasena too, like most of her genre was required to abide by the rules and life patterns laid out for girls from traditional patriarchal Indian family. Like a typical village girl, after completing her higher secondary education, she got married to a man chosen by her parents as per the norms and prevailing customs. She lived with her husband in his house for a few years and had two children as well. Life for her would have been smooth sailing in spite of the limited resources a person has in an average village household, but for her husband who abandoned her for another woman leaving her with nothing but their two young children. At this stage, due to the lack of an income to feed herself and her children as well as for emotional support, Devasena had no choice but to return to her parents' house. She is conscious of the fact that it is quite difficult for all the family members to adjust in a small house, as there are already two brothers, her old parents and now herself and her own two children. Unfortunately, deserted wives like Devasena tend to become a burden on poor families similar to her own, where the income is negligible and the number of people to feed is more than what one could afford.

However, it is believed that when the Lord closes one door, somewhere He opens at least a new window. Devasena too breathed a sigh of relief when she heard about the MSSRF Village Resource Centre (VRC) and scores of its activities to spread knowledge and promote the empowerment of women. On visiting the centre, she learnt that the VRC has enhanced and transformed the lives of many underprivileged and disadvantaged, who otherwise would have accepted their way of life of 'existing by chance' as their destiny. The VRC enables even women educated up to the third grade to operate computers and perform HTML coding and editing in the Tamil language.



Ms. Devasena, computer teacher, explaining to a school student during class practicals



Ms. Devasena, conducting a computer class for school students

In fact, many people discovered new markets by going to the computer centre and entering data every night. The other benefits to the community included the news received about the daily weather report, information about government entitlements, exam results, and agricultural market prices. Microsoft Word, Excel, and PowerPoint are today not alien to villages where MSSRF has knowledge centres. Therefore, Devasena joined the Microsoft Unlimited Potential Program (MUPP) at the resource centre and the VRC staff gave her the training. Besides gaining knowledge on computers and the Internet, she also learnt to use MS Office, MS Word, digital media, and printing. She became skilled at typing in her mother tongue, Tamil, and to send email as well. With this knowledge, she was successful in gaining the job of a computer teacher at the Kokila Matriculation School. This marked a major turning point in the life of Devasena, as she is now confident to face the future and raise her children comfortably and independently. During the evenings, she is able to take tuitions for children at home and generate additional income. In future, she plans to pursue higher education and apply for a Bachelor's Degree in Arts through the Annamalai University in Tamil Nadu by a correspondence course.



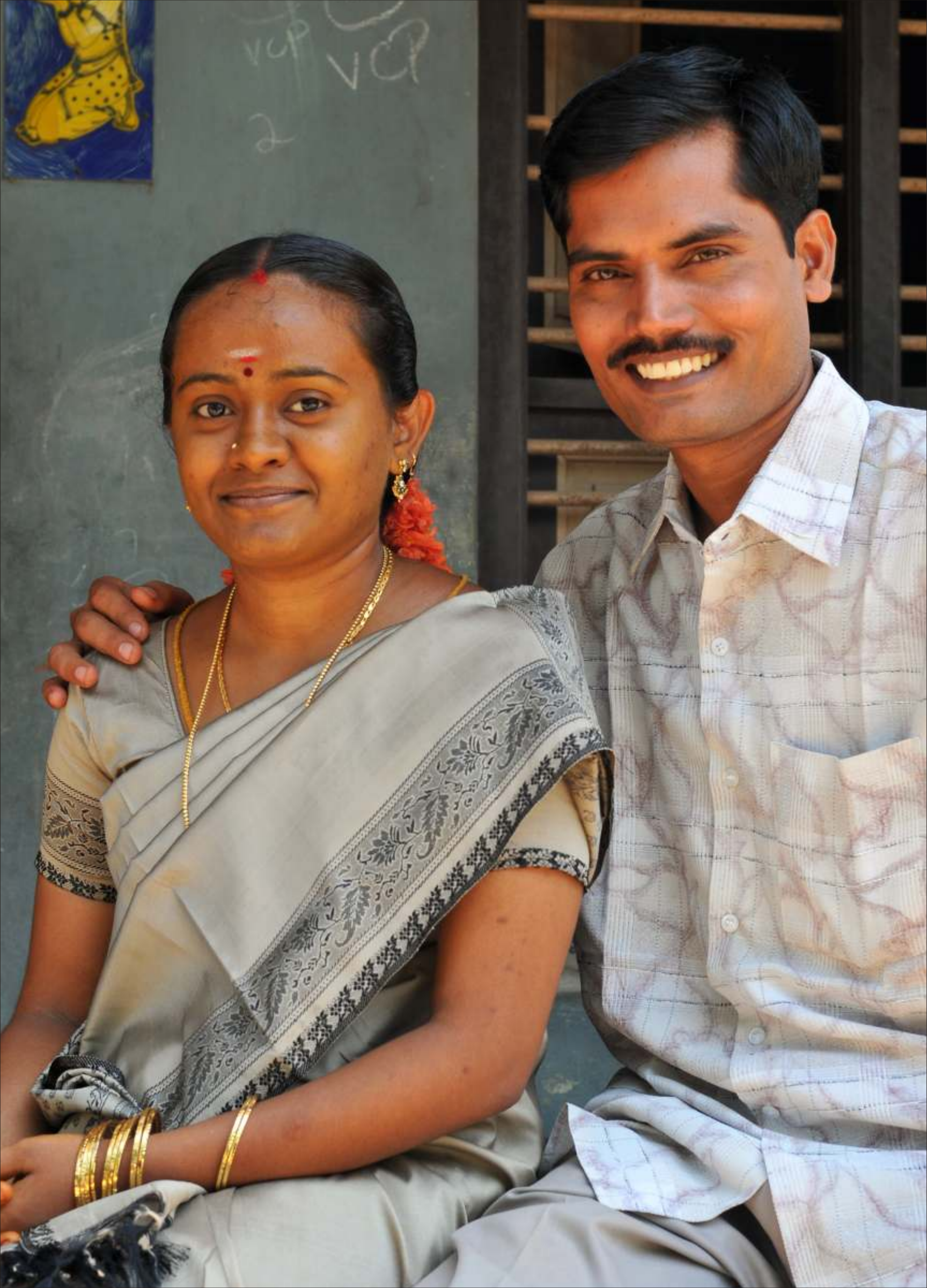
Ms. Devasena, with her daughter & son at their home

Even though her husband has deserted Devasena, she is much stronger today and gives strength to other women who suffer ill treatment and exploitation in the hands of their husbands. She does not like anyone pitying or sympathizing with her. She says it is discouraging as well as demoralizing. It hurts her when people make undesirable remarks or comments about her past. During such times, she prays to God and tries to regain her composure as fast as she can. Being a devoted mother, she takes care that any disagreeable remark made by people does not negatively affect the minds of her children. Diligently she works towards raising her children to become bold and courageous adults.

One of the prime objectives of the village knowledge centres is to use ICT to improve the source of revenue of the people in every occupation. Not just Devasena but also her children have been receiving computer education in the VRC from a very young age and that helps them in their studies and school activities as well. She comments, "Exposure to computers and education through animation techniques for the children has proved to be very helpful in bringing up their educational level". The sole purpose of the VRC is to provide knowledge in every possible area that the villagers would require in order to enhance their livelihood. "There is a Resource Team in our village, which holds weekly meetings at the centre. During these meetings, the villagers can learn about community, general knowledge, cooking tips, nature cure, herbal remedies, childcare, women's health, art, and musical instruments. We are also able to gain more information and clear doubts about computer programmes also. The VRC provides us a lot of help and information about livestock maintenance and agriculture as well," adds Devasena with lot of enthusiasm.

At times, she is sad that the women in their own individual capacity are not working hard enough to improve their status. She feels one can do a lot more to improve the socioeconomic conditions of the rural population – particularly the women. However, she is happy that there is a remarkable improvement in the mindset of few women as they are now willing to fight out their ways instead of accepting all the problems as their destiny by willing to try out new enterprises. She is keen that many more women should benefit and know about the positive transformation brought about in her otherwise vulnerable state of existence by the VRC. That is the reason she offers her services to spread the message of MSSRF for the progress of women and the society. Thanks to the MSSRF's program of presenting a job-led economic growth strategy in rural India, people like Devasena have benefited through the 'wealth of knowledge' provided by the Village Knowledge Centers. Many have been able to create a self-sustaining path of survival after leaving behind their dreary past, rise like a phoenix from the ashes, and forge towards a brighter future.





A torch bearer from Kizhur

▶ Mr. Jayakrishnan

Chapter 6



After a pleasant drive on a cool morning, we arrived at a quaint little village called Kizhur, 22 km away from Puducherry. We were welcomed by the jingles of the bells tied to the necks of the cattle, the delightful scenes of women making beautiful *kolam* (*rangolis*) on the floor in front of their homes, and the aroma of fresh coffee brewing in every kitchen. At once, the traditional culture unique to the villages of South India enthralled us. However, the foremost thought that instantly came to our minds was that the inhabitants of Kizhur were the first fortunate ones to receive the benefits of information technology right at their own village. "Information empowerment is the first requirement of a democratic society," says Professor M. S. Swaminathan, who has sought to bring the knowledge revolution out of the theory in textbooks and into practice. Who was the person that cooperated with the Professor in setting up a village knowledge centre in Kizhur? We were guided to a house that had an air of festivity and at the entrance Jayakrishnan, along with his newly wed wife, was standing with a beaming smile.

Jayakrishnan's family was the one that played a key role in establishing the first Village Knowledge Centre (VKC) on the 8th of September, 1998 in the Kizhur village. This project was initiated by the M. S. Swaminathan Research foundation (MSSRF) to impart the beneficial impacts of ICTs to the rural community. Due to the non-availability of a community centre building, it was decided to accommodate the centre in the private house belonging to the family. Jayakrishnan's father generously volunteered to give the front portion of his house to run the centre free of any charge.

Mr. G. Krishnamoorthy, Jayakrishnan's brother, who was a member of the Village Development Council also played a very vital role. The family is socially and politically influential, and well accepted in the village. Ever since the start of the centre, the members of Jayakrishnan's family run & efficiently manage the centre on a voluntary basis.



Mr. Jayakrishnan giving fodder to the cows at his home



Mr. Jayakrishnan at the VKC located in the family home

Jayakrishnan is an industrious young man hailing from a family of farmers. He has graduated in commerce and has a diploma in scientific agriculture. In addition to this, he has attained proficiency in computer languages and has become a master trainer. He has perfectly composed and documented case studies of 100 users of the Village Knowledge Centres located in Puducherry based on his own interviews with them. As he is good in documentation and content development, he has focused on content generation in the areas of agriculture and health, based on indigenous knowledge of the village. He says, "Information and data are time bound; so they have to be disseminated promptly." He has helped youth in his village as well as from other villages to gain technical knowledge and improve the quality of their life. Jayakrishnan also takes care of the day-to-day activities of the Kizhur centre. This centre has created a lot of content on agriculture, especially on integrated pest management and water management. The content created by them is shared with other Knowledge Centres. Numerous farmers, homemakers, schoolchildren, youth as well as the elderly benefit from the services of this centre.

Technology helps to achieve a paradigm shift from unskilled to skilled work and thereby move large numbers of the rural poor from the primary to the secondary and tertiary sectors of economic activity. Jayakrishnan too, as a technical person with knowledge of system maintenance and wireless networking, helps all the knowledge workers in the centres located in 12 villages in his region get trained in computer operations and wireless connectivity. Consequently, he has become a village resource person for technical guidance. As a trainer, Jayakrishnan guides the students, the rural youth and teachers, to participate in computer assisted learning programmes. Due to Jayakrishnan's influence, children of fishermen and farmers too are fast becoming computer literate. After school hours, many children from the village spend an hour everyday learning Microsoft Word and PowerPoint programs. The centre also provides interactive CDs on science subjects for children.

Through the VKC, Jayakrishnan also facilitates many entrepreneurial activities for village women like making incense sticks, soaps, etc. and mobilises latent productive capacity among these women who live in a culture that traditionally tends to marginalize them. For example, after a training programme sponsored by the MSSRF in incense stick making, a group of women in Kizhur village started a small business enterprise called *Nesam*, manufacturing quality incense sticks. They began as sub-contractors but their confidence and entrepreneurship grew because of utilising the rural knowledge centre.



Mr. Jayakrishnan is travelling by bicycle towards his field



Mr. Jayakrishnan and his father at the entrance to the VKC located in the front section of their home

Gradually they were also able to develop the necessary skills required for packaging and marketing their own brand name of incense sticks. "Now I can comfortably meet the educational expenses of my three daughters," says Lakshmi, a member of *Nesam*. These women were not only able to quickly develop contacts with some local outlets for their products but they are also now confidently using the Internet in the VKC to seek out more markets outside their territory.

Mr. G Jayakrishnan was selected as a Fellow of Jamsetji Tata National Virtual Academy. Although he and his family were well respected and recognized in Kizhur for their valuable service to their community, this Fellowship has enhanced his status among his friends and villagers. Jayakrishnan graciously admits that this NVA fellowship was not only for his individual service to the public but also was for the collective effort of his family as well as other volunteers of the centre. States Jayakrishnan, "This Fellowship gave me a new surge of energy to continue my service for the needy through MSSRF".





Little did she know that one day she would be standing on the same podium with Mr. Kofi Annan, the former UN Secretary General, and many other dignitaries, sharing her experiences at the World Summit on the Information Society (WSIS) at Tunis. For a moment, she wondered if she was the same Kasthuri, who was once even shy to speak to visitors who came to meet her husband in her village. At the summit held in Tunis, she confidently expressed her thoughts on the awareness and transformation brought about by M. S. Swaminathan Research Foundation to the rural community. Thanks to MSSRF, she recalls, not only has she crossed geographical, social, economical, and emotional boundaries but also with their help, she is working towards empowering the underprivileged and deprived people, especially the women.

Conventionally, in the Indian rural milieu, women often face major discriminations and dominations. Life was not too different either for the vivacious Kasthuri, living in a remote village of Embalam 20 km from Puducherry, South India. Just after passing her 10th standard schooling, like a typical village girl, she too got married, had two kids and got absorbed totally in her familial responsibilities, recalls Kasthuri. Yet deep inside her was a cauldron of zeal and fervor to do something to enhance the status of rural women. She had so many dreams; she visualized herself and her village women uplifted both economically and socially. Among various other dreams, her deepest desire was to become the catalyst for all the positive changes she wanted to usher in to her village.

Kasthuri's dreams started turning into reality when in 1998, MSSRF chose her village among others to set up a rural knowledge centre. Initially in Embalam, farmers tried to prevent their wives from taking part in the activities of the centre but eventually they cooperated with the women folk. Soon, this centre turned out to be MSSRF's model for sparking off a knowledge revolution in rural India.

To see the realization of this dream, we visited the center at Embalam and Kasthuri's home. It was very inspiring to see an ordinary village woman using a combination of traditional and modern ICT tools to access relevant and location specific information.



Ms. Kasthuri in Informatics Division, MSSRF



Ms. Kasthuri participating in a village meeting organised by MSSRF

Kasthuri proudly recollects, "when I sat before the computer for the first time, I was hesitant and now I am computer literate. Today, I know - MS Office, Excel, PowerPoint, Page Maker, and Photoshop." After learning these computer skills, she is popularizing the use of computers among the villagers.

When we reached the centre, women and children were all around the computers. While the children were busy working on a PowerPoint presentation, women were busy surfing the Internet for information on health related issues, weather and farming. Few women were preparing the content for the forthcoming issue of *Namma Ooru Seithi* (Our Village News), for which they are the reporters, editors, and publishers. Through the centre, they also help dispel superstitions and build confidence in the villagers. "Women are better informed about health matters - formerly, in our village, women were blamed for infertility", Kasthuri recalls. She states that the centre provides information to the farmers about the agriculture market, to the women about health, to the children educational advice, and the youth receive news about employment opportunities. They also find out weather information, exam results, and about business ideas. She adds, "We did an eye checkup in our area. One hundred people had their eyes checked because of collaboration, over the computer, with the Aravind Eye Hospital."

Endowed with excellent management traits, Kasthuri, has effectively formed women's forums and updated them with the social and welfare programmes of the government. She has dispelled numerous taboos, myths, and evils in the society operating against the village folks by counseling regularly. She has organized two micro-credit and savings groups for the women in the village and saved them from the clutches of usurious moneylenders. Functioning through the Embalam VKC, she has a positive influence on the lives of people she comes across. Exuding tremendous energy and self-confidence, Ms. Kasthuri is a role model for many women, and today she is a much sought after woman in the village.



Ms. Kasthuri working on the computer at MSSRF, Chennai

This simple homemaker has won the distinction as a "most respected and knowledgeable woman through her involvement as volunteer in MSSRF Knowledge Centre". Even her husband was against her going to the centre initially, as he used to once believe that she was wasting her time and neglecting her family. Kasthuri started blushing when her daughter divulged to us that nowadays he proudly shows everyone the MSSRF Virtual Academy Fellowship certificate that she received from former President Dr. A. P. J. Abdul Kalam on Teacher's Day, an award that is given to women who master high-tech communication methods and use them to disseminate information to farmers.

Today, Kasthuri balances her role as a homemaker, wife, mother, and a catalyst of transformation. She is now the Secretary of the management committee of the centre and proudly conveys to us that it is run entirely by women. She expresses her gratitude to MSSRF, which totally transformed her life and gave her a valuable opportunity to carry on the work in the Village Knowledge Centre as one of the "Torch-Bearers" of the Knowledge Revolution.



Ms. Kasthuri with her husband & daughter at their home





As one enters Sonegaon Abaji village in Maharashtra with a population of about 2,000, you see women in colourful sarees clustered around the hand pump, getting water from the only water source – a village community water well. As we turn in the narrow lanes, we come face to face with a bright young boy Mahesh Padmakar Shrikhandkar. With a pleasing smile, he respectfully greets us with a bow, followed by a handshake and a big grin on his face. Simple in his dressing, humble in his behaviour he exhibits no inhibitions and oozes confidence and great warmth through his demeanor. Twenty two year old Mahesh was born in Sonegaon Abaji village in District Wardha. He is currently doing his second year in Bachelors of Arts at SSNJ (Smt. Savitarani Narayanrao Jawandhia College), Deoli in Dist Wardha, Maharashtra.

Mahesh is the only child of the Hindu temple priest living in the village. They have been pujaris for the last four generations. His passion is computers. He first saw a personal computer in 2003 in Janta High School while in class 9. He was smitten. "I was very keen to learn things like computers and electronics but our financial position didn't allow for me to learn this nor were there any opportunities in my village" says Mahesh with a tinge of sadness. "In April, 2006 when I went to my sister's home in Nagpur city, I saw some children using computers so I immediately joined the NICE Institute. I did the MSCIT (Maharashtra State Certificate in Information Technology) course which was for three months but I completed it in as little as one month" he proudly tells us. Mahesh learnt MS Word and MS Excel and got familiar with computers.



Mr. Mahesh seeking the blessings of his father before leaving for the day

In February 2007 while he was still in Nagpur, the M. S. Swaminathan Research Foundation started its VKC (Village Knowledge Centre) at the Gram Panchayat. "When I came to know about the setting up of the VKC, I offered to join it as they were looking for someone who knows computers to work as a knowledge worker, and the Sarpanch (Village leader) recommended my name" says Mahesh. "I was interviewed and immediately appointed. But my knowledge level was not that high. It is only later when I was trained by MSSRF and got to use computers at the VKC extensively that I improved very much". Mahesh's training took place in Wifad after which he was appointed the first teacher to the village where he taught MS Word,



Mr. Mahesh participating in the meeting being held at the VKC

Excel, PowerPoint, etc. Soon he started teaching CALP (Computer Aided Learning Programme) for children between 3rd to 7th standard class in and around his village as part of MSSRF's free training programme. How did he manage to convince children and their parents to come? "This is the age of computers and so children should learn this technology and there is no fee other than a very nominal Rs. 20 towards the VKC's sustainability fund" he explained. Soon about 30 children joined and about 20 continued and completed their education while others either moved to other villages or stopped for other reasons.



Mr. Mahesh Shrikhandkar working on the computer at the VKC

He explained that initially while the menus were all in English, he taught in Marathi which is the local spoken language. He is proud to tell us that from the 20 who joined the first course, one went onto become a knowledge worker – many others also went for higher education and this makes him happy & proud at the same time. One of the students even got a computer operator job in a private company in Pune and his earning is about Rs 4,000 to 5,000 p.m. So far about 5 batches have been held and those who attend include women, elderly women, and children. Why did the women join? What was their motivation? "About 5 to 6 women of the village although farmers, wanted to learn computers because they saw women in city knowing computers so they were keen to learn. Then 20 women joined who are part of a SHG (Self Help Group) as they want to learn how to use the computer for storing records and accounts". Mahesh says, "So far, nearly 150 children have done the CALP programme and about 250 have done the MUPP (Microsoft Unlimited Potential Programme) at the VKC. In fact, children have become experts when handling mathematical problem solving. Earlier they would use their hands and do their maths step-by-step; now they do the complex mental calculations mentally", explaining the impact that these programmes have had.

With his enthusiasm to learn and opportunities presented by his association with MSSRF, he says that he has now become an expert learning from the hardware engineers. I sat with Mr. Vanjari and from him, learnt hardware - now I can assemble a computer and even repair it on my own. Others around me particularly everyone at MSSRF inspired me to learn. "They said, you have the guts. So I started to learn more features of MS Office, Skype, I learned how to tele-conference and even learnt Tally (accounting software) on my own - all here at the Centre. Now I have learnt how to use ISRO satellite connection, and even have knowledge about the EduSat links". Even though he did his education in Marathi, he took tuitions to learn English grammar. On 1st Aug 2007 while working as a knowledge worker and having conducted successful programmes such as on farming and on Women's

Act he was selected as a NVA Fellow of the National Virtual Academy of MSSRF which was a great honour and recognition. Seeing his meteoric rise, other youth also expressed interest in wanting to follow in his footsteps. In one and half years of joining, Mahesh had gained enough knowledge to be appointed instructor in August 2008. He started training others at the Wardha office of MSSRF.

From November, 2007 the MSSRF-Sankara Nethralaya mobile van for tele-optometry has been visiting and Mahesh helped with the mobilization of people by using the loud speaker, going door-to-door and distributing information pamphlets. Three camps have been held so far, about 1,500 people were informed and about 300 people came to the camps. From 1st April 2009, Mahesh was appointed as social worker by Sankara Nethralaya. In the last 5 months with regular camps in over 200 villages, more than 6,000 villagers have been examined & treated. Due to the nature of work, there is a new found respect for him and a spread of goodwill. He now plans to do A-level course and Diploma courses to enhance his skills. Would he like to become a priest in future as his father and his forefathers? "I've not thought about it. It is difficult making ends meet being a priest and I am serving society through my work."

Thousands of youth are drawn by the glamour of the urban areas and city life which apart from putting a strain on the urban infrastructure is an intellectual drain from the rural areas. Added to the intellectual drift, not many from the cities, particularly those who have gained higher studies are willing to work in villages due to the prevailing conditions and lack of even basic infrastructure creating a wider urban-rural gap. So it is even more important to identify and nurture those from the villages who would like to work in the villages and semi-urban areas. Those who can relate to the problems of the poor and yet have the ability to mould the new opportunities and technologies to act as enablers of change. With priority on capacity building and with appropriate mentoring the rural-urban divide may be mitigated. For every successful story like that of Mahesh, there are many unknown and unidentified youth who could equally play a critical catalytic role in rural development and upliftment. The challenge is to find them and encourage them while providing support. Talking with Mahesh it was evident that given the right environment and opportunities, there are many youth in rural India who can be highly productive members of society and play a pivotal role in the transformation of society particularly those in the rural areas.



▶ Ms. Mekala Muthu



MMeet Ms. Mekala Muthu, Fellow of the Jamsetji Tata National Virtual Academy (2007) and award-winning Panchayat President of Onangudi in the Arimalam Block of Pudukottai District of Tamil Nadu. The daughter of a Dalit farmer, who remained a shy housewife despite having a Masters degree, entered public life in 2000 through a chance meeting with her would-be mentor Ramasamy Rajkumar.

Born in Rayavaram, a few kilometres from Onangudi, Mekala went to college in Pudukottai and graduated in economics from the Bharathidasan University and went on to win her Masters degree in Tamil Language and Literature by distance education in 1991. Soon she got married and got preoccupied as a home maker. Her husband, Mr. M. Muthu, a farmer and a trained school teacher, was a member of the *Nehru Yuvak Kendra* (a youth centre).

Onangudi is a small but a clean hamlet. There is just one paved and winding road with the Panchayat office at one end and the agricultural fields on the other. Mekala, her husband Mr. Mariappan Muthu and their two sons and a daughter live in a brick house near the far end close to the fields. She enjoys working in the field. Mekala and her husband have 10 acres of land and they cultivate rice and sugarcane. They also have 20 coconut trees, two milch cows and two oxen for tilling.

Together with three other hamlets within two kilometres, Onangudi constitutes the Onangudi Panchayat. The Panchayat has a population of 2,081 (540 families) and about 50% of the people are Dalits. Within this hamlet, there are a number of Muslim and Hindu families who live together.

Mekala welcomes us with a broad smile. A villager standing by tells us that he has never seen her without a smile. She is a people person. Even when she is at work in the Panchayat office she would greet people passing by, he says. It was evident that she cares for the community and she is respectful even to children. Being an engaging conversationalist helps. The moment you meet her, you realize that you are in the presence of someone different, a free spirit. We were told that she has won many awards. But they sit ever so lightly on her shoulders.



Ms. Mekala at her panchayat office desk

A major change in her life came about when Mr. Shambu Kollalikal, the then District Collector, decided in 2000 to take up improving the status of women in the district as a thrust area and requested Mr. Rajkumar, the District Coordinator for Literacy and continuing education, to organize women's groups in all the blocks. Rajkumar organized meetings in different blocks and in one of them he spotted a very active young woman ever ready to help his team and the local organizers. At the end of the meeting Mr. Rajkumar suggested that the young woman, Mekala, could be appointed Secretary of the newly constituted local women's group (*Puduvai Poovaiar Manram*, in Tamil) and everyone accepted. But Mekala literally ran away from the meeting saying she would not be able to take it up! She was persuaded to accept which she reluctantly did. Rajkumar was impressed by her work and her commitment to do public good and he involved her in many activities that he was leading.

After some time when the position of the block coordinator for Arimalam fell vacant, Rajkumar recommended Mekala for the position and seeing her record the District Collector had no hesitation in appointing her. Since then, they have been working together in many development projects and awareness programmes such as promoting breast feeding, adult literacy, women's literacy, forming self-help groups, improving working conditions in the quarries, and promoting economic activities among the poor. Mekala got many opportunities to use her inherent talent and flair for community work. She is very grateful to Mr. Rajkumar for his mentoring and acknowledges his contribution to her growth. The work she did with Rajkumar broadened her vision and gave her invaluable experience and skills in handling problems poor people face in their daily lives. For example, when she assisted women working in stone quarries in keeping track of their accounts, she came to know of their abject working conditions and their vulnerability to exploitation by contractors.

In 2006 Rajkumar joined MSSRF as the regional coordinator of the Information Village Research Project (a part of the National Virtual Academy) with his office at Annavasal, a town in Pudukottai district. A few months later, in October 2006, Mekala became President of the Onangudi Village Panchayat, a position reserved for women. Both of them saw a great opportunity in their new positions. Mekala who wanted to set up a VKC at Onangudi, convinced the members of the Panchayat and the community. She met Rajkumar with a proposal and soon a VKC was set up at Onangudi with the help of the village panchayat.

The VKC brought computers and communication technology to the hamlet as well as the community newspaper, *Namma Ooru Seithi*. With the active support of Mekala, the VKC prospered and soon became a beehive of activity.

Children came to the VKC to learn to use computers and to join MUPP. The teachers of the local middle school followed them and came to learn to use computers, farmers came to get agricultural advisories, cattle owners came to learn about treatment for common animal diseases, women came to learn about loans and other government scheme for self help groups, and even illiterate goat herds came to find out how to get rid of lice from goats, cow herds came requesting to hold an animal health camp, and farmers came seeking advice on getting rid of nut grass (Korai in Tamil, *Cyperus rotundus*, Linn.) from their rice and sugarcane fields. The VKC started to grow and the villagers firmly believe that the VKC is the one place where you can get answers to all questions.

Among the many people we met, Mekala was the first to talk about the VKC as more than anything else a source of information. Most people refer to VKC as a computer centre. Will the illiterate old lady tending to her goats in the field sit in front of the computer? All she needs is some knowledge to solve her immediate problem, viz. lice in the goat's fleece, says Mekala.



Ms. Mekala listening to the problems of a villager as a panchayat leader



Ms. Mekala working in her field

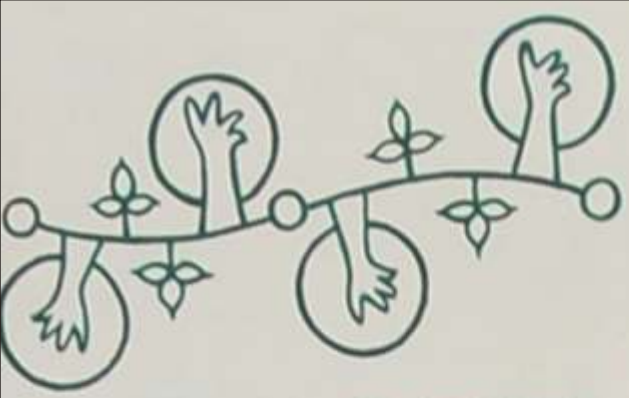
The VKC and the Panchayat joined hands in organizing many training and awareness programmes for the local people. Women abandoned by their husbands do not know what steps they could take. The VRC and the Panchayat spearheaded by Mekala organized a legal awareness camp with the help of a woman lawyer. They have also conducted many workshops on cattle health with the help of the Animal Husbandry Department, eye camps with the help of the Sankara Nethralaya's mobile unit, soil tests using the MSSRF van, and many other useful programmes. Mekala helped organize, an awareness session on the Right to Information Act, about which even Mekala had not known much till then. The VKC helped the community in setting up six Dalit women self help groups (SHG) and a farmers club. One SHG called *Vidiyal* got a bank loan of Rs. 3,00,000 to help its twenty members to carry out some income generating activity. Thanks to all these activities not only lives of the people in the four hamlets improved considerably but also the reputation of the Panchayat president.

Apart from Mekala being selected as a Fellow of the National Virtual Academy in 2007 and winning the Grameen Rathna (Rural Jewel award) in 2009, the Panchayat won the Nirmal Gram Puraskar (award for total sanitation or latrine in every home programme) in 2008, the Communal harmony award (for good relations among different religious groups at the District level) in 2009. The VRC in Annavasal and the VKC in Onangudi contributed a great deal to the total sanitation advocacy campaign. Building latrines in all individual homes was not a major hurdle, but changing the behaviour of people who were defecating in the open all their life was, says Rajkumar.

Again, when the National Rural Employment Guarantee Act was implemented, the MSSRF team helped the panchayat in both publicizing the programme and helping people register and obtain the identity cards.

Unlike most others featured in this volume, Mekala was an accomplished woman even before she came in contact with the MSSRF and its ICT-enabled knowledge centres. But her association both with the Foundation and its regional coordinator whom she had known earlier as a mentor and now as the representative of MSSRF has resulted in bringing enourmously greater benefits to the Panchayat and community as a whole and played a role in transforming the lives of many people.





MSSRF

M.S. Swaminathan

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Fishes ahoy!

Mr. Ramesh

Chapter 10



Every morning at Akkaraipettai, a fishing village in Nagapattinam, just before venturing out to the sea, Ramesh prays for a while for his safety and a good catch. Of late, this ritual extends to few more minutes religiously spent in front of a computer as Ramesh gets busy gathering a range of information like the height of the waves on that particular day, the level of turbulence and the potential fishing zone where he could find large shoals of fish.

Located 320 kilometers south of Chennai, Nagapattinam district has a long stretch of coastline that runs along the Bay of Bengal for nearly 200 kilometers. Due to its prominence on the fisheries map, it has one of the most thriving fishing harbours in India. This district still has the remnants of the tsunami that hit the eastern coast of India on 26th December 2004. It was one of the worst hit areas by the tsunami causing both human and material loss of great magnitude. People were rendered homeless and many lost their close kith and kin. Over 600 people lost their lives in Akkaraipettai on that fateful day. A spontaneous flow of help and assistance reached these affected areas from all around the world. While most of it was in the form of relief and rehabilitation, aid constituting housing, food, medicine, etc., Tata Relief Committee (TRC) in partnership with M. S. Swaminathan Research Foundation (MSSRF) came up with a unique but most valuable idea of helping the people by setting up a Village Knowledge Centre (VKC) in Akkaraipettai.

It was through Mr. Soundarapandian of TRC that Ramesh came to know of Mr. Rameswaran, a project assistant with MSSRF's Informatics team, who told Ramesh about the Village Knowledge Centres (VKC) and the Foundation's work with rural communities. And once the VKC was set up at Akkaraipettai, Ramesh started coming and he became very impressed by the work being done at the centre.

He got close to Mr. Balakumar, the manager of Akkaraipettai VKC. Balakumar found a spark in Ramesh. Although he had not gone beyond Class 10 in school, Ramesh had a desire to learn. As Balakumar says, he had the right attitude. They became good friends and Ramesh saw a mentor in Balakumar. They used to go out together, dine together and talk a lot about what the centre could do. Ramesh started bringing his close friends like Sivaraj and Arulmani and half a dozen others. This group of youngsters had decided not to touch a drop of alcohol as they had seen the evil effects of drinking indulged by adults in their own families.



Mr. Ramesh communicating on his mobile phone from his boat close to the shoreline

On many weekends, the group used to meet at Balakumar's bachelor's den, cook and spend the night there. Balakumar's association brought about a big change in the attitude of Ramesh. When the MSSRF team went to meet women self-help groups and members of the Panchayat, Ramesh used to accompany them. On occasions when the response was poor, Ramesh would feel very unhappy, and Balakumar would tell him that bringing attitudinal and behavioural change would need perseverance and one should not lose heart.

Ramesh took as much pains as the VKC staff to promote the VKC at Akkaraipettai. Whenever someone would ask for help, he would do what he could and then direct them to go to the VKC. He was like an ambassador for the VKC. Ramesh recalls, "My association with the VKC started when the installation of various equipments was going on. Out of curiosity I went there as an onlooker, later I became very involved with its activities. I was inspired to join the VKC as a volunteer. As a volunteer, I taught children, youth, and the elders in basic computer skills. I assisted in the Adult Education Programme. Realising and experiencing the benefits we received through the VKC, I have been encouraged to have my association with the VRC even after I resumed my full-time fishing activity."

Ramesh and other fishermen have benefited a lot through the VKC. They were not aware of schemes and training given by MPEDA (Marine Product Export Development Authority). MSSRF arranged for a Consultative Meeting for fishermen in Akkaraipettai, where they had the opportunity to meet and discuss with experts on all aspects of fishing.



Mr. Ramesh & Mr. Kalaivanan using the GPS on his boat at sea

That is when they learnt the importance of GPS (Global Positioning System) in deep-sea fishing. Ramesh shares his stories from the past, "For a very long time I was keen on using modern techniques for fishing. However, I did not know how to use them. MSSRF has given us opportunities to learn and benefit by these techniques through MPEDA which taught us how to fish using devices like GPS, echo sounder and fish finder fixed to the motorboats. This proved to be useful for fishermen like me."

The fishermen at Akkaraipettai were not aware of the fact that registration of boat was a prerequisite to avail any loan facility from MPEDA. As an outcome of the meeting, around 100 participants registered their boats with MPEDA. Registration of a boat is a lengthy process - getting the application, boat verification, getting a certificate from a Marine Chartered Engineer, giving an undertaking and so on. MSSRF assisted the fishermen throughout the process and helped them get their boats registered. Fishermen are today grateful for this and many more training programmes.



Nagapattinam fishing harbour



Mr. Ramesh & Mr. Sivaraj at the VRC doing an audio conference

For example, on board training on hygienic handling of fish and tuna processing has been very useful. Not only are the boat owners benefited by this training but also the labourers. If a boat owner gets Rs. 100,000 the labourers get a minimum of Rs. 2,000. There is a substantial increase in the income of the fishermen after participating in the training. "If the fishing community is aware of MPEDA and is able to improve their fishing techniques and improve their income it is because of MSSRF", adds another fisherman.

Ramesh is full of excitement as he says, "Personally I have benefited a lot. I worked as a volunteer in VKC for more than one year. It was the most rewarding period. I had opportunity to meet and interact with people. Earlier, I never knew anything about computers. With the encouragement of the staff, I first acquired basic computer knowledge and gradually enhanced my computer skills. I was inspired to attend the DTP class and got trained in that. I am proud to say that I am proficient in Photoshop and I use this knowledge to earn money by making digital boards for weddings and other functions. Within three months, I could earn Rs. 10,000. In our village, women and men have got jobs based on their computer skills gained through the centre. The best part is my attending a GPS training programme arranged by the centre. Now, I am happy that I am able to train and share this knowledge with my fellow fishermen." The centre provides information relevant to the community. The fishermen also get lifesaving information from the centre like weather forecast and wave height. They receive this news through the public address system. Based on the demand from the women members, fish market information is also provided through the centre. Men folk have limited time due to the demands of fishing while women, apart from their household work also do the marketing of the fish.

Now they have learnt some new skills in marketing and storing due to which the whole community respects their work. This gives them self-confidence and social prestige.

According to some locals, Ramesh's personality too has changed remarkably. He confirms it by telling us, "Earlier I used to be a shy person and did not participate in any social activities, but I am a changed person today. I have gained recognition among the Panchayat people. I have studied only up to 10th standard but I am proud and pleased to say that I am in a position to get jobs for the graduates in our village. This has been possible only because of my association with the VRC. I am surprised at my own growth. I have gained recognition among the community, friends, and relatives. I would like to serve the community through the VKC throughout my life." Thanks to technology and the MSSRF knowledge centres, Ramesh and other fishermen who sally forth to sea are sure of returning with a good catch. Ramesh has been selected as a NVA fellow in 2009.



Nagapattinam Railway Station





Mr. Kuppuswamy Srinivasan, 59, of Muthirayarpalayam, is grateful to the M. S. Swaminathan Research Foundation. He has finished high school and had gone to college for a year. He could not continue formal education beyond that as his family could not afford it. He has some land but depends on rain water to grow pearl millet, groundnut and pulses (grams). He cannot grow rice paddy as his land does not have access to enough water. Until about two or three years ago, he had a meager and unpredictable income from his land. Then he met folks at the Village Resource Centre (VRC) at Pillaiyarkuppam and his life changed dramatically.

On the advice of Dr. Thiagarajan, the VRC coordinator (now Adviser), Mr. Srinivasan enrolled in a three-month training programme – ‘Lay inseminator’ in animal husbandry provided by the VRC. He was one of 15 people who were trained in the first batch. Srinivasan learnt the technique of artificial insemination and first aid - the elements of providing health care to cattle and with this training he became a barefoot veterinarian.

Dr. Thiagarajan, 74, is a seasoned veterinarian and has varied work experience. He has taught at a veterinary college, practiced as a veterinary surgeon and was the first veterinarian to join the Pondicherry Cooperative Milk Producers' Union, ‘PONLAIT’. In the training programmes on animal husbandry provided by the VRC, Dr. Thiagarajan is the key trainer. He takes the help of the professors of Rajiv Gandhi College of Veterinary and Animal Sciences, Puducherry. In all their programmes, MSSRF researchers believe in the power of partnership.

Whenever a cow comes to heat it needs to be inseminated within eight to 12 hours from the onset of heat to get the best results. The owner of the cow calls Srinivasan on his mobile phone and Srinivasan reaches the place within an hour or two on his motorbike, armed with his tools and quality semen stored in a liquid nitrogen flask. These are provided by PONLAIT through the VRC.



Mr. Srinivasan preparing for the artificial insemination procedure



Pillayarkuppam village

On a normal day Srinivasan inseminates 3-8 cows within a distance of about 30 km, and earns between Rs. 300 and Rs. 600. He does not know exactly how many inseminations he has performed so far, but says the number should be around a thousand in the past two years. Why would people prefer Srinivasan to a trained veterinarian? There are many reasons. Trained veterinarians work during specified hours and one has to take the animal to their place of work. Srinivasan is available at any time and he goes to wherever the animal is. Besides, Srinivasan has an enviable track record. Every animal he has inseminated has conceived. After all, he keeps quality semen preserved in a flask cooled to the right temperature (with liquid nitrogen) and he has had quality training. As he says, he has been "living full time with cows all his life" and he has considerable experience in dealing with animals. He knows when to feed them, what to feed and the right way to milk them hygienically. He has a way with cows and calves. Srinivasan is an expert in testing animals for mastitis, thanks to the training received from the VRC. He tests cows for the onset of mastitis by performing a simple test that can be performed by a barefoot veterinarian or even a housewife within a few minutes, and prescribes the necessary medicine to be administered orally over a period of a week to ten days.



Mr. Srinivasan carrying the nitrogen cooled flask and heading to the next village

Both the test and the drug formulations were developed by Dr. Venkata Krishnan, a retired professor of Madras Veterinary College and an expert in mastitis prognosis and control, and disseminated by the VRC and PONLAIT. Dr. Venkata Krishnan was chosen for the Innovator Appreciation Award by Lemelson Recognition and Mentoring Programme (L-RAMP) in July 2005.

Now working with MSSRF, Srinivasan has a steady income and he has switched to cashew farming. He keeps himself up to speed by reading the community news paper [*Namma Ooru Seithi* or Our Village News] produced by the local community in association with the VRC and village knowledge centres and distributed by the VRC. Members of 97 milk cooperative societies in Puducherry, among others, receive this newspaper free. For his outstanding service to the community, Srinivasan has been selected as a Fellow of the National Virtual Academy in 2009.



Mr. Srinivasan at MSSRF, Chennai



Mr. Srinivasan with his mentor Dr. Thiagarajan



Mr. Srinivasan being interviewed on the artificial insemination procedure





Essentially, a temple is a place meant for the enlightenment of people by removing their ignorance with true knowledge. For the inhabitants of Embalam, a nondescript village in Southern India, a temple gives double benefits as it houses a Village Knowledge Centre (VKC) as well. This VKC, set up by the M. S. Swaminathan Research Foundation (MSSRF), has empowered numerous locals by imparting knowledge in various forms, mainly through ICT. "Information empowerment is the first requirement of a democratic society," says Professor M. S. Swaminathan, who has sought to bring the knowledge revolution out of the theory in textbooks.

"The Centre has become a place to which not only I but countless others flock to for various reasons. The villagers get information on all kinds of concerns and issues - weather, crops, livestock, health, everything. We have even mediated disputes," claims Usharani.

Usharani's approach, influencing and convincing small and secondary farmers including her own husband and family members, brought in lot of improvement to their production. She is also a keen health worker, and has organized several medical camps in the village, and brought an awareness about AIDS and de-addiction of alcoholics in the village.

The commencement of a knowledge revolution started a decade ago at Embalam, in a small room adjacent to the entrance of the temple, with few volunteers and equipped with five computers, a state-of-the-art solar panel, and a wireless Internet connection. "In 1998, I was among the only four women who volunteered to get trained at the Centre. It took two years for the others to join us" reminisces Mrs. D. Usharani, who a decade ago used to be the pivot of the knowledge centre. Prior to this, Usharani was a regular homemaker, who used to spend her day just taking care of her family and a cow. However, she had an inner craving to do something to enhance her life as well as that of her community. She recalls, "The VKC gave me the right opportunity to acquire knowledge for myself as well as to disseminate a range of information, like market prices for crops, job listings, details of government welfare schemes, and health advice to my community."

Usharani is so full of enthusiasm to work that she wraps up her housework quickly and starts her voluntary work early in the day.



Mrs. Usharani in her house in Embalam village



Mrs. Usharani taking care of her cattle

She is truly an eye-opener to the villagers. With help from Aravind Eye Hospital, she organized eye-testing of the villagers, and helped more than 100 people in the village get treated at the hospital. She is a keen naturopath, and is helping the farmers by offering herbal remedies to the common livestock maladies.

Ms. Usharani was among the six persons to be selected for the Fellowship of the Jamsetji Tata National Virtual Academy for Rural Prosperity in its inaugural year in 2003 and she received her Fellowship certificate from Hon'ble Mr. Ranil Wickramasinghe, then Prime Minister of Sri Lanka.

By working diligently and conscientiously, she proved herself so successful that in 2004, MSSRF chose her as one among the four-member delegation to Geneva to take part in the World Summit of Information Society (WSIS). In Geneva, Usha was a major attraction in the One World stall. The effortless ease with which she typed Tamil texts using the regular QWERTY keyboard on a PC attracted many onlookers. She was interviewed by not less than 15 reporters. At the conference, she was so popular that she was chosen to present awards to other women achievers from the various parts of the globe. She was full of gratitude to MSSRF for elevating her from a peasant woman to a celebrity.

Usharani recounts an amusing anecdote, "When MSSRF told me that I had been selected to go to Geneva, my family was very upset. Guess what! My parents would cry every time the topic came up because they were terrified about me flying." This was Usharani's maiden trip ever! Prior to this remarkable journey of her lifetime, she had never stepped out of Puducherry, nor been on a train, never even seen an aircraft in her life.



Mrs. Usharani's home which is also "Hand in Hand" Centre

To my question as to what motivated Usharani and the volunteers to give their time to the VKC, she responded that their social status increased as they too were now informed as much as their spouses, in some cases more than their spouses. The project has also caused a major social shift, says Usharani. "The men in our community first looked at us with jealousy. Then it became envy. When we first started, we would automatically stand up when a man entered this room. Not anymore - we are more confident and respected. That's the way we want to raise our daughters." The ICT centres have brought in a new balance of power in the relationships within the community, and have empowered the marginalized, especially the women. This gives a new dimension to the role of an ICT project, in most cases a very powerful one.



Mrs. Usharani working on her computer at her home

Usharani adds, "My community women and I have learnt the need for self respect and have become confident. We have learnt the importance of savings. We are able to participate in self help groups and earn respect among the community members, much more than before and have developed leadership qualities." She has trained women of self-help groups in cottage industries such as making pickles and handicrafts and has given market data to volunteers which has benefited them immensely. Usharani expressed that many women members are also approaching the center to share their personal family problems. Changes in attitudes of both men and women have been observed over time. Men have developed confidence that women are capable of several new skills and of managing the center. Women's self-confidence and attitude towards men are changing. Traditional taboos on men and women interacting together are breaking down harmonizing gender relations.

Thus, Usharani has not only raised herself but also championed the cause of under privileged women and still continues to fight tirelessly for the women's fundamental rights.

She applies ICT in every possible way, besides training people to develop computer skills; she uses the Internet extensively to guide people in livestock disease management and other improved practices in dairy development. "Today we do not need the help or intervention of market intermediaries to sell our wares. I use my Microsoft NetMeeting software to get in direct touch with the market," says Usharani. Of course, Usha has her own PC at home and also heads an NGO, "Hand in Hand".

Usharani, has also won the recognition as a "most respected and knowledgeable woman through her service as a volunteer in the MSSRF Knowledge center" and was awarded The Jamsetji Tata National Virtual Academy for Rural Prosperity (NVA) Fellowship.



Acknowledgement

Since 1992 M. S. Swaminathan Research Foundation has been pioneering ICT-enabled development activities through Village Resource Centres (VRCs) and Village Knowledge Centres (VKCs). In 2003, most of these activities came under the aegis of the Jamsetji Tata National Virtual Academy. The VRCs and VKCs are using both traditional and modern technologies to provide necessary information/knowledge to the rural communities. This programme involves strengthening four linkages namely lab-to-lab, lab-to-land, land-to-lab and land-to-land.

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S. Senthilkumaran

Director, Information, Education and Communication

