A Report of the **CONSULTATIVE WORKSHOP** on Social Enterprises in Tamil Nadu

Challenges, Opportunities and Interventions

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Fr. P. Christie. S.J. Director & Professor of Decision Sciences

FOREWORD

Greetings from LIBA!

It gives me great pleasure to release the Report of the Consultative Workshop on Social Enterprises in Tamil Nadu - Challenges, Opportunities and Interventions. We have taken up this initiative to promote social enterprises as they are emerging as one of the important change agents in the economy, social and environment sectors.

The social enterprises are engaged in services like poverty eradication, job creation, educational services, health care services, community development, entrepreneurial development, environment protection, energy saving, agriculture development etc. Although social enterprises are engaged in many activities that address vital and critical issues, their current eco-system in terms of who they are, what they do, and the challenges faced by them to sustain themselves are not fully understood. For any effective change we need to know as to what support the social enterprises need from governments, businesses, investors and academic institutions.

Towards this, Loyola Institute of Business Administration (LIBA) organised a consultative workshop on "Social Enterprises in Tamil Nadu – Challenges, Opportunities and Interventions" on February 17, 2017. This report brings together the case studies of the Social Enterprises which participated in the workshop. It gives us an insight on the eco-system of social enterprises from the perspective of social enterprises.

My heartfelt thanks to Dr. A. Xavier Raj, Dr. M. Victor Louis Anthuvan, Dr A. Indira, and Dr. A. Irudaya Veni Mary for organizing this consultative workshop efficiently and for writing this report. I would like to extend my appreciation to the entrepreneurs and the representatives from social and business enterprises who participated in the workshop and have contributed to this report.

We plan to organize this workshop annually and I look forward to your continued collaboration.

Best Regards,

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PROF. C.K. PRAHALAD CENTRE FOR EMERGING INDIA

Loyola Institute of Business Administration (LIBA), with its tagline "in Pursuit of Excellence and Ethics", envisions to imbue the spirit of innovation and entrepreneurship among men and women. With the aim of achieving this, it launched the Prof. C.K. Prahalad Centre for Emerging India in the year 2011.

India is a country of extremes – rapidly increasing number of billionaires and over 40% of its population earning \$1.25 a day. Almost all products and services created and delivered both with in the country and outside cater to the affluent or middle class. C.K. Prahalad's much acclaimed book, *The Fortune at the Bottom of the Pyramid: Eradicating Poverty through Profit (2004),* inspired a new thinking wherein he explained the market potential that remains untapped at the Base of the Pyramid (BoP).

C.K. Prahalad's premise that business models can mobilize socio-economic change by engaging the poor in the marketplace profitably, is the inspiration behind the 'C.K. Prahalad Centre for Emerging India'. At the centre, the team builds on C.K. Prahalad's passion for India and the faith in India's diversity, resilience and ingenuity. The bottom half of the economic pyramid typically espouse the spirit of India, *the jugaad*. The centre endeavours to further C.K. Prahalad's firm belief that India can become a superpower if it includes the bottom of the pyramid in its socio-economic development and his strong faith that lack of resources is not a constrain for innovation and ambition.

The centre has eminent faculties with extensive industry experience and years of engagement with base of the pyramid. The centre collaborates with think tanks, industry, NGOs, research and academic institutions, corporate bodies and community based organisations.

The centre has taken up research activities in the areas of micro-insurance, low-income housing programmes, rural marketing, social entrepreneurship, rural entrepreneurship, health care, WASH, humanitarian assistance, MSME, social innovation, small and medium farmers, renewable energy, marginalised segments and access to resources. At present the centre incubates entrepreneurs in the sphere of artificial intelligence, sustainable environment, renewable energy, location based e-commerce, Thirumoolar yoga, boutique for products of marginalised segments and e-commerce solution for home food.

RESEARCH ACTIVITIES

LIBA offers Ph.D programme in areas of various disciplines of management and is affiliated to the University of Madras, since 2005. Till March 2018, fifteen scholars have completed their research work successfully and the University has conferred Ph.D degrees to them. At present, ten scholars are working at different stages. All the research scholars have been presenting papers in the national and the international seminars/conferences, winning prizes and also publishing papers in research journals. The guides have undertaken and executed minor projects on various topics which are internally funded. The research findings become part of the PGDM syllabus of LIBA.

LIBA conducts seminars on research methodology and workshop on academic writing for the research scholars and junior lecturers. LIBA has been a partner with many other colleges and universities in conducting seminars on research methodology, case studies and other topics. Many independent research activities are undertaken by the Centres of Excellence – Centre for Corporate Governance and Business Ethics, Centre for Logistics and Supply Chain Management and Prof. C.K. Prahalad Centre for Emerging India.

LIBA also organises seminars and conferences at the national and at the international levels to encourage and initiate debates on various socio-economic issues. It also publishes books in areas of contemporary significance and future relevance. It also has plans to collaborate and work with academic institutions, various bodies of industry and commerce both at the national and at the international levels.

1 INTRODUCTION

Around the world, the social entrepreneurial venture is flourishing as one of the important change agents in the economy, social and environment sectors. It is attracting governments, investors, and academics through its activities such as poverty eradication, job creation, educational services, health care services, etc.

Knowing the importance of social enterprises for the Nation's growth, Prof. C.K. Prahalad Centre for Emerging India, Loyola Institute of Business Administration, along with a team of academics and researchers at Loyola Institute of Business Administration (LIBA) had conducted a consultative workshop on "Social Enterprises in Tamil Nadu – Challenges, Opportunities and Interventions" with the participation of social entrepreneurs working in Tamil Nadu on 17th February 2017.

The purpose of this workshop was to engage social entrepreneurs in a consultative process to understand the current eco-system in terms of challenges, opportunities and interventions required.

The workshop had a two-fold process. First, the process facilitated presentation by social entrepreneurs of their learning and insights based on their life experiences of setting up and running social ventures. Second, the participants were divided into smaller groups where they discussed the factors that were affecting (or facilitating) social ventures in Tamil Nadu which were identified and prioritized during the earlier sessions. The issues broadly covered challenges, opportunities and interventions required. Interventions focussed on areas of current eco-system for promoting social entrepreneurship and social ventures. The role of governments, businesses, investors and academic institutions was considered during the discussion.

A group of entrepreneurs and representatives from social and business enterprises together with academics and researchers from LIBA participated in the workshop. The participants included Ms. Ragini Pillai, City Lead - Chennai & Hyderabad VILLGRO, Chennai; Mr D. Suresh, retired entrepreneur, Computer Access Pvt.Ltd, Chennai; Dr. Jayashree Suresh, Dean, Hand in Hand Academy for Social Entrepreneurship, Kancheepuram; Mr. Ashwanth, DesiCrew Solutions Pvt.Ltd, Chennai; Mr. V. Kalyana Sundaram, Director and India Head of HR, Nokia India Pvt., Chennai; Mrs. Kavitha Sivapragasam, The Covenant Centre for Development, Madurai; Mr. Nandan, Senior Manager for Enterprise Development, Last Forest Enterprises Private Limited, Nilgiris; Mr. Kern Agrawal, Founder, Carbon Loops Pvt. Ltd. and Tech Loyola Organics Foundation, Chennai; Mr. A. Vijaya Balan, CEO & Founder, Transun Energy Systems, Chennai; Mr. Yoshith K., Transun Energy Systems, Chennai; and Mr. Mathew Jose, CEO & Founder, PAPERMAN, Chennai. The participants from LIBA included Fr. P. Christie, Director; Dr. M. Victor Louis Anthuvan, Dean- Research; Dr. G. Revathi, Dean – Academic, Dr. I. Thiagarajan, Chairperson-Part time Programme, Dr. A. Indira, Coordinator Research, Dr. A. Siluvai Raja, Chairperson, Informatics Centre; Mrs. A. Irudaya Veni Mary, Research Associate; Dr. D. Madhava Priya, Research Associate; Dr. M.A. Kalam, Professor of Applied Social Sciences, C.K. Prahalad Centre; and Dr. A. Xavier Raj, Chairperson, C.K. Prahalad Centre.

2 WORKSHOP AGENDA

The programme started with a brief Welcome Address by Prof. M. Victor Louis Anthuvan, setting the context in which the social enterprises were currently working in India. Fr. P. Christie, Director LIBA, elaborated on the unique emphasis the Jesuit institutions have for social entrepreneurship. Globally, Jesuits institutions have formed alliances to promote social ventures through education, training and incubation.

The key speakers Mr. Kern Luke Agarwal, Naandi Foundation, Chennai and Mr. D. Suresh, retired entrepreneur, Computer Access Pvt. Ltd., Chennai, shared the experience of their work on renewable energy and sustainable agriculture. While Kern explained how institutions can adopt sustainable energy options and support farmers with organic manure, Mr. Suresh revealed how households, including those in urban areas, could generate energy from the sun and food waste and use organic manure for cultivation.

Ms. Ragini Pillai shared the work of Villgro and its role as an incubator and the importance of collaboration and networking for the social entrepreneurs. Along with donors, investors, network partners, and mentors, Villgro has built a strong and viable eco-system for social venturing. The focus sectors are agriculture, health care and education. Mr. Ashwanth from Desicrew Solutions shared how the work of his organisation as a rural BPO had not only generated employment but also made a social impact of empowering women in the rural areas. Desicrew has implemented complex projects for an impressive set of international clients.

Mr. Nandan, Last Forest Enterprises, showcased the work done among tribals in the remote areas of Nilgiris. The social enterprise had been able to find a niche of its own to help market and promote the local products in an international market through digital and social media. The enterprise has an interesting journey of discovering indigenous crafts and packaging them for discerning consumers. Mr. Mathew Jose, Paperman explained how scarcity of a trash collection service had shaped the business and created opportunity to help the ragpickers and also created a new eco-system in the 'trash business'. Today the 'trash business' have 20 new entrants in the market.

Mr. Vijaya Balan, Transun speaking on solar energy, explained how change in technology could be used to transform the commercial space for a more viable product. Mr. Kalyanasundaram, Nokia shared his experiences of what could make or break the promotion of a social enterprise in the existing scenario and what needs to be done to encourage the eco-system so that more ideas could come into the market.

The present volume brings together the work of the entrepreneurs in the form of case studies. The case studies cover the mission of the organisation, factors that facilitated them to take up the venture, challenges faced by them and the impact created by them. The case studies are written on the base of the presentations by the social and business entrepreneurs and secondary data taken from their organisations' websites.

CASE STUDIES

3.1. CASE STUDY 1: COVENANT CENTRE FOR DEVELOPMENT (CCD)

The Covenant Centre for Development (CCD) is a social enterprise founded by a Social Work graduate Mr. N Muthuvelayutham in the year 1989. He has completed his Masters and M.Phil in Social Work and Post graduate Diploma in Entrepreneurship Development (P.G.D.E.D). Initially CCD was started in Tamil Nadu, and later in the year 2008, it extended its work in four central States of India namely Chhattisgarh, Orissa, Madhya Pradesh and Maharashtra. This organization was started with the vision: *"Life in understanding and harmony with the Panchabhutas to the path of Karmayoga (Panchabuthas – The five elements of nature as per Indian traditions - Earth, Water, Wind, Fire and Ether)"*.

CCD is working with a mission of building Community Based Institutions and Enterprises using local resources, traditional skills and wisdom of the local community. It uses a combination of modern technology in order to address rural problems such as migration due to adverse climatic conditions. Its work looks at the impact on the livelihood of the villagers, depletion of agriculture and natural resources in the semi-arid regions of southern Tamil Nadu among the rain-fed farming communities. It addresses the issues of rural unemployment, poverty, hunger, malnutrition, ill health, migration, and climate change and thereby attaining long term sustainability by organising the unorganised women and farmers into SHGs and Federation at the district level. These SHGs and Federations are trained on savings, microcredit management and are linked to development government departments for sustainable livelihoods and agriculture. During the period of 1988–1999, CCD was a pioneer in this model, being rooted in the native knowledge for the process design. In the process it created a body of knowledge and expertise that was utilized by others as best practices and learning.

The constituents of CCD are many. It is working for the welfare of the rural women, traditional health practitioners, medicinal plants gatherers, farmers and coastal communities in Tamil Nadu.

- 1. With regard to the welfare of **rural women**, CCD grouped women into small groups named as Kalasam. These groups of women were encouraged in savings for contingencies and emergencies. Developing a habit of savings among the rural women gradually freed them from the clutches of money lenders and enabled them to have control over their financial conditions. Kalasam consists of women members from a community. It was formed to encourage collective savings and lend credit to the members of Kalasam in times of need. Many Kalasam groups come together and register a trust called **Mahakalasam Federation**. It can also be called as women self-help group federation. Mahakalasam is organised in three-tier structure. They are Kalasam, Cluster level Consultative Committee and Mahakalasam Federation. The Kalasam consists of individual members. The Cluster Level Consultative Committee consists of groups of Kalasam leaders. The Mahakalasam Federation is the apex body of Kalasam. In addition to saving and lending credit, the Kalasam members participate in the CCD's long term projects too.
- 2. Since the Population of **traditional health practitioners** is declining, CCD mobilises, validates and revitalises the traditional health practitioners and their knowledge through documentation and validation by organising consultative programmes in order to revive their traditional

health practices. CCD has started educational programmes for the next generation, oriented towards the sustainability of the social enterprises. Over three decades of its efforts, CCD has ventured with one-year barefoot doctor courses for traditional healer's sons and daughters, named **Sadhana Samudaya Kalluri (community college).** It is a residential college. It offers traditional medicine courses for the children of traditional health practitioners. The traditional health practitioners give training to these students. There is also Medicine Preparation Unit which produces traditional medicines. These medicines are dispensed through women self-group and their federation networks. These medicines cater to the needs of patients living in the surrounding villages for primary health care.

CCD has established a regional resource centre at Sevayoor called **Sevayoor Regional Resource Centre.** It is the laboratory for all research studies and experiments in the area of medicinal plants and traditional medicines including ethno veterinary and plant protection. CCD has started a conservation education programme called **CEP (Conservation Education Programme).** Through this programme, CCD gives many customized conservation education and training to various groups of beneficiaries. It includes teachers and students from the educational institutions, NGO staff, house wives, etc. Apart from education and training, it also conducts biodiversity contests, camps for school/college students, exhibitions, fests and other outreach programmes. During these programmes, the students are involved in mass planting. A Conservation Education Manual has been prepared for the teachers to guide their students at schools. A Conservation Park has been developed at Sevayoor to educate the students on the importance of conservation.

Together with the above said course, CCD also conducted one-year course on management for the community enterprise managers and a course on agripreneur in collaboration with Tamil Nadu Agricultural University (TNAU). Since there is a growing demand for both cultivation and consumption of organic produces, CCD has initiated this agripreneur course and trains the first generation graduates/diploma holders from CCD's beneficiaries' families to bridge the gap and meet the demand. The trainees undergo one year residential hands-on living experience that not only equips their skills but also transforms their lives from changing their attitudes towards nature, ecology and symbiotic relationship with human beings and animals. Experts from the agricultural science teach them theory and Practitioners from the farms accompany them and train them on its application. The trainees visit model farms and acquire clear theoretical learning and practical applications. In addition, the focus group discussions, stakeholder consultations and workshops provide them common platform for validating their mutual learning and experiences. This course covers the whole spectrum of land preparation, crop selection, seed production, nursery preparation, input production and application, soil moisture conservation measures, cultural practices, cropping patterns, pest disease management, irrigation systems, post-harvest process and value addition at the source.

There is a tripartite agreement between the parents, sponsors and CCD. The parents have to agree to one-year of residential training and two years of training at the farms of sponsors as labourers and daily wage earners. Sponsors are committed to provide Rs. 10,000/- as stipend per month inclusive of boarding, lodging and training expenses during the one year course and Rs. 20,000/- salary per month for the next two years' job in their farm inclusive of boarding, lodging, travel and communication. CCD's responsibility is to select the right type of candidates with the consent of respective families.

Similarly, in the same periods CCD also ventured into exposing senior decision makers of financial institutions such as SBI, HDFC and HSBC managers, IT giants such as Honeywell, Bosch, and Accenture middle level managers, to specific interventions on community enterprise models. Based on the expertise and the positive results, CCD is currently inaugurating a one year residential agripreneur course for the members of the confederation and its partners.

- 3. With the vision of uplifting the life of medicinal plants gatherers and medicinal plant cultivators, the social enterprise has organised them into groups and started a public limited company named Gram Mooligai Company Limited (GMCL) in the year 2000. Further it trains them on sustainable method of collecting medicinal plants; safe method for preserving the collected medicinal plants and promotes kitchen herbal gardens. Gram Mooligai Company Limited (GMCL) is owned by Medicinal Plant gatherers and cultivators in the rural community. This company was started with 42 women SHGs and farmer groups as shareholders and stakeholders. It promotes and maintains sustainable cultivation and utilization of medicinal plants through organized efforts. It ensures that the medicinal plant collectors / cultivators get better price for their produce. Additionally, it also educates the consumers on the importance of medicinal plants and the products made out of medicinal plants for their primary health care.
- 4. CCD found that farmers were migrating to the nearby towns in search of employment due to low returns from the agricultural production. To solve the problem of low returns from the agricultural production, the social enterprise has grouped the farmers into federation and networks; enhanced their negotiation power in the market; introduced sustainable agricultural practices and has set up a rural supply chain among their neighbourhood as farmer producer companies where the primary producers are the shareholders and stakeholders. Aaharam is a farmers' federation owned and managed producers company limited. It procures, processes and markets the organic produce. It is a producer company registered with 12 SHGs as shareholders and stakeholders. From the year 2015, under the federation of Aaharam, CCD is graduating community based organisations into Farmer Producer Companies (FPCs). So far, CCD has directly involved with more than 50 FPCs in Tamil Nadu and 200 FPCs across the country. At present, CCD is in the process of confederating 50 FPCs under one Confederation named AAHARAM. This confederation will collectively own and manage the brand with due recognition to the respective producer and marketing FPCs.
- 5. CCD also works for the welfare of the people involved in producing coir based products, fisher folk, vendors, artisan women and support service providers who live in the **Coastal Communities**. It strengthens the livelihood of the people living in the coastal communities through enterprise development. It also networks with similar organisations involved in strengthening the living standards of the coastal communities. **Adharam** is a community enterprise started in the year 2006. It works in collaboration with British Petroleum (BP). The purpose of starting this community enterprise was to provide low-cost and high-efficiency fuel and fuel appliances to the rural households. The fuel was generated out of agricultural residue through local production of fuel pellets and biomass stove, called "Oorja" was provided to the rural households. The fuel appliance that is being promoted at present are Smokeless Stove.
- 6. Aadi Festival CCD traditionally brings together community based organization members / leaders every year for the celebration of sowing season called Aadi Thiruvizha since 1992. It regularly conducts a Community Based Organisation (CBO) consultation during the Aadi Festival and it is always a part of the annual Aadi Festival. This consultation serves as a tool for bridging the relationship between the corporate houses and the Community Based Enterprise (CBEs).

Covenant Centre for Development (CCD) in North India

CCD has extended its work to North India, replicating its community owned social enterprise model for community development. It functions in four Central Indian States namely Madhya Pradesh, Maharashtra, Orissa, and Chhattisgarh with the vision of reducing poverty by improving maternal health and empowering women. The various mission works being carried out by CCD add value to the non-timber forest produce by marketing them as medicines or food supplements in the nearby towns or cities; improving agriculture by promoting organic farming; and promoting kitchen herbal gardens. Beyond this, the CCD has supported fisherwomen in Orissa by grouping them into fisherwomen's federation named Samudram.

Challenges

With regard to medicinal plants cultivation and gathering, CCD faces a few challenges. The cultivation of medicinal plants has become difficult due to unpredictable and insufficient rain fall. The Government Policies like NREGS have caused a raise in the labour cost for gathering medicinal plants. The frequent change in the domestic quality standards for the medicinal plants causes difficulty in marketing the produce. High market competition is another challenge for marketing the cultivated and gathered medicinal plants.

Impact

The intervention of CCD has brought about a high economic, social and environmental impact in the lives of participating communities in Tamil Nadu and in other North Indian States. Since CCD addresses rural problems by using local resources, traditional skills and wisdom of the local community and modern technology, its intervention has become a successful rural intervention model and is being replicated by other citizen organisations and social entrepreneurs. So far, CCD has enabled more than 5,000 families to overcome poverty. It has formed 7 Women Self Help Group Federations that consist of 16,000 women members from more than 300 villages. These villages are in the districts of Tamil Nadu namely Madurai, Sivagangai, Virudhunagar, Ramanathapuram, Dindugal, Nagappattinam, Kanyakumari, Theni, Tirunelveli and Tuticorin. To date CCD has promoted 24 producer companies in these districts. The Medicinal Plant community enterprises have given livelihood opportunities for 1800 families who are mostly landless labourers. It has grouped the medicinal plant gatherers into 160 Sangams. The trade volume of CCD (the products from the producers' companies) has increased from 30 tons in the year 2000 to 1,000 tons in the year 2012. So far, the CCD has established 22,000 kitchen herbal gardens through medicinal plant conservation network called FRLHT (Foundation for Revitalization of Local Health Traditions).

3.2. CASE STUDY 2: CARBON LOOPS PVT. LTD. AND TECH LOYOLA ORGANICS FOUNDATION

In India, the idea of waste management is limited to "Dump it, Burn it". Moving away from this standard approach of landfills and burning is a sustainable waste management programme that addresses various forms of resource through an integrated transformation cycle, resulting in usable energy electricity, transportation and chemical free food. A state-of-the-art biogas plant can process food scraps in a hygienic and environment friendly way. The produced gas can be used as electricity or cooking gas. The slurry output from the biogas plant combined with dry leaves and garden scraps results in a high quality manure through composting. This compost can be used by farmers who are guided on the adoption of biodynamic farming versus a chemical approach. Farm-fresh healthy produce from these non-chemical fields will come back to the city residents. By managing the organic waste, the other portion like plastics, paper, metals, etc that can be recycled, becomes much easier to manage and a whole new world of recycling unfolds.

The global crisis in agriculture, that has been devastating millions of lives and livelihoods in countries like India has been expressed through numerous farmer suicides as well as ecological degradation, loss of bio-diversity etc. Integrated sustainable organic farming, especially in small and marginal farms, if undertaken in a concerted and massive manner, provides a way forward. Profitable and sustainable organic farming, with its efficient water use, re-energising of the land etc, are viable alternatives for the small and marginal farms and help the ultimate empowerment of the farmers in India. Effective bringing together of existing small and marginal organic farmers as well as motivating others into organic farming, supported by intermediate mechanisms of training in crop selection, crop techniques, water harvesting etc, marketing and other value addition can surely be greatly benefiting to these farming communities.

Realizing these two social problems and the need for intervention, Mr. Kern Agrawal, an Alumnus of Loyola Institute of Business Administration, Chennai has started two social entrepreneurial ventures named Carbon Loops Pvt. Ltd and Tech Loyola Organics Foundation. These two ventures were initiated in the year 2015 as model creation initiatives and officially registered in the year 2017.

The Carbon Loops Pvt. Ltd was created with the vision "to divert / reduce waste from landfills and find the best use of our waste like bio gas, compost etc." The mission of the social enterprise is "to represent a fundamental shift from traditional waste management to resource recovery". Mr. Kern Agrawal aims to make the Carbon Loops Pvt. Ltd as a one-stop shop for waste management. The first project for this venture is the entire Loyola college campus. What others consider wastes the Carbon Loops calls it resources – just a simple change in perspective opens a whole new world of opportunities. The future goal of the social enterprise is to make Chennai a zero waste city.

The Tech Loyola Organics Foundation was founded with the vision of "mobilising and working with small and marginalised farmers; helping them to convert to sustainable agriculture and ensuring organic farming; creating an economically viable model of farming as well as organic in nature. Foundation mobilises and organises the small farmers, trains the farmers on organic farming and helps them to market their products. The first project is being carried out in Marudheri village on Chengalpattu-Thiruporur road.

Mr. Kern Agrawal got the motivation to start a social entrepreneurial venture during the village visits while he was doing his MBA study. As part of his MBA course, he studied the livelihood of farmers. While researching, he found that the status of the farmers was very poor and he found that the people who feed us are actually sleeping hungry. It was then that he decided to find a solution for the problems faced by small and marginal farmers.

The thirst for finding a solution for the problems faced by the small and marginal farmers continued even after the completion of his MBA study. Therefore, as a first step he visited farmers in Marudheri village and convinced the farmers on organic farming. He mobilised them into groups and provided them training on organic farming methodologies and then helped them to market their produce for a higher premium.

The moral support and financial support as investment fund came from his friends and family which enabled Mr. Kern Agrawal to take up and continue the social venture.

While carrying out the social venture Mr. Kern Agrawal faced two types of challenges. They are: (i) convincing the farmers that organic farming practices is an alternate to present agriculture practices and (ii) marketing the agricultural produce. The challenge of convincing the farmers was overcome by setting up model farms/demonstration farms around the village. As a first step, Mr. Kern convinced two farmers in the village, trained them on organic farming and started organic farming in five acres of field. When the villagers started watching his progress and achievement in organic farming, they realised and believed that organic farming is possible. More farmers started approaching him. Since marketing was a great challenge, Mr. Kern Agrawal accommodated more farmers into his group. Now, there are eight farmers in his group and he is executing organic farming in 20 acres of field. In order to overcome the challenge of marketing, he together with the farmers selected crops like paddy and oil seeds that have a longer storage capacity for farming. This enabled him to sell the produce when the market is favourable.

The Reinvestment of the profits into collective of farmers is enabling the group to grow bigger and that is helping him to continue his work.

3.3. CASE STUDY 3: DESICREW SOLUTIONS PVT. LTD

DesiCrew Solutions Pvt. Ltd is a social enterprise founded by Ms. Saloni Malhotra in the year 2007. Ms. Saloni Malhotra started this venture when she was 23 year old. She graduated B.E (Industrial Engineering) from Bharati Vidyapeeth University in Pune, Maharashtra. DesiCrew was incubated at the Rural Technology Business Incubator of IIT-Madras.

DesiCrew Solutions Pvt. Ltd is a rural BPO started with the vision of *expanding the economic boundaries from the urban to the rural areas in India, by leveraging local talent pools, providing a competitive advantage to the customers*. The founder of this venture believes that the earnings become more beneficial and meaningful when one takes the job to the rural graduates rather than taking the rural graduates to the jobs offered in urban areas.

The idea of starting a social enterprise emerged in the mind of a young, 23-year-old engineer, when she attended a lecture by Prof. Ashok Jhunjhunwala on Rural Telecommunications. Inspired by his talk, she later came from Delhi to Madras to meet Professor Jhunjhunwala. After the discussion, she studied the market in the IT/BPO sector and found out that 60 percent of the employees in the Urban BPO sectors are from Tier 2 and Tier 3 towns. Among these 60 percent, fifty percent of them are below 25 years old and are women. Further she found out that the wrong perception about rural areas hindered setting up of rural BPOs. The perceptions were that it would be difficult to find out talented people in the rural areas, the infrastructure facility would be poor and would pose a great challenge in building a workable model.

Having understood the potential of rural areas through extensive research, Ms. Saloni Malhotra founded Rural BPO in the village called Kollumangudi in Mayavaram as a unique, sustainable and profitable business model and broke the above said wrong perceptions. At present it has grown setting up two rural BPO centres in Tamilnadu and Karnataka respectively. DesiCrew Solutions Pvt. Ltd functions with three core values. They are: **to bridge urban rural gap through development** – the social enterprise prevents migration from rural areas to urban areas for seeking employment and works on inefficient infrastructural problems; **to plug the rural brain drain** – DesiCrew boosts up the talents of the rural educated youth through training programmes such as Life skills, Spoken English coaching and Computer Training so as to increase the abilities for better business performance; and **to tread the lesser-known path of rural areas to improve the local economic growth** – it has increased the infrastructure facility and connectivity and made the Rural BPO into a productive and excellent centre in small towns which continues to give employment and integrated growth (both economic and social) in life for the rural educated youth without the struggle caused by migration.

Together with these values and its vision DesiCrew has successfully established sustainable business model that performs equally well on quality and cost as well as creating a social impact in the lives of their employees and in the community in which they work. At present, it has a strong team of more than five hundred people. A combination of professional talents from the rural areas, investment in defining process and training offered to the rural educated youth has helped DesiCrew to win the trust of customers from business companies and institutions ranging from global technology majors to financial service conglomerates. It has more than 70 happy customers.

The different services offered by DesiCrew to its customers are Data Management Services, Digital Supply Chain Management Services and Customer Experience Services. DesiCrew has a hybrid business model. DesiCrew ensures quality services to its customers for a reasonable cost and at the same time ensures maximum social impact by increasing economic and social betterment of the people working in its BPO. The customers save upto 40 percent by working with DesiCrew. DesiCrew aims at stimulating inclusive growth in India. It creates meaningful employment opportunities for the educated youth in the rural and semi-urban areas by creating a profit making social enterprise. It provides various training sessions on long-term employability skills for its employees through which it empowers them to have a financially and socially secured future. DesiCrew's Training Programme D-TOUCH covers modules across Life skills, Spoken English coaching and Computer Training. The training programmes enable the employees to become more efficient in their work places and at the same time prepare them to take up greater challenges and new opportunities in future both in their professional and personal lives. In addition to these sustainable employability skills, DesiCrew is also helping its employees to continue their college degree or to pursue higher studies through reimbursing partial education fees. Further it provides flexible working hours and part-time opportunities for students, home makers and first-time job seekers in order to balance their career aspirations and other interests.

Working in DesiCrew Solutions Pvt. Ltd enabled the educated rural and semi-urban youth in the following ways. It has helped them to develop their personality, gain confidence in life, to improve the capability of decision making and to get a positive perspective about life. It enabled them to understand the importance of team work to the extent of leading and managing a team. It has given them confidence to effectively communicate at the work place, interact with the co-workers and with different types of clients. It has transformed them as experts in their profession. Some of the employees have become role models for many aspiring youngsters. They have become personally and financially independent to the extent of supporting their own education and the education of their younger siblings. DesiCrew has taught them to handle the finances responsibly. It has strengthened their social status among their families, friends, relatives and friends. They are very proud to work at DesiCrew.

On the whole, it has prevented the underemployment of rural educated youth; reduced migration of rural youth to cities in search of employment; enabled the rural educated youth to earn a decent income. With seventy percent of its employees being women, it has utilized the untapped potential of women efficiently; increased the confidence level of women as they are able to support their families financially and their age at marriage also had gone up. Apart from these changes, the very existence of rural BPO had positively influenced the emergence of other small businesses around the company.

In the early days, DesiCrew's major challenge was convincing customers that high quality work can be executed out of Rural centres. Over a period of time, this challenge has been successfully addressed. The team experimented with several options before capitalising on what worked best for them. DesiCrew team created its own training modules, based on client requirements.

There were initial challenges in convincing women to work across multiple shifts. However, this issue was resolved by the management constantly working with the local communities and the employee families.

The advent of Automation, Artificial Intelligence and Machine Learning has significantly affected the Global Outsourcing Industry, making several jobs redundant. Advancement in technology has decimated Outsourcing industries by introducing cloud robo farms, which can work 24/7 without challenges like employee turnover, strong accents and clerical errors. Team DesiCrew has also been working towards adapting new Technologies, re-skilling its resources to make itself relevant to its customers.

Together with these, innovative way-forward techniques is the efforts of team at DesiCrew and the support from the investors and customers are helping DesiCrew to survive and sustain their venture.

3.4. CASE STUDY 4: LAST FOREST ENTERPRISES

Last Forest Enterprises is a social enterprise set up in the year 2010 and was registered under The Companies Act, 1956. This social enterprise was set up and incubated by a Non-Governmental Organization named Keystone Foundation, by three friends Ms. Snehlata Nath, Mr. Pratim Roy and Mr. Mathew John in the year 1993. It was registered under the Societies Registration Act 1860. Keystone was founded with the mission of enhancing the guality of life and the environment with indigenous communities using eco-development approaches. They work with indigenous communities on ecodevelopment initiatives in the Nilgiri Biosphere Reserve (NBR). The indigenous communities include people living in mountains and adjoining regions. Keystone focuses its work in the areas of apiculture, micro-enterprise development, non-timber forest produce, land & water management, revival of traditional agriculture and other issues concerning indigenous communities. Together with Last Forest Enterprises, Keystone Foundation has set up and nurtured two other organisations named Aadhimalai Pazhangudiyinar Producer Company Ltd. and Nilgiri Natural History Society. All these three organisations including Keystone foundation are based in Kotagiri, in the Nilgiris. These three organisations together with Keystone work together in order to improve the quality of the lives of the indigenous communities, to strengthen the natural resources production and at the same time to protect the biodiversity in the Nilgiris Biosphere Reserve.

The Last Forest Enterprises was set up with the purpose of developing fair trade markets for rural and small enterprises in the indigenous communities. It has been incubated and nurtured to take over the entire marketing operations from Keystone Foundation. It markets the products of the indigenous community people who otherwise do not have the capacity to reach or build retail platforms. While marketing their products, these indigenous community people faced collective problems such as: the middle men fixed very low price for their products; they got irregular payments for their products; the middlemen cheated with faulty measurements and the non-availability of separate market for Organic Products. Identifying the problems of the indigenous community people, Last Forest Enterprises helps them to find a niche for their products in the local and national markets with innovative ideas, adds value to the products with the local recipes and involves and empowers the local groups by involving them in the process of its work.

The Last Forest Enterprises works with more than 150 villages impacting thousands of people. It helps the indigenous communities to sustain themselves by empowering their skill sets and bringing economic growth for all families. It procures the produce from 45 producer groups across the country and sells through over 130 outlets all over India. It markets the products through e-commerce, partner networks such as Participatory Guarantee System (PGS), World Fair Trade Organisation (WFTO), and Fair Trade Forum India (FTF-I), dealers and retail outlets. It has set up three outlets of its own named as Green Shops located in Kotagiri, Coonoor and Ooty. The Last Forest Enterprises ensures that the agricultural products are organically grown without any chemical fertilizers or pesticides. As the name suggests, it is an entirely nature-conscious, socially oriented entity.

The Last Forest Enterprises caters to the entire supply chain of procurement, quality check, branding and promotion and sale of indigenous products. Its portfolio consists of varieties of honey, a range of beeswax products such as candles, soaps, and lip balms, spices, herbs, millet, coffee, essential oils and many more. It also has exchange programmes within India in the NTFP (Non-Timber Forest Produce) sector to encourage collaboration with other similar entities.

Last Forest Enterprises' primary aim is to promote the messages of small indigenous farmers and gatherers; value added organic produce; biodiversity and food security; indigenous knowledge,

traditions and crafts; sustainable harvesting & farming methods; local employment & markets and fair trade principles.

It believes that the spirit of the forest is about thriving yet sustaining balance. It is about growth that is meaningful and contributing. The Last Forest Enterprises works on four key criteria:

- To be organic, fair trade, social impact oriented
- To support indigenous craft
- To support or improve local biodiversity
- To increase local employment and build local markets

Since the Last Forest Enterprises is working with different groups of indigenous communities it is able to get product diversity for marketing. The various products of indigenous communities marketed by the Last Forest Enterprises are:

- 1. **Honey** wild honey taken from the forests of the Nilgiris. It adds value to the honey by adding the qualities of pepper, ginger, saffron and cinnamon and market it as Pepper Honey, Ginger Honey, Saffron Honey and Cinnamon Honey.
- 2. **Beeswax Balms and Lip Balms** these balms are the blend of beeswax, natural flavours and oils. The different types of Beeswax Balms are Citronella Beeswax Balm, Eucalyptus Beeswax Balm, Camphor Beeswax Balm, Winter Green Balm, Coconut Beeswax Balm, Olive Beeswax Balm and the Lavender Balm. These balms are marketed in 20g containers. The lips balms are made with the blend of beeswax, olive oil and different flavours including Orange essence oil, Pinapple essence, Strawberry essence or Vanilla flavour. These lip balms are available in 10g containers.
- 3. **Honey & Beeswax Soaps** it is the combination of beeswax as base and four different attractive fragrances including lemon grass, shikakkai, basil and jasmine. These soap bars are sold in 50g, 75g and 100g.
- 4. **Beeswax Candles** these candles are made from the wax collected from the hives of Apis Dorsata or the wild bees. The candles are marketed in three different sizes, that is, smallest, medium and long size candles.
- 5. **Amla** the Amla fruits are collected, processed, value added and finally the fruits are made as Amla Candy and Amla Mouth Freshener. The Amla Mouth Freshener will be either in salt taste, sweet taste or masala taste.
- 6. **Millets** the millets are easily grown Indian crops for more than 4000 years with less water. They do not need either fertilizers or pesticides. Millets marketed by Last Forest Enterprises are Ragi or Finger Millets, Theenai Seeds, and Samai or Little Millets. These millets are processed and marketed as Rice, Sweets or Porridge Flour.
- 7. **Coffee** the Arabica Coffee is used to make coffee powder. The Farmers remove the fruit coat with a river stone or hand operated disc pulper. After removing the skin, the coffee beans are cleaned, sun dried, roasted and ground.
- 8. **Herbs and Spices** the herbs and spices marketed by Last Forest Enterprises are Clove, Cinnamon, Black Pepper, Nutmeg, Cardamom, Mustard, Whole Parsley, Rosemary, Thyme, Mint, Oregano, Bay Leaf and Shikakai Products.
- 9. Other Food and Condiments Brown Sugar, Jaggery, Wheat Flour, Wheat Dalia, Multi Grain Flour, Cumin, Turmeric Powder, Fenugreek, Fennel, Sunflower Seeds, Black Jamun Powder, Honey Coated Muesli, Rye Flakes and Buckwheat Porridge.

- 10. **Toda Embroidery Products** Toda Potley, Coin Purse, Mobile Pouch, Shopping Bag, Work Bag, Slinging Bag, Shawl, Cushion Cover, Spectacle Case, Muffler, Wall Hanging and Luggage Tag.
- 11. **Crafts and Apparels** Garments, Hand Block Prints and Paper Crafts. Paper Crafts includes Coasters, Vase, Necklaces, Trays, Buckets, Keychains and Earrings.

At present, Last Forest Enterprises supplies the products of the indigenous community people to 21 cities/towns in eleven states. It concentrates in developing the market in South India and from the year 2016 onwards it has grown towards spreading the market across the country. Recently it has obtained World Fair Trade Organisation Guaranteed Certification for its products.

There are also few challenges that Last Forest Enterprises faces while marketing the products of the indigenous communities' people. The Challenges are:

- Increasing the network base for procurement
 - Often there are many social or small producer groups working on similar products and for the Last Forest Enterprises to make a choice on which group to work with and promote is a difficult choice to make.
- More demand and depleting supply
 - One of the major reasons of depleting supply is environmental changes. For example, the inflow of honey has been decreasing since a few years as there is more deforestation giving way to industrialized farming, or more human settlements. This leads to less flowering, and bees abandoning these areas.
- Seasonality of products
 - Products such as pepper, gooseberry, honey and many others can be harvested only once or twice a year. This means the Last Forest Enterprises has to procure everything at one go, have sufficient funds to buy, create sufficient storage space, and build infrastructure to ensure that produce does not perish.
- Consistency of quality
 - As the Last Forest Enterprises works with several small groups and individual farmers indirectly, maintaining the quality of products is a constant and insistent effort. A lot of time and energy are spent to ensure the quality.
- Guarantee to consumer
 - This goes hand in hand with the above product. When the brand promises high quality items throughout the year at a fair price, it is a challenge to sustain it at all times but we must sustain.
- Sustainable harvesting methods transparency and building information awareness
 - With the ever increasing organic market in the country, the differentiating factor often lies in transparency of supply chain and ethical practices. It's important to constantly put this information out to the customers to make them understand the value of the products that they are buying.

The Keystone being the mother organization, it has helped the Last Forest Enterprises right from the beginning and today it is a completely bootstrapped entity. The Last Forest Enterprises had a few loans over the years that have been successfully cleared and today it is helped by EXIM bank as well. The important thing to note is that over the years it has consciously grown in making a difference with the value systems and that has positively reflected in its business growth as well.

It has begun to thrive as its effort to build the conscious market has been extensive. Backed by a strong core team from varied backgrounds, adherence to principles and spreading its wings across the country has seen a steady and healthy growth. It has also focused all the time on sustainability of resources and therefore the products that it sells. Innovation and improvement in the entire brand development has largely contributed to the increase in sales and its sustainability as well.

By reinvesting parts of its profit in its sister organisations and Keystone, it contributes back to the communities in a holistic way. In its own way apart from direct monetary support to the marginalised groups, Last Forest continues to strive to improve the quality of life for all involved in its supply chain.

3.5. CASE STUDY 5: PAPERMAN

A total of 8.5 million tonnes of paper is produced every year in India, out of which only 1.7 million tonnes of paper (20%) is recycled. The balance 6.8 million tonnes of paper (80%) go to waste every year. So Paperman aims to raise the recycling activity from 20% to 60% by the year 2020. Paperman believes that by recycling, the old waste papers can save manifold trees and protect the mother earth from high temperature. Although recycling is one of the important requirements to save our mother nature, many people are not aware of its importance. According to Mathew Jose - the founder of Paperman, there are two main reasons that are stopping India from recycling. The first is *"Lack of a strong reason for people to recycle (since behaviour change is a long-term impact)"* and the second is *"Lack of an organised waste-collection market"*. Henceforth Paperman had taken the responsibility of imbibing the spirit of recycling in every individual.

Paperman is a social enterprise founded by Mr. Mathew Jose. Mr. Mathew Jose was born and brought up in Kerala and he came to Chennai to pursue his graduation studies. Mr. Mathew Jose is a commerce graduate from Madras Christian College, Tambaram, Chennai. After the graduation, he started his career life as a general secretary of Youth ExNoRa in the organisation named ExNoRa International founded by Dr. MB Nirmal. The organisation ExNoRa, work with the social mission of creating a cleaner, greener and more environment-friendly world through promoting Waste Management. Working in ExNoRa International under the guidance of Dr. MB Nirmal made him learn about environment and realize his responsibility towards protecting the Mother Nature. In addition to this learning and realization, Mr. Mathew Jose, one day happened to have a dialogue with a Kabadiwallah (paper man) who came to collect waste papers from his house. This Kabadiwallah was involved in recycling too. After the dialogue, Mr. Mathew Jose visited recycling company where this Kabadiwallah gave the trash for recycling. Along with this, he also visited other recycling companies in the Chennai city. It is from that moment, he worked towards initiating a venture for paper recycling. In this way, Paperman was founded in the year 2010 with the following social missions:

- To raise the spirit of recycling
- To make a measurable environmental impact in the society

Paperman was started by Mr. Mathew Jose with the help of his close friends. His parents never opposed his venture and were supportive from the beginning till today. He started the venture with his own money and later received Ashoka Fellowship which helped him to scale up his venture. At the initial stage, Mr. Mathew Jose faced two types of difficulties. One is financial difficulty – there are times when he was not able to pay salary for the staff. The second was he had difficulties in convincing people with his idea. Many people and large companies just ignored him and his idea. Mr. Mathew Jose was not able to convince the people about recycling and environment benefit. So he took an alternative as a noble route of connecting recycling with the social benefit, that is, he convinced the people saying, by giving the trash from their homes or schools or companies they can educate a girl child. Initially, in Chennai city, he visited School teachers at their schools and Kabadiwallahs at their shops. The schools have been a great help to collect waste papers since then. The Kabadiwallahs were initially skeptical and did not understand his mission, but with frequent visits Mr. Mathew Jose was able to convince them too. Over a period of time, a lot of people volunteered to spend their quality time and participated in the work of Paperman. Today there is a team of eight members who work full time for the Paperman.

As a first step, the Paperman started from schools to imbibe the spirit of recycling among school children. He met the school students and sensitized them on the importance of recycling and their role

in it. The school students are sensitized and motivated through collaborative activities, gamification, sessions on creative use of waste and through outcome based social projects. Thus far, the Paperman has reached out to 2,00,000 students in 120 schools in Chennai. Together with educating the school students, the Paperman makes the students participate in the collection and segregation of waste papers in order to make them consciously grow as individuals concern towards environment protection and to develop it as a habit of managing their wastes as a Kabadiwallah in their day to day lives. In addition to this, the Paperman had set up sustainable recycling programmes with 20 schools in Chennai. Through Sustainable recycling programmes the waste papers collected from these 20 schools are recycled in the local units and are given back to the same school as usable products. This model is a potential model which could be scaled up and replicated for the entire nation.

The Paperman created another creative system called *Recycle Wall*. The students record in the *Recycle Wall*, the amount of total trash collected for the month, the amount of rupees earned from the trash and the type of noble act they carried out with that money. The money earned from the papers collected by the school children is donated to non-profit organizations to facilitate girl children's education, for the welfare of the senior citizens, children in orphanage, HIV patients, etc. It took three years for Mr. Mathew Jose to create a well-functioning ecosystem in the schools. After which he moved on creating a network of local Kabadiwallahs (paper men).

At present, the Paperman networks with 270 Kabadiwallahs. These Kabadiwallahs are trained to deal with the customers and have also been given identity cards. Kabadiwallahs goes to the school and collect the waste papers once in a month. This system helped the Kabadiwallahs to overcome the trouble of collecting them daily or weekly and increased their income too. For the past two to three years, the Kabadiwallahs are earning an average income of Rs. 25,000/-per month consistently.

As a third step, Mr. Mathew Jose, created a similar system for the citizens in Chennai. For collecting the wastes from the households and companies, he designed an innovative bag with three compartments to store different wastes separately for a month. This bag is called 'Paperman Bag' which can hold up to 80 kgs of wastes. The purpose of three compartments is one for newspapers, the other for books and magazines and the third one is for pamphlets and bits of papers. Presently, Paperman has extended its service to 4000 customers including companies, schools, offices, apartments and independent houses.

Mr. Mathew Jose has created a simple three-step process, for households/ companies/school. The three-step process is:

- 1. Interested entities can register on the company's website.
- 2. Paperman will send a Kabadiwallah within three hours to collect the trash
- 3. The customer gets paid and has two options recycling for a cost and recycling for a cause (it is surprising that 90 percent of the Paperman's customers recycle for a cause).

Apart from this three-step process, the Paperman has a call centre and a helpline number (8015269831), through which the customers can contact the Paperman.

Recycling for a Cause means the customers will not get money for the trash they give to the Kabadiwallahs. Instead they choose to donate that money to a NGO. They select the NGO based on the social cause they wanted to help for. At present, Paperman is networking with 35 NGOs who work for different social cause. The money earned from the trash for the social cause is collected by two methods from the Kabadiwallahs. The first method is, a field officer from the Paperman office goes personally to the Kabadiwallahs' shop and collects the money. The second method is, the

Kabadiwallahs themselves transfer the money to Paperman's bank account. Finally Paperman gives the money to the NGO that the customers opted for.

The Kabadiwallahs pay 5 percent of the total value of each transaction to the Paperman which is the revenue for the Paperman. Paperman has generated Rs. 40-50lakh during the financial year 2014-2015 from the waste. 60 percent of the income earned from the wastes was spent for a social cause, 20 percent for street projects and the remaining 20 percent for managing the organisation. The organisation is gradually growing and it is gaining the acceptance of many people. The important facilitating factors that enable the Paperman to continue its mission work are good team members; flexibility in time schedule while collecting the waste from the customers; the team members' openness to learn from mistakes; continuously applying innovative methods; and above all the founder's persistence against all hardships.

So far Paperman has recycled 1,73,269 kg of wastes has saved 2888 trees and 45,56,985 Litres of water, prevented 45,050 Kgs air pollution, and saved 5203 Sq.ft of landfill space. Paperman has managed to raise money for 100 girls' education by the year 2012. Likewise, Paperman aims to send 8000 girl children to school. At present, Paperman is working in Chennai, Trivandrum and Coimbatore. As a next step, Paperman is planning to replicate its model in Hyderabad and Bengaluru. In the future, Paperman aims to scale up at the national level by nurturing one "waste entrepreneur" for every 2 km radius.

At present, Mr. Mathew Jose focusses on building a formal trash economy for the country. He is trying to build a larger ecosystem that is developing an entrepreneur enabler model under which, he aims to transfer the technology and the knowledge gained during the course of his action, through the following methods: 1. awareness-creation that is bringing behavioural change among people towards waste management; and 2. training the new entrepreneurs in waste management on logistics, manufacturing and processing. He aims at not only building the capacity of his own company but also at building the capacity of other players involved in waste management. The ultimate aim of Mr. Mathew Jose is not to build a waste management company; instead he wants to develop an attitude among the citizens to value their wastes and attain zero-land-fill by the year 2040.

3.6. CASE STUDY 6: MR. D. SURESH – A RETIRED ENTREPRENEUR

Mr. D. Suresh is a retired Entrepreneur. He lives in Chennai with his family. He is a B.Sc graduate from Loyola College, Chennai, B.Tech, IIT, Madras and PG Diploma in Management, IIM, Ahmedabad. He has 18 years of working experience in textile industries and has held various positions as Chief Executive Officer and Managing Director. He has also founded two enterprises named Saks Ancillaries Ltd and Computer Access Pvt. Ltd. The Saks Ancillaries Ltd is a manufacturing company which manufactures auto electrical component wiring harness. The Computer Access Pvt. Ltd is a telecommunication service industry. He was also a visiting faculty at Loyola Institute of Business Administration (LIBA), SRM University, University of Madras, and MOP Vaishnav College for Women. Currently Mr. Suresh is focussing on green initiatives such as roof top solar power, Domestic bio gas system, Terrace kitchen garden and Rain water harvesting. He is focussing on these initiatives with the philosophy: *"Do not expect the government to find all the solutions. Help the government by finding solutions"*. And he feels that every household can adopt these simple, practical and successfully demonstrated initiatives which require no maintenance.

Standalone Rooftop Solar Plant

Mr. D. Suresh is very much interested in standalone roof top solar plants. He developed his interest in standalone roof top solar plants during his visit to Germany some 20 years ago. He witnessed standalone roof top solar plants in various houses in Germany. This made him think that if a country with less sunshine can adopt solar power plants, why not India? With this interest he came back to India and he designed and installed rooftop solar plant with the help of a small local vendor.

Initially he faced a lot of difficulty to find a suitable standalone roof top solar plant and a proper solar inverter that were appropriate for his home. He approached big companies namely Tata BP Solar, Su Kam and others, but they did not show any interest and did not help him. Without losing heart, his persistent search for a suitable vendor enabled him to find a local vendor who helped him in designing and manufacturing appropriate standalone roof top solar plant for his home.

In the year 2012, he had successfully installed a 1 KW standalone roof top solar plant which is now scaled to 3 KW. The power generation for the standalone roof top solar plant depends on the UV rays falling on the panel and not the intensity of heat or light. After installation of standalone roof top solar plants, he never experienced power cut in his home. The 3 KW standalone roof top solar plant powers 11 fans, 25 lights, 2 computers, 2 televisions, a refrigerator, a mixer, a grinder, a washing machine, an inverter AC and a water pump.

The Domestic Biogas Plant

The increasing garbage mounts in cities triggered Mr. D. Suresh to set up domestic biogas plant at his home. It is an efficient method for waste management. Every city in the world is faced with this problem. No landfills are available for disposing off waste. Incineration produces toxic gases. Simply throwing garbage out poses health hazard. A better solution is to recycle and reuse the garbage. In the bio gas plant, by using garbage cooking gas and organic manure are produced. Gobar gas was a common feature in many villages and farm houses. In the urban cities, getting cow dung is not feasible. Therefore, Mr. Suresh has substituted cow dung with organic waste.

He converts the garbage into cooking gas and organic manure. He uses the organic manure for growing vegetables. The wastes are only food items including cooked or uncooked, spoilt food, vegetables and fruits peels, and skins of pumpkin, jackfruit and watermelon. Items such as leaves, citric food like orange, sweet lime, lime, and in non-vegetarian food, the bones should not be used.

In the beginning of the installation, has put lots of cow dung which contains millions of bacteria and which produce methane gas from the wastes. It is a domestic biogas plant of 1 cubic meter capacity which can be scaled up too. Using 3 to 4 kg of waste per day, he produces 20 kg of gas per month from his biogas plant. He collects waste from his neighbours and from the local vegetable shops who are happy to give it off.

Vegetable Garden and Forest Atmosphere

The organic manure produced out of biogas plant motivated Mr. Suresh to set up vegetable garden and plant bamboos around his home. It is an organically grown vegetable garden. He has started the vegetable garden with 5 earthen pots now it has 75 pots. He grows 15 types of vegetables. He is growing creepers, roots, herbs and vegetables. He has created a forest atmosphere in his house by growing bamboo trees and creepers on the bamboo trees.

Rainwater Harvesting

His passion for conserving precious natural resources motivated Mr. Suresh to install rain water harvesting system in his home. He captures rain water from terrace, filters the water through an organic filtration system, stores the filtered water in a sump and uses it for all domestic purposes. The organic water filtration is done by putting pebbles, charcoal and river sand in the water tank in which the rain water is stored. During heavy rainy days, he connects the rain water into the well.

The benefit of his endeavours are as follows: he never experienced power cut because of his standalone rooftop solar plant; the cooking stove in his home is powered by his own biogas plant; he obtains natural manure from the biogas plant for his garden; he gets organically grown vegetables from his own terrace garden; his house is surrounded by bamboo and creepers which gives a jungle atmosphere and a cool breeze; he gets good drinking water from his rain water harvesting system; using solar plant he generates non-polluting power; his family does not consume fossil fuels; he saves electricity charges; he also protects himself from the fluctuations of tariffs; setting up biogas plant, he avoids the risk of explosion or gas leaks and protects the environment from pollution; he eliminates the probability of contracting diseases through waste management; and he saves foreign exchange for the country.

Although Mr. Suresh has been successful in his endeavours, he has not set up a venture from his initiatives because of lack of funds. He has used his personal money of Rs. 10 Lakhs as a resource for setting up Rainwater Harvesting System, Standalone Rooftop Solar Plant, Biogas Plant, Terrace Kitchen Garden and for creating a Forest Atmosphere for his home. To create awareness about his work among various sections of people he has used resources like volunteers, media and institutions. Media includes Newspapers, Magazines, Journals, TV Channels, Social Media and the institutions comprise of presentations in the workshops and seminars conducted in Schools, Colleges, Industries, Associations and Social Groups. His story is published in Facebook, your story.com, logical indian.com, better india.com, vikatan.com. He receives more than 500 emails, which are all personally answered.

The various factors that help in continuing, scaling and sustaining his initiatives are: first and foremost, his passion for the cause; recognition from various media, institutions and industries both nationally and internationally; his quality of curiosity, perseverance and asking the right questions; and his constant search for local experts and specialists. The encouragement and support from the family members are one of the major factors for Mr. D Suresh to enthusiastically take up and continue his endeavours successfully.

He has created an impact through awareness creation, by helping people to install standalone rooftop solar plant; to set up biogas plant; and to set up kitchen garden. He has made more than forty presentations on his initiatives in various schools, colleges and industries. To date, he has helped to install 25 standalone rooftop solar plants in Bengaluru, Hyderabad and Chennai; helped 6 institutions to set up biogas plants in Chennai and Hyderabad and had set up 6 kitchen gardens in Chennai. So far, more than 500 people have visited his house and his house has become a place for study tour for many school students.

3.7. CASE STUDY 7: TRANSUN ENERGY SYSTEMS

The Transun Energy Systems is a business enterprise, started by Mr. Vijayabalan in the year 2011 at Chennai, Tamil Nadu. It is a Sole Proprietorship Company. It is an energy solution company which provides complete, cost effective, quality and innovative solar energy products to commercial, residential and institutional customers. This company manufactures and markets Solar Panels, Solar Power Systems and Solar Lights. The company is also involved in Solar Panel Installation Service. It offers cost-effective products wherein the customers can recover their investment in the products within four years. The vision of Transun is *"To create a complete green environment by contributing innovative ideas to society to use solar energy system"*. Transun was established with the mission of "making its customers become conscious of renewable energy, by making them understand the financial return and a positive impact on the environment. It seeks to inspire, educate, and assist its customers in achieving their goals of cost balance, energy self-sufficiency, and environmental conservancy". Transun is working with the values of: providing best quality products to its customers, establishing strong and healthy relationship with the retail vendors, testing the products by quality auditors before providing products to its clients and involving in market survey with the help of experienced professionals.

Transun's products complies to the norms and tests of International Electrotechnical Commission (IEC). Seven types of solar products are manufactured by Transun. They are: 1. Solar PV Modules, 2. Solar Home Lighting Systems, 3. Array Junction Box, 4. Solar Charge Controller, 5. Solar Battery, 6. Solar Grid Tie Inverters, and 7. Solar Street Light Luminaries.

A total of six types of solar power solutions are provided by Transun. They are: Commercial Solar Power Solutions, Residential Solar Power Solutions, Solar Street Lighting Systems, Solar Water Pumping Systems, Utility Scale Solar Power Projects, and Specialized Solutions.

The Commercial Solar Power Solutions are provided to the commercial consumers. The commercial consumers are the owners of Commercial Buildings; Super Markets; Petrol Bunks; Hospitals; Marriage Halls and Cinema Theatres. Transun provides grid tie solar PV system. It is an electricity bill saving system. Adopting this system, the consumer can use both solar energy and electricity from the grid. Since the tariff of electricity for the commercial activity is high, the grid tie system can reduce their electricity bill. The use of Transun's Commercial Solar Power Solutions enables the users to reduce their electricity bills and to avail income tax benefit by investing in solar power. It involves less investment which can be reaped back within 4-5 years. It reduces the effort and the cost of maintenance.

The **Residential Solar Power Solutions** are for the home owners. Transun provides two types of solutions for the home owners. One is solar roof top and the other is converting the existing UPS into solar power saver. These solutions are provided to the home owners based on their energy demand. The team members of Transun visit the home owners, analyse the home and suggest an appropriate solar power solution for the right cost.

The Solar Street Lighting Systems are safe, eco-friendly solutions. They are alternatives and cost saving solutions for the high priced street lights with trench standard electric wires. The solar street lights are installed in highways, streets and rural villages.

The Solar Pumping Systems convert solar energy into electricity. They are useful to run motor pump set for drawing water from the open well, pond, stream, canal, etc. These solar pumps are very useful for agriculture in the absence of grid electricity or where there is insufficient electricity.

The Utility Scale Solar Power Plants or Parks are designed for a large scale power generation. These plants produce large scale electricity, save a lot of Co2 emission and give good revenue for the investors. The investor can recover the investment on these plants within four years. The investor who has placed these plants in the remote areas can supply electricity to a private organisation situated in the cities through virtual power transfer mechanism. The government of India supports these solar power plants or parks by providing income tax benefits. There are also other **specialised solutions** provided by Transun. They are Solar Roof, Solar Tree and Solar Charging Station.

So far Transun has installed more than 3500 solar installations. It has installed 6000 KW of solar power. The annual turnover of the company is more than a Crore Rupees. The Transun team visits the customer's place, analyses it and provides appropriate product for the place for the right cost. Many home owners trust the products of Transun because of its quality. The Transun's Solar Roofs survived even during Vardah Cyclone which proves the quality of the Transun's Products. Apart from manufacturing and marketing solar products, some of the team members of Transun are also Resource persons in various government organisations such as **Micro, Small and Medium Enterprises (**MSME), National Skill Development Corporation (NSDC) and Pradhan Mantri Kaushal Vikas Yojana (PMKVY). To date, Transun has signed 38 MOUs with leading educational institutions and universities including Anna University and SRM. for carrying out research and development in solar energy sector.

CSR activities are carried out by Transun. It trains entrepreneurs; it provides Solar Lanterns, Street lights and Home lights for the rural and tribal villages.

3.8. CASE STUDY 8: VILLGRO INNOVATIONS FOUNDATION

Villgro Innovations Foundation is a social enterprise. It is an organisation founded by Mr. Paul Basil in the year 2001. It incubates early stage innovative businesses that work for the welfare of the poor and the marginalised people in the rural and urban communities. It believes that only innovation, that is, combined with entrepreneurship, can change and develop the lives of the poor people. Villgro Innovations foundation was started with the following social missions:

- To Create an equitable world where the poor and marginalised can lead lives that are empowered and just;
- To achieve this scale of change through social enterprises, that is, businesses that place impact at the centre of their mission; and
- To inspire, mentor, fund and support early stage, innovation-based for-profit enterprises that have an impact on the lives of the poor in India.

Villgro is primarily looking out for innovation combined with entrepreneurship in the fields of health, education, agriculture and energy. Villgro persistently seeks out for start-up social entrepreneurs with innovative solutions to **health related problems** such as infectious diseases, malnutrition, lack of access to timely health care services and chronic disease management, preventive health care methods, etc.; **educational related problems** to include lack of skilled and quality education; **agriculture related problems** comprise declining yields, labour shortage, scarce resources, post-harvest losses, poor livelihood status of the farmers, lack of innovative technology to improve the efficiency of the agricultural field, etc.; and **energy related problems** include energy shortage or inaccessibility of energy for lighting, cooking in the rural and urban communities and to carry out agricultural operations.

The Villgro Innovations Foundation embraces four values. The values are: **bold** – embracing uncertainty, ambition and believing in possibilities; **entrepreneurial** – taking up initiative and capitalising on opportunities; **impeccable integrity** – maintaining confidentiality while being transparent in their dealing; **empathetic** – being customer centric and they are committed to helping entrepreneurs.

Villgro Innovations Foundation continuously engages itself in creating an ecosystem that enables social entrepreneurs and helping them to build scalable businesses that have the potential to impact and change the lives and functions of the people in the rural or urban communities. Villgro does not fund the early-stage business as charity organisations, instead it functions as an investing organisation that expects a sustainable approach that brings growth in the lives of the poor and marginalised people living in rural and urban communities. Villgro incubates social enterprises from the phase of product development to the phase of early-stage growth.

Villgro sustains itself with the grants received from the philanthropic donors and with the revenue from the equity investment that has been invested in their portfolio companies.

The process of selecting the budding social entrepreneurs to incubate at Villgro

- The budding social entrepreneurs apply to Villgro.
- They present their business model to a panel of expert members investors and entrepreneurs.
- Finally, after the selection, the selected budding entrepreneurs consult with the Villgro's investment managers and management for the opportunity to be incubated by Villgro.
- The winners receive an amount of cash prize of Rs. 1 lakh as seed money to initiate their business.

Criteria for Incubating Social Entrepreneurs

Villgro has a set of Criteria for incubating social entrepreneurs: they are,

- the businesses must have a profitable model;
- the businesses must change and develop the lives of the rural or urban poor;
- the social entrepreneurs' initiatives must give more focus and importance to find innovative solutions for the problems in health, education, agriculture and energy sector;
- the start-ups must have done a few pilot tests, at least one on their products or services in the field;
- the product of the social entrepreneur should be market fit and it must create transformatory solutions to social problems for which they work and it must bring a long-lasting change;
- their products or services should be scalable across different geographies;
- The products or services offered by the social enterprises must be always accessible, affordable and sustainable;
- the start-ups which have been in operation for more than 3 years are not considered for incubation; and
- the start-up can be owned by either individuals or teams but the number of team members should be maximum four.

Together with funding, Villgro also offers mentoring services for the start-ups about challenges, issues and solutions. Further it provides a unique service called Technical Assistance Programme (TAP) under which, it offers support and provide resources including legal counsel, human resources, product development and design, intellectual property, financial management, accounting and compliance. Villgro constantly looks out for skilled and committed professionals in various areas of expertise to mentor their start-up social entrepreneurs.

Apart from incubating, Villgro has engaged itself in building knowledge on social entrepreneurship. So far, Villgro has conducted 44 events in the form of workshops and conferences in 22 cities for 4800 people and awarded 32 lakh cash prizes with the aim creating a platform for the start-up social entrepreneurs to find an opportunity who are aiming to start a venture and nurturing the social entrepreneurs at the early stage of their venture. Villgro has a network of 90 speakers and 70 partners for this knowledge building events. Further, it offers a course on social entrepreneurship in IIT Madras. People in the organisation have written 19 research papers and developed 21 case studies.

For the past fifteen years, Villgro has raised Rs. 1195 million investments funding. It has incubated over 119 innovative businesses with the seed funding of Rs. 139 million. By incubating 119 innovative businesses, it has created 4000 job opportunities and it has changed the lives of 15 million people

KEY LEARNINGS FROM CASE STUDIES OF SOCIAL ENTREPRENEURS

4.1. SOCIAL MISSION

The social entrepreneurs who had participated in the workshop are working with the mission of rural development, providing employment opportunity for rural graduates, farmers development, indigenous communities' development, waste management, efficient natural resource management, environment protection and finding innovative solutions to health, educational, agricultural and energy related problems.

4.2. FACILITATING FACTORS FOR THE INITIATION OF THE SOCIAL ENTERPRISE

Factors which motivated the social entrepreneurs to initiate social venture had been highlighted by them during the presentations. They are:

- 1. The experience gained from a rural visit during their educational course.
- 2. Learnings gained from attending a lecture.
- 3. Working with a social entrepreneur.
- 4. Having a dialogue with the people involved in the same mission work which the social entrepreneur is engaged in at present.
- 5. Experiencing an innovative solution from a foreign country for a social problem faced in India.

4.3. CHALLENGES FACED BY THE SOCIAL ENTERPRISES

Some of the challenges faced by the social enterprises included the following:

- 1. Difficulty in convincing the beneficiaries with the new or alternative solutions.
- 2. Difficulty in convincing the customers with products/services provided by the rural people or rural centres (Difficulty in marketing the products/services).
- 3. The challenge of marketing the agricultural products.
- 4. High market competition.
- 5. The challenge of unpredictable and insufficient rainfall faced by the social enterprises involved in farming, agricultural development, farmers' development and rural development.
- 6. The challenge of convincing women to work in multiple shifts.
- 7. The challenge of financial insufficiency.
- 8. The challenge of more demand and depleting supply due to deforestation.
- 9. Insufficient storage for the seasonal agricultural products.
- 10. The products or services offered by unskilled, rural or tribal people require enormous amount of efforts, time and energy to continuously maintain the quality of the products or services and to maintain the brand image.

4.4. SOME OF THE INNOVATIVE STRATEGIES TO OVERCOME THE CHALLENGES USED BY THE SOCIAL ENTERPRISES

The participants identified few innovative strategies during the consultation.

- 1. Convince the beneficiaries through training and demonstration of pilot projects.
- 2. The challenge of marketing the agricultural products was overcome by selecting the crops that had longer storage capacity (paddy and oil seeds).
- 3. The challenge of convincing the women to work in multiple shifts was overcome by establishing a good rapport with the rural community leaders and with the families of the women employees.

4.5. SUCCESS FACTORS

The factors that enabled the social enterprises to continue their mission work and to be successful in their ventures were:

- 1. The moral and financial support received from friends and families.
- 2. Reinvestment of profits.
- 3. Continuous adoption or advancement in the technologies.
- 4. Continuous training and development given to the employees that were relevant to customers' need.
- 5. Innovative techniques.
- 6. Continuous support from the customers and investors.

SUPPORT SYSTEM EXPECTED BY THE SOCIAL ENTERPRISES FROM LIBA

Later in the day, groups were formed which discussed in depth how an eco-system could be supported by LIBA. Opportunities were many, mainly in the areas of agriculture, renewable energies, health technologies, water management and family services which included care for the elderly. The challenges were with respect to finance – lack of access to funds, markets and difficulty in achieving commercial ROI. The other points included a lack of flexibility in adapting to technology, social stigma, lack of networking, lack of focused discussion on various sectors and other hidden barriers.

- 1. The participants while discussing LIBA's role, stressed the need for LIBA to take the role of a hub for social entrepreneurship.
- The suggestions for sustaining and scaling up included: (i) mentoring by alumni and internships; (ii) research leading to publications and cases; (iii) providing an impact investment fund; (iv) organise regular workshops, speaker series (bimonthly) and a mainstream Social Entrepreneurship course; (v) due diligence for loans and investments; and (vi) audit for measuring impact.
- 3. Participants also expected LIBA to create a market place for produce, products and services by social ventures. Creating a niche space for social entrepreneurs to display and sell the products should be considered. LIBA website could display and sell such products.
- 4. Other key recommendations included (i) instituting awards, recognition and fellowship to celebrate and promote social ventures and social enterprising; (ii) initiating a discussion on how to align CSR to promote social ventures; (iii) enabling the sustainability and scaling up of social ventures; (iv) creating a macro-vison for social enterprising; and (iv) strengthening and augmenting forum for effective networking; (v) potential investment channels for affordable capital; and (v) addressing gaps in sectoral focus, promoting women entrepreneurs and rural / BoP ventures.

The workshop was concluded with a consensus to take action on some of the activities immediately and take up other recommendations in a time bound manner in the future.

PHOTOGRAPHS DURING PRESENTATIONS AND GROUP DISCUSSION













