Nurturing Rural Innovation The Hubli Sandbox Experience



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When we started on a journey to create a "Sandbox for Innovation" in Hubli, our focus was to see how we could best create a nurturing environment for new ideas. We decided that we would be solution driven in our approach, building on methods proposed by social entrepreneurs to improve the lives of people; utilizing their own passion, commitment and relentless execution to help them take their ideas to scale and sustainability. Our partners include not-for-profits, for profits, producer groups, unions, communities or anyone who is passionate about making an idea work. Regardless of the sector, we believe that the work of all entities have an important role to play in making the world a better place.

After a decade of investing in the Sandbox, the ecosystem today has been able to build over 90 partnerships, touch the lives of close to six million people through improved access to essential services, health, education, livelihoods and social equity and has constantly been able to evolve to suit the needs of emerging ideas and entrepreneurs.

And in this booklet, we have tried to bring together stories of change from our Grantmaking program to give an insider view of 'how' rural innovation has been working in the Sandbox to transform the lives of millions across the 11 districts that we work in.

The nine stories in this booklet present a microcosm of the diverse problems we have been able to tackle in the Sandbox: proving groundbreaking innovations like farm ponds, borewell recharge technologies at one-tenths the cost of regular harvesting techniques, satellite reproductive health centres and growing techniques to boost paddy yields by 30% even while reducing costs by 40%; sustaining solutions that leverage the power of hundreds of women community champions and community members to solve massive challenges like reducing maternal mortality, providing better reproductive health or reducing Govt. school dropouts; localizing established organizational models that can provide sustainable farm livelihoods for marginal farmers or are mobilizing unorganized workers to help them gain access to essential delivery services.

No single person or entity can solve these problems in isolation — be it health, education, livelihoods or farming — by themselves. What we need is an ecosystem and a hybrid value chain and that's where Deshpande Foundation has been able to provide fertile ground in the Sandbox for passionate organisations to launch pilots, experiment with pathbreaking new ideas and leverage partnerships in the ecosystem even while bringing massive scale and outreach to their organisations, often beyond the Sandbox itself.

Looking at the constrast between ideas and problems that persist makes it apparent that we need more good ideas and more good ideas to be taken to tremendous scale. And being a part of this journey - helping new ideas go from idea to proof of concept and eventually to scale - is what counts the most for us here at the Hubli Sandbox.

Team Deshpande Foundation

Counting What Matters



06 Sikshana Raising the Bar In Public Education Family Planning
Association of India (FPAI)
Family Health, Hushed Up No More





16
Sankalpa Rural Developement
Society (SRDS)
Recharging Borewells, Crops And Lives

Vanasiri Rural Development
Society (VRDS)
Sustaining Livelihoods Through
Community-owned Enterprise



26
Save A Mother
Making Community Healthcare
Work in Rural Karnataka



30 Sahaja Samruddha Creating Fair Markets For Good Produce



35
Manuvikasa
Harvesting Prosperity Through Farm Ponds



40
The Wadi Program
Transforming The Lives Of
Marginal Farmers, Acre By Acre



45
Grameena Coolie Karmikara
Sanghathane (GraKooS)
Empowering Karnataka's Informal Workers



Founder Speak



49
ES Ramamurthy, Sikshana: 'Every child has the ability to learn well'

Ramji Raghavan, Agastya:

'What we have demonstrated is that creative learning for the poor is achievable'





Sikshana

Raising the bar in the public education system

Area of operation: Dharwad



Name of the Organisation	Sikshana Foundation
In the Sandbox	Since 2011
Type of organisation	Non-profit
Focus areas	Working in collaboration with state governments, Sikshana has created a replicable model that improves learning levels in the public education system in rural and semi-urban areas.

ASER 2012, the 8th Annual Report on the Status of Indian education, ends with the following ominous lines: "The guarantee of education is meaningless without satisfactory learning. There are serious implications for India's equity and growth if basic learning outcomes do not improve soon."

Eighty per cent of India's children study in Government schools today and according to ASER findings, more than 50% of children in class 5 cannot read a book, 75% cannot perform a simple division and about a quarter of all children struggle in spite of going to private tutors.

When Sikshana started off in 2001, they were certain of one thing: any transformation in Indian education cannot ignore government schools.

The Genesis: Low Education Quality In Government Schools

Short of assuming direct control over the affairs of a government school, Sikshana, the organisation started in 2002 by E.S. Ramamurthy, a renewable energy professional with over 30 years of experience in the industry, based its grounding philosophies strongly on three factors:

- a. facilitating the process leaving ownership to the schools,
- b. keeping costs low and
- c. improvement in learning that is measurable and quantifiable at all times

The Sandbox Story

The project to improve learning in rural government schools began in Karnataka with 79 schools in Kalghatagi taluk, Dharwad and came into the Deshpande Foundation to scale-up the effort in 2011. The Sikshana team comprised support offices in Bangalore and Kanakpura, program officers at the district level, mentors for a group of schools to check for compliance, Shala Hiteshis (community para-teachers) to guide and mentor students in individual schools and volunteers to back them up.

"A lot was being done to improve basic infrastructure, but very little attention was being given at a basic level to improve learning patterns here in Hubli. This is where we began," says Sharanappa Kattimani, Program Manager of North Karnataka region.

"We started with the main motive of making education interesting," says Gouramma, a Field Mentor in Hubli.

Here are 6 areas that Sikshana focused on in order to improve the education system in the Hubli schools that they worked in:

1. Blank Sheets Of Paper: The Reading And Writing Program

Realising that students could not afford notebooks, Sikshana started supplying blank A4 sheets that students could take home and write about anything that interested them.

"We observed an increase in interest towards studies and other activities among students after Sikshana started distributing these stars. They attend school regularly now," - K.R. Mulmani, Principal of a government school in Hubli.

This simple intervention has been singularly responsible for improving both reading and writing skills of the students, including those written off by the school as abject failures. The writing assignments not only triggered a stiff competition amongst students to see who wrote the most but has also expanded the scope of their reading habit to non-textbook sources and helped them improve their writing speeds during exams.

Each student maintains a file of his/ her writing as matter of pride. "The students compare files with each other and want to write more," says Kattimani.

After 2 years of being in the Sandbox, Sikshana started a detailed assessment for students through a benchmark writing test. If the students wrote 25 lines in 15 minutes, they were graded as Average. Students who wrote more than 25 lines were graded Good and those who wrote less than 25 lines were classified as Slow Writers. This helped in focusing only on those students who were very slow in writing and also in cutting costs in



SL.No	Block	Strength (3rd std to 8th std)	Students slow in writing	Students good at writing
1	Kalghatgi	14062	9140	4922
2	Hubli	21368	17094	4274
3	Dharwad	18969	15175	3794
4	Kundgol	11641	9313	2328
5	Navalagund	12520	10016	2504
6	Harapanahalli	3614	2891	723
Total		82174	63629	18545

2012-2013 Writing assessment results for Sandbox schools

terms of both time and money. 30 writing sheets were given to each slow writer and 15 sheets were provided to writers who were graded as good.

2. The 30-Day Challenge: Learning Through Non-Cognitive Methods

Sikshana found out that most schools spent a lot of time battling failure among their students. Learning levels were below average and the conventional methods of remedial learning that made students to do overtime assignments in their homes were largely ineffective.

Sikshana learnt two things – that teachers were teaching adequately, yet no learning was happening, and that teachers could impart knowledge but didn't have the time

to nuture a 'skill'. Sikshana tried an intervention with an external teacher which met with limited success and was difficult to replicate. Building on the peer-to-peer learning method which is now regarded in education circles as the most powerful way to learn, Sikshana ran pilots on a 30-day program, including holidays. Students committed to an extra school hour of one focused activity everyday: math or reading along with a skilled peer, and overseen by a facilitator. In two pilots run across 40 schools the results were astounding: more than 90% easily passed, including repeat failures. Learning with peers and the non-cognitive method of submitting to a regimen and persevering had produced results where years of remedial learning had previously failed.

Drawing on its learnings in the Sandbox, Sikshana today assesses

learning levels and categorises students into 3 groups, level A, B and C. The levels help Sikshana decide the kind of work that the student is capable of doing.

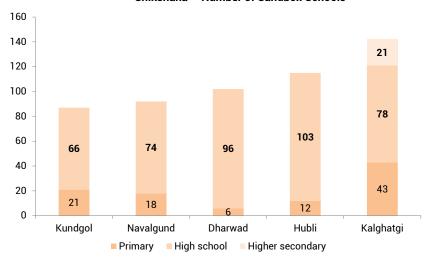
3. Reaching For The Stars: Rewarding Good Work

The most popular among Sikshana's classroom techniques to keep the motivation levels high among children is the Stars program. Good work of any kind is rewarded with stars: green for environment, pink for cultural activities and silver for academics, which can later be redeemed for gifts. Students take pride in wearing their signs of good work besides motivating their classmates to emulate them. "These stars encourage healthy competition and excitement among children. They work extra hard to get them," says Kattimani.

The Stars program which is successful across the 1160 schools that Sikshana works with, is a proof of how interventions can be creative without adding to the tasks of an already burdened teacher. "We observed an increase in interest towards studies and other activities among students after Sikshana started distributing these stars. They attend school regularly now," says K.R. Mulmani, Principal of a government school in Hubli.



Shikshana - Number of Sandbox Schools



Growth of Sikshana program in the Hubli Sandbox.

4. Spot Prizes, Mentors And Empowered Teachers

While the larger goal is good performance in the examinations, Sikshana has initiated 'spot prizes' to motivate students by celebrating small successes. The teacher is given total freedom to choose and decide which efforts to reward; the students usually get oral hygiene or stationery products. Besides encouraging children to learn, this method has made a big difference to the morale of the teachers, who feel 'empowered' by the scheme.

One of the core focuses of the Sikshana program is to incentivise and motivate teachers and provide them with the right tools to focus on student quality. Sikshana school teachers benefit from regular teacher-training programs, Total Quality Management sessions, exposure trips abroad and timely rewards. In turn, the teachers take complete ownership of their schools and the students' performance, often going much beyond the call of duty to strive towards results. Teachers and Headmasters coming on time, keeping a regular check on students, regular interaction with parents all of these have become a sign of changing patterns in government education system. In the Sandbox, Sikshana runs a unique two-day camp for teachers to unleash their talents, hone their inter-personal skills and build their confidence. Thus far. 382 teachers and 64 Cluster Resource Persons have been part of camps held at the 'Discovery

"We started with the main motive of making education interesting," - Gouramma, a Field Mentor in Hubli.

Village', located on the outskirts of Bangalore.

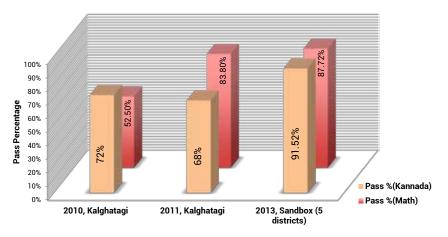
Sikshana wanted a way of increasing the capacity of teachers and support them without adding to their burden, while also keeping costs low. In North Karnataka, with the help of Deshpande Foundation, Sikshana recruited 60 Shalai Hitaishis - parateachers from the local community who had finished their B.Ed. to work closely with a group of 8 to 10 schools on specific objectives like reading skills, fulfilling resource gaps, checking for attendance and motivating the students. The para-teachers go through rigorous training in Sikshana's methods, get a monthly salary of Rs. 5,000 and ably assist the school staff in delivering the programs. The program has directly led to a positive impact on the pass percentage and brought community involvement into the local schools, another of Sikshana's cornerstone principles.

Improving Learning At Rs. 500 Per Child

Sikshana spends on improving learning levels through various classroom methods with the



Sikshana Sandbox Schools: Secondary School Exam Results



Across the 539 schools that run Sikshana's programs in the Sandbox, the pass percentages have consistently increased, reaching close to 92% last year.

existing State syllabus and available infrastructure. While Government spends Rs. 13,500 per child per annum, Sikshana programme costs only Rs. 500 per child per annum. Sikshana's annual reports reinforce the organisation's priorities in spending: ~ 75% on the schools, 20% on mentors and 5% in administrative costs. In the Sandbox, with the support of Deshpande Foundation's grants team, Sikshana identified various points that further brought down cost per child from Rs. 400 to Rs. 350 in just over a year, enabling them to reach many additional schools.

To ensure effective utilisation, funds earmarked for schools are also routed through School Development Monitoring Committee (SDMCs) created by Government, comprising local leaders and parents, which is responsible for the school affairs locally. Issues faced by the schools are discussed at SDMC meetings

held mandatorily every month and attended by SDMC members and school staff.

The Impact: An Interest In Education

Today, Sikshana reaches close to 200,000 children in four states, 11 districts and 22 taluks with its programs. Sikshana adopted Government High Schools in Ramanagara district and Kalghatagi taluk and has produced exemplary results in the recent Secondary School Leaving Certificate Exam conducted by the State Education Board. Ramanagara district has moved to 8th position; earlier it was ranked 26th. Kalghatagi taluk has registered an overwhelming 93.1% pass percentage. Similarly, 91 schools out of 104 in Ramanagara district have registered a pass percentage of 80 and above with the State average at 77%.

Sikshana: Cost per student 600 500 448 407 400 373 300 267 200 100 2009-10 2010-11 2011-12 2012-13 2013-14

Cost optimization in the Sandbox.

In the Sandbox, Sikshana identified various points in their operational model that further brought down cost per child in their model from Rs. 400 to Rs. 350 in just over a year.

Beyond the numbers, it is community involvement, school ownership, engaged stakeholders and interested students who have played a huge role in helping Sikshana scale its programs rapidly.

Last year, over 200 schools were run entirely by community volunteers. Sikshana has signed an a Memorandum Of Understanding with University of Pennsylvania to research into methods to keep the community engaged and scale further.

Parents and the local community are taking extra interest in the schools. Spot prizes and many other small initiatives are being funded and led entirely by the community.

Encouraged by good results,
Headmasters and teachers are
taking ownership and accountability
of their wards. The schools show
better attendance to regular checks.
Sikshana gives out a Gurupuruskar
award where selected teachers are
given an opportunity to go abroad.
Last year three teachers were sent to
the United States and this year two
teachers are being sent to Belgium.

As you walk inside any Sikshana run school, the infectious enthusiasm for learning is palpable. You see students with colourful stars comparing theirs with others and vowing to get more the next time. "I have received the maximum number of stars in this class, it feels good to show off these stars and files, everyone wants to get as much stars as I have. I even went to Delhi!" says Sanjana, a class 7 student.

"This time my friend got the highest number of stars in class, next time I will make sure I study and perform better," chirps Vibhu, a class 5 student. This belief in being able to generate an enduring interest and pride in learning is at the core of Sikshana's sustainability model.





Family Planning Association of India (FPAI) Family health, hushed up no more

Area of operation: Dharwad



Name of the Organisation	Family Planning Association of India (FPAI)
Туре	Non-profit
In the Sandbox	Since 2008
Focus areas	Founded in 1949, the Family Planning Association of India is the country's leading voluntary family planning organisation. It provides information on sexuality education and family life and a wide range of services in sexual and reproductive health including family planning.

Two weeks ago, 32-year old Laxmamma arrived at a reproductive healthcare centre, pregnant and with a chronically low haemoglobin count of 4.4. The haemoglobin count of a healthy person is in the range of 12 to 14. She had visited a physician once, she told the centre's doctors, maybe a few years ago.

"If you don't take proper treatment right now, you will die. Your husband will get another wife, but who will take care of your kids?" a worried Dr. Nasreen Honnalli, Centre Manager at the Family Planning Association of India (FPAI) satellite clinic centre, Nigadi, Dharwad, had asked.

The scenario occurs far too often in her centre. Dr. Honnalli has come to understand that eight out of ten emergencies can be prevented if only she could convince people to access medical help in time. The challenge here is not just making medical help accessible but to address ignorance and apathy towards women gaining access to medical health in general.

According to the latest National Family Health Survey (NFHS 2005-06), Karnataka has a maternal mortality rate of 178 per 1000 live births, which is below national average, but is still the highest in South India. The survey states that one out of three children in Karnataka are born at home without medical care. Rural Karnataka, much like other rural areas, is rooted in carelessness, illiteracy, old customs and hesitation when it comes to

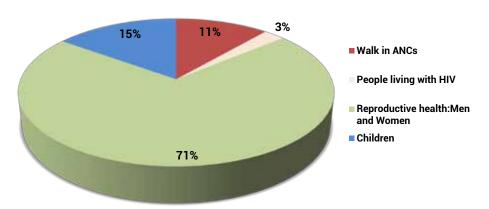
sexual and reproductive health; the brunt of this widespread ignorance and apathy is often borne by the woman and her newborn child.

Genesis: Better Family Health In Rural Areas

Since 1971, the Family Planning Association of India has been working in Dharwad, North Karnataka, to increase awareness among marginalised and vulnerable populations about family planning, sexual and reproductive health, HIV/AIDS and sexuality. Taking healthcare to the doorstep of its people, the organisation reaches out through its Rural Reproductive Health Centres (RRHCs), weekly health camps, door-to-door counselling and satellite clinics, providing over 285 essential family healthcare services in the most remote corners of rural Karnataka.

With a grant model to fund activities, existing staff capacity and functioning, the RRHC could only scale so much in reaching out to its target population: it had about 20 patients visit its centre everyday, mostly from peri-urban areas around Dharwad, leaving the interiors untouched. The organisation was looking to increase its footprint in North Karnataka when a partnership with the Deshpande Foundation (DF) in the Hubli Sandbox in 2008 opened up a slew of opportunities. For the first time in its 30-year-old history, FPAI initiated projects to make its healthcare centres self-sustained. The organisation started looking at four areas of improvement: community outreach, a revenue generating clinic model, service delivery and a college program.

Rural Reproductive Healthcare Centre (RRHC) patients



Distribution of patients at the FPAI family health centre in Dharwad.





The Sandbox Story

1. Rural Reproductive Health Centres: Quality Healthcare Services at an Affordable Cost

In 2012, with the help of DF, FPAI drew up a 3-year break-even plan for its clinics based on a cost recovery model with yearly outreach targets of about 20,000 village women. The plan looked at competing with the free service provided by the govt. through provision of high quality, reliable healthcare while being an affordable alternative to private healthcare.

The new FPAI reproductive healthcare centre (RRHC) is led by a team comprising a hospital manager who handles administration and outreach and a senior health practitioner who oversees service delivery. The team is supported by lab technicians and a counsellor who has been a recent and important addition. "Patients usually come to us for one-time small services like vaccination, but a talk with the counsellor places them at ease. We are looking at mindset before medicine - reproductive health is about breaking decades old superstitions and harmful practices and this is where the counsellor helps. Over time, people acknowledge the number of healthcare issues they have been ignoring and return to us," says Sujatha Anishettar, branch manager at FPAI Dharwad.

In the last few years, the FPAI centre at Dharwad has added a separate waiting room to ensure better privacy, upgraded its lab equipment to perform a range of comprehensive diagnostic tests and started stocking drugs as a way to incentivise patients. Medicines are provided at a 10% discount over retail price to encourage patients to buy the right drugs and stay away from spurious, low cost ones. The centre has also added two comprehensive ante-natal care packages comprising nutrition, antenatal checkups and other services to see women through nine months of pregnancy at a marginal cost of Rs. 600 and Rs. 1.000.

2. Medical Care At The Doorstep

For daily wage labourers, every day of waiting at govt. hospitals for treatment, medicines or test results means precious money lost. And this is where FPAI makes a difference through its ontime delivery and referral services.

Once a patient enters FPAI, she is guaranteed total care within a day for all common cases. In situations where more sophisticated equipment, hospitalization or urgent medical attention is required, FPAI has established strong partnerships with surrounding public healthcare institutions, hospitals and nursing homes. Patients referred by FPAI get a 30% concessional rate at over

14 partner healthcare institutions in Dharwad and Hubli, one of the key initiatives taken up by the clinics to popularize the centres.

"We offer dignity, privacy, reliable quality care and the widest range of services," says Anishettar. The clinic charges a nominal fee towards all its services, modest in the light of the spectrum of services offered. "Changing the mindset of the staff who were used to giving free service was more challenging - we found that our customers were more than willing to pay for quality medical care," says Anishettar, who refers to the support provided by DF in terms of ideation, business planning, bridging last mile and regular monitoring as being pivotal in their journey towards self-sufficiency. The clinics currently earn an average revenue of Rs. 48,000 from the 900 patients they see every month, a figure they are trying to increase via outreach.

While the clinics were being staffed and services enhanced, FPAI simultaneously turned its attention to outreach. Based on the idea of

"Now we see many men accompanying their wives for checkups and some opening up to talk about their own problems too. The number is still small but I am glad that it has at least started" — Dr. Nasreen Honalli.



"community-based social marketing" put forward by the staff at DF, the organisation started building partnerships with workers who had earned the trust of the community - the ASHAs.

3. Outreach: Asha Workers, High-Risk Populations And College Programs

Getting the community to open up to discuss taboo topics required building significant trust and constant follow-up was a challenge. FPAI partnered ASHAs were offered an incentive of upto 20% of the revenue everytime they brought in a patient. For the unpaid govt. volunteer workers who often toiled only for the cause of healthcare, these incentives spurred word-of-mouth outreach and door-to-door convincing immensely.

"We visit their houses multiple times, show them examples of successful cases and how it has changed someone's life and also tell them the troubles they would face if they did not consult a doctor," says Laxmi, an ASHA worker. One Asha worker is appointed for every 1,000 people and brings 15-20 patients to the FPAI centre every month. The social marketing program has been a resounding success at FPAI: it has seen a 46% increase in clientele and 26% increase in revenue over the three years that the program has been operational.

Next, FPAI started working on reaching its services to marginalised sections who fall through the cracks of regular healthcare. The clinic tied up with grassroot organisations working with HIV/AIDS patients, sex workers and other high-risk populations to bring them in to the drop-in centre. "Our objective is to reduce the high incidence of Sexually Transmitted Diseases. Our clinics are meant for everyone," says Anishettar. Another high-risk segment in these regions is young people who have multiple partners, she says. With a grant from DF, FPAI started a school-college outreach program 2 years ago, which today reaches out to over 88 schools and 500 students and offers a firstof-its-kind sexuality education program.

Anganwadi centres and Gram Sabha committees have also been coming forward to support awareness building among women in the village through meetings held thrice every month and house visits that have a greater impact. "Our job is to make people understand that health is also important; the task is a difficult one but we persist," says Shashkala Patil, an Anganwadi worker. FPAI's mission to bring affordable family health in the Sandbox is exemplified by the fact that out of the entire population in Dharwad that accessed reproductive and family healthcare, 80% of them visited FPAI clinics.

4. Access: Satellite Clinics – Taking Healthcare To Margins

To increase the number of people who could access family health and to reach out to those in far-flung areas where PHCs are absent or non-functional and where healthcare comes last in priority, FPAI, in collaboration with Desphande Foundation, took on a pilot project to begin a 'satellite rural healthcare centre.'

What made this new project more challenging was the fact that with support of DF, FPAI decided to run this project on cost sharing basis and like a sustainable enterprise. The already existing reluctance to family planning and widely available free but poor family planning services did not make it easy.

Changing mindsets: "Earlier, people did not believe in family planning. We had to convince them repeatedly, and hardly 1-2% of the total population were in favour of it," recalls Subhas Kulkarni, Program Officer, FPAI who has been working with the organisation since 1974. "However"

"Changing the mindset of the staff who were used to giving free service was more challenging – we found that our customers were more than willing to pay for quality medical care," says Anishettar.

"Patients usually come to us for one-time small services like vaccination, but a talk with the counsellor places them at ease. We are looking at mindset before medicine - reproductive health is about breaking decade old superstitions and harmful practices and this is where the counsellor helps. Over time, people acknowledge the number of healthcare issues they have been ignoring and return to us" – Sujatha Anishettar, regional head, FPAI Dharwad.

he said,"We have slowly shifted from motivation to education, information and finally counselling, all of which have taken a mighty 30 years to build," he adds.

The model: Reaching out to 18 villages around the centre, and manned by an Auxiliary Nurse Midwife (ANM), a maid and a doctor, the satellite clinic is the first of its kind in Nigadi, Dharwad. The centre creates a space for services that require less medication through 'task shifting' and simplified service delivery, thus making it more cost effective and also reaching out to a larger number of rural population in remote parts.

Outreach: FPAI has left no stone turned in its guest to reach out -FPAI staff organise an ANC camp every Tuesday where free health checkups are conducted for expecting mothers. Special attention is given to newly married couples and the older men as they are the ones most reluctant to admit to a problem. Every Wednesday, mobile health vans conduct camps in outer villages to create awareness about family planning and introduce healthy living to villagers. Other events like "Healthy Baby Contest" are organised for pregnant women to educate them about the importance of a healthy institutional delivery.

Qualified personnel: One of the key changes DF brought in at the Nigadi centre was a fulltime qualified doctor, someone who was available throughout the opening hours of the clinic. Dr. Honalli took a willing transfer from her well-paying job at a private health centre in order to be a part of FPAI's Nigadi clinic. Neelam Maheshwari, the Grant Director at DF says "Availability of a willing doctor is perhaps a big determinant on how these rural clinics further expand. The centre is looking at making profits in the near future, perhaps a major incentive for doctors like Dr. Nasreen Honalli to join us."

5: Talking to Men

While FPAI was making progress in creating awareness among the women, getting the men to participate appeared to be an insurmountable challenge.

"Men have always been reluctant to come forward and talk about their sexual problems. Persistent counselling has eased it partly over the years. Now we see many men accompanying their wives for checkups and some opening up to talk about their own problems too. The number is still small but I am glad that it has at least started," says Dr. Nasreen Honnalli.

FPAI runs what is called a 'Service Education Training Unit (SETU)' exclusively for working men in the evenings. "Men are reluctant to come with their wives and also in the peak hours when there are other visitors. The 6 pm to 9 pm slot is much more comfortable," says Honnalli.

Over the last three years, FPAI has become a trusted brand in promoting reproductive health. So much so that the organisation is now involved in an "image building exercise" for the govt. by monitoring and auditing its staff in PHCs and RCH centres. "Working towards self-sufficiency along with DF has changed our thinking on many levels. Through our initiatives, we have been able to demonstrate our competence in education, outreach and unmatched healthcare service delivery in the Sandbox. We are now building a new RRHC in Dharwad and that is going to take us to the next level," says Sujatha.

A shift of perspective from providing free care to bringing about a cost sharing model may be an idea in progress for FPAI, however, the experience is turning out to be rewarding for the people in Nigadi village. The community has lent more land to the satellite centre, visits it frequently and is proud to have its own "clinic" in the village.

- 20% of all sterilization procedures in Hubli/Dharwad is done by FPAI staff, about 2000 every month.
- FPAI offers healthcare services at 30% of what it would cost at a private centre.
- 50% of the patients dropping into an FPAI centre today are men.
- 60 patients walk in everyday into FPAI centres and receive complete care from diagnosis to procuring medicines on the same day.
- An RRHC earns a revenue of Rs. 48,000 every month, almost 70% of its operating cost.





Sankalpa Rural Development Society

Recharging borewells, crops and lives

Area of operation: Gadag, Dharwad, Uttar Kannada, Haveri, Belgaum.



Name of the Organisation	Sankalpa Rural Development Society	
Туре	Non-profit	
In the Sandbox	Since 2009	
Recognition	Among 'Top 5 Rural Innovations of the Year' 2012, awarded by NABARD	



"This is the 29th borewell that I have built and finally, it works," says Devendrappa, a 57-year-old farmer who has been trying his luck with bore wells to irrigate his land for over 30 years now.

In his seven hectare farm in Varur, Dharwad district, where he grows wheat, maize, sugarcane and soyabean and 160 varieties of mango, 116 bamboo trees and 120 teak trees, the traditional farmer had always depended on irregular rainfall for his farms.

Borewells looked like the only solution in Hubli and Dharwad. And that's when Sikander Meeranayak, founder of non-profit Sankalpa Rural Development Society (SRDS) came up with an innovative way of doing direct borewell recharge at a fraction of the cost of digging one.

The Sandbox Story

When SRDS started operations to recharge defunct borewells in and around Hubli in 2009, the water shortage was acute. Almost 70% of the borewells had dried up in the area that received 997 cms of rainfall every year, water tables had sunk to 400 to 500 feet and farmers like Devendrappa were fast selling off their lands to repay their debts.

Like most rural innovation that emerges out of a personal problem and enormous passion to tackle it, SRDS started off as a one-man show – of Meeranayak. Since childhood, Meeranayak saw inadequate irrigation facilities and low water tables in Kotamuchagi, Gadag district, a drought prone area he grew up in.

The Innovation: Affordable Borewell Recharge

Meeranayak's ingenious method uses a catchment pond that can store upto 3 lakh litres, to channel all the rain water, a 10X10X10 pit that acts as a primary filter around the borewell and tiny slits through the casing pipe to percolate water without loss.

The technique is very affordable: recharge requires an investment of around Rs.30,000-Rs.35,000 on an average while building a new borewell costs Rs.1,00,000-Rs.1,50,000.

Two years and two good rain seasons later, as the SRDS method of recharge has slowly gained the trust of farmers and the results look impressive: 210 borewells recharged, 5,75,00,000 litres of water harvested and farms in 12 villages reaping good harvests.

"My harvest has increased drastically over last three years," says Devendrappa. From harvest out of 40% of total land area, he now has good crop from almost 100% of the land - annual profits go upto Rs. 8 lakhs and after deducting expenses on the farm and his home, Devendrappa manages to save at least 1.5 lakhs, a far cry from his debt-ridden state three years ago.

Adoption: Education, Awareness And Convincing Farmers

Despite the obvious returns through low costs, less labour requirement, a bountiful harvest and water savings, implementing borewell recharge in rural areas was a tough journey for the SRDS team.

The SRDS brand was not recognised. Digging a new borewell also seemed like the easier solution as farmers obtained easy borewell loans from the bank. Convincing them to opt for a new technology was a big challenge.

"We didn't know that borewells could be recharged. I didn't understand the model well but Sikander

"I struggled to irrigate even one acre two years ago. But with SRDS solution implemented on one borewell, today, I am able to irrigate all seven acres. And I have even started growing more water intensive crops like banana" — Chittaranjan, farmer







Recharge requires an investment of around Rs.30,000-Rs.35,000 on an average while building a new borewell costs Rs.1,00,000-Rs.1,50,000.

demonstrated it to us and explained the benefits. It had been two drought years and I had nothing to lose. I thought to give it a try," says Devendrappa.

The Deshpande Foundation (DF) brand helped SRDS gain the initial trust of the farmers. "People knew about DF and kind of work they do. So whenever we told people about our association with the foundation, they trusted us," says Meeranayak.

The team built on their initial recharge successes through roadshows, press conferences and taluk level farmer meets where

"We started as an NGO because it was very difficult to convince people initially. It is now apparent that SRDS has to become a forprofit organisation. This is what we are working on."

stories were showcased and problems discussed. A NABARD award last year for "Top 5 rural innovations" also helped SRDS earn significant trust among the farmers.

Meeranayak spends a substantial portion of his time just meeting farmers, discussing their challenges, talking to them about their fields' productivity, water requirements and so on, before offering his solution.

"You can't see results instantly. People expect some kind of magic which is not possible." It takes 4-5 days to implement one borewell recharge but one rainfall season for it to start working.

The multiplier effect of bore well recharge is also seen through a definite change in the water table after rains, enabling the farmer to grow crops even in dry summer months. "I struggled to irrigate

even one acre two years ago. But with SRDS solution implemented on one borewell, today, I am able to irrigate all seven acres. And I have even started growing more water intensive crops like banana," says Chittaranjan, one of Meeranayak's customers.

The Impact:

The subsidies offered for digging borewells made it challenging for the SRDS team - most farmers expected the technology for free. Initially SRDS subsidised the technology to farmers by 50%. Two years and 60 borewells later, there was enough evidence for farmers to look at now farmers who have the finance can opt for the technology. In case the farmer is unable to afford the cost of Rs. 40,000, SRDS walks the mile to talk to local banks and approve loans. An effort is also ongoing with local banks to make direct borewell recharge an official item on the loan list.

Funds from Deshpande Foundation were used in the initial years to create a critical number of borewells to demonstrate the impact. Once proof of concept and reasonable scale had been achieved, it was logical to try and expand markets. DF advised Meeranayak to "utilize"

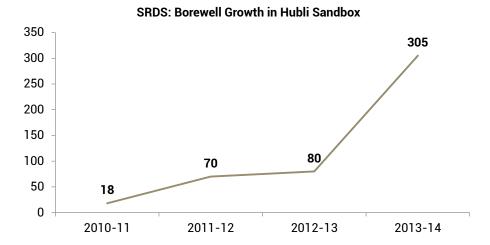
the funds to create awareness, conduct exposure trips, farmer exchange platforms and engage with media to popularize the concept of borewell recharge." It was difficult in the beginning but now, Sikander and his team of six members are never short of work.

The returns on investment seem to justify the setup costs completely in the areas where it has worked - Devendrappa, who earlier earned around Rs.50,000 from his harvest of banana in a three-acre land, earns around Rs.2,00,000 after the borewell recharge. On an average, the farmers receive three to four times more harvest after borewell recharge.

Scale: Water Harvesting Beyond Borewell Recharge

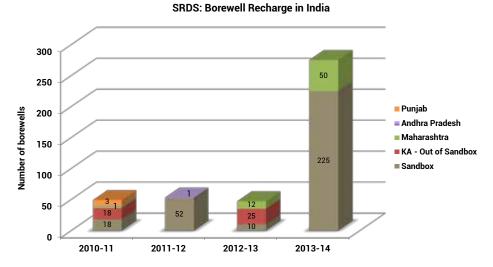
Extending the farm recharge technique to regular households, industries and schools in towns like Hubli and cities like Bangalore has helped SRDS earn more revenue out of its operations. The statistics are impressive: 180 recharged borewells, 200 water storage tanks, 30 and 60 urban RWH projects, four industrial water implementations.

The organisation is now gradually expanding to Andhra Pradesh,



Punjab and Maharashtra. The challenge is the small team that is completely anchored around Sikandar Meeranayak. "My team does not have any educational degree, they have learnt gradually by experimenting and trying. I make the design in most cases and the team implements it," he says.

"We started as an NGO because it was very difficult to convince people initially. It is now apparent that SRDS has to become a for-profit organisation. This is what we are working on," concludes Meeranayak. SRDS is now being incubated out of the Entrepreneurs-In-Residence (EIR) program run by the Deshpande Foundation to support for-profit social enterprises.



Making it Count – Sikander Meeranayak

Water issues had always been a part of Sikander Meeranayak's growing years. Hailing from Kotamuchagi District, Gadag, a rural area with documented water issues, Meeranayak witnessed the havoc drought created in the lives of the farmers around him.

"I felt the need to help my community tackle their water issues locally," says Meeranayak.

Meeranayak's entrepreneurial journey started with the Desphande Fellowship Program in 2003-04. He had few skills back then but was enthusiastic about learning. "Before DFP, I had never even used a computer. I had no English skills, but I wanted to improve myself," he explains. After completing his fellowship program, Meeranayak gained on-ground experience by working on small projects for the state and central government.

Realising that the current method of rampant borewell construction was unsustainable, Sikander decided to come up with affordable solutions that would compel people to take up harvesting.

Meeranayak's journey began at the Deshpande Foundation Centre, where he helped build structures to harvest over 50 lakh litres annually. And then there was no looking back.

"Before my association with the Deshpande Foundation, I was only making RS 3000. Now, I pay my workers up to RS 12,000. I already had a model and only wanted to do social work. But I realized social comes with enterprise. ENTERPRISE. We learned and applied it. Even if we don't get jobs, I learned how to create jobs," he says.

"We have seen far too much drought, we want to end water scarcity in India by 2020. And for that, farmers need to prosper," he says.

How is Direct Bore well recharge done?

- A 10x10 feet pit is dig and adjoining catchment area is made.
- Stone pitching is done in the pit.
- A 3 inch layer of sand is made at the bottom of the pit.
- Holes are made n the casing pipe and then it s covered with mesh.
- Cement rings are placed around the pipe.
- The remaining pit is covered with sand, stone and jelly.
- Rain water from the catchment area gets transferred to the percolation pit.
- The filtered water seeps in via cement rings
- The water after filtration through the mesh enters the pipe through tiny holes.





Vanasiri Rural Development Society

Sustaining Livelihoods Through Community-owned Enterprise

Area of operation: Haveri



Name of the Organisation	Vanasiri Rural Development Services
Туре	Rural co-operative
In the Sandbox	Since 2011
Focus areas	Organising and empowering marginalised communities in Haveri. Sustainable livelihoods through income-generating activities. Participation in natural resource management, sanitation, organic farming and biodiversity preservation.

Nagamma of Ranibennur, Haveri district, Karnataka, always knew that she would be an entrepreneur some day. Yet the dream seemed distant as the 40-year-old sole earning member of the family struggled with rearing her cattle, earned measly wages as a cook and worked hard to support her 2 daughters and a nephew. She longed for an opportunity to counter the overwhelming backwardness and poverty that echoed the fate of most from the Dalit community of tribals that she belonged to.

In 2013, a loan of Rs. 50,000 from Vanasiri Rural Development Society (VRDS) in partnership with lender Micrograam transformed her life and those of others around her. Nagamma finally got the keys to her own flour mill, one of the few in her village. During the day, Nagamma continues working at the government school as a cook, a job that pays her Rs. 1000. And every evening, women come to her home with large baskets of grain and several small children in tow, grains that need to be ground for the evening's dinner. Grinding the region's famous Byadgi chillies and jowar, Nagamma's income has leapt by 6 times just in the last year: from a monthly salary of Rs. 1,000, she now nets a monthly profit of Rs. 6,000 after paying for electricity and other operational expenses for her mill.

Inspiring stories like that of Nagamma abound in every corner of the villages inhabited by the livestock rearing communities in Haveri district, all due to the efforts of one organisation and its partners -Vanasiri Rural Development Society (VRDS). VRDS was started in 2003 as an NGO by Samshuddin D Baligar, a noted rural health and livelihood activist with over 20 years of experience in working with villagers to correct the information assymetry and widespread ignorance among populations in these areas. The growth of the organisation from a non-profit involved in advocacy to a thriving co-operative of 1365 members and Rs. 7,77,400 in shares in Desphande Foundation's Hubli Sandbox, enabling sustainable livelihoods for over 5000 families, is as transformational a story as those of the rural women VRDS empowers.

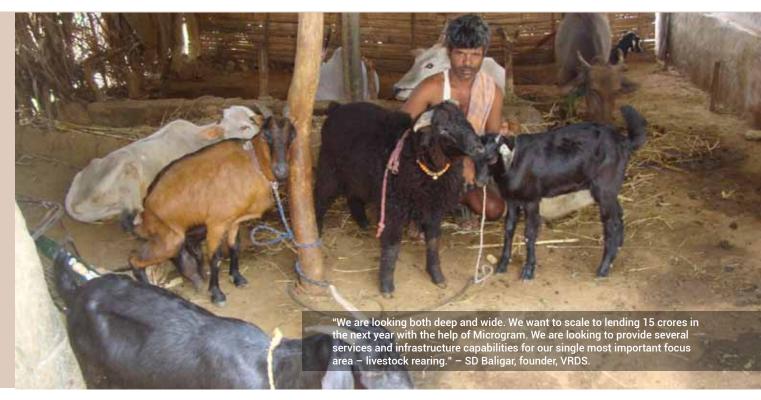
Genesis: Migration And Lack Of Livelihood

With an initial grant funding of Rs.2,00,000 from Concern India Foundation, Bangalore, VRDS began working with landless labourers and marginal farmers, especially women, in 3 taluks and 7 gram panchayats in Haveri district on empowering them through information, awareness and income generation activities.

Haveri district was plagued by the usual rural development challenges: migration was a major problem youth were shifting to cities in search of better employment opportunities and people in the villages were largely unskilled and could not earn enough to support their families. Ignorance was also rife – schemes like the NREGA were very poorly implemented as villagers didn't know much about them, employers did not recognize it and the Government delays, irregularities and misappropriation of funds worsened conditions further.

VRDS recognized that livestock and livestock rearing was one of the greatest assets and skills among the villagers in Haveri and an important complement to agriculture, especially among the economically weaker tribal populations. "We noticed that every farmer has a couple of goats with her which she carried everywhere - these were their only assets," says SD Baligar, founder of VRDS. VRDS started working in 2006 on forming SHGs and connecting them to loans through NABARD, Public and private banks and MFIs in the region.

The reluctance of public banks to lend small amounts to people without any significant collateral, the high rates charges by microfinance institutions and long turnaround





times with local banks on one side and the total absence of infrastructure or services to support livelihoods on the other hand steered VRDS towards a partnership with Deshpande Foundation. The non-profit sought funding, support and mentoring from DF in order to figure out the best way to provide sustained livelihoods for all its SHG members.

"We charge a very nominal amount, so people would be more open to the idea of taking their livestock to the vets otherwise due to lack of facilities and insufficient cash they would just ignore them." – Maruti, para-vet

The Sandbox Story

1. Sustaining Livelihoods: From Non-profit To Community-owned Cooperative

When VRDS entered the Sandbox, it had 159 SHGs formed and over 82 lakhs in loans, but was struggling to scale or sustain the program as an NGO. Initial meetings and ground studies along with DF brought about the insight that while an NGO was the best model to handle training, educational development and awareness, the organisation had to think of alternatives that would

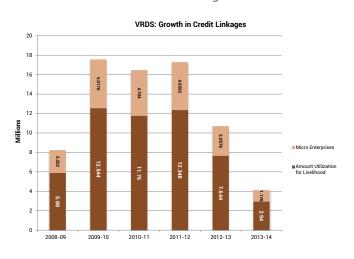
help it sustain itself while building livelihoods for its members, from providing micro-loans to market development.

With the advice of DF, VRDS spun a co-operative: it raised an initial share capital of around Rs.3,00,000 from 708 SHG members, procured working capital by way of grant funding from DF and registered the 'VRDS Multi-purpose Rural Cooperative Society' in 2010.

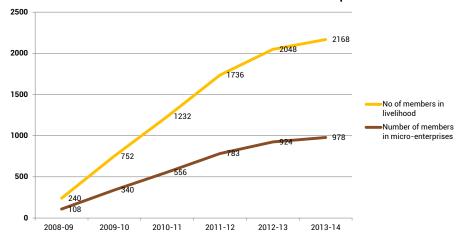
"We were able to deepen our value and relationship among the SHG community that VRDS the NGO had nurtured in the last 7 years. As a co-operative, VRDS provides key financial services to its members including loans for livelihoods in livestock, farming, art and craft and allied activities, banking facilities and most importantly, a microinsurance for livestock," says Baligar. Unfettered by restrictions imposed by traditional banks, VRDS

encouraged its members to open savings accounts with the co-operative and grow their investment through savings deposits and insurance policies. In a year, the co-operative had grown to 922 members and almost 2 crores in loans through NABARD funding, and a fresh infusion of investment in the co-operative was required.

The 2011 annual Development Dialogue conference and its networking opportunities brought VRDS in touch with funders who would grow to be their largest in the next two years: rural lender Micrograam. "We slowly reduced our dependence on NABARD and ICICI banking and grew our offering through the partnership with Micrograam that agreed to directly fund the co-operative instead of going through the NGO route. It quickly helped us scale to a few crores in loans in 2012-13," says Baligar.



VRDS: Growth in livelihood and micro-enterprises



VRDS: growth in co-op members and share amount

2. Service Delivery: Para-vets And Udgyoginis For Animal Welfare

Para-vets: Well cattle for better incomes

As the financial inclusion, selfemployment and microenterprise development grew, VRDS realised that it had to bridge the gap with infrastructure and other services that co-operative members needed to stabilise their livelihoods. The biggest challenge with livestock farming was the absence of healthcare facilities for the animals. "There were many nursing homes and hospitals to treat people but not a single clinic for livestock," says Baligar; in fact, they had only one veterinarian who distributed his time between 50 villages! People were not aware of vaccination procedures, de-worming or the benefits of animal insurance. As a result, villagers were starting to lose their livestock at an alarming rate to disease and poor health.

In a model that could provide employment to youth in the village. healthcare for animals and the benefit of affordable costs to the community, DF and VRDS started training rural youth who had finished their PUC/+2 to be para-vets. DF provided a grant for training and got experts from their network - doctors, vets, govt. officials - to establish a vet training curriculum that was rooted to essential practice. A Sandbox partnership with the BAIF **Development Research Foundation** helped deliver the training effectively to the youngsters. A cost-recovery

business model created with the help of DF helped VRDS deliver health services for cattle – from vaccinations to medicines and routine procedures – for sums as low as Rs. 50.

"We charge a very nominal amount, so people would be more open to the idea of taking their livestock to the vets otherwise due to lack of facilities and insufficient cash they would just ignore them," says Maruti, a para veterinarian. Paravets helped increase the life, health and productivity of the livestock and played a major role in generating stable income for the villagers.

Udyoginis: an efficient last mile community delivery model

Just as the training model and delivery for para-vets got established, it was evident that the program was more sustainable than its takers: there was a reasonable attrition among rural youth trained to be para-vets to switch to private dairy enterprise or migrate to greener pastures in the cities. VRDS then hit upon their second breakthrough idea, that of creating Udyoginis.

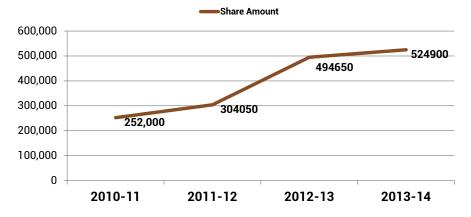
VRDS' Udyoginis are capable and efficient village women picked from active members in the SHGs and trained to provide para-vet services to their community. "Like Nagamma and many others, these women are far more entrepreneurial than many of their male counterparts. In addition, they are rooted to their families and hence remain in the village, they provide reliable service and we are able to see the ripple effect of impact on their families as well," says Baligar. Besides animal health services, Udyoginis are also trained to maintain accounting books for the co-operative and earn some extra income which keeps them well connected with the cooperative's activities and plans. The logic of bringing these women micro-entrepreneurs close to the co-op is sound: Udvoginis serve as an important channel between the co-operative and the community, furthering the sustainability of both.

They earn incentives for increasing shareholders in the co-op (Rs. 400 per SHG formation) and for popularising products offered by the co-op, like savings deposits and cattle insurance. The co-op also purchases medicines in bulk and ensures distribution through the Udyoginis. "The impact on livelihoods is notable. On an average, Udyoginis earn a revenue of Rs. 8,000 to 10,000 every month. We have reached 5 villages and over 5000 families with the help of our women micro-entrepreneurs," says a proud Baligar.

Vansiri Multipurpose Co-operative Society: Shareholder growth



Vanasiri Multi-purpose Co-operative Society: Share amount



VRDS: growth in co-op members and share amount

The Impact: Powering Rural Micro-enterprise

In its work span of 6 years in the Sandbox, VRDS has formed 559 SHGs, linked over 3200 members to credit and loan products, grown to 1365 members and a share value of Rs. 7,77,400 in its co-operative and ensured sustainable livelihood opportunities in three taluks covering 60 villages. From 50 families that owned goats in 2008, VRDS now has 1000 families into goat rearing and is now looking to grow to 200 families that have more than 100 goats.

The co-op has given out loans to the tune of 3.5 crores and earned a net profit of Rs. 5.6 lakhs through offering value-based services. The NGO arm has assisted 311 SHGs run by women to get Rs 2.16 crore to undertake self-employment. The organisation believes that this achievement of tremendous scale in the last 3 years in the Sandbox is only the beginnings of its journey in expansion.

"We are looking both deep and wide. We want to scale to lending 15 crores in the next year with the help of Micrograam. We are looking to provide several services and infrastructure capabilities for our single most important focus area – livestock rearing," says Baligar. VRDS is looking at going beyond providing soft support – it is aiming to increase goats per family from 15 to 25, build a new breeding centre and buy new healthcare vehicles.

In the Sandbox, VRDS has grown to:

- 559 SHGs, 3200 members linked to credit and loans upto 3.5 crores
- A co-op of 1365 members, Rs. 7.77 lakhs in shares and a net profit of Rs. 5.6 lakhs
- Assist 311 SHGs run by women to get Rs. 2.16 crores for self-employment
- Livelihoods for over 8000 people in 3 taluks and 60 villages

The organisation is also tied up with corporates in the region to pilot its new program of offering artificial insemination of goats, the "Satara Paltaan", as Baligar refers to a successful breeding model in Gujarat that he is looking to pioneer in the Sandbox.

As an NGO, VRDS, winner of the NABARD award for best NGO in 2011, has strengthened the rural community to understand and demand their rights and entitlements from the Government. Rural women are now involved in joint forest planning and management activities. Livestock farming has become a thriving occupation in these semi-arid regions – there has been a remarkable difference in the health and productivity of the cattle reared.



Baligar speaks of the Sandbox and Deshpande Foundation as being the core reason for the existence of VRDS, right from business planning to providing access to experts, working capital and ongoing mentoring support besides the value the organisation has reaped from the various Sandbox programs. The greatest credit he gives however is in transforming him into being an entrepreneur. "I was a passionate activist when I started a partnership with DF. And today, I am the head of 3.5 crore turnover community

owned enterprise with over 30 staff members that is looking to scale. I do not think this would have been possible outside the Sandbox," avers Baligar.

"People find their voice when they become self-reliant," says Baligar when questioned about community empowerment; talking about himself, his organisation and the community he seeks to nurture. Like Nagamma who stood at a podium in a conference room in Taj Vivanta Bangalore in September 2013,

400 kms from her home and flour mill in Kirigiri village, Ranebennur, giving a speech in Kannada, aided by a translator, to students of Columbia University. She talked about her entrepreneurial journey and what worked for her. "I want to expand to starting a rava-mill this year and set up better infrastructure for electricity. Maybe even deliver to the urban doorstep!" she said. It is this flourishing of entrepreneurial spirit that VRDS seeks to retain as it looks to the future to scale.



"If it werent for my goats and a loan of Rs. 20,000, I would not be alive today", says 30-year-old Nirmala. The ST caste woman from Ranibennur, Haveri owned no land, hardly came out of home, and was distraught when she lost her husband, had no job and two kids to look after a few years ago. Today, Nirmala runs a viable goat-rearing business with 10-12 goats, has both her children going to school and participates in the development of her taluk.

Two years ago, Malleshappa had to take his kids out of the school as he simply could not afford education. VRDS gave him 2 goats he has now expanded the activity and increased to 15 goats. His kids have joined back in school. He recently purchased a cow.





Durga Devi started a goat rearing practice with two goats which she has now expanded to 20. She recently opened a small grocery shop and supports her family financially.

Rudrappa spent his entire life in poverty and financial weakness. VRDS with help of Deshpande Foundation gave him grant of Rs.8,000 to purchase two goats. Now he has expanded the activity. his kids now go to a school, he lives in a pucca house and has also bought 1 ghunta of land in the village.





Chandrappa struggled earlier to keep his livestock healthy. Lack of proper medical facilities led to bad productivity and less money form his goats. A VRDS training acquainted him with the basic precautions he needs to take care of when it comes to the health of the animals. He has grown now to be a para-vet, keeping the animals in his area healthy.

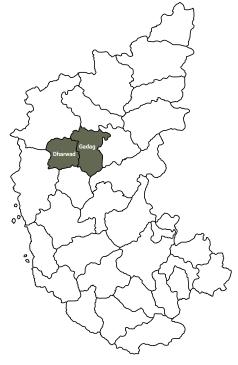




Save A Mother

Making community healthcare work in rural Karnataka

Area of operation: Dharwad, Gadag



Name of the Organisation	Save A Mother
Туре	Non-profit
In the Sandbox	Since 2012
Focus areas	Through community healthcare workers, Save A Mother educates women about pregnancy, nutrition, immunization, delivery and care of the child.

"She has to go to the hospital right now!" pleaded 17-year-old Najma. The seven-month pregnant bleeding woman was refusing to seek medical help despite repeated urging. Najma was shooed away and told that since she was unmarried, what could she possibly know about pregnancy? Najma persevered and galvanized the lady's mother and village elders into action, transporting them to a hospital. The child died but the woman survived. That day, Najma became a local hero in Negoria village, Uttar Pradesh.

Najma is a 'Swasthya Sakhi' - she works tirelessly to educate the women and girls in her village about the importance of health, nutrition, hygiene, ante-natal care and immunization, trying her best to break century old superstitions about health and childbirth, all without being paid a paisa. She is part of Save A Mother, a non-profit that co-opts hundreds of voluntary community health activists like her to save lives in rural districts that see some of the worst maternal and child mortality rates.

The Genesis: Neglected Maternal Health

Started in 2008 by Dr. Shiban Ganju, a physician with over 30 years of experience in the health industry, Save A Mother is built on the core

belief that most health problems in rural India do not need doctors - they simply need better hygiene practices, clean water, nutrition and positive health seeking behaviour. With its trained Swasthya Sakhis who establish strong relationships within the local community, Save A Mother has reached over 15 districts in Uttar Pradesh, a State with the highest maternal mortality rate in the world, and reduced maternal mortality rates by 93% and child mortality rates by 66%* in over 1000 villages (a population of approximately 3 million).

The Sandbox Story

In 2012, with a grant from the Deshpande Foundation, Save A Mother expanded its operations to Karnataka, the State with the highest IMR and MMR rates in South India. "We wanted to validate our Uttar Pradesh model by replicating it in a different location. Sandbox and Deshpande Foundation offered us an opportunity to work in Gadag with its high maternal mortality rates," says Dr. Ganju.

1. The Arogya Sakhi: Every Woman's Health Friend

Using the principle of 'Effective Social Persuasion', Save A Mother (SAM) trains community health activists, who are recruited from

among enthusiastic village women folk who speak the local language and dialect and have had experience in reaching out to the local populations. In the Sandbox, SAM was able to effectively recruit Sakhis through DF's extensive network at the grassroots and other Sandbox partners. Master Trainers go through a rigorous three-day training course on reproductive health and sanitation in addition to SAM's innovative behavioural change communication modules on health literacy. The master trainers in turn educate the voluntary health activists - 'Arogya Sakhis' - who take the message to the women in their villages and meet as a cluster once a month. SAM is aware that training and motivation need to be an ongoing process - refresher courses are held eight to nine times a year in order to keep the Sakhis updated on health awareness and education.

"Health literacy is the least expensive way of reducing disease burden. Community health workers like the Arogya Sakhi provide the most sustainable way to spread literacy and maintain the health status of a community" – Dr. Ganju





2. Tracking Women To Good Health

SAM believes that health literacy is the most economical way to reduce disease burden. The organisation trains Sakhis to hold regular weekly sessions in their village on preventive healthcare. Talks cover general healthy eating habits – the "chitrang bhojan" which means a meal containing four colours; red (apple., meat, etc.), yellow(banana, cereals), white(milk products), green(vegetables) – discussions on general hygiene practices (like washing hands), child care and the importance of family planning.

Women are encouraged to go for regular checkups at the hospital and take proper medicines. In Gadag, this is fortunately incentivized by the Janani Suraksha Yojana, a conditional cash transfer welfare scheme by the Govt. of Karnataka that offers Rs. 1,600 and a baby kit

"The Sandbox experience has proved that healthcare can be a successful entry point into a community to start any development work." - Dr. Shiban Ganju, Founder, Save A Mother.

to every woman who goes through institutional delivery as opposed to childbirth at home. In the last year in the Sandbox, Save a Mother has tracked 5388 women so far out of which 3568 are pregnant women and 1820 have just given birth.

3. Health awareness targetting high-risk women

Each Sakhi has a diary to keep track of the pregnant women in her village and connect them to public health facilities. "In UP, we forged partnerships with established microfinance institutions and their SHGs in order to reach out to the women. In the Sandbox, the DF network was effective enough for us to implement the entire system independently and start with healthcare," says Dr. Ganju.

DF and SAM realised that regular house visits were the most effective ways to reach out to the women, change their mindsets and introduce better care amongst family members as well. Gadag's Sakhis make house visits twice a month to keep a check on pregnant women and those who have just given birth, updating a 'mother card' which contains all details including age, number of children, weight, blood pressure and haemoglobin levels. While they are in the home, they also take time to talk

to other family members, especially elders, and educate them about the importance of good nutrition and healthy lifestyle practices.

"Instead of a general outreach, we decided to track high risk women and pregnancies in the Sandbox. We conducted a village level survey to ascertain which women have haemoglobin levels of less than 9 and weight below 40 kgs. We are also tracking all pregnant women under the age of 18 and over the age of 35 as at that time they can face problems related to hormonal imbalance and this can cause complications in the delivery," says Prashant Uppar, a Deshpande Foundation Fellow who was hired to lead Save A Mother's Sandbox operations.

The Challenge

1. Fighting Culturally Biased Health Practices

"Women say that they'd rather work in the farm and help their husbands than come here to chat for a couple of hours every week. Making them aware of the importance of healthcare is a difficult task for us," says Laxmi, an Arogya Sakhi in Gadag. Poor maternal health is the area of focus, yet SAM realised that it is often a worsening of an

existing condition where nutrition is not a priority for women and most of them end up being anaemic and malnourished throughout their life.

Laxmi regularly knocks on doors in order to educate the village women about the basics of everyday healthy living. To stress on the importance of adequate care for the mother before, during and after childbirth, Laxmi takes them through a colourful booklet with pictures that deals with useful tips – from sleeping positions to permissible work after delivery and the role of the family in ensuring a safe journey for both mother and child.

Repeated counselling of the women to attend meetings and take medicines is the first step, but it does not guarantee health access - facilitators and resource personnel need to obtain the buy-in of the family as well. "6 months into her pregnancy, one of the villagers stopped having iron pills because the elders of her house convinced her that these will adversely affect the child. It is hard to make these ladies go against the wishes of their family even if it is for their own good," says Uppar. The SAM team also combats widespread ignorance and apathy towards healthcare: a lady missed her due date as she did not even consult a doctor. During a house visit the Arogva Sakhi got her immediately to a bigger hospital where doctors told her that even a couple of hours of delay could have costed the baby's life.

In the Sandbox, SAM has been able to reach deep into the community through a winning partnership with FPAI, another member of the Sandbox that runs reproductive healthcare clinics and weekly awareness camps in the village: FPAI had an education and awareness generation partner in SAM and SAM had a go-to place, the FPAI Rural Reproductive Healthcare Centres, that it could recommend for all the women it reached out to.

2. Increasing the Tribe of Healthcare Champions

The success of Save A Mother's fight against maternal mortality hinges on the relentless efforts and

dedication of an army of unpaid health volunteers. SAM keeps its costs to Rs. 10,000 per village per year – a mere Rs. 5 per capita which enables them to scale the model to every women in the village on an ongoing basis.

How does the model scale on the basis of goodwill? "We pick women with spirit to begin with," says Anoop Pant, Project Manager at SAM, who also refers to the organisation's model to build redundancy into its training – three to four Sakhis are recruited and trained for every one Sakhi required. SAM's Sandbox model uses Self Help Group meetings in the villages to recruit its Sakhis. "We look at the most active members and offer them the position of an Arogya Sakhi. After the training is done and they start working in the field their mindset changes, they enjoy their work and get a sense of respect in the village and community which keeps all of us going," says Uppar. Dr. Ganju says that the Arogya Sakhis are mostly self-motivated; the health training only serves to heighten their sense of responsibility and purpose in the village.

The Impact: Women In Better Health

Through the Sandbox initiative, Save a Mother has trained 128 health activities in 103 villages who have in turn created awareness and tracked 900 pregnant mothers in the last one year across 15 districts in Gadag and Dharwad.

"Working in the Sandbox has been a great experience. SAM has learned the method of replicating and scaling up and we have found that healthcare can be a successful entry point into a community to start any development work," says Dr. Ganju.

"Our main aim is not to bring the figures to zero because we know it is not possible; sometimes even after proper care and medicines you can't save lives. Our only focus is to bring the figures down, and spread as much awareness as possible because eventually this will automatically solve the issue," Uppar said.

"We want to cover every village in Gadag and expand our spread in Dharwad.

We are looking to begin work on other healthcare issues like TB control and malnutrition," says Dr. Ganju, stressing on SAM's vision of affordable healthcare for all.

"Women say that they'd rather work in the farm and help their husbands than come here to chat for a couple of hours every week. Making them aware of the importance of healthcare is a challenging task." – Laxmi, Arogya Sakhi

In the meantime, SAM is looking to recruit more volunteers like Laxmi, who joined SAM on a temporary basis but decided to stay due to a fondness for her work, the impact she has been able to bring, the respect she has slowly gained in the eyes of the entire village community and the many mothers and daughters she has been able to save.

Save A Mother 2012-2013 snapshot

Reached **108** villages in **15** districts of Gadag and Dharwad

Trained **183** health activists in

Tracked **3262** women to ensure better health and safe delivery





Sahaja Samruddha:

Creating fair markets for good produce

Area of operation: Dharwad, Gadag, Uttar Kannada, Haveri, Belgaum



Name of the Organisation	Sahaja Samrudha
Туре	Farmer's Collective
In the Sandbox	Since 2011
Focus areas	Promoting organic farmers groups and marketing value- added organic produce



Three years ago, Chandrashekhar Patil, a journalist with a Kannada daily in Rannebennur, Haveri district, decided to enter farming, at a time when agriculture was going through a very rough patch. "My father was running into huge losses in our own farm. We had large debts and the situation just wasn't improving. I had to do something."

Patil's 13-acre farm growing BT Cotton had initially given him yields as high as 13 quintals per acre. But the yield gradually tapered to 3-4 quintals per acre and it also started adversely affecting other sub crops – he saw honeybees disappearing and millet crops vanishing from his

Keen to find a sustainable solution, Patil approached the farmer group Desi Krushikara Balaga (DKB) and started converting his land to grow only the Organic Sahana variety of cotton - it was an indigeneous variety, gave good yields, was resistant to common pest bollworm and could thrive in all climatic conditions.

"I bought Sahana seeds for Rs.450 a kg as compared to BT seeds which costed me around Rs.1200 per kg and started saving money right at step 1,", says Patil. With the help of the farmer collective DKB, Patil has taken his produce to profitable markets in mainstream cities like Bangalore and Mysore. Today, Patil

has managed to repay all his loans, obtain consistent yields from his farm and even imparts his new found learnings on cotton to those interested in the Hubli Sandbox.

DKB is one of the pioneering Sandbox initiatives launched by Sahaja Samruddha, a farmer collective established in 2001 to exchange seeds, knowledge and ideas around sustainable agriculture, in partnership with the Deshpande Foundation in the Hubli Sandbox. Realising that farmers mostly lacked the skills and wherewithal to bring their produce to the right markets, Sahaja Samruddha and DF started working on initiatives to bring farmers together around organic cultivation, revive traditional and indigeneous crop varieties and create platforms where awareness, engagement and retail could take place regularly around organic food.

Genesis: Supporting Sustainable Agriculture

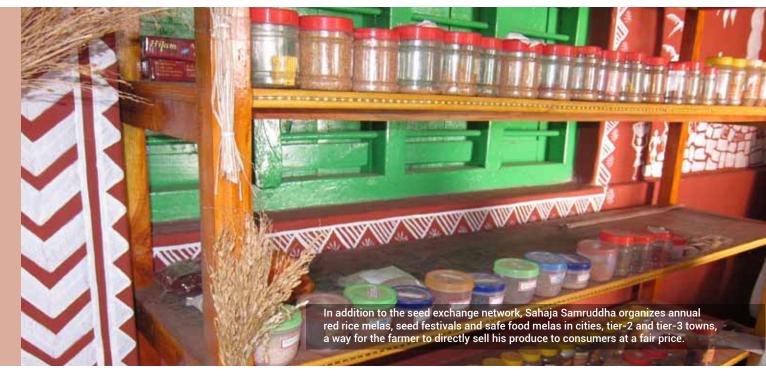
When Sahaja Samruddha entered the Sandbox in 2011, it had already established considerable success across the country as far as farmer integration went. The collective had added over 786 farmers from across the country, had 1000 farmers in organic conversion status and ongoing marketing partnerships with 360 agri- organisations.

When the farmers collective was brought together in the Hubli Sandbox, agriculture in the area was going through a trough: there were continuous drought years, mono-cropping had replaced traditional multi-cropping systems and commercial crops like sunflower were fast denuding soil fertility.

Government interventions to support organic agriculture were entirely missing and crops like diabetic rice which were high value indigeneous products were being completely sidestepped – no one wanted to experiment with products that didn't have a ready market.

Taking advantage of their strong farmer network, Sahaja was keen to focus on matching demand and supply for organic food through strong consumer building activities, creating differentiated platforms for farmers to sell their quality produce and also moving to a model where they could grow organic agriculture

"We want more people to understand the value of organic farming," says Channabasappa Kombali, president of DKB. The DKB seed bank now has successfully stored and preserved 108 varieties of rice, 26 varieties of Brinjal, 45 varieties of cotton and 24 varieties of Ragi.



holistically by shifting focus from maximizing production to integrated, diversified and nutrition based farming.

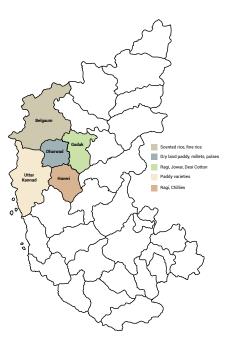
The Sandbox Story

1. Crop Mapping And Selection: Reviving Native Crops

As a first step towards reviving indigeneous varieties of crops that could benefit both farmer and the environment, Sahaja along with DF performed a mapping of crops according to geographical area in the Sandbox. "As opposed to other organisations that focused on capacity building with existing commercial crops and had no farmer loyalty, we decided to build our entire marketing strategy around the farmer and the crop," says Krishna Prasad, founder member and Director of Sahaja Samruddha.

Kamalamma is proud of the millet variety she is now growing with Sahaja's help.

Once crop mapping was done,
Sahaja started experimenting with
known and knowledgable farmers
to encourage them to grow these
local crops. In the beginning, farmers
were even offered better rates for
these varieties by Sahaja - Paddy for
instance was bought at Rs. 18 (while
government rate was 16), Little
Millet for Rs. 18. (Sahaja offered Rs.
21). Today, thanks to strengthened
supply and awareness creation,
farmer groups are able to get returns
of 1 lakh rupees just for red rice
every month.



Traditional crops grown in the Sandbox.

2. Increasing Adoption: Farmer Groups

After fixing on crop strategy, the next step was to get farmers to adopt the model and scale production. DF provided Sahaja a grant to bring farmers together under a common 'farmer group' umbrella, resulting in formation of groups like the Desi Krushikara Balaga (DKB) working out of Hubli and the Malnad Rice Growers Association. Farmer groups helped scale production, make the supply chain predictable and also helped evangelize adoption of sustainable agriculture practices.

Two key factors helped in building successful farmer groups: leveraging the strong brand name associated with Deshpande Foundation to co-opt new farmers and bringing in well known certified organic farmers. DKB for instance is run by 10 administrative members who are farmers each with over 25-30 years of experience and reaches out to a network of 300 registered farmers. DKB Vice President and farmer Shrenik Raj has grown 110 varieties or rice on his land, President Channabasappa Kombli is a Krishi Pandit and was declared Man of the Year by Indian Express; these successful farmers went a long way in infusing new entrants with belief that their traditional crops could compete in mainstream markets.

Sahaja also invested in hiring high quality agri-professionals responsible for Quality Assurance, packaging and ensuring that quality produce reached stores in Bangalore and other cities, a move which greatly reduced costs and brought in efficiency. "We believe that the farmers are not businessmen. We aim to take care of all the complexities related to business, selling and marketing for them," says Prasad.

Once a farmer is part of the group, he gets support to convert his land to organic: farmers undergo a three month training on seed quality, organic farming, use of natural pesticides and fertilizers, water conservation, integrated farming system and seed conservation. As part of the registration process, farmer network members also make initial visits to test the land on the basis of soil quality and other factors. Informal checks are put in place to ensure that the farmer is actually serious about going organic.



Banaka and his son have managed to save many millet varieties.

Being present in the Sandbox also helped Sahaja leverage the ecosystem to establish key farmer outreach partnerships like Manuvikasa, technical help from Srijan on SRI cultivation and to hire field workers and agricultural managers from the many programs on skill development and leadership training that are run by the Deshpande Educational Trust (DET).

3. Working Capital For Scaling Production

One of the essential requirements of scaling production was working capital for operations - the model of running the organizations based on farmer contributions meant

limited surplus capital to invest and expand the marketing of organic products. However, since the focus of farmer groups was neither large scale investment nor higher margins, it was important to seek grantbased, focused-loans. "One of the key contributions of DF has been to understand that we are working on something for which the market is not yet ready and provide us funds for it. We are creating the market for organic produce in smaller cities as well as strengthening the farmer's faith in organic cultivation," says Prasad. With the help of DF, Sahaja has also been able to connect farmers to funding partners like Micrograam through DF for microloans.

Currently, groups like DKB are looking for working capital to add processing units in order to perform polishing, restoring and flouring, operations that will fetch the farmers a lot more than they get for their raw pulses and grains.

4. Building New Channels for Organic Produce

The land under organic cultivation in India is worth Rs. 6000 crores, yet the current Indian Organic market is only Rs. 2500; crores; produce still reaches non-differentiated markets. "The biggest challenge is to swim against the current," says Prasad. "There is no special policy or special market for Organic farming. There is no Minimum Support Price."

With an aim to establish scalable markets for their indigeneous crops and special produce, DF and Sahaja launched a slew of market facing initiatives for building consumer awareness and sale for organic produce.

Good seed exchange networks

In line with their support to help farmers focus on the agriculture, groups like DKB provide a reliable wholesale market for raw farmer produce by collecting high quality organic seeds, selling them at fair prices in the open market and then distributing the profits among the farmers.

Once the farmer is part of the network, DKB buys seeds from the farmers at a 10% premium, retains a margin of 5% and supplies seeds to another farmer, industry, producer company or local outlet at a 10-15% profit margin. DKB also lays emphasis on preserving traditional heirloom seeds and species that are fast vanishing. "We want more people to understand the value of organic farming," says Channabasappa Kombali, president of DKB. The DKB seed bank now has successfully stored and preserved 108 varieties of rice, 26 varieties of Brinjal, 45 varieties of cotton and 24 varieties of Ragi.

Good food melas

Sahaja Samruddha organizes annual red rice melas, seed festivals and safe food melas in cities, tier-2 and tier-3 towns, a way for the farmer to directly sell his produce to consumers at a fair price.

A first-of-its-kind organic mela jointly organised by Sahaja Samrudha, Deshpande Foundation and 'Save Our Rice' Campaign in May 2013 saw hordes of Hubli and Dharwad consumers line up to buy pesticide-free food. The mela witnessed footfalls of over 15,000 and sold over 40 quintals of organic produce in the first two days itself. "We had expected 10,000 consumers over a four-day-event but we have witnessed about 15,000 in first two days, itself," said Siddu Gowder, one of the organisers, talking about growing awareness among consumers to buy healthy produce. Sahaja Samrudha's annual red rice mela along with NABARD saw over a 100 different varieties of rice and sold to 6000 consumers in January 2013.

"Melas bring producers and consumers together which is

A first-of-its-kind organic mela jointly organised by Sahaja Samrudha, Deshpande Foundation and 'Save Our Rice' Campaign in May 2013 saw hordes of Hubli and Dharwad consumers line up to buy pesticide-free food. The mela witnessed footfalls over 15,000 and sold over 40 quintals of organic produce sold in the first two days itself.

beneficial to both parties – farmers get to see demand directly and consumers get better prices and assured quality produce. Melas also help us build an initial database of interested consumers who we can then follow with our ongoing social media marketing," says Krishna Prasad. The collective decided that the melas needed to be mainstream and involve key players in the region for them to be regarded as important. With the help of DF's extensive network, Sahaja reached out to the Agriculture Dept, bankers, govt. officials and other renowned people in Hubli to endorse the initiative.

Print and local media have had a strong role to play in bringing about consumer awareness in the Sandbox, says Krishna Prasad. Building on DF's relationship and their own ongoing engagement with the press, Sahaja has been able to co-opt newspapers to carry regular stories to increase consumer recall about the benefits of organic. In their first Millet Mela, Deccan Herald carried a full page story on the market which helped gain a lot of visibility.

Branding and packaging

Catering to the "what looks good must taste good" taste of urban consumers, Sahaja spent a fair amount of effort to bring together professional branding and packaging for all its stores and products.

Brands like Namma Anna, Millet Magic, Nature's Store have been created in the Sandbox and gone far in bringing about consumer awareness; the name 'Millet Magic' has even been trademarked.

Sandbox Snapshot

With the help of DF, Sahaja has been able to scale both supply and demand for organic products. Pre-Sandbox, Sahaja estimates point to about 50 - 100 Kg supply to Bangalore, which today is between 10 and 20 quintals.

DF grants provided critical working capital to enable farmers to invest in their lands. DF's name is great help among farmers, administration and other stakeholders.

Sandbox provided access to partners of varying kinds - Micro Graam that has provided upto 10 lakhs as micro-finance for farmers; BIRD-K for processing (e.g. millet processing), Srijan for SRI techniques and organisations like Manuvikasa and BAIF to bring more farmers into the fold.

"All these initiatives have helped us grow organic agriculture in the Sandbox area," says Prasad.

Looking Forward

With the help of working capital from Deshpande Foundation, Sahaja is now looking to expand DKB's footprint by bringing more farmers under its wings, converting them to growing organic and providing them with profitable ways to reach their consumers. "We need more platforms to be built, and more institutions to join us. These farmers need more visibility in the market," says Prasad. Rare millets, red rice

and medicinal crops in Belgaum area have been identified and plans are on to bring them to the mainstream market.

Farmers groups like DKB are looking to become formal institutions and form producer companies to get better returns for their products. The impact of the work done by DF and Sahaja Samruddha in the Sandbox area has meant confident farmers, rapidly scaling organic produce and greater awareness about the importance of seed saving, native varieties and the value of produce like red rice in mainstream markets that farmers are looking forward to cash in on.

The final objective of Sahaja's activities are to make organic agriculture viable and sustainable by helping farmers: Omkar Patil, one of DKB's farmers, has 40 acres of land where he grows various crops including, cotton, millets, chilly, pulses, jowar, wheat, red gram and groundnuts. With help from DKB, his profits have grown from Rs. 3 lakhs an annum to Rs. 8 lakhs an annum.

"Today, I just grow my crops right with the help of the collective. I don't have to worry about where am I going to sell my products, DKB has given the platform where I could get the right price," says Patil.





Manuvikasa

Harvesting Prosperity through Farm Ponds

Area of operation: Uttar Kannada



Name of the Organisation	Manuvikasa
Туре	Non-profit Trust
In the Sandbox	Since 2011
Focus areas	All-round development of disadvantaged populations through water harvesting, SRI cultivation, community empowerment and support of SHGs, home based education to the differently abled, support for education and environment preservation
The numbers	530 tanks across 2100 acres benefitting 960 farmers, 250 farmers cultivating through SRI technique, formation of 160 SHGs, micro-credit to the tune of 40 lakhs.

It fit the dictionary definition of the mythical land overflowing with milk and honey: with 81% of total area under thick forest cover, rolling hills, rich biodiversity, bountiful natural springs, yielding terrain and favourable climate, Uttara Kannada, Karnataka's hill district, lent itself inherently to prosperity.

Yet, as a young Ganapathi Bhat discovered during his many NSS trips to volunteer in the thickets of Sirsi and Siddapur in the Western Ghats, the richness of the land did not translate to better living for the local tribes who practised agriculture or depended on valuable but forbidden non-timber forest produce. The fields suffered from erratic rainfall and acute water shortage, seasonal agriculture fetched meagre returns, farmers had little access to markets and the vanishing biodiversity and strict forest laws rendered local tribes helpless.

Many families did not send their children to school; education was a distant second priority when the locals were still struggling to eke a living. "I saw the usual signswidespread migration of men to cities to work as manual labour, struggling landless farmers, non-earning women members and a dysfunctional education system. We wanted to tackle the problem from the roots," reminisces Bhat.

Thus began 'Manuvikasa', an NGO that Bhat started in 2003, at the

age of 21, to work in the Uttara Kannada and Haveri districts and empower local populations to lead a dignified life through environmental development, sustainable agriculture, education and natural resource conservation.

The Genesis: Supporting Women's Groups

Manuvikasa, meaning 'human development', began in Sirsi by providing training and access to micro-credit for women to start small dairy or cattle rearing operations. "The SHG groups were forcing women to sell phenyl and soap and moving them away from traditional occupations like goat herding which they were skilled at," says Bhat. The NGO also held regular meetings to train women on legal education, awareness about their rights and the importance of education, issues close to Bhat's heart. During the course of these meetings. Bhat realised that to even start talking about rights or education, they had to enable the population to earn a sustainable livelihood, and for that, agriculture had to be made viable.

In 2011, Manuvikasa sought help from Desphande Foundation for a seed grant and advice to support a simple innovation that would go on to transform the lives of over 500 small farmers including women in just a year's time: farm ponds.

The Sandbox Story

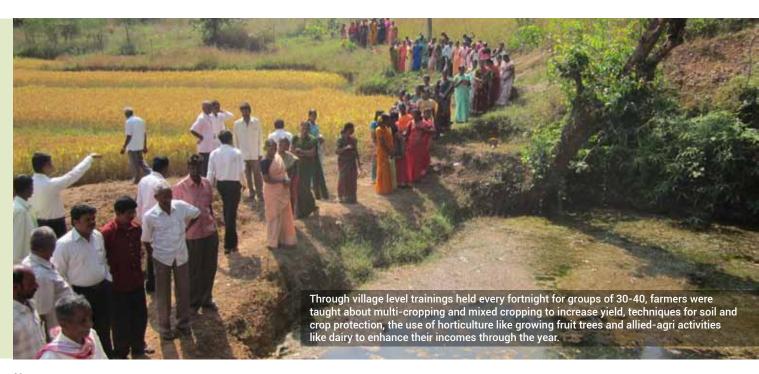
1. Building Farm Ponds For Agri-Development

The First Pond

Bhat found that most traditional farmers in Haveri and Siddapur heavily depended on drying groundwater and wells, when in fact the area was rich in natural springs. After much counselling and convincing of local farmers, the Manuvikasa team started digging tanks on a part of the land: they used water diviners (experts who can detect presence of water by walking over an area) to carry out a thorough assessment followed by building a trench that costed around Rs. 12,000. The tanks stored rainwater which was channeled using the natural undulation of the land. Savings are a huge 40% just from the cost of setting up water pumpsets and the electricity needed to pump water everyday; the enduring value is much higher: stored rainwater that enables farmers to grow multiple crops in a year, more water for the household and animals and groundwater levels that improved dramatically between just 2 monsoon seasons.

Changing The Traditional Farmer Mindset

The first year in operation was an uphill challenge for the Manuvikasa team. "Convincing a farmer to construct a water tank is tough,





because they don't want to waste even an inch of their land," says Bhat. With regular support from the DF team, Manuvikasa developed educational material and distributed it to farmers in the area, got their staff to attend Gram Sabha meetings and talk to the villagers in an effort to popularize the method. A liberal grant from DF with a modest target of 35 tanks over two quarters spurred the team.

Manuvikasa conducted farm visits, used the power of local success stories and spent a lot of time counselling and motivating farmers to shift from old traditional ways of farming to modern methods. A district farmer meet organised with the help of Deshpande Foundation featuring local officials, progressive farmers and DF staff early last year saw over 300 farmers visit from all parts of Karnataka to see the benefits of the method for themselves; adoption almost doubled after.

The First Step Towards Sustainability: Revenue

At the end of the first year, the Manuvikasa team had successfully built 74 tanks, exceeding targets set by 100%. In the second year, the team was encouraged to take on the challenge of constructing 400 tanks, however with Foundation encouragement they decided to bring the cost down of the farm pond. Manuvikasa began toying with an idea to have farmers contribute

upto 60% of the cost. As it turned out, the work of first year had helped establish a strong reputation with the local farmer population; it was relatively easier to convince farmers to pay 40% of Rs. 12,000 for a tank, either from their own pocket, or through NABARD loans that the NGO could help them obtain.

"Moving to a service delivery model also helped us critically think of unit costs. Increased farmer sign-ups helped us negotiate better deals with contractors for the earth digger machine," says Bhat. With advice from DF on pricing, negotiation and cutting costs, Manuvikasa further brought tank building costs down to Rs. 7,000.

Enhanced Incomes Through Allied Activities

Once the tank was installed, the Manuvikasa team started work on capacity building for the farmers. Through village level trainings held every fortnight for groups of 30-40, farmers were taught about multicropping and mixed cropping to increase yield, techniques for soil and crop protection, the use of horticulture like growing fruit trees and allied-agri activities like dairy to enhance their incomes through the year.

In two years, Manuvikasa has constructed over 390 tanks and harvested water in 1500 acres of land. Most farmers have seen atleast 30% increase in their crop yields and many have gone on to grow two crops in a year. "I have a 2 acre land where I grow paddy, ginger, rice, maze, banana and arecanut. After constructing this tank in 2011, I have started to get over 20 guintals per acre of paddy, I even received an award from DF for highest yield," says Basawarai Madival, a small farmer in Siddapur who also started a cow business on the side for extra income during the nonfarm seasons. He has also started following sustainable agriculture methods like proper composting, live fencing, usage of bio pesticides and organic manure besides biogas for energy and slurry for fertilization of land.

As Manuvikasa wondered what they could do to further enhance farmer incomes, a quarterly partnership meet with other non-profits in the Sandbox brought them in contact with AME Foundation, an NGO that was successfully implementing the SRI (System of Rice Intensification) technique in Sirsi, fetching farmer upto 30% increase in yields with a 40% reduction in costs.

"I have a family of 5 and this land is our only source of income. Manuvikasa's water tank has brought my land water throughout the year." – Gauri Laxmanamma



2. SRI Cultivation: Getting More For Less

Partnering With Ame

System of Rice Intensification is an environmentally friendly method of cultivating paddy in a wide 25x25 cm square pattern to keep optimal space for roots and all leaves photosynthetically active. When comparing traditional methods of cultivation with SRI, conventional method gives 2,330 kgs while SRI gives 4,148 kgs of yield per acre with half as much seeds, fertilizer and water input.

With help from scientists at the Krishi Viqyan Kendra, Hubli, Bhat and his team acquainted themselves with the SRI form of cultivation and realised that SRI in fields with pond water recharge could bring vastly improved returns. Manuvikasa partnered with AME Foundation in the Sandbox to take their staff and 25 farmers through a one-day training covering the SRI technique, seed testing and seed treatment. In the months after, AME experts supported every implemention on the ground for over 360 farmers with average land sizes of ½ an acre each in Uttar Kannada and Haveri.

"We can visibly see the difference between the two crops. The SRI crop is 3-4 inches taller now and every bunch of paddy is thicker than before," says Keryamma Keshav,

	Conventional method	SRI method
No: seedlings per clump	4	1
No: tillers per seedling	8.3	55
No: seeds per tiller	114	189z
No: seeds per plant	824	5858
Yield (tonne/Ha)	2.0	7.3

Comparison between SRI and conventional methods

a 45-year-old farmer who opted for the method just 2 months ago and is expecting Rs.32,000 for the same land that was yielding Rs. 14,000 earlier. Bhat says that motivating farmers to try out SRI on small portions of their land before converting entirely helped push adoption numbers.

Bringing Good Produce To The Market

With farmers weaned off chemical fertilizers and pesticides and adopting environmentally sustainable crop growing techniques, a logical next step was reviving indigeneous, hardy varieties of crops like red rice. Manuvikasa collaborated with farmer collective Sahaja Samruddha, another DF grantee, to save heirloom seed varieties. They got over 80 farmers to grow red rice on their farms, premium urban produce that Manuvikasa helped bring to the right markets and platforms. "Going

forward, we want expand our market access service, help these farmers gain access to the right platforms. We hope to grow successfully and share a portion of the profit on the enhanced returns," says Bhat.

3. Human development through livelihoods, preservation and financial inclusion

For Ganapati Bhat, livelihood enhancement was always a means to reach his end objective of educating children and preserving the environment. Self-help groups have been the central fulcrum on which the organisation works to reach out to its community through changing the mindsets of the women – right from saving money and SRI cultivation to convincing them to send their children to school. The NGO has reached over 2200 women farmers to date with access to credit, training and environmentally friendly

"After constructing this tank in 2011, I have started to get over 20 quintals per acre of paddy, I even received an award from DF for highest yield" — Basavaraj Madival, a farmer from Siddapur taluk.

products like solar and smokeless chulhas. A partnership with MicroGraam has provided loans to the tune of 13 lakhs in areas ranging from fisheries to dairy farming.

With almost 100% of the area covered in Siddapur and Yellapur with the help of DF, Manuvikasa is now planning to expand its work in rest of the Sirsi and Uttar Kannada taluka. At the same time. the NGO is planning to deepen its agriculture work further by helping farmers to diversify their crops by consulting with local scientific experts in figuring out the right mix of orchards, crop cultivation and allied activities in the arid region. Thanks to their work in the Sandbox, the organisation has got additional funding through Credibility Alliance, GiveIndia and UNDP.

The significant impact of working with DF can be seen in Manuvikasa's ability to focus on one activity versus trying to sort out every issue. The non-profit has also consciously moved away as much as possible from grant-based funding, wanting to work on its own revenues and through sustained relationships with farmers.

Area of work	Upto 2012	2013
Small tank development	90	530
SRI method in paddy	30	360
Formation of SHG	60	160
Micro-insurance coverage	400	800
Promotion of red rice	0	80
Micro finance to SHGs	5 Lakhs	40 Lakhs

Table: Snapshot of Manuvikasa's work with livelihoods in the last year

Moving forward Bhat and his team are looking at building an integrated model combining farm ponds, SRI cultivation and Horticulture.

The most far-reaching impact of Manuvikasa's work is a sense of self-assurance and a positive belief among the people that they can sustain themselves through their own innate abilities and entrepreneurial spirit. Through helping a farmer in different phases with technical expertise, affordable credit and supervision, the vision of Manuvikasa is to make farming viable and bring prosperity to them through, the farm pond as the just the first step.

"Be it farmers of community women, people are looking to invest in securing their own future. Gazing outwards for charity or subsidies is completely gone. Isn't that what we want when we say human development?" asks Bhat.

Sandbox Snapshot

DF provided seed funding, mentoring and support to create over 530 farm ponds for water harvesting in Sirsi and Siddapur Taluks benefitting 960 farmers.

With DF support and Sandbox partnerships, Manuvikasa implemented the SRI technique increasing farmer yields by 30% and reducing costs by 40% for over 360 farmers.

In the Sandbox, Manuvikasa went from being an idea driven by passionate people to a social enterprise that was able to move away entirely from relying on grants.





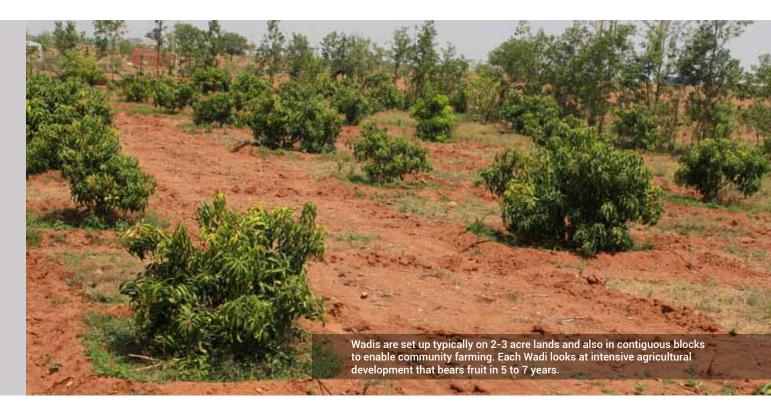
The WADI Program

Transforming the lives of marginal farmers, acre by acre

Area of operation: Haveri



Name of the Organisation	BAIF Development Research Foundation
Туре	Non profit
In the Sandbox	Since 2008
Focus areas	Income generation through horticulture and tree based farming for marginalised and small farmers in Hubli



A visit to Munni's farm located at the fringes of Shiggaon taluk, Haveri district, is proof that even the toughest land can bear fruit one day. Munni's three acre plot, typical of most small farmer land holdings in the area, has rocky mixed red laterite soil which isn't particularly fertile and yields little under the rainfed agricultural systems that most of monsoon-dependent India farms on. In a semi-arid land with less than 400 mm of rainfall, Munni's rocky outcrop, like many others in the area, was declared "waste" or "kharab" land, unfit for cultivation.

That is until BAIF came to the Hubli Sandbox with their 'Wadi' concept, a Gujarati name for an orchard. Begun in 1992 as a solution towards self-reliance and income generation for the tribals of Gujarat, the combined agri-forestryhorticulture program is designed to help small and marginal farmers revitalize degraded lands as small as half an acre. The Wadi program involves shaping of hilly terrains into small plots through contour bunds to facilitate soil and moisture conservation, establishment of drought tolerant fruit crops like mango, cashew, Indian gooseberry, custard apple, etc. as main crops, cultivation of seasonal food crops in the interspace between fruit plants and live fencing through saplings of various plant species useful for food, fodder, timber, fuel and herbal

medicines. Wadis earn about Rs. 8,000 to Rs. 10,000 in the first 5-6 years beyond which the income goes as high as Rs. 50,000 per annum from fruit-bearing trees and crops.

After two years of working hard on her land, 30-year-old Munni now grows 40 flourishing mango trees, vegetables like tomatoes, cowpeas, pumpkins and greens tightly planted in the space between the trees and 300 forest species including teak, acacia, casuarina and silver oak in a live fence that also serves as additional food.

"I wanted to do something with this waste land. My family does not live here and my relatives who tried to take over my land gave up when they saw it. I decided to take charge and see how I could revive it," says Munni. The woman farmer works all day on making sure that her land is well, from preparing compost and neem cakes to trimming her hedges and examining her fruit trees that have grown halfway in the last 2 years.

The Sandbox Story

"Our model was already established in Gujarat and Maharashtra when we came to the Hubli Sandbox. We found many similarities between the challenges of the small farmers in Haveri district who struggled to earn a livelihood out of their one-

acre farms and the impoverished tribals we had worked with earlier," says Gulab Rao Patil from BAIF, who has been working on implementing Wadis in the Sandbox over the last 4 years.

Over and above providing know-how on contextualising the model for Hubli's farmer community and land conditions, Deshpande Foundation also advised the non-profit to take a detailed look at their operating costs per acre of Wadi land and see if there were ways to optimize it further. Early pilots helped BAIF realise that they also needed to think beyond the Wadi itself - on how to establish a community around the model, how to market the produce effectively and how to propel the farmers towards taking complete charge of their land.

1. Tree-based farming for sustainable livelihoods

Wadis are set up typically on 2-3 acre lands and also in contiguous blocks to enable community farming. Each Wadi looks at intensive agricultural development that bears fruit in 5 to 7 years, this being the amount of time that it takes for saplings to bear fruit, for the Wadis to become self-sustained, and for the farmers to have acquired a wider basket of cultivation practices and water management.

In the Sandbox, BAIF implemented the Wadis with a key difference: Wadis typically cost Rs. 25,000 per acre to set up, including material costs, labour and machinery. In Haveri district, BAIF change the model to only provide input material and support in the form of training and expertise; the farmer had to dig his own bunds, plant his own crops and labour on his field. BAIF started working with farmers who believed in the concept and were willing to invest in it provided BAIF could provide them intense technical support over four years. Far from being a disincentive, this model helped increase adoption widely: Working hands-on as a single farmer to transform wastelands helped small farmers feel knowledgable and empowered enough to own their land and also innovate constantly while maintaining it. With a model that they had tried out for the first time in their 2-decade long existence, BAIF and DF brought down Wadi costs to a mere Rs. 7,000 per acre, a whopping 70% reduction in costs.

Given the long-term nature of returns through the Wadi program, BAIF encouraged farmers to explore alternate sources of intermediate income like dairy and livestock farming. Farmers started to dig vermicomposting pits at the borders, for rich compost which they could sell to vegetable growers and landscaping companies.

Finding that the farmers most critically lacked technical expertise and the ability to modify their traditional wisdom for contemporary methods, the non-profit has also started farmer training every quarter, sometimes more frequently at the training centre in Hubli where they were taught how to maintain their wadi, irrigation techniques, composting, water management etc. In order to encourage farmers to participate, BAIF also arranged for regular farm visits where potential Wadi farmers could meet those in the program and see for themselves the results of the agri-forestry-horti combination.

Today, five years later, most farmers have started to reap the fruits of the Wadi program. Farmer incomes have increased to over 1 lakh per annum on an average land size of one-acre.

Girija Vibhutimath opted for a Wadi in 2008 in her 2-acre land where she mostly grows tomatoes and mangoes. She recently received an award of Rs. 5,000 from Deshpande Foundation and was chosen as the best farmer in the Farmer Conference held during Development Dialogue. "The whole program has really helped to get us started. Earlier I cultivated beans and jowar but there was not much harvest and could grow only one crop in a year. Now in Wadi I can grow multiple crops," says Vibutimath, referring to one of the major advantages of the

Wadi system, the intricate spaceoptimised multi-cropping system.

2. Tukdi – Going from single farmer to an empowered producer community

The Wadi program was initially started with a DF grant of Rs.12,000 per acre per farmer, but funding has now trickled down to a meagre Rs. 3000 per acre as the idea has started to show returns and farmers are coming forth to bear upto 75% of the operational costs. The bigger support DF has been providing of late is in helping with monitoring, guiding and providing human resources to reach farmers in farflung areas of Haveri and Gadag district. "Deshpande Foundation also provides technical guidance and advises us on agricultural areas that we need to work on," says Bharat Bhosle, regional head at BAIF.

As the concept is community based, disinterest from one impairs the entire system. Farmers often get impatient, not wanting to wait 3-4 years before they see any sign of returns from the land. "There are times when farmers do not take the project seriously and the Wadi project fails for their land," rues Bhosle.

To establish the larger sense of community, BAIF created 'Wadi Tukdies' – a group of 10-12 farmers based on geographical proximity.





"Tukdi members work together from start to finish – helping each other on their lands, solving local problems, sharing resources and aggregating the final produce for better prices in the market. It also helps ease the co-ordination between us and the Wadi farmers." says Patil, who elaborates that the group model that they implemented with the help of DF has been instrumental in bringing operational efficiency to the program in the Sandbox. BAIF is now looking at forming a federation that can be a single point entity to market the farmers' produce, leaving the cultivators more free time to work on their farms.

BAIF also helps the farmer showcase and market their produce through the many avenues and melas the DF supports in running, from Krishi Melas during the annual Development Dialogue conference to the monthly organic mandis and traditional rice/millet melas in Hubli and Dharwad.

3. Walking the last mile with the farmer

The road from barren land to productive self-employment is sprinkled liberally with challenges that the combined DF and BAIF team work on. Open grazing of cattle is a big threat to young plants in Wadi plots. A stronger fence on the border

has helped some farmers, others use old CDs and shiny objects as scarecrows while many others employ non-toxic, foul odour to keep the animals away. Maintaining a wadi also requires elaborate planning and coordination as seeds, fertilizer and other inputs have to be supplied at the right time in optimum ways.

Despite being community projects, Wadi farmers are a lonely lot, toiling away single-handedly on their one acre plots. "Finding labour is also difficult, no one wants to work in farms these days. I spend a lot of time and effort de-weeding and making my farm pest-resistent," savs Siddiah, a farmer, DF and BAIF staff leave no stone unturned in keeping these farmers motivated - from monthly visits to informal knowledge sharing sessions, quarterly partner meets and the annual Krish melas, the team organises many ways for farmers to connect with others like them and feel the strength of the larger initiative.

The Wadi way forward

The Wadi program has now grown to 747 Wadis and over 1443 acres out of which 176 Wadis were constructed this year alone. Marginal farmers in Haveri have seen a significant increase in their income from the Wadi projects. On

an average a farmer earns a profit of Rs.20,000 annually and some farmers have even managed to net a profit of Rs.65,000 in a year.

"The benefits are tremendous as they have made so much profit out of their waste lands. The wadi intercropping system has helped farmers place millets which ensure food security but are not high paying alongside fruit trees like mango and sapota that fetch much higher returns," says Bhosle.

Yet the Wadi project is more than just improving rural livelihoods, acre by acre, in a sustainable way. It has dimensions of farm production, natural resource management, social mobilisation and economic upliftment. It encourages farmers to aggregate land holdings without giving up ownership, and partake of both successes and failures with their neighbours. And for small holding farmers, this serves as a positive scale-up factor as well as some form of micro-insurance for a bad day.

Secondly, the multi-cropping systems followed in Wadi have brought back traditional practices of growing millets and other ignored crops that play a critical role in environmentally sustainable farming and most importantly, food security for the family.

And thirdly, it spares these remote small farmers the agony of distress migration to the cities to work as daily wage labourers and live in squalor.

But the biggest impact that the Wadi project has brought about is a change in the attitude of farmers towards farming; it has not only given them courage to experiment but has also made entrepreneurs out of land cultivators.

"My relatives are showing renewed interest in my land now, but I am not budging," says a determined Munni. The spunky Shiggaon farmer even politely refused an installation of a windmill on her plot that would fetch her some extra revenue. "I have turned around this barren land to produce fruits, vegetables and crops of all kinds in the last two years. Why would I give up even a sq.ft of this work to anyone?"

Sandbox Snapshot

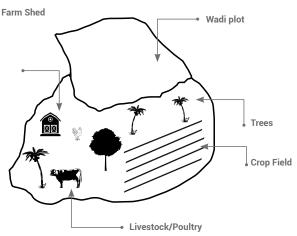
BAIF came into the Sandbox in 2008 in order to replicate the Wadi model from Gujarat and Maharashtra. With the help of DF, BAIF made changes in the Wadi model to focus on input material and extensive training. The process empowered small, marginal farmers to take complete ownership of the land and brought down costs by a whopping 70%.

The Wadi program has now grown to 747 Wadis and over 1443 acres out of which 176 Wadis were constructed this year alone. Marginal farmers in Haveri have seen a significant increase in their income profits of Rs.20,000 on an average and some as high as Rs. 65,000 in a year.

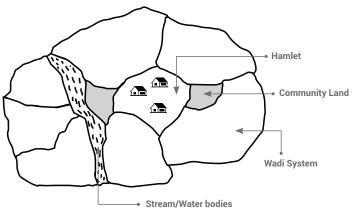
What is a Wadi?

The Wadi involves shaping of hilly terrains into small plots through contour bunds to facilitate soil and moisture conservation, establishment of drought tolerant fruit crops like mango, cashew, Indian gooseberry, custard apple, etc. as main crops, cultivation of seasonal food crops in the interspace between fruit plants

A typical Wadi plot



Portion of a Wadi cluster



and live fencing through saplings of various plant species useful for food, fodder, timber, fuel and herbal medicines. Wadis earn about Rs. 8,000 to Rs. 10,000 in the first 5-6 years beyond which the income can go above Rs. 50,000 per annum from fruitbearing trees and crops.





Grameena Coolie Karmikara Sanghathane

Empowering Karnataka's Informal Workers

Area of operation: Dharwad, Belgaum, Gadag, Haveri.



Name of the Organisation	Grameena Kooli Karmikara Sanghatane (Grakoos)
Туре	Registered Union
In The Sandbox	Since 2010
Focus areas	Education and empowerment of informal workers.

On 15th March 2013, over 3,800 workers from 18 districts of Karnataka assembled in Bangalore to appeal for proper implementation of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) scheme. Launched in 2006 with an objective of providing guaranteed employment for 100 days in a year, the workers declared that the officials were not responding well and implementation of the scheme was ineffective.

This was the first workers' rally of this magnitude ever held in Karnataka, organised by the Grameena Coolie Karmikara Sanghathane (GraKooS), a union of over 35,000-40,000 rural workers in Karnataka.

"Implementation of employment and other social welfare schemes has been very poor at the grassroots. While the Govt. holds accountability for delivery of schemes, we found that unorganised workers are largely ill-informed and do not even know what their entitlements are. We wanted workers to be well informed and be able to negotiate constructively with govt. officials for what is due to them. For worker empowerment, we need to leverage the power of collective negotiation and for that we need to be organised. This is what led to the formation of Grakoos as an unorganised workers' collective", says Sharada Gopal, a social activist in Belgaum with over 25 years experience in mobilizing people and one of the founding members of the Rural Workers Union formed in 2007 to highlight issues, challenges and condition of the informal workers in Karnataka.

The Genesis: Poor Delivery of Social Welfare Schemes

Karnataka has over one lakh workers in the informal economy who contribute a significant percentage to the GDP of the State while being at the receiving end of poor infrastructure and poor delivery of essential services and social security. The Trade Union model has been largely unsuccessful in making efforts at organizing the workforce. It is here that the Grameena Koolie Graharakara Sanghatane (Grakoos) collective strives to make a difference.

Premised on the belief that worker education and training can make a significant difference to worker empowerment, Grakoos, established as a Union of rural unorganized workers in Karnataka in 2010, focuses entirely on building worker awareness and providing last mile support to the community until effective service delivery is assured. Using a clever combination of entrepreneurship that evolves strategies to ensure long term

worker self-sustenance and activism that brings the collective voice over causes together through regular demonstrations, Grakoos has departed from the traditional Trade Union format of protests as the single mechanism to demand service accountability or voice grievances.

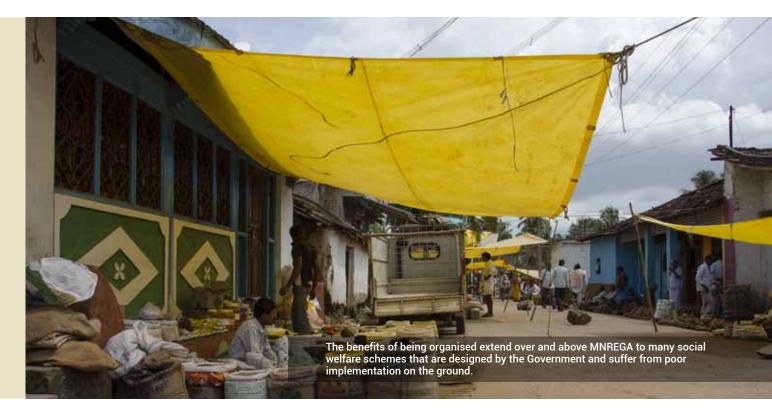
"Now that workers know their rights, can work with the govt. and know their way around the system, the next step is to take the plunge and clean up the system ourselves. We are preparing people now to contest the next local Panchayat elections." – Sharada Gopal, founder, Grakoos

The Sandbox Story

A 2012 CAG audit of MNREGA implementation across India between 2007 and 2013 revealed several irregularities for Karnataka: from issuing of job cards without proper survey of households to identifying persons to irregularities in utilisation of scheme funds and unauthorised administrative expenses.

"Nobody was getting a job here in Belgaum district," says Gopal. "The Government of India has introduced





many schemes for employment, infrastructure and amenities to better the standard of living in rural India. However, the implementation of these schemes has not seen much success due to lack of enthusiasm, initiative and corruption in the decentralised system of governance."

Starting with an effort to provide workers with access to livelihood through the MNREGA scheme, Grakoos entered the Sandbox in 2010 seeking support to set up a centre where they could train and educate workers.

Worker Training and Outreach

Grakoos began its operations through a large, district wide outreach to get workers to sign up to a training program designed to explain the intricacies of the working of the Govt. administrative system and create awareness about the various schemes that workers are entitled to. Through a network of over 60 grassroot NGOs and 200 volunteers who went door to door, workers were mobilised from different parts of the State. A Deshpande Foundation grant helped rent a space to conduct trainings, held between harvest seasons as most members are landless farmers and days off would mean a decrease in their already meagre earnings.

The idea was to empower and motivate the workers enough for them to visit the neighbouring taluk offices and hold a dialogue with concerned officials to enquire about their jobs and rights.

Trained workers in turn raised awareness among their families - through its training programs, Grakoos has managed to reach and educate over 1 lakh families in the last three years in the Sandbox. "The community is being built as more and more people are becoming part of the collective. The change will only take place when we are aware of the policies. It may be just one farmer attending the meetings and trainings from each family, but she teaches all other members and there is a ripple effect," shares Saraswati, who regularly attends Grakoos meetings in Bijapur.

Events to Create Awareness and Action

Grakoos has a unit in every Taluka where an executive committee makes decisions on selecting members, work to be done (protests, rallies, dialogue) and the strategy to be adopted. All the expenses are borne by the respective Taluka unit through a membership fee collected that totals to a wage-earner's one-day wage, Rs. 174. The Union also keeps a close track on the state of their members – wages earned,

number who got the MNREGA job card, number of days they got work, schemes they availed of, and so on, in tune with the impact on delivery that they measure.

Regular events help engage the workers and also feel part of a larger community that has gathered together for a common cause. "The best way to keep the people motivated on an ongoing bases is through rallies," says Gopal. Grakoos has organized many dharnas and rallies in front of taluk panchayats whenever there was a delay or neglect in payment to the labourers. "The most favourable time to train workers is on the day of rallies as they take time off to work for a problem that is critical to their lives and livelihoods," says Gopal.

"We worked for three months at a stretch under MNREGA and didn't get any payment. We got in touch with Grakoos and they helped us to

"We worked for three months at a stretch under MNREGA and didn't get any payment. We got in touch with Grakoos and they helped us to organise a big rally. After multiple efforts we received the due amount." – Akkamma, a construction labourer.



organise a big rally. After multiple efforts we received the due amount," says Akkamma, a construction labour in Haveri.

Grakoos has over 200 volunteers and 18 employees who organize meetings every fortnight to discuss worker problems and come up with possible solutions. Gopal also feels that the moment workers get to interact with govt. officials, it changes their orientation towards the Govt. "We can only enable them to fight their fight. People should start participating in the governance process and this is what we seek to facilitate," she says.

A significant change in the evolution of Grakoos in the Sandbox has been in establishing a model that will keep them self-sustained. Grakoos obtained funding from DF over the last three years to run its operations but is now completely selfsufficient. Vast worker outreach and training, regular events and rallies and the positive change brought about due to mobilisation has helped bring more workers into the network who are willing to pay the annual fee of Rs. 174. "Last year in Khanapur taluk alone, according to our books, workers were able to earn an income of about Rs. 70,000,00 from getting access to livelihood schemes," says Gopal.

The Impact: Worker Empowerment In Karnataka

As on date Grakoos has a membership of more than 70,000 workers and another 40,000 in the process of becoming members from 14 districts of Karnataka - Bidar, Gulbarga, Raichur, Koppal, Bellary, Bagalkot, Davangere, Gadag, Haveri, Dharwad, Belgaum, Tumkur, Kolar and Chikbalapur, making it by far the biggest and most engaged informal worker group. The critical mass has ensured that the Govt. pays attention to the group at all times and is able to engage constructively with the workers to arrive at mutually beneficial solutions.

The benefits to the workers have been multifold, over and above just MNREGA implementation. Grakoos has been able to mobilize workers around various other services including PDS, housing schemes, rights of SC/ST people, access to medical care etc.

Grakoos is a noteworthy attempt at mobilising workers to bring about tangible action in grassroot service delivery. Grakoos has managed to create a broad-based social alliance of unorganised workers forcing the State to recognise their specific identities, acknowledge their contribution to the economy and society and deliver services to them.

Much like other successful worker coalitions, Grakoos is also moving away from being just an efficient service provider to being movement aiming at political empowerment that stems from the grassroots. "Now that workers know their rights, can work with the govt. and know their way around the system, the next step is to take the plunge and clean up the system ourselves. We are preparing people now to contest the next local Panchayat elections," ends Gopal.

Sandbox Snapshot

A Deshpande Foundation grant enabled the collective to rent premises, hold trainings and conduct operations of Grakoos. Over 3 years, Grakoos has become self-sustainable through farmer sign-ups made possible by multiple partnerships with grassroot NGOs in the Sandbox.



ES Ramamurthy, Sikshana

'Every child has the ability to learn well'

Towards the end of a distinguished 30-year career in the renewable energy industry, ES Ramamurthy was touring remote rural areas on work with the Govt. of India and UN agencies, when he came in close contact with rural schools and the state of the public education system in India. The exposure resulted in him quitting at the peak of his career to start Sikshana in 2001 as a small intervention program, working in partnership with the Government and looking to improve the quality of education delivered in public schools.

Today, Sikshana's facilitation programs reach over 200,000 children across the 3 states of Karnataka, Gujarat and Andhra Pradesh, 11 districts and 22 taluks. The programs have led to soaring attendance rates, significant improvement in learning levels and pass percentages of schools and more importantly, a huge increase in interest for learning among parents, teachers and the children themselves.

ES Ramamurthy, founder of Sikshana, shares his learnings on rural education that have shaped the organisation's journey over the last 12 years.





On the role of education in social transformation

My field visits as a renewable energy professional placed me in first hand contact with the aspirations of swathes of disempowered rural populations. It did not take long for me to realize how vital a tool education is in getting a generation of people out of poverty. There were many NGOs working on education in Karnataka, but I felt that more out-of-the-box solutions were needed to solve the problem.

I then looked at the distribution of children in schools – out of 46421 schools in Karnataka, only 4135 are in the private sector amounting to a meager 9%. Private schools account for less than 15% in the State. As for enrollment, the total strength of students is 74.57 lakhs of which 20.77 lakhs are in the private stream, working out to 28%.

The reality is that 85% of our kids go to public schools and that is where one has to start if one wants to work on education.

It is a popular misconception that all Govt. schools are of poor quality

The entire notion of public schools being sub-standard and private schools being result-oriented is a myth.

There is no statistical proof to show that kids are fare better in private schools. All our academic studies indicate that there is only one difference between private and government schools - the quality of students enrolled. Private schools are selective about intake, their students have been raised in better environments, their parents are

educated and hence, it is obvious that they perform better. If you place these students in a government school, they will perform on par with any private school.

It is our education system that needs an overhaul – we have seen that most teachers in govt. schools are sincere, and the students and government, very supportive. We operate in about 1100 schools in Karnataka now and all these schools have been performing exceptionally well

Last year, Sikshana adopted
Government High Schools in
Ramanagara district and Kalghatagi
taluk have produced exemplary
results in the 10th standard
State Board (SSLC) Examination.
Ramanagara district has moved
to 8th position this year among all
districts. Prior to Sikshana entering
the district in 2011 it was ranked 6th
and moved up to 9th position after
1st year intervention in 2012-13.
Sikshana schools in Kalghatagi taluk
have registered an overwhelming
93.1% pass percentage.

Every empowered child can learn well

We have traditionally always paid attention to the amount of education imparted, books and syllabus. We have never asked a child how he wishes to study. As a result, every child wants to become an engineer, lawyer, doctor, or police - not one wants to take up farming or enter the development sector. Our children have always been taught to answer, never to question. There are around 40,000 schools in Karnataka and these schools are producing students who have no idea what they want to do.

Hence the only thing we do at Sikshana is to look at everything from the point of view of the children – we use common sense, experiment a bit, get a little creative, and that is adequate trigger for children to start finding education interesting.

We believe in giving children challenges rather than meting out punishments. A group of 30 exceptionally 'dull' students was once sent to me. I told them that they had 2 options - to do nothing and prove that the Headmaster and the teachers were right; or to treat this as a challenge, follow my advice during the remaining days which would involve considerable additional effort – but get a chance to prove them wrong. The children agreed to go through the drill over the next few weeks, they did overtime of 2-3 hours after normal school for weak subjects, started writing one model paper a day; and went through special coaching sessions and counselling with mentors. When the results came, it was not a surprise that all the students except one had passed!

An interest in learning is the only way to keep a child in school

No school can be responsible for its dropouts. We have seen a decrease in dropout rate from 8.35 to 3.65 in 31 schools, all thanks to one thing interest. Today, we worry about what a child should do after he passes the 10th Std. The worry should not be ours but the child's. Every child is intelligent and we simply need to trigger that interest into something productive. Most people today study what they do - BSc Physics or Engineering and so on to be a part of the rat race, seldom understanding or being interested in what they do.



The Indian education system has to get its priorities right

Students are the same everywhere - they have similar doubts, issues and challenges. The only difference I see is in the way the administration implements education. The education system of Finland is considered to be the best in the world. USA stands somewhere at 22,

and we are at the bottom. In 1990, Finland was nowhere in the scene, then they decided to change the situation and started taking small steps towards development of this sector.



Here is my understanding of what has worked for them:

- 1. A compulsory 9 year basic schooling once the child becomes 7 years old. Every child gets the time to grow into his own pace and develops an interest in studying. Today it is widely recognized that the six-year primary school experience provides the cornerstone for high quality education for all Finnish citizens.
- 2. Teachers enjoy great respect in Finnish society. Parents trust teachers as professionals who know what is best for their children. If we are serious about changing the education system of India, we cannot treat teachers the way we do now we need a lot more incentives to support them.
- 3. Traditionally, evaluation of student outcomes has been the responsibility of each Finnish teacher and school. The only standardized, high-stakes assessment is the Matriculation Examination at the end of general upper secondary school. Primary school is essentially 'test-free.'
- 4. There is a culture of trust in the system - education authorities and political leaders believe that teachers, together with principals, parents and their communities, know how to provide the best possible education for their children and youth.
- Education reform and development in Finland has been based on the continual adjustment of schooling to the changing needs of individuals and society.

Our impact

Sikshana has just completed its third year of intervention in High Schools. During the first in 10-11, the program was run as a pilot in 34 schools in Kanakapura. In 11-12, it was extended to cover all 105 schools in Ramanagaram District besides Kalghatgi Taluk in Dharwad. With a pass rate of 84.5%, we were able to take RN from the 26th position in the State to 9th among 34 Districts.

The results reiterate the faith in our model and also our core belief that every child has the ability to learn. We attribute this success to all the children, teachers and our mentors.

The one thing we have been working rigorously towards is to get the Government on board as a partner. This is key to scaling the Sikshana model widely among Govt. schools.



Ramji Raghavan, Agastya Foundation

'What we have demonstrated is that creative learning for the poor is achievable'



When PK Iyengar, former head of the Atomic Energy Commission, commented that 'India has had great success in creating eminent scientists in its middle and higher classes, but it has somehow failed to disseminate a scientific temper among the masses,' it sparked off a thought in Ramji Raghavan's head, an idea that would later go on to become the world's largest hands-on science program for underprivileged children in rural India – Agastya.

Looking to spark curiosity and nurture the spirit of wonder and enquiry among children through non-didactic, interactive ways, Ramji Raghavan left a career in commercial finance in London to start Agastya International Foundation. The organization sought ways to take children out of the monotony of theory in classrooms to experiment with science in way that gripped their imagination and led them to ask questions.

Today, through 75 mobile science vans, 29 satellite science centers and a 170-acre creativity lab at Kuppam in Andhra Pradesh, besides annual science fairs, several in-school initiatives like the lab-in-a-box program, the Young Instructor Leader program and weekly 'experiment' classes, Agastya has been able to take hands-on science education to nearly 5 million disadvantaged children and 150,000 teachers in 10 States in India.

Ramji Raghavan talks about what worked for Agastya in bringing its fun science program to the rural doorstep:

How did your journey as a social entrepreneur start with Agastya?

The magnetic compass made Einstein believe that there must be an invisible force, he subsequently dedicated his entire life to try and find it. When I was a student at Rishi Valley, I read a book which got me completely fascinated with this fictional place called Shangri la. I wanted to live in a place like that and develop leaders who could transform India. I studied economics, graduated with a business degree from London and went on to spend 20 years with an MNC bank in India and other places before the idealist thought of transforming education at the grassroots started crossing my mind. A series of discussions with scientists, school and college students, industry practitioners, many of whom partner with us today, brought up the lack of 'creativity'. What you see in Agastya today has been a simple effort to unlock the hidden potential of thousands

of disadvantaged children in rural India through a powerful tool – fun, experiential science.

How did scale happen for Agastya, from science-in-a-van to the 172-acre creativity lab in tier-2 and tier-3 towns of Karnataka?

The secret behind our success has been collaborating with the Government. The Govt. of Karnataka's Sarva Siksha Abhiyan program took interest in our work and offered us funding to handle our operating expenses. They also provided infrastructure and other support to scale our program and launch another 15 mobile labs and 13 science centers. Agastya's coverage this year will increase to 24 educational districts (out of a total of 33) and its target audience will increase to nearly 9 million children in Karnataka. The number of mobile labs and science centers across Agastya will increase to 49 and 28.

You talk about going from yes to why - sparking curiosity in children, getting them to 'do' what they are looking to learn. How can our current education system look at creativity while not compromising on scale?

Across India, our curriculum and educational material is superlative. The question therefore is one of how — what methods can be used to make this syllabus come alive in the classroom? We believe that children learn best when they are shown something. I teach in my classes using visuals, models and demos. And that is when the shift from yes to why happens. When students enjoy what they are learning, they automatically start asking questions.

What we need now is not a change in syllabus in our schools but an extension to include interesting ways to deliver it. We believe in giving teachers the freedom to experiment with their work and students an environment where they are encouraged to question.

Teachers, educators, employees
- how do they stay motivated,
interested and engaged in learning
when at Agastya? How has the
Agastya culture and love for science
percolated through the organisation?

We have made sure that we work with people who have the most important degree we need - BEE-Bachelors in Energy and Enthusiasm! We have professional instructors and trainers who train our teachers according to the requirements of the project. We have a Science Teacher Network that helps teachers stay constantly in touch with each other and exchange know-hows and classroom experiences.

Our mobile labs and science centres are very interactive. They are not about "what" but about "why". From NGOs on the ground to eminent scientists, engineers, educators, foundations and schools, we have a committed set of organisations that are working with us to make our education program a success.



Working with the Government as strong supporters and partners - how does Agastya make this relationship work?

Initially in our case, the government made the first move. They read about us and our mobile vans in newspapers and called us and evinced interest in working with us. It took a couple of years for the partnership to fructify but gradually it fell into place through regular interactions.

There is no magic formula to engage with the Government - sometimes it just works and sometimes it doesn't. The government is always looking for sustainable projects they can partner with to deliver essential services on the ground and once they build trust in the work you do, the possibilities of partnering start to evolve.

Going by the theme of Development Dialogues this year of "Counting That Matters", what has made it count for you?

Agastya has been an exhilarating journey. Every entrepreneur's project starts with a blank sheet and he then works, bit by bit, to make his dream come alive. It has been a very exciting journey, personally, intellectually and spiritually. The fact that you are working with people

from all walks of life - rich, poor, urban, rural, English speaking, non-English speaking, from across India and the world makes it a hugely diverse experience.

Solving problems that have existed in society since forever by challenging status quo while tackling every hurdle and innovating at every turn is what keeps us all going.



Deshpande Foundation The Grantmaking Program

We believe a transformational idea has a higher chance of success when it is implemented with entrepreneurial rigour and is supported by an enabling environment.

Over **90** partnerships in **5** years impacting **1.15** Million Lives

30000

people outreached through Improved Public health system, low cost intensive care and use of technology

50000

Farmers improved productivity using; SRI technology and low cost wasteland and water harvesting models

Wellbeing & Health

Access to **Quality Education**

Improving

Agricultural Practices &

Natural Management

Enhancing **Livelihoods**

Over One Million
children accessing
quality education through
improved public education
system, and creating
nurturing ecosystem for
learning

24000 people
gained enhanced
higher income with
employability skills;
improved production
value chain & access to
finance

Contact

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