



**MILLENNIUM
ALLIANCE**
Inspiring Innovation. Sharing Solutions.

MILLENNIUM ALLIANCE AWARDED ENTERPRISES

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FOREWARD



Millennium Alliance (MA) is an innovative platform which is increasing visibility and understanding of Indian social enterprises. In the past five rounds, Millennium Alliance has proved itself as a more assertive and coordinated social enterprise platform, forging diverse and inclusive representations of partners that make it possible to take advantage of synergies, while promoting social enterprises and mutual learning.

MA now after five rounds with 114 proven and scaled innovations has marked its presence in 11 countries and is impacting lives of 07 million BoP across the sectors and regions globally. MA is well poised to voice and support a stronger place for social enterprises in public policy and actions at all levels including its possible inclusion in various government policies, programs and schemes to maximize its benefit at the last mile.

MA's endeavor here is to augment support for social enterprises, as they are driving economic growth while achieving the Sustainable Development Goals. The MA has also taken a leading role in encouraging global cooperation in social enterprise support, by acting as an innovation technology donor and a market convener by fostering knowledge exchange.

MA strongly feel that public funding should continue to be directed to early-stage social enterprises and also be used to mobilize private capital, through investments and de-risking of social enterprise funding. The MA platform as a program has been addressing the concerns of capacity building, financing, networking and mentoring needs of social enterprises. I urge you all to take a look at the entire portfolio of MA in this booklet and contribute to the creation of social good and extend help for impacting lives at the mile.



Nirankar Saxena

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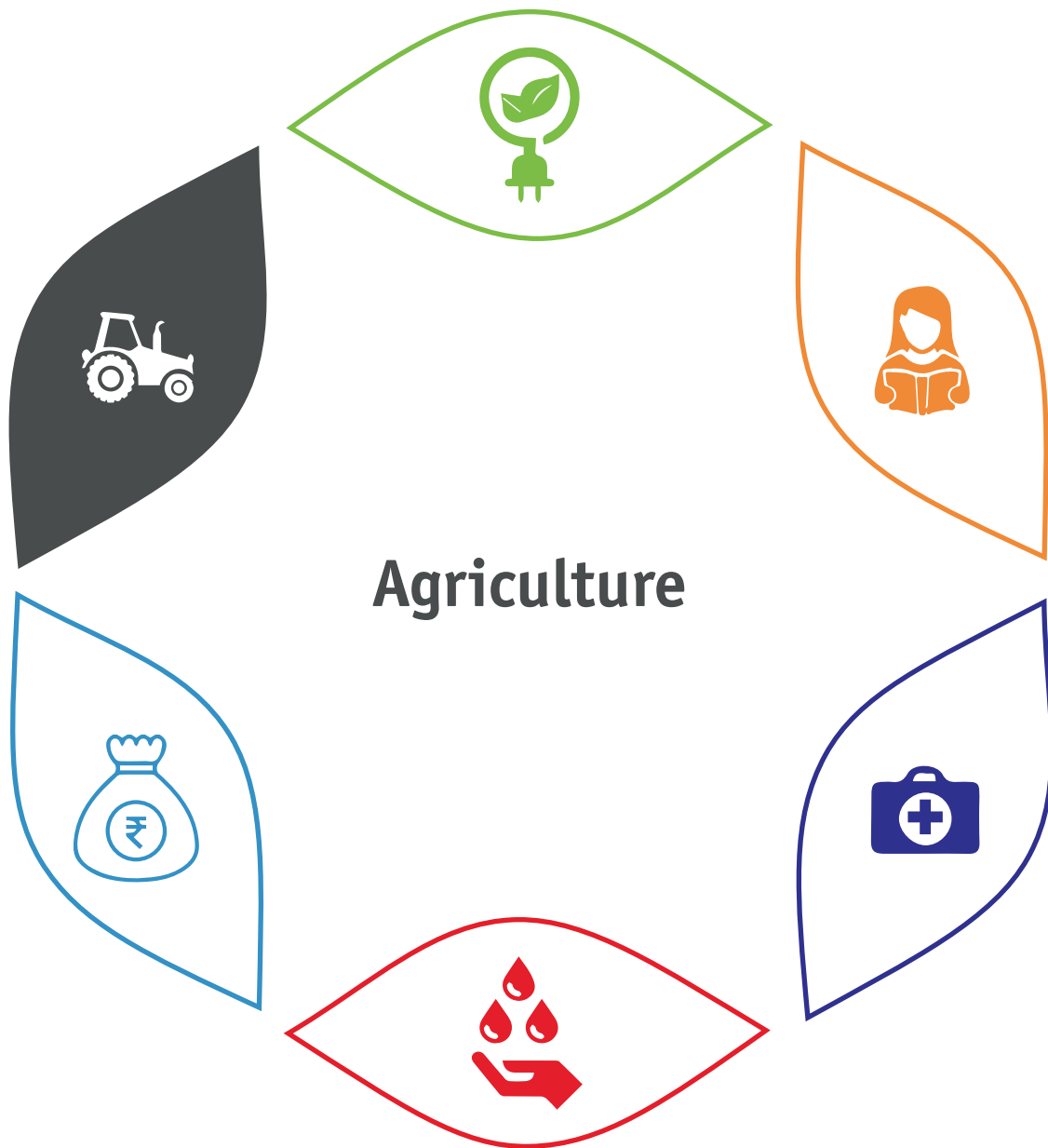
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A J Imports & Exports

Founder: Mr. Anant Chaturvedi

Type of Organization: For Profit

Address: Flat No. 302, Radiance Town, 7/119, Swaroop Nagar, Kanpur-208002

Project Location: Kanpur, Uttar Pradesh

MA support in INR: 10,00,000

MA support period: June 2018 to March 2019

Innovator Profile

Anant was working with various social groups and independent farmers to understand the problems plaguing Rural India. It was through these experiences that he recognized the potential for a revolutionary new tool, called the scythe, hitherto unknown in India. He collaborated with International Experts to develop and promote scythes throughout India. His background as an industrial engineer helped him set up a facility for production of scythes. Since then, he has visited more than 150 different villages across 15 different states for training and awareness programs, with special emphasis on small and marginal farmers. His constant efforts have now brought the scythe to the notice of national as well as international audiences and he hopes to take it to millions of small farmers and make a meaningful impact in their lives.

Challenge

In India, Agriculture still employs more than 59% of our workforce, a whopping 180-200 million families. 80% of farmers in India are considered "Small" or "Marginal" and the crop has been harvested by sickle for centuries, which is slow and arduous task, which has been exacerbated by rising costs of labour at harvest time. and has led to unviability of the farming practice as a whole. A combination of the above factors has increased the dependence of farmers on mechanized harvesters, which come with their own set of challenges like rising carbon emissions, the problem of "straw burning" and social evils like rising unemployment and rural-urban migration. Therefore, increasing the productivity of the harvest along with maintaining the delicate ecological and social balance of our villages is the need of the hour.

Scythe Project in India (SPII)

Their innovation Scythe stands out as a very promising solution to the challenges faced by the farmers who have been harvesting the crops by sickle for centuries. Using a scythe would make it possible for crops to be harvested in one-tenth of the time. Both men and women can wield the scythe with considerable ease. And being completely manually operated it has no risks of emissions and pollution.

Target Beneficiary

Small and Marginal Farmers (almost 200 million families)

Potential Impact due to Intervention

- Substantial savings in harvesting costs leading to a viable and vibrant farm sector
- Dependence on fuel based machines reduces; a culture of skilled and self-reliant farmers is nurtured
- Cheaper fodder boosts cattle rearing; gives strong impetus to dairy farming
- Problem of "Straw Burning" is solved; ecological balance is restored
- Male Participation in harvesting increases; Drudgery on female farmers reduces

These factors pave the way for a Nationwide Success Story with Zero Carbon Footprint!



Co-Founder: Mr. Sathya Raghu V. Mokkapati

Type of Organization: For-Profit

Address: Plot 200, 2nd Cross, Rocktown Colony, Hyderabad 500068

Project Location: Medchal District, Telangana

MA support in INR: 30,00,000

MA support period: April 2018 to March 2019

Innovator Profile

Kheyti's founding team has spent the last decade of their lives building scalable, sustainable social enterprises in rural India. Kaushik & Saumya were part of the leadership team of B-ABLE, the first NSDC supported vocational training company which trains and places more than 50,000 students every year. Sathya and Ayush spent 5 years building Cosmos Green, a agriculture company that has supported 8000 farmers till date. In 2015, these 2 teams came together because of their passion to revolutionize smallholder agriculture and started Kheyti. They have won many awards for their work and have been covered by NatGeo, Outlook, FastCo, and Forbes.

Challenge

100 Million small farmers in India have extreme income variability and lose money on average from agriculture. The largest reason for this is climate risk and climate change. Farmers lose \$500B yearly from pest attacks. Yields have been found to be dropping by 10% annually due to increasing heat. In 2015 8M farmers lost entire incomes due to one unseasonal rain. 75% of farmers want to quit farming because of this variability. This is now a crisis that affects everyone.

Greenhouse-in-a-Box

They turn small farmers into climate resilient smart farmers through the Greenhouse-in-a-Box (GIB), a low-cost, small-sized greenhouse bundled with services.

The GIB helps farmers grow 7x food using 10% water, increasing water efficiency at least 50x. It uses netting to cut pests by 90% and shading to reduce heat and extend growing season. Most importantly, it cuts out the risks of climate, ensuring that farmers earn steady incomes. They make the GIB affordable by partnering with banks & getting farmers low-cost loans. They help farmers grow more by providing input linkages, training & extension. They help farmers get the best price by partnering with supermarkets. All of this creates a seamless path out of poverty. Their farmers earn assured incomes of Rs. 4K-6K/month, a 100% increase in income using just 2% land.

Target Beneficiary

Small and Marginal Farmers

Potential Impact due to Intervention

Kheyti's farmers work daily for one hour in their greenhouse to grow 700kg of vegetable monthly. For every kg, they use 50x less water. They avail our market services and make a profit of Rs. 4000-6000 monthly, a 100% increase over traditional cultivation. Over the 15-year life, a Kheyti farmer family earns Rs. 15 lakhs of additional income which they can invest in education, healthcare and sanitation.



SoilSens

Founder: Dr. Rajul Patkar

Type of Organization: For Profit

Address: SINE, CSRE Building, IIT Bombay, Powai, Mumbai -400076

Project Location: Maharashtra

MA support in INR: 30,00,000

MA support period: June 2018 to Dec 2019

Innovator Profile

When they started their journey of PhD, they were looking to solve some real world problems which can create a huge social impact. A common deliberation and literature survey showed that, major chunk of the problems in agriculture can be solved by technologies and thus their journey of research, development and entrepreneurship started. With the motivation to bring affordable technologies in agriculture, they came together and registered under entity Proximal soilsens technologies and they are hopeful that they will be known for affordable and impactful technologies in agriculture.

Challenge

Reduce wastage of water in agriculture and make it sustainable

“Affordable in-house developed system for precise irrigation”

SoilSens has developed a low cost, accurate soil monitoring system with easy calibration, which can be used for precise irrigation. The disadvantage of commercially available products are high cost due to imported sensors, lack of service support and need for extensive calibration using commercial high cost instruments.

Target Beneficiary

Farmers

Potential Impact due to Intervention

Saving in water. Agriculture becomes profitable and sustainable.



Sundarban Coop Milk & Livestock Producers Union

Managing Director: Dr. Ambika Prasad Mishra

Type of Organization: Not for Profit

Address: Sundarini Dairy, Vill.- Bangshidharpur, PO- Ramakantanagar, PS- Mandirbazar, Dist.- South 24 Parganas, PIN- 743395

Project Location: South 24 Parganas, West Bengal

MA support in INR: 25,00,000

MA support period: April 2018 to March 2021

Innovator Profile

The innovator is a Veterinarian and employee of Animal Resource Development Department, Govt. of West Bengal. Active involvement and guidance from National Dairy Development Board for preparation of road-map, help from District Administration, intensive awareness, field motivation, establishment of absolute transparency in the system, support to farmers in production and marketing, branding and engagement of a group of young, motivated team helped a lot towards the journey.

Challenge

In organic farming cost of production is high, so initially there may be problems in the market. But intensive consumer awareness about the value of consuming organic products will minimize the market risks. Therefore there is risk of mixing hazardous chemicals from surroundings in this project. If the marketing of the organic products is not done well either due to breach in the integrity of the value chain or higher selling price there may be chance of financial risks. There are challenges due to difficult geographical terrain, and natural calamity.

Women empowerment through organic milk & livestock coop

This is the 1st initiative of organized procurement and marketing system through organic milk and livestock producers' co-operative in West Bengal and India by involving small and marginal women farmers of Sundarban. For the 1st time in West Bengal 100% payment to its producer-members will be given directly through individual bank account for their produces like milk, eggs, honey etc. after village level testing, grading in transparent and fair means. Campaigns would be done for creating awareness and skill development of farmers, on organic and sustainable livestock farming keeping the soil alive in an ecologically challenged area like Sundarban. This initiative will ensure good food and nutrition free from chemical hazards to the future generation of the farmers.

Target Beneficiary

- a. Around 5,000 economically challenged women farmers from 50 villages in South 24 Parganas.
- b. Majorly from SC/ST community.

Potential Impact due to Intervention

- a. Employment and livelihood generation of small, marginal women farmers through organic farming.
- b. Restoration of soil fertility and health of environment particularly in ecologically challenged Sundarban area.
- c. Availability of hygienic and good food to farmers and consumers by limited use of chemical drugs to meet guidelines of organic livestock farming.



Janta Meals

CEO: Mr. Jesse van de Zand

Type of Organization: For Profit

Address: #36 Kachnar Road, DLF Phase I, Gurugram, 122002 Haryana, India

Project Location: Nairobi, Kenya

MA support in INR: 1,86,14,556

MA support period: August 2018 to July 2020

Innovator Profile

Janta Meals was started in 2013 by Jesse van de Zand and Prabhat Agarwal, supported by Enviu.

Jesse had been educated as a lawyer and been practicing law for four years before moving to Enviu as venture developer. At Enviu, Jesse was taking care of their projects and research in India. Loving how vibrant the country is, and learning about its needs and business opportunities, Jesse decided to start his own social enterprise in India.

Prabhat is an experienced IT entrepreneur who exited his ventures around 2005 and became philanthropist and impact investor. After meeting Jesse early 2013, jointly they developed the idea of Janta Meals.

In 2013 itself, Jesse started the first outlet in Sikanderpur, Gurgaon. Soon this became a success, after which in 2014 the company raised seed capital with which it built 10 outlets. In 2015 it grew further to 25 outlets and 10 clients, leading to its break-even.

However, the growth was realized by outsourcing the cooking. While this initially worked, soon enough issues in the supply chain arose. Janta Meals scaled down its operations in 2016. In 2018, it secured new funding, as a result of which it can set up its supply chain and grow back to 6-10 outlets initially and 25 eventually.

Janta by now has served over 11 million healthy, tasty, sanitary meals to low-income families.

Challenge

Similar to India, malnutrition and shortages of micronutrients (vitamins, minerals) and protein are key to many health problems in Kenya. E.g. one in three Kenyan children suffer from chronic undernutrition resulting in stunting, meaning their development is permanently impaired.

The contribution of non-home prepared foods to daily energy intake is significant and ranges from 13% for children in the slum to 36% for men in the low-middle-income area. The majority of low-income families eat meals from street vendors at least once per week.

In Kenya's urban areas, access to healthy, hygienic, affordable meals is very scarce. Local vendors in Kenya's informal settlements struggle to maintain food safety at acceptable levels. Amongst other problems, refrigeration is rare, many water taps are contaminated or far away and quality control on ingredients is non-existent.

A study from the Kenya Medical Research Institute and JKUAT found that over 1 in 3 food samples from street vendors were contaminated with various disease-causing germs. Furthermore they contain lots of fats and salts, but lack micronutrients making the nutritious value substandard.

At the same time in the same region 40% of fruit- and vegetable production in Kenya is lost for human consumption through inefficiencies in the food value chain.

Replicating Janta Meals to Kenya

Janta Meals has been unique in focusing on both health, hygiene and affordability, forcing itself to adopt high quality standards and a highly controlled distribution chain. By building scale through a franchise program, Janta is able to prepare food under a controlled environment and source high quality ingredients in bulk. Thereby being able to provide a quality and price that individual street vendors can't provide, and with nutritious values that fast food chains won't offer.

One of the major innovative parts of Janta Meals is having the knowhow how to operate a large distribution system in areas where our target beneficiary lives and how to create a tempting yet affordable offer to them, day in day out.

By using cosmetically unacceptable fresh foods (CUFFs), vegetables that are rejected because they don't meet the cosmetic standards of European supermarkets, Janta Meals Kenya will be able to reduce food waste, provide farmers with extra income and increase the nutritious value of its meals at a competitive price.

Target Beneficiary

In Nairobi itself there live 2.6 million people in slum like conditions. Almost every family eats street food at least once a week. A recent study showed that 50% of households is severely food insecure and 35% is mild moderate food insecure. The food insecurity mainly contains the quality of the food intake, not the quantity. This is also shown by the fact that obesity is on the rise among the target group.

Furthermore, providing a valuable sales channel for CUFFs will benefit farmers with additional income..

Potential Impact due to Intervention

Janta Meals provides a healthy and affordable alternative. Due to Janta Meals, every day thousands of people will have an affordable, healthy meal, thus increasing their personal wellbeing which eventually reflects in an increase in the entire standard of their living.

Besides improved health for the customer, Janta Meals will positively impact the sustainability of the food value chain, reduce waste, increase smallholder farmers income and strive to inspire other players to adopt the same practices.



Swasti Agro and Bioproducts Pvt Ltd

Founder: Dr. Abhay Shendye

Type of Organization: For Profit

Address: 4 Rajashree CHS, 138 A, Narayan Peth, PUNE 411030.

Innovator Profile

AbhayShendye (Ph D Microbiology) is passionately working in sustainable farming for 22 years. He has granted and PCT stage patents related to products for agriculture. He has worked with farmers and developed market for innovative products of 4 companies.

Swasti Agro & Bioproducts Pvt Ltd manufactures research based products for farming. These are biological, eco-friendly, non-toxic and non-GMO. Swasti products prevent the diseases and also have curative action at a very early stage. These products address two major pain points of farmers: 1. Risk of losing 90% crop due to disease if climate is bad. 2. Average crop loss due to disease exceeds 30%.

Swasti products were used on 10,000 acres commercially in last 3 years. Farmers could de-risk the production and reported ROI of 10 - 100 X (higher by 2.5 - 25 X than that of the existing solutions). Easy to understand analysis support guides farmers about practices and product use (even other than Swasti products). This can reduce input cost by 15 - 35%. The analyses are scalable, point of care and cost is less than a rupee. Integrated with AI, analyses will meaningfully deliver results to the last mile.

Challenge

Farmers lose on an average 30% of their crop due to disease and the risk under adverse conditions is over 90%.

BioAvert I: Preventing diseases for crops

Swasti Agro has developed Products for prevention of diseases of crops. Swasti is also building tools for onsite diagnosis of diseases at pre-symptomatic stage.

Target Beneficiary

Small and marginal farmers

Potential Impact due to Intervention

Farmers will get 20 - 40% extra production.

Farmers will save about 15% on the consumable costs.

The produce will be 100% organic, residue free and therefore will fetch extra price.

There would be huge ecological impact as farmer can abstain from using about 5 kg toxic material per acre.

There will be rural employment generation, about 1 per 100 - 300 acre cultivable land.



Banyan Roots Organic Private Limited

Founder: Mr. Rohit Jain

Type of Organization: For Profit

Address: 257, Chankyapuri, Sector-4, Udaipur, Rajasthan, 313002

Project Location: Udaipur, Dungarpur and Rajsamand District of Rajasthan

MA support in INR: 30,00,000

MA support period: July 2017 to July 2020

Innovator Profile

In his pursuit, before starting Banyan Roots he was working with tribal groups from north Gujarat on education and livelihood. During this time, he found that the farmers are leaving farming due to non-sustainability in farming and meanwhile land is being polluted and turning poisonous day-by-day. This motivated him to start value and community base business model in October 2011 to address some of these issues. Today, he is developing local village industries which can supply several basic food products (from wheat to fruit juices) for the nearby urban areas. He has also founded a farmer's market (Banyan Roots) in Udaipur which is connecting farmers directly to the consumers. He and his team are also working on preservation of local seeds, traditional recipes and traditional practices of farming.

Challenge

Default (traditionally) organic farmers in Rajasthan are facing problems to sell their organic farm produce at a fair price due to uncertified farms and hence are on the verge of leaving traditional sustainable, ecological farming practices.

Facilitation to market access to default organic farmers

Facilitating market access to default organic farmers through PGS and Short Food Supply Chain

Target Beneficiary

By default organic farmers.

Potential Impact due to Intervention

- Near about 20 million farmers are dependent on rained agriculture in Rajasthan. They are targeting by default organic farmers in that rained farming, where most of rained farming is by default organic. They will generate their income by providing market and food processing solution.
- Eco System is also their direct beneficiary because ecological organic practices is saving seeds and increasing bio diversity.



Centre for Technology and Development

Program Lead: Ms. Kalpana Arora

Type of Organization: Not for Profit (NGO)

Address: 275, Westend Marg, Saidullajaib, New Delhi, 110030

Project Location: Dehradun, Uttarakhand

MA support in INR: 30,00,000

MA support period: August 2017 to February 2019

Innovator Profile

Dr. Kalpana Arora is the Program lead and an active Researcher with CTD/SESS. She is Ph.D. from Indian Institute of Technology, Delhi and a fellow of Erasmus Mundus Fellowship. She has worked in more than 15 national and international projects during her academic career. After that she realized the lack of viability research activities and dissemination into the field hence, she got associated with CTD for the development of technologies for pro-poor enterprises, training and technology dissemination.

Challenge

Millets are highly nutritious small-seeded crops which grow well in hot and dry rain-fed areas and have short growing season (~ 65 days). These highly beneficial characteristic of Millets are of vital importance for food security and climate resilience. Uttarakhand ranks 3rd in India in millet production and millets form a major element of traditional agriculture in Uk, which unfortunately is declining. Hence there is a need to make efforts to popularize Millets among both farmers and consumers. One approach not much attempted is to market value-added products (VAPs) from millets and other high nutritious grains.

Value added millet products based rural enterprise

This project seeks to set up and escort to viable rural enterprise of millet farmers especially women to spur demand and encourage them to expand millet cultivation.

Target Beneficiary

This project will target the small farmers and rural women of Jaunsari Tribals located in Kalsi and Chakrata Block and general population in Pauri Dt.

Potential Impact due to Intervention

There will be 150-200 direct beneficiaries and ~ 200 additional farmers. This project will improve livelihood opportunities, income generation and ensure household food security on a sustainable and equitable basis.



Chitkara University

Innovator: Dr. Nitin Saluja

Type of Organization: Not for Profit

Address: Rajpura-Chandigarh Highway, Rajpura Patiala 140401 India

Project Location: Punjab, Patiala

MA support in INR: 30,00,000

MA support period: June 2016 to June 2019

Innovator Profile

Dr. Nitin Saluja started the journey of E-DeWeeder from his transition to adulthood when he got passionate about farming profession. The problem of weeds in the agriculture farms were getting intense and the impact of chemical weedicides used for weed control was reducing. The cost of deweeding was going high while policy makers never consider it a significant problem. During the doctoral studies he came across the microwave energy which is considered as dangerous radiations for living organisms. The idea strikes to a farmer became technologists mind and the device is now termed as E-DeWeeder which controls the weed in similar way as RF/microwave energy is used in treating the cancer cells as RF is used to selectively heat the cancer cells only. The machine is now called E-DeWeeder and operated with green energies.

Challenge

Among the various factors responsible for low crop yield in agriculture, weed infestation is the major one. The use of chemical herbicide for weed control is quite common which offers crop yield enhancement upto (20-25 %) but it poses many challenges. The problem of weed is even getting intense with evolution of different weed flora or new species of weeds (Viz. Malva parviflora wallr) and herbicide resistance. The problem becomes even more severe with different time window of weeds (0, 20, 35, 45, 55 and 60 days after weed emergence DAWE) for different species of weed and emergence of weeds in 2-3 flushes. It is estimated that 164 KG/hectare pesticides are used in India which poses high costs to the farmers. The cost of applying chemical weedicide solution per hectare is estimated as Rs. 3176 per hectare on an average. With farmer's economic conditions these days due to climate changes, the affordability of chemical solution is questionable. The other problems include environment and water pollution and farmer/consumer health is on stake as well.

Smart weed sensors based E weed control - E. DeWeeder

They offer non-chemical, effective, reliable and safe solution for weed control. The invention disclose the capability of radio frequency or microwave to selectively treat the weed plant by causing its cell to die (necrosis) same as in case of hyperthermia treatment of cancer cells using radio frequency. The unmanned machine E-Deweeder (Presented product and named as a magical machine by farmers) is powerful enough to walk over the non-uniform terrain profile and hence can traverse the farm with advantage that it doesn't disturb the crop at any stage of crop production.

Target Beneficiary

The first phase targets the farmers growing Wheat, Maize, Pulses and specific vegetables

Potential Impact due to Intervention

E-DeWeeder is an alternate to the high price chemical weedicide which is also affordable by small farmers. It is more effective solution than chemical weedicides with no weed seed dispersal in the farms as in case of mechanical deweeding.



CropConnect Enterprises Private Limited

Founder/ CEO/ Director: Mr. Puneet Jhajharia

Type of Organization: For Profit; Social Business

Address: First Floor, Poonam Chamber, F-320, Old M B Road, Lado Sarai, Delhi -10030

Project Location: New Delhi

MA support in INR: 50,00,000

MA support period: July 2017 to July 2020

Innovator Profile

The co-founders, Ishira Mehta and Puneet Jhajharia are seasoned professionals with over 25 years of combined work experience in building sustainable supply chains, social entrepreneurship, investment, capacity building and IT in India and abroad. After a career with Goldman Sachs in technology, Puneet started and ran the India office of Grassroots Business Fund for 3 years. Ishira worked with the International Finance Corporation on supply chains & impact investing for over 6 years before which she worked with SEWA in Gujarat.

Challenge

There is a trend of farmers shifting to sustainable farming practices and growing indigenous crop varieties to revive their soil and manage climate change and are struggling to sell their products beyond local markets due to lack of innovative demand driven business models. Parallely there's a growing population of customers suffering from lifestyle diseases due to consumption of chemical laden food that are looking for healthy, sustainable and local food options. They aim to bridge this gap through their innovative aggregation and marketing model.

Original Indian Table (OIT)

Original Indian Table by CropConnect brings traditional food ingredients to Indian customers who are looking for healthier, more nutritious and local alternatives. These customers want to incorporate seasonal and local products into their diets, but lack access and knowledge of them. They do this by bringing to market authentic, traditional and directly-sourced ingredients from farmers across India such as black rice from West Bengal, roasted barley from Ladakh and Barnyard Millet from Uttarakhand. Their products are an experience for their customers and come with details on the origin, nutritional benefits, uses and farmer stories. Each of their product has a story and is grown with care by farmers that believe in sustainable farming.

Target Beneficiary

Their target social impact group is small holder farmers working at the base of the pyramid (BoP) especially women farmers practicing sustainable agriculture.

Potential Impact due to Intervention

Today they provide a common national platform to over 25 farmer groups including 8 women groups across 15 states of India. They expect their work to lead to a 10-15% net income increase for the farmers they source from over the next 3-5 years.



Deepak Foundation

Director: Archana Joshi

Type of Organization: Not for Profit

Address: Deepak Foundation (Within Nijanand Ashram premises), Near Laxmi Studio, Adjoining L&T Knowledge City, on NH-8, Vadodara-390019, Gujarat

Project Location: Dist- Chota Udaipur, State- Gujarat

MA support in INR: 30,00,000

MA support period: July 2017 to July 2020

Innovator Profile

During the project implementation stage, in a nutrition survey, it came to light that while the farmers grew lots of vegetables and pulses, consumption was low and there was no awareness amongst the women about the use of their produce for better nutritional status. This is when the project 'Paripurna' was conceptualized.

The project aims to create value addition systems through food processing options for the FPC. As a first step, dal mills will be set up to process locally grown pulses, sort, grade, package, label, and market it as dal, which fetches 80% more income than whole unprocessed pulses. At least 3000 farmers are expected to gain higher income through sale of processed dal in catchment area.

The project is community owned and the revenue generated through the pulse mills and the meal making units will feed back into the project.

Challenge

Acceptability of product & price by target population.

Community owned initiative for food security in tribal area

The innovative solution is to provide opportunity for processing pulses so that these pulses are packaged and sold locally and marketed through e-retail channels. The by-product, that is, the broken pulses and indigenously grown rice could be processed and packaged as instant khichdi mix and sold as a cost effective meal throughout the year. The culturally accepted instant khichdi mix would not only address the nutrition needs of the entire family, and under nourished population groups but could also be sold to reduce drudgery of women.

Target Beneficiary

6000 tribal women

Potential Impact due to Intervention

1. Tackle malnutrition
2. Reduce drudgery
3. Fuel conservation
4. Income generation for beneficiaries



Jayalaxmi Agrotech Private Limited

Founder: Mr. Anand Babu

Type of Organization: For Profit

Address: Jayalaxmi Agrotech Pvt Ltd, Near HP Petrol pump, Old H.B.Halli, Hagaribommanahalli (Post), Bellary (Dt), Karnataka (State) Pin: 583212

Project Location: Across Karnataka, some parts of AP, Telangana and Maharashtra

MA support in INR: 10,00,000

MA support period: June 2017 to June 2018

Innovator Profile

The innovators Anand Babu and Shivaprakash always wanted to do something for farming community using their background, skills and exposure. After going through literature search, publications, market research both founders finally zeroed down to “Agri ICT solutions”. Most of the existing Agri ICT solutions focusing either on Monsoon or on market price for few commodities. There was no one who can provide “agronomic advisory support from planting to harvesting” that’s where they wanted to do something.

This thought lead to development of crop specific mobile apps for farmers. Today they have suite of 20+ crop specific mobile application in 4 regional languages.

Challenge

Information gap is biggest reason low productivity and non-sustainable farming. Illiteracy and diversity, further complicated the information dissemination in growing countries like India. As a result, farming is not sustainable and youths are losing interest and migrating to urban area in search of other jobs which eventually leading to polarization.

Mobile apps for farmers in regional language

Core of innovation is all about “addressing information gap related to agriculture” using technology. Technology can help address these challenges and bring social transformation across the agriculture sector. Smartphone penetration is widespread throughout India, even in rural areas. Through suite of 20+ crop Specific Mobile, they tried to address the information they need, through an intuitive platform that even users with low literacy can access.

Target Beneficiary

Farmers

Potential Impact due to Intervention

- Till date touched lives for 300000.
- Research studies proved that their innovation leads to incremental knowledge gain of 46% among farmers.
- Their innovation reduced the input in farming by 14%.
- Their Intervention increased the productivity by 17%.
- Overall reduction in usage of chemical fertilizers by 50,000 tons among the app user.



Naugachiya Jan Vikas Lok Karyakarm

Chief Functionary Officer: Mr.Madan Mohan Thakur

Type of Organization: Not for Profit Registered under Societies Registration Act

Address: G. B. College Road, Miltola, Ward No. – 3, P.O – Naugachia, Dist. – Bhagalpur, Bihar

Project Location: Naugachia Block, Bhagalpur District, Bihar State

MA support in INR: 30,00,000

MA support period: June 2017 to July 2019

Innovator Profile

The Innovator Mr. Madan Mohan Thakur has been a Development Social Worker since 1980 involved in NGO sector. He worked with various forums for development of the North Eastern India. As he also hailed from Naugachia Block of Bhagalpur District in Bihar; he knew very closely the issues being faced by the Banana Farmers and the Banana Plantation Workers. Through various consultations with the community and with various livelihood Interventions he zeroed on to the potential of Banana Fiber Production as an addition to the existing livelihood basket in the region. He tested his idea with the support of MISEREOR Germany, NABARD and came out with a replicable and scalable innovation.

Challenge

Bhagalpur district is famous for its banana plantations. and are a profitable agricultural activity for the plantation owners; whereas it provides only seasonal employment to the labour families which are also dependent on the banana cultivation. There is huge distress migration taking place in this area due to unemployment during the off and lean seasons. Mostly women hailing from the BOP are unemployed most of the times year round. The banana plantation in large scale also generates banana trunks in large quantities which are left in the open to decay. This is a severe problem for environment and health.

Bhagalpur banana fiber project

In short the project is “Extracting good quality fibers from the wasted banana trunks abundantly available in Bhagalpur district of Bihar; value addition and marketing of the fibers. ‘NauJanLok’ is providing employment to the BOP women in the project area through creation of a sustainable livelihood option of banana fiber extraction, value addition and marketing. The project also solves the severe issue of waste trunk management faced by the areas of large scale banana plantations and thereby creates further livelihood options in the fields of organic manure and organic-fuel”

Target Beneficiary

Women hailing from Bottom of the Pyramid families and farmers

Potential Impact due to Intervention

The project will provide employment generation on sustainable manner to the otherwise unemployed women hailing from the BOP. The project shall directly impact in the quality of life of at least 10000 persons. Increased income levels of the families engaged in the banana fibre production and its marketing will be ensured. A new and sustainable business enterprise and livelihood option will be added to the region. Production and sale of organic manure. Organic manure will ensure the quality of soil and better agricultural production and income to the farmers.



Sanjeevani Disaster Equipments Private Limited

Director: Mr. Rajendra Ladkat

Type of Organization: For Profit

Address: 92/20 ,Sairaj ,Shrikrushna Nagar , Mundhwa Road, Pune 411036

Project Location: Pune, Maharashtra

MA support in INR: 30,00,000

MA support period: April 2017 to March 2020

Innovator Profile

Mr Rajendra Ladkat has been an AC contractor, and thought about ways to trap the waste heat and ways to utilize it. He went a step ahead and made a prototype that gives you an additional 'Hot' storage with the heat given out by the cold storages, saving upto 80% of energy required for driers. The prototype was studied for its use for grain storage by Shravani Ladkat at National Institute of Nutrition. Apart from this project Mr. Rajendra Ladkat has innovated 20 products out of which 4 have received patent and other 4 have received international novelty.

Challenge

In India there is a paradox when it comes to Food. On one side we have enough food production however; the post harvest losses in India are immense due to inadequate and improper storage problems which could have fed a hundreds of poor people striving with hunger and poverty. Proper Storage can prevent a major portion of post-harvest losses. The current storage methods like cold storages or driers are expensive and consume a lot of electricity.

Study on stored grain quality in hot and cold storage system

In the 'Hot and Cold' storage system, the condensation heat of air conditioning unit or refrigeration in the cold storage is utilized for providing free energy of temperatures 40-45°C for a hot storage which could have the potential for providing resistance against insects during storage of food grains. The technology titled 'Hot and Cold' storage system is aimed to save more than 80% of the cost required for hot storage by making an adjacent hot room to an existing cold storage plant or air conditioning plant making it profitable in terms of cost and saving storage losses.

Target Beneficiary

Farmers, farming cooperatives, government agencies like FCI, private companies and even bakeries, dairy farms, fisheries can implement the technology on smaller scales. People below the poverty line can be benefitted by the technology as they will get better quality grains at the same price.

Potential Impact due to Intervention

The Intervention can reduce the storage losses, provide better quality product, and reduce the use of pesticides. The project can help reduce the financial burden of the cold storage plants by the additional Hot storage chamber.



Agventures Corporation

Founder / Director: Mr. Sunil Kumar

Type of Organization: For Profit

Address: A2113, Assetz East Point, Bhoganhalli, Bangalore 560103

Project Location: Hubli dt , Karnataka; Salem dt, Tamil Nadu, Surendranagar dt, Gujarat

MA support in INR: 60,00,000

MA support period: June 2016 to May 2019

Innovator Profile

Sunil Kumar has over 25 years' experience in agricultural inputs development and marketing. Sunil was part of the launch team of Bollgard insect resistant cotton for Monsanto in India that revolutionized cotton cultivation by increasing cotton productivity multi fold in the country. In early 2012, kick started his own organization, Agventures CorporationTM. That was when he developed the solar cotton picking machine, filed a patent application and conducted several trials in India and Africa. Sunil continues to spearhead operations of Agventures TM and is deeply involved in product development & marketing.

Challenge

Manual cotton harvesting is back breaking, time consuming, injurious & unprofitable.

Portable solar cotton picking machine

Portable solar cotton harvesting machine.

Target Beneficiary

Cotton farmers

Potential Impact due to Intervention

This machine can pick an average of 186 kg of cotton per day which brings down the harvesting man-hours requirement to 13 mandays per hectare from 45 mandays required for manual harvesting. The innovation lights up farmer homes after they return from the fields. The wall mountable LED bulbs can be fixed in any rural home and can be used during off season too. A multi pin mobile charger is also provided.

Better cotton quality: Picks only cotton bolls without leaves, stalk & other materials. Better staple length as the machine keeps the staple length intact while picking. More profitability: Less labour + Better cotton + Electricity at home. Child labour is avoided as labour requirement is lower. School going children could study at night even if their homes are electricity deprived.



FlyBird Innovations

Founder/ CEO: Mr.Sathish KS

Type of Organization: For Profit

Address: FlyBird Farm Innovations Pvt Ltd., #887/201, 2nd Floor, 9th Main, D Block, Sahakaranagara, Bangalore – 560092, India

Project Location: Bangalore / Chikkabalapura / Kolar, Karnataka and Krishnagiri, Tamil Nadu

MA support in INR: 54,00,000

MA support period: June 2016 to April 2019

Innovator Profile

Sathish KS, Founder & CEO has over 16+ years of rich and insightful experience in product development & management for Industrial/Agricultural automation. Has 8 years of part time farming experience and understands farming, Agriculture challenges and pain areas. Has passionate to work and create an impact for Agriculture sector and Base of Pyramid.

Challenge

Few of the challenges are that the ground water level goes down year on year and agriculture labor shortage. There is low yield production leading to decreasing trend in agriculture production. Low technology adoption in the agriculture field is also a challenging factor.

Low cost innovative and smart irrigation controller

FlyBird Farm Innovations has developed affordable & innovative smart/precise irrigation/fertigation systems for small and marginal farmers, to irrigate water as per crop needs & improve crop yields by precise irrigation. By using scientific methods, soil moisture/temperature/humidity sensors very precise irrigation will be done. It prevent the under/over dozing of water to plants and will improve the crop production and saves water, electric power, time and money for farmers.

Target Beneficiary

Small and marginal farmers (drip / sprinkler irrigation customer)

Potential Impact due to Intervention

This Intervention will provide 25% to 30% of water savings and 10 to 15% crop yield increased. It is less dependent on manpower and no human errors. It conserves electric power and reduces weeds and agri inputs.



Sharon Agrotech Pvt. Ltd.

Director: Dr. John Abraham

Type of Organization: Socially obliged profit organisation

Address: Thannimundakathil Sharon 18/256(9), Santhi Nagar, Adelaide, Puzhamudi.P.O-673122, Wayanad, Kerala.

Project Location: Wayanad, Kerala

MA support in INR: 25,00,000

MA support period: July 2016 to June 2019

Innovator Profile

Dr. John Abraham was awarded the Millennium Alliance Award-2016 for the invention "Low cost manual milking machine". Working as Assistant Professor, at the College of Veterinary and Animal Sciences, Pookode, Wayanad, Kerala since last 14 years, he has 9 inventions to credit and has filed patent for 3. Has published 37 articles in peer reviewed journals and 12 in non-referred reputable journals.

Challenge

Milking is a skilled and tedious job and form the major work load in a dairy farm. 96 per cent of the 118.59 million milch animals in India are still hand milked and 70 per cent of the work force in this sector is contributed by women, which causes back pain, shoulder pain, finger fatigue and allergic reaction and they are also exposed to hazards like cow kicking and tail lashing. Milk which is secreted sterile often gets contaminated during hand milking increasing the bacterial load and lowering the keeping quality. The young generation is turning away from this vocation as the practices are primitive and due to the drudgery associated with this job. The solution for this problem is the use of eclectically operated milking machines which are very expensive and cannot be afforded by the millions of small and marginal farms who owns majority of the milch animals.

Low cost manual milking machine

Simple low-cost manually operated milking machines with pulsation which is efficient in operation and affordable to the rural society will solve all of the above mentioned problems.

Two simple low-cost manual milking machines were invented 1). Bi-cycle type milking machine, with hand operated vacuum creating system and pulsation produced by pedalling a chain drive. 2). Rocker type milking machine, where the teat cluster is attached on the cow with a Velcro strap and milking by rocking a pedal operated cylinder piston with foot.

Fetches more milk price to the farmers

Target Beneficiary

70 million rural household in India who owns cows and buffaloes.

Potential Impact due to Intervention

Scientific and hygienic milk production will be possible for 70 million rural household in India who owns cows and buffaloes, but who cannot afford costly electrical machine. It is easily portable and does not have any recurring operational and maintenance costs. The distinct feature of this invention is that it has a pulsation system which exactly stimulates sucking by a calf leading to high milk ejection. The quality of milk will improve as it cannot be contaminated by dust and microbes in the shed and also prevents falling dung and hairs into the milk. It will prevent damages to the teat of cows due to excess positive pressure hand milking and also reduce the incidence of mastitis.



Parvata Foods Private Limited

Co-Founder: Ms. Siddhi Karnani

Type of Organization: For Profit

Address: Ginger Processing Unit, Birdang Government Horticulture Farm, Birdang-737121, West Sikkim

Project Location: West & South Sikkim, Sikkim

MA support in INR: 54,00,000

MA support period: May 2016 to June 2019

Innovator Profile

Ms. Siddhi Karnani has co-founded Parvata Foods Pvt. Ltd. along with Mr. Anurag Agarwal, her batch mate at IIM-Ahmedabad. She opted out of campus placement to uplift the farmers in North East (NE) and Eastern India. Parvata Foods is committed to bringing high quality, adulteration free, organic products to the consumers. It is the first player to build integrated value chain of organic produce from Sikkim, the only complete organic state in India.

It provides on-farm collection services to the farmers, with higher prices and on-spot cash payments. It also provides them training in modern agriculture practices, to increase their productivity and income.

Challenge

- A) Sikkim is a complete organic state. Despite that, farmers are leaving farming as they are not getting right price for their produce. They lack market access. The organic produce from Sikkim is sold in Siliguri mandi as conventional and the organic identity is lost.
- B) Also, the farmers use traditional agriculture practices for sowing and harvest, which results in loss of productivity and hampers the quality of produce. It also causes diseases such as rhizome rot in ginger. This reduces the income of the farmers to a great extent.
- C) Another major concern in ginger plantation is that 50th generation seed is being used and thus the vigour is lost. This reduces the productivity to a great extent and the keeping quality is deteriorated.
- D) Also, there is lack of technology to store ginger in India on commercial basis on large scale. This result in huge price fluctuations and the farmers are at the disadvantage. Also it impacts the processing and value addition as round-the-year supply is not available

Revolutionizing agri business in north east India

- A) They build farmer-centric integrated value chain and connect farmers to the markets. They undertake processing for higher value addition in our organic spice processing plant in Sikkim so that maximum returns can be provided to the farmers. They provide on-farm collection services with higher farm gate prices and are setting up village level collection centres in the 3 major spice growing belts in Sikkim with facilities for grading, sorting and electronic weighing with on-spot cash payments.

- B) They train the farmers in modern agricultural practices. As with farmers, “seeing is believing”, so they have also set up demo plots to showcase to the farmers the modern agriculture practices. They promote simple practices which are suited for North East, are easy to adopt and show maximum results.
- C) They will provide better planting material through seed improvement / tissue culture technology to the farmers. They will also provide complete buy back guarantee. This will improve the productivity and assure quality output. Thus the farmers’ income will increase.
- D) Also, fresh ginger storage technology is available in China, Netherland and Australia. They will source the technology and adapt it to Indian conditions.

Target Beneficiary

They will provide better market opportunity to 1400 farmers and will provide training to 2200 farmers to increase their productivity and income level.

Potential Impact due to Intervention

- Working with 1400 farmers by Year 3, they will provide higher farm gate prices.
- They will be equipping 2200 farmers by Year 3 with modern agriculture practices. Through simple and adaptive use of technology, their productivity and income level will increase to a great extent.
- With the right planting material, millions of ginger farmers in India will have higher productivity and better quality of the produce, resulting in higher income.
- India is the largest producer of ginger in the world, but the share in export market is miniscule. With the storage technology, India’s share in value addition and export can increase to a great extent.
- Success of Sikkim can be replicated and scaled to other North Eastern States.



Science for Society

Founder: Dr. Vaibhav Tidke

Type of Organization: For profit

Address: Plot no. 43, Sector-6, Sanpada (E), Navi Mumbai-400705

Project Location: Kenya

MA support in INR: 67,93,200

MA support period: June 2016 to March 2018

Innovator Profile

Vaibhav Tidke's memories as a young child are peppered with instances of visiting and shopping at the weekly fruit & vegetable bazaars. As he grew up, he developed strong interests in applying science to address problems of a community and while still in college established a not-for-profit "Science for Society" with a few of his friends. During his post graduate program, along with a friend Vaibhav developed a Solar Conduction Dryer (SCD), under the umbrella of Science for Society. As its name proposes, SCD utilizes solar power to convert fruits and vegetables to their dehydrated forms. In 2010, Bayer AG, recognized SCD as a global innovation and offered an award of about 1000 Euro. Receiving the Dell Award in 2012 further bolstered the team's confidence in their technology and its potential to make an impact. Thus, the team of 4 friends who started Science for Society undertook setting up of an enterprise which could commercialise its technology. S4S (acronym for Science for Society) was thus founded in 2013. S4S now collaborates with FICCI, DFID, and Gates Foundation to test the application of their technology on various food products. With revenues from SCD becoming stronger each year, Vaibhav and his team is now eyeing newer technologies and platforms. There is a massive need for technology solutions to agriculture. Vaibhav and his team are committed to it.

Challenge

Increase farmer income as a result of applying new technologies or management practices.

Cassavatech

CassavaTech is the cassava processing technology that processes cassava in 8 hours against 7 days of traditional process.

Target Beneficiary

Farmers

Potential Impact due to Intervention

Target 3,000 tons annual processing for Cassava farmers.



Science for Society

Co-Founder: Ms. Shital Somani

Type of Organization: For profit

Address: Plot no. 43, Sector-6, Sanpada (E), Navi Mumbai-400705

Project Location: Nepal

MA support in INR: 1,13,22,000

MA support period: June 2016 to October 2018

Innovator Profile

Vaibhav Tidke's memories as a young child are peppered with instances of visiting and shopping at the weekly fruit & vegetable bazaars. As he grew up, he developed strong interests in applying science to address problems of a community and while still in college established a not-for-profit "Science for Society" with a few of his friends. During his post graduate program, along with a friend Vaibhav developed a Solar Conduction Dryer (SCD), under the umbrella of Science for Society. As its name proposes, SCD utilizes solar power to convert fruits and vegetables to their dehydrated forms. In 2010, Bayer AG, recognised SCD as a global innovation and offered an award of about 1000 Euro. Receiving the Dell Award in 2012 further bolstered the team's confidence in their technology and its potential to make an impact. Thus, the team of 4 friends who started Science for Society undertook setting up of an enterprise which could commercialise its technology. S4S (acronym for Science for Society) was thus founded in 2013. S4S now collaborates with FICCI, DFID, and Gates Foundation to test the application of their technology on various food products. With revenues from SCD becoming stronger each year, Vaibhav and his team is now eyeing newer technologies and platforms. There is a massive need for technology solutions to agriculture. Vaibhav and his team are committed to it.

Challenge

Increase farmer income as a result of applying new technologies or management practices.

Pilot demonstration and transfer of Solar Conduction Dryer SCD from India to Nepal

Solar Conduction Dryer (SCD)

Target Beneficiary

Farmers

Potential Impact due to Intervention

Set 1500 ton per year capacity of solar food processing in Nepal.



Self Reliant Initiatives through Joint Action (SRIJAN)

Founder: Mr. Ved Arya

Type of Organization: Not for Profit

Address: 4 Community Shopping Centre, First Floor, Annuppama Apartment, Mehrauli Badarpur Road, Saidullajob, New Delhi-110068

Project Location: Athmallik Block, Angul Dist, Odisha

MA support in INR: 60,00,000

MA support period: June 2016 to June 2019

Innovator Profile

The idea of SRIJAN was born in April 1997, when a few colleagues who have spent over a dozen years building PRADAN, decided to form a new development consulting group that would promote innovative approaches to benefit the rural poor. However, in January 2000, SRIJANs members, decided with considerable insistence from its committed founder, Ved Arya – that there is considerable need to work directly to serve the poor. Thus, was SRIJAN born and registered as public charitable trust.

Challenge

- As SRIJAN is focusing on the vulnerable group from the community like SC, ST and rural poor women farmer, it was very difficult challenge to mobilizing 10% (ie. 6000 to 7000) of contribution.
- The major challenge, we faced during selection of beneficiaries is unavailability of proper irrigation water source. We found many beneficiaries are highly interested to adopt the technology, but due to lack of secure irrigation water source they could not join the program. This innovation required an irrigation water source which will provide you the whole year of water for the irrigation purpose.
- On this Protected Vegetable cultivation, it required the disciplined practices of POP. But most of the time the beneficiaries are engaged in other activities and social function. Festival, other agriculture cultivation jobs also create huddles as beneficiaries are engaged in these types of engagements.

Popularising bamboo polyhouses among small farmers

Polyhouse is a framed structure made of Galvanized steel/MS angle/Wood/ Bamboo and covered with UV stabilized transparent sheet material in which crops/vegetable are grown under partially or fully controlled conditions. Besides irrigation system, it may have control/monitoring equipment, which is considered necessary for controlling environmental factors inside the polyhouse structure, such as temperature, light, relative humidity carbon dioxide etc. To achieve optimum productivity with excellent yield, quality, it is necessary for maximizing plant growth and production. Adopting a Poly House technology and increase the productivity of their on-farm activities by such small and marginal rural farmers is a big challenge. In generally, the Steel and iron pole are used for a construction of the poly house, which increase the cost of the poly house. As a development agency, SRIJAN is committed to promoting sustainable.

Target Beneficiary

The project is primarily targeting the small and marginal rural women farmer. It comprises of 300 Poor families belonging to ST, SC and other backward classes. The tribal women of Athamallik block of Angul district in Orissa are sufferers of atrocities as they are dependent on others to take decision for them. They don't have any sustainable source of income. The average annual income is Rs. 30,000-35,000. Average family size is 6 members. Main livelihood is agriculture and wage labor.

Potential Impact due to Intervention

There are three development challenges that are addressed by this innovation

- Increasing agricultural incomes of small and marginal rural women farmers.
- Mitigating climate extremities on the Agriculture.
- Promoting robust women lead FPO



Swasti Agro and Bioproducts Pvt Ltd

Founder: Dr. Abhay Shendye

Type of Organization: For Profit

Address: 4, Rajashree CHS, 138 A, Narayan Peth, Pune 411030, India

Project Location: Pune district, Maharashtra state

MA support in INR: 60,00,000

MA support period: July 2016 to July 2019

Innovator Profile

Swasti Agro has developed products for prevention of crop diseases caused by bacteria, fungi, and nematodes. Preventive diseases prognosis system based on AI is being built with partner support.

Challenge

Farmers lose 30 – 90% of their crop due to diseases.

BioAvert I: Biological program of disease aversion for horticulture crops

Products for prevention of diseases and services for preventive diagnosis.

Target Beneficiary

Small and marginal farmers

Potential Impact due to Intervention

1. 20 – 40% increase in the yield.
2. 2X or more price.
3. Reduction in costs (15 – 35%).
4. 10 – 100 Times ROI.



Farms and Farmers Foundation (FnF)

Founder/ President: Shashank Kumar/ Shyam Sundar Singh

Type of Organization: Not for Profit

Address: B-83, Housing Colony, Lohiya Nagar, Kankarbagh, Patna 800020

Project Location: Sarlahi and Rautahat districts, Nepal

MA support in INR: 1,46,11,800

MA support period: November 2014 to March 2018

Innovator Profile

Farms and Farmers (FnF) works with farmers, especially smallholders, with an aim to improve their livelihood by increasing income from agricultural activities. It has been recognized by Ministry of Rural Development, Government of India, as one of showcasing model to be replicated in the entire country. Its head office is in Patna and satellite offices in Gurgaon and Bhubaneswar. Currently it is working across thirteen districts of Bihar, UP, and Odisha, reaching out to more than 40,500 farmers.

FnF is one stop solution to all the agriculture requirements, such as lack of availability of quality agri-inputs, lack of access to crop advisory, conventional agriculture practices, lack of efficient market, etc., for farmers. It provides a 360o cover to small farmers by providing services from input linkage to market linkage.

Challenge

Increase agricultural income of small and marginal farmers in Nepal

Improving farmers' livelihood through end to end agri services in Nepal

Provide end-to-end agricultural services to smallholders in Nepal by replicating "DeHaat" model

Target Beneficiary

2500 farmers

Potential Impact due to Intervention

The main aim of FnF is to minimise cost of production and maximise profit per unit area for farmers, increase nutrition level, connecting small and marginal farmers to latest technology, reduce cost cultivation.



AgSri Agricultural Services Pvt. Ltd.

Founder and Chairperson: Dr. Biksham Gujja

Type of Organization: For Profit

Address: SLN Terminus, # 4-51 / SLNT / L4-05, Gachibowli, Kondapur Road, Hyderabad – 500 032
Telangana, India

Project Location: Medak, Telangana, India | Solapur and Ahmednagar, Maharashtra, India

MA support in INR: 10,000,000

MA support period: January 2015 to December 2017

Innovator Profile

Dr. Biksham Gujja was instrumental in establishing AgSri Agricultural Services Pvt. Ltd. Dr. Biksham Gujja carries more than 30 years of experience in the field of Sustainable Agriculture and Water Management and has been instrumental in developing and implementing farm-based techniques of Sustainable Sugarcane Initiative (SSI) and System of Rice Intensification (SRI), which have now received global recognition and attention. Dr. Biksham' key role in organization includes Project co-ordination, Overall Financial Monitoring and Client Management. From 1993 to 2017, Dr. Gujja has published extensively on water management and improving agricultural productivity.

Challenge

Sugarcane is future crop, particularly in the context of increasing renewable energy, and electricity in rural areas through biomaterials. For that sugarcane cultivation needs to be radically changed to make efficient to make it less demanding on water and inorganic fertilizers, which again depend on fossil fuels.

Sugarcane has been cultivated for centuries in many countries in the world; the standard practice is to bury the cane (sets of two or three nodes) in the ground as seed. Normally farmers plant between 8-12 t/ha as seed cane depending on climate soil.

Producing more with less: Promoting Sustainable Sugarcane Initiative (SSI)

In SSI the major departure is to plant one month old seedlings, raised in nursery. Per hectare about 12,500 seedlings are enough to plant 5x2 feet spacing. Each of this one month old seedling produce 10-15 tillers, even more and most of them become productive. The most important step of SSI is to plant seedlings, instead of burying huge quantity of seed cane.

Sustainable Sugarcane Initiative by AgSri will significantly make a positive impact on small holder sugarcane farmers India. SSI is also applicable to farmers in other courtiers as well. This is game changer for sugarcane cultivation in the world.

Target Beneficiary

Direct Beneficiaries:

- a) Farmers will achieve more production per unit of area, save water and also reduced input costs.
- b) Sugarcane is the raw material for producing sugar, electricity, and Ethanol. Many millers in India operate below capacity due to non-availability of raw material (sugarcane). With SSI, millers will get higher quality raw material.

In-direct Beneficiaries:

- a) Manufacturing of seedlings requires mid-level employees like technicians and field managers. As such, there will be creation of local jobs.
- b) Manufacturing of seedling requires daily labour. It requires certain type of skills, which are inherently advantageous to women. In fact, AgSri has already provided employment opportunities for local women.
- c) Ecosystem benefits: SSI requires less water, so it is likely that less water is withdrawn for agriculture at a catchment level.
- d) Since less cane is used for seed, more cane can be used for the more productive use of sugarcane. This will add to the national wealth.

Potential Impact due to Intervention

The initiative will create a positive impact on the following actors directly:

- a) Mills, which are purchasing sugarcane from farmers, will be more responsive to good quality seed. They will be able to benefit from good quality cane, which is produced through SSI.
- b) Small-scale Farmers will earn higher income and will be able to focus on quality seedlings and intercrops.
- c) There will be less pressure to put more areas under sugarcane in order to meet the demand for sugar and ethanol.
- d) There will be fewer water conflicts between farmers who are pumping water from great depths.
- e) Traditionally people used to make sugar by crushing cane. After mills emerged, many of these artisanal sugar-makers using traditional methods are not operating. The process of removing buds, will allow for the excess cane can to help the supply of cane to these artisanal sugar-makers. Already AgSri is working with them to use the remaining cane for making raw sugar, which is consumed locally. This also increases the local employment and keeps traditional knowledge alive.



CropIn Technology Solutions Pvt Ltd

Founder & CEO: Mr. Krishna Kumar

Type of Organization: For Profit

Address: CropIn Technology Solutions Pvt Ltd, #1021, 3rd Floor, 16th Main, BTM Layout 1st Stage, Bangalore - 560029, Karnataka

Project Location: Project Name: Finlays (Now Flamingo) | Country: Kenya

MA support in INR: 1,10,00,000

MA support period: June 2015 to June 2018

Innovator Profile

The idea of providing SaaS based services to agribusinesses came to Mr. Krishna Kumar after observing the agrarian crisis looming large on the rural areas in 2010, where local farmers were facing a gamut of problems; ranging from non-availability of finance, climatic vagaries, soil degradation, pest infestation, diseases, operational inefficiencies, and unpredictability of yield. Taking a resolution to do his bit to prevent farmers' suicides and avert the agrarian crisis, Mr. Kumar roped in seasoned professionals Mr. Kunal Prasad and Mr. Chittaranjan Jena to set up CropIn Technology Solutions - an agriculture technology solutions start-up that would address the many pain points of farmers across the country. CropIn has digitized over 3.1 million acres of farmland and enriched the lives of nearly 1.6 million farmers while working on 3,500 crop varieties with over 160 agribusinesses in 17 countries globally till date.

Challenge

The challenge given was to help African countries get access to Indian Technologies which can help them increase their productivity by 20% and reduce losses by 18% through a unified and seamless flow of advisory and information across the production value chain.

To achieve higher farm productivity and reduce losses using web and mobile technology in Kenya using

The problem statement was to connect the information seamlessly in the value chain from the growers to the extension team and the managers till the farm businesses which could plan and execute their crop planning and practices through a mobile and cloud platform.

SmartFarm, an award winning robust and flexible farm management solution, was introduced which enabled farm extension team of the partner organization Finlays, to digitize grower and crop data, capture and disseminate crop specific advisories through the mobile phone, adhere to compliance and traceability related information, and provide pest and chemical recommendations to help solve farm problems digitally.

Target Beneficiary

In total, 623 farmers across 337 acres of area were part of the project over several cropping seasons.

Potential Impact due to Intervention

1. Complete data driven farming on real time platform was implemented. It was a great success and saw good uptake from farmers who were getting benefitted by regular advisories from sowing till harvesting.
2. Real time advisory and guidance of Package of practices helped growers increase productivity by over 15% and reduce losses by over 20% besides helping them with achieving traceability and compliance standards for qualifying them into exports markets.

Data and Statistics

- 1036 plots were geo-tagged and 867 plots were audited by the field team. Audited lands were given area specific input recommendations helping them save cost and provide required nutrients (Right Time and Right Quantity) to the specific crops.
- 20 field team members were trained along with the 2 managers who were focused in Meru and Timao Areas in Kenya.
- All harvest captured was also recorded till their pack house system for traceability.



Sunish Issac

Innovator: Mr. Sunish Issac

Type of Organization: Individual

Challenge

Copra is the dried kernel extracted from the coconut shell. It is crushed to extract coconut oil and oil cake. The quality of oil depends heavily on the moisture content of the copra. One of the important issues with coconut/copra farming is, estimating the price of copra based on its dryness. This is currently done purely based on the experience of the estimator. The farmer always thinks that he's supposed to get a better price when the copra merchants feel it is not dried enough. There is also lots of time, energy and man power wasted if the drying process is not stopped when the ideal moisture percentage of 5-6% is reached. The challenge exists in most food crops that are dried for preservation or processing.

Portable digital copra moisture meter

Portable Digital Copra Moisture Meter solves all the above problems by using modern cost effective technology to provide accuracy and usability for all kinds of users.

Cost effective usable technology for farmers and merchants Prevents wastage of time in drying process and wastage of fuel Augments transparency in trading of Copra Benefits government organizations like NAFED, KERAFED etc., NGO's, agricultural scientists etc. because of its speed, accuracy and portability.

Potential Impact due to Intervention

Cost effective usable technology for farmers and merchants

- Prevents wastage of time in drying
- Prevents wastage of fuel
- Brings transparency to buying and selling of copra
- Government organizations like NAFED, KERAFED other NGO's will benefit from the speed and accuracy
- Agricultural scientists can use it for quick measurement of moisture as its portable Since the moisture values can be displayed as percentage as well as in the format required by conventional merchants and farmers, it will be more usable.



Naireeta Services Private Limited

Founder & Director: Mr. Biplabketan Paul

Type of Organization: For profit

Address: 401, Vraj Enclave, Near Safal Parivesh Tower, Opp. Vraj Vihar 8, Prahladnagar, Satellite, Ahmedabad- 380015, Gujarat, India

Project Location: District, State: Gujarat, Madhya Pradesh, Bihar, Jharkhand, Uttarpradesh, Maharashtra, Karnataka, Andhrapradesh, Telengana, Tamilnadu, Bihar

International: Ghana, Bangladesh, Vietnam, Madagascar. In MA program we are working across 5 districts of Bangladesh with 120 farmers ie more than 1200 rural smallholders

MA support in INR: 2,40,00,000

MA support period: 2015 to 2019

Innovator Profile

Mr Biplab is striving to empower every underprivileged women small holder with his open source socio-technical process BHUNGROOTM such that they can convert disasters (flood and drought) into an opportunity for food security and inclusive development. He aspires to change the world through these downtrodden women Change Makers.

With his 25+ years of grassroot developmental, he has created series of process and product innovation cutting across education, health, smart city, governance and agriculture (to name a few). One of them is BHUNGROO. In 2014 Naireeta Services got awarded with Millennium Alliance Global award for Bhungroo implementation in Bangladesh. For his innovations, he has been conferred with series of prestigious state, federal and global awards viz US Government Gold Star, US embassy Eco Heroes Award, Water Star Award, Ambassador for Peace Award, Rockefeller Centennial Innovation Challenge Award, Commonwealth Scholar, SEAPCP Scholar, (to name a few). BHUNGROO is now part of Government of India policy of NRLM and also getting incorporated within MGNREG Act of Government of India

Challenge

Drought, Food insecurity & climate change mitigation

Ensuring food security and income generation for poor Farmers of Bangladesh through innovative water

BHUNGROO; It filters, stores and saves excess rainwater within subsoil void zones for reusing in dry period. It works on combination of following principles viz ASR (Aquifer Storage and Recovery), Vertical Drainage and Subsoil Water Augmentation.

Bhungroo is a farmer's best bet as it saves farmers' standing crop in flash floods while ensuring him/her water for cropping in the dry season & thus guaranteeing food security. Bhungroo ensures adequate water for irrigation and other purposes with zero water footprint. Using a surface space of only one square meter, each Bhungroo can augment/

conserve nearly one to four million litres of water each year within its subsurface zone. 17 technical designs of Bhungroo are now available for serving diverse communities within various agro climatic zones

Target Beneficiary

Small holders, who are deprived of cropping due to excess rain in summer and also devoid of proper irrigation during dry period

Potential Impact due to Intervention

From first year 20% Increase in farmers' income, zero cropping season to 3 cropping seasons, soil fertility increment, climate change mitigation, low water foot print irrigation



S4S Technologies-Science for Society

Founder/ CEO/ Director: Dr. Vaibhav Tidke

Type of Organization: For profit Social Enterpris

Address: Plot no. 43, Sector-6, Sanpada (E), Navi Mumbai-400705

Project Location: Maharashtra

MA support in INR: 20,00,000

MA support period: June 2014 to March 2016

Innovator Profile

S4S Technologies is the food preservation company that invents new food processing machines. S4S sells these machines to farmers or use these machines at our own facility to produce best quality processed food. Under the leadership of Vaibhav, S4S has developed and commercialized range of patented food dehydration technologies for farmers and industry. His unique skill set of using fundamental knowledge of science to develop new technologies and finding sustainable ways of commercialization to make social impact, makes S4S pioneer in sustainable food dehydration. S4S directly works with over 1,200 farmer and farmer cooperatives under its solar powered dehydration initiative supported by USAID, UKAID, Gates Foundation and Government of India.

With his dynamic leadership, S4S brought together range of private, government and agri value chain members under single umbrella and nurtured high level intrapreneurship at S4S Technologies. He is the active consultant in food and renewable energy and supports start-ups in numerous ways.

Challenge

Reduce turmeric processing time from 21.

Increase farmer's profit.

Increase nutrition value of turmeric.

Halditech

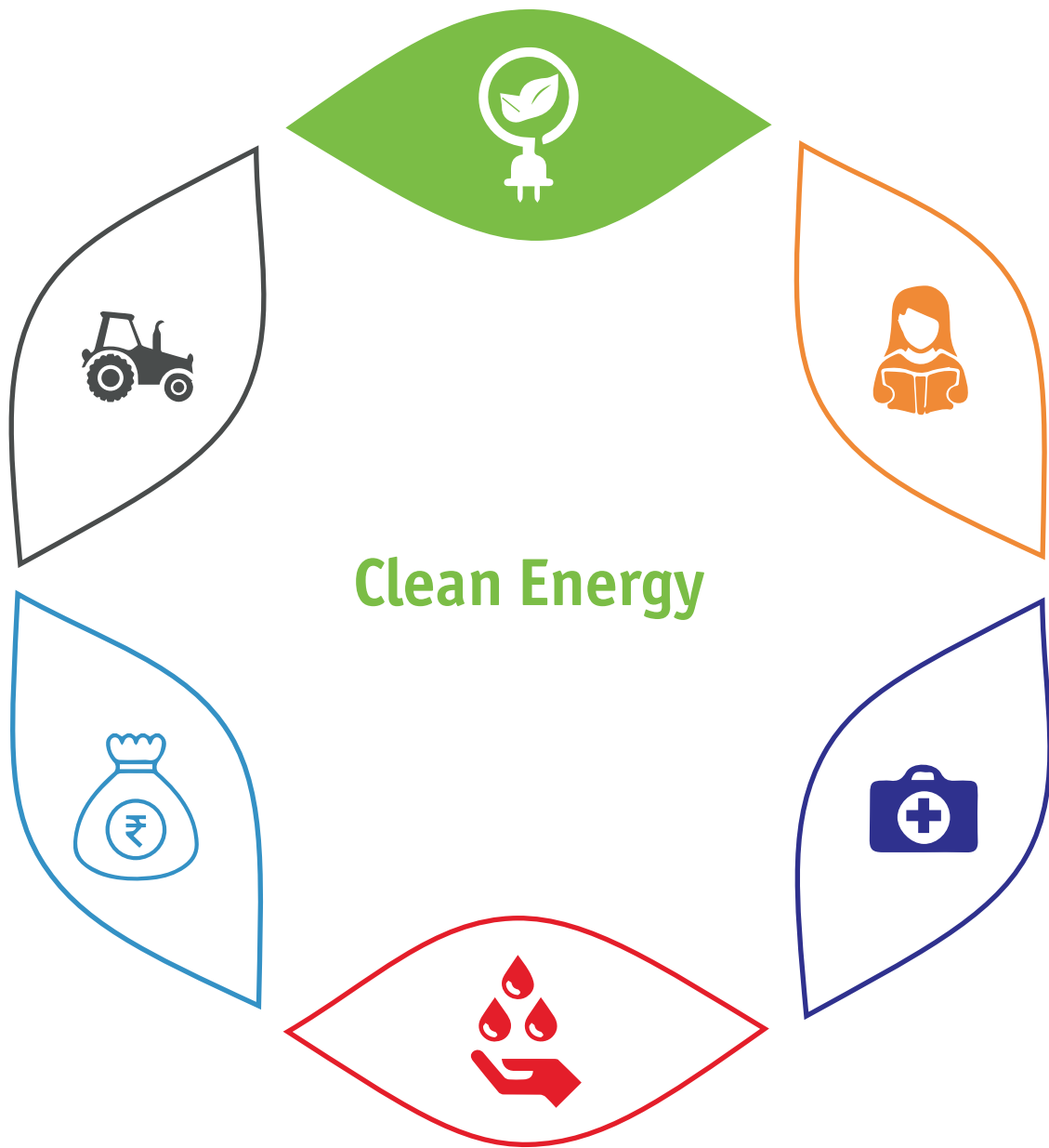
HaldiTech is the turmeric processing technology that processes turmeric in 8 hours against 21 days of traditional process. HaldiTech also increases 36% of curcumin in turmeric adding up to its nutritional value.

Target Beneficiary

Farmers

Potential Impact due to Intervention

More than 2000 ton capacity





Cygni Energy Private Limited

Founder/ CEO: Mr. Venkat Rajaraman

Type of Organization: For Profit

Address: Cygni Energy Pvt Ltd., Lansum House, Plot No 283, Road Number 78, Jubilee Hills, Hyderabad, Telangana 500033

Project Location: Unclear at the moment

MA support in INR: 3,000,000

MA support period: June 2018 to March 2019

Innovator Profile

Cygni Energy was founded in 2014. It was incubated at Indian Institute of Technology Madras (IITM). Venkat Rajaraman is the Founder/CEO of Cygni and an Advisory Committee member of National Centre for Photovoltaic Research and Education (NCPRE), India. He has over 20 years of experience in Product Design and Engineering Management. With the emergence of decentralized power generation through solar, Cygni believed time has come to change the paradigm of how the power is generated, stored and consumed. With IITM's technology collaboration, Cygni undertook the journey to power a billion dreams. In 3 years since, Cygni has powered more than 19,000 homes with its Inverterless technology winning several accolades along the way including best emerging SME 2017 by Dun & Bradstreet and CII SR emerging Entrepreneur award 2017.

Challenge

Cygni is attempting to solve this world's largest infrastructure challenges today - providing reliable, affordable and cost-efficient solar power

Solar DC microgrid

Solar DC Microgrid

Target Beneficiary

Semi-urban, rural and other areas with no-grid or near off grid conditions.

Potential Impact due to Intervention

This project increases productivity and lowers health risks. It also provides better lighting for school children and improves the standard of living.



Mahila Housing SEWA Trust (MHT)

Co-Founder: Ms. Bijal Brahmbhatt

Type of Organization: Not for Profit

Address: 701,702, Sakar-4, Opposite M.J.Library, Ashram road, Ellisbridge- 380006

Project Location: Madhy Pradesh, Bhopal

MA support in INR: 30,00,000

MA support period: July 2017 to January 2019

Innovator Profile

Recognizing that access to electricity was a major demand of poor women, MHT initiated a Ujjala program to provide legal electric connections in Ahmedabad slums in 2001.

MHT has since then expanded its energy program to other states. Along with enabling grid connections in slums, MHT also promotes the use of energy efficient & renewable sources.

Challenge

The energy paradigm of urban poor in slums is characterized by illegal and irregular access to electricity, and very high inefficiencies in energy use. Most slum dwellings are constructed with cement sheets, plastic covers & tin sheets that absorb heat, create stuffy and hot living conditions, require more energy to cool down and make the poor more susceptible to climate change risks. Also poor light & ventilation makes the households depend more on electrical lighting & cooling. Poor building quality coupled with use of low efficiency light bulbs, faulty electrical installations, and limited awareness about green energy contributes to high-energy consumption among slum households.

Women entrepreneurs for energy efficient slum homes

Their project combines process and product innovation to offer a unique package that includes 1) Auditing services to educate households on nuances of energy usage such as bill calculation, appliance's wattage consumption, changes in wiring to reduce energy wastage, and use of renewable and energy efficient products (2) sale of customized green energy technologies such as solar lighting-cooling systems; CFLs, LED, stoves, innovative building technology such as Roof Ventilation & Modular insulated roof systems (3) end-user financing with tailored loans & flexible collection (4) after sales service.

Target Beneficiary

The expected impact of the action will be visible through improved quality of life & productivity of 5000 slum households that they will directly target as part of the project. The action will yield a 10% decrease in household expenditure on fuel consumption. Reduction in energy costs will allow poor households to increase spending on food, health & education, resulting in improved quality of family life. Improved light, ventilation & insulation in slums will lead to an increase in

working hours of home based workers by 4 hours/day. Low energy, better-designed homes will also make the households less vulnerable to climate change risks.

Potential Impact due to Intervention

They believe that the most effective way of ensuring continued access to modern energy in slums is through mobilizing women, & empowering them to procure better services for themselves. Towards this, MHT helps women in poor communities organize themselves into CBOs & mentors them to address development needs of slums. Women leaders from CBOs are trained to interface with Govt. & service/product providers & developed as micro entrepreneurs. They plan to intensify their efforts in Bhopal & expand their energy program through this women led model to 3 states where they have a strong grassroots presence.

So far their energy program has empowered 2 L poor families in Gujarat & MP to access modern energy. This has resulted in savings of 550T in Co2 emissions.

When the project reaches scale, they would have empowered a total of 4 L slum households to climb the energy ladder and demand & pay for more efficient and sustainable products and services.



SunMoksha Power Pvt. Ltd.

Founder/ CEO: Dr. Ashok K. Das

Type of Organization: For Profit

Address: 768, 14th Cross, JP Nagar 1st Phase, Bangalore 560078

Project Location: East Singhbhum, Jharkhand

MA support in INR: 30,00,000

MA support period: July 2017 to July 2019

Innovator Profile

Dr. Ashok Das is the founder CEO of SunMoksha, a Clean Technology Solutions company. He has over 24 years of experience in semiconductor equipment and clean technologies including renewable energy, smart microgrids, access to energy, smart agriculture, and smart villages. He has been working on the ground in Bihar, Jharkhand, Odisha, UP and Bengal addressing the real issues of energy access. With his extensive experience in rural electrification, he has developed a holistic, sustainable, and scalable solution for rural microgrids.

Challenge

The socioeconomic development of India's marginalized rural and agricultural communities, needs Interventions to move them up the value chain with livelihood and microenterprise solutions. This will, in turn, reduce the pressure on agriculture and land, and lead to triple bottom-line impact. Access to energy, creation of business models and development of locally relevant skills play key roles in the goals of socio-economic development. There is a need for reliable, quality power supply with microgrids, operational efficiency, skill development for livelihood, and viable business models for sustainable economic development. The existing solutions in the market have been unable to achieve sustainability and scale, due to several technical as well as operational and business model challenges to make these decentralized solutions self-sustaining and scalable.

Smart nano power for socioeconomic development of villages

They have developed a holistic solution with a 'systems' approach, to address these challenges. The key Interventions are (1) Smart Nanogrid™ for uninterrupted, reliable green energy supply; smart microgrid with remote monitoring and control; and transparent e-governance; (2) Skill development of locally relevant skilled workforce and (3) Business models for creating and implementing microenterprises including sustainable business models for Smart Nanogrid™ that are scalable and geared for local adaptations.

Smart Nanogrid™ integrates hardware and software for comprehensive management, maintenance and remote control of mini-, micro-, nano-grids, as well as smart grids. It integrates power generated from hybrid renewable sources, and distributes it locally for sustainable development of communities. It uses IoT and Cloud systems to make the promise of microgrids attainable – to deliver the right amount of energy to the right location, at the right time, at the right price. It enables consumers to get quality & reliable power on demand, view consumption in real time, pay bills, and register complaint through a language-free Mobile App.

Target Beneficiary

At the core of their solution is the UN Sustainable Development Goals. They believe that E3 – Energy, Education and Employment – address most these goals by empowerment of the people. Their target beneficiaries are mostly BOP marginalized farmers, contract labours, and schedule caste and schedule tribes.

Potential Impact due to Intervention

The direct impact is on the livelihood of the beneficiaries – increased agriculture and horticulture due to year-round irrigation, and food processing and cold rooms to increase the life and value of agricultural produce. The latter not only increases farmer income, but also reduces food wastage and distress selling. Creation of non-agro livelihood and enterprise activities will reduce the pressure on agriculture and land, and lead to triple bottom-line impact. It will also prevent migration of youth from rural to urban areas, and reduce the strain on the city. While Smart Nanogrid™ ensures reliable energy supply, their training ecosystem creates local capacity and relevant skills. Both are linked to their model for creating microenterprises. They expect significant improvement in the quality of lives, in terms of earnings, children's education, agricultural outputs, and youth empowerment. Once economic growth takes place, citizen's overall well-being improves.

Smart Nanogrid™ is designed to be climate friendly. Only renewable energy is used for power generation and energy efficiency is enforced through efficient appliances, LED lights, and demand management. They anticipate a total 30-40 tons of CO2 reduction per year per village.



AVANI

Founder: Mr. Rajnish Jain

Type of Organization: Not for Profit (Society)

Address: AVANI, Village & PO Tripuradevi, Via Berinag, District Pithoragarh, Kumaon, Uttarakhand - 262531

Project Location: Districts Pithoragarh & Almora, Uttarakhand

MA support in INR: 60,00,000

MA support period: April 2016 to April 2019

Innovator Profile

Rajnish is the co-founder of Avani, His strong belief and ability to create conservation based livelihoods led to incorporation of Avani Bio Energy to scale the sustainable power generation work of Avani.

Challenge

Uttarakhand's unique ecosystem is an important climate regulator and a precious repository of biodiversity. Annual forest fires cause dramatic forest loss, soil erosion and greenhouse gas emissions among other harms to human health and livelihoods. The impact of fires is multiplied by pine needles, that build a thick carpet on forest floors when they shed. And are highly susceptible to the slightest ignition.

Harnessing the destructive energy in pine needles for rural development

Avani Bio Energy has developed technology which utilizes pine needles as fuel in biomass gasifiers. Pyrolysis of the fuel creates bio-char and releases producer gas. Once cooled and filtered, the gas runs a generator. Charred pine needles are mixed with binder and pressed into briquettes used as cooking fuel.

Target Beneficiary

This project facilitates rural entrepreneurs and employs the most economically vulnerable members of local communities to collect pine needles and operate bio energy plants. It supports local households, specially women, by providing a clean alternative cooking fuel to forest wood, reducing their drudgery

Potential Impact due to Intervention

The Central Himalayas have over 2 million hectares of pine forest that can generate 1000 MW. Globally 165 million hectares can generate 100 GW- more than a quarter of the world's nuclear power installation. The Intervention prevents forest fires, enabling native flora to regenerate, gradually leading to better water recharge cycles, increasing availability of herbs and timber, and restoring healthy ecosystems.



Boond Engineering & Development (P) Ltd.

Founder, CEO: Rustam Sengupta

Type of Organization: For Profit

Address: 301, Block B, Netaji Subhash Place, Pitampura, New Delhi - 110088

Project Location: Unnao, Uttar Pradesh

MA support in INR: 60,00,000

MA support period: July 2016 to March 2017

Innovator Profile

Mr. Sengupta started Boond in 2011 with the goal to fight energy poverty through solar power and do it in a sustainable manner. Over the past 7 years, Boond has developed to an organization of nearly 70 people working in 8 states and holding a patent for DC intelligent meter. They are also one of the leading solar microgrid developers and have a large portfolio of projects in the rooftop domain as well. The company has won a number of awards and also raised multiple rounds of investments.

Challenge

Building renewable energy infrastructure for the rural poor.

Pre-paid mobile payment based solar micro grids

Solar Microgrids working on a pre-paid metering business model.

Target Beneficiary

Rural poor and remote locations.

Potential Impact due to Intervention

Over 3000 homes provided high quality electricity with solar microgrid connections.



Gram Oorja Solutions Private Limited

Co-Founders: Mr. Anshuman Lath, Mr. Sameer Nair

Type of Organization: For Profit

Address: Flat 18, Rachna Mandir, West Avenue, Santa-Cruz West, Mumbai 400054

Project Location: Pune, Maharashtra

MA support in INR: 60,00,000

MA support period: June 2016 to June 2019

Innovator Profile

Gram Oorja focuses on 'Community based renewable energy solutions' for remote and decentralized applications. Gram Oorja has successfully implemented 'Solar PV based micro grid projects' in 50 different off-grid hamlets of India. Gram Oorja has also successfully implemented demonstration projects of 'Biogas cooking grid' at Gawaliwada, Pune and Dhopteshwarwadi, Aurangabad, Maharashtra. Gram Oorja has installed more than 80 'Solar water pumps', Roof top 'Solar power generation systems' for schools, health centers in various remote villages and medium scale 'Biogas plants and gas distribution network' for Gaushalas.

Challenge

A large part of rural India still uses firewood or biomass for their daily cooking needs. The adverse health effect of traditional, open stove cooking with biomass, especially on women and young children have been well documented. The smoke from such methods of cooking causes lung and eye trouble, especially to women and children. The collection of firewood for cooking is also very difficult and time consuming for the rural women. In addition, open stove biomass cooking is a major source of pollution as well a major cause of deforestation.

Biogas based cooking grid

Gram Oorja has implemented a Biogas based cooking grid, which is used to provide cooking gas to households in the community. A biogas grid consists of a central biogas plant in the village where all the cow dung is collected daily. This biogas is then transferred using a pipeline to each household, where the flow is measured and the pressure is regulated, in order to provide a satisfying cooking experience.

A local entrepreneur or village body is responsible operations and maintenance (O&M), and for collecting tariff. The tariff collected is used for O&M of the plant and for paying back the upfront capital costs. The tariff is finalized by Gram Oorja based on the design of the plant and factors such as willingness to pay of the community, their income levels, previous expenditures on fossil fuels.

Target Beneficiary

The biogas based cooking grid model can be effectively used by any communities in India, using firewood for cooking or facing difficulty in getting or refilling LPG cylinders may be because of remoteness.

Potential Impact due to Intervention

Gram Oorja's centralised bio-gas cooking grid helps in -

- 1) Rural areas accessing energy locally and reducing dependence on fossil fuels
- 2) Reduce greenhouse gas emission
- 3) Reduction in diseases cause by inhaling smoke by children and women
- 4) Help women to save time spent earlier on collecting firewood thereby enabling other income-generating activities
- 5) In addition, the village will be able to access organic fertilizer from the slurry of the biogas plant.



Jnana Prabodhini

Co-Founder: Mr. Vivek Giridhari

Type of Organization: Public Charitable Trust

Address: 510, Sadashiv Peth, Pune-411030

Project Location: Dist : Pune State : Maharashtra

MA support in INR: 30,00,000

MA support period: July 2016 to June 2018

Innovator Profile

Jnana Prabodhini initiated solar activities in rural area through promotion of solar lamps or lanterns. Thousands of such lamps were promoted in rural area of Maharashtra and Chhatisghadh. Jnana Prabodhini was actively involved in this solar lamp trading activity.

Challenge

Centralized solar power plants replace the input required for energy generation but distribution grid still needs to be set up which is a problem for remote areas due to poor infrastructure. Also very large scale Solar Power plants require significant land acquisition which might be a hindering factor. Panel costs dominate the total capital cost of a solar power plant. While manufacturing scale has driven per watt cost of panels lower every year, large power plants involve multiple stakeholders higher opportunity cost of capital employed and demanding commercial returns. This forces government subsidies for project viability. However, subsidies increase the fiscal burden and are not sustainable in the long run thus limiting the installed capacity of solar power plants.

Piloting of a novel table top solar panel laminator in rural locations for decentralized manufacturing

The innovation is piloting of a novel table top solar panel laminator in rural locations for decentralized manufacturing and training of solar panels by rural youth and women. Originally based on a Japanese technology, Jnana Prabodhini has successfully developed and tested a micro-solar panel laminator that can make solar panels in the range of 3Wp.

Target Beneficiary

Rural youths and families.

Potential Impact due to Intervention

Currently they have designed and developed two models of laminators, both of the size of a table top. This dramatically reduces the real estate space requirements of current laminators which occupy several thousands of square feet of factory floor space. Their laminator can be installed in a small 10x12 feet room. Through MA Intervention, they plan to install two new laminators in Maharashtra, train 15 local youth and manufacture 600 panels and related solar products within the 24 month project period. Due to the key USP of extremely low capital investment and accessing local labor at lower costs, the potential to scale is very high.



Founder, CEO: Mr. Mouhsine Serrar

Type of Organization: For Profit

Address: Spirit Sense, Old Auroville Road, Bommayapalayam, Tamil Nadu – 605104

Project Location: Villupuram, Tamil Nadu

MA support in INR: 30,00,000

MA support period: June 2016 to March 2017

Innovator Profile

Mouhsine Serrar, the founder and CEO of Prakti, arrived in India in 2005 and started Prakti in 2007. Mouhsine was the co-chair of the “Technology and Fuel” working group of the Global Alliance for Clean Cookstoves. Over the last ten years, Mouhsine has provided design and engineering expertise on stove development, stove marketing and distribution in the BoP segment to organizations like GIZ, US-EPA, Shell Foundation, Nexant/USAID, Mauritania Government, UN-GEF, UN World Food Program, and SNV in many countries in Africa and Asia.

Challenge

166 million households in India still use solid fuels (like wood, charcoal) to cook their families’ meals, using open fires or ancient stove configurations that are dangerous, wasteful, and environmentally ruinous. Smoke from traditional stoves and open fires kills over 875,000 people in India, and over 4 million worldwide every year. Each day, over 10 million trees are burned for cooking and 2.74 million tons of CO₂ are released worldwide.

In India biomass will continue to be a major source of cooking fuel in the medium to long term. Alternatives like LPG are expensive and prohibitive. They entail challenges in distribution on the supply side, and in cost, user acceptance on the demand side. Currently available improved biomass cook stoves are often too expensive for the rural market. They also fail to address usability concerns – they can’t burn multiple fuels efficiently, and are unable to fit wood pieces without user processing. This leads to limited user adoption, and usage is discontinued only after a few months. Therefore, it is important to accelerate the development and marketing of clean, efficient, safe, user-friendly, durable, and affordable improved biomass cook stoves that can replace traditional cooking methods.

Scaling Prakti multi-fuel clean cook stoves in India, Bangladesh and Nepal

Prakti has developed an innovative solution to address this need in Tamil Nadu and South India – an affordable range of extremely clean, efficient, and user-friendly improved biomass stoves optimized for burning wood, agricultural wastes and locally available cooking fuel for low-income households in India. While accommodating traditional cooking techniques, recipes, and fuel, Prakti stoves cut fuel usage by up to 50%, and reduce smoke emitted by up to 80%. Cooking is faster by 40%; time saved may be used for educational or income-generating activities. Reduced household air pollution reduces smoke-related health issues. Prakti’s stoves have been field-tested and are well-accepted by users and distributors in India.

Target Beneficiary

The direct beneficiaries are the households that use Prakti stoves. They are rural families with 2-6 family members, who cooked primarily with traditional stoves using primarily wood and cow dung, with annual per capita income ranging from 25,000-55,000 INR. Within the households, the women and girls who are primarily responsible for procuring and processing fuel and cooking will benefit the most. A typical household in India can spend 5-8 hours per day on cooking activities. Smoke reduction, fuel savings, and reduction in cooking time from using a Prakti stove will create health and livelihood impact for the entire household.

The indirect beneficiaries are the households neighbouring the direct beneficiary households, who are exposed to less pollution due to the clean burning Prakti stoves compared to the pollution that they were exposed to from the traditional cook stoves the direct beneficiary households used before. Indirect beneficiaries also include the employees of Prakti and its partners who have increased employment and training opportunities in terms of stove research and development, production, commercialization, marketing, and sales.

Potential Impact due to Intervention

Over the course of this pilot project duration in Tamil Nadu, the impact can be detailed below:

- Impact 1250 beneficiaries in South India
- Save 375 tons of CO₂ per year
- Reach out to over 1000 people to educate them on clean cooking

In the long term (5 years), and subject to additional funding, the project will have impact all across India:

- Reach 1 million households
- Save 7.5 million tons of CO₂ emissions
- Save 19 million trees
- Save \$452 million on fuel savings



Simpanetworks Inc.

CEO: Piyush Mathur

Type of Organization: For profit

Address: 4th Floor, B-2, Sector 4, Noida- 201301 Uttar Pradesh

Project Location: 22 districts across Uttar Pradesh, Bihar and Odisha

MA support in INR: 60,00,000

MA support period: May 2016 to Feb 2017

Innovator Profile

Simpanetworks makes clean energy simple, affordable and accessible to everyone. The company has touched the lives of more than 210,000 people in the last 4 years through deployment of over 42,000 solar home systems. It is currently operating in the states of Uttar Pradesh, Bihar and Odisha and will be expanding to other energy poor states in the coming years.

Challenge

India has over 250 million people living without access to clean energy, which hampers their standard of living and deprives them of opportunities. They are unable to afford clean energy solutions to meet their needs due to the high upfront costs involved and lack of after sale services.

Expanding solar-as-a-service to lower income households & micro-enterprises in rural India

Simpanetworks has developed a patented pay-go metering technology which allows consumers to pay for their solar home systems over a period of 12 to 36 months. They make small monthly payments under Simpanetworks's lease to own model, and receive the benefits of after sale services and door step collections.

Target Beneficiary

Simpanetworks's solutions target rural households and small shops who are either not connected to the grid or face an erratic supply. More than 90% of our customers are connected to the grid and are in want of a reliable source of electricity.

Potential Impact due to Intervention

Simpanetworks is working towards an opportunity of over 100 million rooftops in the next 5 years, which will impact the lives of millions in the form of improved education, livelihood opportunity, safety of women and children and improved standard of living.



Technology & Action for Rural Advancement (TARA)

Founder/ CEO/ Director: Mr. Shrashtant Patara

Type of Organization: Not for Profit

Address: B-32, Qutub Institutional Area, New Delhi – 110016

Project Location: Balrampur and Shravasti, Uttar Pradesh

MA support in INR: 85,00,000

MA support period: June 2016 to October 17

Innovator Profile

TARA has over two decades of experience of working with decentralized energy generation technologies. Between 2012 and 2016, TARA coordinated the Rockefeller Foundation supported Smart Power for Environmentally-sound Economic Development (SPEED) project in India.

TARA's association with Rockefeller Foundation has given the organization ground knowledge on operating renewable energy based mini-grids. The challenges faced in operations during this gave TARA the impetus to develop distribution technologies in-house for efficient delivery of power to the beneficiaries. This was the prime motivation to develop and package TARA Energy and Revenue Management System (TERMS) as a product for Energy Service Companies (ESCOs), which has the potential to be a game changer for decentralized energy based electrification in rural markets.

Challenge

Access to affordable and reliable electricity is still a distant dream for the rural poor in India. Even in situations where grid power is available it is generally unusable. Renewable energy is a solution for the segment but it has not seen growth. High costs of operation and revenue uncertainty make the sector undesirable for private investors. These are major reasons for the inherent latency in the sector and lack of investment flow into this segment.

Development of integrated energy and revenue management system for mini-grids

Prevention of power theft and revenue collection are possibly the most challenging tasks for an ESCO of any size in this area of work to take on. TARA had developed various technologies in-house such as programmable load limiters and a cloud based revenue monitoring system to mitigate these risks. With these it is possible to prevent theft of power and ensure on time revenue collection.

TARA has further improved these existing technologies and created a new technology - TARA Energy and Revenue Management System (TERMS) that goes a step beyond and allows for customization at the household level. This gives the technology the ability to incorporate features such as pre-paid or credit based electricity supply, ability to limit electrical loads, SMS based activation and deactivation of connections, and real time monitoring of supply etc., while retaining the already existing benefits.

Target Beneficiary

Direct beneficiaries: The Target Beneficiary of TERMS will be the Renewable Energy based Energy Service Companies (ESCOs), which provide access to communities in rural areas.

Indirect beneficiaries: Indirectly, intervened villages will experience economic growth and new enterprise development. Surrounding villages and hamlets will benefit from increase in employment opportunities and increase in access to services in their vicinity.

Potential Impact due to Intervention

The aim of the project was to further develop TERMS (TARA Energy & Revenue Management System) technology including the development software and hardware components and to test the developed prototype at pilot sites.

During the project we tested 120 TERMS devices at pilot sites. Since each device is connected to 5 households, the total number of beneficiaries was 600 households or 3000 people (1 Household has on average 5 people in the regions we had tested the devices).

In addition to this 18 personnel and technicians were trained to install, operate and maintain the installed devices.



Prakruti Renewable Power Private Limited

Director: Natarajan Sampath Kumar

Type of Organization: For Profit

Address: 85/1, Kumbalgudu Main Road, BM Kavalu, Tataguni Post, Bengaluru 560062

Project Location: The company has installed over 375 pico hydro systems and set up 3 pico hydro community hydro projects

MA support in INR: 100,00,000

MA support period: 2014 to 2019

Innovator Profile

Sampath has been a serial entrepreneur in the development space. He in his individual capacity sold stoves and driers based on Indian Institute of Science design for agro processing. Sampath co-founded Prakruti Renewable in 2011 to promote use of Pico and Micro Hydro Technology. The company has one of the largest installed base of pico hydro systems across India.

Challenge

Providing reliable electricity and lighting in remote hilly areas is a challenge because of the difficult access and high rainfall. Even though grid maybe available, it becomes unreliable due to the terrain and weather. Solar lighting is not suitable during the rainfall period. Hilly areas have access to flowing water adjacent to inhabitation. It is possible to use the rich hydro potential in the hilly areas to deliver lighting. There is a need for suitable pico technological solutions and last mile delivery teams to provide hydro solutions.

Pico hydro home lighting in hilly areas

The project aims to build a business in providing Pico hydro based home lighting in hilly areas.

Target Beneficiary

Households of the hilly areas in India.

Potential Impact due to Intervention

Pico-hydro based lighting provided to over 500 families.



SEWA Bharat

Founder/ CEO/ Director: Ms. Ruchi

Type of Organization: Not for profit

Address: Block 7/5, First Floor, South Patel Nagar,, New Delhi, Delhi 110008

Project Location: Mungar and Bhaglpur

MA support in INR: 95,43,321

MA support period: Dec 2014 - Nov 2016

Innovator Profile

Ruchi Sankrit Manager- Renewable Energy Program at SEWA Bharat, she has extensive experience working with social enterprises and is an alumni of TATA institute of social sciences.

Challenge

The supply of electricity is insufficient in the state of Bihar where 81% of rural households still use kerosene for lighting. Bihar has dismal infrastructure, capacity and resources to meet the basic energy requirements of the base of the pyramid population. Energy systems for poor households are unaffordable because products are costly and end-users paying capacity is less. Prior bad experience increases the risk perception of the end users because of either cheap products or lack of awareness.

Clean energy and women empowerment through women led enterprise

SEWA Bharat has initiated the Decentralized solar home light system (DSHLS) to address the pressing need of providing energy alternatives in the lives and livelihood of women. This intervention is focused in the state of Bihar. SEWA proposes establishment of Energy focused Enterprise owned, controlled and managed by local people and resources thus empowering the local villagers by ensuring their inclusion in a local supply chain and ultimately solution. The energy enterprise will institutionalize in sales, installation, servicing and financing of energy systems catering to specific needs of members. The model uses microfinance from internal and external sources to finance energy products taken on credit by users.



Greenway Grameen Infra

Founder/ CEO/ Director: Ms. Neha Juneja

Type of Organization: For profit

Address: Indiranagar Double Rd, Defence Colony, Domlur, Bengaluru, Karnataka 560008

Project Location: Maharashtra

MA support in INR: 6,93,000

MA support period: July 2014

Innovator Profile

Ms. Neha Juneja is the Co-Founder of Greenway Grameen Infra Pvt. Ltd and serves as its Chief Executive Officer. Ms. Juneja has been involved in executing climate change mitigation and adaptation projects across the country. She has organized community-led projects and need-analysis consulting in a wide array of areas including agro forestry, primary energy supply and water access. She has been internationally recognized for her excellence in product design. In addition to the numerous awards she has helped GGI secure and was named 2010's Brightest Young Climate Leader by the Hindustan Times & British Council. Ms. Juneja has an MBA from FMS Delhi, B.E. in Production & Industrial Engineering from Delhi College of Engineering. She has an undergoing training on climate change mitigation and adaption at the Swedish Meteorological & Hydrological Institute.

Challenge

There is a persistent need for electricity and source of fuel for cooking in the remote areas of India. Many of these hamlets are left out and have no power. Some of the houses connected to electricity have poor connectivity due to natural causes or lack of infrastructural facilities to maintain the grid. For cooking, majority of women use either Kerosene or collect sticks etc.

On demand electricity generation using waste heat generated during cooking for rural households usin

To cater to the need for 'energy on demand' and clean cooking, Greenway has developed two distinct solutions based on low cost thermoelectric modules that generate electricity from widely used biomass stoves during cooking.

Greenway Magic (GrM) - a thermoelectric power generation device that uses any heat source to generate electricity and is optimized for biomass based cooking.

The project aims to prototype 20 units of each product and user trials across 6 -8 geographies

It also involves components on value engineering for the two products, as well as manufacturing & test marketing 1000 units of each product.

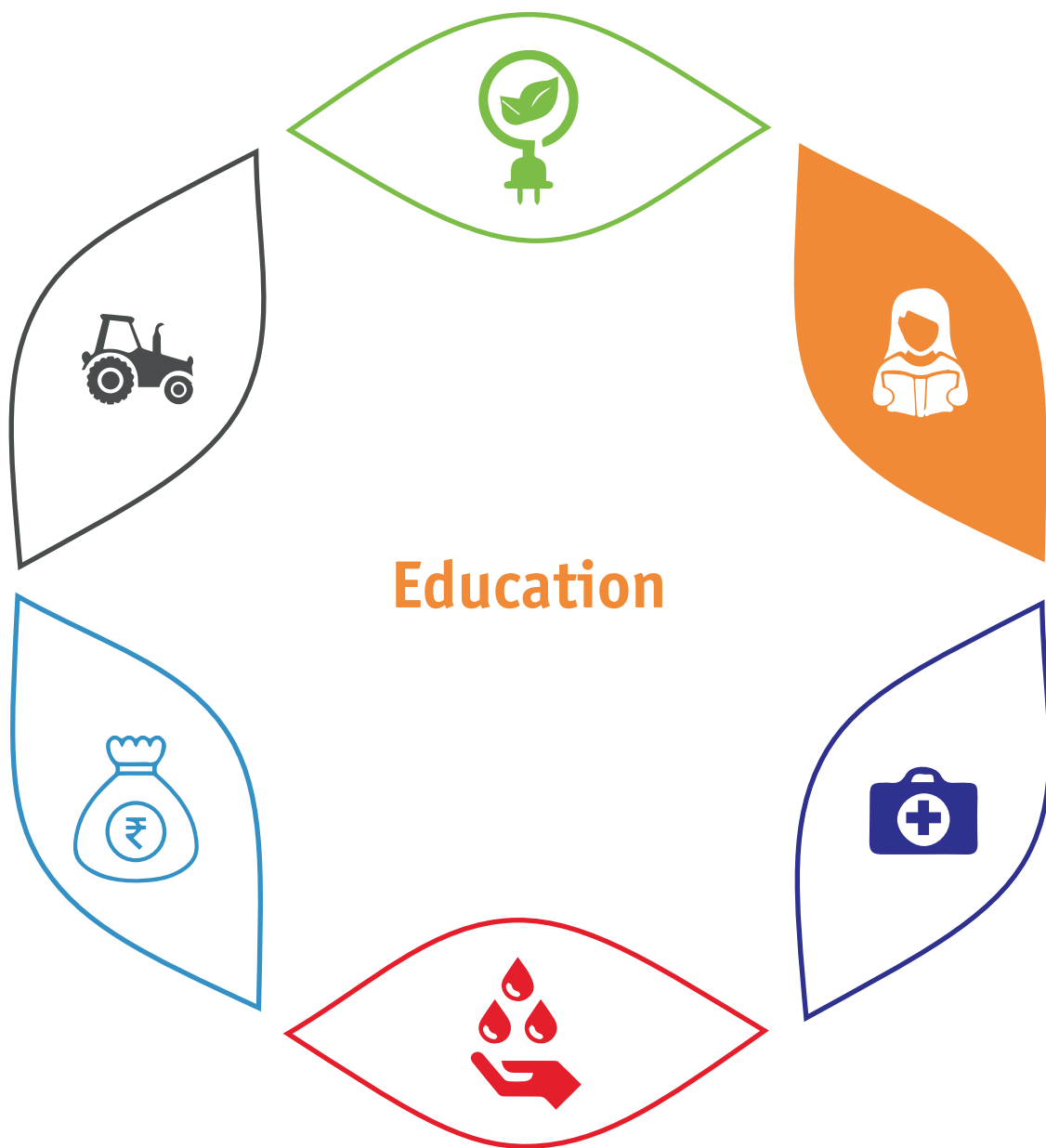
These generators have been integrated into the following two products-

Greenway Magic (GrM) - a thermoelectric power generation device that uses any heat source to generate electricity and is optimized for biomass based cooking.

Greenway Power Stove (GrPS) - a clean biomass cook stove that employs thermoelectric to power a fan to provide cleaner combustion for healthier cooking and excess electricity for household needs.

Target Beneficiary

The project aims to prototype 20 units of each product and user trials across 6 -8 geographies. It also involves components on value engineering for the two products, as well as manufacturing & test marketing 1000 units of each product.



Education



Absolute Return for Kids (Peepul)

CEO: Ms. Kruti Bharucha

Type of Organization: Not for Profit

Address: A – 142, Ground Floor, Neeti Bagh, Opposite Father Agnel School, New Delhi - 110049

Project Location: New Delhi

MA support in INR: 23,50,000

MA support period: April 2018 to May 2021

Innovator Profile

Kruti Bharucha has more than 19 years' experience in various leadership and management roles in the education, management consulting and advisory sectors as well as with multilateral institutions. She is Chief Executive Officer for Peepul providing strategic direction and vision for India operations, managing the portfolio of programmes and identifying innovations and partnerships that will lead to significant improvement in learning outcomes in government schools. Peepul was previously known as Ark India and was spun-off into a fully India based entity in 2017.

Challenge

India has made great progress in recent years towards reaching universal primary education. But education quality has not kept pace. While many private schools provide a good education to children from privileged families; examples of schools delivering an excellent education to children from deprived communities are few and far between. Although government schools do cater to children from poorer households, over the years the quality of education delivered in such schools has reduced significantly. According to a recent survey done in Delhi government schools, 75% of students leaving grade 5 could not read a grade 2 level English story, and 13% could not even identify the alphabet. A low quality of education disproportionately affects the poorest children.

Partnership program to revitalize the quality of public education in India

Peepul is pioneering the model of 'partnership schools' in the Indian context, as a model that can transform failing government schools. Currently, they run 3 fee-free schools, in partnership with the South Delhi Municipal Corporation (SDMC). They have high expectations of their schools and believe that every child should receive an excellent education. Through their schools, they want to prove that a child's destiny need not be determined at birth and that every child has a chance to succeed, if provided a high-quality education.

Target Beneficiary

Children, Parents and Government

Potential Impact due to Intervention

- **Capacity Building of Government Teachers:** They are working to directly build the capacity of 225 government teachers in corporation schools in 2017, impacting more than 10,000 children through the ripple effect of these teachers within the system.
- **Student Achievement:** In the year-end assessments held in March 2017, 80% of these students either met or exceeded their expectations across all subjects- English, Hindi and Mathematics. Their Grade 1 pupils are beginning to develop a good number sense and a broader vocabulary, and their Grade 2 students have worked hard to close their learning gaps. To enhance reading levels, build vocabulary and develop a love for reading, they have introduced reading journals for their Grade 2 pupils in addition to regular library periods for all pupils.



Bhasha Research and Publication Centre

Founder: Prof. Ganesh Devy

Type of Organization: Not for Profit

Address: 37, Shreenathdham Society, Behind Dinesh Mills, Akota, Vadodara 390007, Gujarat

Project Location: Chhotaudepur District in Gujarat State

MA support in INR: 20,00,000

MA support period: June 2018 to May 2020

Innovator Profile

Bhasha has designed and produced the Language Pictorial Glossary. This is a scalable, easy-to-produce, adaptable teaching aid that offers an effective tool to both teachers and school children in primary schools across tribal belts to easily overcome hurdles related to the teaching-learning processes when dealing with differences between mother tongue/s of tribal children and the state language which is the medium of instruction in government-run village schools in tribal areas. With the Glossary, teachers get a quick idea of the local tribal language spoken by almost all the children in the school. With its use, teachers can break the ice with the younger children who know no other language than their mother tongue.

Challenge

The key challenge which tribal children experience in government schools and which is also the key reason for their dropping out early, is the difference between their home language/mother tongue and the school's medium of instruction which is the state's official language. In Gujarat, the tribal child is exposed to Gujarati which s/he has not been exposed to at home. Therefore, s/he is unable to comprehend the teaching-learning that takes place in the classroom. Since most school teachers belong to non-tribal communities, they do not know the tribal language. On many occasions they are even unaware that tribals have their own languages.

Pictorial glossaries to aid teaching in tribal schools

After in-depth research in collaboration with the Central Institute of Indian Languages, Mysore, Bhasha has created a tool in the form of the 'Pictorial Glossary' to aid communication between teachers and the tribal child in the classroom. The Pictorial Glossary is multi-lingual presenting 1200+ visuals from the child's physical world with word equivalents in the tribal language, Gujarati (as the state language) and English. These glossaries have been used by the Sarva Shiksha Abhiyan, Gujarat, in its government schools in the state and the teachers have found these to be useful. To aid the teachers to use the Pictorial Glossaries more effectively and build in them an understanding of mother tongue/multi-lingual education, the present project builds in production of Pictorial Glossaries in 2 tribal languages of Chhotaudepur District of Gujarat and training school teachers in the language areas in their use.

Target Beneficiary

The target beneficiaries are teachers of government schools located in the designated linguistic areas where the two languages are spoken. The Glossaries will be produced in any two of the following four tribal languages: Airani, Tadvi, Naiki and Bareli spoken in the Chhotaudepur district of Gujarat. These languages are selected as the community speakers of these languages are economically marginal and introducing the Pictorial Glossaries in these languages will create access to development for these communities in the years to come.

Potential Impact due to Intervention

The introduction of Pictorial Glossaries in government schools by teachers trained in their use will firstly help aid communication between teachers and tribal children. The Glossaries along with the teacher training imparted by Bhasha will further enable teachers to help children make a transition from their mother tongue into Gujarati. This will aid retention of tribal children in schools and over the years help improve the status of tribal education.



Eklavya Foundation

Director: Mr. Rajesh Khindri

Type of Organization: Not for Profit

Address: E-10, Shankar Nagar BDA Colony, Shivaji Nagar, Bhopal MP-462016

Project Location: Bhopal and Raisen, Madhya Pradesh

MA support in INR: 1,00,00,000

MA support period: April 2018 to March 2021

Innovator Profile

Eklavya is a non-profit organisation that develops and field tests innovative educational programmes and trains resource people to implement these programmes. It functions through a network of education resource centres located in Madhya Pradesh.

Eklavya has set up around 200 community based learning centres (Shiksha Protsahan Kendras) in more than 100 villages in five districts of MP (Betul, Harda, Hoshangabad, Dewas and Ujjain). These seek to provide out of school support to children going to government primary schools and give space for the community to get involved in managing the education of their children and get acquainted with new educational ideas. They have been working in Chhatisgarh and Maharashtra state for quality education.

Challenge

An environment for reading in the community is necessary. A sense of alienation from reading inhibits community members from supporting the school system to improve learning levels of children.

Padho, likho, maza karo: A reading initiative in Bhopal & raisen districts of Madhya Pradesh

Involvement of the community: Their goal is to find ways of greater involvement of the community in reading-related activities – this approach has not been actively pursued before. Efforts to improve reading levels have focused on teacher training, curriculum and textbook reform or running libraries and out-of-school centres.

Young mothers: They want to reach out to young mothers, who have shown potential in programmes such as OELP in rural Rajasthan, to focus on early grade reading support for children as well as enhance their own reading levels.

Learning support to children of marginalized families: Though parents want children to improve their career and life prospects through education, parental academic support is not available in marginalized, low income families. With their learning support systems and libraries we will help such children from the base of the pyramid to overcome their sense of alienation from reading and the school system.

Potential Impact due to Intervention

Improved levels of reading in at least 240 children by the third year of the project.

Improved levels of reading in at least 120 young mothers.

This can help them achieve higher levels of education, become increasingly aware, articulate and involved in social and educational matters that affect them.



Karadi Path Education Company

CEO & Director: Mr. C. P. Viswanath

Type of Organization: For Profit

Address: Karadi Path Education Company Pvt. Ltd., 3A, Dev Regency, 11, First Main Road, Gandhi Nagar, Adyar, Chennai 600020

Project Location: Vizianagaram District, Andhra Pradesh

MA support in INR: 60,00,000

MA support period: May 2018 to April 2021

Innovator Profile

Mr. Viswanath is an educator, an innovator, a musician, and an entrepreneur with an international business experience of over 30 years. He is the Co-founder and CEO of Karadi Path Education Company, Co-founder of Karadi Tales (India's pioneering audio-book venture), and Director of Pedagogy, Isha Vidhya Rural schools.

Mr. Viswanath has created in Karadi Path a methodology that is an effective, low-cost and scalable solution to experiential language learning. It borrows lessons from several diverse pedagogies including music education and sports training. Karadi Path, Mr. Viswanath's seminal contribution to education, is revolutionising the way English is being learnt, leading to holistic outcomes in children, and empowering the teaching community by making them embrace innovative learning methods. Karadi Path is currently being used in 2600 schools in 17 states of India.

Challenge

There is a growing demand & aspiration for acquiring English proficiency, fed by the persistent requirement for English in higher education and at workplaces. Increasing demand for English skills has led to the early introduction of English in many Indian schools, even those in English deprived areas. However, many children and teachers struggle with English simply because of lacunae in the current practices in English teaching. The lacunae in pedagogies especially affect students belonging to the communities at the base of the pyramid. The absence of enabling environment in schools - inadequate teacher capacity, materials, & infrastructure further intensify the problem.

Enabling early grade reading in government tribal schools

Karadi Path Education Company Pvt. Ltd. was founded with the mission to 'provide high impact low cost programs, to deliver English proficiency to children and adults through the indigenously developed Karadi Path methodology'. The company has been in the forefront of and has been singularly focused on researching and developing innovative products and pedagogies to aid learning in the classroom. 'Magic English SLL (ME-SLL) is a novel programme that caters to the specific needs of students from the BoP segment in environments where English is not supported.

Target Beneficiary

The target segment for the Enabling Early Reading project will be the students and teachers from 25 Andhra Pradesh Tribal Welfare Schools under the Integrated Tribal Development Agency (ITDA) Parvathipuram, Vizianagaram District, Andhra Pradesh. Children from the tribal communities in the region are enrolled in the tribal welfare schools under ITDA. The students from Class 2 to 8 from the Tribal Welfare Department's schools will be attending the programme. More than 7500 students and 100 teachers from 25 schools are expected to benefit directly from the proposed project. The project is expected to contribute to institutional strengthening and capacity building in the ITDA schools and hence will benefit future students in these schools as well.

Potential Impact due to Intervention

India's primary education sector operates within severe limitations and challenges. By developing English proficiency at an early stage, Karadi Path hopes to help address some of these issues in the long run. With English more accessible to students, access to information and knowledge would be improved. The child would enjoy learning as they understand their classes better, thereby reducing drop-outs, and contributing to improvements in overall literacy rates.



Solid Waste Management Round Table - Trashonomics

Managing Trustee: Ms. Myriam Shankar

Type of Organization: Not for Profit

Address: The Anonymous Indian Charitable Trust, W 202, Sunrise Chambers 22, Ulsoor Road, Bangalore - 560 043

Project Location: Karnataka

MA support in INR: 10,00,000

MA support period: May 2018 to May 2019

Innovator Profile

The Solid Waste Management Round Table, Bengaluru (SWMRT) is a public interest group working towards socio-economic change by promoting decentralized waste management to achieve a sustained circular economy since 2009. The impact will enhance livelihood, create jobs and protect natural resources. SWMRT has been instrumental in SWM policy changes research and facilitation of projects and also various nationwide campaigns like 2bin1bag.in Swachagraha.in and Trashonomics.in

Challenge

- Garbage menace increasing exponentially (Bengaluru's solid waste has increased from 2300MT/day in 2007 to 4039.76MT/day in 2017)
- Lack of sensitivity towards waste management and garbage
- Garbage is seen as something to be disposed off (NIMBY - Not In My BackYard)
- Lack of understanding on policy related issues and campaigns
- Impact of irresponsible disposal of waste affects all economic strata
- Complex yet essential subject missing from school

Trashonomics - A school programme on solid waste management for children with a guide

The Trashonomics team had initially done a recce of all books related to waste management, including those in the school curriculum. They realized that none of them gave the true picture of the situation they are in vis a vis waste management, beyond brushing over the basics at a macro level. This product i.e. Trashonomics explains the on-ground situation of waste management in India to children while offering viable solutions to recurring problems with waste. It seeks to inculcate an attitude of responsibility and active participation in the future of waste management and environmental resources by the leaders of the future. Although the subject is touched upon in school curriculums, this book provides a large volume of knowledge to children in bite sized, age appropriate pieces allowing them to fully understand the gravity of the situation while engaging them in the solution. There is no competing program or product to teach sustainable life skills and civic duties to children with relevance in India at the moment.

Target Beneficiary

- Middle and high school teachers and students in Karnataka, Hindi-belt region.
- Volunteers working with schools.
- Trainers in organisations like Hasirudala, TATA trust Kalike that are already working with schools on waste management.

Potential Impact due to Intervention

- Sensitization to waste management: Create active citizens
- Behavioural change: Practice waste management at home, schools.
- Empowerment: Change consumer patterns to create a better world.
- Ripple effect: Trainers and Students spread awareness.
- Swachh Bharat - SWM Rules 2016: Complement the progressive decentralized waste management systems.
- Sustainability: Focus on conservation and regeneration of natural resources



The Education Alliance

Founder: Mr. Amitav Virmani

Type of Organization: Not for Profit

Address: A-142, G.F., Neeti Bagh, New Delhi

Project Location: New Delhi

MA support in INR: 1,00,00,000

MA support period: April 2018 to May 2021

Innovator Profile

Amitav Virmani founded The Education Alliance after having worked in the social development sector with Ark, a philanthropic cooperative based in UK and focused on Education. As Ark's Country Director, he set up and managed the India operations for 6 years and was responsible for launching several programs around school leadership, English literacy, school vouchers and school quality assessments.

Challenge

Government schools in India are suffering from a falling quality of education and therefore seeing a drastic drop in enrolment. In just five years from 2007-08 to 2015-16, private school enrolment has increased from 28% to 38% of total school going children indicating the level of parent's dissatisfaction with government schools. As a result, nearly 431,000 government-run schools across the country (39 % of the total 1.1 million government schools) have less than 50 students resulting in grossly underutilized schools.

Transforming government schools through partnerships

The Government-Partnership Schools (G-PS) Model

The Education Alliance aims to engage with state and municipal governments to help them build better policies and frameworks for setting up whole-school partnerships with rigorously selected non-profits to establish exemplary government schools. It couples autonomy on school operations with accountability for outcomes, in order to achieve school transformation. Our research on the model shows that Government-Partnership Schools serve similar populations as government schools, but deliver significantly improved outcomes.

Target Beneficiary

Children from economically weaker sections of society who are currently out of school or accessing poor quality budget private schools

Potential Impact due to Intervention

Government-Partnerships Schools have the potential to deliver significantly higher academic outcomes in the government school system. These are intended to be exemplary government schools that have high enrolment / utilization and attendance, and deliver academic results for students at par or higher than high-fee private schools.



TheTeacherApp

Founder & CEO: Mr. Vinod Karate

Type of Organization: Not for profit

Address: A-142, Neeti Bagh, New Delhi- 110049

Project Location: Chhattisgarh, Himachal Pradesh and Uttarakhand

MA support in INR: 30,00,000

MA support period: Starting June 2018

Innovator Profile

Vinod is a social entrepreneur who previously served as founding member and director at STIR Education, a successful not-for-profit start-up focused on building teacher changemaker networks in India and Uganda. Under his leadership, STIR program in India scaled to over 15,000 teachers.

Challenge

There are 9 million teachers in India. Every year we add close to 900,000 to this pool. Year after year 6 out of 7 teachers fail the teacher eligibility test that the government conducts. There are widespread reports which suggest that teachers lack conceptual clarity. Progressive ideas of teaching and latest know-how of teaching is not reaching our teachers continuously. Our current teacher training infrastructure has just not been able to provide continuous support to our teachers who like doctors and lawyers require constant update of how the practice is evolving.

This is a major challenge considering 250 million poor children in India completely depend on teachers for better learning outcomes.

TheTeacherApp

At TheTeacherApp they are keen to reimagine this situation by connecting teachers to high quality training directly on their smartphones and helping state governments to reimagine teacher support in world where teachers have anytime, anywhere access to high quality content.

Hence our mission is to break barriers between teachers and quality professional development content by leveraging technology and create an ecosystem to enable and accelerate the digitization of existing non-digital teacher development solutions. They follow a unique approach towards building education technology solution for teachers in India. Great content will only reach the last mile if it is engaging and accessible. Similarly, content that is aligned with teachers' motivations will encourage them to consume it.

Target Beneficiary

Teachers from low resource schools in India

Potential Impact due to Intervention

Since the launch of TheTeacherApp in September 2016 they've reached over 90,000 registered users on the app, 2000 average daily return users, 67% course completion rate and 10% users who are viewing more than 1 hour of learning content in a month.

By 2022, they want to unlock 1000 hours of content for teachers and share it with 1 million teachers in Hindi speaking states.



v-english: Let us learn English Visually

Co-Founders: Mr. P Rajasekharan & Mr. Shashaank Awasthi

Type of Organization: For Profit

Address: 2nd Floor, Surya, 2nd Cross Street, Seethamal Extension, Alwarpet Chennai

Project Location: Delhi, Mumbai, Chennai

MA support in INR: 30,00,000

MA support period: April 2018 to March 2019

Innovator Profile

Enterprise delivering a range of services for inclusion of persons with disability in mainstream employment and other markets. v-shesh's journey has been one of co-developing (with direct feedback from end-customers) service offerings, testing the value proposition of the service, and eventually setting an effective pricing for the service. Using this approach, v-shesh delivers services for job seekers (training & placement), employers (equal opportunity policy, access audit, sensitization, and recruitment) and schools / children with disabilities (bridge education programs).

Challenge

4 out of every 1000 children born in India are born deaf. Delay in diagnosis and in early Intervention limits language acquisition during the crucial early years of language development (2 to 7 years). Without a fully developed first language – spoken language cannot be acquired due to deafness and sign language cannot be acquired due to lack of exposition – learning how to read/ write becomes impossible for most deaf children.

Further Governments exempt deaf children from second language in schools, so most deaf children learn only one language, which is usually their mother tongue. The end result being, deaf students lack basic comprehension of English Language, which becomes the single big barrier in accessing higher education, quality jobs, and leading a fulfilling professional and personal life.

v-English: Let us learn English visually

This “opportunity divide” has been addressed through a successful USAID supported Bridge English pilot program launched by v-shesh in FY 2015-16. This program was implemented in schools in urban, semi-urban and rural India and showed excellent progress in addressing grade disparity by using deaf-learner centric techniques and harnessing perceptual / visual learning skills of deaf children as following - 1. Pedagogy customized for Deaf learners 2. Achieving multi-pronged impact by simultaneously liaising with key stakeholders.

Target Beneficiary

The program will create a viable and replicable delivery model that will optimize the unit cost of conducting a bridge English communication program for deaf students with the following target beneficiaries - 1. Deaf-learner 2. Institution 3. Ecosystem. Further, the project will widen interest of researchers in this field and academicians and public private enterprises to create more inclusive ecosystem for deaf.

- Further, the project will widen interest of researchers in this field and academicians and public private enterprises to create more inclusive eco-system for deaf

Potential Impact due to Intervention

In developing countries like India, the onus of provisioning of basic services like quality education for all has been primarily with the Government. The inevitable predicament of multiple demands and limited resources, accentuate the need for more directed effort through partnerships such as these which will not only demonstrate impact but also present important indicators and invaluable insights to support stakeholders in their efforts to achieve accessible, equitable and integrated educational outcomes. Currently v-shesh's efforts are restricted to isolated inputs on pilot basis with several learning and innovations in empowering deaf student to learn, all of which will fade away if not consolidated.



Kaivalya Education Foundation

Founder: Mr. Aditya Natraj

Type of Organization: Not for Profit

Address: A-56 Panchsheel Enclave, New Delhi, 110017

Project Location: Udaipur, Rajasthan

MA support in INR: 80,00,000

MA support period: July 2017 to July 2020

Innovator Profile

Aditya joined a premier education nonprofit in Gujarat, Pratham, where he worked as Program Director for five years. Aditya's idea of entrepreneurship took shape due to the strong impression left on him by the integrity and dynamism of one local school principal in India. His vision was to take forward what he saw by building an enabling system that could become a model for education leadership across government schools in India. Aditya aims to demonstrate how the public education system can be made to work by turning it around, reviving the faith of people in it, and thus opening a door to quality education for children that can help them escape poverty.

Challenge

The public education system in India is failing. As per the ASER 2016, 28% of class 8 students cannot read a class 2 level text. The percentage of children in Class 3 who can do a 2-digit subtraction is only 27.7 percent in 2016. Teacher absenteeism and low levels of teaching activity are visible problems; with high dropout rates being familiar issues. In government schools, the senior most teachers are eligible to be the school principal after two days of administrative training. No other certification or course of education is required or provided. Thus, the education system and leadership is ill prepared to engage with the children, their parents, and significant decision makers in the community or with the government machinery.

School Transformation Program (STP)

School transformation Program (STP) focusses on improving reading and mathematics level of class three and five children in public schools in Udaipur. Under the School Transformation Program KEF intervenes at the school level by extending field support to principals and teachers and by conducting trainings and workshops for building the leadership capabilities of school staff. Under STP, the organization recruits young leaders called the Gandhi fellows who enable the school authorities to introduce re-engineering of school processes including building as learning aid, Bal sansad, library and assembly for efficient delivery of child centric services in public schools.

Target Beneficiary

The target beneficiaries include 19870 School Children, 300 Teachers, 140 Head teachers and residents of the local community.

Potential Impact due to Intervention

- a) STP will ensure that the learning levels of 11,000 students are improved and will continue to do so even after MA
- b) At the end of 3 years, STP aims to increase grade appropriate learning level of grade 3 and 5 students to an average score of 70% and 60%. Such an improvement in the student's learning levels will help them in the remaining years of school and it will also help these students and their families have a better chance at healthier and prosperous lives
- c) Post the STP in 110 schools of Udaipur, the sustained positive changes in the attitude and mindset school staff and education officers will ensure that all the students in 110 schools perform to a grade appropriate level



National Brain Research Centre

Innovator: Dr. Nandini C. Singh

Type of Organization: Autonomous Institute under Dept. of Biotechnology

Address: 1401, Tower 11, Vipul Greens, Sector 48, Sohna Road, Gurgaon – 122 018

Project Location: Delhi, Maharashtra

MA support in INR: 30,00,000

MA support period: July 2017 to July 2020

Innovator Profile

The innovator is Nandini Chatterjee Singh. She is a cognitive neuroscientist at NBRC who studies how the brain learns to read different writing systems. Lab research led to the development of screening and assessment tools in Indian languages to help screen and identify children who may be at risk for dyslexia. Currently available in four languages Hindi, Marathi, Kannada and English she is now focused on training teachers and psychologists to use these tools and hope to extend them to all the 11 writing systems of India through NERD Tools Foundation.

Challenge

Invisible Visible – Nearly 1 in 10 children have differences in brain wiring and do not acquire skilled reading and math skills despite opportunity and instruction. They are misunderstood in classrooms, often drop out from schools but often have talents in other domains. Brain research now shows that if they are screened early in childhood they can be nurtured to flourish and be integrated into classrooms

Invisible Visible

DALI – Dyslexia Assessment for Languages of India

Target Beneficiary

Primary schools in India

Potential Impact due to Intervention

Reduced school dropout. Improved literacy rates in India. Identification of gifted children.



Sikshasandhan

Founder Chairman: Chittaranjan Das

Type of Organization: Not for Profit

Address: ND 7, 2nd Floor, Vipr Area, Irc Village, Bhubaneswar-751015

Project Location: Mayurbhanj, Odisha

MA support in INR: 50,00,000

MA support period: July 2017 to July 2020

Innovator Profile

Sikshasandhan is a resource centre for education innovating education for children of marginalized communities in Odisha. The organization came up as society in 1995 firmly believing that Education is a powerful tool for bringing social change in the society. In 1999 Sikshasandhan worked as a consortium for innovating education for children of tribal communities. With enactment of RTE Act, the required nature of Intervention has changed and started working with Government Schools with some innovative strategies to bring children into school and enhance learning level of the children.

Challenge

Access of children to elementary education in the tribal community has been a major challenge across the country. More so in the most backward central region of India. The major challenge is more of socio-cultural than economic. The text books, language, pedagogy/teaching learning materials, teachers (in elementary schools of the government) are by and large alien to tribal culture. Children do not get any interest in attending schools, so also the parents who remain indifferent to the educational needs of their children as well as functioning of elementary schools. Despite huge public investment, it has not yielded desired result in delivering quality elementary education to tribal children. This project will address issues at children, parents, community and government level.

Making elementary education culturally compatible

Sikshasandhan has been mobilising community and children for schooling through village meetings, local theatre, wall painting, foot march etc. It has recruited community volunteers who are mobilising community through their own language, bridge communication between schools and community and children and teachers. They are bringing indigenous knowledge system to schools as TLMs and syllabus. Bi-lingual has been developed to facilitate mother tongue based multi-lingual education.

Target Beneficiary

Children from tribal communities, Parents, School Management Committees, language teachers from the community, Government teachers, ICDS workers.

Potential Impact due to Intervention

The project is addressing the problems of children of tribal communities such as language, cultural, non-functioning of government schools, non-participation of community in management process of the schools, non availability of TLM in tribal languages, lack of skill and knowledge of teachers who are working in tribal areas to teach children of tribal communities. Besides, it is trying to ensure 100% attendance and retention of children in schools at least from class -1 to class-8th.



Snehadhara Foundation

Executive Director & Founder: Ms. Gitanjali Sarangan

Type of Organization: Not for Profit

Address: S-14 Meenakshi Residency, Arekere, Bannerghatta Road, Bangalore - 560076

Project Location: Bangalore, Karnataka

MA support in INR: 70,00,000

MA support period: June 2017 to June 2020

Innovator Profile

Gitanjali Sarangan, the Founder of Snehadhara Foundation (SF), is an educationist, social innovator, entrepreneur and an Arts Based Therapy (ABT) Practitioner, Educator & Guide. Years of working with children and adults, culminated in Snehadhara Foundation, the first centre in the country that uses Arts Based Therapy as the only methodology to work with children and adults with special needs. For close to two decades Gitanjali has been pioneering effective ways to bridge developmental deficits in education, and weave inclusion into the mainstream world. Gitanjali has mentored and trained educators, teachers, professionals across organizations in and outside India.

Challenge

Concept of Inclusion for children with disabilities is not sufficiently mainstreamed in India. Lack of inclusion in traditional learning systems, stemming from their lack of diversity in how these systems see 'learning'. This is particularly detrimental to those with learning disabilities, whose needs are often perceived to be therapeutic rather than for learning itself, albeit differently from other children. No single learning or therapeutic model has proved to be completely effective. A children and young adults regardless of disabilities should have access to inclusive learning environments.

Kala Samavesh for inclusion and education of disabilities

Kala Samavesh for inclusion and education of disabilities will select, train and certify Arts Based Therapy Practitioners, from 60 educational institutions, each institution working with a minimum of 50 children with disabilities to achieve Educational and Social Inclusion Goals. They aim to create a Methodology of Arts Based Therapy, an Inclusion Array, a quality Curriculum and Action Research Database with a low fee structure to reach out to a broader audience. Improving Geographical Reach of Arts based education by training in Hindi/English/Native Language with a Rural/Urban mix of trainees.

Target Beneficiary

- Schools - Mainstream schools, Special Schools, Inclusive schools, Government Schools
- Disability Organizations
- BOP Population: When it comes to disability, we should remember that 'BOP' should include not only those who are economically poor, but also those who are severely health-poor.

Potential Impact due to Intervention

This innovation will significantly increase the number of inclusive learning spaces for all children thereby mainstreaming inclusion and give schools a wider set of tools that they can use to impart learning. It will also demonstrate that inclusion can be made an integral part of mainstream learning systems thereby opening doors to learning for all children whose learning needs are now unmet. In the 1st year of the grant itself this innovation has reached over 82 institutions, introduced and trained over 1085 professionals, educators, therapists, certified 17 Arts Based Therapy Practitioners and touched over 22500 children through indirect Interventions. It has demonstrated the potential to bring both multiplier value and continuing proof.



ZMQ Development

Co-Founder: Mr. Subhi Quraishi

Type of Organization: Not for Profit

Address: Pearls Omaxe Building, Off # 1005, 10th Floor, First Tower, Netaji Subhash Place Complex - Pitampura, Delhi – 110034

Project Location: Mustafabad, Delhi

MA support in INR: 30,00,000

MA support period: April 2017 to September 2018

Innovator Profile

Subhi Quraishi is M.Tech in Computer Science and Applied Mathematics. He is a technovator, running ZMQ since 2003. He has been pioneer in designing technology development innovations for development in the areas of Healthcare, Education, Livelihood and sustainable Development.

Challenge

Project addresses the key challenges of madrasa education

- Absence of basic contemporary courses of reading/writing skills in Hindi and English, entry level Mathematics and Life-skills education in early grade Madrasa Education;
- Lack of teachers in Madrasas to provide basic reading/writing skills in Hindi and English, elementary Mathematics and Life-skills education;
- Lack of preparedness of children to switch to conventional schooling system and mainstreaming;
- Inaccessibility of Madrasas to girls of poor and marginalised communities;
- Absence of standardised Madrasa System – like Courses, Time-table, age based grading, Assessment System etc.

Smart Madarsa

Smart Madrasa System

1. Establishing courseware for building Reading/Writing and Mathematics, Life-Skills for Madrasa Students while at the same time undergoing Madrasa Education;
2. Establishing digital Game based courseware & labs for building Reading/Writing skills in English and Hindi, entry level Mathematic and Life-skills;
3. Establishing system and process for students enrolment from Madrasas to contemporary schools;
4. Provisioning access of Smart-Madrasa Platform to girls, not going to schools & Madrasa in the vicinity of a Madrasa (Home based Smart-Madrasa Model);
5. Standardizing the Madrasa System, Courses, Time-Table and Assessment System;
6. Counselling of community and parents for mainstreaming education.

Target Beneficiary

100 Madrasa students of which 46 are girls taking SM from home.

Potential Impact due to Intervention

1. Total number of children completing basic Writing/Reading skills & entry –level Mathematics using Smart Madrasa – 74%;
2. Total new enrolments in mainstream schools from Smart-Madrasas – over 80%;
3. Increase in retention of students in Smart Madrasas as compared to other Madrasa – 90%;
4. Increase in uptake of Smart Madrasa education by girls in the vicinity of the Madrasa 46%;
5. Increase in uptake of mainstream schools by Girls under going Smart Madrasa - 74%;





Nalandaway Foundation

Founder & CEO: Mr. Sriram V Ayer

Type of Organization: Not for Profit

Address: AH – 123, Second Floor, AH Block 4th Street, Anna Nagar, Chennai – 600040

Project Location: Coimbatore and Delhi

MA support in INR: 60,00,000

MA support period: May 2016 to April 2019

Innovator Profile

Sriram is the founder of the award winning NGO, Nalandaway foundation which helps disadvantaged children realise their dreams through the power of arts. He recently co-founded “Wandering Artist,” Chennai’s new hip art and culture hub, which India Today magazine called it as “one of the top five creative spaces to watch out for in India”. He is also the author of the much acclaimed novel “The Story of a Suicide.”

Challenge

The absence of a well-rounded arts curriculum in most of the schools in India often fails to engage students with their academic content and not only deprives them of a joyful learning experience but also fails to sustain enrolment ratios in schools leading to increased absenteeism and dropouts. Difficult home environments further limit their social efficacy and they often struggle to make successful transitions in the community. Given the above challenges, it is imperative that schools in India focus on a more structured approach towards art education, one which NalandaWay strives to achieve through the ‘Art in Education’ programme.

Art in education

Their pioneering Arts In Education program empowers teachers to create a joyful learning experience for children. The program integrates arts, craft and theatre exercises in teaching. Teachers are transformed into facilitators and engage better with children in a student centric learning environment. The model encourages peer and collaborative learning. Children are provided with an environment that lets them imaginatively, explore, express and communicate ideas, feelings and experiences. Children engage in creative problem-solving and develop creative talents through spatial, rhythmic, visual and kinesthetic awareness. They also expand life skills such as conflict resolution, negotiation and teamwork.

Target Beneficiary

Through the proposed innovative project, NalandaWay would train 74 primary school teachers in two regions across the country (Coimbatore and Delhi).

Potential Impact due to Intervention

The project will spread to impact primary school teachers and children. The expected long-term outcomes are: 1) Increase in attendance levels and decrease in drop-out rates in schools 2) Increase in confidence levels and class management skills of teachers across schools 3) Better reading, writing and listening skills for children in other academic subjects.



Rishi Valley Institute for Educational Resources (RiVER), Rishi Valley Education Centre, Krishnamurti Foundation India

Founding Directors: Mr. Padmanabha Rao Y A & Mrs. Rama A

Type of Organization: Not for Profit

Address: RIVER – KFI, Rishi Valley School, Post: 517352, Madanapalle, Chittoor District, Andhra Pradesh

Project Location: Chittoor, Andhra Pradesh

MA support in INR: 50,00,000

MA support period: July 2016 to July 2018

Innovator Profile

Padmanabha Rao and Rama, founding directors of RiVER, have developed a learner-guided method to teaching that not only increases learning but also re-engages teachers in their responsibility as educators. Rama and Padmanabha Rao, initiated a network of laboratory schools with the support of Rishi Valley Education Centre and evolved an innovative “School in a Box” curriculum. This is what has come to be known as the RiVER Model. This resulted in higher levels of student learning, increased teacher ownership and greater school accountability.

Challenge

In most developing countries, there are a large number of mixed age/multi-level primary schools wherein there is no correlation between student’s age and competency levels. Restricted to age-specific textbooks, it is nearly impossible for teachers to address the literacy requirements of a roomful of students belonging to different levels of learning; hence eventually students become alienated and teachers demoralized. Ultimately millions of children suffer in these joyless schools leading to low levels of learning & high dropout rates.

RIVER MGML Dissemination

The RIVER model offers an Activity Based, Joyful Learning Approach that allows teachers to handle multigrade primary schools in a creative way. Government curricula are adapted for local context, and organised into smaller meaningful modules called ‘RIVER LEARNING LADDERS’ so learning is aligned with each student’s ability. These ladders are linked with a series of graded fun activities such as language games, math’s puzzles, science riddles, folk tales, theatre games etc., which enable students to learn from local examples, from things around them and from real life experiences. While students, working in groups and individually set their own pace for advancing through various levels of a subject learning ladder, the teacher facilitates the learning process. RIVER has a digital component also wherein the current material is made available through low cost tablet-based tools in an interactive format for students. The system has data storage and feedback tools, which will be used to continually monitor progress of students and test the efficacy of learning materials. In addition, the system includes collaboration tools that will enable teachers to communicate with each other, their coaches and the RIVER community.

Target Beneficiary

120 students and 6 teachers in 6 schools

Potential Impact due to Intervention

25,000 students and 2,700 teachers in 1,345 schools



Runira Educational and Allied Services Pvt Ltd

Founder/ CEO/ Director: Ms. Rukmini Thakore

Type of Organization: For Profit

Address: Runira Educational and Allied services Pvt. Ltd c/o Forsberg Agritech India Pvt. Ltd, 123 GIDC Makarpura , Vadodara 390010

Project Location: Haryana, Rajound and Babain

MA support in INR: 60,00,000

MA support period: June 2017 to June 2019

Innovator Profile

Rukmini started Kakshaa in 2013 as an effort to bridge the educational gap between the rural and urban children in India. After having received world class education herself at the London School of Economics and working in prestigious institutions, she felt it is my moral duty to ensure others especially the underprivileged also get access to equal opportunity. Hence she started Kakshaa with the aim of creating a virtual school for kids in rural areas who cannot afford the best schools or do not have access to the best teachers.

Challenge

Providing high quality education to all irrespective of their economic and social class.

Kakshaa

Creating a virtual school in vernacular languages that can run on a phone or computer and teach kids educational concepts in the language they understand through the most innovative teaching methods that they would enjoy.

Target Beneficiary

Kids in under-served areas.

Potential Impact due to Intervention

They piloted the program in 30 schools in Haryana in collaboration with the government and are now using the Millennium alliance funds to scale up in other states.



Akshara Foundation

Chairman: Mr. Ashok Kamath

Type of Organization: Not for profit

Address: No.621, 5th Main, OMBR Layout (Near Axis Bank) Banaswadi, Bangalore-56004.

Project Location: Kushtagi block, Koppal District; Mundargi block, Gadag District

MA support in INR: 50,31,500

MA support period: November 2014 to November 2016

Innovator Profile

The organisation was founded on the belief that quality education is the undeniable right of every child and that children should not be deprived of this just because they do not have access to it or the resources to realise their dreams. Over the last 18 years, Akshara has run multiple programmes that have all been designed to be comprehensive, scalable, replicable and cost-effective. All Akshara's programmes are child-centric and are designed to ensure that enrolment in schools increase, drop-outs from schools decrease and that children's learning outcomes and overall development improve.

Challenge

Reading is a fundamental skill and the gateway to learning. For children the ability to read is a coveted competency and often a stumbling block. Studies in government primary schools show poor skills acquisition and foundations imperfectly laid. Most government schools in Karnataka have libraries, but lack ageappropriate, attractive books and a working process. Schools are either short staffed or teachers are not trained librarians. Hence, the libraries remain shut more often than not. And children in turn do not have adequate access to books.

The Classroom Library (TCL)

The Classroom Library (TCL) is an Akshara innovation that was started in 2014 to address the deficits in government schools and to build the essential, cornerstone tool of reading in children by providing them with a library in the classroom. A TCL kit is provided in each classroom, which contains foldable bookcases. Each case can hold around 120 books; age-appropriate, graded books in multiple Indian languages including English, and histogram charts.

Target Beneficiary

All government primary school children in grades 3-7

Potential Impact due to Intervention

Findings from Kushtagi block: Comparing the scores of ASER 2016, around 49% of grade 4 and 55% of grade 5 children have acquired reading ability in the first language of a story from a grade 2 level text. This is far higher than the ASER 2016 findings in the national and rural Karnataka measurements, with the same grade 2 text. It is almost 10% points higher.

Findings from Bangalore North 2 block: 53% and 62% of children in grades 4 and 5 respectively have acquired reading ability in the medium of instruction in accordance with the ASER 2016 assessment tool. And 52% and 57% of children from grades 4 and 5 could clear the test at the story level and comprehend by the end of the post-test.

Findings from Mundargi block: The Akshara survey found that 90% and 92% of children in grades 4 and 5 have acquired reading ability in the medium of instruction in accordance with the ASER 2016 assessment tool. And 87% of children from grades 4 and 5 could clear the test at the story level and comprehend by the end of the post-test.

It was encouraging to see that almost all children like to read books and around 24% (Kushtagi) and 35% (Bangalore north) children like to take books home to read.



Angel Xpress Foundation

Founder/CEO & Co-Founder/COO: Ms. Anubha Sharma & Ms. Beenaa Advani

Type of Organization: Not for Profit

Address: 1st Floor, Sai Darshan, 19th Road, Khar West, Mumbai- 400052

Project Location: Mumbai Suburban District, Mumbai City District, Maharashtra

MA support in INR: 17,50,000

MA support period: February 2015 - February 2018

Innovator Profile

The journey to Angel Xpress started for Anubha as an exploration of her need to do something for society.

Angel Xpress Foundation (AXF) was started in April 2012 as a platform for concerned citizens willing to tutor, mentor and guide first-generation learners from slums in their neighborhood. The idea caught the imagination of moms across Mumbai and today, in their 6th year, they are impacting lives of over 1500 children being tutored and mentored by over 300 volunteers in 14 locations. Their aim by the year 2022 is to impact 10,000 kids through efforts of over 2000 compassionate volunteers.

Challenge

There is an absence of educated adults to tutor, mentor, and motivate children in most slum dwelling families. This coupled with abject poverty, compromised living conditions, poor schooling, lack of nutrition, inadequate basic possessions like clothes, shoes, toys, and opportunities for talent discovery and development. In addition, exposure to violence and antisocial elements; creates an environment and possibilities for the children to acquire poor value systems, and of straying into drugs and criminal activities.

Angel Xpress Foundation: Free learning centers that connect educated adults with slum children

Angel Xpress Foundation is a NGO that genuinely wants to make a difference in the lives of underprivileged children, mostly from slum dwelling families, with the help of educated volunteers through tutoring, mentoring, and motivating children.

Angel Xpress Foundation works towards creating interactive opportunities for underprivileged children; to improve language, logic, reasoning, and to impart life skills and values through daily lessons in English and Math. These community programs, largely led by educated stay at home mothers, retired people, and conducted in neighborhood parks, or promenades. AXF provides training to these communities to create, and manage free learning centers catering to the underprivileged first generation learner, studying in neighboring schools, and living in neighboring bastis.

Each center provides, a daily snack, clothe & toy redistribution drives, medical camps, counseling sessions, extracurricular activities focused on talent development, and fun & educational outings in collaboration with various NGOs and citizen bodies further helps with enhancing the development of each child.

Target Beneficiary

Underprivileged children

Potential Impact due to Intervention

Other than the improvement of literacy and numeracy skills, the daily lives of the students of Angel Xpress Foundation have improved through the Learning Center Program. By being equipped with life skills and through regular interactions with different adults at the centers as well as educational outings, the self-esteem and confidence of students have improved.

Providing daily nutritional inputs (fruits/snacks) and regular health check-ups (dental, eye, etc.) has helped maintain good health of the students. The emotional and mental wellbeing is also addressed through regular counseling and mentoring of students.



Caritas India

Founder/ CEO/ Director: Mr. Vinod Pandey

Type of Organization: Not for Profit

Address: Divya Deepti Sadan, 9-10 Bhai Vir Singh Marg, New Delhi, Delhi 110001

Project Location: Kochas block of Rohtas District, Bihar

MA support in INR: 28,71,800

MA support period: February 2015 to March 2016

Innovator Profile

HamariPaathshala: Collective action for education

Challenge

As per census 2011, India's literacy rate stands at 74.04% with Bihar ranking last amongst all states. Mushahars is a resident community of Bihar and has the lowest literacy rate of 6.88% for SCs and about 1.43% for women. Discrimination against Dalits is a widespread problem in caste-affected country like India. Challenges of geographic isolation, gender disparities, discriminatory attitudes of teachers, inadequate sanitation facilities, fear of sexual harassment, early marriage etc. hinder the access to and of education for a Dalit girl child.

Hamari Paathshala: Collective action 4 education

Caritas India is the official national organization of the Catholic Bishops' Conference of India for social development. Since 1962 Caritas India is working to eradicate poverty, reach relief and rehabilitation in times of disasters and organize communities for self advancement. The mission of the organization is to restore human dignity of the poor and marginalized by partnering with intermediary organizations in extending support and facilitation and advocating for the rights of the people. Caritas India is committed to work for the upliftment and empowerment of the most marginalized communities.

Target Beneficiary

The proposed initiative "HamariPathshala – a Collective Action for Education" endeavors to promote education and learning opportunities for 3-19 years old girl children in the marginalized community of Mushahars in Bihar.

Potential Impact due to Intervention

The project would be implemented in 12 villages in Kochas block of Rohtas District. Selected villages have high concentration of Mushaharcommunity. Mushahar community lives in isolation from mainstream society and has poor access to livelihood, educational and employment opportunities. It is expected that proposed intervention will improved access to educational opportunities to girls from Mushahar community.



Foundation to Educate Girls Globally (Educate Girls)

Founder & Executive Director: Ms. Safeena Husain

Type of Organization: Not for Profit

Address: 201, Durolite House, Above Renault Showroom, Opp. Citi Mall, New Link Road, Andheri West, Mumbai, Maharashtra 400053

Project Location: Jalore district of Rajasthan

MA support in INR: 10,000,000

MA support period: December 2014 to November 2015

Innovator Profile

Safeena, a London School of Economics graduate, has worked extensively with rural and urban underserved communities in South America, Africa and Asia. After returning to India, Safeena chose the agenda closest to her heart – that of girls' education – and founded Educate Girls. Safeena's efforts to bridge the gender gap in education in India have been widely recognized. Under her leadership, Educate Girls has received the 2015 Skoll Foundation Award, the 2014 WISE Award, the 2014 USAID Millennium Alliance Award, the 2014 Stars Impact Award, and the British Asian Trust's Special Recognition Award from HRH Prince Charles for outstanding contribution in education. She recently won the 2017 Niti Aayog Women Transforming India Award and the 2016 NDTV-L'Oréal Paris Women of Worth Award in the Education Category.

Challenge

Throughout India, gender disparity remains a significant barrier to education. The result: 3 million girls across the country are out of school, the third highest number in the world. Exacerbating the issue of access to education, quality of education provided in public schools is very weak, resulting in inferior learning outcomes.

Community led solutions for girls education

Educate Girls' comprehensive model leverages governments' investment in public schools and mobilizes community resources to provide quality education for under-served and marginalized girls. Educate Girls aims to usher in systemic reform and provide quality education to achieve behavioral, social & economic transformation for all girls in India's educationally backward districts.

Target Beneficiary

Educate Girls works to improve the enrolment, retention and learning cycle of every child in the age group of 6-14 in the educationally backward districts of India. Through its pilot Intervention in Secondary Education, Educate Girls also works with Adolescent Girls in the age group of 14-18 years.

Potential Impact due to Intervention

Educate Girls is present in 21,000+ schools across 15 educationally-backward districts in India. Since inception, Educate Girls has enrolled 200,000+ OOSG; 650,000+ children have benefitted from its learning curriculum. Over 4.9 million children are direct beneficiaries of improved education infrastructure and governance in schools.



Education Initiatives

Founder/ CEO/ Director: Ms. Vyjayanthi Sankar

Type of Organization: Not for profit

Address: 16 Panchsheel Community Centre, Near bus stand., Shahpur Jat

Project Location: Delhi

MA support in INR: 57,74,100

MA support period: July 2013 to March 2014

Innovator Profile

Vyjayanthi is the Founder and Executive Director for Centre for Science of Student Learning (www.cssl.in). A Fulbright Humphrey fellow (2013-14) and an Ashoka fellow (2015-16), Vyjayanthi founded CSSL in 2015 with the mission to build capacity for high quality assessments and research into the science of student learning. CSSL works with MHRD and several state governments to revolutionise their approach to learning assessments.

A Leading Education, Assessment and Management expert, Vyjayanthi regularly consults at the global level for the Brookings Institution, The World Bank and UNICEF and the Learning Metric Task Force.

As Founder and Vice President of Educational Initiatives Large Scale Assessment Division (2003-13), Vyjayanthi pioneered Large Scale Learning Achievement studies in South Asia with nearly 90 research and assessment projects covering 15 million students and teachers. The most recent and prominent ones are the 18 state 'Student Learning Study' done with support of Google, the 'Annual Status of Student Learning' in Bhutan done under the aegis of the King of Bhutan and the 'Quality Education study' in partnership with Wipro in India's 'top' schools.

She is a member of Govt. of India's working group (2016) for defining learning outcomes for Indian children. She is an expert member for the Southeast Asia Ministers of Education Organisation Secretariat's SEA-PLM, a regional learning assessment for South East Asia. Vyjayanthi also supports the Learning Metric Task Force Learning Champions and advises 21 countries in Eastern and Southern Africa for Learning Assessments.

She was member of Govt. of India's SSA Joint Review Mission in 2014 and advisory board member for the Educational Survey Division of NCERT in 2012. Vyjayanthi co-authored the 'National Strategy Paper for Educational Assessments' by TSG, Ministry of Human Resource Development, India and regularly presents in prestigious international forums like the NCME and ILTE.

Challenge

It is the need of the hour to address the problem of reading and language acquisition difficulties in India along with the problem of early drop-outs. There is a requisite demand for developing and improving reading levels of primary schools students in Hindi language in India. A child's learning gets restricted due to the shortcoming of a teacher to provide individual attention because of large class size.

Technology based solutions, with a strong educational core in improving the reading levels of primar

Technology based solutions, with a strong educational core in improving the reading levels of primary school students in Hindi language in India

Potential Impact due to Intervention

The delivery/implementation of the reading solution can be immediately scaled across multiple Hindi speaking states in order to reach out to students in rural areas as well as urban. (30% of the 1.2 billion strong Indian population speak Hindi). More language modules can be developed for further scale up.



CLT India, registered as the Children's LoveCastles Trust

Founder & CEO: Ms. Bhagya Rangachar

Type of Organization: Not for profit

Address: CLT India, Jakkur Village Post, Jakkur, Bangalore, 560064, India

Project Location: Karnataka

MA support in INR: 1,45,00,000

MA support period: 2014 to 2016

Innovator Profile

Ms. Bhagya Rangachar is the Founder CEO of CLT India (Registered as Children's LoveCastles Trust) and President of the CLT International Foundation Inc., U.S.A. She has overseen the development of CLT for over 20 years- from being a Trust that was first to implement mid-day meals in government schools in Karnataka State to an organization that has developed large repository of digital STEM content in regional languages with low-cost technology delivery model with data analytics. CLT's flagship program, e-Patashale, has impacted nearly 1million students learn better in the states of Karnataka, Rajasthan and Maharashtra States.

Bhagya believes that each child that is set free with education, in turn, will set a chain of actions that frees many others. This can begin to happen only with access to learning opportunities in every child's environment and that is the impetus for CLT's work!

Challenge

Since 1997, CLT empowers under-served schools with the inspiration and resources they need to become champions of STEM education and open doors for themselves all over the world.

The clear gaps in the education system are two pronged – the lack of teachers, and the lack of resources for them to teach better in the classrooms. Extrapolate this situation to the rural parts of India, and lack of infrastructure including power and internet would further make the possibilities of access to knowledge by inspired student's dismal. UNESCO's research puts India as one of the several countries in the developing world where this problem is rampant.

CLT e- Patashale: Low-cost innovative e-content for STEM K-12

CLT bridges the gap of shortage of teachers with subject matter expertise by bringing together a network of master teachers to design innovative STEM pedagogy. Leveraging low cost technology, in its strength for replication and scaling, has enabled delivery to over 9,000 rural classrooms in a very short span of time. CLT e-Patashale has developed a suite of products on mobile devices for classrooms, teachers and students that has curricula-aligned digital STEM, teaching resources in regional languages CLT is the first organisation to introduce data analytics in the underserved space at scale- which is poised to bring back even more insights about the challenges in the underserved education space - and open opportunities to address them. CLT has made government schools an option of choice over an option of chance for the parents.

Target Beneficiary

Students & Teachers in underserved communities & practitioners working in this space across India

Potential Impact due to Intervention

The program has already served nearly 1 million students, through 20,000 teachers; the e-Patashale program operates in 9000 classrooms in Karnataka, Rajasthan, Maharashtra.



Executive Director: Ms. Geeta Dharmarajan

Type of Organization: Non Profit

Address: A-3 Sarvodaya Enclave , Sri Aurobindo Marg, New Delhi: 110017

Project Location: Delhi, MCD schools and underserved communities in Delhi

MA support in INR: 210,50,000

MA support period: June 2013 to June 2016

Innovator Profile

Katha has been working in the areas of children’s education, teacher training, and book publishing since 1988. They have an innovative and proven education model that has been designed based on decades of working with children from underserved communities. Their model puts the child at the centre of all learning and makes learning a fun, creative, holistic experience and also relevant to the world outside the classroom. They also train teachers to creatively engage students using Katha’s Story Pedagogy© and to design classroom activities that make learning interactive and fun. Katha is also a renowned publisher of children stories and translated adult fiction. They have published 300+ beautifully illustrated children’s stories in Hindi and English and 106 adult titles. CBSE and NCERT have together recommended 124 of our children’s titles and Katha’s children’s books have thrice been nominated for the Astrid Lindgren Memorial Award, one of the most coveted awards in children’s literature.

I Love Reading (ILR)

I Love Reading (ILR) supported by Millennium Alliance is a reading and school transformation initiative that aims to improve education quality within the existing government school system. It is a proven Public-Private Partnership model, wherein the government provides Katha access to children and teachers in schools, as well as a classroom where Katha sets up a child-friendly, colourful reading centre. Katha hires and trains teachers (“Reading Mentors”) and then deploys them in government schools. Katha’s Reading Mentors work directly with children to improve their reading skills, work with teachers to demonstrate new methods and assist them in adopting them, and with principals.

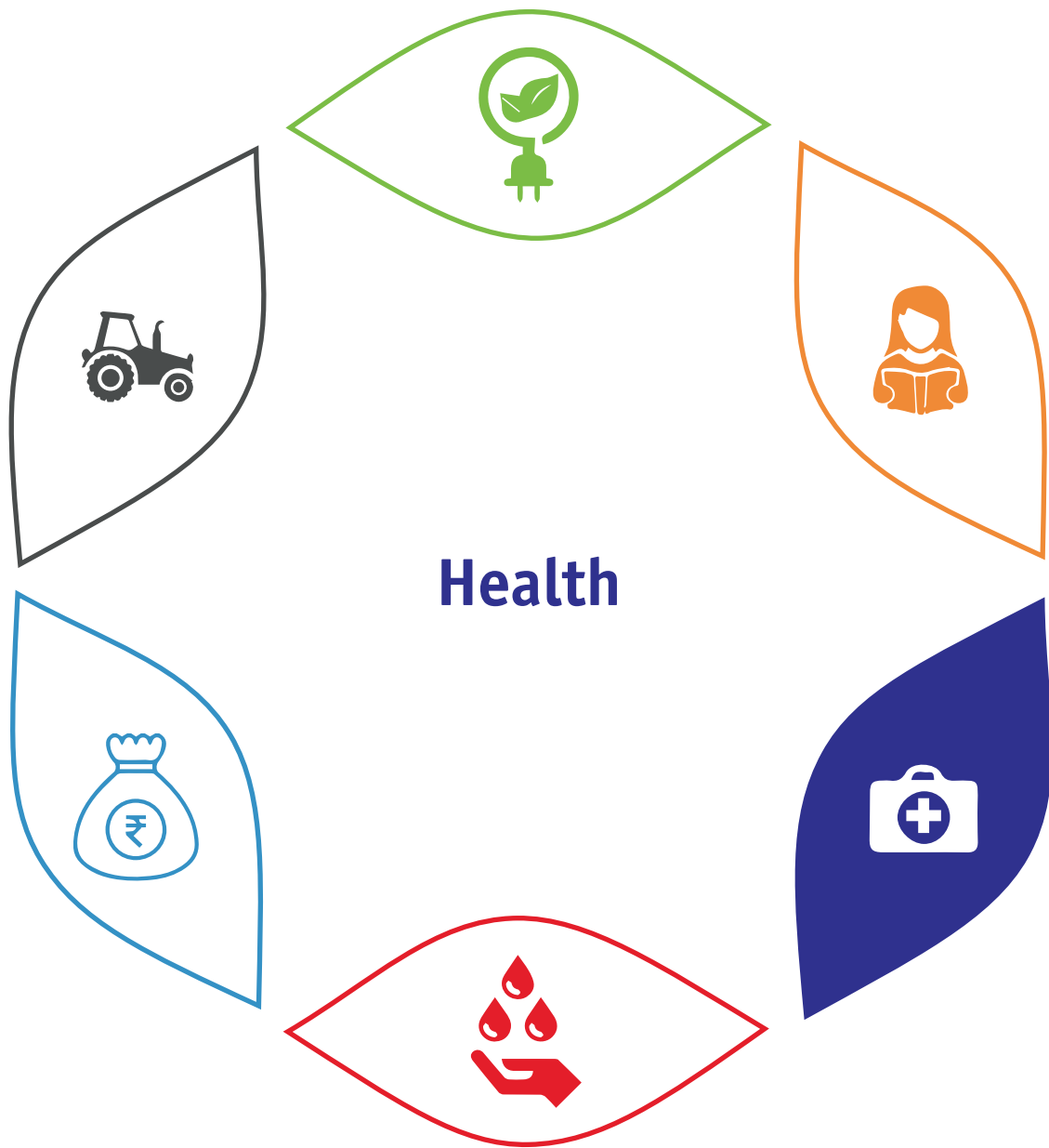
ILR is a replicable model that is designed to be scalable. Katha has successfully demonstrated that the model helps children improve their reading abilities and is now in the process of scaling up within the Delhi MCD school system, and also - outside the scope of this proposal - branching out into other state-run school systems.

Target Beneficiary

In the three years the Intervention period (from 2016-2016) project reached 2 lakh children in MCD schools and communities. 238 school directly and 250 schools indirectly through content and training. Over 3000 Teachers and 20,000 community mothers took pledge to send their children in schools as part of I Love Reading community outreach program.

Potential Impact due to Intervention

- Transformed MCD schools into fun, interactive and cooperative learning places: Katha designed Story Rooms in all 88 schools and furnished them with storybooks, reading kits and teaching-learning material – making them childcentric spaces for holistic learning.
- Improved reading skills and overall performance across literacy concepts: The use of our well-researched, beautifully illustrated picture books by Reading Mentors created reading interest in children.
- The integrated approach, keeping in view the NCERT syllabus, made learning a joyful, more innovative, engaging and holistic experience for children. Children who were at the lowest level of the learning ladder, some of them even unable to identify letters and simple words, have shown remarkable improvement in reading skills. As per the external evaluation conducted by Ambedkar University, Delhi :70.48% increase in reading comprehension in Class 2 students. 62% increase in reading comprehension in Class 4 students. 46.6% increase in overall written expression comprehensibility in students. 26.67% of Class 2 could read fluently at grade appropriate reading fluency & accuracy.
- ILR Community and Katha All in School Mission: Katha's constant engagement with the stakeholders by holding regular Parent-Teacher Meetings (PTMs), School Management Committee (SMC) meetings, and forming volunteer communities such as the Delhi One Young Team (DOYT) has enthused more number of community members and parents to participate in school activities, and contribute to the child's performance by becoming more responsive to their needs.





Agatsa Software Pvt Ltd

Founder: Ms. Neha Rastogi; Mr. Rahul Rastogi

Type of Organization: For Profit

Address: Agatsa, The Corenthum, Plot No A-41, Second Floor, office no 121, Sector 62, Noida – 201301

Project Location: Rajasthan-Sawai Madhavpor

MA support in INR: 30,00,000

MA support period: June 2018 to June 2020

Innovator Profile

Rahul and Neha, both, being engineers and enterprising decided to develop a prototype of User friendly device on their own. In 2013, they developed a first working prototype which they demonstrated at some startup events in front of investors and other stake holders of eco system and got huge accolades. In mid-2015, they developed a first 6 lead ECG device and named it Sanket, and finally in late 2015, with an extended team they came up with a complete 12-Lead ECG monitor which is capable of monitoring Stress as well. This is the first and only 12-Lead ECG monitor with this form factor in the world.

With this, a Cardiac Care Platform was also developed where can provide affordable and easy access to best Healthcare facilities even to those in bottom of pyramid. SanketLife Platform is capable of connecting patient/doctor in split seconds with right data for doctor to take fast decision and hence quick action which can save lives.

Challenge

1. Since the doctor to patient ratio is very less, People are not able to get connect to the doctors on right time;
2. Lack of availability of Affordable and quick Cardiac Care screening facilities catering to Bottom of pyramid.

Cardiac care solution for prevention, detection, maintenance

Complete Cardiac Care and Screening platform with Credit Card sized 12 Lead Pocket ECG Monitor, Smart Mobile Application and Doctor Review.

Target Beneficiary

Public Health Centers and Small Clinics catering to bottom of pyramid

Potential Impact due to Intervention

Affordable and easy to cardiac care platform with 400 early diagnosis cases, which if left untreated would have direct financial impact of more than.



Audicor Cardiometrics Pvt. Ltd.

CEO: Mr. Vijayasimha Ajarananda

Type of Organization: For Profit

Address: A302, Wellington Park, Wellington Street, Richmond Town, Bangalore, INDIA

Project Location: Karnataka, Tamilnadu, Kerala States

MA support in INR: 30,00,000

MA support period: June 2018 to May 2020

Innovator Profile

40 years in developing products in industrial robotics, aerospace, pharmaceuticals, large volume manufacturing and analytical instruments. Was in the start up teams of 7 companies across USA, Europe, Singapore and India and turn around facilitator for 2 stressed assets.

Challenge

The screening for early stage heart failure is a completely neglected area in India and many other emerging economies. It is estimated that over 350 million people in India alone will develop chronic conditions of heart disease and subsequently heart failure. Currently, over 50 million people in India are being managed for heart failure but the outcomes on survival are very poor. A personalized and accessible technology for continuous monitoring heart function which has a high degree of specificity does not exist and hence we do not have any baseline data for the prevalence and epidemiology of heart failure in the Indian population.

Development of a low cost and novel device for the early stage screening and management of CVD

Audicor's Acoustic Cardiography technology is an advanced non invasive and wearable modality for the evaluation of cardiac function and haemodynamic stability. It uses a cluster of sensors in a small wearable format that measures multiple biophysical signals in real time with algorithms that monitor cardiac function such as output, efficiency and synchronization of the various events in the cardiac cycle thereby providing insights into the healthy functioning of the heart. The biomarkers so derived have been extensively validated clinically and correlate very well with the absolute gold standards in clinical examination.

Target Beneficiary

All individuals across the population in screening for heart function in ER, Acute HF and monitoring for those who are patients suffering from chronic heart conditions under therapy mainly those above 40, diabetic and may have a pace maker/ICD implant.

Potential Impact due to Intervention

The goal is to screen populations and identify those who are at high risk of HF at Stage B of HF (AHA). Their management which would include therapeutic Intervention and lifestyle changes could alter the course of the disease for better survivability and outcomes. An estimated 350 million people are expected to benefit from this technology.



Cutting Edge Medical Devices Pvt. Ltd.

Founder: Dr. Pankaj Parashar

Type of Organization: For Profit

Address: Redg – E -2406, Sudama Nagar, Indore, 452009, MP

Project Location: Indore, Madhya Pradesh

MA support in INR: 30,00,000

MA support period: June 2018 to May 2019

Innovator Profile

Dr. Pankaj has been innovating many medical and other devices since his early days of medical graduation. His belief that its technology alone that can bridge the huge gap between the healthcare demand and supply in India. His interest in healthcare technology has led him to develop many utility medical devices. The present innovation – SCINTIGLO, is a smart, accurate point of care diagnostic device for quantitative protein estimation. This project has won accolades on various forums.

Challenge

Healthy urine does not contain proteins but when present is a sign of kidney damage proportional to the quantity of proteins present. They are difficult to find out as there are no early signs and symptoms that the patient could watch for until it is too late. These disease conditions ultimately lead to Chronic Kidney Disease even requiring Dialysis. India requires 3.4 Crore Dialysis sessions which cost around Rs 100 Billion annually.

Annually more than 300000 women die worldwide because of preventable complications of pregnancy, Pregnancy Induced Hypertension turning into fatal eclampsia being a major cause. All this could be prevented by regularly monitoring PIH patients for urinary protein excretion and can have a safer and a better outcome of the high-risk pregnancy, even in low resource settings.

SCINTIGLO-A point of care urine protein analyzer

A smart, accurate, reliable, rapid yet economic point of care diagnostic device - SCINTIGLO for quantitative estimation of proteins in urine.

The device is more than 95% accurate (validated in a clinical trial at AIIMS) in comparison to the 65% accurate dipsticks and costs around 100 times less than the auto analyzer with comparable accuracy. The device is smart and can transfer the Aadhar labeled patient data to a smartphone and then to the cloud for storage and later retrieval.

Target Beneficiary

- Patients especially in the bottom of the pyramid
- The urban patients can get the test at a lower cost and convenience.

- The governments can use the high accuracy and low cost device for their Wellness centers for an early diagnosis of the disease.
- Hospitals and path labs – can get a low cost yet high accuracy alternative to costly auto analyzers.

Potential Impact due to Intervention

- Saving lives of thousands of pregnant women and babies.
- Early diagnosis of kidney damage due to many disease
- Saving large number of patients getting to chronic Kidney diseases and save Billions of Rs on Dialysis and renal transplant
- Create around 100,000 micro-entrepreneurship opportunities in the villages and improving living status.
- Awareness among patients and their relatives about the diseases.



Incredible Devices Pvt. Ltd.

Co-Founders: Ms. Rajwinder Kaur, Mr. Vikram Goel

Type of Organization: For Profit

Address: Kala Sagar, Sector 36-D, Opp DSOI, Chandigarh - 160036

Project Location: PAN India

MA support in INR: 30,00,000

MA support period: June 2018 to December 2019

Innovator Profile

She along with Vikram started working on to find a self- sustainable, easily replicable solution and they started this project in 2012.

Their invention has so far saved the lives of more than 1 lakh poor patients.

Challenge

According to WHO, Cardiovascular diseases (CVD's) are the no.1 cause of death globally. 8/10 patients die because of unaffordable treatment. Moreover, unsafe dumping of Medical Waste is leading cause of diseases & viral outbreak infecting millions.

The challenge is: How to make Healthcare SAFE, AFFORDABLE & ACCESSIBLE for all; irrespective of Patients social status, economic class and geographical reach.

Catheter Reprocessing System (CRS)

Incredible Devices invention Catheter Reprocessing System(CRS) is a made in India machine. It's a revolutionary machine which reprocess angiography/angioplasty catheters and helps in reducing cost of catheters by 99%. This makes treatment safe, affordable and accessible to saves millions of lives every year especially BoP/ poor patient. CRS also make catheter safe to dispose off and avoid viral/ disease breakout.

Catheter Reprocessing System (CRS) is an automatic computer guided Catheter cleaning machine with inbuilt self-testing and calibration which guarantees 100% cleaning of catheter.

CRS inbuilt computer stringently monitors every process and effectively cleans catheters with precision and accuracy. This is not possible with conventional method. It also eliminates all kind of human error.

Moreover, the conventional cleaning method is an expensive process. Uniquely designed for ease of use, C.R.S. not only made catheter 100% antigen and microbes free but also drastically reduced the reprocessing cost (Less than Rs. 20/- per catheter). CRS also avoid hospital-acquired-infection, this reduces misuse of antibiotic on patients.

CRS also reduces biomedical waste generation by 90% and clinical test results proves that CRS also makes catheters safe to dispose only at cost of Re 1/- per catheter.

CRS has benefitted more than 1,00,000 patients till date. IDPL intends to benefit 36 lakhs patients by 2020.

Target Beneficiary

IDPL intends to benefit 36 lakhs patients by 2020 and also intends to reduce antibiotic consumption by avoiding Hospital Acquired Infections and safe disposal of medical/biomedical waste.

Potential Impact due to Intervention

Benefits of CRS:

1. Affordable Healthcare for All: it reduces cost of catheters by 99%. This helps us provide accessible, affordable and safe treatment to millions of poor/BoP patients in India and other developing nations.
2. Reduce Antibiotic Dose: CRS reduces Hospital Acquired Infection and as a result now, less antibiotic dose is required to treat patients. This avoid mis use of antibiotics.
3. Reduces generation of Biomedical Waste by 90%: Now 90% less catheters are required which results in less generation of hazardous medical waste.
4. Avoid Disease/Virus outbreak: CRS provides a cost effective clinically proven, fail-safe way to disinfect catheters waste at point of source itself. This helps avoid viral outbreak due to accidental pilferage of biomedical waste.
5. Saving 90% Foreign Exchange: India imports Rs 272 Billion of medical goods. CRS intends to reduce 90% import of catheters and saves FOREX.
6. Green Technology: CRS promotes safe reuse, reduce carbon footprints and save water
7. Swachh Bharat Abhiyaan: Reduce waste generation and also ensures safe disposal.
8. Make in India: 100% make in India & Indigenously developed Technology.



Co-Founder: Mr. Sunder Jagannathan

Type of Organization: For Profit

Address: NASSCOM COE IOT, Domlur, Begaluru 560008

Project Location: Wayanad, Kerela

MA support in INR: 60,00,000

MA support period: June 2018 to May 2018

Innovator Profile

A year ago, Senthilkumar M was visiting his pregnant sister in Madurai, and upon meeting her, he realised that she had no idea about the frequency of visits that she had to make to the doctor. He even realised that his sister and her husband did not know the importance of measuring regular pulse rates. What worried him the most was that there was no way that she could reach emergency services to get to the hospital when alone at home. Being an engineer, he came back to Bangalore - where he worked with his team (Sunder Jagannathan and Divya Krishnan) - and in under a month, he made a watch for her that could capture pulse rates, notify her of doctor's appointments and dial emergency services based on the readings of the watch. There are colour coded dials in the watch which alert her to make it to doctor appointments. The team realized that maternal mortality is a bigger issue to solve in semi-urban and rural regions of India . They started from Singapore through an accelerator where they built the Savemom kit in a year that can capture all the vitals of a pregnant women. Now after two years of hard work, they have their ecosystem that capture vital information using IOT devices and sends it to the cloud which can be viewed by the doctor to give feedback.

Challenge

Deploying a solution that is easy to learn, easy to adapt and scale especially for the BOP population .

SaveMom

IOT based connected ecosystem to connect pregnant women with the doctor.

Target Beneficiary

Rural pregnant women and children

Potential Impact due to Intervention

Reduced Maternal Mortality, Positive pregnancy experience



OmiX Research and Diagnostics Laboratories Pvt Ltd

CEO & Director: Dr. Sudeshna Adak

Type of Organization: For Profit

Address: No 15, Chaithanya Armadale, Whitefield Main Road, Bangalore 560066

Project Location: Bengaluru, Mysuru, Karnataka

MA support in INR: 30,00,000

MA support period: June 2018 to May 2019

Innovator Profile

Sudeshna became an entrepreneur after a career of 20 years in the biotechnology industry, spanning academia (Harvard School of Public Health) and industry (GE Healthcare). She was inspired to develop and translate her experience and learnings in developing high end technology products for global markets to affordable diagnostic solutions for India and the world.

Today, OmiX Labs is almost 4 years old with 6 employees and 3 cofounders with a combined product development experience of over 50 years. They are developing a molecular diagnostic platform that can be used for point of care diagnosis of infections and selection of the right antibiotic. With 2 patent applications and several awards and grants, OmiX Labs is well on its way to deploy its technology and reach the market.

Challenge

About 1 million neonates die in India each year. A study on causes of neonatal death in rural India found 47% of neonatal deaths showed signs of sepsis and pneumonia and 20% were attributable directly to sepsis or pneumonia. To effectively treat neonatal sepsis and pneumonia, the physician needs an early and accurate laboratory confirmed diagnosis of infection, identification of the species causing infection (whether gram positive, gram negative, viral or fungal) and further information on antibiotic sensitivity for bacterial infections.

The gap in effective and affordable diagnosis of neonatal sepsis and neonatal pneumonia is the challenge we are addressing.

Affordable, rapid detection of neonatal sepsis and neonatal pneumonia

Their solution for detection and management of neonatal sepsis and neonatal pneumonia addresses the gap through:

1. Timely detection (few hours). Their novel, dual amplification method integrates loop amplification (generating many copies rapidly) with very specific target recycling amplification. The result is detection of ultra low levels (10-100 fold lower than PCR) of organisms directly in clinical samples.
2. Access & Cost. This innovation has been achieved by
 - a) Ready-to-use kits: developing reagent formulations that are room-temperature stable and pre-loaded, requiring the operator to simply add sample DNA;

- b) Low cost reader: Customizing an affordable, small-footprint, easy-to-use device that combines low-cost heat blocks with low-cost LEDs for optical detection.
3. Rational antimicrobial therapy - This innovation is achieved with bioinformatics software developed by the company to design very specific genetic (primer-probe) signatures and be able to differentiate cause as gram positive bacterial or gram negative bacterial or viral or fungal, enabling rational antimicrobial therapy.

Target Beneficiary

Neonates and their families are the target beneficiary.

Hospital based studies have reported an incidence of neonatal sepsis of 30 per 1000 (3%) live births and community based studies report about 3%-17%.

With 25 million births each year, the estimated number of tests required for neonatal sepsis alone is about 7.5 million tests each year in India.

Furthermore, the technology can also be used for sepsis and pneumonia diagnosis in pediatric and adults, an additional market of over 10 million tests each year in India.

Potential Impact due to Intervention

Health impact on BoP - It is estimated that there are approximately 1.6 million neonates in the segments of BoP or near BoP families. It is also estimated that 50% (800,000) neonates in this segment are affected by neonatal sepsis and neonatal pneumonia and 20% of these neonates die.

Financial Impact - Estimating ICU and hospitalization costs at a government facility being Rs 2 lakh (incurred by the state, private hospitals cost would be 5x-10x) for each neonate, this puts a burden of Rs 16,000 crores on the government. Reducing this hospitalization and ICU stay cost by even a modest 10% would save Rs 1600 crores in government spend. The impact of our solution in timely and early detection will be most direct in reducing the burden of hospital and ICU stay.



SciDogma Research

Founder/ CEO/ Director: Dr Satya Tapas

Type of Organization: For Profit

Address: SciDogma Research Lab, C-CAMP, GVK Post, Bellary Road, Bangalore, 560065.

Project Location: Bangalore, Karnataka.

MA support in INR: 30,00,000

MA support period: 18 months

Innovator Profile

Dr Satya Tapas received PhD from IIT Roorkee in biochemistry and biophysics, followed by post-doctoral training from IISc Bangalore. He was a visiting post-doctoral fellow at Max-Planck Institute of Biophysics Frankfurt, Germany, where he was fascinated by robotics and automation. He founded SciDogma Research in 2015 to develop automated microscope for clinical diagnosis powered by AI and machine learning.

Challenge

Microscopic method is a powerful technique for clinical diagnosis of various infectious diseases. Microscopes are usually used to investigate blood smear, body fluid, stool, urine samples and histological samples. However, it's a labor-intensive process and requires human expertise. At present scenario, for critical microscopic investigations, the clinical samples are collected in rural areas by healthcare workers and carried to city hospitals where experts and resources are available. It's time consuming process and treatment process is delayed. In many cases, the result of microscopic investigation is immediately required for follow up medication. Further, there is severe shortage of pathologists in primary healthcare centres to fulfill such unmet need. Realizing such challenges, we propose a cloud-based technology where experts can investigate the microscopic samples remotely through a smart phone using a portable automated microscope, called as SmartScope.

Smart Scope: Cloud based automated smartphone microscope

We have developed a point of care microscope, called as computer numerical controlled (CNC) microscope. CNC microscope is powered by artificial intelligence. The diagnostic grade of CNC microscope is called SmartScope. It can be controlled remotely using a cloud platform. We believe that primary healthcare centre in remote areas can be connected to expert pathologist using this platform.

Target Beneficiary

SmartScope has been designed for low resource setting with much more automated features. This technology can be used in rural set up directly on field, where manpower and resources are limiting. Further, CloudScope has much more advantages. It can extend the service of clinical expertise to the extremely rural set up using cloud platform. We hope it is one of the impactful and emerging technologies in healthcare.

Potential Impact due to Intervention

More than 70% population is poorly connected with well-equipped laboratories. For simple microscopic investigation, many patients travel a long distance to get access to pathologists and facilities. Due to lack of manpower in primary healthcare centres, it has been a biggest challenge to serve efficiently. We hope SmartScope in primary healthcare centres will be able to connect experts to deliver healthcare services more efficiently.



SEESHA

Innovator: Dr. Gnanaraj Jesudian

Type of Organization: Not for Profit

Address: SKCH, Karunyanagar, Coimbatore, Tamil Nadu 641114

Project Location: Northeast States and Uttarakhand

MA support in INR: 30,00,000

MA support period: May 2018 to December 2019

Innovator Profile

Dr. J. Gnanaraj is an Urologist and Laparoscopic surgeon trained from CMC Vellore working for over 3 decades in remote and rural areas. With SEESHA and Karunya University he is able to meet the various felt needs of the rural areas collaborating with Harvard University and University of Leeds. He works with Staan Biomedical Engineering to make the various Prototypes

Challenge

In rural areas in India number of surgical procedures carried out every year from 30 to 300 whereas the estimated need is 5000 per 100000 population. Minimally invasive surgeries [MIS] are ideal for rural areas and is not possible now due to high costs and the need for gases for surgery and anesthesia and anesthesiologist for giving general anesthesia

Making minimally invasive surgery available and affordable

The innovations make MIS possible under the easily available spinal anesthesia and the Innovative Task Specific training and Competency based credentialing program trains the local facility with online – onsite method. So far about 900 laparoscopic surgeries and 3000 surgeries for renal stones have been carried out in remote and rural areas

Target Beneficiary

Patients and Health care facilities in remote and rural areas

Potential Impact due to Intervention

There would be three to tenfold increase in the surgical procedures carried out in the remote and rural areas per 100000 population every year



Sohum Innovation lab

Founder & CEO: Mr. Nitin Sisodia

Type of Organization: For Profit

Address: 570, II floor, Sector 1, 11th cross, 31st main, HSR layout, Bangalore

Project Location: Bhopal, Madhya Pradesh

MA support in INR: 30,00,000

MA support period: June 2018 to July 2021

Innovator Profile

Nitin is the founder & CEO of Sohum Innovation lab. He is a 2010 Stanford India Biodesign fellow, a collaboration of Stanford University, AIIMS, IIT Delhi and Government of India.

Challenge

In resource constrained settings, such as India, hearing impairment goes undiagnosed till the child is about 4 years. By then, it is too late for the care cycle to be effective. This leads to speech loss, impaired communication skills, possible mental illness and unemployment.

A novel device & system to screen newborn for hearing loss in resource poor settings

A novel device to screen newborns for hearing loss in resource poor settings to prevent speech loss

Target Beneficiary

The direct beneficiaries from Sohum early newborn hearing screening are ~ 100,000 babies born with hearing loss every year in India and their families. With the help of early detection, they will get timely Intervention, keep up with developmental milestones, develop speech and lead a normal life. ENT, Cochlear Implant specialists, Audiology clinics, therapists, are becoming part of the Sohum aftercare network and will be able to provide better outcomes with early access to babies with hearing loss.

Potential Impact due to Intervention

They will screen 35,000 children in the year 2017-2018 with 100 devices and ~ 350 children with hearing impairment would be referred to the appropriate after care cycle. In 2019 they will screen 100000 babies with 200 devices in the field and will refer ~ 500 babies for early intervention. During MA funding, 1000 children with hearing loss would be referred to appropriate after care cycle and the funding will support 50 additional devices & programs out of 100 installed devices primarily in resource poor settings of India. ~ 40-50% of the population served will be from low resource settings.



Saral Design Solutions Private Limited

CEO/ CTO: Ms. Suhani Mohan/ Mr. Kartik Mehta

Type of Organization: For Profit

Address: Gala no 36, 2nd Floor, Gami Industrial Park, Turbhe Kalyan Road, Near Pawne Kata, Navi Mumbai - 400705

Project Location: Kathmandu, Morang districts in Nepal

MA support in INR: 2,30,00,000

MA support period: July 2018 to June 2021

Innovator Profile

Suhani is the co-founder and CEO of Saral Designs. Suhani is an Acumen India Fellow, recognized as 2018's top 25 trailblazing Indian women by Forbes, recipient of India Africa Young Visionary award from Ministry of External Affairs, India, recipient of 'Top woman entrepreneur' at Empower, by Department of Science and Technology & Zone Start-ups, winner of Women Entrepreneur Quest by Anita Borg Institute and winner of the National Entrepreneurship Award 2016 by Ministry of Skill Development and Entrepreneurship.

Kartik Mehta is the CTO, Director of Saral Designs.

He is a graduate from Department of Engineering Design, IIT Madras. He has worked at General Motors India for a year and then started working as a machine designer. He has designed and sold several Special Purpose Machines in packaging industry.

Challenge

In Nepal, only 15% menstruating women use sanitary pads regularly while the remaining use unhygienic menstrual products. Existing evidence reveals that the majority of adolescent girls in Nepal, lack knowledge on menstrual physiology. This is a common problem prevalent in several developing countries and there have been reported cases where improper menstrual hygiene has led to reproductive tract infections, tetanus and even death. Several organizations are working on menstrual hygiene, however the challenges around accessibility and affordability still exist.

Decentralized production for tackling menstrual health in Nepal

At Saral Designs, we have developed an automatic, cost-effective and decentralized sanitary napkin manufacturing unit, which will solve the problem of access and affordability of high quality menstrual hygiene products in Nepal and several developing countries around the world. This patented machine technology called "Swachh" can produce up to 16 pads per minute, is compact, modular and can be set-up anywhere with ease. Installing our machine across each district in Nepal, will enable a gross profit margin of ~40% to the entrepreneur and can serve the demand of 38,000 local women each month. Thus, through our innovation of "Swachh", we aim to create a better future in menstrual hygiene for women and girls around the world, enable more sustainable and innovative last mile delivery mechanisms.

Target Beneficiary

Swachh technology is purchased by local entrepreneurs and NGOs who produce sanitary napkins for menstruating women focusing primarily on girls/women in the age group of 13 to 35 years in Tier-2,3 towns and remote areas.

Potential Impact due to Intervention

Their decentralized sanitary napkin manufacturing unit aims at having the following impact in Nepal:

Health Impact:

Through their project, we expect that around 38,000 women will start using their product regularly as per the prescribed hygiene practices by the end of 3 years.

Social Impact:

Apart from product accessibility, the project aims to track the absenteeism and/or dropout of school girls due to menstruation. They will also qualitatively track behavior change among women and girls around menstruation.

Economic Impact:

They plan to employ upto 18 women in production targeting a monthly earning of Rs 7000 per month and involve 250 women in part time sales as Sanginis with a targeted income for Rs 3000 per month.



Operation ASHA

Managing Director: Sandeep Ahuja

Type of Organization: Not for Profit

Address: D 156, First Floor, Sarita Vihar, New Delhi - 110 076

Project Location: Zambia

MA support in INR: 1,00,00,000

MA support period: September 2018 to May 2019

Innovator Profile

Sandeep is a management and strategy expert. He co-founded Operation ASHA and has led it since 2006. Under his leadership, the population coverage of Operation ASHA has expanded by 500 times and serves in India and Cambodia with own staff. Its model has also been replicated in 6 other countries. Sandeep is also an advocate for improved care for public health—specifically TB care for the bottom of the pyramid markets at the local, state, national and international level.

Challenge

No alternative to on site wound care that are major and need immediate attention

Detection and treatment of TB for the disadvantaged in Zambia through a community driven low cost model supported comprehensively with technology

Door delivery of medicines, counseling and all other services through a community-driven, replicable, scalable, end-to-end delivery model, comprehensively supported with many technology applications to ensure unmatched detection and adherence.

Target Beneficiary

Disadvantaged people in Zambia

Potential Impact due to Intervention

Raising awareness among 350,000 population, finding nearly 15,000 symptomatics and 1864 patients, who will be provided full treatment.



ZMQ Development

Co-Founder & Director; CEO: Mr. Hilmi Quraishi ; Mr. Subhi Quraishi

Type of Organization: For Profit

Address: 187, Vaishali, Pitampura, New Delhi – 110034

Project Location: Uganda (Mbrara, Kabarole) and Afghanistan (Herat, Kabul)

MA support in INR: 1,80,00,000

MA support period: July 2018

Innovator Profile

Hilmi Quraishi is the Co-Founder of ZMQ - a global 'Technology for Development' social enterprise based in India. As a technovator and social entrepreneur, Hilmi specializes in developing innovative technological solutions in low-resource settings which effectively reaches out to the bottom-of-the-pyramid markets – poor, rural, marginalized and women. He works in India, Afghanistan, Uganda, Rwanda and Senegal. Hilmi is a 3-times Ashoka-Globalizer Fellow recognized for his technology based innovations for the world's most urgent social problems.

Challenge

- Localization and Contextualization for various region across the globe
- Recruiting and training teams in other developing countries.
- Adoption by the Government
- Creating New Revenue Stream Models for Sustainability

Innovation

MIRA CHANNEL (Global Transfer to Uganda and Afghanistan): Mobile Channel for Rural Women on Maternal & Child Health using RMNCH+A approach

MIRA is an integrated mobile phone channel which provides health communication and information tools to rural women through mobile phones in low-resource settings. It has multiple components on issues related to Pre-natal care, Child immunization, Newborn care, Family planning and Adolescent health using RMNCH+A approach. Information is delivered through interactive tools by creating awareness on critical health issues, building knowledge & timely connecting with the public health services.

MIRA uses iconic language with audio support making it interactive 'Talking toolkit' designed for millions of semi-literate women. In addition, it also has numerous VAS tools like stimulating social mobile games and decision-making stories to motivate communities adopt new behaviors.

MIRA Channel won the scale-up of the program for Uganda and Afghanistan. The Uganda MIRA project has been implemented in the district of Jinja in local languages – Lusoga and Luganda (Eastern Uganda). After the successful pilot, the government has request ZMQ to scale the program in Mbrara and Kabarole districts of Western Uganda. There is an assurance from the Ministry for national adoption post successful implementation in new districts. Afghanistan MIRA project has been implemented in the Heart province in the western zone of Afghanistan (near the Iran border) in Dari

language. There is a demand by the partner to replicate the model in the Pashto speaking areas especially Kabul and other district. We are trying to reach out to partners to scale the program in Pashto region.

Target Beneficiary

- Rural and Semi-literate women at the bottom of the pyramid;
- Pregnant Women and Expectant Mothers;
- Adolescent Girls;
- Children in 0-5 years of age;
- Community Health Workers and Midwives

Potential Impact due to Intervention

MIRA is currently operational in Uganda and Afghanistan. MIRA has reached to almost 66,000 population in Uganda and almost 43,000 population in Afghanistan indirectly. The number of women who have successfully completed their pregnancies through MIRA has been 2900 in Uganda and 1700 in Afghanistan respectively. Almost 4200 children for immunization and 6000 girls in Uganda; and 2700 children for immunization and 3500 adolescent girls have been reached in Afghanistan. In last 18 months, in the area of project implementation, there has not been a single maternal death reported in Uganda and only one maternal death has been reported in Afghanistan. Larger social impact: There are 51 infant girls in Uganda named as MIRA. We are planning to reach over 100,000 population in reach country now.



Chitkara University

Innovator: Dr. S. N. Panda

Type of Organization: Not for Profit

Address: Chandigarh - Patiala National Highway, Patiala - 140401

Project Location: Patiala District, Punjab

MA support in INR: 20,00,000

MA support period: Aug 2017 to July 2020

Innovator Profile

Dr. Surya Narayan Panda is presently working as a Director(Research) in Chitkara University. He is associated with academics since last 23 years. His areas of research are cyber security, education system and network security. He has guided numerous Ph.D scholars. He has filed 2 patents and one of them is published in WIPO. He has worked on various consultancy projects like smart luggage tracking system and wireless solution to diesel engine tuning system. He is presently working on Millennium Alliance funded research project. Recently he got Excellence Award from Chitkara University in the year 2017.

Challenge

The challenge is to deliver drug during transition inside ambulance from remote location.

Smart Portable Intensive Care Unit

This system is transmitting vital parameters and live streaming of patient to doctor remotely for drug administration. In nutshell, the system is providing virtual presence of the doctor inside the ambulance.

Target Beneficiary

People who met with accidents and need necessary aids for survival during transition.

Potential Impact due to Intervention

Survival rate will improve.



ExCel Matrix Biological Devices P Ltd.

Managing Director: Dr. Aroop Kumar Dutta

Type of Organization: For Profit

Address: NonFerrous Materials Technology Development Center (NFTDC), DMRL X-Rd, Kanchanbagh, Hyderabad-500058

Project Location: Telangana, New Delhi, Karnataka/ Tamilnadu

MA support in INR: 25,00,000

MA support period: June 2017 to July 2019

Innovator Profile

ExCel Matrix, a start-up company, has vision to develop innovative 3D cell culture technologies for regenerative medicine and strategies to commercialize such technologies. Company's flagship ECM Analog® and Sol-Cell-Gel® technologies have been acknowledged by experts and won innovation awards. Technology and product development activities of ExCel Matrix are financially supported by Department of Biotechnology (DBT) and Department of Scientific and Industrial Research (DSIR) under innovation support schemes.

Challenge

No alternative to on site wound care that are major and need immediate attention

A rapidly deployable device for wound care

Personalize wound Care Device

Target Beneficiary

Trauma/ Acute wound accident victims

Potential Impact due to Intervention

As medical device potential impact can be realized only after regulatory clearance.



Leowin Solutions Pvt. Ltd.

Managing Director/ Director: Mr. Ignatius Orwin Noronha/ Mr. Arthur Nelson Noronha

Type of Organization: For Profit

Address: 406, Mannagudda Towers, Mannagudda, Mangalore 575003

Project Location: Mangalore, Dakshina Kannada Dist., Karnataka State

MA support in INR: 15,00,000

MA support period: January 2017 to December 2018

Innovator Profile

Orwin setup the enterprise Leowin Solution and a manufacturing unit of MozziQuit mosquito trap device in 2012.

Challenge

More than 50% of World's Population is at Risk by Mosquito Borne Diseases as per the Report of WHO.

MozziQuit to make the world free of mosquito menace

Innovative MozziQuit mosquito trap device attracts, traps and kills female mosquitoes everyday in large numbers at lowest operating cost of less than 10 paisa per day without use of any chemicals or consumables in order to put a permanent stop of present multiplication rate of mosquito population/offsprings so that we could eradicate mosquito borne diseases.

Target Beneficiary

All peoples live in houses as mosquitoes get inside every house and female mosquitoes bite every one everyday for blood required for their breeding purposes.

Density of mosquitoes is very high in cow shed as it is not practically possible to restrict entry of mosquitoes inside cow shed.

Potential Impact due to Intervention

By trapping and killing female mosquitoes every day in large numbers we could put a permanent stop on multiplication rate of mosquito offsprings/population so that we could reduce mosquitoes and could control spreading of mosquito borne diseases in short span of time. We could save hundreds of millions of people suffering from mosquito borne diseases as well as we could save the life of people from deadly diseases spread by mosquito bites.



Pentavalent Bio Sciences Pvt Ltd

Co-Founder: Mr. Soumya Paul

Type of Organization: For Profit

Address: FF-14A, IBAB, Biotech Park, Electronic city, Phase 1, Bangalore - 560 100

Project Location: Bangalore, Karnataka

MA support in INR: 30,00,000

MA support period: June 2017 to July 2020

Innovator Profile

Mr. S. Paul ventured out with the startup “Pentavalent Bio Sciences Pvt Ltd” right after completing his doctorate from the Defence Food Research Laboratory attached to the Defence Research and Development Organisation (DRDO) in Mysuru. He has research experience from Indian Veterinary Research Institute, IVRI, Bangalore and the PD-ADMAS, Bangalore. He has 8 publications in international journals and patent for his credit.

Challenge

Universal access to rapid and accurate laboratory diagnostics are necessary to control tuberculosis(TB). Emergence of MDR-TB and XDR-TB has devastating effects on the disease management. In 2015, 9.6 million TB cases, 4,89,139 MDR-TB cases, 47,446 XDR-TB cases and 1,90,000 deaths were reported. China and India carry approximately 54% of the global burden. Accurate drug resistance profiling is critical in TB treatment. Current strategies for TB diagnosis are inadequate. Rapid methods though available, are not widely used. GeneXpert MTB/RIF assay the WHO endorsed product identifies MTB and rifampicin resistance. But it is costly and a gap exists in supply-demand. A technology sensitively identifying TB, MDR and XDR at low cost is the utmost demand. The proposal addresses this need.

FlapCut technology for costeffective MTB diagnosis

Their major aim is to develop a novel, sensitive and cost effective technology for detection of MDR and XDR-TB. To achieve this, A novel diagnostic tool – FlapCut MTB/MDR and MTB/XDR is being developed for rapid, reliable, sensitive diagnosis of TB cases along with treatment decision support to the doctors.

Target Beneficiary

Poverty is widely recognized as an important risk factor for TB disease. The largely untapped group of TB infected patients falls under poor sectors in poor and developing countries.

Potential Impact due to Intervention

Development of FlapCut tool will be a breakthrough invention in the field of diagnostics. Pentavalent intends to take this in-house technology to the needy in an affordable fashion.



PLUSS Advanced Technologies Pvt. Ltd

Director: Mr. Devendra Jain

Type of Organization: For profit

Address: B 205, Tower B, Pioneer Urban Square, Sector-62, Gurugram-122008 (Haryana), India

Project Location: The project areas are Sikar, Udaipur, Alwar, Jodhpur, Jaipur in Rajasthan

MA support in INR: 50,00,000

MA support period: July 2017 to July 2020

Innovator Profile

A post graduate in Chemistry and Polymer Technology (U.K), he has professional experience of over 45 years in the field of plastics and polymers. Slowly, he managed to raise his own business initially starting with polymer and later expanding it to phase change materials, ultimately positioning himself as one of the world leaders in the phase change materials technology.

He has several achievements in basic and applied research to his credit; development of synthetic paper based on BOPP being the major patent held by him. He played a key role in the indigenous development of "MA-g-PO". He also has several patents in the area of PCM and its end applications in the Healthcare and Pharmaceutical sectors.

Challenge

At 28 per 1000 live births, India is still struggling with a heavy burden of neonatal deaths. The Project addresses current void in treatment for birth asphyxia, the cause of nearly 25% of neonatal deaths in India [World Bank reports]. Neonatal cooling or Therapeutic Hypothermia (THT) is the standard of care for birth asphyxia treatment. Majority of Indian health system is not geared to perform THT due to a two-fold challenge – high price (\$30,000) of current imported devices which make them inaccessible and dearth of clinical capacity to perform THT.

MiraCradle to fill void in birth asphyxia treatment

Pluss has broken the affordability barrier by inventing MiraCradle®- Neonate Cooler, a CE marked device developed in collaboration with CMC Vellore. Made of advanced savE® Phase Change Material (PCM) and the patented technology, the device comes at less than one tenth the price of imported servo controlled coolers and does the job of inducing therapeutic hypothermia among newborns suffering with birth asphyxia with utmost precision and efficiency. Within 18 months of launch, MiraCradle® won strong KOL support and was adopted by over 90 hospitals in the country to perform THT. While Pluss was humbled by this organic demand, we realized that this is only a negligible component of the current need in India (approximately 4000 devices). The Millenium Alliance project seeded scale-up of MiraCradle® by addressing two key hurdles to widespread impact – 1. Clinical capacity building 2. Creating awareness amongst doctors, hospitals and other stakeholders.

Target Beneficiary

All layers of socio economic population including lower and middle income public and private hospitals providing critical neonatal care (such as a level III NICU)

Potential Impact due to Intervention

1. Project seeded creating awareness & conducting trainings & workshops at the grass root level of nurses to treat birth asphyxia even in low cost resource settings.
2. Till date, over 350 hospitals in the country are successfully using MiraCradle® and enhancing the overall health system's capacity to treat birth asphyxia and averting its dilapidating impacts such as cerebral palsy.
3. Continuous efforts creating awareness got backed by National Neonatology Forum of India recognizing MiraCradle and publishing its use case in its manual of treating birth asphyxia.
4. During the course of awareness, MiraCradle® got recognized worldwide and is also being marketed in the countries of Africa and South East Asia by a German Multinational- Draeger.



Aakar Innovations Pvt Ltd

Founder: Mr. Jaydeep Mandal

Type of Organization: Social Enterprise

Address: B-309, Mahavir Icon, Sector 3, Belapur, Navi Mumbai- 400614

Project Location: 1. Pune, Maharashtra- India; 2. Kisumu, Machakos- Kenya; 3. Uganda

MA support in INR: India- 54,00,000; Africa- 2,71,72,800

MA support period: June 2016 to June 2018

Innovator Profile

In 2010, Jaydeep had an opportunity to work first hand on the machine developed by Mr. Arunachalam Murganatham. This made him realize the extent of the issue and thus pave the way for Aakar. Based on learnings from the field, he realized the need for a new method and business model to address the issue of menstrual hygiene for the bottom of the economic pyramid. He spent the next one year visiting and interacting with various entrepreneurs who had a low cost solution for making sanitary napkin. While working in Afghanistan where Jaydeep conducted a month long study in Afghanistan's Baghlan province with Aga Khan Foundation he became fully aware on the challenges of disposal. After months of research, in 2013 Aakar launched 'Anandi'- India's first ~100% compostable napkin thus revolutionizing the sanitary napkin market.

Challenge

Menstruation, the most natural bio-physiological phenomenon in a woman's life cycle, is considered dirty and impure throughout India. This is reflected in the way the entire concept of Menstrual Hygiene gets handled. Lack of access to clean pads or toilet facilities further adds to the challenges. Issues such as lack of awareness, lack of access, and unaffordability force women to rely on old rags, plastic, sand, and ash to address their sanitation needs during their menstrual cycle. Some of the most detrimental implications of the current menstrual hygiene state in India affect both education and livelihood. In India, adolescent girls (age 12-19) miss five school days in a month due to menstruation. Around 23% of these girls actually drop out of school after they begin menstruating.

Freedom from shame menstrual hygiene solutions through global expansion of women operated sanitary napkin

Aakar is a hybrid social enterprise that enables women to produce and distribute affordable, high-quality, ~100% compostable sanitary napkins within their communities while simultaneously raising awareness and sensitization of menstrual hygiene management.

Aakar Innovations enables women and SHGs to produce affordable and high quality sanitary napkins, using its proprietary technology, which is then sold locally through its unit Village Level Entrepreneur (VLE) distribution model. In 2013, Aakar became India's first company to launch a ~100% compostable sanitary pad under the brand name "Anandi".

Aakar proposes to drive this ecosystem by empowering women to not only run their own micro business ventures, but also act as agents of change in their own communities by increasing the availability of napkins and ensuring that behaviour and practice are changed thereby ensuring lasting change and making the livelihood venture a sustainable one.

Target Beneficiary

This model is a unique combination of empowerment and livelihood generation that inherently promotes financial growth incurred by the economic base of the pyramid. While each manufacturing unit helps to generate direct employment for 12-14 women directly, simultaneously another group of community women would become sales representatives and lead the behavior change program- the mini factory thus generates indirect employment for 30-40 women from the immediate community.

The MHM awareness program is conducted with adolescent girls and community women educating them in safe and hygienic practices. Through every unit we reach out to 4000-5000 girls/ women in community.

Potential Impact due to Intervention

MA- India

1. 12 women benefitted from direct employment
2. 12000+ women/girls have used the product
3. 28 women trained for selling products in villages
4. 26 women trainer for conducting awareness program & ~3400 women/girls reached through awareness program

MA- South Africa

1. 12 women benefitted from direct employment
2. 30 women trainer for conducting awareness program in Kenya

Awareness program is currently being implemented in schools and communities in Kenya.



Aindra systems

CEO: Mr. Adarsh Natarajan

Type of Organization: For-profit

Address: 24th Main Road, #24, 19th Cross Rd, J P Nagar Phase 5, JP Nagar, Bengaluru, Karnataka 560078

Project Location: Bangalore, Karnataka

MA support in INR: 60,00,000

MA support period: April 2016 to April 2019

Innovator Profile

Armed with an experience of more than a decade in multiple companies across various geographies and a MBA from IIM Bangalore, Adarsh took the Entrepreneurial plunge. His passion in leveraging deep tech to solve hard human problems, saw him starting Aindra Systems. Keenly interested in Entrepreneurship, he is closely associated with the Entrepreneurial ecosystem through various forums like the Startup Leadership Program, a global Entrepreneurship program for practicing Entrepreneurs. He is part of a closed group of Entrepreneurs, which experiments deeply in the areas of Customer Development using Lean methodologies.

Challenge

Cervical cancer is the 2nd most common cancer in Indian women aged 15 to 44 years. A 2012 report by GLOBOCAN, International Agency for Research on Cancer, indicates that India has more than a third of the global incidences (~123,000) as well as mortalities (~67,000) making India the Cervical Cancer capital of the world. This number indicates that one woman dies every 7 minutes in India due to a disease that is completely curable, if only detected early.

The present approach to screening of cervical cancer in Rural India, requires rural women to travel to a far fetched urban center or government hospital. This is not only unaffordable due to the logistics costs but also due to tests being expensive for women from low-income areas.

Currently, there exists no solution for the screening of cervical cancer in rural India. Although cervical cancer has a higher gestation period, due to lack of affordable and accessible screening tests, the count of women detected with Cervical Cancer is rising.

An automated and affordable point of sample collection screening tool for cervical cancer

Due to a long gestation period, Cervical Cancer can be caught and treated early. Screening programs can drastically reduce incidence by detecting Cervical Cancer at a precancerous stage. Population based screening, has proven to be an effective weapon against this cancer as shown by developed western countries.

Their solution is to build an affordable and portable, 'point-of-care' Cervical Cancer Screening device to automate the analysis of the Pap smear slides.

The pap smear slides are stained using their Autostainer. These stained slides are then scanned, digitized and then analyzed using computer algorithms to triage them into normal, suspect and abnormal samples. The images are then sent over a Tele-pathology medium to pathologists for further confirmations and recommendations.

Their Artificial Intelligence driven Computational Pathology system will enable timely detection of cervical cancer in early stage through the use of portable Automated Staining and converting the biological sample on the glass slide to a digital format at Point of Care itself. Then the WSI (whole slide image) can be analysed using Artificial Intelligence to differentiate the sample with suspected cancerous cell and normal sample.

Target Beneficiary

Woman at the risk of late detection of Cervical Cancer, which leads to mortality. India has about 370 million women who are at risk of contracting Cervical Cancer.

Potential Impact due to Intervention

This solution provides the following benefits.

- Improved effectiveness being 'Point of Care' solution.
- Improved effectiveness of a screening program due to quick triaging at 'point of care'. This helps increase compliance rates for follow up care and treatment.
- Overcomes the lack of skilled cytopathologists in rural India through the use of computer algorithms and centralised tele-pathology.
- Can be operated by trained semi skilled personnel in the field.
- High sensitivity due to multiple factors:
 - Use of computer algorithm reduces subjectivity in assessment of light intensity and feature size on the slide
 - Support of cytopathologists who are exclusively specialized in Cervical Carcinoma
 - Reduction in operator fatigue due to computer assisted triaging
 - Improved slide staining quality through use of automated stainer

Their goal is to help an effective screening program for Cervical Cancer become a reality in India, subsequently driving down the Incidence and the Mortality rates of Cervical Cancer.

The approach that they are taking is to enable and equip NGOs, Preventive Community Health hospitals and frontline screening workers involved in Cervical Cancer, to conduct cervical cancer screening with relative ease.



COEO Labs Pvt Ltd

Co-Founder: Mr. Nachiket Deval

Type of Organization: For Profit

Address: 5th Floor North Wing, Aanand Towers, Municipal No 4, Rajaram Mohan Roy Road, Ward No 77, Sampangirama Nagar, Bangalore, 560025

Project Location: None, As currently they have initiated clinical evaluation phase-1 (Bench top study - Device functionality testing with no patient's involvement) - study in-process and pre-clinical evaluation (with patients) - Initial stage of protocol.

MA support in INR: 58,00,000

MA support period: July 2016 to August 2018

Innovator Profile

Nachiket is co-founder of Coeo Labs. He is an experienced mechanical engineer and product designer with Masters in Design from prestigious NID (National institute of Design), Ahmadabad. He is trained and certified in 5S and quality systems, process optimization, project management and supply chain management. Nachiket has successfully designed and deployed projects in large multinational organizations (Godrej and Boyce and Honeywell) and small enterprises like Seasyst engineering.

Challenge

1.14 million babies die of respiratory distress yearly, yet the majority of these deaths are easily preventable by the application of Continuous Positive Airway Pressure (CPAP). Even in a low-income country, a well-designed bubble CPAP improves survival by 24 to 65%. Unfortunately, a significant number of newborns and infants do not have access to this technology during transport nor is electricity and skilled manpower widely available at these care centers. In India alone, nearly 32% of affected babies die during transport.

Saans - A device to keep, lungs of neonates with RDS open while transferring them from a low resource

"Saans" is a Multi-powered, easy to use neonatal CPAP device, which maintains respiration and oxygenation in premature neonates with RDS (Respiratory Distress Syndrome) by providing continuous positive airway pressure to keep the lungs open during transport to a tertiary care / NICU setting.

Currently, all neonatal transport CPAP machines (including bubble CPAPs) require electrical power or compressed gases to function - neither of which is easily available in low-resource settings. Saans is the first neonatal CPAP device that can be powered in multiple ways - manually, through batteries, via compressed gases, or by an ambulance's electrical supply - to provide for reliable CPAP, with low-skill at a low-cost (20-40% of other "low-cost" CPAPs) in these resource-constrained settings.

Target Beneficiary

Saans targeting to provide breathing support of 1,80,000 RDS neonates (18,000 deployments with an average of 10 uses annually) in the span of 5 years.

Potential Impact due to Intervention

Annually more than 400,000 babies born with respiratory distress syndrome in the India alone. Saans has potential to impact 180,000 newborn lives annually in the India.



Dimagi Software Innovations Pvt. Ltd.

Founder & CEO: Mr. Jonathan Jackson

Type of Organization: Social Enterprise (For Profit)

Address: D-1/28, Paschimi Marg, Block D, Vasant Vihar, New Delhi, Delhi 110057

Project Location: Kaushambi, Uttar Pradesh

MA support in INR: 59,00,000

MA support period: June 2016 to June 2019

Innovator Profile

Dimagi was founded in 2002 out of the MIT Media Lab and the Harvard-MIT Health Sciences and Technology programs. mLabour is being built on top of Dimagi's flagship open-source mobile technology platform, CommCare. CommCare is one of the most widely-adopted, technically advanced, and evidence-based mobile technology platforms supporting frontline workers. By leveraging the existing infrastructure and success of CommCare, mLabour aims to easily provide an open source, cloud-hosted mobile solution to any number of organizations and labor rooms with minimal technology costs.

Challenge

Each year an estimated 287,000 mothers die during pregnancy, delivery, and the postpartum period (Hogan et al., 2010) with 99% deaths occurring in developing countries (WHO 2012). India's National Health Mission has identified prolonged and obstructed labour as two primary causes for maternal mortality, estimated to account for 5% of all maternal deaths in India, this is significantly underestimated since most obstructed labor-related deaths are documented as sepsis, a ruptured uterus, or hemorrhage, rather than the underlying cause (Maine et al., 2002; Mathai 2009).

Mobile partograph mlabour

In collaboration with local and international design consultants and content experts Dimagi developed a prototype of the mLabour application in India. The mLabour tool is a comprehensive redesign of the partograph designed for low-resource public health settings. mLabour will fully harnesses the power of open source mobile technology to easily provide an integrated solution that works on inexpensive and commonly available tablets targeting health providers at all levels of the Indian healthcare system.

It features automatic graphing, reminders to conduct timely patient exams, built-in clinical protocols that detect and manage abnormal labor progress, messaging capabilities to notify staff of emergency cases, and web-based reports for supervisors and administrators. With support, they have adapted the existing prototype into a more comprehensive labour management tool – tracking a woman from initial admission to discharge to support cohesive care.

Target Beneficiary

The primary users of the applications are 25 staff nurses and 4 Auxiliary Nurse Midwives (ANMs) based out of 6 health facilities (1 District Hospital, 4 Primary Health Centers and 1 Sub Health Center) based in Kaushambi, UP.

Potential Impact due to Intervention

The current mLabour tool provides real-time decision support to skilled birth attendants (SBAs) in assessing the course of labour and prompting appropriate actions. It provides the same benefits of the paper tool, but with enhancements that can greatly reduce SBAs' workload.

mLabour was originally designed and tested in an urban, public hospital in Delhi, India. Key findings from a 6-week feasibility study included:

- Improved timeliness of both regular exams and pelvic exams
- Less time spent registering an individual patient
- Less than 2 minutes to update patient indicator data, such as pulse, respirations, and fetal heart rate

With the introduction of mLabour in the rural health facilities of Kaushambi, they hope to see similar impact to improve service delivery and ultimately maternal and child health outcomes in rural settings; fully supporting quality care from admission to discharge and reducing data entry time threefold as compared to paper.



Neurosynaptic Communications Pvt. Ltd.

Co-Founder & CEO: Mr. Sameer Subhash Sawarkar

Type of Organization: For Profit

Address: No. 10, Khata No. 19, 29th Main, BTM Layout, II Stage, Bengaluru, Karnataka 560076

Project Location: Bengaluru, Karnataka, 560076

MA support in INR: 60,00,000

MA support period: April 2016 to June 2019

Innovator Profile

Sameer has been instrumental in sowing the seed for Neurosynaptic and bringing it to its current state. He brings vast technical and management experience to the organization. During 1999-2003, he has handled the position of Chief Executive Officer and Chief Technology Officer at DACS Software. Before that he was with Motorola India Electronics Ltd, where he managed projects in Software Tools and DSP applications.

He is an Ashoka Fellow. His primary work is in the Rural e-Healthcare domain. He also holds several Project Awards, Engineering Awards and Patents, and has many National and International Publications to his credit.

Challenge

Technical Challenges:

- 1] Optimization of optics with quality results
- 2] Finding camera image sensor to reduce number of tiles for scanning
- 3] Selection of camera based on chip size, sensitivity and cost.
- 4] Selection of camera based on sensitivity and compatibility with computer and Laptop.
- 5] Alignment of camera, mirror, eyepiece and LED.
- 6] Designing of affordable automated X,Y scanning stage with higher repeat-ability

Device for lab diagnostics at the doorsteps

Device for Lab Diagnostics at the Doorsteps

Target Beneficiary

Rural Areas

Potential Impact due to Intervention

One million Pathology slides processed through the platform in the healthcare access deprived areas, resulting in early diagnosis of conditions



Sattva MedTech Pvt Ltd

Co-Founder & CEO: Mr. Vibhav Joshi

Type of Organization: For Profit

Address: 5th Floor, Aanand Towers, Richmond Circle, Bangalore - 560025

Project Location: Karnataka, Maharashtra, Andhra Pradesh

MA support in INR: 56,00,000

MA support period: June 2015 to July 2018

Innovator Profile

Sattva MedTech was founded by Vibhav Joshi and Sumedh Kaulgud in 2014 with the vision of developing medical devices which would be designed, engineered and priced for India. Their first product the Fetal Lite is a next-generation fetal monitoring system targeted at solving 300,000 annual intrapartum deaths in India. In 3 years, Sattva MedTech has developed the fetal monitor, has received ISO 13485 certification and CE Class 2A for the device. Sattva has won several awards including YourStory Tech 30, ASSOCHAM best technology solution in healthcare and Healthcare executive 30 under 30.

Challenge

Birth Asphyxia is when the foetus does not get sufficient oxygen during labor. Leading to such an event, the foetus tries to vary its heart rate erratically to compensate. This condition is called Fetal distress. Some examples of distress patterns are drops in fetal heart rate during fetal motion or contractions. Fetal distress is thus a leading indicator of birth asphyxia and can be detected during antenatal scans and intrapartum. This can give a 30 min to 3 hour window to save the baby from hypoxic injury. Early and accurate detection fetal distress is the most critical step for reducing incidence of fetal asphyxia. The current standard of care globally is the Non-Stress Test & Cardiotocography device. This device uses doppler and pressure sensors to measure the fetal heart rate and uterine contractions. The CTG has severe usability and accuracy issues. It is big and bulky. It needs a skilled obstetrician to locate the fetal heart and place the probes. The probes frequently slip off due to maternal motion or lose the signal due to changes in fetal orientation. This device is not viable for a majority of healthcare settings and operators in India. Solutions like hand-held dopplers are cheap, but have limited diagnostic value. Even they need skill to locate the fetal heart.

Affordable smartphone integrated non-invasive fetal electrocardiogram monitor to tackle 300,000 annu

The Fetal Lite is a next generation labor monitoring tool based on the principle of fetal ECG extraction. The Fetal Lite is a single probe monitor for measuring Fetal Heart Rate, Maternal heart rate and Uterine contractions. It can be used post 36 weeks of gestation. The Fetal Lite has received CE Class 2A certification (by TUV Rhineland) and has undergone a IERB approved, 36 patient comparative clinical study at 2 sites. Its accuracy with respect to to the CTG for FHR detection is +/- 2bpm and its accuracy UC detection is 99.8%. The product was launched at the All India Congress of Obstetrics and Gynecology. The product is currently being actively demoed and the team is building a sales function. 10 units have been installed.

Target Beneficiary

Mothers in India.

Potential Impact due to Intervention

50% reduction in Fetal distress related deaths.



World Health Partners

President: Mr. Gopi Gopalakrishnan

Type of Organization: Not for profit

Address: BB-11, Greater Kailash 2, New Delhi

Project Location: Kisumu, Kenya

MA support in INR: 2,30,00,000

MA support period: June 2016 to March 2019

Innovator Profile

Mr. Gopi Gopalakrishnan is a social entrepreneur who has led many innovations including of delivery of primary healthcare services at the nearest point to rural and unserved communities through telemedicine. He is a Skoll and Ashoka fellow. Many of his innovative models of service delivery were adopted the Central and State Governments.

Challenge

Increasing of access and outreach of primary healthcare services to unserved and underserved communities at the nearest point and economical rates.

Telemedicine for rural women and children in western Kenya

Network of providers and clinics connecting beneficiaries to remote doctor with help of telemedicine technology.

Target Beneficiary

Underserved and unserved communities.

Potential Impact due to Intervention

Increased access of healthcare services.

Improved health indicators.



Forus Health Private Limited

Founder & CEO: Mr. K. Chandrasekhar

Type of Organization: For Profit

Address: 2234, 23rd Cross Rd, Banashankari Stage II, Banashankari, Bengaluru, Karnataka 560070

Project Location: Addis Ababa, Ethiopia

MA support in GBP: 90,000

MA support period: July 2015 to April 2018

Innovator Profile

Forus Health is a medical technology startup founded with the philosophical goal to eradicate avoidable blindness. Forus Health develops affordable solutions used for the early detection of eye problems and the solutions are deployed through innovative business models providing more access to eye care.

Challenge

The estimated number of people visually impaired in the world is 285 million, 39 million blind. The causes of blindness are cataract, 51%, glaucoma, 8%, AMD, 5%, childhood blindness and corneal opacities, 4%, uncorrected refractive errors and trachoma, 3%, and diabetic retinopathy 1%, the undetermined causes are 21% and 80% of these cases are avoidable through early Intervention. Only 15% of the population in developing economies have access to quality eye care – their goal is to connect the remaining 85% population.

Building evidence based scalable & sustainable

Forus Health uses a combination of affordable imaging devices (3nethra) and cloud based platforms to deploy eye care solutions in resource constraint markets.

Target Beneficiary

Currently 2,000,000 lives across 26 countries

Potential Impact due to Intervention

The characteristics of our 3nethra solutions, accessibility, adaptability and affordability, have proven essential to broaden the eye care services to reach larger section in the society



Co-Founder: Mr. Prakhar Jain

Type of Organization: For profit

Address: 1st Floor, SID IISc Bangalore, 560012

Project Location: Bangalore, Karnataka

MA support in INR: 25,00,000

MA support period: February 2015 to December 2016

Innovator Profile

Most of learnings of Prakhar are through self driven experimentation, performing with conviction and taking action oriented decisions. He is a staunch believer of entrepreneurship and intrapreneurship as the key to success of any organization, individual or society per se.

Low cost efficient and portable blood cell counter for rural diagnostics

Lab-on-a-Chip based remote Point-of-Care diagnostic platforms for e-health infrastructure

Target Beneficiary

MicroX Labs is developing low-cost (~\$1) point of care test (POCT) solutions based on labon-chip (LOC) assays for resource poor settings that continue to plague primary healthcare infrastructure in large parts of the developing world.

The company's flagship development is a very low cost, portable, easy to use, ICT enabled automatic LOC device for 14-parameter Complete Blood Count (CBC) Test. CBC tests are one of the most commonly prescribed medical diagnostic test (constitute > 15% of tests globally, with approx. 1 billion/yr) for preliminary clinical assessment of numerous diseases - anemia, infections etc in addition to monitoring patient recovery, maternal, child & elderly health.

Potential Impact due to Intervention

POCT platforms are a vital link in universal healthcare Interventions by providing direct clinical diagnosis at source, many of which are operable non laboratory trained health personnel, allowing a paradigm shift from existing ICT led global health Interventions that are designed around health information dissemination, symptomatic assessment and monitoring.



ZMQ Development

Founder/ CEO: Mr. Hilmi Quraishi

Type of Organization: Not for Profit

Address: 187, Vaishali, Pitampura, New Delhi 110088, INDIA

Project Location: Mewat district of Haryana (Now replicated in Hissar (Haryana) and Jajpur (Odisha))

MA support in INR: 2,80,00,000

MA support period: August 2015 to July 2018

Innovator Profile

Hilmi Quraishi is the Co-Founder of ZMQ - a global Technology for Development social enterprise based in India. As a technovator and social entrepreneur, Hilmi specializes in developing innovative technological solutions in low-resource settings which effectively reaches out to the bottom-of-the-pyramid markets – poor, rural, marginalized and women. He works in India, Afghanistan, Uganda, Rwanda and Senegal. Hilmi is an Ashoka-Globalizer Fellow recognized for his technology based innovations for the world's most urgent social problems.

Challenge

- Localization and Contextualization for various region across the globe
- Recruiting and training teams in other developing countries.
- Adoption by the Government
- Creating New Revenue Stream Models for Sustainability

Adapting and piloting MIRA in Uganda and Afghanistan

MIRA CHANNEL (Global Transfer to Uganda and Afghanistan): Mobile Channel for Rural Women on Maternal & Child Health using RMNCH+A approach

MIRA is an integrated mobile phone channel which provides health communication and information tools to rural women through mobile phones in low-resource settings. It has multiple components on issues related to Pre-natal care, Child immunization, Newborn care, Family planning and Adolescent health using RMNCH+A approach. Information is delivered through interactive tools by creating awareness on critical health issues, building knowledge & timely connecting with the public health services.

MIRA uses iconic language with audio support making it interactive 'Talking toolkit' designed for millions of semi-literate women. In addition, it also has numerous VAS tools like stimulating social mobile games and decision-making stories to motivate communities adopt new behaviors.

MIRA Channel won the Millennium Alliance II and got up a scale-up pilot for Uganda and Afghanistan. The Uganda MIRA project has been implemented in the district of Jinja in local languages – Lusoga and Luganda (Eastern Uganda). After the successful pilot, the government has request ZMQ to scale the program in 3 more districts of Uganda – namely Mbrara, Mbale and Kabarole in the Western Uganda. There is a talk with the Ministry that successful program in the 3 new districts may trigger its national adoption by Ministry of Health Uganda. The Afghanistan MIRA project has been implemented in

the Heart province in the western zone of Afghanistan (near the Iran border) in Dari language. There is a demand by the partner to replicate the model in the Pashto speaking areas especially Kabul and Ghazni. We are trying to reach out to partners to scale the program in Pashto region.

Target Beneficiary

- Rural and Semi-literate women at the bottom of the pyramid;
- Pregnant Women and Expectant Mothers;
- Adolescent Girls;
- Children in 0-5 years of age;
- Community Health Workers and Midwives

Potential Impact due to Intervention

MIRA is currently operational in Uganda and Afghanistan. MIRA has reached to almost 66,000 population in Uganda and almost 43,000 population in Afghanistan indirectly. The number of women who have successfully completed their pregnancies through MIRA has been 2900 in Uganda and 1700 in Afghanistan respectively. Almost 4200 children for immunization and 6000 girls in Uganda; and 2700 children for immunization and 3500 adolescent girls have been reached in Afghanistan. In last 18 months, in the area of project implementation, there has not been a single maternal death reported in Uganda and only one maternal death has been reported in Afghanistan. Larger social impact: There are 51 infant girls in Uganda named as MIRA.



ZMQ Development

Founders: Mr. Hilmi Quraishi and Mr. Subhi Quraishi

Type of Organization: Not for Profit

Address: 187, Vaishali, Pitampura, New Delhi 110088, INDIA

Project Location: Mewat district of Haryana (Now replicated in Hissar (Haryana) and Jajpur (Odisha))

MA support in INR: 48,00,000

MA support period: July 2013 to March 2015

Innovator Profile

Hilmi Quraishi is the Co-Founder of ZMQ - a global Technology for Development social enterprise based in India. As a technovator and social entrepreneur, Hilmi specializes in developing innovative technological solutions in low-resource settings which effectively reaches out to the bottom-of-the-pyramid markets – poor, rural, marginalized and women. He works in India, Afghanistan, Uganda, Rwanda and Senegal. Hilmi is an Ashoka-Globalizer Fellow recognized for his technology based innovations for the world's most urgent social problems.

Challenge

- Adoption by the Government,
- Creating New Revenue Stream Models for Sustainability

Mobile phone based lifeline channel for maternal and child health and other critical areas of health

MIRA CHANNEL INDIA - Mobile Channel for Rural Women on Maternal & Child Health using RMNCH+A approach

MIRA is an integrated mobile phone channel which provides health communication and information tools to rural women through mobile phones in low-resource settings. It has multiple components on issues related to Pre-natal care, Child immunization, Newborn care, Family planning and Adolescent health using RMNCH+A approach. Information is delivered through interactive tools by creating awareness on critical health issues, building knowledge & timely connecting with the public health services.

MIRA uses iconic language with audio support making it interactive 'Talking toolkit' designed for millions of semi-literate women. In addition, it also has numerous VAS tools like stimulating social mobile games and decision-making stories to motivate communities adopt new behaviors. MIRA India was launched under Millennium Alliance I.

Target Beneficiary

- Rural and Semi-literate women at the bottom of the pyramid;
- Pregnant Women and Expectant Mothers;
- Adolescent Girls;
- Children in 0-5 years of age;
- Community Health Workers and Midwives

Potential Impact due to Intervention

MIRA is operational in Haryana. In Mewat district (Haryana), MIRA is reaching to over 850,000 women & children, has been rolled out with SHG Federations and Haryana Livelihood Mission with 511,000 women. MIRA is also distributed through telcos, re-charge kiosks, OEMs and CR stations to 106,000 women and girls. Through 67 schools, we have reached to almost 20,000 girls. A set of dedicated 100 MIRA worked in 128 villages covering almost 144,000 people. In the Intervention area, there is an increase in ANC visits by 55%, institutional deliveries by 49% and immunization rates by 41%. MIRA PHC connect model has been piloted in the Haryana state with 47 ASHAs and 10 ANMs reaching to 69,000 women and children. Prompt action has been taken by ANMs in 84% of the High Risk Pregnancy (HRPs) queries raised by ASHAs. Live data produced by the platform enables the state to take timely action.



U-Respect Foundation

President: Dr. Arundhati Char

Type of Organization: Not for Profit

Project Location: Shahapur, Thane district

Innovator Profile

U-Respect Foundation, is an evidence based, not-for-profit organization working in the areas of health, sanitation, livelihood training and education in rural areas and urban slums, reaching out to the BoP population. Headquartered in Mumbai, U- Respect is currently implementing a Millennium Alliance (MA) supported project (Project Vikalp) in the tribal block of Shahapur, Thane district as one of the nine awardees of the prestigious first round MA innovation grants.

An ecosystem to achieve high contraceptive prevalence rates among rural communities – An integrated family planning m-health model (Project Vikalp)

Challenge

With the world's second largest, 1.2 billion population, India has the oldest family planning program; its contraceptive prevalence rate (CPR) today is around 56%, of which 38% are sterilisation users, mainly female sterilization (male sterilisation is to the extent of 1%)(NFHS, 2005). Over the last two decades, the government of India has been promoting the use of reversible contraceptives (condoms, oral pills, and intra-uterine devices (IUDs)). However, the prevalence of reversible methods is still very low in India (all reversible contraceptives together constitute only about 10% of CPR). Couples are still hesitant to talk about contraceptives or purchase a pack of condoms or a strip of oral contraceptive pills. Women still face many barriers to contraceptive access and use and male involvement in family planning is still not evident. The situation is worse among tribal population living in remote areas. In their Intervention area, the unmet need for family planning is as high as 25%, necessitating an innovative and effective Intervention.

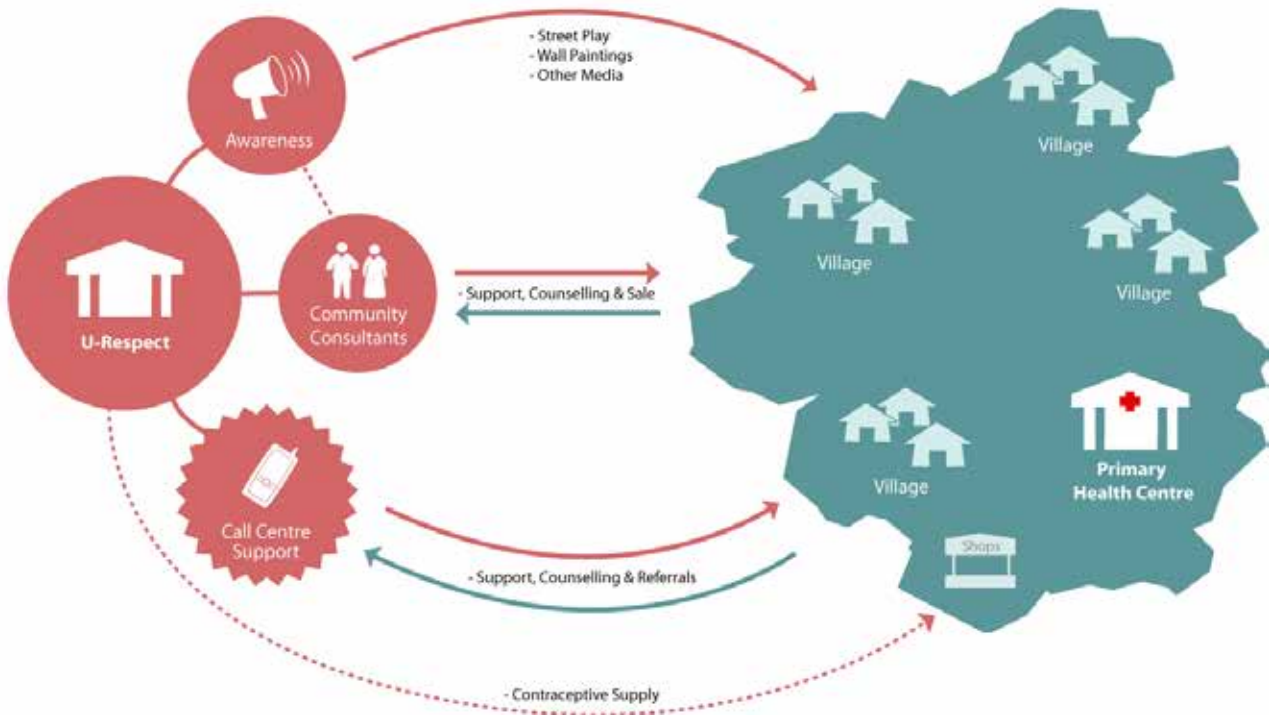
Mobile-technology driven family planning model - An ecosystem to achieve high contraceptive prevalen

The innovation was based on a triangulation methodology – services through a toll-free helpline (information, counseling and linkages to services), products (contraceptives) in place, and the use of local health care providers/on-field community consultants effectively for support functions. Mobile phones are increasingly affordable and accessible even among the poorest, and also the youth. They hence believe that mobile technology needs to be leveraged to achieve better healthcare, specifically family planning and reproductive health services in this case. The project therefore worked towards achieving the following objectives -

- To implement a system based on widespread mobile phone use, and link it up with a toll-free number to provide rural/tribal couples, both men and women, as well as young unmarried people access to information and linkages to easily accessible service providers with total confidentiality (for relevant information pertaining to sexual and reproductive health, including family planning)
- To establish a network of health providers, both government and private, to render sexual and reproductive health services to communities
- To ensure easy access and availability of a range of temporary contraceptives, mainly condoms and oral pills
- To implement relevant Information, Education and Communication (IEC) activities in rural areas and normalise discussion on family planning in the community

Project Vikalp

Proposed Eco System





Water & Sanitation



Banyan Nation

Co-Founder/ CEO & Co-Founder/COO: Mr. Mani Vajipey & Mr. Rajkiran Madangopal

Type of Organization: For Profit

Address: Catalyst @ T-Hub, IIIT Gachibowli, Hyderabad 500033 Telangana

Project Location: Hyderabad, Telangana

MA support in INR: 30,00,000

MA support period: April 2018 to April 2019

Innovator Profile

Banyan converts the collected waste into Better Plastic™ - near virgin quality recycled granules - that brands can use to make new products and packaging.

Banyan was the first company in the country to use mobile and cloud technology and IoT to integrate over 1500 informal sector last mile collectors into its supply chain and trade materials with them. The platform has now been extended to help cash-strapped municipalities understand waste flows through their cities and use a data-centric approach to make waste management more efficient, effective, and economical by diverting more recyclables from landfills and waterways.

Challenge

Waste management in India is inefficient, ineffective and a burden on the public exchequer. The challenges in the waste management value chain start from the source of the waste – the urban households that generate the waste. Waste is not properly segregated, hence, making it difficult to recover recyclable materials.

Existing solutions attempting to solve similar issues are either too expensive for resource-strapped municipalities or were developed for North American and European markets and are hence not relevant for the Indian context.

Banyan nation smart waste IoT platform

Banyan Nation's Smart Waste IoT Platform is one of its kind end to end waste management technology platform that helps cities streamline their waste management operations, identify savings, reduce costs and divert resources to improve planning, optimize operations and reduce costs.

The system will provide decision makers a bird's eye view of the e-waste management system in their jurisdiction in real time. Over time, as ample data is collected, a predictive and deductive analytics engine will be able to alert authorities on any looming waste crises or advise them on strategies to achieve better results.

Target Beneficiary

City government, ULB (Municipality), Informal e-waste recyclers, State PCB, general public

Potential Impact due to Intervention

- Improved e-waste management in the city and the state
- Improved working conditions and livelihoods of informal sector e-waste recyclers
- Safer living conditions for general public
- Savings and revenue for government and ULB



India Heritage Research Foundation

Founder: Pujya Swami Chidanand Saraswatiji

Type of Organization: Not for Profit

Address: Parmarth Niketan, PO Swargashram, Rishikesh, Uttarakhand, 249304

Project Location: Uttarakhand (Rishikesh/Haridwar) and Uttar Pradesh (Kumbha Mela)

MA support in INR: 60,00,000

MA support period: June 2018 to June 2020

Innovator Profile

For over 29 years, the India Heritage Research Foundation has been providing and promoting humanitarian and educational services that lead to healthier, happier, more self-sufficient lives. IHRF's many services include: Free and Low-Cost Schools, Rural Development Projects, Child Welfare Programmes, Medical programmes, Organic Agricultural Programmes and Disaster response.

Challenge

India's rivers, such as the Ganga, are in serious jeopardy. All the while, India's water resources are becoming increasingly scarce, with 300 million residents suffering from severe drought in 2016 alone. By 2020, it is expected that India will have half the water it needs. Such low levels of available water combined with unrestrained pollution-- unless addressed--are predicted to result in dire conditions for countless crores people. Much has been done to try to remedy the situation, yet after countless crores rupees spent, the Ganga River's state remains dire. Much of the reason is due to the lack of community awareness and participation, which leads to apathy regarding water resource management and thus to increased pollution. A community-led approach is therefore crucial for success.

The Ganga Positioning System (GPS): Empowering BOP water leaders through AI technology for a clean

This initiative will enable men and women from BOP populations and other walks of life to understand and help in the rejuvenation of the river through a proactive, technology-enabled approach that invites collaboration.

Using easy-to-understand, Artificial Intelligence-enabled technology that will be developed under this initiative, participants will be empowered to serve as leaders towards inspiring the river's regeneration.

In so doing, we will develop new and cutting-edge intelligent monitoring stations that continuously collect data on multiple water parameters by leveraging Intelligent Sensors, AI & Big Data Analytics and Intuitive Reporting with Smart Visualization. This will be driven by Artificial Intelligence technology developed by one of the world's most renowned computer labs. Through our approach, for the first time, data collected by our sensors and hand-held probes will be instantly converted to easy-to-understand graphic renderings that even a child can understand. Thus, powerful insights on the quality and health of the water will be gained, and community members will be enabled to take their own proactive approaches to managing and advocating for clean and healthy water for all.

In addition, real-time data on the state of the River Ganga, as well as on-ground details from community-based Ganga River Monitors, will be sharable on a special APP, which can be utilized by populations across the Ganga Belt and around the world.

Target Beneficiary

BoP and other populations living alongside the Ganga River will directly benefit, with an emphasis on the hundreds of the men, women and children who will be trained to take up leadership roles from their own communities as Ganga Praharis and Bala Ganga Praharis (Community-Based River Monitors).

Potential Impact due to Intervention

Results of this initiative will directly enable even low-literate BOP communities to monitor their drinking water resources, directly understand its real-time state, share findings and join forces with people from around the world towards the rejuvenation and preservation of our dwindling water sources.

The hands-on technology will furthermore be developed with the vision of being scalable for use by populations around the world to directly monitor their drinking water sources and become leaders in their own right.



Indian Institute of Technology Madras

Innovator: Prof. T. Pradeep

Type of Organization: Autonomous higher education institutes under “The Institutes of Technology Act, 1961”

Address: Sardar Patel Road, Opposite to C, L.R.I, Adyar, Chennai, Tamil Nadu 600036

MA support in INR: 50,00,000

MA support period: June 2018 to June 2020

Innovator Profile

Prof. Pradeep co-founded his first company, InnoNano Research Private Limited in 2008. InnoNano Research Pvt. Ltd. develops nano-materials for arsenic removal and uses 16 patents towards various technologies and product development for providing arsenic-free water. Since then Prof. Pradeep has become part of three more IIT Madras incubated companies for developing technologies and manufacturing products for clean water.

At IIT Madras, Prof. Pradeep heads DST Unit on Nanoscience, Thematic Unit of Excellence on Nanotechnology for Clean Water and International Center for Clean Water.

Challenge

Arsenicosis is a major health hazard causing an increase in the cancer mortality rate within arsenic hit Indian states such as West Bengal, Assam, Bihar, Chhattisgarh, Jharkhand, Nagaland, Uttar Pradesh, Manipur, and Punjab. These states have high concentration of arsenic, greater than, or equal to 200 µg/L, which is far above the permissible limit of arsenic (10 µg/L).

Affordable clean water in arsenic affected area

Performance inefficiency of conventional arsenic removal technology and affordability is still an issue. In this regard, nanomaterials are emerging as an important alternative. The developed cellulose based nanomaterial for arsenic removal has following technology innovations so solve aforementioned problems:

1. Bio-inspired cellulose/iron oxyhydroxide -based nano-composite materials for the removal of arsenic from water
2. Green synthesis
3. No toxicity associated with the exhausted material
4. No power required for operation
5. Cellulose is sustainable and plant derived
6. Lab-scale average arsenic uptake capacity of 100 mg/g

Target Beneficiary

Arsenic-affected region in West Bengal, Assam, Bihar, Chhattisgarh, Jharkhand, Nagaland, Uttar Pradesh, Manipur, and Punjab.

Potential Impact due to Intervention

With this support activity, the team will be able to install 5 functioning community scale units in TBD locations in arsenic affected areas to provide arsenic-free water to nearly 400 families. Impact and performance of installed units will be monitored and evaluated for validation of developed technology and products. A successful pilot installation and implementation of this technology will further ensure its implementation at larger scale.



Co-Founder: Mr. Minhaj Chowdhary

Type of Organization: For-Profit

Address: WIST Water Solutions Pvt Ltd (operating under registered trademark name Drinkwell), 19B Hindustan Road 1st Floor Flat B-4, Kolkata West Bengal 700029

Project Location: Khulna, Chittagong, and Sylhet Divisions, Bangladesh

MA support in INR: 1,00,00,000

MA support period: August 2018 to August 2019

Innovator Profile

Minhaj Chowdhury met Drinkwell co-founders Dr. Arup SenGupta of Lehigh University and Dr. Mike German while all three were completing Fulbright Fellowships between 2011 – 13. Drinkwell was founded in 2014 and has since grown to a team of 50 based in Kolkata where a dedicated manufacturing facility produces Drinkwell's patented HIX-Nano resins that have been used across India. The technology has been commercialized in India through support from the US-India Science & Technology Endowment Fund. Minhaj is a Bangladeshi-American with a Bachelors in Public Health Studies from Johns Hopkins University who previously worked with Bangladesh's BRAC WASH program to understand villager willingness to pay for safe water. He has won numerous accolades in building Drinkwell including being named an Echoing Green Fellow, Ashoka Fellow, and Forbes 30 Under 30 Social Entrepreneur.

Challenge

20 million people across Bangladesh are at risk of arsenic poisoning in what the World Health Organization calls the largest mass poisoning in human history. High arsenic coupled with trace amounts of iron, salinity, calcium, manganese and other impurities have led to numerous water technologies to fall short of being able to scale.

Using nano-technology to provide safe water in urban Dhaka

Drinkwell's HIX-Nano line of resins is the first regenerable hybrid adsorbent produced in India and the world's first commercial hybrid adsorbent using zirconium nanoparticles. The indigenous, high capacity, reusable adsorbent is empaneled by the Government of India's RA Mashelkar Committee on Water and is currently being used by Public Health Engineering Departments, social sector organizations such as Tata Trusts, as well as rural entrepreneurs across West Bengal, Bihar, Assam, and Uttar Pradesh. The durable anion exchange resin makes the adsorbent more resistant to physical erosion during backwashing and regeneration than the most common adsorbent: activated alumina. Upon deploying over 200 systems across India, high efficiency regeneration of HIX-Nano has been proven possible in community-level systems operated by local employees with minimal formal education. Past work from our team in West Bengal has led to economically sustainable operations and maintenance of a network of 150 systems over the last decade.

Target Beneficiary

The 20 million low-income Bangladeshis who are at risk of arsenic poisoning due to high levels of arsenic in drinking water.

Potential Impact due to Intervention

A typical Drinkwell System has a 6,000 liter per day capacity capable of providing safe drinking water to between 200 – 800 households each. System can be scaled up or down by adding modular raw water storage tanks. The aim of the grant is to pilot 6 HIX-Nano-powered systems impacting 20,000+ lives across Khulna, Chittagong and Sylhet Divisions each with varying raw water profiles and operating models in partnership with the Bangladesh Department of Public Health Engineering.



ENVIRON

President: Dr. Amarjyoti Kashyap

Type of Organization: Not for Profit

Address: House No. 60, LNB Road, Hatigaon, Guwahati-781038

Project Location: Palasbari Municipality; Kamrup, Assam

MA support in INR: 30,00,000

MA support period: July 2017 to July 2019

Innovator Profile

Dr. Amarjyoti Kashyap, President & Chief functionary.

He has developed and invented some simplified ways and technology for Solid Waste Resource Management and Environmental Sanitation, like- "Waste Assimilator" for the source management of biodegradable solid waste; "Money Earning Litterbin" for the source segregation of plastic waste; "Household Plastic Craft" for the source management of plastic waste & "Seuj Bahan" for the source collection of segregated plastic waste.

Challenge

Present scenario of mixing of plastic waste along with the biodegradable solid waste due to 'use and throw' practice has ruined the entire solid waste management activities and developing huge 'waste land' and 'toxic land' day by day in India. Improper disposal of solid waste is creating lot of problems like- dirty surroundings with faulty odour, facilitating microbial growth and diseases, clogging of drains and artificial water logging leading to the sources of different vector born diseases like Malaria, Japanese encephalitis, Dengue etc. Solid waste is the major sources of various diseases due to the indiscriminate dumping (CPCB, 2000).

Solid waste resource management and environmental sanitation

To fulfill the requirement, ENVIRON has introduced "Waste Assimilator" to produce 'Bio-pest repellent' and 'Organic manure' in the form of 'Macro & Micro Plant nutrients', 'Vermiwash' and finally 'Vermicompost' both at household level and community level by utilizing all type of daily generated biodegradable solid waste including Kitchen waste, Fruit and Vegetable peels, Meat & Fish waste, Agricultural waste, Garden waste, Forest waste, Water hyacinth etc.

The invention is now generating the concept of 'Solid Waste Management and Organic Farming' including 'Domestic Organic Green Tea Gardening' which is also opening a path for economic growth and health benefits and enhancement of organic green cover in India towards an organically green, healthy and sanitized Nation.

On the other hand, ENVIRON has introduced 'Money Earning Litterbin' for source segregation of plastic waste and also 'Plastic Craft' to produce different decorative and household utensils like 'Chair Back', 'Cushion', 'Mattress', 'Table Top Container', 'Table Mat', 'Garland', 'Decorative Bags' etc. from the segregated plastic waste.

Target Beneficiary

BOP population of Palasbari municipal area of Kamrup, Assam.

Potential Impact due to Intervention

People now understand the 'value' of their 'waste'. There is a wave of source segregation and a general demand is created for source utilization of solid waste. Due to the project activities people are now stop 'throw-away culture' and thereby roadside littering is minimized. The project is now developing a practical field of demonstration where, beneficiary households are now utilizing their biodegradable solid waste for 'Organic Kitchen Gardening' and 'Organic Green Tea Gardening'. On the other hand light weight plastics like plastic carry bags, biscuit pouch packs, different packs and rappers etc. are now segregated through the 'Money Earning Litterbin' and accordingly utilized by 'Plastic Craft'.



Global Interfaith WASH Alliance

Founder/ CEO/ Director: Pujya Swami Chidanand Saraswatiji

Type of Organization: Not for Profit

Address: Parmarth Niketan, PO Swargashram, Rishikesh, Uttarakhand, 249304

Project Location: Uttarakhand (Rishikesh/Haridwar) and Uttar Pradesh (Kumbha Mela), as well as other Ganga River locations, TBD

MA support in INR: 60,00,000

MA support period: Starting April, 2018

Innovator Profile

For over 29 years, the India Heritage Research Foundation has been providing and promoting humanitarian and educational services that lead to healthier, happier, more self-sufficient lives. IHRF's many services include: Free and Low-Cost Schools, Rural Development Projects, Child Welfare Programmes, Medical programmes, Organic Agricultural Programmes and Disaster response.

Challenge

India's rivers, such as the Ganga, are in serious jeopardy. 500 million people are dependent on the Ganga alone, yet, it is one of the most threatened in the world, contaminated by an estimated 6.6 billion litres of sewage and 1 billion litres of chemicals every day.

All the while, India's water resources are becoming increasingly scarce, with 300 million residents suffering from severe drought in 2016 alone.

By 2020, it is expected that India will have half the water it needs. Such low levels of available water combined with unrestrained pollution-- unless addressed--are predicted to result in dire conditions for countless crores people.

Much has been done to try to remedy the situation, yet after countless crores rupees spent, the Ganga River's state remains dire. Much of the reason is due to the lack of community awareness and participation, which leads to apathy regarding water resource management and thus to increased pollution.

A community-led approach is therefore crucial for success.

The women for WASH initiative

This initiative will enable men and women from BOP populations and other walks of life to understand and help in the rejuvenation of the river through a proactive, technology-enabled approach that invites collaboration.

Using easy-to-understand, Artificial Intelligence-enabled technology that will be developed under this initiative, participants will be empowered to serve as leaders towards inspiring the river's regeneration.

In so doing, we will develop new and cutting-edge intelligent monitoring stations that continuously collect data on multiple water parameters by leveraging Intelligent Sensors, AI & Big Data Analytics and Intuitive Reporting with Smart Visualization. This will be driven by Artificial Intelligence technology developed by one of the world's most renowned computer labs. Through our approach, for the first time, data collected by our sensors and hand-held probes will be instantly converted to easy-to-understand graphic renderings that even a child can understand. Thus, powerful insights on the quality and health of the water will be gained, and community members will be enabled to take their own proactive approaches to managing and advocating for clean and healthy water for all.

In addition, real-time data on the state of the River Ganga, as well as on-ground details from community-based Ganga River Monitors, will be sharable on a special APP, which can be utilized by populations across the Ganga Belt and around the world.

Target Beneficiary

BoP and other populations living alongside the Ganga River will directly benefit, with an emphasis on the hundreds of the men, women and children who will be trained to take up leadership roles from their own communities as Ganga Praharis and Bala Ganga Praharis (Community-Based River Monitors).

Potential Impact due to Intervention

Results of this initiative will directly enable even low-literate BOP communities to monitor their drinking water resources, directly understand its real-time state, share findings and join forces with people from around the world towards the rejuvenation and preservation of our dwindling water sources.

The hands-on technology will furthermore be developed with the vision of being scalable for use by populations around the world to directly monitor their drinking water sources and become leaders in their own right.



Hasiru Dala Innovations Private Limited

Managing Director/ Chairperson/ Director: Mr. Shekar Prabhakar/ Mrs. Nalini Shekar/ Mr. Marwan Abubaker

Type of Organization: For profit

Address: Regd Office: B2-708, Sobha Opal Apartments, 39th Cross, 18th Main, Jayanagar 4th T Block, Bangalore 560041; Corp Office: D20, A/B Block, 4th floor, Golden Orchid, 10/8 Kasturba Road, Bangalore 560001

Project Location: Bangalore, Karnataka, India

MA support in INR: 30,00,000

MA support period: June 2016 to June 2019

Innovator Profile

Shekar Prabhakar joined Nalini Shekar, the driving force behind the idea of improving the quality of life of wastepickers, as a trustee in the not for profit, Hasiru Dala in Nov 2013. When Hairu Dala experimented with the waste picker franchisee model in mid 2014 and grew it within a year to a base of 60 clients and 10,000 households, it was felt that the idea was scalable and sustainable, but needed a for profit structure to bring in operational and business rigour, as well as attract external investors. To that end, Shekar alongwith Nalini and Marwan promoted the for profit company Hasiru Dala Innovations, in Nov 2015. The company to date has created over 155 wastepicker jobs, 20 wastepicker entrepreneurs, broke even in 23 months, services over 300 clients with nearly 30000 households segregating waste at source and nearly 760 tons of waste being diverted away from the landfill.

Shekar has 21 years of corporate experience in the IT industry in sales, marketing and P&L leadership roles and 10 years of teaching at Welingkar Institute of Management as a Professor of Marketing. He is a graduate of IIT Madras and IIM Calcutta.

Challenge

Create sustainable, predictable livelihoods for wastepickers

Waste picker franchise model

Waste picker franchisee model to provide total waste management services to bulk waste generators

Target Beneficiary

Waste pickers

Potential Impact due to Intervention

Created 155 jobs for wastepickers and 20 franchisee entrepreneurs



Samagra Waste Management Pvt Ltd

Founder: Mr. Swapnil Chaturvedi

Type of Organization: For Profit

Address: Samagra, 16/11, Acharya Society, Soham Bungalow, Chaitanya Nagari, Warje, Pune, Maharashtra - 411052

Project Location: Pune, Maharashtra

MA support in INR: 30,00,000

MA support period: April 2016 to June 2019

Innovator Profile

Long before the seeds of Swachh Bharat were sown, there was a US-based software engineer who dreamt of clean, safe and reliable community toilet facilities for the urban slum-dwelling poor. Swapnil Chaturvedi decided to demonstrate the concept of a well-designed toilet that kept a user's needs in mind to the local authorities, and opened the first Samagra Sandas (toilet) in March 2013 in Pune. Now, more than 1.5 lakh people across 100 and more slums are using over 3,000 community toilets in the city daily, as part of his Samagra initiative. Being an Ashoka Fellow, Acumen Fellow, himself his chief goal is to work towards the To enable the marginalized communities to lead healthier, dignified and productive lives.

Challenge

India accounts for 600 million of the nearly 1.1 billion people worldwide who regularly defecate in the open due to lack of proper sanitation facilities. The problem is especially acute in India's dense urban environments, where women and children bear a disproportionate burden of the negative effects stemming from poor sanitation. Despite the great need that exists and the transformative effect that community toilet facilities can have on the poor, few organizations have been able to address this issue effectively.

Samagra

Samagra is the first social enterprise in India that is dedicated to providing access to clean, safe, and reliable community toilets for the urban slum-dwelling poor. What makes the model innovative is the seamless bundling of other value-added services along with the toilet block:

Access to digital goods (mobile Top Ups and TV subscription)

Access to Financial services (including savings accounts, bill payments)

Samagra effectively partners with municipal agencies and re-designs community toilet infrastructure to create a "one stop community center" for slum residents. The model has proven its ability to attract and retain users to the toilet facility, promote hygienic behavior and still achieve sustainability.

Target Beneficiary

Over 1.5 lakh people across 100 and more slums are using over 3,000 community toilets in the city daily, as part of his Samagra initiative reached.

Potential Impact due to Intervention

Impact created:

- 150,000+ daily users
- 70,000+Female users
- 3000+ toilet seat users
- ~ 50% Increase in toilet usage
- ~ 500% Increase in people paying for toilets
- 92% customer satisfaction



Founder/ CEO & Co-Founder: Dr. Vibha Tripathi & Mr. Advait Kumar

Type of Organization: For Profit

Address: 230, Udyog Vihar, Phase 1, Gurugram, Haryana 122016

Project Location: 14 states in India

MA support in INR: 30,00,000

MA support period: April 2016 to July 2017

Innovator Profile

Vibha is a social entrepreneur working in energy/water segment. She is founder of Swajal, a start-up with focus on "provision of clean drinking water". Swajal works with communities where technology Intervention alleviates critical issues regarding water. Swajal machines, therefore, are solar powered, automated smart drinking water stations. Journeying from being merely a concept, Swajal is now actively providing clean drinking water to more than 4 lac people daily and is responsible for removing more than 5000 tons of plastic from streets annually. Swajal has generated employment for more than 150 people at grass-root level.

Advait kumar, Ex-banker at JP Morgan, Penn state Graduate in Electrical Engineering. He has received several awards and recognition for engineering work on social impact.

Challenge

Clean Drinking water

Solar powered water purification centers for urban and rural regions with poor grid access and water

IoT driven point of use water purification systems known as water ATM

Target Beneficiary

Marginalised people living in rural slums, villages and remote parts of the country

Potential Impact due to Intervention

Healthier children, reduction of absenteeism in schools, Less cases of diarrhea in children, less time spent by women and children collecting water, access to water while travelling at nominal cost.



Waste Ventures India

Founder & Co-Founder/ Director: Mr. Parag Gupta & Mr. Roshan Miranda

Type of Organization: For Profit

Address: Survey 301 and 317, Behind KJR Weigh Bridge, Bachupally Road, Bachupally, Hyderabad, Telangana, India - 500090

Project Location: Hyderabad, Rangareddy District, Telangana

MA support in INR: 30,00,000

MA support period: June 2016 to June 2017

Innovator Profile

Innovators have tried to bring a fresh perspective to decentralized waste management. Currently work in Hyderabad and have been active for last 6 years

Challenge

Only ~15% of urban India's 60m+ annual tons of waste is processed in India. Waste generators find it hard to address waste segregation and management at source due to lack of one-point waste solution providers, no assured green endpoints to collected waste, no professionalism and audit support and unreliable vendors with no transparency.

Creating green jobs turning trash to treasure for farmers

Waste Ventures India's 'Total Waste Solution' is a one-point waste collection and processing solution for all waste types across varied clients, thereby dramatically reducing waste that is dumped by up to 90%. This service is broken into two components:

- 1) Total Waste Management (TWM) for bulk waste generators (e.g. corporate campuses, manufacturing plants, waste pickers) in megacities.
- 2) Trash2Treasure Parks (T2T Parks) for small municipalities

Post 2016, they've focused mainly on Total Waste Management from bulk generators. As of April, 2018, they have 13 corporate clients, 10 gated communities, and a network of 1200+ waste pickers.

They've started Toter, an online 'Uber-for-trash' model where individual households can book a pickup and have WVI agent come to their doorstep, collect and weigh their waste and pay them on the spot.

They also offer organic waste solutions for on-site composting (composting bins, windrow composting, etc) as well as off-site composting.

Target Beneficiary

The City of Hyderabad, as they avert waste from Hyderabad's landfill, aiding in Swach Bharat mission. WVI also benefits 1500+ waste pickers, who've seen a 15% rise in their income, which most of them use to provide better food and education to their children. WVI helps bulk generators solve their waste disposal problems and promotes awareness regarding segregation and recycling. WVI employs >80 BOP workers, 17 of whom were waste pickers before working with WVI. >60% of these are women.

Potential Impact due to Intervention

In the last 2 years, they have averted 2083.7 tons of waste from dumpsites, produced 200+ tons of organic compost, and generated income increases of up to 15% for 1500+ waste pickers. Through Toter, they've had 5500+ pickups. The impact of waste diversion has resulted in 5,738.6 tons of CO2 emissions averted, 2501.9 tons equivalent of petrol emissions saved, and ~12,757 trees saved.



Waterlife India

CEO: Mr. Sudesh Menon

Type of Organization: For Profit

Address: 3rd Floor, Royal Demeure, Plot No 12/2, Sector 1, Huda Techno Enclave, Madhapur, Hyderabad- 500081

Project Location: Kigali, Rwanda

MA support in INR: 220,00,000

MA support period: June 2016 to June 2019

Innovator Profile

An engineer from IIT, Sudesh Menon has led both start ups and large multinationals in India and globally. An experienced and distinguished professional with International experience, Sudesh is widely credited with pioneering the concept of sustainable Community Water Systems in India. Sudesh co-founded Waterlife India, along with Mr Mohan Ranbaore and Indranil Das, which has grown rapidly and occupies a unique and leadership position in the Water Space. Working with the government and various policy makers, the concept was immensely successful and adopted widely across businesses, government and the model has been recognized globally, as a powerful model to solve a major SDG goal – SDG 6.

Challenge

South – South Replication. Replicate the highly successful Community Drinking Water System model from India to Rwanda.

South - South Replication - Community drinking water systems from India to Rwanda

Implement Pilot Safe drinking water systems in Rwanda. Comprehensive O&M will be done by Waterlife. Local people will be hired and trained to operate, maintain and service the CWS. Poor people will get access to safe water for less than 20 US cents. They will generate local livelihood and entrepreneurship to operate the plants and distribute water to the poor people.

Target Beneficiary

Poor people, children who do not have access to safe water

Potential Impact due to Intervention

- Reduced Waterborne diseases like diareah, cholera, typhoid, hepatitis.
- Increased earnings due to reduced medical expenses
- Reduced infant mortality and stunted growth
- Increased gender equity due to the girl child attending school and women not having to fetch water for long hours
- Increased livelihood



Watsan Envirotech Private Limited

Founder: Mr. Chandrasekaran . J

Type of Organization: For Profit

Address: 92/98, Nithyanandam Street, Vasudevan Nagar, Ashok Nagar PO, Chennai 600083, India

Project Location: Chennai, Tamilnadu

MA support in INR: 40,00,000

MA support period: August 2016 to December 2017

Innovator Profile

Watsan Envirotech Private Limited, based in Chennai was established in May 2013 with the purpose of manufacturing and distributing low-cost Terafil water filters to urban slums and rural families who cannot afford other expensive options. The Terafil candle manufacturing unit and has done modest sales through word of mouth. However, the formal distribution network for Terafil is yet to be established, and they will in 2018, concentrate more on establishing marketing network across the country by signing agreements with select NGOs who work in grass roots levels and penetrate the BoP.

Challenge

Non availability of potable water in rural India and urban slums

Water for all

Low cost, non-electricity based, zero maintenance, zero wastage of water, arsenic, fluoride and iron removal water purifier

Target Beneficiary

700 million Indian rural population

Potential Impact due to Intervention

- The factory was revamped by increasing work space, adding few machinery for part automation.
- Agreements with few more NGOs in different regions were done, important to announce is World Vision India, one of the largest Christian Missionary NGO, working PAN India, to supply our purifiers to any of their offices across India at a standardized rate.
- Manpower increased from mere 15 to 30, almost double after the funding, and capacity building done for 2 Engineers, by training them in designing Software and gaining expertise in making our designs, moulds etc.
- Own tap made instead of Chinese Imported taps used earlier.
- Larger capacity added – 200 litres and deployed in few places, including Kargil Soldiers Occupancy.
- Fluoride removal filter developed and deployed in market.
- Good lead in Assam built, deployed through CM discretionary fund arsenic removal filters, more to come by tie-ups with the PHED, Assam.



eKutir-Rural Management Services P Ltd.

CEO: Mr. Suvankar Mishra

Type of Organization: For Profit

Address: VIP Colony, IRC Village, Nayapalli, Bhubaneswar, Odisha 751015

Project Location: Odisha

MA support in INR: 30,00,000

MA support period: July 2016 to June 2017

Innovator Profile

As a social entrepreneur, Suvankar Mishra specialise and focus on design thinking, fundraising/investment strategy, social impact strategy, and storytelling for social impact. H has co-founded and partnered with organizations to engineer business solutions for social impact by creating a collaborative, ICT-enabled eco-system that allows public, private, and civil society players to participate in designing products and services that address different dimensions of rural poverty

Challenge

53% of India's population lacks access to life-saving Water, Sanitation and Hygiene (WASH) solutions. This is due to poor access and high costs of WASH products and services. Also, rural India still has a significantly high incidence of open defecation (either out of choice or circumstance), and lack of awareness about its health consequences.

Desolenator

Desolenator is a patented device that uses sunlight to convert any source of brackish or impure water in to clean, drinkable water. Desolenator will be distributed through a network of micro-entrepreneurs, set-up by eKutir to engage, market, and train the households. eKutir's micro-entrepreneurship model is a proven, awarded, and well-recognized model to yield personal customer touch points and drive economic sustainability in the process for BoP markets.

Target Beneficiary

Through its sanitation program, EKutir focuses on equipping rural areas with sanitation infrastructure using an enterprise-driven approach:

Potential Impact due to Intervention

Ekutir has reached out to over 28,000 people directly through its sanitation program. It conducted awareness sessions on sanitation for 27,900 people and trained 107 Sanipreneurs on sanitation best practices. It reached out to 30,000 people indirectly through construction of 7,500 toilets and provision of 10,000 hygiene kits.



Ekam Eco Solutions Pvt. Ltd.

Co- Founder: Mr. Uttam Banerjee

Type of Organization: For Profit

Address: 516 A, Second Floor, IGNOU Main Road, Neb Sarai, Saket, New Delhi - 110068

Project Location: Pan India

MA support in INR: 30,00,000

MA support period: March 2015

Innovator Profile

Uttam acquired his Bachelors in Mechanical Engineering and his Masters in Product Design from IIT Delhi. His expertise lies in the areas of Consumer Behaviour, Technology trends, Creative thinking and problem solving. He believes “Less is More” and is very passionate about thinking and designing products that blends sense with simplicity. He has a deep interest in the areas of sustainability and loves to play with natural materials. His designs have won several prestigious awards.

Uttam also holds several patents and design registrations in the areas of sanitation, consumer products, medical devices.

Presently Uttam serves as the Director and CEO at Ekam Eco Solutions and Advisory Board Member to SCNO India. He also serves as the Core member of the Advisory Committee to a Consortium on sanitation by Jagran Pehal, Reckitt & Benckiser and Govt. of Bihar and Advisory Council of World Sustainability & World CSR Day.

Challenge

Access to clean sanitation facilities.

Low cost odor trap for waterless urinals

Waterless Urinals.

Target Beneficiary

Schools

Potential Impact due to Intervention

10,000 direct and around 1L indirect.



SM Sehgal Foundation

Founder/ CEO/ Director: Ms. Aparna Mahajan

Type of Organization: Not for profit

Address: Plot No. 34, Sector 44, Institutional Area, Gurugram, Haryana 122003

Project Location: Mewat, Haryana

MA support in INR: 22,95,750

MA support period: 24th November, 2017

Innovator Profile

A management professional and development expert having specialised in the field of Corporate Social Responsibility and Development/Private Sector. Experience in academics, corporate sector, not-for-profit orgns and international agencies.

Handled multiple and top leadership assignments as International Technical Expert with United Nations - UNDP Somalia, Kenya ; UNDP India Consultant on CSR - developed CSR knowledge base for CII-UNDP led India Partnership Forum (IPF) - a country-level UN Global Compact initiative ; UNDP/UNV India Country Specialist in Business-Community Relations ; and Advisor-Corporate Communications, The Energy and Resources Institute (TERI). Have worked on senior management roles with apex business chambers in India & UAE - Federation of Indian Chambers of Commerce and Industry (FICCI) and Dubai Chamber of Commerce and Industry, Dubai, UAE. Initially worked on specialized assignments with Indian Institute of Technology (IIT) , New Delhi, and Nestle India Ltd.

Currently, Director - Partnerships and External Relations, at S M Sehgal Foundation.

Specialities: CSR, Strategic Partnerships, Corporate Communications, Resource Mobilization, Management Consulting/ Advisory

Membership:

- Nominated SSR International Fellow, UK
- Nominated Life Member of DMA
- Honorary Life Member of ALL

Key Publications:

- Author of India Country Report on CSR *Enhancing Business Community Relations* by United Nations Volunteers, TERI and New Academy of Business, UK. Action research project led by me in India, published in Global Report by UN Volunteers Hqrs Bonn, Germany
- Contributing Expert Author for two books on *World Guide to CSR*, 2010, and *World Guide to Sustainable Enterprise*, 2016, Greenleaf Publishing , UK

Awards:

- Conferred with *Exceptional Woman of Excellence Award* by Global WEF
- Awarded *Global Goodwill Ambassador, India* in recognition of leading activities in CSR
- Grand Jury Member of eNGO Challenge Asia-Pacific Awards 2014

Challenge

Mewat, a backward district of Haryana has more than 78% area with saline ground water and shallow water table conditions. In saline groundwater area due to absence of surface water sources people (especially women and girls) really struggle hard for collecting water for drinking and household purposes from far distant sources.

Installation of pressurized recharge wells for creating fresh water pockets in saline ground water areas to make water available for drinking and sanitation purposes in water scarce schools of Mewat Haryana

S.M. Sehgal Foundation have developed a method where groundwater recharging can be made possible in saline ground water areas and harvested water can be used for drinking and other household purposes. After several attempts, an innovative design of pressurized recharge well is developed that helps in creation of fresh water pocket within saline aquifer and harvested water exploited to meet drinking and other requirements.

Target Beneficiary

S.M. Sehgal Foundation's innovated pressurized recharge wells pose a solution. This method has been implemented in a few schools of Mewat, Haryana. The structure serves about 500 children in one school and can be replicated at household level across semi-arid and inland salinity affected areas in India.

To address drinking water problems and mitigate salinity in Asian and African countries like Thailand, Fiji, Iran, Afghanistan etc.

Potential Impact due to Intervention

The solution improves health and hygiene of communities. It ensures water for drinking and sanitation, which leads to reduction in water borne diseases. Girls also get an opportunity to study when water is available



Swayamsiddha Mahila Utkarsha Foundation

Director: Chandu Chavan

Type of Organization: Not for Profit

Address: 604, Nucleus Mall, Church Road, Camp, Pune-411001

Project Location: Pune, Maharashtra

MA support in INR: 1,00,00,000

MA support period: November 2014 to October 2017

Innovator Profile

Swayamsiddha Mahila Utkarsha Foundation, a Pune based organization is established in year 2008-09 for initiating various projects for upliftment livelihood of rural community in different areas like – Social, Economical, Educational, Health and hygiene awareness and at the same promoting rural women empowerment through establishing Entrepreneurship based revenue generating models.

In the year 2009-10 we introduced 'JALDOOT' a project of Accessing Safe Drinking Water as door steps of deprived and lower income rural community.

The project is still serving daily to more than 15000 of individuals and more than 25000 peoples are accessed to safe drinking water on daily basis.

- Have generated regular employment for more than 20 people in rural areas
- Generated income source of Rs. 30000 to 20000 per month for the project partners.
- 70% of employment are local rural women.

JALDOOT has installed small projects of water purification in 34 schools in Baramati region in Pune district, which have benefitted more than 9800 students with access to Safe drinking water.

Challenge

More than 55% of rural Indian population is not having access to safe drinking water, making the access to them is big challenge.

JALDOOT safe drinking water delivery model

'Project JALDOOT' is a truly Innovative idea for accessing safe drinking water at door steps of rural community at very affordable price.

Innovation –

1. Mobile water purification –

- a. An On-Go mobile water purification system mounted on a 3-wheeler works without electricity.
 - b. Patented technology developed at NCL Pune under CSIR Gov. of India initiative.
2. Stationary water kiosk
- a. Stationary water purification units.
 - b. Supported with 'Any time water' ATM system with pre-paid card facility.
 - c. Involvement of local Gram Panchayat.

Target Beneficiary

At present more than 25000 rural population and 9800 school students were accessed to Safe drinking water.

Target Beneficiary are-

1. Rural community especially at the BoP (Bottom of Pyramid).
2. School going rural young generation
3. Small and medium scale industries not having any source of safe drinking water
4. Community in remote areas not having access to safe drinking water

Potential Impact due to Intervention

Individual Impact

1. Door step delivery of safe drinking water
2. Reduction in physical and mental fatigue of rural women, reduction in time spent in fetching potable water from distant source.
3. Reduction in health issues related to water borne diseases.
4. Improved productivity due reduction in illness.

Financial Impact

5. Reduction in medicinal expenses need to incurred to treat water borne diseases.
6. Increase in earning power of a family as saved time from fetching water can be utilized for other productive work.
7. Generation of New earning source through rural entrepreneurship and employment based model.
8. Additional earning of Rs. 3000 to 15000 per month in rural area.

Social Impact

9. Increase in awareness about quality of drinking water and its impact on health.
10. Upliftment of rural livelihood through improved health and financial conditions.
11. Rural women empowerment through new employment due to JALDOOT projects



Transerve Technologies Pvt. Ltd.

Director: Mr. Amarsh Chaturvedi

Type of Organization: For Profit

Address: 604-606, 6th Floor, Dempo Towers, EDC Patto Plaza, Panaji - 403001

Project Location: Jhansi, Uttar Pradesh

MA support in INR: 32,000,00

MA support period: February 2015 to December 2018

Innovator Profile

The innovator graduated from IIT Kharagpur in 2010 and worked in one of the largest engineering companies Larsen and Toubro for 2 years. The experience at L & T gave confidence to start the project Jeevandhara – a handpump integrated with filtration system to solve the problem of water contamination in rural areas of India. Next 5 years, he dedicated himself to the conceptualization, development, testing and implementation of the technology and finally able to pilot it in Jhansi, Uttar-pradesh. He trained himself to learn the new and upcoming technologies such Artificial Intelligence and Blockchain to develop advanced software which would be required in coming times to handle the problems of our country in upcoming times. Presently he is working to scale up the patented technologies with partnering with other organizations.

Challenge

In India, about 883 million people live in rural areas and majority of them are affected by chemical and bacteriological contaminants present in the drinking water. Majority of the water resources are heavily contaminated. Lack of electricity and low affordability along with high water contamination constitute the 3 major constraints in dispersing clean drinking water to the masses.

Jeevandhara Handpumps with filtration system for rural areas

'Jeevan Dhara' is a uniquely patented technology; a hand pump with RO filtration system aimed at catering the needs of rural India by providing clean drinking water to the masses. It uses the combination of muscular power and solar energy to pump and filter water.

Target Beneficiary

Village Panchayats / Habitations: In areas where people use ground water, the lower income strata in the rural villages can't afford for personal purification devices. JeevanDhara proposes community-based ownership per 20 families or an habitation with a population of 100. These also include government bodies, Educational Institutions, Offices , Markets , Hospitals e.t.c. Individual owners in Semi-Urban Areas: In the these areas , people use handpumps and an additional filtration device. Jeevandhara provides an integrated system with lower overall cost. Slum areas: The slums of the urban cities in parts of the country also use hand pumps presently. So, with the help of local NGOs, Jeevandhara pumps can be installed to provide relief from bacteriological and chemical contamination.

Potential Impact due to Intervention

The installation of 20 Jeevandhara Units have impacted a population of 1000 people over the last 2 years. The project has reached a mature phase of implementation on a large scale across multiple states such as Madhya Pradesh, Jharkhand, Uttar-Pradesh and Bihar.



Waterlife India

Founder/ CEO/ Director: Mr. Sudesh Menon

Type of Organization: For Profit

Address: 3rd Floor, Royal Demeure, Plot No 12/2, Sector 1, Huda Techno Enclave, Madhapur, Hyderabad- 500081

Project Location: Ranchi, Jharkhand, India

MA support in INR: 23,096,400

MA support period: June 2013 to June 2016

Innovator Profile

An engineer from IIT, Sudesh Menon has led both start ups and large multinationals in India and globally. An experienced and distinguished professional with International experience, Sudesh is widely credited with pioneering the concept of sustainable Community Water Systems in India. Sudesh co-founded Waterlife India, along with Mr Mohan Ranbaore and Indranil Das, which has grown rapidly and occupies a unique and leadership position in the Water Space. Working with the government and various policy makers, the concept was immensely successful and adopted widely across businesses, government and the model has been recognized globally, as a powerful model to solve a major SDG goal – SDG 6.

Challenge

Provide Safe Drinking Water Sustainably to the Slums in Ranchi

Waterlife

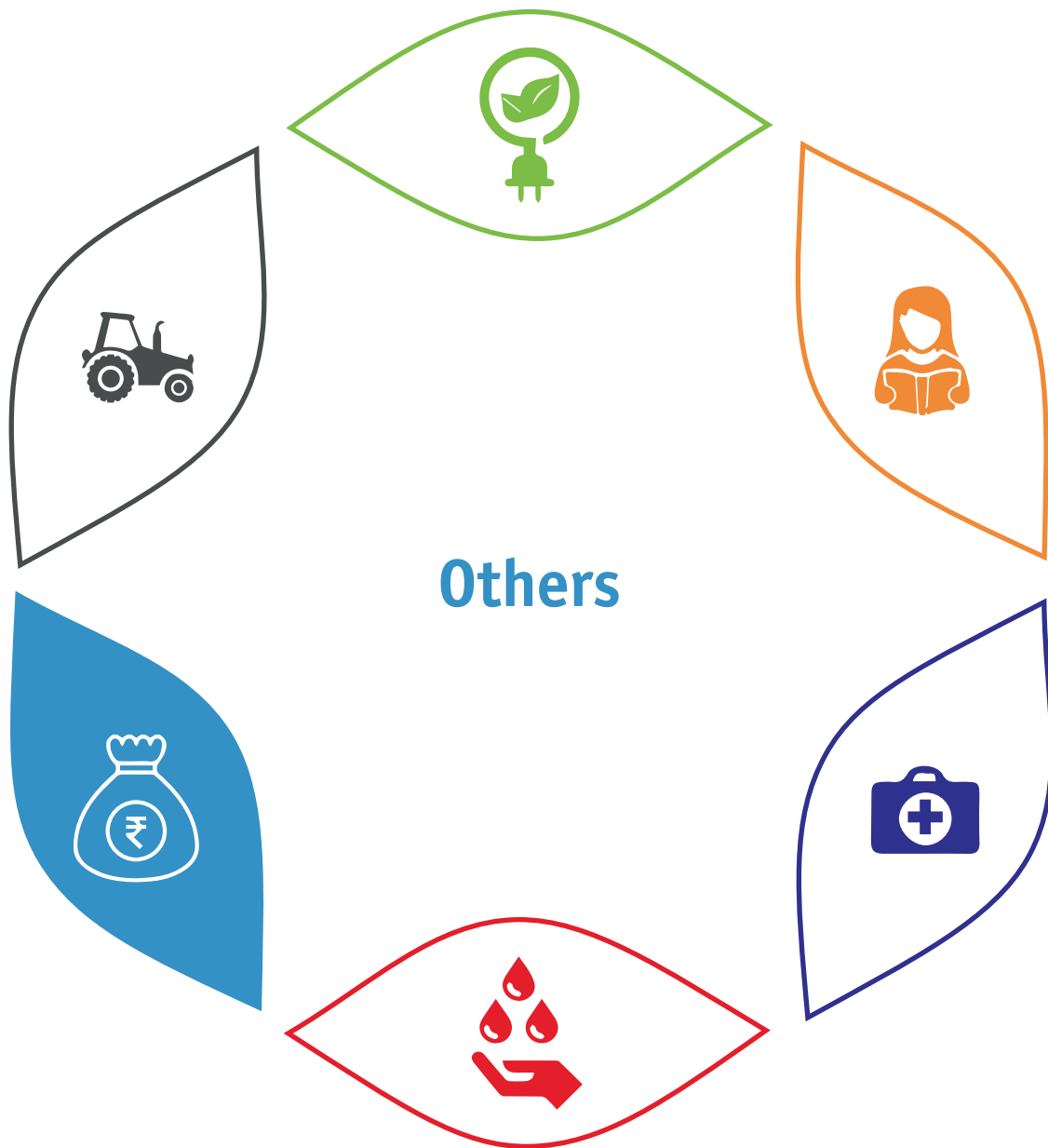
Implement Pilot Safe drinking water systems in Ranchi Slums. Comprehensive O&M will be done by Waterlife. Local people will be hired and trained to operate, maintain and service the CWS. Poor people will get access to safe water at Rs. 7 for 20 litres. They will generate local livelihood and entrepreneurship to operate the plants and distribute water to the poor people.

Target Beneficiary

Poor people, children who do not have access to safe water

Potential Impact due to Intervention

- Reduced Waterborne diseases like diareah, cholera, typhoid, hepatitis.
- Increased earnings due to reduced medical expenses
- Reduced infant mortality and stunted growth
- Increased gender equity due to the girl child attending school and women not having to fetch water for long hours
- Increased livelihood





Avani

Founder/ CEO/ Director: Ms. Rashmi Bharti

Type of Organization: Not for Profit

Address: AVANI PO Tripuradevi via Berinag, Dist. Pithoragarh, Uttarakhand - 262531

Project Location: Pithoragarh, Uttarakhand

MA support in INR: 30,00,000

MA support period: April 2018 to May 2021

Innovator Profile

They soon realized that although villagers were interested in the solar panels, they had no income with which to purchase them. Troubled by this lack of economic activity in the area, as well as a persistent loss of the ancient traditions of weaving, natural dyeing, and hand-spinning, Rashmi had the idea to create a sustainable enterprise that employed local people, particularly women, fostering economic activity and giving people viable, dignified livelihood opportunities that were environmentally friendly and rooted in traditions. Hence, Avani was born. Since then, an initiative that initially employed just 20 families has grown to support over 1,500 beneficiaries this year.

Challenge

The Kumaon region faces significant challenges due to its difficult geography and remoteness, including: 1) small land holdings, which force farmers to rely on subsistence farming. 2) a lack of commercial and industrial activity in the region, and 3) the over-exploitation of the fragile Himalayan ecosystem, leading to severe loss of biodiversity and dominance of invasive species in the forest.

Colors for a sustainable planet by Himalayan women

Avani combines traditional knowledge of hand-spinning, hand-weaving, and natural dyeing with modern designs to produce high-quality textiles, dyes, art supplies, and lifestyle products. Through all stages of its innovative, sustainable production process, Earthcraft uses environmentally-friendly technologies, including wastewater recycling, solar energy, pine needle gasification (an innovative energy-generation technology pioneered at Avani), and rainwater collection, creating a supply chain that is fully transparent and ethical from “seed to scarf”.

Target Beneficiary

Avani’s target beneficiaries are rural community members, particularly women, who through working with Avani are able to increase their incomes and sustain their rural lifestyles.

Potential Impact due to Intervention

Overall, Avani currently employs 1,500 beneficiaries, 78% of whom are women. Avani has generated a total of Rs. 2,40,00,000 in income over the past 5 years. By focusing on employing rural women, Avani empowers women to open savings accounts, invest in their children's educations, and make home improvements. In addition, Avani's work with natural dyes helps to preserve biodiversity by regenerating forests and reclaiming wastelands in the region. In the coming years, Avani aims to increase the number of beneficiaries in the community to 2,400 and ensure that at least 20% of the jobs created employ marginalized groups, including women, people with disabilities, people with little or no schooling, and victims of domestic violence. This employment will generate an additional 1,60,82,000 INR in income for community members in the form of wages and salaries, as well as further conserve biodiversity through the planting of dye-yielding trees and reclamation of wasteland.



Kritsnam Technologies

Founder/ CEO/ Director: Mr. K Sri Harsha

Type of Organization: For Profit

Address: D-103, SIIC Extension, IIT Kanpur

Project Location: Kanpur, Uttar Pradesh

MA support in INR: 30,00,000

MA support period: August 2017 to August 2018

Innovator Profile

Experienced entrepreneur with a demonstrated history of working in the water resource management. Strong leadership skills with expertise in River engineering, Instrumentation, Automation, Data analysis and Experimental hydrology.

Challenge

Real-time environmental and agro-hydro-climatic data collection is crucial for both agriculture and water resources management in Indian rural landscape. This is due to the high cost and high power requirements associated with the popular GSM/GPRS based communication solutions. Additionally the task of setting up a communication infrastructure in rural landscape is especially onerous considering challenges like sparse cellular coverage, no power supply, lack of security and harsh weather conditions.

Wireless communication infrastructure for rural settings

Collection of agro-hydro-climatic data using ground sensor network – Using LPWAN gateways on towers or rooftops, regional command centers are being established for collecting information on the smallscale spatial features and local weather conditions from in-situ low cost environmental sensors (soil moisture, rainfall, temperature, wind speed, humidity, pressure, solar radiation). Finally, all this information will be uploaded to a central database on the cloud using GPRS/Ethernet/WiFi. The cost effectiveness of the ground sensor network will be achieved due to usage of: • low cost sensor modules while ensuring their reliability after careful laboratory tests. • low power communication system thus cutting the cost of big batteries, solar panels and bulky deployment accessories. • de-licensed Indian ISM band of 865-867MHz for data transmissions and thus near-zero data communication costs

Target Beneficiary

Farmers, Irrigation and water departments and research institutes

Potential Impact due to Intervention

The establishment of low-cost long-range RF based wireless communication infrastructure in rural landscape will empower its people and policy-makers with smart agriculture and water resource management practices. This also enables the developers in agricultural automation and researchers in hydrology with seamless data monitoring and control tools.



Magic Bus India Foundation

Founder/ CEO/: Mr. Matthew Spacie/ Mr. Jayant Rastogi

Type of Organization: Not for Profit

Address: J K Textile Building, 3rd Floor, Mehra Estate, Near Jaswant Landmark, LBS Marg, Vikroli (West), Mumbai – 400079. Maharashtra, India

Project Location: DISTRICTS: Thane, Bhandara, Vizag, Kotthur. States: Maharashtra, Telangana, Andhrapradesh

MA support in INR: 50,00,000

MA support period: July 2017 to July 2020

Innovator Profile

Magic Bus on their journey towards developing youth entrepreneurs would have following process of Intervention-

1. Generate demand and aspiration for entrepreneurship
2. Establish lean & replicable model for entrepreneurship development
3. Build professional talent for the field
4. Identify and partner with mission-aligned stakeholders to sustain and scale the program
5. Develop knowledge products, tools, technology for creating a runway for youth entrepreneurs
6. Partner with government & other players for institutionalizing the process and scaling to other locations

Challenge

Youth to have innovative business idea and getting financial support to develop it.

Entrepreneurship program for youth

Innovations in farm and non-farm products and services.

Target Beneficiary

Youth in the age group of 18 to 29 years having annual family income not more than 1.2 lakhs

Potential Impact due to Intervention

Youth from poor socio-economic background create a road map to visualize, start and grow a business enterprise that provides them with a sustainable income, impacts their family and serves local needs through their enterprise. The longer term impact would include contribution to the local economy and generation of additional employment through their ventures. These young people would serve as role models in their community and be mentors for other young people.



Dhakka Brake

Founder: Mr. Sanjeev Arjun Gaur

Type of Organization: For Profit

Address: A-29, sector 36 Noida 201301

Project Location: Noida

MA support in INR: 10,00,000

MA support period: July 2017 to June 2018

Innovator Profile

An innovator since childhood, like to tinker with things. Have been designing exhibitions and interiors as well as electronic or mechanical products for the advertising industry for almost 20 yrs.

Challenge

To conserve energy wasted during braking in a cycle rickshaw

Dhakka brake - A regenerative brake device to store the momentum needed to push brake

Regenerative braking device for the cycle rickshaw

Target Beneficiary

Cycle Rickshaw Paddler

Potential Impact due to Intervention

Saving labor, improvement in health and earnings



Eko India Financial Services Pvt. Ltd.

Founder: Mr. Abhishek Sinha, Mr. Abhinav Sinha

Type of Organization: For Profit

Address: 3rd Floor, Phase 2 Building, Plot 34, Sector 44, Sector 44, Gurugram, Haryana 122002

Project Location: Pan India

MA support in INR: 1.0 crore

MA support period: September 2014 to December 2015

Innovator Profile

Abhishek Sinha - Previously co-Founded Six DEE Telecom Solutions, a mobile VAS Company which Scaled to nine countries and 15 telecom operators. Holds multiple patents for secure payments innovation. Abhinav Sinha - Previously an engineer at Oracle before joining Six DEE Telecom Solutions as Product Manager for the Company's online recharge platform. Co-founded Eko India Financial Services Pvt. Ltd. in 2007. Holds multiple patents for secure payments and telecom.

Challenge

Less than 40% of adult Indians have access to the formal financial services. This is due to lack of infrastructure and the high cost of serving these customers. Attempts to achieve financial inclusion have not been very successful mainly because of the two reasons- High cost to setup a distribution network and Lack of relevant product and customer awareness

Challenge is to develop a low cost sustainable and robust technology enables distribution network to enable access to formal services in rural and semi urban regions of the country. The product needs to be tailored to the needs to the customer at the BOP.

Financial deepening and economic inclusion @ tapping the unbanked billions

Eko scaled its operations by enabling existing MFIs, like Cashpor, NGOs, SHGs and Cooperatives to provide financial services to their customers through easy to use agent management platform "Connect". Connect enabled Agents and customers to perform any financial transactions like account opening, deposit, withdrawal, remittance and payments through their basic handset. This innovative technology, helped in building a network connecting the existing distribution infrastructure

Target Beneficiary

Low and moderate-income Indians were the direct beneficiaries. Eko helped in opening the saving bank accounts, recurring deposits, fixed deposits, deposit & withdrawal transactions etc.

Potential Impact due to Intervention

It works on self-empowerment model for its users on a multi-modal low-cost approach for performing the financial transactions.



FIA Technology Services Pvt. Ltd.

Co-Founder/ CEO: Ms. Seema Prem

Type of Organization: For Profit

Address: 840-41, JMD Megapolis, Sohna Road, Sector - 48, Gurgaon -122018

Project Location: Orissa, West Bengal, Jharkhand, Uttar Pradesh, Rajasthan, Madhya Pradesh, Chattisgarh, Uttarakhand

MA support in INR: 1 Cr.

MA support period: November 2015 and still continuing

Innovator Profile

Seema has over 18 years of experience in driving operational excellence programs in the banking and financial services sector. She has experience in new product rollouts and streamlining of operational chains for banks. These apart, she has also championed the operations for technology start-up and piloted Business Development for IT and ITES companies. She has worked with key financial institutions covering retail and wholesale banking in North America, Europe and Asia.

Influenced by her childhood spent in some of the most inaccessible terrains in India, Seema felt compelled to work towards reducing the inequities she saw.

She co-founded FIA in 2012 and is the present CEO of FIA Technology.

Challenge

There are billions of people in the world who keep their hard earned wages in their pockets or under mattresses. They wish for something we take for granted: the security and convenience of a bank account. How does formal banking help people whose annual savings are a few hundred rupees? The simple answer is – it does not.

Fortunately FIA makes the economics work for bankers to serve customers at the bottom of the pyramid. Through biometric enabled authentication system and a network of friendly neighborhood inclusion centers, FIA provides access to banking in areas where it is not viable for banks to setup branches.

Low cost technology to distribute financial services across the country

FIA's award winning model for financial inclusion combines state-of-the-art technology and an extensive distribution network to bridge the huge demand-supply gap for banking in under-served geographies. They have incorporated innovative practices across the value chain which taken together confer a tremendous competitive advantage in this industry.

Target Beneficiary

By opening up financial inclusion centers, FIA is offering employment opportunities to lacs of educated micro-entrepreneurs across the country, specifically in villages. This minimize migration of workers to cities in search of employment.

Their target segment is financially excluded population who live or work in financially under-served geographies. In urban India, micro-entrepreneurs and migrant workers while in rural India, majority of subsistence farmers who are self-employed (agricultural, dairy etc.) were unbanked and have been significantly benefitted with the project.

Potential Impact due to Intervention

Through its “Inclusion centers”, FIA plays a key role in ensuring growth and redistribution of wealth in the society:

- FIA provides banking services at the doorstep of the customer that gives millions of unbanked an opportunity to save and invest their money.
- FIA provides employment to thousands of entrepreneurs by appointing them in FIA inclusion centers, which are located in under-served geographies and markets.
- Through their distribution network, they mobilize loans at reasonable interest rates, which in turn helps entrepreneurs in initiating new commercial activities, which contributes, to economic growth at the BOP.



Rang De

Founder & CEO: Mr. Ramakrishna NK

Type of Organization: Not for profit

Address: Rang De, 5th Floor, Raj Alkaa Park, Bannerghatta Main Road, Bangalore - 76

Project Location: Pusad and Pune in Maharashtra, Muzzafarpur in Bihar, Imphal in Manipur, Bangalore (rural) in Karnataka

MA support in INR: 23,09,640

MA support period: June 2013 to June 2016

Innovator Profile

Ram is a firm believer in the social business model. He started Rang De in 2008 as a platform to raise social investments for underserved communities. His conviction that there is a need to lower the cost of microcredit has been instrumental in shaping Rang De's values and beliefs. Prior to starting Rang De, Ram worked as Principal Consultant for Vignette Europe Limited at its headquarters in Maidenhead, Berkshire.

Challenge

In India, access to good education is an aspiration that many parents have for their children. However, many economically weak families struggle to meet the expenses of their children's education which in turn widens the learning gap between them and other children, resulting in potential inequalities in employment and livelihoods.

Rang De

At Rang De, they recognize that access to quality education is vital to poverty alleviation in India. Through Rang De Scholars program, they seek to implement innovative Interventions to make quality education more accessible and affordable to underserved communities.

Rang De will use its model to raise low cost funds to provide affordable credit to people from low income background for their education needs.

Target Beneficiary

Rang De Scholars program aims to ensure that all deserving students have access to quality primary, secondary, vocational and higher education irrespective of their socio-economic background.

Potential Impact due to Intervention

Students are able to stay in school and college and complete their education





V-Shesh Learning Services Pvt. Ltd.

Founder & CEO: Mr. P Rajasekharan & Mr. Shashaank Awasthi

Type of Organization: For Profit

Address: 2nd floor, Surya, 2nd Cross Street, Seethamal Extension, Alwarpet Chennai

Project Location: India – Mumbai Bangladesh SriLanka

MA support in INR: 80,47,600

MA support period: July 2018 to December 2019

Innovator Profile

v-shesh is a 10 year young award winning Impact Enterprise delivering a range of services for inclusion of Persons with disability in mainstream employment and other markets. v-shesh's journey has been one of co-developing (with direct feedback from end-customers) service offerings, testing the value proposition of the service, and eventually setting a effective pricing for the service. Using this approach, v-shesh delivers services for job seekers (training & placement), employers (equal opportunity policy, access audit, sensitization, and recruitment) and schools / children with disabilities (bridge education programs). With a team of 35 professionals (over 40% being persons with disabilities), we serve over 1000 job-seekers, 100 employers and 1000 children with disabilities. v-shesh operations based out of 5 metro locations and one rural location has been consistently growing in scope and scale progressing constantly in our inclusion goal.

Challenge

4 out of 1000 children are born deaf. Delay in diagnosis and in early intervention, limits language acquisition during their crucial years of development (2-7 years). In the absence of a fully developed first language, learning how to read/ write becomes difficult for most deaf children – spoken language cannot be acquired due to deafness and sign language cannot be acquired due to lack of exposition.

Sign On! v-english for deaf learners

This “opportunity divide” has been addressed through a successful USAID supported Bridge English pilot program launched by v-shesh in FY 2015-16 . This program was implemented in schools in urban, semi-urban and rural India and showed excellent progress in addressing grade disparity by using deaf-learner centric techniques and harnessing perceptual / visual learning skills of deaf children as following -

1. Pedagogy customized for Deaf learners - visually rich content aligned to globally accepted framework for language learning

Third party assessments have revealed that deaf children enrolled in the program a) improved English comprehension (an average improvement of 17% in Endline Test score vis-à-vis Baseline) b) outperformed their hearing peers in similar schools (Scores greater 30% in comprehension, reading and writing) and b The MA program (Round V Education), will establish v-English Centre of Excellence (at Mumbai) to consolidate learning content & teaching methodologies, establish standards and undertake capacity building for Master Trainers in preparation for scale-up in India.

With the proposed MA Funding, the project aims to replicate a similar pilot in two South Asian Countries - Srilanka and Bangladesh by undertaking the following activities –

1. Revisit the Bridge English Content and customize based on local needs
2. Build capacity of the partner trainers through focused Train the trainer sessions and continuous engagement and support. (Post-project, these trainers will be potential master trainers for scaling-up the initiative in their countries)
3. Design and administer standardized assessment to track progress
4. Create awareness among enablers - Parents, Teachers, DPOs about the need for deaf centric learning methods.
5. Constructively engage with local Donor entities and Government to catalyze policy change with regard to deaf education

Target Beneficiary

The program will create a viable and replicable delivery model that will optimize the unit cost of conducting a bridge English communication program for deaf students with the following target beneficiaries -

1. Deaf-learner level
2. Institutional level Change
3. Ecosystem Level Change

Potential Impact due to Intervention

The direct impact of our partnership with MA would be –

- Eight Trainers in partner country (including four deaf trainers) will be fully equipped to deliver the program and Four Master Trainers (including Two deaf Master Trainers) in India will be equipped with multi-country expertise.
- Measurable improvements in the English language skills of 100 deaf students in Two South Asian countries (Srilanka & Bangladesh) .
- Two awareness workshops in partner countries with teachers, parents and administrators to highlight the deaf friendly methods used under the program, the communication needs of the deaf children and the overall impact of a focussed teaching aproach on the English language learning outcomes of the deaf children

The above outputs will yield the following sustainable outcomes:

- A dedicated South Asia resource center to guide trainers and deaf learners in partner locations through access to (a) a rich library of visual/ online resources for effective English language learning, and (b) Faculty guides on deaf learner centric teaching techniques, and (c) best practices toolkit - Improved Educational outcome reflected by improved pass percentage and/or scores for deaf children enrolled in the program,
- Higher visibility amongst educationist, donors and Government on the need for using deaf centric learning methods to achieve impact and scale in deaf education.
- Improve communication between Parents, Teachers, Administrators and deaf children resulting in their intellectual, social & emotional development
- Establishment of viable operating model for English language learning course for South Asian market



Invention Labs Engineering Products Private Ltd.

Founder: Mr. Ajit Narayanan

Type of Organization: For Profit

Address: 1st Floor, IIT Madras Research Park, Taramani, Chennai – 600113

Project Location: Bangladesh

MA support in INR: 96,00,000

MA support period: June 2018 to July 2020

Innovator Profile

Avaz was conceived in 2009, when Ajit Narayanan, an engineer working in the Silicon Valley in the US, moved back to India to become a social entrepreneur. Working with his alma mater IIT Madras to find interesting problems to solve, Ajit was introduced to Vidyasagar, a school for children with mental disabilities in Chennai. Ajit used his training as an electrical engineer to build a touchscreen-based communication device for children with cerebral palsy and autism. Such devices had been available internationally, but at \$10,000+ per device, they were unaffordable in India. The device Ajit built - called Avaz - was priced at \$600, and its introduction was met with widespread adoption and acclaim in special schools around India. By the end of 2010, more than 100 schools had bought Avaz, and the company was awarded the National Award for Empowerment of People with Disabilities by the President of India.

Challenge

Many people with speech-related disabilities, such as Autism, Cerebral palsy and other neurological conditions find it difficult to communicate and express their needs, wants and thoughts.

Without a way to communicate, their quality of life is significantly impacted and have very limited opportunities for education, employment, and social integration.

Avaz: Communication aids for people with speech disabilities

Avaz is a picture and text-based “artificial voice” for people with speech disabilities such as Autism, Cerebral Palsy, Down syndrome and multiple disabilities.

Users of Avaz sequence pictures or words into sentences, which are then spoken out with high-quality synthesized speech.

Avaz is customized specifically for the user’s language, culture and their specific needs.

This enables people with speech-related disabilities to communicate, get access to education and participate in social settings.

Target Beneficiary

Children (and potentially adults) with speech related disabilities, their family and caregivers.

Potential Impact due to Intervention

Avaz improves access to education, employment and social inclusion for people with speech disabilities in Bangladesh, by empowering them with communication and by sensitizing the ecosystem around them to their communication needs.



GingerMind Technologies Pvt. Ltd.

Founder: Mr. Gaurav Mittal

Type of Organization: For Profit

Address: Operations Office: G-4, Sri Durga Palmgrove Apartment, 1st Main Rd, Venkappa Garden, Koramangala, Bengaluru, Karnataka 560095

Project Location: Nepal: Nepal Association of the Blind (NAB) GPO BOX 9399 Rara Mithila Marga-4, Sokedhara Kathmandu, Nepal, Bangladesh: TBD

MA support in INR: 6,500,000

MA support period: July 2018 to June 2020

Innovator Profile

Gaurav has been working with people with vision impairment since 2012. While in job, he continues developing products for blind and VI with association of organizations like National Association of Blind, Mithra Jyoti in Bangalore. From 2012 till 2015, he built 7 different hardware and software prototypes with volunteers and tested them with actual users. He got grants from his own company Citrix as well as companies like Microsoft and Intel to continue developing prototype. In his professional experience, he has led team of size up-to 7 do deliver projects. He is a multi award-winning entrepreneur. In Aug 2014, he founded the company and quit his job in 2015 to devote full time to this cause.

Challenge

Among people with vision impairment, only handfuls are able to get benefits of cutting-edge technology globally. 90% of people with vision impairment live in low or no-income settings. There are multiple reasons for the problem:

1. From blind and visually impaired's side: Low digital literacy, lack of awareness of options, too many single-purpose devices, unaffordable devices, lack of basic education
2. From Non-Profits side: Difficult in reaching and training blind in masses, lack of digital tools being used, training on too many options not possible
3. From Government side: Unfruitful expenditure on legacy devices being distributed like mp3 audio book players, vibrating smart cane etc.

Scaling Eye-D, smartphone based assistant for blind and visually impaired, in Bangladesh and Nepal

- Eye-D is completely digital and mobile based which makes it easier to replicate and scale across geographies
- Innovative design along with accessibility features on smartphone makes it intuitive and easy to use for everyone
- Providing voice feedback in 12 regional languages makes it easy for people to understand and use the solution
- High capabilities of including AI and AR for multiple tasks that can make a VI more independent

Target Beneficiary

The project targets visually impaired in the age group of 15 to 55 years. Our research tells us that on an average a blind person seeks help from 5 times, which makes them largely dependent and affects their quality of life. With our solution we are able to improve the happiness index in VI life by empowering them with technology. While making an immense impact in the life of visually impaired user project Eye-D also benefits those who provide or assisting them in their daily tasks. Currently Eye-D benefits more than 10000 VI and 50000+ friends and family members indirectly. Technology acts as a key enabler in independent living, solutions like Eye-D benefit organizations (NGO's) working for the VI a lot by being the single window access for multiple needs of the VI. Educating VI about Eye-D app helps them save a lot of time as it helps both in mobility and learning along with other benefits.

Potential Impact due to Intervention

1. Increased mobility, self-confidence
2. Increase in happiness index as information access will increase
3. Less dependence on sighted help
4. Better connect with local Non-profits to get benefit of schemes



Torchit Electronics Pvt.Ltd.

Founder & CEO: Mr. Hunny Bhagchandani

Type of Organization: For Profit

Address: 703, M V House, Namaste circle, Shahibaug, Ahmedabad - 380004, Gujarat. India

Project Location: African Market

MA support in INR: 10,000,000

MA support period: June 2018 to December 2019

Innovator Profile

I am an engineer by qualification, product developer by passion and social impact creator by desire

Challenge

285 million visually impaired people aren't able to move easily as they can't detect the type and distance from the object/obstacle in front of the route.

Saarthi-Providing vision for the visually impaired

An assistive device with 99.7% accuracy that helps the visually impaired to detect obstacles in 3 different setups being indoors (2 feet), outdoors (4 feet) & Open Areas (8 feet). The product is ergonomically designed, robust and affordable. One charge of the device can last for 4 weeks.

Target Beneficiary

Visually impaired community across the world

Potential Impact due to Intervention

Accurate navigation meaning rise in confidence meaning rise in employability meaning improvement of financial & psychological health of the family

MA Partners

Technology Development Board
(Department of Science and Technology, GoI)



www.tdb.gov.in

United States Agency for
International Development (USAID)



www.usaid.gov

Federation of Indian Chambers of
Commerce and Industry (FICCI)



www.ficci.com

UK's Department for
International Development (DFID)



www.gov.uk/government/world/organisations/dfid-india

ICCO Cooperation



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