



Ramon Magasaysay Award 2011
 Welcome to SELConnect
 SelcoLABS and Innovations
 Light for Education
 Policy Speak with Harish Hande



SELCONNECT

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Earlier this year, Harish Hande received the white envelope from the Ramon Magsaysay Award Foundation. This prestigious award, named after the late Philippines president, is dubbed as Asia's Nobel Prize. It is awarded to five people every year who have addressed various development challenges in Asia through innovative ways. The winners represent a diverse mix of passionate individuals ranging from Akira Kurosawa, the Amte family, Mother Teresa, Muhammad Yunus, and Satyajit Ray. Among these well-known winners is Harish Hande known for his "passionate and pragmatic efforts to put solar power technology in the hands of the poor. He has not only made possible affordable and sustainable electricity to India's vast rural populace but also has encouraged them to become asset creators" (Ramon Magsaysay Foundation).

SELCO's desire to avoid using a "one size fits all" model, has enabled the company to create innovative products to meet specific needs of the rural poor. The company staff interacts and spends time with their clients to understand their needs and then tailors the product to meet that need. For example before a solar panel is installed, SELCO examines the design of the home, the number of people living there, the hours when electricity will be needed, and the primary use of energy. Equipped with this information, the equipment is custom designed and installed in the home. However, this business model brings several challenges. It defies the basic laws of economies of scale and attempts to provide a service with a high fixed cost to people living under the poverty line. SELCO has overcome this hurdle through persuasive outreach to various banks



RAMON
 MAGASAYSAY
 AWARD 2011

that have provided the necessary financing which makes it easier for people in rural areas to afford solar technology. To this date, SELCO has installed, serviced, and financed 125,000 solar systems, which has brought electricity to half a million people. Today, SELCO continues to venture into new areas such as providing electricity to educational institutions, hawkers, fishermen etc. At the same time, the company continues to explore options relating to poverty alleviation and combating climate change. With the excitement of the Magsaysay Award, SELCO is motivated to push for innovative solutions to light up rural India.



WELCOME TO
 SELCONNECT!

-PRASANTA BISWAL

Dear Partner,
 Welcome to SELCO's extended family. SELConnect is back after almost a decade with a new form and approach. It is our hope to keep you informed of SELCO's activities. We would like SELConnect to be a platform for dialogue in energy innovation and development. This is our first edition with a new team. We welcome suggestions and feedback on our articles.
 I will start with a quote of Dr. Harish Hande: "India is a Paradox and we have the potential to become the powerhouse of innovation for the poor". Harish winning the Magsaysay award this year has brought a lot of joy to the SELCO family.

We understand the responsibilities that come with winning the Magsaysay. People's expectations have risen and they are looking at SELCO as the sole solution provider for energy problems in rural India. When Harish started SELCO in 1994-95, he did not imagine the Magsaysay or any other award in his future. He did whatever he could to remove poverty and darkness from people's homes. All of us are equally capable of working towards similar ambitions. SELCO has opened its doors through an entrepreneur incubation program to transfer all knowledge and expertise that it has gained over last 16 years. We hope that the entrepreneurial youth of this country take this opportunity to spread sustainable energy and development throughout the country. India is changing. It can be seen through many lights. Closer to my heart was the recent public outcry against corruption- the Anna Hazare movement. To me, and I hope to many of you, it brings hope that this country will change and push for an ethical and honest government. Poverty along with corruption infects every Indian's life. It is time that people create solutions that address the root causes of poverty and corruption. The youth in the country need to become aware of their power- as seen in the Ramlila Maidan. We must understand that



SELCO in the earlier days



a solar powered village school, 1996

half of India's population struggles every day for basic needs. Be it energy or food, poverty has its own wings of fire that burns millions of stomachs three times a day. When Harish says India has the potential to be the powerhouse of innovation, I would go a step ahead and say we need to solve our own poverty first. After working with the incredible team at SELCO for the last five years, I am convinced that charity is not the way to end poverty. Each of the 176 members of the SELCO family has proved it through their need based customized approach in delivering energy services to the underserved. We believe that if our service creates enough value for the end user then it cannot be low-cost. We try to make the product affordable by making the whole value chain more efficient and customized. The success of this approach has a lot to do with the

belief of bankers in Karnataka. Rural bankers are the best financial innovators. Partnering with them has taught us how to make something not just cheaper but more importantly- affordable. We hope that SELCO and other social enterprise models are replicated. Through SELConnect we hope that our activities become transparent and inspire people to get involved with similar activities. India can and will change. As a society we need to look beyond the lens of traditional charity and create innovative models for change. SELConnect hopes to serve as a forum where ideas can be exchanged. I wish all of you a very Happy Diwali in advance. We hope you accept SELConnect as the mouthpiece of every socially and environmentally conscious citizen. You will see us again in three months from now. Thank You

SELCO LABS

A BRIEF INTRODUCTION

Most research organizations in India meet the needs of the urban population, which have the resources to pay for products. However, in India a majority of the people live in the rural areas which is resource starved. In order to fill this gap social enterprises like SELCO Labs have worked to challenge the conventional norm- the BOP cannot afford to solve their problems using technology. In the small town of Ujire in Dakshina Kannada district, Karnataka, SELCO Labs opened its doors to create innovative solutions for specific problems that no organization or lab was keen to address. The concept of SELCO Labs had its genesis in the realization that SELCO personnel who were active in rural areas began reporting various energy-related problems of the poor, which needed special attention.



energy efficient cookstoves and thresher - lab projects



For example, two years ago when Harish Hande visited Ujire, he learnt that during the monsoon season, clothes stayed damp and smelled bad, leading to quarrels between husband and wife. People wanted to know whether a solar drier could solve this problem. Problems like these inspired Hande to open a lab to meet specific needs of people living in rural India. The solution to the above problem still evades the lab, but discovering creative and meaningful solutions to other challenges has kept the SELCO Labs staff motivated. Here are some examples of SELCO Labs projects over the course of the last 2 years:

1. Hybrid Dryer: Across India, crop wastage is a serious problem. There is little to no infrastructure to store produce and prevent spoilage. Taking note of the growing food crisis in India, SELCO Labs partnered with an international student group to develop a small-scale hybrid crop drier. The hybrid drier can be used at both a household and small industries level. The drier uses solar energy and can dry produce 60% faster than normal open sun drying. In addition, during the rainy season the drier relies on biomass. Today, 5 prototypes of the drier are in use. Selco has partnered with an NGO called SKDRDP to help distribute and promote the hybrid drier.

2. Lights for Education: This innovative program helps tackle the problem of both electricity and education in impoverished areas. Students are given a portable LED light with a pocket size battery. Solar re-charging systems are placed in schools. Therefore, the student must attend school and charge the battery in order to have safe, kerosene free lighting at home. Below is a more detailed description of the program.

3. LED Lighting: SELCO has attempted to bring lights to small businesses, shops, and hawkers. However, hawkers tend to prefer CFL lighting because it appears brighter and attracts more customers. As a result, SELCO created a program called "Lighting for Livelihoods" which re-designs LED lights to meet the needs of hawkers.

4. Decentralized Energy Services: On behalf of Climate Works Foundation (CWF), SELCO Labs conducted a study to measure rural energy services in India. In addition to other points, the paper recommended policy changes and evaluated the range of green technologies.

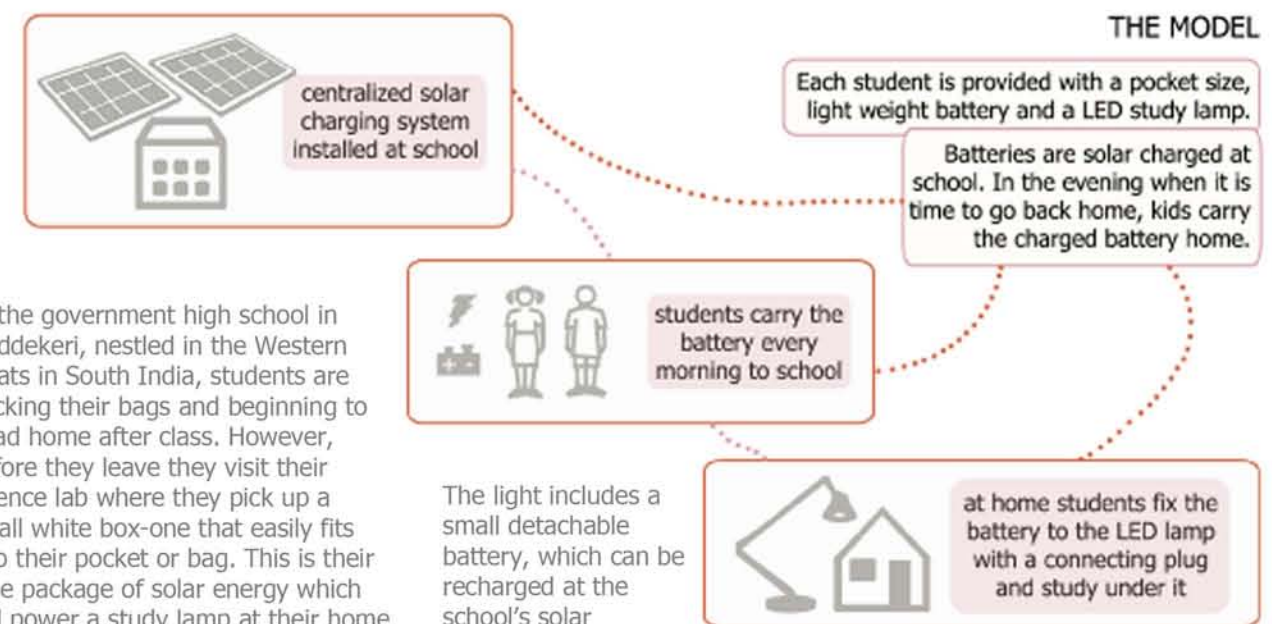
Lab Projects alongside left-right: Light for education program, LED lighting for livelihood (light being tested), and hybrid drier.



kerosene vs LED lighting

LIGHT FOR EDUCATION

THE MODEL



At the government high school in Guddekeri, nestled in the Western Ghats in South India, students are packing their bags and beginning to head home after class. However, before they leave they visit their science lab where they pick up a small white box-one that easily fits into their pocket or bag. This is their little package of solar energy which will power a study lamp at their home all evening while they do their homework and prepare for their exams. Guddekeri was one of the first sites to participate in the Light for Education program, which provides good, clean lights to children from un- or under-electrified homes. The idea originated from the success of SELCO's hawker model. In the hawker model, a local entrepreneur rents solar lights, which are centrally charged, to street hawkers. After seeing the beauty and simplicity of this model, it became clear that it could be easily replicated in schools. Students would be given an LED powered study light from the school.

The light includes a small detachable battery, which can be recharged at the school's solar recharge center. Therefore, the child must attend school in order to have light at home. Furthermore, the child can avoid the challenges of using kerosene lamps or candles to complete his/her homework. Parents also have an incentive- light- to ensure their child attends school. Through this program, SELCO hopes that by providing the incentive of light, children will attend school, complete their homework, and be able to get better marks on their exams. After the child completes his or her schooling, he or she will return the light back to the school, which can then be given to the next batch

of students. This creates a sustainable model for lighting student's homes. So far, over 1000 children have been provided with LED lights to study with tremendous success. SELCO hopes this program can be part of the solution to the growing problem of indoor air pollution, which claims 1.5 million people's lives every year. Students reaping the benefits of this light are now highly aware of the uses of solar energy for themselves their homes and their communities.

"Dig a bit deeper and one will realize that lack of access to reliable energy is critical to pull people out of poverty. Access to energy means education, economic development, and cleaner living conditions."

India's Growing Energy Disparity – Need for Energy Inclusion and Social Innovation

POLICY SPEAK

-HARISH HANDE



Majority of world's 1.6 billion un-electrified population lives in India. More than half of the women and children who die in the world because of indoor air pollution are Indians. At least 500 million people in India survive on one dollar or less per day. These 500 million people do not enjoy the benefits of energy services which most of us, in urban India and rest of the world take for granted. The growing disparity, in energy consumption, which is resulting in the increasing divide between rich and the poor is socially, economically and environmentally unsustainable for India. Dig a bit deeper and one will realize that lack of access to reliable energy is critical to pull people out of poverty. Access to energy means education, economic development, and cleaner living conditions. As a result there is a dire need to push for green technology and alternative energy.

Contrary to the popular economics and policies, it is not advisable to wait for centralized energy solutions to provide that particular economic impetus. Inefficiencies, hidden subsidies, poor implementation and lack of transparency have never been properly factored while comparing centralized versus decentralized energy options. The waiting time and reliance on a centralized authority to take action has left large numbers of poor with no options or avenues for increasing their income or their quality of life.

Today India stands at cross roads. It wants to be a superpower and a force in the world. It has a wonderful opportunity to be a leader by creating innovative sustainable solutions to eradicate poverty. The citizens need to take action and push for change. This vacuum that currently exists can and should be filled by social enterprises that do not view shareholders as their primary stakeholders and quarterly results as their goal. Instead, social enterprises, which are patient can be both financially and socially rewarding.

These enterprises have a deeper understanding of the local economy and are creative at exploring innovative ways in which energy generation can be coupled with better livelihoods that are locally relevant and feasible: inclusive in the true sense.

To provide better rural energy, the following needs to be addressed.

- Focus on need based value products options using sustainable energy
- By creating stable supply chains for poor households to access energy, like clean cooking. Providing these is very critical, and would ensure energy equity.
- Energy access should be linked with productive end use that will uplift the income of the poor families. Income generation also ensures their ability to pay for access to energy.
- There is a need for setting up training institutes where generalized broad based technical skills is provided.

There is a need to completely shift the very traditional market thought process of innovation by:

- (a) Completely designing, from bottom up, need based products (for income generation) and not only concentrate on redesigning existing products in order to sell it to the poor.
- (b) Creating new segment based financing (matching the cash flows of the poor) and NOT fitting existing financial products that were designed for the rich.
- (c) Creating reverse market linkages (encouraging the poor to be a part of the formal economy) and NOT always creating a supply chain that flows from the rich to the poor.
- (d) Thinking about the poor as partners and not as beneficiaries.

Keeping the above ideologies in mind, SELCO and SELCO Foundation with its team of both Indian and foreign talent is taking a step in addressing the energy challenges of India.

