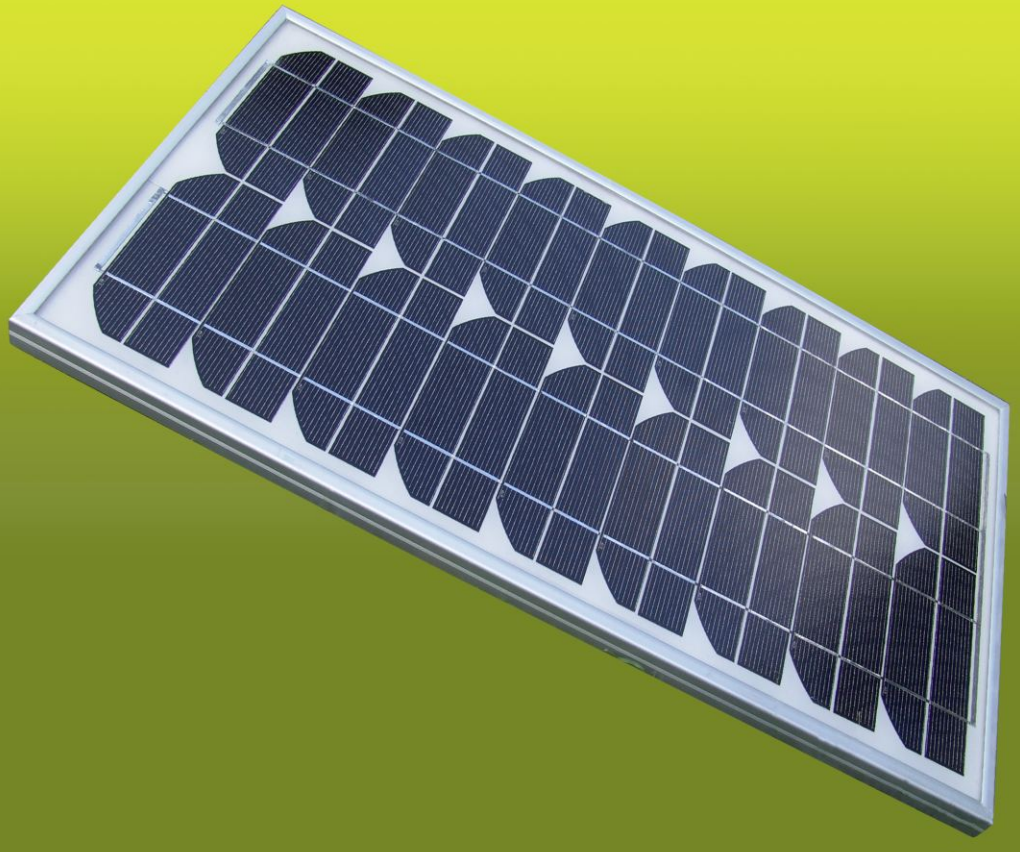

Co-ordinated Project on Rural Energy; Debipur, 2012

Minex Foundation

Minex is a metallurgical organization with its presence in number of countries. Headquartered in Mumbai and plant operation at Nagpur, Minex has it business associates all over India in the close vicinity of steel industries. The company has contributed a substantial amount of money as the part of its corporate social responsibility and is continuing to do so.

CP Rural energy or the Co-ordinated Project on Rural Energy is a programme initiated by the Vivekananda Institute of Biotechnology of Sri Ramkrishna Ashram, Nimpith. The project was commissioned in a village named Debipur in the Kultali block of Sunderban in South 24 Parganas district. This three year long project, started in 2008, helped villagers buy solar powered LED based home lighting systems and set up a Gasifier driven power station.

Minex has lent money to many families in Debipur under the Co-ordinated project for purchasing the solar kit. These solar kits certainly help users work in the dark which was otherwise difficult. A big relief for the students too! They can now study in the evening.

Proggrammes such as this become successful when organizations like Minex take part and help the poor villagers make a better living. Rural electrification is certainly the key to prosperity for the 'village India'. And the project that promote alternative sources of energy is particularly effective in the remote and hostile region like Debipur.

Poornima Sahoo; Debipur, 2010

Poornima Sahoo is a middle-aged woman.
She is ailing...and has been diagnosed with thalassemia. But in the families, likes of Poornimas', one can hardly remain idle for a disease.
And so cannot Poornimaa! She tailors women's garments. It does fetch some money for and for her family too. She has long working hours of eight to ten to earn a couple of thousand. It starts in the morning in her family home and extends up to late evening in the Debipur market.
They have a shop in the local market of Debipur.
But she couldn't work long hours earlier as there was no electric connection. Thanks to an Initiative by the Vivekananda Institute of Biotechnology under Sri Ramkrishna Ashram of Nimpith and supported by the Minex foundation.
Minex Foundation of Mumbai contributed a lot to the people of Debipur. In collaboration with the Vivekananda Institute of Biotechnology, in late 2010, it initiated a project for supporting young students at Debipur. The endeavour has seen the pupils are provided with home lighting systems. Initially Started with solar lanterns, the project at a later stage saw shifting to the LED based home lighting system of different wattage for the optimal consumption of power.
The prime objective of Minex Foundation is to offer illumination to the local students during their evening studies.
Two project components…Solar kit and Gassifier station changed the life of Debipur.
Debipur is a relatively large village by its size and number of inhabitants. It is in Kultali block of South 24 Parganas.

This block of Kultali has been chosen for its close proximity of the Sunderbans and a hostile livelihood to its inhabitants. Its area is two hundred and forty one square kilometers (241 KM) with fifty (50) villages.
Its population is over ten thousand. Being in the Sunderbans, it only offers hard living to its dwellers. With no power, till 2008, people had stop working in the evening. A close proximity to the jungle areas added to the woes as the possibility of wild animals roaming unseen was in the realm. But, the jungles provide resource aplenty.
Debipur is inhabited largely by farmers, fishermen and migratory labourers. 30% percent of the total population account for Scheduled Caste and Scheduled Tribe. Agriculture being the main source of income exerts enormous pressure on the land. The land holding pattern shows an average possession of six bighas for each family. Cultivation is mainly dependent on paddy with isolated pockets of vegetable and fruit crops. Most of the vegetables and fruits are sold out at local market as transportation of agricultural produce to major markets is a real problem.
Many are engaged in fisheries. Being on the edge of the Sunderbans, people here enjoy natural resources of the wetlands, rivers, canals and tributaries. These are full of fishes, crabs, prawns and other edible aquatic creatures. But the fishing techniques are age old and are seldom found to employ modern technology. Added to this is the lack of seamless road transportation, a sure necessity for carrying the catch to the major towns at the earliest. This bars fetching a good dividend and makes the fishermen turn up at the local market.
This unfavourable condition for an improved livelihood has pushed a section of population to migrate to the cities to find work. Labour migration occurs regularly since many villagers now-a-days find agriculture is a non-profitable mean of sustenance. Moreover, many students, migrating to the towns or cities for higher studies, do not usually come back at the end of their studies.

In 2008, the CP-Rural Energy introduced the concept of usage of abandoned firewood to produce electricity for commercial purposes. Solar powered electrical systems were installed in the houses.

The CP-Rural Energy project aims at delivering technology of using sustainable sources of non-convention energy to the people of the regions that do not have the supply of electricity from conventional power plant. The project has a minimal approach of using natural resources and that too in an eco-friendly way. Adding less emission to the environment is one of the requisites here as the Debipur is on the brink of the Sundarbans, the world's largest reserve of halophytic mangrove.

Another objective of the project is to generate employment through engaging nodal persons who would look after the project components and make it economically viable. They are meant for collecting revenues and technical issues brought upon by the users.

Technologies identified and delivered:

- A 10 kilowatt Gasifier unit
- LED based home lighting systems

The project, on completion in 2011, helped people find alternative sources of energy that, in turn, brought a sea change in their life.

Minex Foundation collaborated with the Vivekananda Institute of Biotechnology to implement this project. They funded part of the cost incurred to for buying solar kits. Minex is a metallurgical company that has expertise on Cored wire injection system. Started functioning in 1981, it has since walked a long way in the sector of metal industry. As a part of its social responsibility, Minex had found getting engaged with the CP-Rural Energy in Debipur is more like a contribution for the common man's wellbeing. They funded part of the solar powered LED based home lighting system. This aided with VIB's effort benefitted a good number of families in Debipur. Not only the initiative developed an effective model of energy for the people of Debipur, under the effort of Sri Ramkrishna Ashram built a road that stretches from Jamtala to Petkulchand to Debipur.

This road is truly of good standard and stand out different in the region.

This better road facility helped expedite the whole process and deliver the kits in time.

As many as fifteen families were supplied with the solar kits.

Each kit comprises of following articles.

1. Two LED fittings - 5 watt each
2. One Solar Module - 37 Wp
3. One Charge controller
4. One Battery - 40 Ah

This has certainly helped finish household works in the evening. More importantly, it is the students who benefited most. They could hardly study earlier when there was no electricity.

But now, the story is different.

The story is different too with Poornima Sahoo. She has purchased and installed a solar powered lighting system in her home. It makes her enable cut and measure the cotton and fabric with ease.

The nodal persons engaged by the Vivekananda Institute of Biotechnology visit and inspect these kits regularly. They are trained to detect and fix the faults, if any.

Piyush Kirtania is a young farmer from Purba Debipur bought and installed a solar powered LED based home lighting system. With the fittings in his house, his family members can work in the evening. He has black and white television set too. With the neighbours thronging to watch the TV show, the house of Kirtania turns into party in the evenings. The people around Piyush are enthusiastic about the solar kit and expressed their wish to purchase the same too.

Piyush has constructed a bio gas plant too in his premises. He opined the need of another Gasifier station as the demand for the producer gas based electricity is increasingly becoming palpable.

Piyush has seen a rise of comfort level among his family members. He has started thinking about more business activities.

Thus, the Minex approach is surely benefitting the villagers of Debipur; a remote place where conventional distribution mechanism of power supply is hard to apply.

Minex has aimed at creating a scope for the evening work especially academic studies. It really has changed the ambience of education that prevailed at Debipur before the project was taken up. An entrepreneurial activity was too looked after as it ensured the success of the project with a professional management system, in place.

The idea was to generate an income opportunity for some local youth in exchange of their service procurement, installation and maintenance. It too helped realize the cost of the products in phases.

The beneficiaries were made to sign a contract to avoid a lackadaisical approach toward the usage. It secured careful handling of the equipment and a regular interaction with the nodal persons as well. Among the beneficiaries are nineteen from Scheduled Caste

In the next page is a list of the beneficiaries.

List of beneficiaries: LED based Home lighting system

1	Jogonnath Karoi	31	Susanta Mondal
2	Radheshyam Mondal	32	Dayal Shasmol
3	Basudev Bhandari	33	Ranjan Maity
4	Amar Pradhan	34	Sudam Baidya
5	Haripada Shyamal	35	Gourhari Mondal
6	Khokon Shasmol	36	Biplab Midya
7	Subal Ghosh	37	Nirmal Biswas
8	Ratan Burman	38	Jahar Haldar
9	Atul Mondal	39	Bankim Dhara
10	Dhulapada Bhandari	40	Ratneswar Das
11	Pradip Mondal	41	Rabindranath Dhara
12	Sambhu Sahoo	42	Subodh Kundolia
13	Swapan Sahoo	43	Santosh Patra
14	Ajit Mistri	44	Samir Mondal
15	Sadanada Haldar	45	Rina Sahoo
16	Ananda Pradhan	46	Mukul Dinda
17	Bharat Mondal	47	Swapan Haldar
18	Mondol Bhokta	48	Sudhangshu Sahoo
19	Joydev Rana	49	Santosh Sana
20	Mahadev Bera	50	Gouri De
21	Basudev Gol	51	Dulal Mondal
22	Lalchand Haldar	52	Debasis Ray
23	Pradip Haldar	53	Buddhadev Bag
24	Khogen Shit	54	Palash Mondal
25	Namita Shit	55	Kishori Bera
26	Sailen Mondal	56	Pijush Kundalia
27	Subhendu Shyamal	57	Dipak Mondal
28	Sunil Mondal	58	Debkumar Dhali
29	Paban Das	59	Anadi Sardar
30	Keshab Haldar	60	Ardhendu Mondal

Bio-gas fuel:
A welcome relief; A noble Ramkrishna Mission effort

Easy source of fuel with reasonable cost and less emission is what the scientists, all over the world, are looking for. Bio-gas could be a well timed answer, especially for the countries like India. It is safe, low cost or 'no-cost' for those who have house hold cattle.

A parallel programme to the CP-Rural has seen construction and usage of bio-gas in many households at Debipur. The thumb-rule is cattle dung is poured into the chamber leaving it to rot and give off bio gas which is then passed onto nearby kitchen through rubber pipeline. Practice shows that heaping 25 kg of cow dung, available from four cows daily, liberates bio-gas that is adequate to cook twice for two hours, morning and evening, through one standard gas oven. This makes a total of four hours every day for cooking, quite sufficient for a five to six people family in village. A gap of approximately six hours is needed to gather bio-gas inside the chamber and that is in keeping with the normal cooking schedule of any household (morning and evening). An initial cost for the construction of chambers and with no almost no recurring cost, this could be an ideal solution for the rural families with domestic cattle.

This is green energy with no harm to the environment, low cost and easy to maintain. In addition, the bio-gas slurry extract can be applied as bio-fertilizer or in making of vermicompost.

There are other initiatives taken up by the Vivekananda Institute of Biotechnology too, for the people of Debipur. Such as setting up a honey collection centre at Debipur.
The village being adjacent to the Sunderban could be an excellent collection point for the Rock bee honey. Apis dorsata or Giant honey bee or Rock bee is native to Sunderban and draws large number of collector from all over the state. VIB has sent a proposal to the Khadi and Village Industries Commission, Mumbai for setting up a collection point at Debipur and processing plant at its Nimpith premises.
The proposal is under active consideration and if gets through will generate substantial economic activities in the region.
Sri Ramkrishna Mission has taken up another colossal task of road construction. They have already constructed *Petkulchand* to *Debipur,* a nearly 9 km stretch, of unseen quality. Buoyed by the success, the State Government has passed on another road construction project, stretching a 13 km from *Jamtala* to *Petkulchand* to the Ramkrishna Mission and thus enabling the people of the villages like *Debipur* to make a better living.
The Minex foundation's effort has stirred excitement among the villagers, particularly the students. The income opportunity of the villagers of Debipur has remained poor for long. New ventures with villagers' active participation need to be addressed in such a way that it fits villagers need and purchasing capacity. Else the project may not be successful. The feasibility of such project lies in finding the breakeven point of the consumers purchasing capacity and the fund available to subsidize end user.
This too ensures the realization of phased payment and a constant monitoring of the gadgets. This, in turn, calls for an entrepreneurial initiative for the programme. Engaging local people as the nodal person is a definite way to win over villager's confidence.
In the Minex funded project, this has surely been seen as lessons for the succeeding projects.

The more is the funding generated for the rural people, the greater would be the number of people taking part in the initiative.