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| Country | India |
| Project Name | Renewable Energy Supply for Rural Areas |
| PN | 08.9063.2-001.00 |
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| Team Members | Scherazade Sigantoria, Vishwajeet Sinha, Santosh Gupta |
| Project Reach | 24 villages in Chhattisgarh 2 villages in Maharashtra |
| Program Duration | Oct 2008 – Sep 2014 |
| Funded by | BMU |



“These meetings are useless. You are wasting your time”, the husband said. “But I am sure this business will workout and we will have a better life. Sangita can go to a better school.” Bhagwantin said, picking up her 11-year child and the bag that contained documents from the local Child and Women welfare department. “Haha. We will see. You better not risk money and focus on the household work”, he laughed. Bhagwantin stepped out and joined her friends waiting to go to the meeting.

CONTEXT

A tribal society, lack of reliable electricity and few livelihood options define an average village in Chhattisgarh state of India. Primitive farming techniques, dependency on monsoon and absent market linkages leave paddy cultivation as the only option, although not a profitable one. Irrigation pumps could have opened new window of opportunities by allowing cultivation of second crop and High Value crops but they require electricity, a missing amenity especially in the project area. Rice de-husking is another commonly found business in the region. The business owner may have to travel as far as 80 km to avail diesel required for running the de-husking machine. Also, the diesel price has doubled in last 2 years reducing the margins. Lack of electricity has thus posed roadblocks to rural development in the project region.

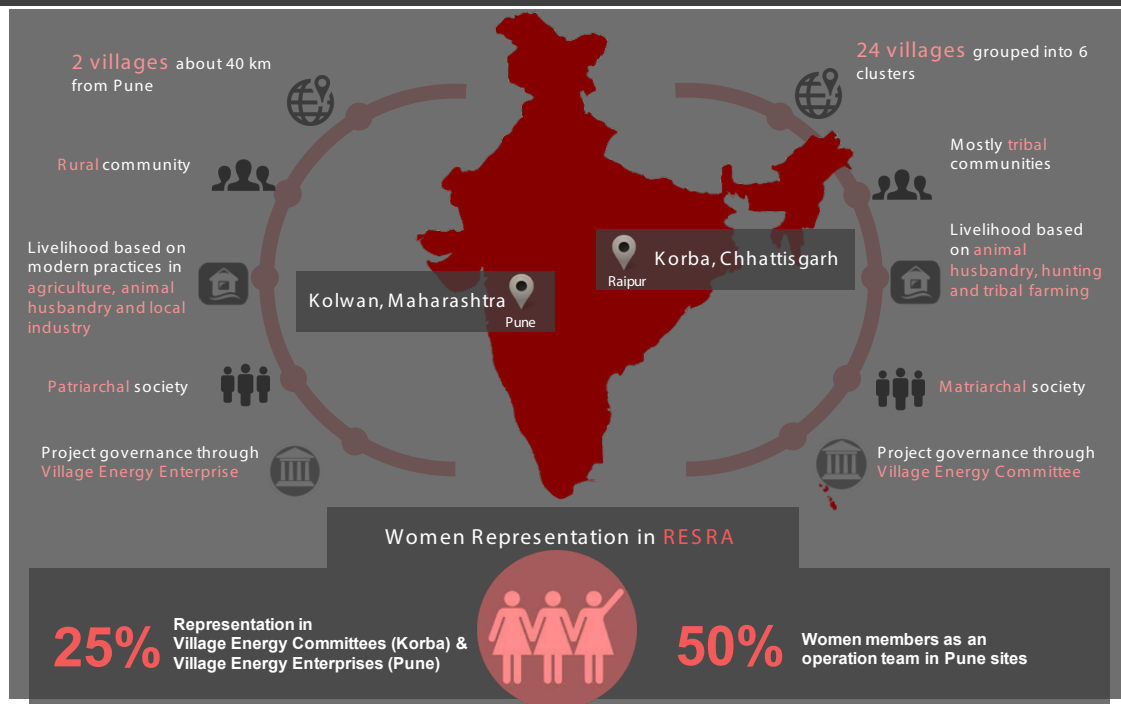
Electricity is not an issue in Kolwan valley, 40 kilometers west of Pune in Maharashtra state of India. But reliable access to clean cooking fuel is. Patriarchal society, advance farming practices and rapid economic growth due to expansion of nearby city are the key driving factors for the valley. Firewood is the key cooking fuel followed by cow-dung cakes and LPG¹. Forest resources are dwindling fast. Cutting and gathering firewood and carrying it for sometimes kilometers on head therefore is an integral part of a women’s day. Further, making cow dung cakes, the other cooking fuel source, entails a cumbersome process of collecting, water mixing and cake preparation that takes significant amount of women’s time. LPG is available at centres located kilometres away at high prices and is issued with limitations per family.

INITIATIVE

GIZ initiated the project Renewable Energy Supply for Rural Areas across 24 villages in Korba, Chhattisgarh and 2 villages in Kolwan valley, Pune. The outcomes of the project attempt at developing and demonstrating solutions to the abovementioned issues by supplying renewable sources based supply of energy to business applications. Business applications such as irrigation pumps and rice hullers can thus have access to reliable electricity by switching on gensets that run on oil from locally grown *Jatropha* oilseeds. Community structures have been established to ensure effective governance in operations and finance.

Women representation in these structures has been a key focus to ensure gender equality in the project. A representation of about 25% has been achieved in all the Village Energy Committees (Korba) and Village Energy Enterprises (Pune). The operations team in Pune sites have 50% women members. While the project has been commissioned in 12 villages, 14 remaining villages are in the process of being commissioned.

¹ Household survey¹ 2013



WOMEN ENTREPRENEURSHIP PROMOTION – KEY TO GENDER IMPACT IN KORBA

Finding productive applications has been a major challenge in Korba sites. When commissioning of the system began, barring a few irrigation pumps and one rice huller, there were hardly any takers for the project electricity. Interactions with the community during weekly meetings, workshops and trainings suggested that promoting women entrepreneurship could be the key to higher 'uptime' for the generators. The project personnel realized that there is a huge entrepreneurial potential in women in the area – they are sincere towards their work, engage far less in alcohol abuse and are effective finance managers. In collaboration with its local implementation partner Jijeevisha (local NGO), the project thus initiated efforts with an objective of encouraging women Self Help Groups (SHG) and individual women to establish businesses that, on one hand, could result in livelihood generation hand, on the other and, usage of project electricity. Workshops on business plans, meetings with local banking officials and engaging local government officials resulted in new business ideas that were validated by key stakeholders. External gender experts were engaged to ensure effective engagement of the women groups.

Apart from setting-up additional rice de-husking units, preparation of ready to eat food for 'Angandwadis²' was one of the key ideas that gained consensus from stakeholders in the project. Jijeevisha led the effort. Rallying women SHG of Ranpa village around the idea, Jijeevisha conducted discussions with the local Women and Child Welfare department, conducted business planning workshops with the women SHG and provided support in completing the application formalities under the Integrated Child Development Scheme (ICDS). The Women and Child Welfare department offered a loan to procure necessary machinery and utensils.

When the local SHG won the order in 2011 for 24 Anganwadis covering about ~2,000 beneficiaries, it was just the beginning of Gender related success in the project. Till date they have supplied about 100 metric tonnes of ready to eat food and have already generated 3 million rupees (approx. 37,500 Euros) in revenue. The project's efforts have been recognized by the local government administration. Efforts to replicate the success have resulted in associating two more women SHGs operated Ready to Eat businesses with the project. For project this implies many more hours of uptime and revenues from the electricity utilized in grinding, a key operation in this business. With the newfound financial independence, members from these SHGs are able to send their children to school. Women SHG in one of the other villages is considering buying a bigger de-husking units to enhance their profits.




² Angandwadis are government operated centers for better health management of pregnant women and children

CLEAN COOKING – KEY TO GENDER IMPACT IN PUNE

More than generating profits for women, addressing women’s health degradation due to cooking with unclean fuel has been the focus at Pune sites. According to the World Health Organization (WHO), nearly 2 million people die prematurely from illness attributed to indoor air pollution from household solid fuel use. Women exposed to heavy indoor smoke are three times as likely to suffer from COPD (e.g. chronic bronchitis), than women who use cleaner fuels (WHO, 2011). Biogas and smokeless cookstoves could be an answer.

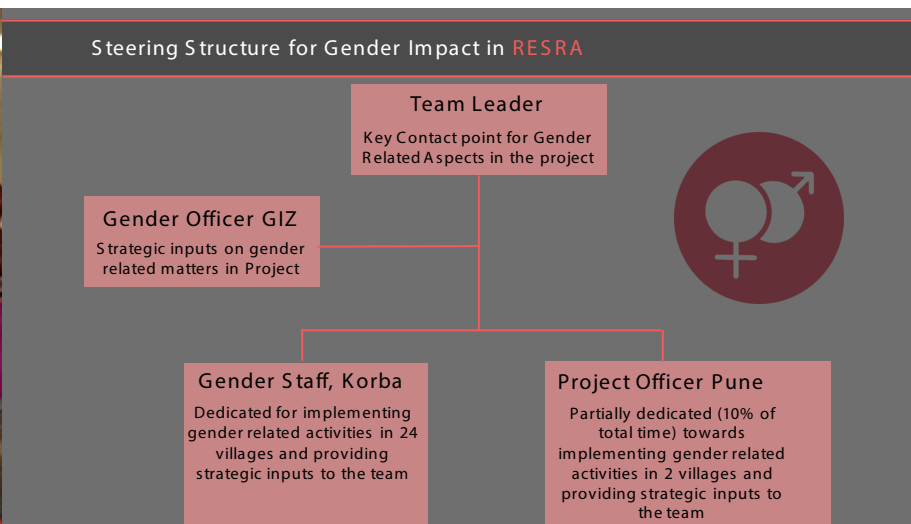
The biogas at one of the project villages generates enough volumes of biogas to suffice for the cooking needs of the entire village. Supplying households with this biogas as a cooking fuel through a network of pipe has been planned and the Ministry of New and Renewable Energy (Government of India) has agreed to fund 100% of the investments required for the pipe network. In the other village, facility for production of pellets that can be used as fuel in smokeless cookstoves has been established. The systems have been commissioned and the sales of pellets and demo cookstoves have been planned to about 200 households and 20 commercial establishments. Once the applications are established, about 400 women in these two villages will have access to cleaner cooking options. Additionally, the applications may be replicated to improve lives of more women in the valley.

| Pune, Maharashtra | | Korba, Chhattisgarh | |
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|  | Number and Percentage of Women Representatives in Governance Structures | Target : 30% | At least 20 Number of Women SHGs Engaged |
| | Total Income Generated for Women associated with Project | : 0.2 million Rupees | At least 10 Number of Women led Enterprises established in the project |
| | Number of Women and Children Beneficiaries from provision of cleaner cooking options | : 1000 | At least 30% Number and Percentage of Women Representatives in Governance Structures |
| | | | 1 million Rupees by Sep 2013 Total Income Generated for Women Entrepreneurs and women SHGs |
| | | | : 5000 Number of Women Beneficiaries under the Ready to Eat Business |

RESRA Gender Impact Indicators and Targets

THE WAY FORWARD

The project made aggressive efforts to incorporate these lessons on how promoting women and gender equality can play a key role in achieving project objectives. A dedicated staff to work with women SHGs, funding business applications by women and community mobilization programs targeted at women were some of the key measures that have been taken to replicate the successes. At least 20 women SHGs were engaged with the project. The project came to an end in September 2014 and the women groups associated with the project continued to take benefits from the project results. If the project wins the competition, the prize amount may be donated the women groups towards funding the replication efforts such as women-run businesses.



Cooperating with key stakeholders has been a major focus to replicate and enhance the gender impact achieved in the project so far. A personnel has been dedicated solely to coordinate with Jijeevisha and interact with the local Women and Child Welfare department with an objective to improve their participation in the project especially through the Integrated Child Development Scheme (ICDS). ICDS officials are regularly invited to ceremonies such as gender workshops, GIZ's key official visits and trainings. Additionally, the project has established inter-linkage with the nationally acclaimed Mitandin program to involve high potential women in project operations and entrepreneurship promotion. While these departments and programs have the overall objective of promoting welfare of women and children, they face implementation roadblocks due to motivation related challenges associated with tribal communities. The project's approach of motivating the opinion leaders in the community through weekly meetings, operator trainings, gender workshops and community mobilization programs addresses this common issue being faced by the government organizations working in the project area. On the other hand, initiatives by banks National Bank of Agriculture and Rural Development (NABARD) and agriculture department promote project's objectives by financially supporting irrigation pumps, procurement of subsidized seeds and drip irrigation systems. The importance of ICDS Ready to Eat and its benefits have already been mentioned above. These synergies have thus resulted in mutual benefits to the project as well as other agencies present in the project area.

"Chhatbhai's son is ill and has run out of money. She asked me for help. Unfortunately I have used all my income from this month", the husband said. "Here it is. I have these savings from the last payment of our ready to eat application", said Bhagwantin and placed a few notes on his hand. "Thank you", he said, "you really proved me and the other husbands wrong. Getting into the ready to eat business was the right decision for our future. Look at the new built houses, children who now go to good schools and the new motorcycles in the village. We even are now able to pay for a Kamiya (maid) who can support us with household chores" Bhagwantin smiled and said, "Opportunities and hard work are the only two things that can take us out of our poverty. I am glad that we took up this opportunity."



Note: Bhagwantin was featured as the Hero under the Heroes Campaign by GIZ and was amongst the 30 heroes selected worldwide from initiatives being supported by GIZ. Her video can be accessed at <http://www.youtube.com/watch?v=AQRdCkaahRw>

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