

## CASE STUDY 7

### GRAM OORJA



#### PROBLEM:

Harhi village is located in rural Jharkhand with approximately 50 households. While LPG connectivity was available in the state, the villagers primarily depended on firewood and traditional chulhas for their cooking requirements. The long distance that the villagers had to travel to procure the cylinder was inconvenient for the villagers as they had to spend additionally on the conveyance. However, the firewood resources are now dwindling in the local region due to the overconsumption.

#### INTERVENTION:

During the initial assessment, Gram Oorja's team found that the village has cattle present in good numbers. This meant that they could be used as an effective resource for cattle manure. This manure could be utilized to provide access to clean cooking energy for the village. To do so, the team at Gram Oorja developed a biogas cooking grid with a distribution line spanning approximately 2 kms. The flexible biogas plant has a capacity of 50-60 m<sup>3</sup> and a feed capacity of 1.25 - 1.5 tons/day. The feed is collectively contributed by the village community. A pump has been installed

which runs the feed for the plant into the tank where it is mixed with water prior to entering the digester.

The gas thus produced is scrubbed in order to remove hydrogen sulphide, after which it is supplied to the households.

#### IMPACT:

In the last 14 to 18 months, the village has saved 335 cylinders of LPG by switching over to Biogas.

#### ABOUT THE ORGANIZATION:

Gram Oorja aims to act as a catalyst for commercializing on-the-ground viable renewable energy solutions for rural communities and enterprises. They have developed a community-based approach where projects are developed around the needs of the local community. The organisation develops projects with support from CSR funds, hands them over to the village community upon completion, and provides operations and maintenance services thereafter. The project has been supported by the Selco foundation and implemented by Gram Oorja's team.

## CASE STUDY 8

### TECHNO VILLAGE



team's concept of having a state-of-the-art boat clinic came to fruition and a significant milestone was achieved.

The boat clinic needed a reliable source of power to function, and thereby Techno Village was onboarded to solarize the entire boat. Techno Village installed the boat with a five-kilowatt capacity solar plant.

The boat would be a mobile facility which would be on the move to reach the targeted beneficiaries. This ensures uninterrupted power, essential to run equipment like oxygen concentrators, nebulizers, autoclaves and semi auto analyzers.

#### PROBLEM:

Healthcare is a basic requirement for communities but a very important one. For years, the villages scattered around the Brahmaputra and its islands have been deprived of access to proper and reliable healthcare facilities.

Around 1.17 lakh people reside along the Brahmaputra and strikingly about 70 per cent of this population comprises of Msihing tribes, an indigenous community that has been struggling every day for basics like healthcare and education.

People from these islands earlier had to travel more than 40 kilometers to access healthcare facilities which would often cost them a lot.

#### INTERVENTION:

Padamshree Dr. Sudarshan and his team at Karuna Trust have for long had this strong desire of reaching the unreached communities with reliable healthcare options. Thus, the

#### IMPACT:

The solar installation has ensured that the mobile boat unit became a reliable primary healthcare unit that is used to set up healthcare camps and distribute medicines free of cost. It also supports a Minor Operation Theatre that caters to emergencies. There is a dedicated labour room to attend to the pregnant women. This healthcare unit is expected to impact at least 6000-7000 households.

The inconvenience of travelling long distances often dissuaded the community from accessing healthcare. This is a big reason why some of these river islands have a high infant and maternal mortality rate in the state. With the solar powered boat coming to their doorstep, the inhabitants have found a huge relief.

#### ABOUT THE ORGANIZATION:

Techno Village Energy Pvt. Ltd. works with tribal and other backward communities in the ultra-poor pockets of the country.