

Krishi Gram Vikas Kendra (KGVK)

Empowering the tribal community in the Ranchi district of Jharkhand India through clean and affordable alternate energy solutions based on a social entrepreneurship model (solar LED charging stations)

Krishi Gram Vikas Kendra (KGVK) was established in 1972 to promote socio-economic development in five backward districts (Palamu, Ramgarh, Ranchi, Sarikela, West Sighbhum) of Jharkhand. As of the 2001 Census, only 43.5% of the rural households in India had access to electricity while for Bihar and Jharkhand states, most rural areas have a village electrification rate of only 15%.

This project will work to create more sustainable lighting opportunities in rural villages by setting up solar-powered LED charging stations run by entrepreneurs. The project will facilitate local distribution and servicing of solar lanterns to rural communities where kerosene is predominant fuel, not only in households but also in small enterprises, shops, and cottage industries. Rural entrepreneurs (chosen by the program) will be trained to manage the solar charging station/distribution center where lanterns will be charged during the day and rented in the evening. This can create an opportunity for income generation for the local youth and for the end users, it supplies a cleaner source of lighting.

Two solar charging stations (approximately 10W each) will be set up—each able to charge about 50 solar lanterns (these charging stations are modular and their capacities can be increased depending on the community demand for services). Project funding will support the purchase of the charging stations and lantern hardware and will also conduct training for potential entrepreneurs to run the stations (2 entrepreneurs will share each station) as well as training and awareness camps for community groups on why solar lanterns (and the rental option) may be better than purchasing kerosene. The entrepreneurs are required to put a share of their earnings into a fund managed by the local bank (which is also contributing to the initial cost of the project); this fund will be used to set up more charging stations as demand grows.

The rental lantern will be able to be used 5 – 6 hours at night (using LED lamps on a full battery). The lantern being portable can be used both indoors (for daily or economic activities) and outdoors (for field supervision/village roads/small enterprises). The project estimates that the lantern (if used in place of kerosene and having a 10 year life) can displace the use of about 400 – 500 liters of kerosene.

