

**Project's contribution to sustainable development**

Ministry of Environment and Forests (MoEF), Government of India, has stipulated the following indicators for sustainable development in the interim approval guidelines for CDM projects.

**Environmental Well-Being:**

Indian economy is highly dependent on “Coal” as fuel, to generate energy. Thermal power plants are one of the major consumers of coal in India, and yet there is a consistent power deficit in the national Grid. The project substitutes the use of the coal and other fossil fuel(s) for power generation and thereby reduces carbon dioxide (CO<sub>2</sub>) emissions from the generation of power. Also the associated SPM, SO<sub>x</sub>, NO<sub>x</sub> emissions and emission of transportation and excavation of associated fossil fuel are avoided. Further generation of power through renewable sources like solar energy, reduces the intensity of Global Warming by reducing the GHG Emissions. Therefore, power generation from renewable energy sources creates global as well as local air pollutant benefits.

**Social Well-Being:**

The proposed project activity is benefiting the local rural community by employment generation and strengthening social infrastructure in the region. Thus, it will improve the quality of life for the community living nearby.

**Economic Well-Being:**

The project activity has created business opportunities for local stakeholders such as bankers, consultants, equipment suppliers, manufacturers and contractors during the implementation phase. The contribution of the project activity towards the infrastructural development of the region will result in an economic well-being for the local populace throughout the project lifetime.

**Technological well-being:**

The amount of solar energy produced in India is less than 1%<sup>1</sup> of the total energy demand. The grid interactive solar power as of December 2010 was merely 10 MW<sup>2</sup>.

Solar power is currently prohibitive due to high initial costs of deployment. The solar power generation technology has not achieved complete maturity till now. The capital cost for implementation of solar projects is also high because of the same reason. The project activity will lead to the promotion of such projects in this region and has got a replicating potential.

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<sup>1</sup> [http://cercind.gov.in/2009/July09/Draft-Explanatory-Memorandum\\_Solar-Power-Projects.pdf](http://cercind.gov.in/2009/July09/Draft-Explanatory-Memorandum_Solar-Power-Projects.pdf)

<sup>2</sup> [https://en.wikipedia.org/wiki/Solar\\_power\\_in\\_India](https://en.wikipedia.org/wiki/Solar_power_in_India)