



Contribution of the project activity to sustainable development

Government of India has stipulated social, economic, environmental and technological well-being as indicators for sustainable development in the interim approval guidelines¹ for CDM projects. KHPL believes that the project activity has beneficial effect on agriculture, rural industries and employment in the region and has the potential to shape the economic, environmental and social life of the people in the region.

Environmental well being

- The project activity, by generating clean power would eliminate an equivalent carbon dioxide, sulphur dioxide, nitrogen oxides, SPM *etc.* which would have been otherwise generated to produce electricity.

Social well being

- The project activity has helped to create employment in the area for skilled and unskilled labour during construction and operation.
- The project activity has also helped to create business opportunity for local stakeholders such as bankers, consultants, suppliers / manufacturers, contractors and other small shop owners *etc.*
- The individual schemes are equipped with mechanical trash racks to remove the trash in the canal. This helps to ensure flow of clean water in the canal for irrigation and drinking purposes
- Due to 24 hour operation of the plants, the area has been lighted with road reflectors and flash lights. This has provided security for the local people in the odd hours

Economic well being

- This electricity generation from the project activity would substitute the power generation by thermal power plants, which supply electricity to the grid. It would contribute towards the reduction in (demand) use of finite natural resource like coal, natural gas *etc.* minimizing depletion or else increasing availability to other important processes.
- Project activity would help to reduce transmission losses due to generation of decentralised power close to load points.
- Project activity would help to reduce the demand-supply gap.
- The setting up of these schemes has also helped in the upgradation of old rural grids and strengthening of country's rural electrification coverage..
- Project activity would help in preservation of irrigation canals/bridges/roads by up-gradation of these structures.
- Project activity would also contribute to the state exchequer.

Technological well being

- The technology selected for the power project is using semi Kaplan/vertical full Kaplan type turbines

¹ Ministry of Environment and Forest web site: http://envfor.nic.in:80/divisions/ccd/cdm_iac.html