

Stimulating the market for pico-hydro for low-income households in Ecuador

Client: World Bank – Energy Sector Management Assistance Programme (ESMAP).

Partners: IT Power, UK; TramaTecnAmbiental-Ecuador.

In Ecuador there are millions of people, mostly in the rural areas, who presently do not have access to electricity. Low-head pico-hydro could offer the cheapest and most sustainable option for basic electrification of families living in valleys along small rivers and irrigation canals. The low income of many rural people, the emerging market for energy services and equipment, and the significant number of rural households living next to small hydro resources makes the country ideal for an assessment of the potential for new markets to be created for pico-hydro.



This project, running to July 2004, firstly involves an assessment the extent of existing use of pico-hydro in the Andes and lessons learnt from the Vietnamese experience, where thousands of units are in use. Secondly, 30 pico-hydro systems in 2 regions of the country are being installed, with technical training provided to dealers and the end-users. Thirdly, a full impact assessment is being carried out on those installations involving Rapid Rural Appraisal and finally a Business Opportunity Seminar will be held with the Ecuadorian Ministry of Energy and Mines, which is looking to stimulate small-scale electrification, as there is an emerging market for energy services and sufficient willingness-to-pay for electricity in a large portion of unelectrified rural households.

There is a massive unexploited potential for pico-hydro throughout South America, South-East Asia, China, the Indian sub-continent and Africa and by paving the way for pico-hydro to become accessible to low-income households in Ecuador, the project will provide experience in replicating the process in other developing countries.

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