



Small run-of-river hydro, China

Hydropower is a form of energy that is generated by the conversion of free-falling water into electricity. It generates no emissions or waste. In addition to producing clean energy, hydropower is often used for irrigation and water distribution purposes.

Location



The project (involving six micro-hydropower plants) is located in the county of Ebian Yi in Sichuan Province, China. The project area is mountainous and inhabited by the Yi, an ethnic unit that lives in several mountainous locations in China, Vietnam and Thailand.

Project



In the remote mountains of Sichuan Province six micro-hydropower stations generate clean energy. Each station has an installed capacity of between 1.2 to 5 MW. One of the stations, a 4 MW run-of-river hydropower station in the small town of Luhouhe, is using a natural height difference of 239 meters to generate sustainable electricity. It exports clean energy to the Central China Grid, replacing electricity from fossil-fuel based power plants.

By providing this rural region with reliable and sustainable energy, the project activity displaces diesel generators and wood-fired heating and lighting, which leads to better indoor/outdoor air quality and reduces respiratory/eye diseases.



Because the project reduces wood consumption and associated deforestation/soil erosion, it benefits the regional environment.

The project owners have enhanced local economic growth and sustainable development via the construction of irrigation canals, bridges and roads.

Achievements



Socio-economic impact:

- The project employs local people who live near the project site with jobs created during the construction, operational and maintenance phases).
- The project upgraded roads and bridges during the construction phase, leading to better access to regional markets and benefits to the local/regional economy (the project owners continue to provide financial support for their maintenance).
- The project upgraded irrigation canals during the construction phase, leading to improved agricultural conditions for farmers.
- The improved infrastructure is bringing economic benefits to the broader local economy, among them better access to regional markets.
- The project reduces the need for women to collect firewood, relieving them from a difficult and burdensome activity and giving them more time for other tasks.
- The project replaces indoor wood fires with clean electricity and, in so doing, reduces respiratory and eye diseases associated with wood burning.

Environmental impact:

- The project reduces the need for firewood, thus allowing the forest to regenerate and improving soil conditions, hydrology and biodiversity.
- The project improves regional air quality by reducing the need for diesel generators and wood fires.

Checklist Project 300 070



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✓ Additionality and permanence:	according to the rules of the VCS
✓ 3 rd party verified::	by Det Norske Veritas
✓ Transparency:	provided by Markit Environmental Registry
✓ Annual CO ₂ -reduction:	60,000 tCO ₂ e
✓ Social and environmental benefits:	as documented in our database
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For further information and to learn about availabilities please contact:

South Pole Carbon Asset Management Ltd., Sales Department
sales@southpolecarbon.com +41 43 501 3550

www.southpolecarbon.com

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