



## Small run-of-river hydro, Vietnam

This small hydro plant provides a rural region in Vietnam with clean energy. Without the need for a retaining dam, the plant uses a natural height difference to generate sustainable power.

### Location



The project was set up in Tra Nam, an ethnic minorities community located at Tranh river in Quang Nam province, in the central part of Vietnam. The province reaches from the mountainous and forest covered border with Laos to the country's East Coast. Thanks to its large river systems, the region has a big hydro power potential not fully untapped yet.

### Project



In this mountainous region, one can see the benefits of sustainable energy production: until recently, light and heat came from burning wood (which lead to deforestation and soil erosion) or from dirty and inefficient diesel generators. Now, the use of locally produced renewable energy allows for sustainable development without emissions harmful to people and planet.

Technically, the hydro plant operates without a dam (with its known problems of dam construction, flooding, resettlement, environmental impacts on river flora, etc.) but convert the force of water flowing through a penstock over a natural height difference into electrical energy. The emission reductions result from the replacement of carbon intensive coal power – still common in Vietnam – with clean hydro power.

Technically, the project activity involves the construction and operation of a 3-unit hydropower plant with a rated capacity of 7.2MW.



## Project achievements



### Socio-economic impact:

- The project built new roads and upgraded 13 km of existing roads which contributed directly to improve the to date low-quality infrastructure systems of the Tra Nam commune.
- Telecommunication infrastructure has been installed for the hydro plant and is shared with the local population to support socio-economic development.
- The project owner constructed the new 35kV transmission line that is exporting electricity to the national grid, thus contributing to the reduction of electricity losses and gaps.
- The plant contributes to social services in the region.
- About thirty new jobs have been created, of which 21 are local residents.

### Environmental impact:

- The decrease of open fires for light and heating leads to less deforestation and soil erosion, while the decrease of diesel generator use improves local air quality and mitigates air pollutants such as sulphur dioxide and nitrogen oxide.

## Checklist Project 300689



|                                      |                                           |
|--------------------------------------|-------------------------------------------|
| ✓ Additionality and permanence:      | according to the rules of the VCS         |
| ✓ 3 <sup>rd</sup> party verified:    | by TÜV Nord                               |
| ✓ Transparency:                      | provided by Markit Environmental Registry |
| ✓ Annual CO <sub>2</sub> reduction:  | 14,000 tCO <sub>2</sub> e                 |
| ✓ Social and environmental benefits: | as documented in our database             |
| ✓ Marketing material:                | high resolution pictures available        |

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