



Hamzalı small run-off-river hydro power, Turkey

In rural Anatolia, a small hydro power plant is generating clean energy for the Turkish grid. Integral part of the project is an irrigation scheme benefitting local farmers..

Location



The project is located on Kızılırmak River in Turkey's Ankara province. The Central Anatolia region has a semi-arid climate with hot, dry summers and cold winters. With low precipitation rates throughout the year, agriculture is strongly depending on irrigation, and is particularly vulnerable to the effects of climate change.

Project



The Hamzalı plant is the first Gold Standard hydro project in Turkey. The small hydro power project generates clean energy without the need for a retaining dam; it does not involve dam construction with its known problems of flooding, resettlement, negative environmental impacts on river flora, etc. It makes use of the water of the Kızılırmak River and a natural height difference of 27 m to generate electricity that is then transferred to the Turkish grid.

Even more important to the local population and their economic situation is the integral irrigation aspect of the project. Several channels divert water to the surrounding fields, turning thousands of hectares into arable land, thus improving the local farmers' income.

In addition, the project owners are supporting local communities to allow for sustainable development.

Technically, the project has an installed capacity of 16.7 MW and an annual emission reduction of about 80,000 tCO₂e.



Project achievements



Socio-economic impact:

- Thanks to the new irrigation channels, more than 9,600 ha of land became arable that before had almost no agricultural value due to the high cost of energy-intensive artificial irrigation.
- Long term employment for 11 locals (and another 7 from elsewhere) has been created in hydropower plant operation and maintenance. During construction, several hundreds found temporary work.
- Technical training is being provided to employees, transferring “green knowledge” and modern technology to a less-developed region.
- Among the project owners’ general engagement for the regional infrastructure are donations of concrete and roofing material for public mosques in Akkuzulu, Koru, and Alibeyli, the construction of sewage and drainage systems and the renovation of the village house in Akkuzulu, new painting of school and health clinic, and a new shelter for animals in Alibeyli. In addition, donations of concrete for a village house construction in Çayoba, and maintenance and renovation of roads in Buğra.
- In winter, the hydropower company is keeping roads open. All around the year, road renovations are sponsored.

Environmental impact:

- The fish passage is effective in enabling upward migration, as confirmed by an independent expert study. The verification team has also conducted interviews with local residents who have stated that the fish population and the number of fish species in the river have not been significantly affected by the project.

Checklist Project 301 578



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