

Small-scale Hydropower – More Than Just Energy

In 2010, the German government supported the construction of a small-scale hydropower plant in the village of Farghambol in the northern Afghan province of Badakhshan. The plant, which has a capacity of 280 kilowatts, supplies energy to 20,000 people. Its impact has been life-changing.

The residents now have access not only to electricity for lighting, refrigeration, televisions, radios and electrically powered machinery, but also to a reliable water supply. The overflow from the plant is channelled to the village, where it is used to irrigate fields, gardens and fruit trees. Before 2010, there were neither gardens nor trees in Farghambol. Residents were required to carry water from the river to their houses on foot, and were unable to collect enough to water crops.

With irrigation no longer a problem in 2011, Saeed Rahim decided to realise his dream of planting an orchard and woodland. Together with his brother Qader Khan, he planted 91 fruit trees and 730 timber trees on his 1,200 m² (0.6 jeribs) plot. He was delighted with the results: 'It has been fantastic to watch the trees grow and thrive, so in 2014 I established three further tree plantations, covering a total of 1,600 m² (0.8 jeribs). Our soil is very fertile and the trees are developing very well even without fertiliser.' Alongside his tree plantations, Rahim has also begun growing tomatoes on a 140 m² (0.07 jeribs) plot, which are also providing a bountiful harvest.

Fruit, vegetables and wood are now a stable source of income in Farghambol. Logging has been made illegal in the surrounding mountains and fruit is a much sought-after commodity. More and more local people, including residents of neighbouring villages, have recognised the potential of afforestation. Rahim is understandably very happy with the way the project has gone: 'In the past, the land was fallow and it was impossible to grow trees or crops, except poppies in some areas. Today there are gardens and trees as far as the eye can see. The villagers are all proud of this transformation and are grateful to the small-scale hydropower plant for making it possible.'

For Khan, the availability of water is not the only factor driving the positive developments in the village: 'Like many other families, we bought a television after we were connected to the electricity supply. In spring in particular, lots of channels broadcast reports about reforestation. By watching various programmes on the subject, we learned about the benefits of fruit growing and the positive environmental effects of planting trees.'



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That was what gave me and many others the motivation and confidence to start growing trees for fruit and timber.'

The success of the project has not gone unnoticed. On the villagers' initiative, the United Nations World Food Programme has agreed to support the construction of an irrigation canal via a Food for Work programme. This will transport water from the plant overflow to three neighbouring villages whose residents have so far not been able to irrigate their crops.

Rahim looks proudly across his plantation: 'Our landscape is changing and becoming greener. We are developing stable, legal livelihoods for ourselves and generating income. We are now reaping the rewards of this endeavour, and our children will benefit even more.'

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