

Championing New Technology to Provide Water to Rural Areas in Nepal

Introductory text box

Through fog water collection WaterAid Nepal and NEWAH are ensuring that isolated ridge communities are provided with safe water and sanitation. Communities across the Himalayas could soon benefit from these Nepalese pilot projects.



Increasing environmental degradation and population mean that traditional water collection, through water mills and snow melt, as well as modern pumps, and PVC piping are no longer sustainable. They are unable to cope with the increasing demand for water and incapable of guaranteeing suitable water quality.



A re-assessment of the water and sanitation provision to ridge communities has been essential to achieve the MDG's in these villages. WaterAid Nepal and its local partner 'Nepal Water for Health' (NEWAH) began this task in 1999. The work is supported by DFID and local government.



Fog collection is being promoted because it addresses the needs of communities and uses sustainable technology. The magnitude and reliability of fog-water through the erection of a 1m² polypropylene plastic mesh make it an ideal community led, appropriate technology for improving water collection. WaterAid and NEWAH have promoted the new technology in eleven sites in rural districts. Of these, four locations were chosen for the Large Fog Collectors (LFC's), which consist of a 33.6m² sheet mesh panel set upon 8 metre wooden

posts. The number of LFC's is dependent upon the demands of the community, with completed fog-water collection systems being capable of collecting up to 5,000 litres of water in 24 hours; enough to store for the dry winter months.

Through time savings and better health, the isolated ridge communities that have benefited from the fog-water projects can pursue other income generating activities, and children have increased time to devote to studies. Many ridge communities, who base their livelihoods on catering to trekkers and porters with lodges, storefronts and small tea stalls, can now be confident that their daily demand for water of up to 150-200 litres will be met, as villagers no longer have to make a two hour trek to fetch fifteen litres at a time.

To quote one of the local residents of Dhoje Danda, Dhankuta, Nepal, Chandra Maya Limbu; *"If the fog stays like this for three hours then today I won't have to go to fetch water"*

Ridge communities are settlements located between 1,500m and 3,500m on ridgelines.

The percentage of the population without access to safe water in hill and mountain regions is over twice that (27-28%) of the Terai (lowland) (12%).

The scaling up of fog water collection project focuses on the Hindu-Kush Himalaya region, which stretching up 4.2 million km²



Some ridge communities spend up to 6 hours trekking to and from their water supply.

To meet the MDG's for water and sanitation in Nepal an additional

14,000 households/month have to be provided with sanitation

11,300 households/month have to be provided with drinking water

The fog that dominates Nepal's ridge communities during the summer is a product of warm, prevailing winds from the Bay of Bengal rising and cooling against the eastern hills.

Links field 1

Online case study:

[Collecting Water from Mountain Fog](#) 

Study: "[A Critical Look At The Development Of Fog Water Collection in Nepal](#)" 

[WaterAid brief on Fog Water Collection in Nepal](#) 

Links field 2

[WaterAid partner Nepal Water for Health](#) 

[WaterAid](#) 

Metadata

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Region: Hindu Kush Himalaya

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Author: WaterAid

Relevant MDG:

7.2: Reduce by half the proportion of people without sustainable access to safe drinking water

