



# Replenishing groundwater through reforestation in Mexico



## The business case

Operating in a region in Mexico with high water scarcity risk, Volkswagen decided in 2008 to engage in a multi-stakeholder reforestation program in the region surrounding its factories to allow the ecosystem's water provisioning function to be restored.

## The issue

### Reliable water supply, a crucial condition for industry operations

Car manufacturer Volkswagen operates a factory in the Puebla Tlaxcala valley in Mexico, a region where the water-supply situation is particularly critical. Although the waste water Volkswagen produces is treated and recycled, it has been obvious for years that there would not be enough fresh water for the growing city of Puebla and the industrial area nearby. In this context, securing a reliable water supply was critical for Volkswagen to ensure the stability of its production.

## The response

### Restoring the environment to secure water replenishment

The company decided to join forces with specialists from the *Comision Nacional de Areas Naturales Protegidas* and the Free University of Mexico City to comprehensively examine the groundwater situation in the region. The analysis found that groundwater replenishment in the valley was contingent to a substantial degree on the functionality of the ecosystems on the volcanic slopes of Popocatepetl and Iztaccíhuatl. It was important, therefore, to re-plant the deforested slopes between the two volcanoes in the source region of the Rio Atoyac. In 2008 and 2009, 300,000 Hartweg's Pines (a native Mexican tree) were planted at an altitude of up to 4,000 meters. To help this process along, a rain water infiltration project was carried out in 2008 and 2009. Some 21,000 pits were dug out on the slopes and about

100 larger earth-banks were erected throughout this terrain to help retain the rainwater and facilitate water infiltration into the deeper soil layers.

Volkswagen de México earmarked \$430,000 of funding for the project for the first two years and will subsequently lend its further support to maintaining and managing the re-cultivated forest expanse.

## The results

### Successful results on water availability and a secured license to operate

These measures will enable more than 1,300,000 additional cubic meters of water per annum to be fed into the ground reserves in the source region. That is significantly more groundwater than *Volkswagen de México* itself consumes every year. Over the long term, the additional biomass now will also help to sequester CO<sub>2</sub> and to improve living conditions for the native fauna.

This additional water supply will support Volkswagen's long term operations in the region. From a broader perspective, this project will also help to prevent water rationing, rising water prices and unrest in the local population, therefore guaranteeing the license to operate for Volkswagen in Mexico.



## FURTHER INFORMATION

Dr. Christiane von Finckenstein  
[Christiane.von.finckenstein@volkswagen.de](mailto:Christiane.von.finckenstein@volkswagen.de)