Agriculture – Bolivia

Protecting watersheds

In the uplands of Bolivia dry periods alternate with heavy rains. Water is a precious resource in the region. The government has set up large-scale programmes intended to protect watersheds in an effort to enhance the effectiveness of the water use. KfW Development Bank is participating in the funding of these programmes.

Context

The production methods of Bolivia’s agricultural sector in the uplands are very different from those in the lowlands. In the uplands, family enterprises operate to cover their own needs, using traditional methods of farming, whereas agro-industrial large-scale farmers, oriented towards exports, predominate in the lowlands. However, both forms of cultivation require sufficient water. The Bolivian climate is characterised by long dry periods and irregular rainfall that is distributed very unevenly across the region.

The smallholders are generally indigenous families, many of whom are extremely poor. The government of President Evo Morales has committed itself to poverty reduction. In particular, it hopes to promote the rural and indigenous population. To this end, it has launched large-scale programmes to, for example, expand irrigation for agricultural purposes and improve access to markets. KfW Development Bank is focusing its support on the national plan for the management of watersheds.

About 84 percent of Bolivians living on the land fall below the poverty line. One reason for this is the low productivity of the agricultural sector, which is partially caused by the fact that the soil and watersheds are used too intensively or incorrectly. Mining and agriculture have contributed to water pollution. Settlements are often built in very unsuitable locations. Deforestation leads to even greater erosion, meaning that communities on lower-lying land live under the threat of earthquakes. It is expected that climate change will further worsen the impact on the environment and increase competition for scarce resources. The protection of watersheds thus reduces conflicts, preserves resources and assists in their sustainable use.

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<tr>
<th>Project name</th>
<th>Program for the Management of Watersheds (PROMAC)</th>
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<tr>
<td>Commissioned by</td>
<td>Federal Ministry for Economic Cooperation and Development (BMZ)</td>
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<td>Country/Region</td>
<td>Bolivia</td>
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<td>Lead executing agency</td>
<td>Vice-Ministry for Water Resources and Irrigation</td>
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Project approach
The German national team won an important victory in
The protection of watersheds pursues the goal of enhanc-
ing the lives of the rural population on the upper reaches of streams and rivers, while improving the sup-
ply of water to people living on the lower reaches. It is hoped that natural disasters, such as earthquakes, flooding and drought, can be prevented.

To achieve this, KfW is making EUR 10 million of funds available in a "basket" to which other donors are also contributing. Switzerland, Belgium and Sweden are taking part in the basket funding, together with Germany. The EU is contributing funds that are fed into the budget of the Ministry for the Environment and Water. Germany is taking a leading role in the donor coordina-
tion.

Impact
Basket financing provides funds for a Bolivian government programme designed to protect watersheds. The programme comprises about 60 individual projects that are already being implemented. Another 25 are planned.

One of the measures being promoted is protection against erosion. For example, terraces are being constructed on slopes so that soil will not be carried away by rainfall. Hedges are being planted and rain storage tanks installed. Fences are also being erected to pre-
vent cattle from grazing outside defined areas. Dry stone walls, ditches, reforestation and planting protect the soil and vegetative cover. Gabions are built to pro-
vide protection from flooding.

With adequate irrigation, the farmers produce sufficient crops that they can sell on the market. Source: KfW / Patricia Fernández.