



PROJECT FACTSHEET

Regional cooperation November 2015

**Swiss Agency for Development
and Cooperation SDC**

STORM-WATER MANAGEMENT IN THE SAHEL REGION OF CHAD



THE PROJECT IN BRIEF

As part of land-use planning efforts in several valleys, the Swiss Agency for Development and Cooperation (SDC) is helping to build weirs. These land rehabilitation efforts have reduced soil erosion, thereby improving the food security of over a million people.

The weirs built by the SDC allow an expansion of the cultivable acreage and more effective use of the land for agriculture and pastoralism. The replenishment of groundwater aquifers makes low-lying land suitable for farming. As a result, local people earn higher incomes and can put food on the table.

The SDC's efforts also encourage local communities and local authorities to keep the weirs in good repair over the long term and to develop other land-use measures to combat soil erosion. There is now a genuine will, as well as the necessary skills at the local level, to build many more weirs in the Sahel regions of Chad.

CONTEXT

For 90% of the population in the regions of Wadi Fira, Ennedi and Batha in eastern Chad, pastoralism and farming are the main livelihoods and sources of household income.

While pastoralism and farming offer good prospects for the future because these regions are rich in land and water resources, local communities face numerous constraints. Lacking good water management, they are particularly vulnerable to climatic changes.

Rainwater run-off in particular leads to soil erosion which, in turn, results in a significant loss of water and fertile land.

The result of this is that food crises are becoming more frequent, increasing the proportion of households with an inadequate food supply (20% of rural households in Chad had an inadequate food supply in 2014, but in the department of Biltine in the region of Wadi Fira the figure was as high as 61%). Rapid population growth and the presence of hundreds of Sudanese refugees, particularly in Wadi Fira Region, are exacerbating this phenomenon.

WEIRS

Seasonal streams, known as 'wadis', appear during the rainy season. Steep slopes and reduced soil permeability caused by soil degradation allow the rapid flow of water through the wadi beds, provoking a loss of organic substances that are essential for crops and pastureland. This rapid run-off also prevents the replenishment of groundwater aquifers. The overall result is a drop in land fertility and the dangerous phenomenon of desertification.

Over the past ten years, the SDC has been developing a technical land-management solution adapted to this environment: weirs. The weirs are built in rows in the form

of low walls along the wadis. By reducing the incline of the ditches formed by the rainwater, the weirs slow down the run-off.

The water is collected in basins, allowing it to seep deep into the soil and replenish the groundwater aquifers, and enabling vegetation to grow. The basins are also used to water livestock. The weirs have proved to be an ideal solution to sustainably increase agricultural and pastoral activities.

SUCCESSFUL PROJECT

The project supported by the SDC has so far built 82 weirs and rehabilitated four, reclaiming 3,700 hectares of land that was previously under water. Eleven local companies and eight economic interest groups have received training in building weirs.

Results observed on the ground show that the weirs that have been built can extend the cultivation season by several months and allow livestock to be watered throughout the year in certain low-lying areas. The number of farmers has increased by 20%, and their annual income has doubled on average.

FUTURE OBJECTIVES

- Eighty new weirs are built in the three regions targeted by the project.
- 2,700 hectares of submerged land is reclaimed.
- Farmers and pastoralists improve their knowledge of farming techniques and receive assistance and guidance in marketing their products.
- Sponsors, ministries and technical schools, which are key actors in the project, have adopted this approach and are implementing weir-building projects.

CURRENT PHASE

- **Target group**
Local communities (farmers and pastoralists) and agricultural producers' organisations. Nearly 52,000 people benefit from the project.
- **Budget**
CHF 7.6 million
- **Duration**
01.11.2015 – 31.10.2018
- **Regions**
Regions of Wadi Fira, eastern and western Ennedi, and Batha
- **Project partners**
Implementation at regional level: German Society for International Cooperation (GIZ), national consultancy firms, local construction companies and economic interest groups, local NGOs (PDR Wadi Fira, APIDEL).
- **Other partners**
Chad's ministry of agriculture and ministry of water, regional delegations, heads of cantons.

Further information: www.sdc.admin.ch