

Adapting to drought in the Sahel, Niger

Background



Photo: Jim Loring/Tearfund

Climate change means that rainfall in Niger's semi-arid Sahel region is becoming increasingly unpredictable, with changes in timings, frequency and the amount of rainfall. Temperatures are rising gradually. These changes, plus population pressure, are having a major impact on the natural grasslands, resulting in the spread of the desert and the loss of soil fertility.

Pastoralists adapt

The Tuareg nomadic people are well adapted to surviving in the Sahel's dry, marginal land. If pastures fail in one area they move on, taking all their possessions with them. Even so, over the last 30 years many have lost their herds of cows and sheep and seen their traditional lands destroyed. In response, some groups are taking action to improve poor soils, stop the spread of the desert and respond to the effects of climate change.

Sights for schools, training and wells

The Tuareg people decided that it was better to make some changes and adjustments now and lose only some of their traditions, than do nothing and lose their whole way of life.

At their request, since 1990, **Tearfund's partner, JEMED**, has been helping communities to establish 'fixation sites'. These fixation sites do not settle people permanently, but build upon a tradition that the Tuareg would spend part of each year camped in a particular place. They also enable communities to develop a social infrastructure and education, training, health and pasture management projects, while still keeping hold of many of their traditional pastoral ways. There are now 22 fixation sites and each has a management committee elected from the local community.

Wells are very important to the fixation sites. Sometimes new wells have to be dug deep to find water (over 135 metres at Zeddagar for example). Once wells have water, a number of families are likely to take up residence at the site.

Some sites have primary schools that provide dormitories and canteens so that students can remain there if their families move. All sites will eventually provide an adult education programme, targeting women's literacy and advocacy for land tenure and nomadic rights.

Impact on beneficiaries

General literacy levels have risen to 20% from almost zero and numeracy skills have helped in the successful running of grain banks.

Food security has been improved at many sites by establishing grain banks. In the hot season the market price of grain normally doubles and the poorest often cannot afford to buy grain. The grain banks buy millet after the harvest when prices are low and store it until the hot season, thus reducing the cost of grain and making it more readily available.

Low stone bunds and animal fodder

JEMED has also helped communities to conserve rainwater by building a low bank, bund or dyke of stones across a valley, usually about 120 metres in length. When the rains come, the stones slow the flowing streams, causing water to sink deeper into the soil.

Behind the dykes, the Tuareg have been able to grow wild wheat. Some have also tried growing crops such as millet and sorghum and trees have been planted. In Intikikitan, an established dyke has increased moisture levels to the extent that plant species not seen for half a century have returned.

Fodder is of huge importance to nomadic people whose livestock is often their only source of income. Enclosures have been built behind dykes to protect and improve pasture for livestock. Pasture management associations have been created at all sites. Loans to buy animals are available to both men and women at some sites along with a livestock vaccination programme.

At one fixation site called Abrik, there is a valley that divides the 'dead' land to the north from the 'living' land to the south. The northern land is desert – partly from climate change but also because of human activity. The valley itself was dying as well. Using the techniques outlined above, JEMED was able to work with the Tuareg to reverse this process and help people adapt to the changing rainfall patterns.

Prepared for drought

The success of the fixation sites was put to the test during the severe drought from 2003 to 2005. The nomads had to survive not just one year of drought but two. During the first year, grazers came into the area from outside with their livestock, and pastures were quickly used up. JEMED staff noted the warning signs and advised people to sell their livestock, keeping only the best breeding stock. This was unheard of for nomadic people – they have never done this in the past. However, many people did sell their animals in time. The men took the remaining livestock to other areas and managed to keep their animals alive. As a result, people in the fixation sites lost a third less livestock during the drought than others in neighbouring areas.

JEMED helped with food relief, providing grain and fodder. The first year of drought was followed by terrible sand storms that buried grazing areas, and a very unusual flash flood that drowned many small livestock and camels in the dry valley areas. During the drought period, the improvements made allowed some grass to grow in the enclosures.

"The project intervention has really brought back to me and my household dignity and respect as well as stability. Now I can borrow money as people trust me through the support I received from the project. Before we were feeding once a day and it was poor food and worst than that, it was food eaten on credit."

Ali Bagno

Once the crisis was over, JEMED helped people to restock their animals, providing 11,000 sheep and 700 cows to the worst-affected families. Each selected family received two cows and 24 sheep, six of which were always given to the women to allow them to build up their own flocks.

Many other communities in the area are now seeking to adopt the fixation site strategy. JEMED hopes that governments and NGOs will see the value of this approach and help it to be replicated.