

# Traditional agricultural techniques for water conservation and land restoration

Burkina Faso Oubritenga and Kourwéogo Provinces

**The Association Zoramb Naagtaaba (AZN) was formed by community members from 10 neighbouring villages to restore degraded land and address water scarcity issues through the use of traditional agricultural techniques and other practices tested on demonstration plots.**

In order to address water scarcity, environmental degradation, declining agricultural yields, and high rates of poverty, 10 villages in two provinces of Burkina Faso came together to create the Association Zoramb Naagtaaba (AZN). Practically, AZN promotes the restoration of degraded land through the reintroduction of traditional agricultural practices. Demonstration plots are used to test various seed and crop varieties and allow farmers to learn first-hand about hedge and pond construction and other agricultural techniques to improve productivity. Tree planting works to improve soil fertility and reduce run-off while hedgerows help recover storm water, protect crops from wind damage, and serve as a mechanism for keeping livestock out of production areas. A 15-meter firewall is cleared of vegetation yearly to protect the hedgerows from bushfires. A pond area has also been created to further decrease water run-off. Trees were planted around the pond to slow evaporation. Zai, a traditional cultivation technique to conserve water and soil, has been expanded on the cultivation area. Zai requires the digging of 15-centimetre deep holes with seeds and compost placed inside and a ridge of soil built up around the perimeter of the hole during the dry season. During the wet season, the holes fill with water and the ridges prevent the organic matter from washing away. Rotational grazing of livestock has been introduced to reduce damage caused by wandering livestock.

## Case effectiveness on

### Climate change

**Mitigation:** Not reported

**Adaptation:** Positive

The increased use of the zai technique has reportedly improved water security. Zai and other water conservation techniques have also reportedly increased local resilience to drought. Agricultural yields have reportedly increased by a factor of 2 to 3 in some places.

### Ecosystem health

**Ecological effect:** Positive

The hedgerows have reportedly restored soil biodiversity, increased vegetation cover, and provided habitat for insects, birds, and other animals.



Photo © US Africa Command

Targets poor/disadvantaged

### Intervention type

Food production

### Ecosystem type

Terrestrial production

### Climate change impacts addressed

Loss of food production

Drought

Reduced water availability

Soil erosion

### Instigators

Local NGO or CBO (eg. indigenous)

### Societal challenges

Biodiversity conservation

Climate change adaptation

Disaster risk reduction

Economic and Social development

Rights/empowerment/equality

Food security

Water security

### Literature info

Grey literature

Case methodology not reported

### External case resources

Read resource 1

Hedgerows and reforestation efforts have re-introduced regionally-diminished tree species.

### Socioeconomics

Farmers in the Mossi Plateau working in hedgerow perimeter farms have reported being able to produce enough staple crops to supply their families with food year round. Agricultural production surpluses have reportedly created additional income streams for local communities.