

## Establishing fences from stone walls and poplar trees around the perimeter of fields

**AGROECOSYSTEM:**  
Irrigated, Rainfed



### ADVANTAGES

- A variety of crops on a site (trees, perennial grass and vegetables) guarantees a stable provision of a family and a livestock with food and forage all year round.

### DISADVANTAGES

- Very hard and laborious work on cleaning of stones and wall construction.

#### Definition of technology:

The site located at a foot of a narrow valley was cleared of stones, protected by a stone wall along the perimeter and surrounded with poplars for protection of a site.

#### Brief summary of technology:

The site full of stones was originally deprived of vegetation. Cleaning of stones provided possibility to grow annual vegetable crops, grass and tree species. Irrigation was provided from a constant spring by means of a polyethylene pipe of small diameter.

A protective wall was built from the stones of the site along a perimeter of ca. 1.5 m height. Then this

protection was enhanced by an internal strip from fast-growing poplars.

Cleaning of stones and creation of a wall strengthen an initiative of sustainable land management. The wall is important means of protection against animals which can come into this rich vegetative site (not only sheep, goats, but also wild boars). Cleaning of stones “creates” the soil which is very important for vegetation. Currently, the site is expanded practically twice and covers 2-3 ha. Though the technology was financed by the dekhkan himself, and carried out slowly and carefully, it therefore did not render notable financial burden

to the household. Stone wall was constructed by 3-4 workers during a year for a low payment.

### Main land use issues and the main causes of land degradation:

95 % of the land are covered with stones, and without their removal it is impossible to be engaged in agriculture. Even after cleaning of stones the soil layer remains small (<20 cm) and irrigation application is required to provide development and growth of plants in summer months.

### Main technical features of technology:

Improvement of soil cover, structure of the top soil layer, increase of infiltration and water preservation in the soil, increase of biomass.



## CACILM Factsheets

These factsheets are designed to promote proven and sustainable interventions to improve land management in Central Asia. The technologies and interventions highlighted are generated by the IFAD-funded project on Knowledge Management in Central Asian Countries Initiative on Land Management. The initiative's Knowledge Platform, managed by ICARDA, aims to disseminate solutions to rehabilitate and prevent the further degradation of Central Asia's natural resources.

*This factsheet was produced using information provided by the World Overview of Conservation Approaches and Technologies (WOCAT).*

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