

## Rotation of pastures in desert regions of Uzbekistan



### Definition of technology:

Improvement of the scheme of cattle grazing provides restoration of pastoral vegetation and observance of a normative load on pastures.

### Brief summary of technology:

In Uzbekistan, pastureland is transferred to shirkats on an unlimited basis or to farms for a long-term rent. The population uses shirkat pastures for grazing of personal cattle, the number of which sometimes exceeds the number of a shirkat flock. The cattle is grazed in the same pastures all year round and degradation occurs because of an overgrazing and passage of cattle along the same routes.

Based on traditional approaches, the technology pursues the aim to

mitigate the degradation of pastures and to create conditions for self-restoration of pasture vegetation. For this purpose, each flock of 800 heads is provided with two sources of drinking water. The area of 7850 ha around a water source is divided into 2 sectors by diameter. Each sector is divided into 3 rotational sites. Under the existing productivity of pastures, one sector provides 800 heads of sheep with sterno during 90 days, the entire spring period. In summer the flock is overtaken to the second sector, and in the autumn to the second water well where the sheep grazing on rotational sites is done in the same sequence: in the first sector in autumn, in the second in winter. The rotational grazing provides a planned rest and a chance to plants to replenish energy and growth.

## AGROECOSYSTEM: Rangelands

### ADVANTAGES

- Provides balance between requirements of local community of cattle-farmers and requirements of pastures for self-restoration;
- Based on experience of local cattle-farmers, a local manpower is used - the shepherds owning the techniques of flock grazing according to rotation rules and available infrastructure - wells for drinking water;
- Does not require very big investments in implementation and is easily adapted with support of local authorities;
- Animals satisfy need for food, passing a shorter way that reduces energy consumption of both animals and shepherds;
- Provides a gain of animal weight.

Private owners unite adult animals by 120-150 heads and young animals by 150-200 heads for grazing in the pastures allocated with the consent of the commission of pasture users. The commission regulates relationship of cattle owners with shirkat and local authorities (khokimiyat), conducts monitoring and estimates feed capacity of the pastures. On the basis of monitoring results the possible number of cattle grazing is corrected every season with the purpose of prevention of overgrazing. In the initial stage the commission of pasture users functions according to the instructions of the Rural Gathering of Citizens, and later financing is provided at the expense of contributions of cattle owners.

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

Vulnerability of desert ecosystems caused by natural-climatic factors, and irrational use of pastures, absence pasture rotation, all-year-round cattle pasture in the limited area without accounting for feed capacity of the pastures and permissible load, cause development of land degradation processes.

### Main technical features of technology:

Improvement of land cover, increase of biodiversity.

### Acceptance/adoption of technology:

The technology is developed by the Project entitled: "Achievement of ecosystem stability on degraded land in Karakalpakstan and the KyzylKum Desert" (UNDP-GEF and the Government of Uzbekistan) in 2008-2011. within the frame of CACILM. It is positively accepted by local population as it is directed towards the solution of problems of fodder balance for livestock in conditions of limited natural resources.



## DISADVANTAGES

- Demands primary investments for restoration of wells of drinking water;
- Insufficient level of awareness and knowledge about prime causes of land degradation and insufficient level of ecological education of the population;
- Lack of knowledge to make a scheme of pasture rotation.

## 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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