

# Time to act!

Practical guide to improve natural resource management  
in Central Asia



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**This booklet is dedicated to all those farmers in Central Asia who, in challenging conditions, have created on their own initiative impressive examples of more sustainable natural resource management schemes.**

**It's time that government, donor and implementing agencies invest more sincere efforts in learning from existing positive land use practices on the ground, and in promoting their application on a wider scale.**



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## 1. Introductory remarks

Ranging from high mountainous regions with peaks over 7000 m above sea level, to desert-like low-lying plain areas, Central Asia encompasses a wide range of different ecosystems and precious natural resources. Under predominantly (semi-)arid climatic conditions, large parts of the Central Asian region were originally covered by forests and/or other drought-resistant deep-rooting plant species such as Saksaul and Teresken of varying density.

The natural vegetation cover helped to minimize soil and water losses due to waterborne erosion during the wet season, and to access remaining water and nutrient stocks in deeper soil horizons during the hot summer periods.

Well adjusted to the local conditions, human-induced natural resource management could sustainably produce a wide range of benefits for the region's present and future human population. But the reality is different.

As a consequence of the widespread application of inappropriate natural resource management practices such as the overexploitation of forest resources, the assignment of unsuitable areas for grazing domestic animals, as well as the usage of environmentally-damaging irrigation techniques, large portions of Central Asia are affected by severe land degradation. Particularly hilly to mountainous areas are nowadays affected by high rates of water runoff and waterborne soil erosion during the wet season, and increasing water scarcity and signs of desertification during the long dry summer period.

If current development trends continued, increasing portions of the region would end up as severely degraded, marginal land. As a consequence the local population would be openly exposed to the consequences of severe ecological imbalances in the form of landslides, (flash-) floods, summer droughts, drying water sources, poor soils and decreasing land productivity. Already observed and/or predicted changes of the future climatic situation have the potential to further worsen the impact of unsustainable land use practices.



Initiatives trying to deal with the effects of advancing natural resource degradation through superficial disaster risk reduction measures, and by promoting the increased use of expensive external inputs, have failed in large numbers to produce lasting improvements. In order to prevent a further deterioration of the natural resource development in Central Asia there is a need for a sharp U-turn in strategy. Rather than continuing to mainly tackle symptoms there is a

need to pay more attention to the underlying root causes of advancing land degradation. To improve rural livelihoods in a sustainable way, the more careful and efficient use of locally available resources - in particular soil and water - is of key importance.

This booklet provides an overview of existing comparatively simple but efficient options to strengthen sound natural resource management. As more than  $\frac{3}{4}$  of the total land area of Central Asia consists of (semi-) arid rain-fed land, special emphasis is laid on the description of options to improve rain-fed land management.

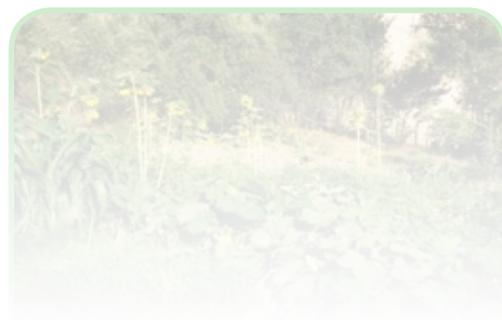
There is a lot that can and should be done. It's time to act!

## 2. The importance of a more careful and efficient use of locally remaining resources

Sustainable land management relies in first place on the appropriate management of locally existing natural resources.

In order to illustrate the huge impact of (in-)appropriate resource use, below a selection of different land use approaches from different parts of Central Asia (plus one from Mongolia) are presented in the form of a pairwise comparison. In the case of the first five cases presented, two farming families from the same village, sharing the same soil parent material, land topography and climatic conditions, decided at a certain stage to manage the locally available natural resources in different ways.

### Case 1: Baljuvon/Tajikistan



The full version of this booklet can be obtained from:

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