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“Management of land use systems for enhanced food security:
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Resource Management and Food Security of Small Scale Farming Systems in the Tien Shan Mountains of Kyrgyzstan

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Abstract

The upland grasslands and meadows are one of the most important natural resources in Kyrgyzstan, covering up to 85 % of the designated agricultural areas. Most of the crop and livestock based small scale farms are located there, faced with degradation and loss of biodiversity due to overgrazing. Hence, proper pasture land management is one of the key issues to ensure long-term productivity for the farmers in the region.

To increase proper management on pasture land, regulations to avoid overgrazing were enforced by the government, however, without much success until now. One of the main reasons for little success is the lack of knowledge about the prevailing small scale farming systems – their production systems, their resource management, their household economy and food security status and about the objectives and targets of the farm families. Agricultural research largely focuses, like during soviet time, on the economic development of large scale farming.

The present work focuses on developing the appropriate classification methodology to characterise and identify prevailing farming systems in the lower and middle elevation mountain pastures, in order to assess productive management methods of pasture land and other resources to ensure sustainable development pathways for the small family-based farms. The paper focuses on the characteristics and differences of the identified ‘Postso-wjet Jailoo Farming Systems’ in terms of resource management, production system and household economy, and emphasises on the linkages to farm- and family income. Results further show distinctive characteristics in the length of pasturing, the size of cultivated land and the off-farm income. The authors indicate, how socio-economic parameters of these farming systems demand for different approaches for sustainable land management.

Keywords: Central Asia, mountain pastures, pasture management, upland farming systems