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Faculty of Life Sciences

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Master's thesis

for the acquisition of the academic degree Master of Science

**Exploring barriers and opportunities for international
environmental monitoring and reporting:
the case of soil organic carbon in Kyrgyzstan**

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Abstract

With land degradation continuing to threaten rural livelihoods and food security in Kyrgyzstan, the country is committed to achieve land degradation neutrality in the frame of the United Nations Convention to Combat Desertification (UNCCD). For this purpose Kyrgyzstan needs to establish a soil monitoring and reporting system, also covering soil organic carbon (SOC), to assess the state of land degradation. This thesis therefore explores the main barriers and opportunities to the establishment of an effective SOC monitoring and reporting system in Kyrgyzstan. Qualitative expert interviews were conducted in October 2019 with stakeholders from government organizations, international organizations, the research sector and non-governmental organizations, who are engaged in the field of environmental monitoring and reporting in Kyrgyzstan. Based on the analysis of 19 interviews, which was inspired by the emerging concept of informational governance, five main barriers and four main opportunities to effective SOC monitoring and reporting in Kyrgyzstan were identified. The findings show that the barriers and opportunities are closely connected to each other which is why this thesis argues that it is not sufficient to address one barrier or opportunity alone, but that the barriers and opportunities need to be addressed collectively. Furthermore, the findings suggest that the opportunities resulting from digitalization in the environmental sector and international demand for environmental monitoring and reporting need to be assessed critically, since they might also have negative effects.