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INTERNATIONAL MOUNTAIN CONFERENCE

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## >> SYNTHESIZE MOUNTAINS OF KNOWLEDGE <<

## Submitted Abstract

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Abstract

The mountains of Central Asia are playing a vital role to supply water to the arid plains of the region by transboundary rivers. Strong climate change adaptation (CCA) and mitigation actions are required to increase resilience of the vulnerable, downstream communities to climate change. Our knowledge of the CCA actions in the mountains of Central Asia is limited in comparison with other mountainous regions. The aim of this study is to assess the existing adaptation projects and publications and to identify gaps in adaptation efforts by conducting a systematic review of the peer-reviewed literature published in English and Russian languages published between 2013 and May 2021. Following the initial screening and subsequent reading of the publications, complying with the specified criteria, 52 peer-reviewed articles have been included for final analysis. This relatively low number shows that the extent of, and reported knowledge about CCA, are relatively limited compared to other mountainous regions. Most of the reviewed papers (55%) focus on water resources and future water availability. Other focus on land degradation (15%), changes in vertical zonation of plant species (10%), loss of plant species (7%), impacts of hazardous events (3%) and multiple interlinked impacts of climate change (10%). Although multiple publications provide ample evidence of increasing hazardous events, changes in biodiversity, and vulnerability of local communities to climate change, the number of papers focusing specifically on adaptation and mitigation actions is considerably lower. This suggests that the awareness of the importance of CCA and its implementation should be enhanced in the region in collaboration between researchers, practitioners and local communities. Researchers are encouraged to produce follow-up publications showing how their work has been used to develop and implement CCA.

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