

Institute of Geography and Spatial Management
Jagiellonian University
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Tatra National Park

Sustainable water resources management in high mountains in the Baltic Sea Region

Edited by
Joanna Pociask-Karteczka



Kraków 2019

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Zygmunt Górka, Tomasz Bryndal, Wiesław Ziąja

Front cover
The Kasprowy Wierch Cable Car in the Tatra National Park
(Photo. J. Pociask-Karteczka)

Back cover
Logo of the 2nd Tatra Hydrological Workshop
on Sustainable water resources management
in high mountains in the Baltic Sea Region
(Photo K. Mostowik)

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*What are you saying to me, mountain stream?
Where, in which place, do we meet?
Do you meet me who is also passing – just like you...
But is it like you?*

"The Roman Triptych", 2003, John Paul II

Foreword

Mountains play important role in human's live. They cover 24 percent of the Earth and are home to 12 percent of the world's population. Mountains are rich repositories of water and biodiversity, they provide of ecosystem goods on which downstream communities rely. Over half of humanity's freshwater originates in the mountains. Unfortunately mountains represent the most fragile environment on Earth, and they are particularly vulnerable to changes. Mountains are facing enormous pressure from various anthropogenic impacts and drivers of global scale, including climate change. Those factors influence mountains' environment, including water. Realising the importance of mountains as environment of crucial significance for water resources both in local and regional scales, the Institute of Geography and Spatial Management – Jagiellonian University in Cracow, the Baltic University Programme and the Tatra National Park developed the 2nd Tatra Hydrological Workshop on *Sustainable water resources management in high mountains in the Baltic Sea Region* (10-13 June 2019, Zakopane, Poland) dedicated to students as well as young scientists. The aim of the workshop was to get a relevant knowledge about monitoring and sampling techniques for analyzing hydrological processes, and organizing a monitoring network to control the influence of human activities (tourism, ski, water and energy supply municipal system) on the quantity and quality of water resources in high mountain catchments. During field works participants of the workshop had opportunity to take part in hydrological measurements with modern instruments and observe a hydrological monitoring system operating in the Tatra National Park. They get a diploma and 3 ECTS.

This book relates to lectures given during the 2nd Tatra Hydrological Workshop and has been written to provide participants of the workshop with a wide-ranging problems of water resources management in high mountains environment.

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Joanna Pociask-Karteczka