



Extreme Weather and Impacts of Climate Change on Water Resources in the Dobrogea Region

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Description

New technologies and assessment methods create improved opportunities to monitor and predict the onset of natural disasters in the era of global warming. Researchers continue to evaluate the changes in weather patterns in order to better understand natural phenomena.

Extreme Weather and Impacts of Climate Change on Water Resources in the Dobrogea Region presents a descriptive environmental resource focused on a Romanian region affected by the changing climate. In discussing methods of assessment, monitoring, and prediction, the research included in this publication is an essential resource for policymakers, academicians, researchers, advanced-level students, technology developers, and government officials who wish to expand their research exposure to pertinent topics related to flooding and droughts due to climate change.

Topics Covered

- Drought Management
- Ecosystems
- Estimation Methods
- Flood Monitoring
- Global Warming
- Hydrological Cycle
- Natural Disasters

Reviews and Testimonials

Civil engineers and environmental scientists introduce non-specialist readers to the processes and methods for estimating drought and river flood phenomena. For specialists and stakeholders, they describe methods for assessing, monitoring, predicting, and managing drought and floods. Most of them are from Romania, and the focus of their study is the Dobrogea and Danube Delta on the Romanian coast of the Black Sea. Their topics include spatio-temporal variability of seasonal drought over the Dobrogea region, using grid computing and satellite remote sensing in evapo-transpiration estimation, mathematical tools for modeling a hydrological floodplain, Taita catchment in Romania as a case study for hydrological risk phenomena and flood analysis, and managing drought and floods in the Dobrogea region.

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Carmen Maftei

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Seasonal Statistical Variability of Precipitations in Dobrogea and Danube Delta (/chapter/seasonal-statistical-variability-of-precipitations-in-dobrogea-and-danube-delta/131524) (pages 1-16)

Gabriel Minea, Georgeta Bandoc, Gianina Neculau

The objective of this chapter is to highlight the seasonal statistical variability of rainfalls in Danube Delta and Dobrogea Tableland (Romania)...

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In this study we have examined the spatial and temporal variability of seasonal short-term drought over Dobrogea region over the period 1965 -2005....

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Gabriela Brindusa Cazacu

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Sabina Zăgan, Mihaela-Greti Chițu

In this chapter, the authors point out the connection between some physical and chemical parameters of the Black Sea water under extreme air...

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Author(s)/Editor(s) Biography

Carmen Maftei (born Petrescu) is Professor at the Civil Engineering Department of Ovidius University of Constanta, Romania. She attended Polytechnic Institute of Iasi where she majored in Land Reclamation in 1988 and from 1996-1998 she attends a specialization in Water resources and protection of water resources, equivalent of Master of Science. In 2002 she finished the PhD studies in Water Science in Continental Environment. She's research activity is focused on: (i) hydrology and hydrological modelling; (ii) Geographic Information Systems applications in environmental sciences; (iii) remote Sensing applications in environmental sciences. As a result of research, she holds 8 books, 82 scientific papers published in different journals or conference proceedings, 1 patent, 2 international projects, 13 national grants, 10 research contracts with economic partners. Her 20 years teaching experience includes hydrology, irrigation and drainage, Geographic Information Systems & Applications at "Ovidius" University of Constanta.

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