

Journal of Water and Climate Change

A Journal of the International Water Association

volume 13 | issue 4 | April 2022

Contents

- iii Editorial: Impact of climate change on hydrology and water resources
Takeshi Takama, Muhammad Bilal and K. Srinivasa Raju
- 1631 Temperature and precipitation are adversely affecting wheat yield in India
Anand Madhukar, Vivek Kumar and Kavya Dashora
- 1657 Evaluation of nonlinear dynamic patterns of extreme precipitation and temperatures in central England during 1931–2019
Farhang Rahmani and Mohammad Hadi Fattahi
- 1673 Super-resolution of sea surface temperature with convolutional neural network- and generative adversarial network-based methods
Tomoki Izumi, Motoki Amagasaki, Kei Ishida and Masato Kiyama
- 1684 A review of climate change effects on practices for mitigating water quality impacts
Thomas Johnson, Jonathan Butcher, Stephanie Santell, Sara Schwartz, Susan Julius and Stephen LeDuc
- 1706 Forecasting 100-year changes of streamflow in the Mun River Basin (NE Thailand) under the HAPPI experiment using the SWAT model
Arika Bridhikitti, Arocha Ketuthong, Thayukorn Prabamroong, Li Renzhi, Li Jing and Liu Gaohuan
- 1725 Review and outlook of river morphology expression
Ziwei Li, Chaode Yan and Muhammad Waseem Boota
- 1748 Suitability pre-assessment for decoupling in-sewer captured streams to support urban blue-green climate adaptation measures
F. Prenner, H. Müller, P. Stern, M. Holzer, H. P. Rauch and F. Kretschmer
- 1765 Temporal variations characteristic of precipitation in the Three Gorges Reservoir area from 1961 to 2016
Li Sheng, Dianying Liu, Baihui Wang, Shunhui Yu, Youwei Zuo and Fengtai Gu
- 1776 Long-term trends and projections of hydrological fluxes under RCP climate change scenarios for a mountainous river catchment of northeast India
S. Murasingh, J. Kuttippurath, S. Sandeep Dash, S. Raj, R. Remesan, Madan K. Jha and P. Kumar



- 1790 Correlation between flooding and settlement planning in Nairobi
Martin Ochieng Owuor and Donald Anthony Mwiturubani
- 1806 Deterministic and probabilistic projections and their credibility in analyzing future precipitation variations in the Yellow River Basin, China
Zhouliang Sun, Yanli Liu, Jianyun Zhang, Hua Chen, Zhangkang Shu, Tiesheng Guan, Guoqing Wang, Junliang Jin, Zhenxin Bao and Cuishan Liu
- 1830 Future precipitation changes in the Central Ethiopian Main Rift under CMIP5 GCMs
Wondimu T. Hailesilassie, Narendra K. Goel, Tenalem Ayenew and Sirak Tekleab
- 1842 Responses of soil microorganisms to simulated climate change in desert grassland in northern China
Yi Zhang, Ying-Zhong Xie, Hong-Bin Ma, Juan Zhang, Le Jing, Yu-Tao Wang and Jian-Ping Li
- 1855 Evaluation and projection of the annual maximum streamflow in response to anthropogenic and climatic effects under nonstationary conditions in the Hanjiang River Basin, China
Wenlong Hao, Quanxi Shao, Peng Wei, Changjun Zhu, Xi Chen and Rongbo Chen
- 1878 Impact of climate-induced extreme events and demand–supply gap on water resources in Bangladesh
M. Rafiqul Islam
- 1900 Evaluation of four bias correction methods and random forest model for climate change projection in the Mara River Basin, East Africa
Priyanko das, Zhenke Zhang and Hang Ren
- 1920 Assessment of the hydrological drought risk in Calgary, Canada using weekly river flows of the past millennium
Sunil Gurrapu, David J. Sauchyn and Kyle R. Hodder
- 1936 Analysis of the evolution pattern and causes of downstream gigantic hydraulic projects
Linshuang Liu, Wenguang Luo, Liguang Zhang, Bo Ming, Ming Li and Jing Jiang
- 1951 Climate change impact on the estimation of reference evapotranspiration, water requirement, and irrigation requirement in irrigated areas (a case study: Bardsir plain)
Morteza Rajabi, Navid Jalalkamali and Mahdi Naghizadeh
- 1966 Response of runoff and suspended load to climate change and reservoir construction in the Lancang River
Lixia Sun, Zhilin Sun, Zongyu Li, Haolei Zheng, Cheng Li and Wenhua Xiong