DISCUSSION PUBLISHERS
Research Center · Open Access Edition

A Review of Water Stress and Water Footprint Accounting

Dan Wang, Klaus Hubacek, Yuli Shan, P.W. Gerbens-Leenes, Junguo Liu

Discussion Research ID	DPR-2026-1295
Year	2021
Field	Environmental Science
DOI	10.3390/w13020201
Author ORCID	0000-0002-8709-1974
Licence	CC-BY
Original source	Water
Permanent link	https://discussionpublishers.com/research/9e83be3d-716a-442c-943d-fcdaf7415479
Publisher	Discussion Publishers discussionpublishers.com

Republished by Discussion Publishers under the original CC-BY licence. Copyright remains with the original authors; please cite the original work.

Cite as: Dan Wang, Klaus Hubacek, Yuli Shan, P.W. Gerbens-Leenes, Jun (2021). A Review of Water Stress and Water Footprint Accou.

Abstract

Production and consumption activities deplete freshwater, generate water pollution and may further lead to water stress. The accurate measurement of water stress is a precondition for sustainable water management. This paper reviews the literature on physical water stress induced by blue and green water use and by water pollution. Specifically, we clarify several key concepts (i.e., water stress, scarcity, availability, withdrawal, consumption and the water footprint) for water stress evaluation, and review physical water stress indicators in terms of quantity and quality. Furthermore, we identify research gaps in physical water stress assessment, related to environmental flow requirements, return flows, outsourcing of water pollution and standardization of terminology and approaches. These research gaps can serve as venues for further research dealing with the evaluation and reduction of water stress.

Keywords: water stress, water footprint, blue water, green water, water pollution, water scarcity, water avail

Full text

The complete text of this work is hosted by its original publisher.
Read it via the Discussion Publishers page:
https://discussionpublishers.com/research/9e83be3d-716a-442c-943d-fcdaf7415479
Original record: https://doi.org/10.3390/w13020201
DOI: https://doi.org/10.3390/w13020201