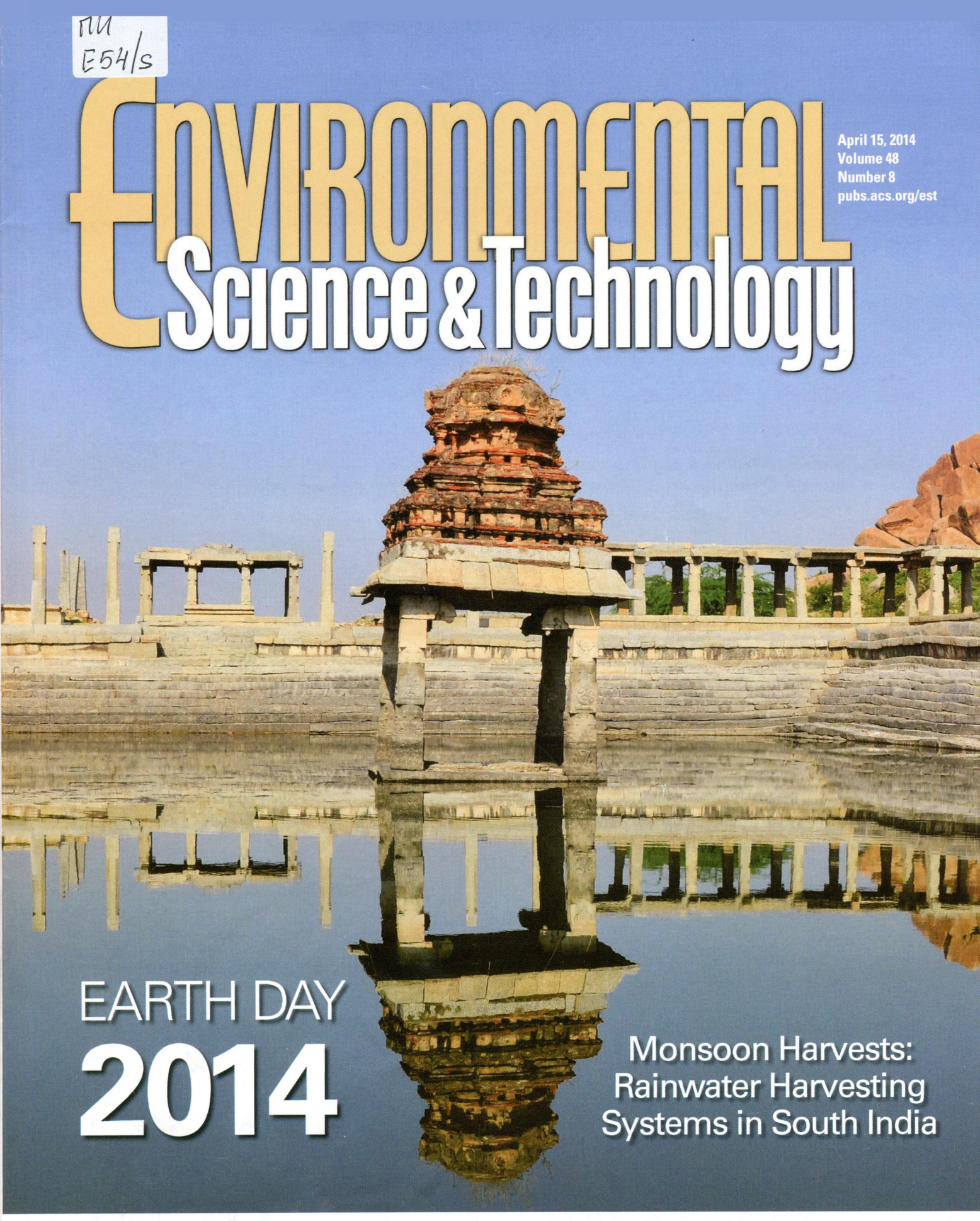
Environmental Science & Technology

April 15, 2014
Volume 48
Number 8
pubs.acs.org/est



EARTH DAY 2014

Monsoon Harvests: Rainwater Harvesting Systems in South India

ACS Publications
MOST TRUSTED. MOST CITED. MOST READ.

www.acs.org

Environmental Science & Technology

APRIL 15, 2014
VOLUME 48 ISSUE 8

ESTHAG 48(8) 4217–4634 (2014)
ISSN 0013-936X
Registered in the U.S. Patent and Trademark Office

ON THE COVER: Rainwater harvesting is increasingly being recognized as a strategy for alleviating problems of water scarcity. This issue's Feature article discusses the potential benefits and problems associated with the revival of 1000-year-old rainwater harvesting structures in South India and emphasizes the need for a watershed-scale approach in evaluating whether rainwater harvesting systems can indeed increase water availability and contribute to the sustainable use of water resources within a basin.

Features

Rainwater harvesting, a "soft path" approach toward water management, is increasingly recognized as a key strategy toward ensuring food security and alleviating problems of water scarcity. Interestingly this "modern" approach has been in use for millennia in numerous older civilizations. This article uses India as a case study to explore the social, economic, and environmental dimensions of agricultural rainwater harvesting ponds, and evaluates the viability of these centuries-old systems under current climate and population pressures. A holistic watershed-scale approach that accounts for trade-offs in water availability and socioeconomic wellbeing is recommended for assessing the sustainability of these systems.Rainwater harvesting, a "soft path" approach toward water management, is increasingly recognized as a key strategy toward ensuring food security and alleviating problems of water scarcity. Interestingly this "modern" approach has been in use for millennia in numerous older civilizations. This article uses India as a case study to explore the social, economic, and environmental dimensions of agricultural rainwater harvesting ponds, and evaluates the viability of these centuries-old systems under current climate and population pressures. A holistic watershed-scale approach that accounts for trade-offs in water availability and socioeconomic wellbeing is recommended for assessing the sustainability of these systems.

Critical Reviews

Policy Analysis

Articles

Characterization of Natural and Affected Environments

Environmental Processes

Environmental Modeling

Environmental Measurements Methods

Remediation and Control Technologies

Sustainability Engineering and Green Chemistry

Correspondence

Additions and Corrections

Ⓢ Supporting Information available via online article