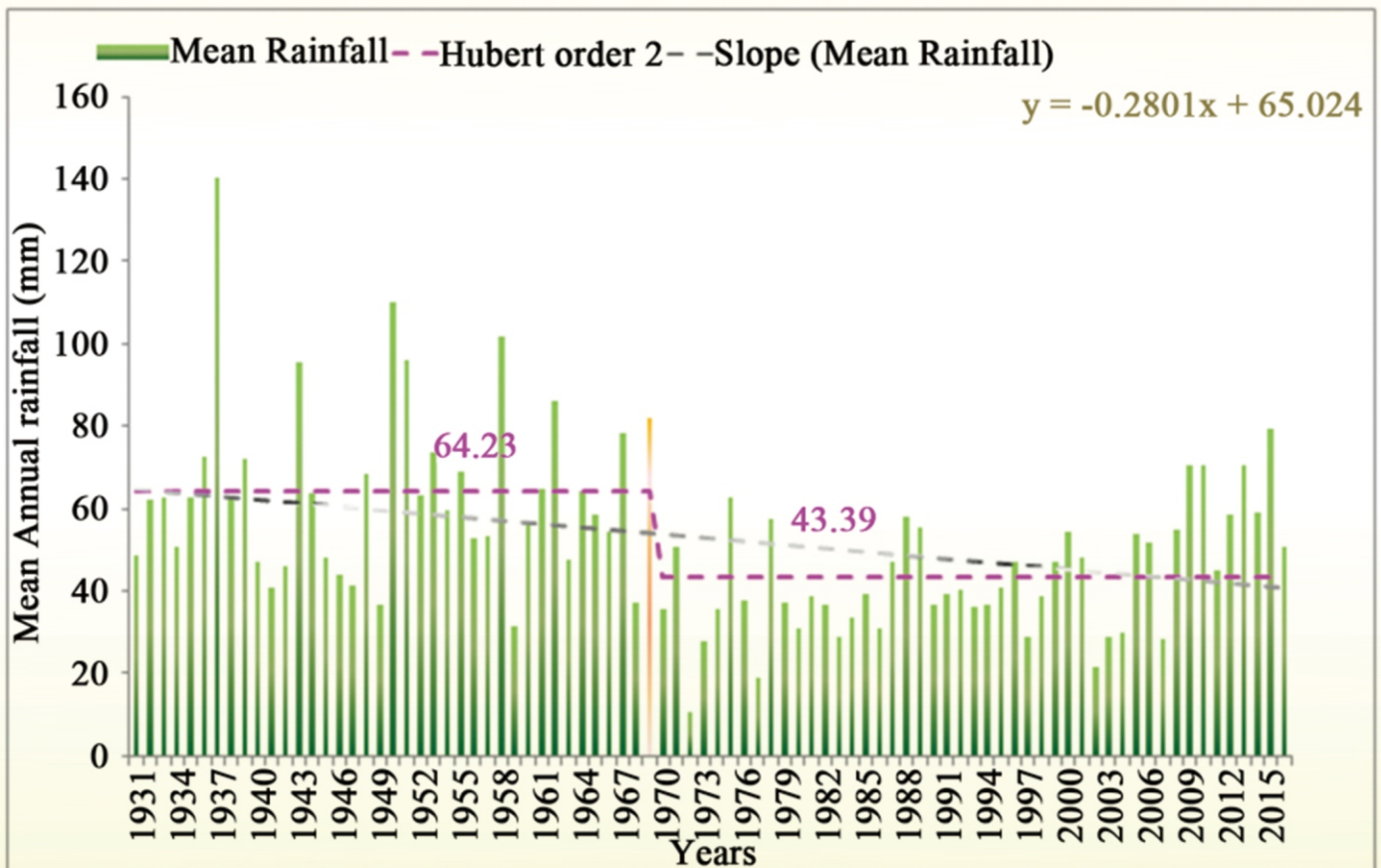


American Journal of Climate Change



ISSN: 2167-9495



Journal Editorial Board

ISSN: 2167-9495 (Print) ISSN: 2167-9509 (Online)

<http://www.scirp.org/journal/ajcc>

Editors-in-Chief

Prof. Michael James C. Crabbe

University of Oxford & University of Bedfordshire, UK

Prof. Zhihua Zhang

Beijing Normal University, China

Editorial Board

Prof. Pinhas Alpert

Tel Aviv University, Israel

Prof. Steven Forman

University of Illinois at Chicago, USA

Prof. Shankar Gargh

Environmental Disasters Research Institute, India

Prof. Aslak Grinsted

University of Copenhagen, Denmark

Prof. Donald Huisingh

University of Tennessee, USA

Prof. Amithirigala Widhanelage Jayawardena

National Graduate Institute for Policy Studies, Japan

Dr. Svetlana Jevrejeva

National Oceanography Centre, UK

Prof. Ola M. Johannessen

University of Bergen, Norway

Prof. A. D. Karathanasis

University of Kentucky, USA

Prof. Michael Laar

Lutheran University of Brazil, Brazil

Dr. Yuri Ya. Latypov

Russian Academy of Sciences, Russia

Prof. Monique Leclerc

University of Georgia, USA

Prof. María Dolores Ruiz Medina

University of Granada, Spain

Prof. Terrence Nathan

University of California at Davis, USA

Prof. Andreas Oberheitman

Rheinisch-Westfälisches Institut für Wirtschaftsforschung, Germany

Prof. Soon-Ung Park

Seoul National University, South Korea

Dr. Annette Rinke

Alfred Wegener Institute for Polar and Marine Research, Germany

Prof. Francisco J. Rodríguez-Tovar

University of Granada, Spain

Prof. Patrik Söderholm

Lulea University of Technology, Sweden

Prof. Robert W. Talbot

University of Houston, USA

Prof. Roberto Udisti

University of Florence, Italy

Prof. Can Wang

Tsinghua University, China

Prof. Qiang Zhang

Sun Yat-sen University, China

Table of Contents

Volume 6 Number 3

September 2017

**Association of Rainfall and Stability Index with Lightning Parameter
over the Indo-Gangetic Plains**

M. I. R. Tinmaker, M. Y. Aslam, D. M. Chate.....443

**Multi-Scale Characteristics of Precipitation and Temperature over
West Africa Using SMHI-RCA Driven by GCMs under RCP8.5**

A. Sarr.....455

**Statistical Downscaling of Precipitation and Temperature Using Long Ashton
Research Station Weather Generator in Zambia:
A Case of Mount Makulu Agriculture Research Station**

C. B. Chisanga, E. Phiri, V. R. N. Chinene.....487

**Assessment of Climate Trends and Land Cover/Use Dynamics within the Somone
River Basin, Senegal**

N. Y. Barry, V. B. Traore, M. L. Ndiaye, O. Isimemen, H. Celestin, B. Sambou.....513

**Climatic Projections of Lightning in Southeastern Brazil Using CMIP5 Models in
RCP's Scenarios 4.5 and 8.5**

A. P. P. Santos, O. Pinto Júnior, S. R. Q. Santos, F. J. L. Lima, E. B. Souza,
A. A. R. Morais, E. E. Ávila, A. Pedernera.....539

Analysis of the Effects of Climate Change on Crop Output in Nigeria

D. Z. Agba, S. O. Adewara, J. I. Adama, K. T. Adzer, G. O. Atoyebi.....554

American Journal of Climate Change (AJCC)

Journal Information

SUBSCRIPTIONS

The *American Journal of Climate Change* (Online at Scientific Research Publishing, www.SciRP.org) is published quarterly by Scientific Research Publishing, Inc., USA.

Subscription rates:

Print: \$59 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: sub@scirp.org

SERVICES

Advertisements

Advertisement Sales Department, E-mail: service@scirp.org

Reprints (minimum quantity 100 copies)

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: sub@scirp.org

COPYRIGHT

Copyright and reuse rights for the front matter of the journal:

Copyright © 2017 by Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY).

<http://creativecommons.org/licenses/by/4.0/>

Copyright for individual papers of the journal:

Copyright © 2017 by author(s) and Scientific Research Publishing Inc.

Reuse rights for individual papers:

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

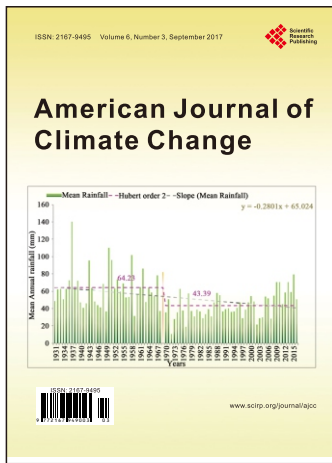
Disclaimer of liability

Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

PRODUCTION INFORMATION

For manuscripts that have been accepted for publication, please contact:

E-mail: ajcc@scirp.org



American Journal of Climate Change(AJCC)

ISSN: 2167-9495 (Print) ISSN: 2167-9509 (Online)
Http://www.scirp.org/journal/ajcc

American Journal of Climate Change (AJCC) is an international scientific journal dedicated to the publication of high-quality research articles, short communications and review papers on all aspects of climate change and related areas. The objectives of this journal are to chronicle the important publications in the rapidly growing field of climate change and to stimulate research in the area.

Subject Coverage

All manuscripts must be prepared in English, and are subject to a rigorous and fair peer-review process. Accepted papers will immediately appear online followed by printed hard copy. Topics to be covered by this journal include, but are not limited to the following fields:

- ◆ Advanced Statistical Tools and Methods in Climate Change
- ◆ Air Pollution and Climate Change
- ◆ Atmospheric and Marine Sciences
- ◆ Boundary-Layer Meteorology
- ◆ Climate and Earth System Modeling
- ◆ Climate Change Economics
- ◆ Climate Dynamics
- ◆ Climate Policy
- ◆ Earth Observation and Data Assimilation
- ◆ Environmental and Resource Science
- ◆ Global Change Ecology
- ◆ Hurricanes and Other Extreme Events
- ◆ Hydrology and Limnology
- ◆ Impacts of Climate Change on the Cryosphere
- ◆ Meteorology and Atmospheric Physics
- ◆ Natural and Anthropogenic Climate Forcing Attribution
- ◆ Numerical Methods in Climate Research
- ◆ Paleoclimate Analysis and Interpretation
- ◆ Remote Sensing & Geoinformatics
- ◆ Renewable Energy
- ◆ Sustainable Agriculture, Forestry, and Soil Science
- ◆ Sustainable Development
- ◆ Theoretical and Applied Climatology
- ◆ Volcanology

We are also interested in: 1) Short Reports—2-5 page papers where an author can either present an idea with theoretical background but has not yet completed the research needed for a complete paper or preliminary data; 2) Book Reviews—Comments and critiques.

Notes for Intending Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. Paper submission will be handled electronically through the website. All papers are refereed through a peer review process. For more details about the submissions, please access the website.

Website and E-Mail

<http://www.scirp.org/journal/ajcc>

E-mail: ajcc@scirp.org

What is SCIRP?

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science with its publication.

What is Open Access?

All original research papers published by SCIRP are made freely and permanently accessible online immediately upon publication. To be able to provide open access journals, SCIRP defrays operation costs from authors and subscription charges only for its printed version. Open access publishing allows an immediate, worldwide, barrier-free, open access to the full text of research papers, which is in the best interests of the scientific community.

- High visibility for maximum global exposure with open access publishing model
- Rigorous peer review of research papers
- Prompt faster publication with less cost
- Guaranteed targeted, multidisciplinary audience



**Scientific
Research
Publishing**

Website: <http://www.scirp.org>

Subscription: sub@scirp.org

Advertisement: service@scirp.org