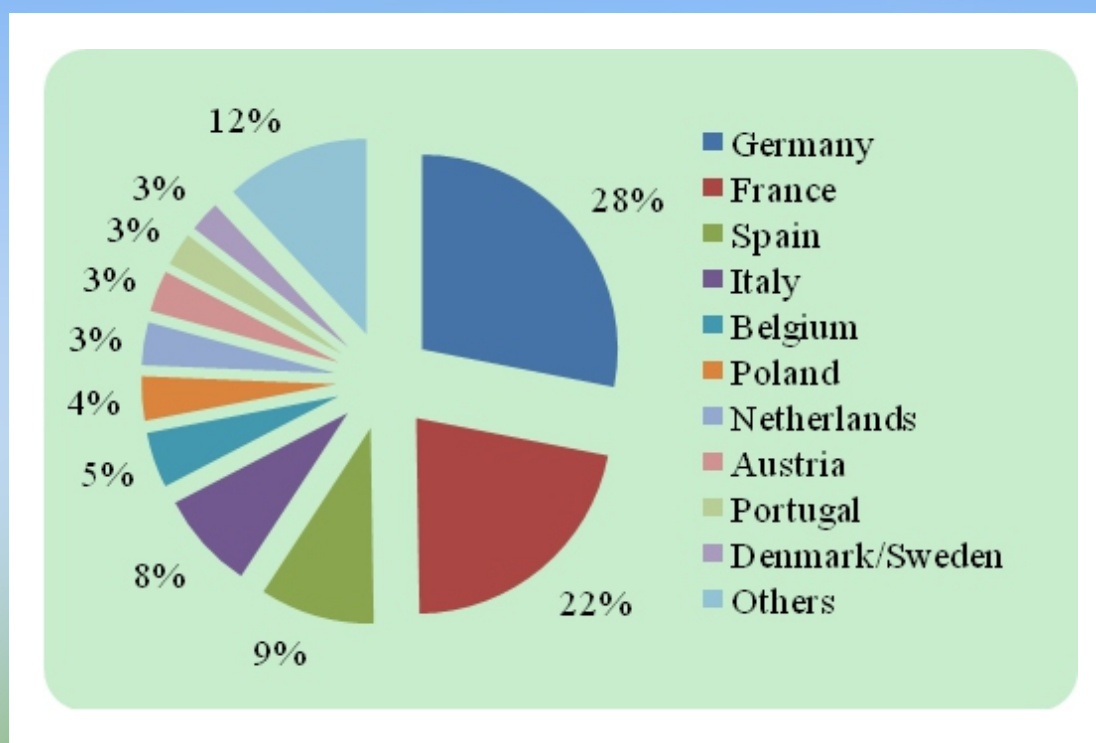


# Low Carbon Economy



ISSN: 2158-7000



# Journal Editorial Board

ISSN: 2158-7000 (Print) ISSN: 2158-7019 (Online)

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

---

## Editor-in-Chief

**Prof. Andrea Baranzini**

Haute Ecole de Gestion de Genève, Switzerland

## Editorial Board

**Dr. Alireza Afshari**

Aalborg University, Denmark

**Prof. Jeroen van d. Bergh**

Autonomous University of Barcelona, Spain

**Prof. Xiaoqiang Cai**

Chinese University of Hong Kong, China

**Prof. Carlo Carraro**

Ca' Foscari University of Venice, Italy

**Prof. Heekyu Choi**

Changwon National University, Korea (South)

**Dr. Dabo Duan**

University of Cambridge, UK

**Prof. Emmanuel Fragniere**

Geneva school of Business administration, Switzerland

**Dr. Joshua S. Fu**

University of Tennessee, USA

**Prof. José Goldemberg**

University of São Paulo, Brazil

**Prof. Richard B. Howarth**

Dartmouth College, USA

**Prof. Angel Irabien**

University of Cantabria, Spain

**Dr. Shun-Chung Lee**

National Cheng Kung University, Chinese Taipei

**Dr. Junfeng Liu**

Princeton University, USA

**Prof. Axel Michaelowa**

University of Zurich, Switzerland

**Prof. Janet Milne**

Vermont Law School, USA

**Dr. Luis Mundaca**

Lund University, Sweden

**Dr. Sunil Nautiyal**

Institute for Social and Economic Change, India

**Prof. Giancarlo Tosato**

Energy Models Studio, Italy

**Prof. Yundong Wang**

Tsinghua University, China

**Prof. Yiming Wei**

Beijing Institute of Technology, China

**Dr. Harold L. Wilhite**

University of Oslo, Norway

**Dr. Zhongxiang Zhang**

East-West Center, USA

## Editorial Assistant

**Judy Liu**

Scientific Research Publishing

Email: [lce@scirp.org](mailto:lce@scirp.org)

## TABLE OF CONTENTS

**Volume 2    Number 3**

**September 2011**

**Combining Steel and Chemical Production to Reduce CO<sub>2</sub> Emissions**

J. Arvola, J. Harkonen, M. Mottonen, H. Haapasalo, P. Tervonen.....115

**The Relationship between Energy Literacy and Environmental Sustainability**

C. Dwyer.....123

**Biodiesel for Sustainable Energy Provision in Developing Countries**

M. T. Oladiran, J. Gandure.....138

**Towards Green Remediation: Metal Phytoextraction and Growth Analysis of *Sorghum bicolor* under Different Agronomic Management**

G. Fellet, L. Marchiol.....144

**Transportation's Impact Assessment on Construction Sector**

N. A. Utama, K. N. Ishihara, T. Tezuka, Q. Zhang, M. Esteban.....152

**Assessment of Carbon Dioxide Reduction Efficiency Using the Regional Carbon Neutral Model—A Case Study in University Campus, Taiwan**

C.-Y. Chung, P.-L. Chung.....159

**Energy and Carbon Modeling with Multi-Criteria Decision-Making towards Sustainable Industrial Sector Development in Thailand**

A. Phdungsilp, T. Wuttiornpun.....165

**Opportunities for Sustainable Low Carbon Energy Research Development and Applications**

A. M. Omer.....173

---

The figure on the front cover is from the article published in Low Carbon Economy, 2011, Vol. 2, No. 3, pp. 138-143 by Moses Tunde Oladiran, Jerekias Gandure.

# **Low Carbon Economy**

## **Journal Information**

### **SUBSCRIPTIONS**

*Low Carbon Economy* (Online at Scientific Research Publishing, [www.SciRP.org](http://www.SciRP.org)) is published quarterly by Scientific Research Publishing, Inc., USA.

#### **Subscription rates:**

Print: \$39 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: [sub@scirp.org](mailto:sub@scirp.org)

### **SERVICES**

#### **Advertisements**

Advertisement Sales Department, E-mail: [service@scirp.org](mailto:service@scirp.org)

#### **Reprints (minimum quantity 100 copies)**

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

E-mail: [sub@scirp.org](mailto:sub@scirp.org)

### **COPYRIGHT**

Copyright©2011 Scientific Research Publishing, Inc.

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as described below, without the permission in writing of the Publisher.

Copying of articles is not permitted except for personal and internal use, to the extent permitted by national copyright law, or under the terms of a license issued by the national Reproduction Rights Organization.

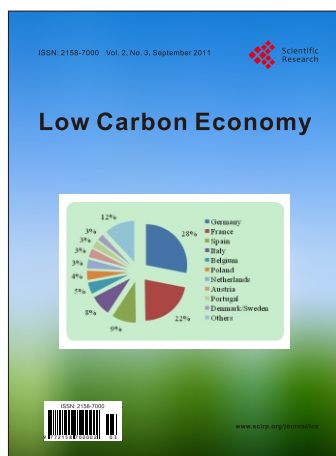
Requests for permission for other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works or for resale, and other enquiries should be addressed to the Publisher.

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 assumes 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: [lce@scirp.org](mailto:lce@scirp.org)



# Low Carbon Economy

ISSN: 2158-7000 (Print) ISSN: 2158-7019 (Online)

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

**Low Carbon Economy (LCE)** is a peer reviewed international journal dedicated to the latest advancement of low carbon economy. The goal of this journal is to keep a record of the state-of-the-art research and to promote study, research and improvement within its various specialties.

## Editor-in-Chief

**Prof. Andrea Baranzini**

Haute Ecole de Gestion de Genève, Switzerland

## Editorial Board

**Dr. Alireza Afshari**  
**Prof. Jeroen van d. Bergh**  
**Prof. Xiaoqiang Cai**  
**Prof. Carlo Carraro**  
**Prof. Heekyu Choi**  
**Dr. Dabo Duan**  
**Prof. Emmanuel Fragniere**  
**Dr. Joshua S. Fu**

**Prof. José Goldemberg**  
**Prof. Richard B. Howarth**  
**Prof. Angel Irabien**  
**Dr. Shun-Chung Lee**  
**Dr. Junfeng Liu**  
**Prof. Axel Michaelowa**  
**Prof. Janet Milne**  
**Dr. Luis Mundaca**

**Dr. Sunil Nautiyal**  
**Prof. Giancarlo Tosato**  
**Prof. Yundong Wang**  
**Prof. Yiming Wei**  
**Dr. Harold L. Wilhite**  
**Dr. Zhongxiang Zhang**

## 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. The journal publishes original papers including but not limited to the following fields:

- carbon markets and carbon taxation
- clean development mechanism, joint implementation, emissions trading
- corporate low carbon strategies
- ecological consumer behaviour
- ecological reforms
- energy management
- environmental and clean technologies
- fossil fuels resources and consumption, markets and policies
- green economy and sustainable development
- low carbon public policies at different scales, from local to international

LCE publishes different types of papers: applied research articles are original academic contributions analysing a specific topic or issue and discussing the policy implications; case-studies discuss an in-depth investigation of a firm(s) or country(ies) initiative; surveys, which present the state-of-the-art of the literature on a specific topic or issue; short position papers, which are mostly related to very specific policy issues. we also publish Special Issues on specific topics.

## Notes for Intending Authors

Your paper should not have been previously published or be currently under consideration for publication any place else. Submit your paper electronically through the LCE online system. All papers are subject to peer review. After your paper has been accepted, you must sign a copyright transfer agreement with LCE. Papers accepted for publication will be available free online. A fee will be charged to cover the publication cost. Manuscripts must be written in English.

## Website and E-Mail

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

E-mail: [lce@scirp.org](mailto:lce@scirp.org)