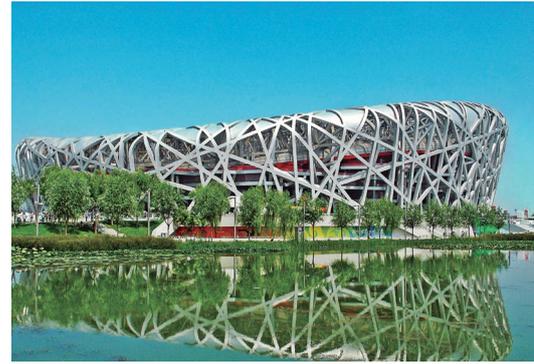


Resource Efficiency: Economics and Outlook for China



Resource Efficiency: Economics and Outlook for China

James West, Heinz Schandl, Sonja Heyenga

Commonwealth Scientific and Industrial Research Organisation
(CSIRO), Australia

Shaofeng Chen

Institute of Policy and Management (IPM), Chinese Academy of
Sciences (CAS)



Citation

West J, Schandl H, Heyenga S and Chen S (2013). Resource Efficiency: Economics and Outlook for China. UNEP, Bangkok, Thailand.

© 2013 United Nations Environment Programme

ISBN : 978-92-807-3318-1

Job No: DEW/1632/BE

Disclaimer

The content and views expressed in this publication are those of the authors and do not necessarily reflect the views or policies, or carry the endorsement of the contributory organizations -the Commonwealth Scientific and Industrial Research Organisation (CSIRO) or the United Nations Environment Programme (UNEP).

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of UNEP concerning the legal status of any country, territory or city or its authorities, or concerning the delimitation of its frontiers and boundaries. Reference to a commercial company or product in this publication does not imply the endorsement of UNEP.

© Photos as specified

Cover images (clockwise from top left): nipic

Reproduction

This publication may be reproduced in whole or in part and in any form for educational or non-profit purposes without special permission from the copyright holder, provided acknowledgement of the source is made. UNEP would appreciate receiving a copy of any publication that uses this publication as a source.

No use of this publication may be made for resale or any other commercial purpose whatsoever without prior permission in writing from UNEP. Applications for such permission, with a statement of purpose and intent of the reproduction, should be addressed to the Director, Division of Communications and Public Information (DCPI), UNEP, P.O. Box 30552, Nairobi 00100, Kenya.

The use of information from this publication concerning proprietary products for publicity or advertising is not permitted.

Production

UNEP Division of Early Warning and Assessment

United Nations Environment Programme

Regional Office for Asia and the Pacific

U.N. Building 2nd floor, Rajdamnern Nok Avenue

Bangkok 10200, Thailand

Tel: +662-288-2617/1133, Fax: + 662-280-3829

E-mail: unepub@unep.org

Web: www.unep.org/roap

Resource Efficiency: Economics and Outlook for China

Published: July 2013

Website: www.unep.org

Project coordinator/editor: Jinhua Zhang, Anna Stabrawa/UNEP

Cover design and layout by Yi Zhang

Printed in China by Qiushi Printing

Translated into Chinese by Shaofeng Chen, Liyang Su, Haibo Qin, Lihua Liang, Yang Liu, Wenjing Yue, Hongxia Zheng, Mingqi Pan, Qian Chen, Mingjing Qiu

UNEP promotes environmentally sound practices globally and in its own activities. This publication is printed on 100% recycled paper, using vegetable-based inks and other eco-friendly practices. Our distribution policy aims to reduce UNEP's carbon footprint.



China's dramatic economic growth over the past few decades has increased demands for natural resources within and beyond the country itself in ways that are unprecedented in human history.

While that growth has lifted millions out of poverty it has also come with rising environmental challenges linked to the extracting, processing and use of those natural resources in areas from construction to power generation.

But as this report shows, there are other ways of looking at this development trajectory including the fact that when compared with the global and regional picture, China's track record in improving resource efficiency has been in some cases among the best on the globe.

China's energy efficiency for example, improved over the 1970 to 2009 period at an annual compound growth rate of just over 3.9%, exceeding the global performance of just under 0.7% and that for the Asia Pacific region as a whole which was 0.13%.

These are among the findings of the Resource Efficiency: Economics and Outlook for China which is a joint report of UNEP and its regional partners, the Commonwealth Scientific and Industrial Research Organisation (CSIRO)/

Australia and the Institute of Policy and Management (IPM), Chinese Academy of Sciences (CAS).

It underlines that China has in the past few years introduced a considerable number of policies in areas from renewable energies to vehicle emissions standards that are contributing to boosting resource efficiency and assisting towards a transition to green economy and an ecological civilization. The effects of many of these policies will however only become apparent in the years ahead.

The report also underlines that China, in common with other emerging economies needs to make significant investments not only in more resource-efficient infrastructure such as energy saving buildings, but also in human capital and governance capacity if far greater resource efficiency and a transition to a sustainable economic model is to be truly realized.

China's development path is also in part the world's development path given the country's influence on markets and sustainability across the globe.

This report can contribute to greater understanding of what China has already achieved and the challenges and opportunities for improving resource efficiency and 'decoupling' of economic growth from natural resources use in the years and decades to come.

A handwritten signature in black ink, appearing to read 'Achim Steiner'.

Achim Steiner

United Nations Under-Secretary-General and
Executive Director
United Nations Environment Programme