



The Association of Academies of Sciences in Asia (AASA)

TOWARDS A SUSTAINABLE ASIA

THE CULTURAL PERSPECTIVES



Science Press
Beijing



Springer

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Author

The Association of Academies of Sciences in Asia (AASA)
KAST Building, 7-1, Gumi-Dong
Bundang-Gu
Seongnam-Shi
Gyunggi-Do, 463-808
Republic of Korea
E-mail: aasa@kast.or.kr

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Project Team of “Sustainable Development in Asia” of the AASA

Project Co-Chairs

Yi Wang	Institute of Policy and Management, CAS
Namık K. Aras	Turkish Academy of Sciences

Group Coordinators

Energy

Luguang Yan	Institute of Electrical Engineering, CAS
Seung Mo Oh	Seoul National University

Environment and Climate Change

Gensuo Jia	Institute of Atmospheric Physics, CAS
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Lei Shen	Institute of Geographic Sciences and Natural Resources Research, CAS
Cahit Helvacı	Geology Department, Dokuz Eylül University

Culture

Baichun Zhang	Institute for the History of Natural Science, CAS
Mehmet Özdogan	Prehistory Section, University of Istanbul
Andrei V. Tabarev	Russia Institute of Archaeology & Ethnography

Project Office

Zhenyu Wang	Bureau of International Cooperation, CAS
Shaofeng Chen	Institute of Policy and Management, CAS
Yu Chen	Bureau of International Cooperation, CAS
Weiwei Liu	Bureau of CAS Membership, CAS
Mingqi Pan	Institute of Policy and Management, CAS

Thematic Report of the AASA Project “Sustainable Development in Asia”

TOWARDS A SUSTAINABLE ASIA: THE CULTURAL PERSPECTIVES

Lead Author

Xiongsheng Zeng

Institute for the History of Natural Science, CAS, China

Contributors

Andrew M. Watson

Department of Economics, University of Toronto, Canada

Duk Kyung Choi

History Department of Pusan National University, Rep. of Korea

Mitsutoshi Tokunaga

Osaka University of Economics, Japan

Luling Wei

South China Agricultural University, China

Y. L. Nene

Asian Agri-History Foundation, India

Bo Ren

University of Nottingham

Gengpan Li

Institute of Economics of Chinese Academy of Social Science (CASS), China

Chenggui Li

Rural Development Institute of Chinese Academy of Social Science, China

Qingwen Min

Institute of Geographic Sciences & Natural Resources Research, CAS, China

Wangsheng Xu

China Agricultural Museum, China

Huoqi Yan

Nanjing Agricultural University, China

Lingfu Li

Shaanxi Normal University, China

Zhijun Zhao

Institute of Archaeology, CASS, China

Yu Liu

Institute of Archaeology, CASS, China

Rongguang Huang

Institute for the History of Natural Science, CAS, China

Yichao Wang

Capital Mountain Rural Development Research Center, China

Xinhao Du

Institute for the History of Natural Science, CAS, China

Jianting Yang

Hebei University, China

Reviewers

Baichun Zhang

Institute for the History of Natural Science, CAS, China

Yi Wang

Institute of Policy and Management, CAS, China

Namık K. Aras

Turkish Academy of Sciences, Turkey

Foreword

Asia is not only the largest and most populated continent in the world, but also the region with the most diverse development models and most dynamic economies. In the past half century, Asia has been witnessing rapid economic growth and playing an increasingly more important role in world's political and economic arena. At the same time, Asia has developed the commonly-called "Asia Model", which has attracted worldwide attention. The Asia Model shows a new way for the developing nations or late-development countries on how to realize industrialization and modernization. All these achievements are made by Asian countries with a focus on the advantages of their late development, re-examination of their internal cultural values, active absorption of modern S&T and management experiences and constant exploration and innovation.

These social progresses have made great contributions to the realization of the UN Millennium Development Goals and have played a pioneering and demonstration role on what can be accomplished in today's world. However, Asia is facing big challenges. The most prominent one is that the rapid development of Asian economies is based on large input of production factors at the huge expense of natural resources and environment, which has been sharpening the conflicts in population, resources, environment, socio-economic development. The sustainable development in the region is being severely threatened and challenged. The rethinking and questioning of the Asia Model in the international community is growing especially in the era of post Asia Financial Crisis and Global Financial Crisis.

It is not only a common challenge for the governments of Asian countries, but also a common task for the Asian scientific communities to cope with the resources and environment crisis and to seek a new way of sustainable development in Asia. AASA, as a non-governmental and regional international scientific organization with 26 member academies, is mandated to initiate and conduct investigation on issues concerning S&T, economic and social development. As early as April 2007, AASA proposed to initiate a project on "Sustainable Development in Asia" (SDA) within AASA framework in the hopes to provide consultation and advice for national and regional governments in Asia and relative international organizations. This study proposal was approved at AASA board meeting held in Russia in August 2007 with the Chinese Academy of Sciences as the initiator. The project covers environment, energy,

resources and culture with the establishment of four working groups among AASA member academies.

Soon after, the SDA project was officially launched and implemented at different levels. The efforts include the clarification of the research content, emphasis, structure and division of tasks. Various meetings at the working level and international workshops have been held to coordinate the research activities and project progress: the first international workshop under this project was held in February 2008; the AASA Workshop on Sustainable Energy Development in Asia in November 2008; the AASA Workshop on Agricultural Culture and Asian Sustainable Development in August 2009; and the AASA Workshop on Environment and Resources in September 2009.

With the joint efforts of AASA member academies, the SDA project has now come up with a series of studies including four thematic reports, namely, “Towards a Sustainable Asia: Energy”, “Towards a Sustainable Asia: Environment and Climate Change”, “Towards a Sustainable Asia: Natural Resources”, and “Towards a Sustainable Asia: The Cultural Perspectives”. Based on these four reports, a synthesis report has also been written entitled: “Toward a Sustainable Asia: Green Transition and Innovation”. All these reports have looked deeply into the common issues and challenges for the Asian sustainable development from different perspectives.

The synthesis report is an integration and extension of the four thematic reports. It aims at the major resource and environmental challenges and issues in Asia in the general context of the challenges of financial crisis and climate change, and in line with green transition and innovation in Asia. Of its major findings, it includes: the diagnosis of key resource and environmental issues in Asia, such as water, minerals, land resource, environmental pollution, eco-degradation, energy and environment and climate change, the revelation and reflection of the diverse, different, complicated and severe nature of resource and environmental issues in Asia, the systematic analysis of the main driving forces and future trends of resource and environmental changes in Asia, the empirical analysis and discretion of current evolution of the relationship between environment and development in Asia with the establishment of theoretical and conceptual models, the initiation of principals, strategic framework, focus and advice for promoting the green development of Asia on the basis of summarizing Asia’s advantages and disadvantages.

The synthesis report differs from other similar reports. It focuses more on the combination of theoretical and empirical research in the evolution of environment and development, on the combination of trends analysis in time series and comparative study at spatial scale, and on the combination of Asia’s integrated analysis and regional and national differences. Besides, attempts have been made here on the innovative modeling of the evolutionary and theoretical relationship between environment and development, analysis of the driving

forces in environmental evolution, and utilization of newly developed composite index to conduct empirical research of Asia's environment and development relation in the evolution.

We hope the reports will be of good value to the facilitation of the green development in Asia, providing advice on dealing with the shortage of conventional resources, environment pollution and climate change, fostering new economic growth and enhancing Asia's competitive advantages. This is the first time that AASA has ever undertaken such a study, and it surely leaves grounds for more detailed study and analysis of various issues and challenges that Asian countries face in the future.

The SDA project is sponsored by AASA. I want to give my special thanks to all AASA member academies for their consistent support, advice and assistance, without which, the accomplishment of such an internationally interdisciplinary scientific project would be impossible. My thanks also go to all the members in the working groups, especially Professors Namık Aras and Yi Wang, co-chairs of this study, without whom, efficiency and quality of the study would not be guaranteed. I also need to thank United Nations Environment Programme (UNEP), InterAcademy Council (IAC) and InterAcademy Panel (IAP) etc. for providing us the references and various advice and inspirations. Last but not the least, I want to express my thanks to all friends and the institutions that have rendered us encouragement and assistance all the way along.

The SDA project features with a wide range of fields and a huge amount of data, some of which are still in their early stage of development. Any comments or suggestions from our friends and various international institutions are warmly appreciated.

Prof. Jinghai Li

President

The Association of Academies of Sciences in Asia (AASA)

September 20, 2010

Preface

Sustainability is more about resources, energy and environment, but at the same time it also concerns with culture. In the back of their different cultures, people hold different attitudes towards resources and environment and they also differ in the ways, efficiency, scale and duration of resource utilization. Thus, the pressure they get from resources and environment is also different.

With the view that sustainable development in Asia can not depend solely on local economic breakthroughs but should be based on a more extensive cultural foundation and a wider strategy in future, the Association of Academies of Sciences in Asia (AASA) launched a study project entitled “Sustainable Development in Asia”. In this project culture is considered as one of the key elements of sustainable development, like resources, energy and environment.

As is well known, Asia is still a basically agricultural society, and agriculture is Asia’s biggest cultural legacy. Sustainable development in Asia is relied on the resolution of issues such as farming, the farmer and rural areas. In this study, we focused on the farming culture of Asia, attempting to reveal the secret of how Asian people fed the bulk of the population in the world over a long stretch of history. We sum up their experience, discuss the lessons learned, and make proposals for sustainable development through the overall description and analysis of the history and culture of agriculture in Asia.

We chose East Asia, South Asia and West Asia as the main regions for this study and invited productive scholars in these fields to discuss the problem within the framework of farming culture in Asia.

We organized a successful international conference on farming culture and sustainable development, which was held in Beijing in August 2009. Scholars were invited from China, Japan, Rep. of Korea, Canada, India and other countries. This was the first conference held in China on this subject and indeed very few conferences with this focus have been held in other countries. The collected papers presented at the colloquium will be published soon by the China Agricultural Press under the title of Agriculture in Asia: Past, Present and