



Promoting Reduce, Reuse, and Recycle in South Asia

Synthesis Report of 3R South Asia Expert Workshop
Kathmandu, Nepal, 30 August – 1 September 2006

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3R South Asia Expert Workshop

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List of Abbreviations

ADB	Asian Development Bank
AIDS	Acquired Immunodeficiency Syndrome
AIT	Asian Institute of Technology
BAN	Basel Action Network
BETL	The Burns Environmental and Technologies Ltd.
BHU	basic health unit
CBO	community-based organization
CDM	Clean Development Mechanism
CE	circular economy
CP	Cleaner Production
CPCB	Central Pollution Control Board
CPP	Cleaner Production Program
CRT	cathode ray tube
CSO	civil society organization
DANIDA	Danish International Development Agency
DoE	Department of Environment
EPR	extended producer responsibility
FDI	foreign direct investment
HCF	health care facility
HIV	human immunodeficiency virus
IFI	international finance institution
IV	intravenous
MCGM	Municipal Corporation of Greater Mumbai
MoFE	Ministry of Forestry and Environment
MSW	municipal solid waste
MWM	medical waste management
NCT	National Capital Territory
NEA	National Environmental Act
NEC	National Environment Commission
NEP	National Environmental Policy
NGO	nongovernment organization
NRe	Nepalese rupee
ODA	official development assistance
PCB	printed circuit board or Polychlorinated Biphenyl
PEPO	Pakistan Environmental Protection Ordinance
PRC	People's Republic of China
PRe	Pakistan rupee
psi	pounds per square inch
R&D	research and development
RGOB	Royal Government of Bhutan
Re	Indian rupee
SAARC	South Asian Association for Regional Cooperation
SACEP	South Asia Co-operative Environment Programme
SEF	Save the Environment Foundation
SOM	senior official meeting
SWM	solid waste management

SWMRM	solid waste management and resource mobilization
SWMRMC	Solid Waste Management and Resource Mobilization Center
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNEP- RRC.AP	United Nations Environment Programme, Regional Resource Centre for Asia and the Pacific
UNEP-DTIE	United Nations Environment Programme, Division of Technology, Industry, and Economics
UNIDO	United Nations Industrial Development Organization
URC	Urban Resource Centre
USEPA	United States Environmental Protection Agency
WEEE	waste electronic and electrical equipment
WHO	World Health Organization
WWF-P	World Wildlife Fund – Pakistan
3Rs	reduce, reuse, and recycle (principle of)

NOTE

In this report, \$ refers to US dollars.

Preface

The South Asia subregion includes Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. It occupies 4.8% of the world's total land area. Approximately 1.33 billion people live in South Asia—a third of all Asians and a fifth of the population of the earth.

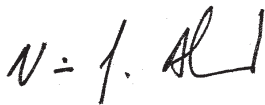
The South Asian economy has grown at an average of 5.3% during the period 1990–2000 and is projected to grow at a similar rate in 2000–2015. Increasing population, urbanization, and industrialization, together with rising and changing consumption patterns in the subregion, are generating significantly increasing amounts of solid waste which are, in many instances, overwhelming the capacity of national and municipal governments. Key problems associated with increased solid waste include improper disposal of municipal solid waste, increasing proportions of toxic chemicals in industrial waste, hazardous hospital waste which is improperly managed, large quantities of electronic waste, and other forms of hazardous waste. For example, e-waste generated by discarded computers, mobile phones, batteries, and other electronic goods is a growing concern in South Asia, and no specific laws and guidelines presently deal with these wastes. Improper management of solid waste leads to contamination of the air, water, and soil environments and to associated impacts on human health.

To discuss how to cope with these steadily increasing problems in waste management and how to advance the 3R initiative in the region, the South Asia 3R Expert Workshop was co-organized by the Institute for Global Environmental Strategies (IGES), the Asian Development Bank (ADB), and the United Nations Environment Programme (UNEP) at the International Centre for Integrated Mountain Development (ICIMOD) in Kathmandu, Nepal from 30 August to 1 September 2006. Over 40 3R experts from research organizations, international organizations, governments, and nongovernment organizations (NGOs) gathered to discuss solid waste management issues and to review in-depth the promotion of the 3R initiative in South Asia.

The workshop was very successful in achieving the multiple objectives of: 1) in-depth discussion of solid waste management issues in South Asia, 2) in-depth review of selected issues related to the promotion of 3R in the region, 3) sharing experiences and knowledge among the countries of the subregion, and 4) identifying the route forward to widespread achievement of the 3Rs. The results of the workshop will be presented at the Asia 3R Conference in Tokyo from 30 October to 1 November 2006.

The purpose of this report is to show the results of this very successful workshop and to be a useful source of information on 3R promotion in South Asia for policy makers, international organizations, NGOs, and academia. For this purpose, eminent international experts on the 3R initiative have contributed their time to review the possibilities of implementing the 3Rs in South Asia.

The organizers wish to thank the participants of the workshop for their valuable discussion and contribution to the workshop, and especially the session coordinators who dedicated their time, knowledge, and experience to the preparation of the workshop and the finalization of this report. Without their commitment this workshop could not have been so successful. The organizers would also like to express their gratitude for the support and hospitality from the Ministry of the Environment, Japan; the Ministry of Environment, Science and Technology, Nepal; and the International Centre for Integrated Mountain Development (ICIMOD).



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Introduction

ACTIVITIES OF THE WORKSHOP

The activities and structure of the workshop are briefly introduced in this section. The workshop was held from 30 August to 1 September 2006 at the International Centre for Integrated Mountain Development (ICIMOD) in Kathmandu, Nepal, and was attended by 43 participants, including country representatives and experts from the South Asian countries of Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri Lanka, and experts from other countries and representatives from international partners such as the Asian Development Bank (ADB), Institute of Global Environmental Strategies (IGES), ICIMOD, Japan Bank for International Cooperation (JBIC), South Asia Co-operative Environment Programme (SACEP) United Nations Centre for Regional Development (UNCRD), and United Nations Environment Programme (UNEP). The program and the list of participants are in the Annex.

Opening Session: The honorable Minister Mangal Siddhi Manandhar, Ministry of Education and Sports, Nepal, in his welcome comments, stressed the importance of education in achieving the objectives of the 3R initiative. In the opening remarks, Mr. Surendra Shrestha, Regional Director of United Nations Environment Programme (UNEP) Regional Office for Asia and the Pacific, provided the overview of the global environmental challenges and highlighted the best practices and policy responses in Asia and the Pacific. This was followed by welcome remarks from Dr. Madhav Karki, Director of ICIMOD (the workshop's host organization) and Mr. Ki Hee Ryu, Nepal Resident Mission, ADB (co-organizer of the workshop). A keynote address was delivered by Mr. Hideyuki Mori, Vice-President of IGES; and Professor C. Visvanathan from the Asian Institute of Technology presented key issues on the 3R Initiative and the status of the 3Rs in waste management in South Asia. Following the keynote address, representatives of five South Asian participating nations gave presentations on the status of the 3Rs in their respective countries.

Plenary Core Sessions: The current status and future challenges for achieving the 3Rs were then addressed in four plenary core sessions of the workshop on the subjects of Domestic Solid Waste Management, Industrial Waste Management, Medical Hazardous Waste Management, and E-waste Management. Each session consisted of a primary presentation by a leading expert in the field, covering the overall perspective of the issues and the solutions achieved to date and prospects for the future. In each session, secondary speakers addressed either specialized aspects of the issue or its status in specific locations. Finally, animated discussions on the subject involved the full audience of workshop participants.

Working Group Sessions: The four core sector sessions were followed by three concurrent working group sessions on 3R Innovative Practices in 1) the Social Dimension, 2) the Financial and Economic Dimension, and 3) the Technological Dimension. These smaller working groups met in a roundtable format to examine priority actions for 3Rs in South Asia, focusing on actions possible in their particular dimension for the four sectors covered in the initial core sessions. The sum of the reports of these working groups presented the issues and their solutions in a matrix of programmatic sectors (e.g., social, financial and economic, and technological) by waste sectors (e.g., municipal, industrial, medical, and electronic).

Plenary Discussion Session: Following the plenary reports of the three working groups, a concluding session presented a summary of the workshop and strategic recommendations drawn from the discussions. These strategic recommendations addressed routes for the future and key actions and elements needed to make achievement of the 3R initiative possible. A draft summary of the workshop, including the strategic recommendations, was discussed.

STRUCTURE OF THE REPORT

This report provides the essence of the workshop presentations and discussions, as summarized by the session coordinators. All materials presented and discussed are viewable and downloadable at the workshop website (<http://www.iges.or.jp/en/ltp/activity08.html>).

Chapter 1 : Summary Report

After the workshop, Prof. Visuvanathan took the lead in preparing the summary report of the workshop in Chapter 1, based on the draft workshop summary discussed at the plenary session and incorporating comments from the participants.

Chapter 2 : Promoting the 3Rs in South Asia: Issues and Possible Solutions

Overview of the 3Rs in South Asia based on background paper enhanced with inputs from participants of the workshop is presented in the Chapter 2. Each coordinator of the four core plenary session dealing with selected subject areas has developed a report on his respective subject, which are also presented in Chapter 2. These reports were based on the presentations made at the workshop and included session coordinators' key presentations and discussions in the sessions.

Chapter 3 : Promoting 3R Activities in South Asia: Priority Action Areas

Each coordinator of the three parallel working group sessions dealing with cross-cutting issues summarized the work-group discussions on the priority actions for the next decade to promote 3Rs into the reports presented in Chapter 3. These reports are derived from the session summary papers developed and discussed in the workshop.

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