

MAKING PROFITS, PROTECTING OUR PLANET

CORPORATE RESPONSIBILITY FOR ENVIRONMENTAL PERFORMANCE IN ASIA AND THE PACIFIC

ASIAN **2005** ENVIRONMENT OUTLOOK

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Asian Development Bank

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Preface

An economic revolution is sweeping through Asia and the Pacific, led largely by the world's two population superpowers: the People's Republic of China (PRC) and India. Today, there are 250 million and 300 million people from the PRC and India, respectively, that have joined the world's middle class, and it is estimated that the ranks of these consumers will swell to 500 million in each country—one billion people—by 2020.

This economic revolution has created a large new market for goods and services, and it has the potential to lift hundreds of millions more out of poverty. It presents huge opportunities for entrepreneurs, government leaders, and private citizens. But as the authors of this report observe, this phenomenal economic growth will put greatly increased pressure on natural systems and the assimilative capacity of the planet.

No individual, organization, or government can stop the grand economic revolution underway in this region. Nor should anyone attempt to slow down this growth. The hundreds of millions of people still living in poverty in Asia and the Pacific are entitled to a better quality of life.

But if the region's leaders use yesterday's technology and antiquated thinking to drive this economic revolution, environmental degradation is likely to increase so dramatically that public health and ecosystems are placed at severe risk. If they turn instead to the best available technologies and environmental management approaches, these threats to the very foundation of the economic miracle can be minimized. Only if governments and the corporate sector take such steps can societies in Asia and the Pacific, and the entire world, enjoy the benefits of economic success without placing the public and the natural environment at risk.

The authors remain optimistic that good governance, strong management, true entrepreneurial spirit, and an increasingly aware and environment-conscious public can combine to retain the benefits of rapid economic growth while protecting the environment and human welfare. Much of the world is moving rapidly beyond the industrial economy toward a knowledge-based society and economy. This has the potential to enable Asia and the Pacific to meet its poverty reduction goals and improve the quality life for all.

The relatively narrow “cleaner production” approach has been used for a decade to characterize goals and methods for achieving environmentally beneficial productivity gains for the private sector. Indeed, the Asian Development Bank (ADB) has supported a variety of policy and technical measures to promote cleaner production, having contributed more than \$10 million in grants for technical assistance projects and lending some \$3.3 billion for projects with cleaner production components over the past 15 years.

Our conviction that something more than this approach is now needed to respond to the unprecedented environmental strains facing our region—combined with the need for a better understanding of the private sector's role—led to our commissioning of the *Asian Environment Outlook 2005*. Its analysis shows that the chance for a firm to improve its eco-efficiency is only a relatively minor part of the newly emerging reasons for the private sector to pay far greater attention to environmental performance.

For too long the region's leaders across the public, private, and civil spheres have failed to give the environment the serious consideration it deserves. Environmental laws are in place, but often, they are not enforced. Cleaner technology is available, yet society fails to invest in it. Environmental goods and services create new market opportunities, but only a few entrepreneurs have seized them. Many are so busy getting rich that they ignore storm clouds on the horizon that may wash away the very basis of their prosperity.

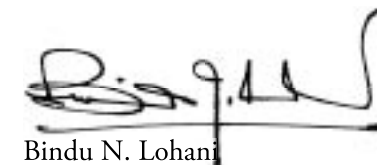
Government leaders should stop blaming industry for all environmental degradation. They need to create an enabling environment that will unleash the creative and entrepreneurial spirit within the business sector to conduct business in an environmentally responsible manner.

Business leaders should stop placing the burden for environmental protection on governments. They need to invest in new cleaner production processes, invent new manufacturing methods and products, and manage their entire supply chain. If they fail, the rising Asian middle class and consumers in North America and Europe will be less inclined to buy their products. Those who innovate and provide value will capture market share. Today's polluters will be tomorrow's dinosaurs.

Civil society should work with both government and business to stop environmental degradation. In democratic societies, the public should use its voting power to support leaders protecting the environment. It should use its purchasing power to support companies providing more environment-friendly goods and services. And it should learn how to identify and reduce consumption of environmentally damaging goods.

The central thesis of this report is that Asia and the Pacific needs a grand coalescence of government, business, civil society, and others—all focused on creating a sustainable future. Pressure to improve environmental performance is looming—from global trends, tightening national regulatory systems, and the dynamics of the marketplace and corporate stakeholders. Human ingenuity led Asia and the Pacific into the environmental morass that confronts the region today, and only human ingenuity can lead it to a sustainable future. Innovation and creativity will form the basis of tomorrow's successful corporations, leapfrogging over old and dirty technologies and management practices and embracing new approaches already available and still to come. These progressive corporations will make profits while protecting the planet.

The future of our children, our grandchildren, of our ecosystems, and of the planet itself are at stake. Our heirs will be unforgiving if we fail to take action today to ensure a sustainable future. This is why every leader in Asia and the Pacific should read this report, heed its messages—and then act. It will not be easy. But we have the ability to reinvent ourselves as individuals, as organizations, as responsible corporations, as enabling governments, and as partners in creating a sustainable future for all in Asia and the Pacific.



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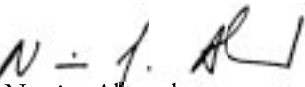
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Any report of this type is a team effort, and completion of *Asian Environment Outlook (AEO) 2005* would not have been possible without the valuable inputs and assistance of many. A core team of authors prepared the initial draft of the report. They comprised David Annandale, Albert Fry, and William Halal and were led by Peter King, Advisor, Asian Development Bank (ADB). The report was brought to completion by David McCauley, Senior Environment Economist in ADB’s Environment and Social Safeguard Division, with the assistance of Consultant Communications Specialist Rachel Salazar. Substantive inputs also were provided by Jeffrey Bowyer, Consultant. Copyediting was done by Judy Goldman, and the firm DoubleSlash designed the book layout as well as all other presentation materials relating to the report.

On behalf of the team, I also wish to thank colleagues and friends who participated in the various consultations organized during preparation of the report who provided important feedback on its several drafts. In October 2004, the core authors attended a European workshop on Corporate Responsibility for Environmental Performance in Asia and the Pacific held in conjunction with the annual meeting of the World Business Council for Sustainable Development (WBCSD) in Amsterdam. A selected group of about 20 participants met, comprising company representatives with supply chains deep into Asia as well as WBCSD representatives from the region. In November 2004, the Greening of Industry Network Annual Meeting in Hong Kong, China, with the theme “Partnerships for Sustainable Development,” afforded opportunities for valuable consultation and feedback concerning the report’s preliminary findings. The Fifth Ministerial Conference on Environment and Development held in March 2005 in Seoul, Republic of Korea also provided ADB a chance to consult on the emerging findings of the report with an international audience drawn from governments, nongovernment organizations, the private sector, development agencies, and civil society.

We are also grateful for the help given by members of the AEO 2005 External Advisory Panel who provided valuable insights and advice during the report’s preparation. In this regard, we owe special thanks to: Mohamed El-Ashry, Prodipto Ghosh, Cielito Habito, Robert Koh, Akio Morishima, Rajendran Pachauri, Atiq Rahman, Michael Rock, Richard Welford, and Bulat Yessekin.

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Acronyms and Abbreviations

ADB	Asian Development Bank
AEO	Asian Environment Outlook
AI	artificial intelligence
APEC	Asia Pacific Economic Commission/Asia Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
B2B	business-to-business
BAPEDAL	Badan Pengendalian Dampak Lingkungan (Indonesia Environmental Impact Management Agency)
CERES	Coalition for Environmentally Responsible Economies
CFC	chlorofluorocarbon
CNG	compressed natural gas
DNA	deoxyribonucleic acid
EIA	environmental impact assessment
EMS	environmental management system
EPCA	environment and pollution control agreement
ETA	environmental technology assessment
EU	European Union
FANTASIE	Forecasting and Assessment of New Technologies and Transport Systems and their Impacts on the Environment
FSC	Forest Stewardship Council
GATT	General Agreement on Trade and Tariffs
Gbps	gigabits per second
GEO	Global Environment Outlook
GEN	Global Eco-Labeling Network
GHG	greenhouse gas
GMF	genetically modified food
GMO	genetically modified organism
GRI	Global Reporting Initiative
IFC	International Finance Corporation
IMF	International Monetary Fund
ISO	International Organization for Standardization
IT	information technology
JPOI	Johannesburg Plan of Implementation
LCA	life cycle analysis (assessment)
Mbps	megabytes per second
MCED	Ministerial Conference on Environment and Development
MDGs	Millennium Development Goals
MEA	multilateral environment agreement
MEMS	micro-electro-mechanical systems
MNC	multinational corporation
MSC	Marine Stewardship Council
NASA	National Aeronautics and Space Agency
NEAP	national environmental action plan
NEPP	national environmental policy plan
NGO	nongovernment organization
NSDS	national sustainable development strategies

NSF	National Science Foundation
OECD	Organisation for Economic Co-Operation and Development
PC	personal computer
PRC	People’s Republic of China
PROPER	Program for Pollution Control, Evaluation and Rating
SAM	Sustainable Asset Management
SEC	Social and Economic Council
SEPA	State Environment Protection Agency
SETAC	Society for Environmental Toxicology and Chemistry
SME	small or medium enterprise
SRI	socially responsible investment
TRIPS	Trade in Intellectual Property Rights Agreement
UK	United Kingdom
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environment Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organisation
US	United States
USEPA	United States Environmental Protection Agency
VA	voluntary agreement
VR	virtual reality
WBCSD	World Business Council for Sustainable Development
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization
WWF	World Wide Fund for Nature

Executive Summary

Sustained economic growth in Asia and the Pacific—especially in the People’s Republic of China (PRC), India, and part of Southeast Asia—has led to a rapid decline in income-based poverty. Unfortunately, this has been accompanied by a corresponding rise in pollution and the degradation of natural resources.

Many of these negative impacts on the environment are of such magnitude that they are of global concern. Air and water pollution continue to rise, and solid waste management—especially in the region’s rapidly expanding urban areas—is becoming an enormous problem. Deforestation continues alongside coastal and marine degradation. And the region is rapidly becoming the world’s largest source of greenhouse gas emissions. This has undermined some of the impressive development gains achieved because of increasing health care costs associated with the effects of pollution as well as heightened vulnerability of the mostly rural poor who depend upon productive natural resource systems for their livelihoods.

With these growing environmental problems, easier access to information sweeping the region, and a rising middle class giving greater consideration to their quality of life, both the public and private sectors are increasingly being forced to pay much greater attention to environmental management.

Making Profits, Protecting Our Planet: Corporate Responsibility for Environmental Performance in Asia and the Pacific is the second report in the *Asian Environment Outlook* (AEO) series published by Asian Development Bank. It builds on work initiated through AEO 2001, which reviewed environmental policies and institutions employed across the region and found most countries relying on weakly enforced and largely ineffective environmental regulations based on top-down approaches. AEO 2001’s conclusions focused on the need to explore a much wider range of more market-based and flexible policy instruments to complement stronger enforcement of existing policies and standards. It also encouraged better mainstreaming of environmental considerations into economic and sectoral policies and programs. While there has been some progress in these areas—and nearly all countries now have cabinet-level environment ministries—AEO 2005 argues that there is still a critical missing ingredient in the pursuit of a sustainable future for Asia and the Pacific: a fully engaged corporate sector.

Changing Expectations

There are mounting legislative, social, and market pressures on the corporate world to exercise greater responsibility for its environmental performance. These may serve as positive forces to help reshape the public-private compact concerning accountability for protection against pollution and resource degradation during economic development, and to accelerate the movement toward the widespread use of more sustainable production processes.

Responses to new pressures may be found in the private sector’s widening interest in globally recognized environmental management certification programs such as the International Standard Organization’s ISO-14001 and growing acceptance of the principles and practices behind the United Nations Global Compact for Corporate Citizenship in the World Economy, the Global Reporting Initiative (GRI), and the Equator Principles applied to large private investments.

ISO-14001 certification has grown rapidly in Asia and the Pacific, with the region now accounting for over 40% of the world’s total. The number of certified firms in the PRC alone grew by more than 200% to 8,865 in 2005 from 2,802 in 2002. More than 700 corporations—many of whom operate in Asia and the Pacific—have adopted the GRI Sustainability Reporting Guidelines. And 35 of the world’s largest banking groups—with the majority active in this

region—have signed on to the Equator Principles, accounting for about 90% of global project financing and amounting to \$50 billion annually in loans.

Those who respond early to these global pressures can expect some competitive advantage through a mix of efficiency improvements, product differentiation, and risk reduction. There is evidence that, for many types of production processes, greater attention to waste minimization and other environmental management measures can result in productivity gains. In Thailand, more than 600 firms participating in an eco-efficiency improvement program achieved an aggregate 47% return on such investments.

There also are growing opportunities for increased revenues through product differentiation to meet the requirements of importers and the expanding “green product” demands of both consumers and shareholders. In India, textile and handicrafts firms have benefited from marketing their products to environmentally conscious consumers in Europe. Threats to brand reputation and environmental liability risks also are creating incentives for companies to pay greater attention to their environmental practices. The regional and global press is giving ever-greater coverage to stories about firms at odds with local communities over their environmental or social policies.

New Policy Thinking

While the credible threat of punitive government action must remain, there is tremendous scope for the expanded use of market-based incentives and a new set of promising policy measures centered on capturing growing corporate willingness to work in partnership with government and other stakeholders to see that public environmental and social expectations are met. Such voluntary agreements offer attractive supplements to command-and-control and market-based policy measures. These reflexive regulatory systems—already being tested in the tanneries and textile sectors in Indonesia, Pakistan, and Sri Lanka—can provide freedom for firms to find cost-effective methods of compliance, combining with other policy instruments to induce innovation and the private sector’s adoption of a new set of “sustainability tools” such as ISO 14001 certification and improved corporate environmental metrics using life cycle analysis and other measures.

Encouraging Innovation

Though technological innovation alone cannot solve the serious environmental problems facing the Asia and Pacific region, some recent trends—especially toward energy efficiency in transport and manufacturing, alternatives to fossil fuels, and reduced end-product waste—provide encouraging evidence that rapid economic growth and sound environmental management can go hand-in-hand. Greater attention to establishing economic and environmental policy regimes that encourage such innovation is vital if the negative environmental by-products of economic expansion are to be kept within nature’s assimilative capacities.

New and greener products—together with an anticipated massive investment in environmental infrastructure throughout the region—also show that environmental cleanup and protection offer strong business and employment opportunities. The global market for environmental goods and services is estimated to be about \$607 billion in 2005, and is projected to grow to over \$836 billion by 2015. The Asia-Pacific market accounted for \$37 billion of this total, but its growth rate is the fastest in the world, with the market expected to triple by 2015.

A Collaborative Future

More direct interaction between government and the business community holds an important key to getting the region’s development pattern onto an environmentally sustainable path. The public and private sectors in the region—as well as its citizens—must make these adjustments to define new production and consumption patterns that can satisfy human desires within environmental bounds. Now is the time to make these changes in the way Asia and the Pacific goes about the business of economic development.

Background

Rapid economic growth has swept through Asia and the Pacific in recent years—a trend that is drastically changing the nature and scale of humanity’s impact on natural ecosystems and the carrying capacity of the planet. While there are still terrible problems with entrenched poverty, hundreds of millions of people in the region now have a chance to experience a life beyond basic survival.

The sustained annual growth rates of 10% or more in the People’s Republic of China (PRC), for example, have helped to reduce the number of people existing on less than one dollar a day from 473 million in 1990 to 284 million in 2001.¹ The Chinese Academy of Social Sciences estimates that 19% of the PRC’s 1.3 billion, or about 250 million people, are now considered middle class—living in households with assets of between \$18,000 and \$36,000. It further forecasts that if this middle class keeps growing by 1% each year, then 40% of the PRC’s population—almost 500 million people—will reach this status by 2020.²

The other Asian population superpower, India, counts a further 300 million out of its 1.08 billion citizens who have joined middle class ranks. Other statistics indicate that there are now more middle- to high-income earners—whom the United Nations Environment Programme (UNEP) defines as those earning in excess of \$7,000 per annum—in Asia and the Pacific than in America and Europe combined.³

While public policies and investments have been crucial to these achievements, dynamic corporations in Asia and the Pacific have played a large part in delivering such impressive economic gains. These also have been buoyed by the region’s first relatively peaceful period in generations with mostly stable governments, better educated and highly

productive workforces, and a wide range of new opportunities opened by the phenomenon of globalization. Upwardly mobile populations, including millions lifted out of poverty over the past few decades, now look forward to their “turn” to share in the planet’s wealth. To them, it may seem churlish to point to what may appear to be relatively minor environmental threats associated with the region’s economic and demographic changes.

A closer look, however, reveals that these threats must be addressed if the positive aspects of growth are not to be undermined by declining environmental quality. Most problems are derived from the accelerating consumption demands of the new middle classes that are adding to the existing planet-wide resource use and waste disposal demands of developed countries. Asia and the Pacific already face major environmental problems that vary by location but include (i) air pollution (particularly high levels of particulate matter in cities); (ii) reduced availability and quality of freshwater supplies; (iii) desertification, deforestation, and other forms of land degradation; (iv) dust and haze; (v) acid rain; (vi) greenhouse gas (GHG) emissions; (vii) loss of biodiversity; and (viii) the degradation of marine and coastal resources.⁴

Compounding problems are caused by growing populations and the pressure to meet the demands of increasing numbers of people understandably wishing to enjoy the trappings of middle-class life. If the PRC, India, and Indonesia all reach the current average global car ownership rate, for example, then 200 million new vehicles could be on the planet’s roads over the next few decades.⁵ This is twice the number of cars currently owned in the United States (US). Continued growth in the use of both renewable and nonrenewable

resources will lead to an inevitable expansion in the size of developing countries’ “ecological footprints.”⁶ The amount of productive land needed per person in 1999 to support patterns of consumption in the US (9.7 hectares), Canada (8.8), and Australia (7.6), was far higher than that in the PRC (1.5 hectares) and India (0.8), although the total footprints of the latter two countries are obviously greater due to their huge populations.⁷ By comparison, the sustainable average footprint for the globe is estimated to be 1.8 hectares. Table 1 shows the ecological footprints of selected countries based on a study conducted by World Wide Fund for Nature (WWF).

Increases in per capita consumption in Asia and the Pacific soon will enlarge both per capita and national footprints substantially. The Worldwatch Institute estimates that if everyone on the planet reached the current consumption level of the affluent nations with the highest ecological footprints, we would need the resource equivalent of five Earths to support it. Underlying these predictions are extraordinary emerging consumption statistics from the region as it rapidly industrializes. For example, in 2003, half of the world’s cement output, a third of its steel, a quarter of its copper, and a fifth of its aluminum were used in the PRC alone. Of personal consumption items, roughly 35% of the world’s cigarettes, 20% of mobile phones, and 23% of televisions were sold in the PRC.⁸ With that country’s 1.3 billion people experiencing double-digit disposable income growth, catering to the demands of

indications that we may have “overshot” the Earth’s ecological limits in relation to some resources and waste sinks. The challenge is how to make growth environmentally sustainable so that it can continue to serve the needs and wants of the human population while conserving the natural assets and ecosystem services that make economic and social advancement possible.⁹

Underlying these problems are some strongly held ideas about the relationship between the environment and economic development that shape both public and private policies, some of which are challenged in this report. One widely held theory is that pollution naturally gets worse as economies develop until a certain level of affluence is reached, and then the wealth generated can be used to promote better environmental performance. Several countries in Asia and the Pacific have taken comfort in this theory and have followed a “grow now-clean up later” approach to their economies and environments.¹⁰

If this pattern were to hold in Asia and the Pacific, however, the environmental quality prognosis in the region would be dire. Fortunately, there is growing evidence suggesting that this is not likely to be the case. The World Bank’s *New Ideas in Pollution Regulation* project shows that today’s factories are, in many cases, less polluting than those of the past, and industrial pollution levels are falling even in some areas of developing countries where growth is most rapid.

Table 1: Ecological Footprints of Selected Countries

Country	Hectares/person			Change per capital (1991-2001)	
	Ecological Footprint	Biocapacity	Ecological Deficit	Ecological Footprint*	Biocapacity**
Global	2.2	1.8	0.4	-2	-12
US	9.5	4.9	4.7	7	-11
Asia Pacific	1.3	0.7	.60	6	-11
Australia	7.7	19.2	-11.5	16	-6
New Zealand	5.5	14.5	-9	16	-13
Japan	4.3	0.8	3.6	6	-6
Republic of Korea	3.4	0.6	2.8	30	-12
Malaysia	3.0	1.9	1.1	10	-48
Mongolia	1.9	11.8	-9.9	-33	-11
Thailand	1.6	1.0	0.6	20	-1
PRC	1.5	0.8	.8	14	-7
PNG	1.3	2.6	-1.3	-8	-16
Indonesia	1.2	1.0	0.2	4	-14
Philippines	1.2	0.6	0.6	-6	-22
Sri Lanka	1.1	0.4	0.7	20	-12
Cambodia	1.1	1.0	0.1	9	-3
Lao PDR	1.0	1.4	-0.4	-4	-12
Myanmar	0.9	1.3	-0.4	10	1
Viet Nam	0.8	0.8	0.0	14	6
India	0.8	0.4	0.4	1	-15
Pakistan	0.7	0.4	0.3	2	-18
Nepal	0.6	0.5	0.2	-4	-12
Bangladesh	0.6	0.3	0.3	0	-11

Source: World Wildlife Fund. *Living Planet Report*. 2004. Washington, DC.
* Ecological footprints change with population size, average consumption per person, and resource efficiency.
** Biocapacity changes with the amount of biologically productive area and its average productivity.

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