

Climate Change Policies in the Asia-Pacific:

**RE-UNITING CLIMATE CHANGE
AND SUSTAINABLE DEVELOPMENT**

IGES White Paper

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**Climate Change Policies in the Asia-Pacific:
Re-uniting Climate Change and Sustainable Development**

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IGES White Paper

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Foreword

The Institute for Global Environmental Strategies (IGES) White Paper series has been designed to extract broad findings from research conducted by IGES and its partner research institutes to bring critical environmental policy issues to the attention of the region's policy makers. Since climate change will be the top agenda item for the region in 2008, the second issue of the White Paper focuses on climate change.

The Bali Action Plan was adopted at the thirteenth session of the Conference of the Parties (COP13), which was held in Bali, Indonesia in December 2007. The Action Plan provides a roadmap to the post-2012 climate regime to be agreed upon by the end of 2009. This year is the start of the first commitment period of the Kyoto Protocol, and there are important processes already underway to help bring about an agreement on the future regime as stipulated by the Action Plan. The G8 Summit to be held in Toyako, Japan in July 2008, in particular, will look at climate change as the most important agenda item. Since Asia is increasingly emerging as a significant source of greenhouse gases (GHG), and the Asia-Pacific region is among the most vulnerable to impacts from climate change, meaningful involvement of countries in the region in these processes is considered essential.

The White Paper consists of three main parts. Part I contains detailed discussions on climate change strategies. Part II looks at climate change related issues in several sectors including forestry, energy (biofuels), waste management, and groundwater, as well as key institutional and industry developments in response to climate change challenges. Part III brings together the main conclusions and recommendations.

The objectives of the White Paper are:

- (i) to feature the most important environmental policy agenda for the region in 2008—a response to the challenges posed by climate change in Asia and the Pacific;
- (ii) to broadly summarise the current climate change situation in Asia and identify emerging issues, and to review effective policy approaches that have been adopted in the region;
- (iii) to present a number of broad policy recommendations that will promote sustainable development focussing on climate friendly development for the region, drawing from IGES research programmes, where appropriate; and
- (iv) to identify the critical policy research agenda over the next decade for the region.

While examining climate change issues from multiple perspectives, the White Paper summarises current policy responses from around the Asia-Pacific region and attempts to sort effective climate change policy from non-effective policy. The White Paper attempts to set out general principles and priorities to promote the adoption of

successful mitigation and adaptation policies that would fully accommodate the national needs and situations that vary so widely in the region. A particular focus is on Asia-Pacific regional positions regarding post-2012 policy regimes and possible negotiating positions, which builds on research and consultations conducted by IGES at multiple levels over the past few years.

The second White Paper has been drafted throughout FY2007 and will be published in conjunction with the final symposium of the 10th anniversary of IGES held in June 2008.

I would like to acknowledge the efforts of a group of expert peer reviewers, who, at short notice, provided constructive input to an early draft of the White Paper. I am also grateful to the members of the IGES Board of Directors who reviewed the draft and provided invaluable input. My greatest appreciation goes to the multiple authors of the various chapters who have worked tirelessly on the White Paper in addition to their other research activities. Drafting has been carried out at IGES retreats over the last ten months, throughout which Prof. Akio Morishima, special research advisor to IGES, provided practical advice. The drafting process was coordinated by Mr. Hideyuki Mori and Dr. Peter King, with full participation of all IGES projects. A special note of appreciation is given to the patient work conducted by all IGES staff involved in bringing the White Paper to fruition on time. Finally, the excellent work of the IGES Secretariat and their selected editors and translators has ensured a high quality publication which we hope will make a real contribution to ongoing policy debate on climate change issues in the Asia-Pacific region.

Hayama, Japan
19 May 2008

Prof. Hironori Hamanaka

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Abbreviations and Acronyms

3R	reduce, reuse, recycle
ADAPT	Assessment and Design for Adaptation to Climate Change: a Prototype Tool
ADB	Asian Development Bank
AOSIS	Alliance of Small Island States
APEC	Asia-Pacific Economic Cooperation
APFED	Asia-Pacific Forum for Environment and Development
APP	Asia-Pacific Partnership on Clean Development and Climate
A/R	afforestation/reforestation
ASEAN	Association of South East Asian Nations
B2	2% palm oil blend for diesel vehicles
BAU	business as usual
BEE	Bureau of Energy Efficiency, India
BMA	Bangkok Metropolitan Administration
BRA	business-related agency
CBD	Convention on Biological Diversity
CBO	community based organisation
CCAP	Center for Clean Air Policy, USA
CCB	Climate, Community and Biodiversity
CCS	carbon capture and storage
CCX	Chicago Climate Exchange
CDM	clean development mechanism
CDM-EB	CDM Executive Board
CECPA	China Environmental Culture Promotion Association
CER	certified emissions reduction
CESR	corporate environmental and social responsibility
CGWB	Central Ground Water Board, India
CHED	Commission on Higher Education and Development, Philippines
CMA	China Meteorological Administration
CNG	compressed natural gas
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
COP	Conference of the Parties
CSR	corporate social responsibility
DA	Department of Agriculture, Philippines
DENR	Department of Environment and Natural Resources, Philippines
DepEd	Department of Education, Philippines
DFA	Department of Foreign Affairs, Philippines
DGR	Department of Groundwater Resources, Thailand
DNA	designated national authority
DOE	designated operational entity

DOEP	Department of Energy, Philippines
DILG	Department of Interior and Local Government, Philippines
DOST	Department of Science and Technology, Philippines
E3	3% ethanol blended petrol
EA	environment agency
EE	energy efficiency
EIA	environmental impact assessment
EIT	economies in transition
EL	executive leadership
EMB	Environmental Management Bureau, Philippines
EPFL	Ecole Polytechnique Federale de Lausanne
ERPA	emission reduction purchase agreement
ESCO	energy service companies
ETBE	ethyl tertiary-butyl ether
ETS	emissions trading scheme
EU	European Union
FA	foreign affairs agency
FAO	Food and Agriculture Organisation of the United Nations
FCPF	Forest Carbon Partnership Facility
FDI	foreign direct investment
FSC	Forest Stewardship Council
FYP	five year plan
G8	Group of Eight (developed countries)
G77+China	Group of 77 developing countries plus China
GAP	Green Assistance Plan, Japan
GBEP	Global Bioenergy Partnership
GDP	gross domestic product
GEF	Global Environment Facility
GERIAP	Greenhouse Gas Emission Reduction from Industry in Asia and the Pacific
GHG	greenhouse gas
GLOF	glacier lake outburst flood
GW	gigaWatt (10 ⁹)
GWPH	Global Warming Prevention Headquarters, Japan
ha	hectares
HCFC	hydrochlorofluorocarbon
HCMC	Ho Chi Minh City, Vietnam
HDI	human development index
HIV/AIDS	human immunodeficiency virus/acquired immunodeficiency syndrome
IACCC	Inter-Agency Committee on Climate Change, Philippines
IACM	inter-agency coordination mechanism
IATAL	international air travel adaptation levy
ICAP	International Carbon Action Partnership
IDRC	International Development Research Centre, Canada
IEA	International Energy Agency
IES	integrated environmental strategies
IETA	International Emission Trading Association
IFCA	Indonesia Forest Climate Alliance
IFPRI	International Food Policy Research Institute
IGES	Institute for Global Environmental Strategies
IIASA	International Institute for Applied Systems Analysis
IMC	Inter-Ministerial Committee on UNFCCC, Republic of Korea

IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
IPP	independent power producer
IPR	intellectual property rights
ISO	International Standards Organisation
ITTO	International Tropical Timber Organisation
IWRM	integrated water resources management
JBIC	Japan Bank for International Cooperation
JI	joint implementation
JICA	Japan International Cooperation Agency
JS	Joint Secretary; heads a division or cell within the MoEF structure of India
JV	joint venture
KEEI	Korea Energy Economics Institute
KEMCO	Korea Energy Management Cooperation
KFQ	Korean Foundation for Quality
KFS	Korea Forest Service
kg	kilogram
km	kilometre
kt	kilotonne
KMA	Korean Meteorological Administration
KP	Kyoto Protocol
L	litre
L/ha	litres per hectare
L/t	litres per tonne
LA	leading agency
LCA	life cycle analysis/assessment
LCS	low carbon society
LDC	least developed country
LDCF	Least Developed Country Fund
LGU	Local Government Unit
M	million (Mt, ML, Mha, MJ etc.)
M2M	methane to markets
MA	Meteorology Agency, Republic of Korea
MBT	mechanical-biological treatment
MCIE	Ministry of Commerce, Industry and Energy, Republic of Korea
MCMGEC	Meeting of the Council of Ministers for Global Environmental Conservation, Japan
MDG	millennium development goals
MEA	multilateral environment agreements
METI	Ministry of Economy, Trade and Industry, Japan
mg/L	milligrams per litre
MJ	megajoule
mm	millimetre
MNC	multinational corporation
MOA	Ministry of Agriculture, China
MOAF	Ministry of Agriculture and Forestry, Republic of Korea
MOAFF	Ministry of Agriculture, Forestry and Fisheries, Japan
MOCC	Ministry of Communications, China
MOCIE	Ministry of Commerce, Industry and Energy, Republic of Korea
MOCT	Ministry of Construction and Transportation, Republic of Korea
MOECSST	Ministry of Education, Culture, Sports, Science and Technology, Japan

MOE	Ministry of Environment
MOEF	Ministry of Environment and Forestry, India
MOEK	Ministry of Environment, Republic of Korea
MOF	Ministry of Finance, China
MOFA	Ministry of Foreign Affairs
MOFAT	Ministry of Foreign Affairs and Trade, Republic of Korea
MOFE	Ministry of Finance and Economy, Republic of Korea
MOJ	Ministry of Justice, Republic of Korea
MOLIT	Ministry of Land, Infrastructure and Transport, Japan
MOP	meeting of the Parties
MOSTC	Ministry of Science and Technology, China
MOSTK	Ministry of Science and Technology, Republic of Korea
MPI	Ministry of Electric Power, China
MSW	municipal solid waste
MW	megawatt
N ₂ O	nitrous oxide
NBS	National Bureau of Statistics, China
NAP	national action plan
NAPA	national adaptation programme of action
NC	national communication to the UNFCCC
NCA	National CDM Authority, India; also the DNA of CDM, India
NCCCC	National Coordination Committee on Climate Change, China
NCCCG	National Climate Change Coordinating Group, China
NCCLG	National Climate Change Leading Group, China
NCSA	national capacity self assessment
NDRC	National Development and Reform Commission, China
NECERLG	National Energy Conservation and Emission Reduction Leading Group
NEDA	National Economic and Development Authority, Philippines
NEDO	New Energy and Industrial Technology Development Organisation
NEPA	National Environmental Protection Agency, China
NEV	net energy value
NIES	National Institute of Environmental Studies, Japan
NGO	nongovernmental organisation
NPC	National People's Congress
ODA	official development assistance
OECD	Organisation for Economic Cooperation and Development
OFR	on-farm reservoir
OGPC	Office for Government Policy Coordination, Republic of Korea
OPA	other participating agency
OPEC	Organisation of the Petroleum Exporting Countries
OPM	Office of Prime Minister, Republic of Korea
PAG-ASA	Philippine Atmospheric, Geophysical and Astronomical Services Administration, Philippines
PCSD	Presidential Commission on Sustainable Development
PNCC	Philippine Network on Climate Change (NGO coalition)
PNG	Papua New Guinea
POA	project activities under a programme of activities
ppm	parts per million
PTFCC	Presidential Task Force on Climate Change, Philippines
R&D	research and development
RDA	Rural Development Administration, Republic of Korea

RE	renewable energy
RED	reduced emissions from deforestation
REDD	reduced emissions from deforestation and forest degradation in developing countries
RESCO	renewable energy service corporation
ROK	Republic of Korea
RSB	Roundtable on Sustainable Biofuels
RSPO	Roundtable on Sustainable Palm Oil
SA	science agency
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SCCF	Special Climate Change Fund
SD-PAM	sustainable development policies and measures
SDPC	State Development and Planning Commission, China
SEPA	State Environmental Protection Administration, China
SERC	State Electricity Regulatory Commission, China
SETC	State Economic and Trade Commission, China
SFA	State Forestry Administration, China
SGP	Small Grant Programme
SIDS	small island developing states
SME	small and medium enterprises
SPC	State Planning Commission, China
SSTC	State Science and Technology Commission, China
SWDS	solid waste disposal site
t	tonne
t/yr	tonnes per year
tCO ₂ e	tonnes of carbon dioxide equivalent
TAI	The Access Initiative
TERI	The Energy and Resources Institute, India
TFC	Task Force Committee for the UNFCCC
UK	United Kingdom
UN	United Nations
UNCCD	UN Convention to Combat Desertification
UNCED	United Nations Conference on Environment and Development
UNCTAD	United Nations Commission on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNEP/RISØ	United Nations Environment Programme/Risoe Centre, Denmark
UNFCCC	United Nations Framework Convention on Climate Change
USA	United States of America
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
USEPA	United States Environment Protection Agency
VER	voluntary emissions reduction
WBCSD	World Business Council for Sustainable Development
WRI	World Resources Institute
WSSD	World Summit on Sustainable Development
WTO	World Trade Organisation

Note: Throughout this report, “\$” means US dollars unless otherwise indicated.

“Asia” encompasses all Asian and Pacific countries, except where otherwise indicated.

