



A

Appendix A — Strategy Implementation Matrix

Strategy Implementation Matrix

STRATEGIC FOCUS			IMPLEMENTATION PROGRAM FY05-07		
Development Objective	Environmental Indicators	Bank Focus FY05-07	Analytic Work	Technical Assistance and Partnerships	Financial Support
1. Improving the quality of life					
<ul style="list-style-type: none"> Improving urban and peri-urban environmental conditions Promoting cleaner energy sources and uses Halting/reversing the degradation of natural resources on which peoples' livelihood depends Reducing vulnerability to natural disasters, and the environmental risks, and the impacts of climate change 	<ul style="list-style-type: none"> Water and sanitation coverage Use of solid fuels Urban air quality (fine particulate concentrations) Deforestation rates Land degradation rates Water quality in major rivers and lakes Water availability per capita 	<ul style="list-style-type: none"> Enhance the understanding of environment-poverty linkages and economic costs of environmental degradation Align environmental investments with priorities and targets, including MDGs Engage local communities in sustainable environmental management and conservation Refine methodology for measuring environmental outcomes of Bank assistance 	<ul style="list-style-type: none"> Poverty-environment nexus (PEN) studies in Cambodia, Indonesia, Laos, and Vietnam (EASES) Environmental Cost Model and Valuation of Environmental Health Risks in China (EASES) Water resource management strategies (EASRD) Forest sector studies in Mongolia, Indonesia, Vietnam (EASES and EASHD) 	<ul style="list-style-type: none"> TA activities for enhancing the synergies between environmental management and poverty reduction in China, Indonesia, Mongolia (EASES and EASHD) Environmental contribution to PRSP processes (EASES and EASRD) Regional learning on mainstreaming environment and facilitating participation in PRSP processes (EASES) Support to forest policy dialogue (Cambodia, Indonesia, PNG, Vietnam) (EASES and EASES) 	<ul style="list-style-type: none"> Increased lending for urban environmental infrastructure development (sanitation, waste management, urban upgrading) (EASUR with EASES) Increased lending for access to cleaner energy sources (EASEG with EASES) Participatory forest management (EASRD and EASES) Sustainable livelihood projects (e.g. in Mongolia) (EASRD with EASES) Environmental policy components in PRSCs (EASES and EASRD)
2. Enhancing the quality of growth					
<ul style="list-style-type: none"> Improving policy and regulatory framework for sustainable environmental management Integrating environmental considerations into sector policies, strategies, and plans Strengthening institutional capacity for environmental regulation, enforcement, and local governance Enhancing local environmental governance Engaging the private sector and civil society in improving environmental management 	<ul style="list-style-type: none"> Natural resource pricing and taxation Environmental regulations, changes, and taxes Improved and achievable emission and fuel quality standards Effectiveness of EIA systems Regulations and practice for SEAs Environmental policy and institutional capacity indicators (e.g. CPIA rating) Application of EMS (e.g. ISO14000), and sustainability reporting initiatives Availability of public environmental information 	<ul style="list-style-type: none"> Refine methodology for assessing policy, regulatory, and institutional capacity and performance at the country/sectoral/sub-regional level Establish mechanisms for long-term engagement in environmental policy dialogue and institutional development Support public disclosure programs Support environmental awareness building Support private sector initiatives for enhanced environmental management and responsibility 	<ul style="list-style-type: none"> Annual Environment Monitors in at least 6 countries (including Indonesia, Lao, Mongolia, Philippines, Thailand, Vietnam) (EASES) Environmental input to policy notes to incoming governments, integrative analyses, and sector studies (EASES with SMUs) Environmental policy and institutional capacity assessments (e.g. in China, Indonesia, Philippines) (EASES) Country and other strategic environmental analyses (e.g. in China, Vietnam) (EASES with SMUs) 	<ul style="list-style-type: none"> Environmental partnership programs: China-WB-Italian Partnership for Environment, Mongolia WB-Dutch Environment Partnership, Thailand Country Development Partnership on Environment, WB-Korea Environmental Knowledge Partnership (EASES) EA and SEA capacity building assistance (including China, the Philippines and Vietnam) (EASES) IDF grants to support environmental institutional capacity development (e.g. in China, Mongolia, Philippines, and Vietnam) (EASES) Regional program to address the environmental and social implications of urban, and peri-urban development (EASES with EASUR) 	<ul style="list-style-type: none"> Enhanced land tenure security supported by lending projects (EASRD) Integrated watershed management projects (EASRD with EASES) Projects supporting energy efficiency (EASEG with contributions from EASES) Development Policy Lending for improving environmental policy, and institutional reform if feasible (EASES) China/Bank/GEF Sustainable Urban Transport Program (EASTR with EASES) GEF regional land-based Pollution Reduction Fund (EASUR with EASES)
3. Protecting the quality of regional and global commons					
<ul style="list-style-type: none"> Implementing regional and global environmental agreements (including climate change, biodiversity, persistent organic pollutants) Facilitating equitable solutions to regional and global environmental problems 	<ul style="list-style-type: none"> CO2 emissions per GDP National and sectoral ODS phaseout volumes and shares Protected areas under sustainable management 	<ul style="list-style-type: none"> Engage in regional environmental policy dialogue and partnerships in priority areas Facilitate resource and knowledge transfer to developing countries Use GEF resources strategically Address emerging challenges (e.g. phaseout of POPs) Increase CF transactions 	<ul style="list-style-type: none"> SEAs of cross-boundary development (e.g. Mekong sub-region) (EASES with SMUs) Assessment of the environmental implications of the tsunami (EASES) Assessment of the health risks of POPs (EASES) Other regional environmental studies (EASES) 	<ul style="list-style-type: none"> Active participation in the Clean Air Initiative (EASES), other SMUs, WBI, ENV) Regional forest policy dialogue on law (EASRD and EASES) TA on climate change adaptation (EASRD) TA on carbon finance (EASES) Contribution to regional environmental policy dialogue (Environment Ministerial meetings, ASEAN, UNEF, ENESCAP, GMS, MRC) (EASES and SMUs) 	<ul style="list-style-type: none"> New ODS phaseout programs in China, Indonesia, Malaysia, the Philippines, Thailand, and Vietnam (EASES) New POPs phaseout projects (China, Vietnam) (EASES) New GEF grants (\$70million/year) for biodiversity conservation and renewable energy/ energy efficiency (EASES and other SMUs) 5.7 CF transactions per year (100 million tons of CO₂ equivalent emissions reductions) contracted (EASES and SMUs) 14-17 CF transactions benefiting local communities (EASES and SMUs)

Notes:

- EASEG: East Asia and Pacific Energy and Mining Unit
- EASES: East Asia and Pacific Environment and Social Development Unit
- SMU: Sector Management Unit
- EASRD: East Asia and Pacific Rural Development and Natural Resources Unit
- EASUR: East Asia and Pacific Urban Development Unit
- EASTR: East Asia and Pacific Transport Sector Unit



B

Appendix B — Active World Bank Projects with Significant Environment and NRM Objectives

	<i>Year (approved)</i>	<i>Global Financing</i>	<i>IBRD / IDA</i>	<i>ENRM %*</i>	<i>Thematic Focus</i>
Cambodia					
Biodiversity and Protected Areas Management Project	2000	2.75 (GEF)	1.91	67	BD/EPI
Rural Electrification and Transmission Project	2003	5.75 (GEF)	40		CC
Forest Concession Management and Control Pilot	2000		4.8	100	BD/EPI/LM
China					
Third ODS Phaseout Project (ODS III)	1995	120.1 (MP)	0		ODS
Gansu Hexi Corridor Project	1996	0	150	50	LM/PM/OTH
Yunnan Environment Project	1996	0	150	60	EPI/PM/WRM
Hubei Urban Environment	1996	0	150	63	CC / EPI / PM
Fuel Efficient Industrial Boilers	1996	32.81 (GEF)	0		CC
Fourth ODS Phaseout Project (ODS IV)	1997	350 (MP)	0		ODS
Wanjiazhai Water Transfer Project	1997	0	400	74	LM/PM/WRM
Inner Mongolia (Tuoketuo) Thermal Power Project	1997	0	400	60	CC/LM/PM
Energy Conservation Project	1998	22 (GEF)	63	86	CC/EPI/PM
Guangxi Urban Environment Project	1998	0	92	75	EPI/PM/WRM
Shandong Environment Project	1998	0	95	75	EPI/PM/WRM
Sustainable Coastal Resources Development Project	1998	0	100	60	BD/WRM
2nd Inland Waterways Project	1998	0	123	67	WRM
2nd Tarim Basin Project	1998	0	150	83	EPI
Irrigated Agriculture Intensification Loan II Project	1998	0	300	66	LM/WRM/OTH
Renewable Energy Development Project	1999	35 (GEF)	100	50	CC
Anning Valley Agricultural Development Project	1999	0	120	50	LM
Second Loess Plateau Watershed Rehabilitation Project	1999	0	150	80	LM/WRM
Hebei Urban Environment Project	2000	0	150	75	EPI/PM/WRM
Chongqing Urban Environment Project	2000	0	200	75	EPI/PM/WRM
Yangtze Dike Strengthening Project	2000	0	210	80	LM/WRM
2nd Beijing Environment Project	2000	25 (GEF)	349	80	CC/EPI/PM/WRM
GEF Passive Solar for Rural Health Clinics	2001	0.75 (GEF)	0		CC
Water Conservation Project	2001	0	74	60	LM/WRM
Liao River Basin Project	2001	0	100	100	PM/WRM
Huai River Pollution Control Project	2001	0	105.5	100	PM/WRM
Sustainable Forestry Development Project	2002	16 (GEF)	93.9		BD
Energy Conservation Project (Phase 2)	2002	26 (GEF)	0		CC

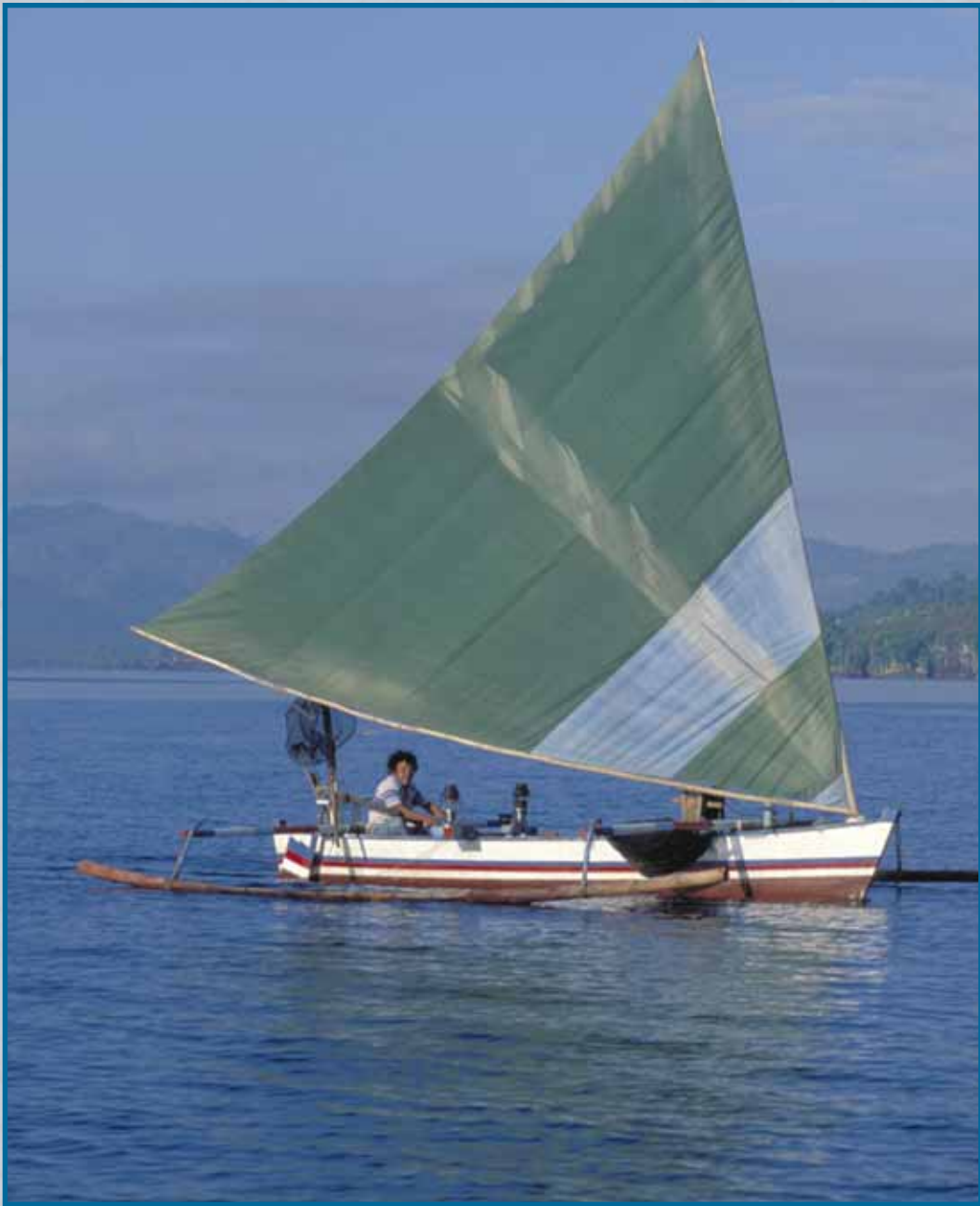
	<i>Year (approved)</i>	<i>Global Financing</i>	<i>IBRD / IDA</i>	<i>ENRM %*</i>	<i>Thematic Focus</i>
Lake Dianchi Aquatic Biodiversity Restoration Project	2003	0.98 (GEF)	0		BD/EPI
Shanghai Urban Environment Project	2003	0	200	50	EPI/LM
Gansu and Xinjiang Pastoral Development Project	2003	10.5 (GEF)	66.3	67	LM/OTH
4th Inland Waterways Project	2004	0	91	50	CC/WRM
Hai Basin Integrated Water & Environmental Man. Project	2004	17 (GEF)	0		WRM
Guangdong Pearl River Delta Urban Environment Project	2004	10 (GEF)	165		EPI/PM
Tai Basin Urban Environment Project	2005	0	61.3	86	EPI/LM/WRM
Lao People's Democratic Republic					
Southern Provinces Rural Electrification Project	1998	0.74 (GEF)	34.7		CC
Sustainable Forestry For Rural Development Project	2003		9.9	50	LM
Mongolia					
Lake Hovsgol Biodiversity Loss & Permafrost Melt Project	2001	0.8 (GEF)	0		BD/LM/EPI/WRM
Stove Improvement Project	2001	0.75 (GEF)	0		CC/EPI
Malaysia					
ODS Phaseout Investment Project	1995	25 (MP)	0		ODS
Indonesia					
ODS Phaseout Investment Project	1994	15.6 (MP)	0		ODS
Coral Reef Rehabilitation and Management Program (1)	1998	4.1 (GEF)	25		BD
Water Resources Sector Adjustment Loan Project	1999	0	300	74	EPI/PM/WRM
Berbak-Sembilang Project	2000	0.73 (GEF)	0		EPI/LM
Western Java Environment Project	2000	3.11 (GEF)	17.53		CC
Sangihe - Talaud Islands Project	2001	0.82 (GEF)	0		BD/EPI/LM
Forests and Media Project	2002	0.94 (GEF)	0		OTH
Water Resources & Irrigation Sector Man. Program	2003	0	70	50	WRM
Indocement Cement Project	2004	10.8 (CF)	0		CC
Coral Reef Rehabilitation and Management Program (2)	2004	7.5 (GEF)	56.5	58	BD/OTH
Papua New Guinea					
Forestry and Conservation Project	2001	17 (GEF)	17.36	50	BD/EPI
Philippines					
ODS Phaseout Investment Project	1994	30 (MP)	0		ODS
2nd Manila Sewerage Project	1996	0	57	50	PM/WRM
Water Resources Development Project	1997	0	58	100	EPI/WRM
Community Based Resource Management Project	1998	0	50	66	EPI/LM
Mindanao Rural Development/Coastal Res. Conservation	1999	1.25 (GEF)	27.2		BD
Land Administration and Management Project	2001	0	4.74	50	LM
Metro Manila Urban Transport Marikina Bicycle Network	2001	1.3 (GEF)	60		CC
Rural Power Project	2003	9 (GEF)	10		
Electric Cooperative System Loss Reduction Project	2004	12 (GEF)	0		CC
Laguna De Bay Institutional Strengthening Project	2004	0	5	72	EPI/PM/WRM
Thailand					
ODS Phaseout Investment Project	1994	45 (MP)	0		ODS
Building Chiller Replacement Project	2001	2.5 (GEF)			CC/PM
Samoa					
Marine Protected Areas Project	1999	0.9 (GEF)	0		BD/EPI/OTH
Vietnam					
Forest Protection and Rural Development Project	1998	0	21.5	58	BD/LM
Ho Mun Marine Protected Area Pilot Project	2000	0.98 (GEF)	0		BD/EPI
Coastal Wetlands Protection and Development Project	2000	0	31.8	72	BD/LM/WRM
Conservation of Limestone Biodiversity Project	2001	0.72 (GEF)	0		BD/EPI
System. Efficiency Improv., Equitization & Renewables	2002	4.5	225		CC
Demand Side Management and Energy Efficiency Project	2003	5.5	5.2		CC
Green Corridor Project	2003	1 (GEF)	0		BD
Forest Sector Development Project - Supplemental Credit	2004	9	35.4		BD/OTH
Forest Sector Development Project	2005	0	39.5	100	BD/OTH

	<i>Year (approved)</i>	<i>Global Financing</i>	<i>IBRD / IDA</i>	<i>ENRM %*</i>	<i>Thematic Focus</i>
Regional / Global					
Mekong River Water Utilization	2000	11 (GEF)			WRM
Towards a Lake Basin Management Initiative	2003	0.97 (GEF)			CC/EPI/PM/WRM/OTH
Targeting Research for Coral Reefs	2004	11 (GEF)			BD/OTH

Note: The list includes projects with at least 50 percent ENRM components. Abbreviations under Thematic Focus--BD: biodiversity, CC: climate change, EPI: environmental policy and institutions, LM: land management, PM: pollution management and environmental health, WRM: water resources management; OTH: other abbreviations under Global Financing--CF: carbon finance, MP: Montreal Protocol, GEF: Global Environment Facility

* This column gives the estimates the percent of the Environment and Natural Resource Management component within the IBRD/IDA loan.

Source: World Bank databases (Business Warehouse, environmental database, GEF and ODS databases)



C

Appendix C — GEF Assistance Strategy

The Region's Current GEF Portfolio

The EAP Region's client countries are currently implementing 38 GEF co-financed projects with a total of \$275 million in GEF financing. Sixteen of the 38 projects are in the GEF's Climate Change Focal Area, accounting for \$172 million of the Region's current GEF commitments. Another 16 projects are in the Biodiversity Focal Area (\$52 million); 4 are in the International Waters Focal Area (\$39 million); and 2 are multi-Focal Area projects (\$12 million) (figure C1 shows thematic portfolio distribution). Half the Region's GEF projects are co-financed by the World Bank, the rest exclusively by domestic and other international sources.

China has received nearly 50 percent of EAP's approximately \$500 million in GEF resource commitments over the past 10 years. About half of these resources has been devoted to reducing greenhouse emissions, and the balance to biodiversity conservation and reducing marine pollution. The GEF's support to China's climate change program has been guided by the recommendations of a 1994 SEPA/NDRC report *China: Issues and Options in Greenhouse Gas Emissions Control*. Assistance for biodiversity conservation has focused on strengthening the protected area system. Assistance in the international waters thematic area initially focused on ship waste management, but has shifted towards internal water pollution and over-use problems.

Climate change-related projects represent the largest share in the Bank's GEF portfolio in other countries in region, too. This reflects client countries' concern with energy-related environmental issues, as well as the resource-intensive character of their energy emission reduction actions. From modest beginning,

EAP's Vietnam GEF program has expanded rapidly, in both the climate change and biodiversity focal areas. In contrast, Indonesia's program has shrunk, due initially to the Asian economic crisis and more recently to concerns about governance issues in natural resource management.

The Region's current GEF co-financed climate change portfolio comprises an equal number of renewable energy and energy efficiency promotion projects and a small urban transport and environment project. China, the Philippines and Vietnam are collectively implementing 70 percent of these projects. The Region's GEF co-financed biodiversity portfolio focuses on strengthening protected area management, and China, Indonesia, and Vietnam are its principal recipients. The international waters portfolio promotes collaborative water resource management in the Mekong sub-region and marine pollution reduction. The multi-focal

area portfolio addresses land degradation in China, and contributes to the PRC/GEF/ADB China Land Degradation Partnership Program.

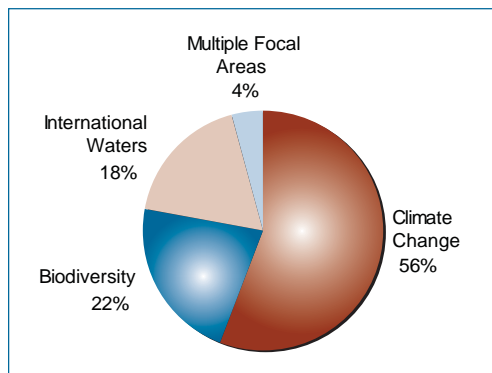
Strategic Directions for the Future GEF Assistance in EAP

The Region's future GEF program will continue to reflect its clients' priorities for GEF assistance and the focus of the Region's country assistance programs, and hence its comparative advantage, in each of its client countries. The scale of the program will be constrained by GEF resource availability and is likely to remain at roughly its current size, with new GEF commitments averaging about \$70 million per year.

Key strategic objectives of EAP's GEF assistance will be to:

1. Increase its impact on environmentally sustainable development in client countries by aligning GEF programs with the environment strategy, and further integrating them with the Region's overall environmental assistance program;
2. Enhance the effectiveness of GEF operations by increasing the use of long-term, programmatic and sector-wide approaches; and
3. Expanding to support regional programs and emerging new priorities.

Figure C1 Thematic Breakdown of GEF portfolio in EAP, FY04



Source: GEF Database.

In response to the Tsunami disaster the GEF is also investigating potential recovery needs and ways to assist client country recovery. Among the likely interventions are a GEF medium sized project to integrate biodiversity considerations into the recovery and rehabilitation of Aceh province, Indonesia. Further initiatives include the potential to develop a regional information sharing and collaboration platform, which may be able to facilitate community based awareness systems as part of a larger early warning system, through the Bay of Bengal Large Marine Ecosystem Project.

Within each focal area, the program will continue to support a number of on-going client programs to promote environmentally sustainable development, and will be adjusted to reflect several new strategic priorities for GEF assistance that the Region's clients have requested, as summarized below.

Climate change program. Over the next 3-4 years, the Region's GEF-co-financed climate change program will continue to support two very successful, on-going strategic initiatives:

- ◆ Environmental transformation of China's energy sector through (a) the transfer of "clean coal" technologies; and (b) promotion of both renewable energy applications (especially wind and small hydro), and end-use energy efficiency.
- ◆ Supply of renewable electricity to isolated rural communities which have little or no immediate prospect of accessing the conventional electric power grid.

In addition, the climate change program will feature two new strategic initiatives:

- ◆ GEF/Bank co-financed assistance to Hanoi, Vietnam; to Surabaya, Indonesia; and to the Chinese Government and several major Chinese cities to help design and implement environmentally-sustainable urban transport strategies, action programs and investment projects. Efforts will be made to link these activities with those of the Clean Air Initiative, including the application of the Interactive Database for Emission Analysis (IDEA) into these activities.
- ◆ GEF assistance to Kiribati, as part of a three-phase plan to identify its vulnerabilities to climate change, and to adapt its development strategies and programs to reduce these risks. Over the next 3 years, the focus will be on piloting measures to mainstream adaptation in national economic planning under the GEF Special Priority for Adaptation. This project may form a model for similarly threatened countries to integrate planning for climate change into their development strategies and action plans.

Biodiversity conservation support. Over the next 3-4 years, the Region's GEF co-financed biodiversity conservation assistance program will promote the use of broader "sector-wide" and longer-term "programmatic" approaches to conserving biodiversity to overcome the limitations of site-specific and shorter-term conventional projects.

This approach will be piloted in Vietnam through the GEF co-financed protected area management component of the recently-approved Bank/GEF/Netherlands Forest Sector Development Project. The project's GEF co-financed component will establish and test a long-term, national protected area conservation financing and technical support system that, if successful, will attract multi-donor support and become self-sustaining.

In the Philippines, where some recent biodiversity conservation projects have had only mixed success, the Bank will help the government and local conservation organizations to design and mobilize GEF co-financing for an ambitious sector-wide approach to sustainable natural resource management and biodiversity conservation.

In China, the Bank will help Guangxi Province design the country's first province-wide integrated Bank/GEF co-financed forestry and nature reserve management project, and also help the national government design and co-finance a long-term national protected area management program.

International waters program. The Region's GEF co-financed international waters program will continue to support the development of the Mekong River Commission's water quality and water quantity management programs and to help the Mekong littoral states deepen their collaboration on shared water resource management issues. In addition, jointly with the South Asia Region, EAP will help the lit-

toral states of the Bay of Bengal to complete a trans-boundary diagnostic analysis of the threats to this large marine ecosystem and to prepare a Strategic Action Program to address them.

The region's small GEF co-financed land-based marine pollution reduction portfolio will expand rapidly from just two on-going sub-national projects to a multi-country, regional pollution reduction program, under which the Region will mobilize GEF co-financing for large-scale pollution reduction efforts in 6-8 regional land-based marine pollution hot-spots and sharply accelerate private investment in pollution reduction measures.

Implementation of the GEF co-financed Straits of Malacca Marine Electronic Highway Demonstration Project by Indonesia, Malaysia and Singapore will commence in 2005. This innovative project will establish and test the technical, financial and economic feasibility of a state-of-the-art marine electronic navigation and environmental management system in a developing country context for the very first time.

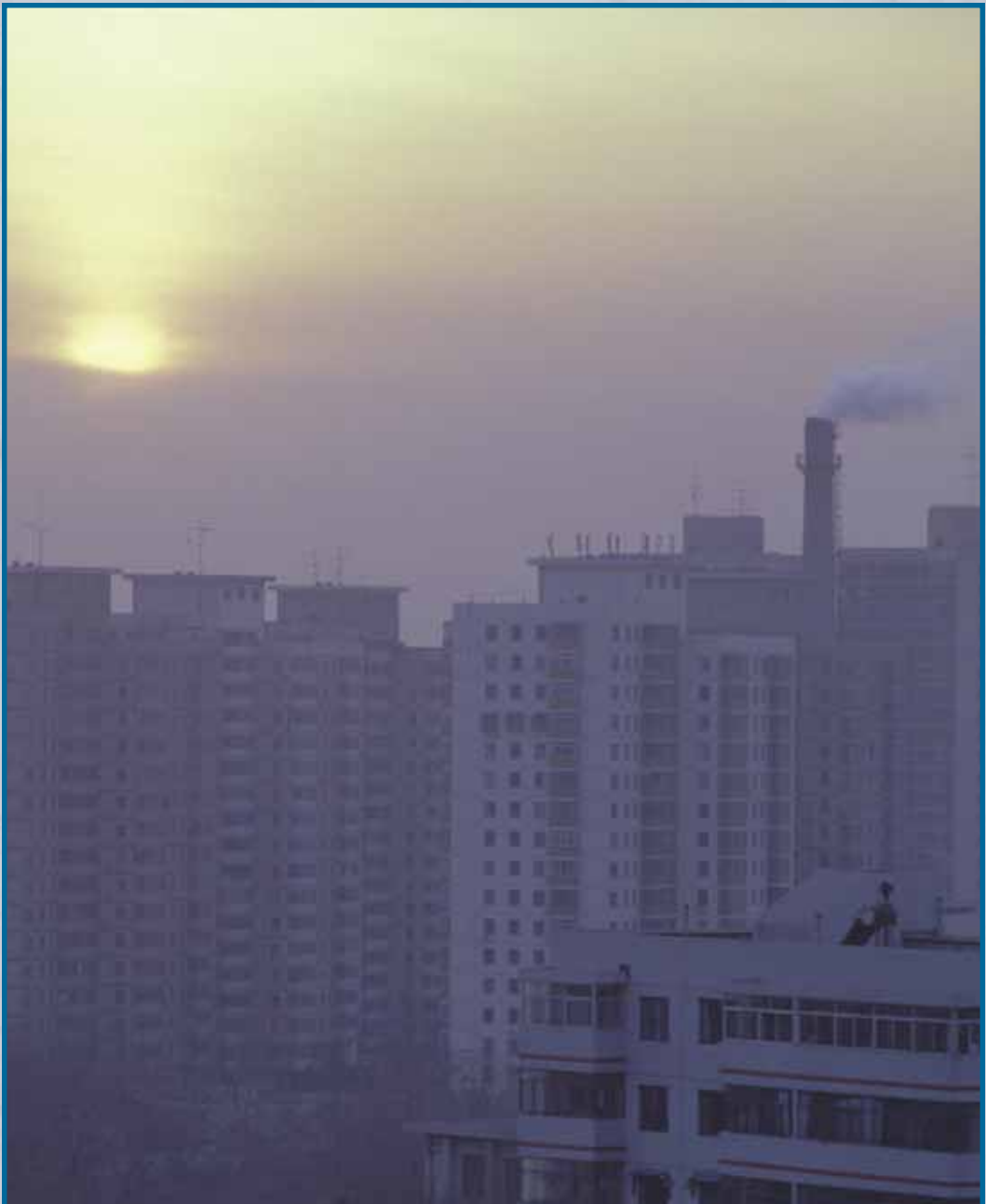
Finally, EAP will sponsor the WB/GEF Coral Reef Targeted Research and Capacity Building for Management Project, the first phase of a global scientific coral reef stress diagnosis and management program.

Persistent Organic Pollutants (POPs) phase-out program. In this new GEF focal area, the Bank will help its clients to begin implementing the

recent Stockholm Convention on POPs. As a first step, it will help China design and mobilize GEF co-financing for two POPs management demonstration projects – (1) management and disposal of PCBs, and (2) alternatives to chlordane and mirex for termite control. These projects are supplemented by other, non GEF funded activities, including the development of a PCB inventory and strategy for PCB destruction and disposal, and capacity enhancement to evaluate the impacts of exposure to POPs. Lessons from these activities will help China and other countries to design their national POPs management programs.

The Region will also explore opportunities to add POPs phase-out assistance to some of its broader environmental management programs and partnerships, for example in Malaysia, the Philippines, Thailand and Vietnam.

Sustainable land management. As this issue is an important concern of most EAP clients, the Bank will explore its clients' needs for additional GEF support. Initially, these discussions will focus on Cambodia and Vietnam in response to requests from these countries for support. It will also respond to additional clients' request as feasible.





D

Appendix D — The Montreal Protocol Program

The World Bank plays a major role in assisting countries to meet their national requirements as Parties to the Montreal Protocol (MP). Total MP commitments for the region amount to \$559 million, and are expected to reach \$620 million by 2010. Commitments to China, which is implementing the largest ODS program in the world, account for more than 80 percent of this allocation.

The Bank's MP program is now in its twelfth year. While the Bank's MP program relies heavily on national execution of ODS phase-out programs, the Bank plays a pivotal role in strengthening our client countries' policy and institutional framework, including local institutions to support implementation. Operating modalities, policy instruments, and investment projects are developed in synchrony, so that effective and innovative approaches can evolve.

Over the past decade, the EAP MP Program has taken many innovative approaches to strengthen the effectiveness of its implementation. For instance, China's halon sector plan was the first sector-specific, policy- and performance-based instrument

approved by the Executive Committee of the Montreal Protocol to help phase out ODS. Its effectiveness in achieving the phaseout targets has made the performance-based approach and sector approach the preferred instrument. Starting in 2000, other countries and implementing agencies are also developing sector plans rather than individual or umbrella projects. In countries with smaller ODS consumption, such as Malaysia, the Philippines, Thailand, and Vietnam, the region has pioneered national CFC phaseout plans. This modality was adopted by the Executive Committee for other regions.

The Thai Chiller Replacement Project, approved in 1999, marks another innovation. It was the first attempt to combine efforts to support the implementation of two international conventions, the Climate Change Convention

and the Montreal Protocol Convention to reduce greenhouse gas emissions and ODS.

Finally, the refrigeration sector plan in Indonesia is the first sector plan in MP operations whose implementation requires a very close cooperation between the Bank and UNDP.

Strategic Directions for the Future GEF Assistance in EAP

The MP program is now in a critical stage of implementation, with just six years left to complete the ODS phaseout in all countries. During this period, the focus will be on:

1. *Completing the shift to performance-based programmatic approaches.* Based on pioneering work in the region, the project-focused approach is being replaced by performance-based programmatic approaches, where annual funding is released according to annual tranches.
2. *Enhancing policy dialogue.* All ODS-importing countries with National CFC Plans have moved to quota systems restricting the imports of CFCs to licensed importers only. At the same time, the increase in prices resulting from reduced supplies has increased the pressure on illegal imports. Policy dialogue at the national and regional level on

illegal trade implications has become increasingly important as part of the MP program. MP programs will also be linked with broader environmental assistance programs and policy dialogue, for example in the context of the Country Development Partnership on Environment in Thailand.

3. *Monitoring compliance with phaseout targets.* The MP obligations are now in the “compliance” phase, and will require countries to progressively reduce their national consumption to 50 percent of their baseline consumption (1995–97 average) in 2005, 15 percent in 2007, and zero in 2010. This is expected to be a very difficult part of the program, as most of the easier projects have already been completed, and the residual consumption is largely in the informal or small -and medium-sized servicing and manufacturing sectors. Therefore, during the coming years, it will be important to ensure that annual national consumption targets are met, and that project implementation proceeds on schedule so that enterprises are not affected adversely by the decrease in CFC availability. This implies continued and intense supervision of projects, as well as increased focus on regional cooperation, including policy dialogue and information-sharing between exporting and importing countries, and training of customs and other officials to prevent illegal trade of ODS.

E

Appendix E — Carbon Finance



Background

The Bank's CF business builds on the provisions in the Kyoto Protocol for the cost-effective market-driven transfer of emission reduction credits from activities taking place in countries participating in the Clean Development Mechanism (CDM). The Bank has supported several studies to explore CF potential in client countries (see, e.g., World Bank, German Federal Ministry for Economy Cooperation and Development, the Swiss State Secretariat for Economic Affairs, Trade and Clean, and the Government of the People's Republic of China 2004).

As the first major player in the market, the Bank's Prototype Carbon Fund (PCF) has been able to significantly influence the emerging carbon finance market, the way in which

projects eligible for trading carbon emission reduction credits are prepared, the underlying methodologies for measuring baselines and reductions, and setting the prices of emission reductions. The PCF and other Carbon Funds managed by the Bank are typically closed-end mutual funds with the single mandate of buying emission reduction credits, and are presently committed to levels of around \$750 million. The targeted outcomes are to catalyze the carbon market and promote learning-by-doing. The Community Development Carbon Fund specifically targets the creation of community assets to accompany carbon transactions.

The EAP region, in particular China, can potentially supply up to 50 percent of the total emission reduction demand from the CDM, mostly through projects in energy (renewables), industry and solid waste management. The largest CF opportunities are linked mainly with the industry, energy and urban sectors, but there will also be some opportunities to take CF into our client countries where market mechanisms will not work.

Community-based projects can be covered as well.

Emerging CF Portfolio

CF is a relatively new area for Bank support in the EAP region. In FY04, the first year of the program, the Bank focused on awareness raising and capacity development among client counterparts, and identification of projects in a range of sectors. At the request of counterparts, the Bank organized and/or participated in workshops in China, Indonesia, Thailand, and the Philippines. Eight projects were identified and taken up for development in FY04. Of these, the first (Indonesia, Indocement) Emissions Reduction Purchase Agreement (ERPA) was signed in June 2004, marking the first ever carbon transaction in the Bank's portfolio in EAP. Two more ERPAs were signed in December 2004 in China and the Philippines. The China ERPA with the Jincheng Anthracite Coal Mining Group Co., Ltd. will capture coal mine methane and utilize it for power generation in Shanxi province. Under the agreement, the PCF will purchase 4.5 million tons of carbon dioxide equivalent over the next 7 years. This is now the biggest ERPA the Bank has signed world-wide, accounting for some 10 percent of the PCF's total capital, and it is also the biggest contract in the market to date. The Philippines ERPA captures emission reductions from a wind farm project. In the com-

ing years, the region is moving to significantly widen its engagement in CF operations.

Strategic Directions

While there are very encouraging signs that the CF market will continue to expand with the entry into force of the Kyoto Protocol, there is some uncertainty that makes it difficult to plan beyond the medium term (after the Kyoto commitment period). Under these uncertainties, the focus is to:

1. Integrate projects in the Bank's lending operations. Particular focus is on landfills, where methane capture might provide the largest conventional returns from CF, and CF could be linked with enhanced waste management.
2. Diversify opportunities to gain experience with the various Bank CF windows, for example in the context of linking community carbon finance with community-driven resource management. A possible China HFC-23 project, targeting capture of a by-product with extremely high global warming potential, is also under development, and when developed, this could be the Bank's largest ever global CF transaction.
3. Include CF in policy dialogue and partnerships, for example in middle-income countries. Dialogues have been initiated with Malaysia and Thailand.