

Chapter 6 Highlights

NEW KNOWLEDGE AND INFORMATION SOURCES

- EA Sourcebook Updates
- Guides, Handbooks, and Toolkits

A growing body of guides, guidelines, and other similar tools was produced during the past four years to assist Bank staff and counterparts in the EA/safeguard process. The Regions have also developed project-oriented guidance designed primarily for staff and country counterparts engaged in implementing Bank safeguard policies. At the same time, Regional Safeguard units were formulating improved procedures to review and document the safeguard review process throughout the project life cycle.

KNOWLEDGE MANAGEMENT

The Bank has developed several web sites on specific EA-related topics, such as social assessment and pollution management, to enhance staff knowledge of the EA process. These serve as general reference for Bank staff in safeguard capacities as well as for operational staff. Overall, this process has been accelerating over the last several years and represents a tremendous opportunity for technical support.

Expanding Safeguard Information and Knowledge

This chapter examines new resources and tools created since the second Environmental Assessment (EA) Report that are designed to improve EA quality in the Bank and client countries. The Bank also embarked on an ambitious effort to consolidate much of its technical, operational, and lessons-learned material in a central repository, the World Bank Knowledge Management (KM) Web Sites, accessible to both internal and external users.

6.1 New Knowledge and Information Sources

Improving the quality of EA depends heavily on strengthening the understanding of Bank staff of its importance and ensuring that they have sufficient knowledge to undertake it. A growing body of guides, guidelines, and other similar tools was produced during the past four years to assist Bank staff and counterparts in the EA/safeguard process. The Regions have also developed project-oriented guidance designed primarily for staff and country counterparts engaged in implementing Bank safeguard policies. At the same time, Regional Safeguard units were formulating improved procedures to review and document the safeguard review process throughout the project life cycle. And, as recommended by EA-II, the Environment Department has continued to produce *EA Sourcebook Updates*.

6.1.1 EA Sourcebook Updates

The Environment Department published *EA Sourcebook Updates* in areas pinpointed in EA-2 as those in which staff knowledge required shoring up. The *Sourcebook Update* is a 10- or 12-page “how-to” mini-manual that includes country and project examples to illustrate the technical approach developed in the text; most also include a brief set of references providing further guidance. Between FY96 and FY99, 11 *Updates* were produced; Box 6.1 summarizes the issues covered.

Box 6.1 Environmental Assessment Sourcebook Updates (FY96 through FY99)

Challenges of Managing the EA Process (1996), No. 16

Successful implementation of environmental assessments must address a number of challenges for those managing EAs and preparing EA reports, particularly in countries with limited EA experience. This update identifies the most important of these challenges (including selection and management of EA Teams, impact identification and prediction, evaluation of impact significance, and information presentation) and suggests approaches for addressing them.

Analysis of Alternatives in Environmental Assessment (1996), No. 17

This Update outlines how analysis of alternatives can be undertaken at different levels of development planning, through project-specific, sectoral, and regional EAs. It provides an exhaustive review of decisionmaking methods for comparative assessment of alternatives, and provides broad guidance on comparative assessment and an introduction to systematic methods for comparing alternatives.

Health Aspects of Environmental Assessment (1997), No. 18

Many development projects affect human health. In some instances, projects with obvious benefits may also have unintentional adverse health impacts. For example, water supply projects will often reduce the occurrence of diseases such as diarrhea and cholera, but may also create conditions favorable to the proliferation of disease vectors such as mosquitoes or water snails. Road projects may improve access to health services but may also increase the exposure of local communities to sexually transmitted diseases or dramatically increase traffic-related injuries and deaths. In many of these instances, the environmental health dimensions of projects are not systemically taken into account. This Update provides guidance to task managers and borrowers on systematically integrating public health and safety concerns into EA. Early screening procedures are described for risks to health and measures identified to adequately address these risks during project preparation, implementation, and beyond.

Assessing the Environmental Impact of Urban Development (1997), No. 19

Cities in less-developed countries are growing at unprecedented rates. Municipal authorities are struggling to keep up with the pace of urbanization and increasing demands for infrastructure and services such as water and sanitation, roads, schools, power systems, and waste collection. In many cities, the demand far outstrips the capacity to supply. The urbanization process, and the urban investments resulting from it, tend to generate many complex environmental problems. This Update discusses how EA can contribute to improved urban development and environmental planning, at the project and policy level. It also introduces analytical tools to support such planning.

Biodiversity and Environmental Assessment (1997), No. 20

Many sectors of national economies and local communities depend upon the diversity of biological resources and the functions they protect and sustain. The irreversibility of species extinction and loss of genetic strains, natural habitats, and ecosystems through degradation and over-exploration compromise options for present and future generations. Accordingly, the functions and services of natural habitats and ecosystems should be systematically assessed and evaluated as part of the cost/benefit analysis of programs and projects. This document provides an introduction to the policy framework for protection or enhancement of biodiversity, the relevant project contexts where biodiversity may be adversely affected, and guidelines for integrating biodiversity concerns into EA.

Environmental Hazard and Risk Assessment (1997), No. 21

Many types of development supported by the Bank involve environmental risk. For example, dam construction or remedial action to clean up pollution may pose risks to human health or the natural environment. Under such conditions, the potential environmental impacts are often subject to uncertainties. Where these uncertainties are significant, for example in the case of a potential release of toxic material in a densely populated area, a quantitative assessment of hazards and risks may be appropriate. The techniques of hazard and risk assessment have been developed to help determine the degree of uncertainty associated with development activities. These techniques may be used independently from or in support of EA and environmental auditing, which they complement. This Update provides an introduction to hazard and risk assessment, outlines some available methodologies, and discusses the use of these techniques in assessing environmental liability.

Environmental Assessment of Mining Projects (1998), No. 22

Expansion within the mining and metallurgical sector is central to the development and economic growth of many developing countries. The products of the sector are not only essential to many industrial processes and for construction, but also are often a valuable source of foreign exchange earnings. However, mining operations frequently involve considerable environmental disturbance that can extend well beyond the area of mining development. The impacts of mining-related activities commence with exploration, extend through extraction and processing of minerals, and may continue post-closure of the operation, with the nature and extent of impacts varying throughout the stages of project implementation. This Update provides an introduction to the environmental issues associated with mining activities, the relevant contexts in which the Bank might be involved with mining projects, and the extent to which environmental issues should be addressed by private- or public-sector organizations seeking Bank Group support for mining projects.

Economic Analysis and Environmental Assessment (1998), No. 23

Successful economic development depends on the rational use of natural resources and on reducing as far as possible the adverse environmental impacts of development projects. EA is a primary tool for achieving this objective, by inserting critical environmental information into the process of project identification, preparation, and implementation. Economic analysis, by comparison, is employed to determine if the overall economic benefits of a proposed project exceed its costs, and to help design the project in a way that produces a solid economic rate of return. Adverse environmental impacts are part of the costs of a project, and positive environmental impacts are part of its benefits. Consideration of environmental impacts therefore should be integrated with the other aspects of the project in the economic analysis to the extent possible. This Update discusses the relationship of EA and economic analysis and gives guidance on how economic analysis might incorporate environmental costs and benefits.

Environmental Assessment of Social Fund Projects (1999), No. 24

In many developing countries, Social Funds (SFs) have become a major source of development finance at the community level. Set up as financial intermediaries to channel resources from international donors to small, poor, and vulnerable communities. SFs finance up to several thousand subprojects annually, such as school and health clinics, village water supply and sanitation, rural roads, rural electrification, and small irrigation works. Subproject proposals are submitted by local communities or their representatives and evaluated against specific criteria. Many subprojects financed by SFs raise only minor or no environmental issues. However, experience shows that SFs need to establish simple environmental assessment procedures to avoid causing adverse harm to the environment and human health. This Update discusses why such procedures are needed and how they might be integrated into the Social Fund Project Cycle.

Environmental Management Plans (1999), No. 25

Prediction of the potential adverse environmental and social impacts arising from development interventions is at the technical heart of the EA process. An equally essential element of this process is to develop measures to eliminate, offset, or reduce impacts to acceptable levels during implementation and operation of projects. The integration of such measures into project implementation and operation is supported by clearly defining the environmental requirements within an environmental management plan (EMP). EMPs provide an essential link between the impacts predicted and mitigation measures specified within the EA report and implementation and operational activities. They outline the anticipated environmental impacts of projects, the measures to be undertaken to mitigate these impacts, responsibilities for mitigation, time-scales, costs of mitigation, and sources of funding. This Update provides an introduction to mitigation measures and EMPs, identifies the policy framework for preparing EMPs for Bank-financed activities, outlines the main components of EMPs, and discusses means to ensure that commitments within the EMP are carried through to implementation and operation.

Public Consultation and Environmental Assessment (1999), No. 26

This Update describes good practice in the planning, implementation, and monitoring of public consultation in the EA process. It focuses on thinking strategically about public consultation in order to more efficiently deliver improved project sustainability and protect the interests of affected communities, especially the poor and vulnerable.

6.1.2 Guidance and Toolkits

Some examples of recent contributions to the body of knowledge on EA/safeguards include:

- **Environment Department.** *Pollution Prevention and Abatement Handbook (1998)*
The Handbook, compiled by environment staff from the Bank and the International Finance Corporation, replaces the 1988 *Environmental Guidelines*. This lengthy document contains a wealth of guidance information, including a step-by-step guide to the EA process. The handbook first addresses key policy lessons, and then moves into extensive discussions of policy implementation, covering: basic principles, prioritization, air and water quality management, industrial management, financing environment, and global and transboundary issues.
- **Middle East and North Africa (MNA) Region.** *A Guide for the Preparation and Review of Environmental Assessment Report (January 2000)*
The guide seeks to facilitate and improve a key element of the EA process—the commissioning and reviewing of EA studies and reports—and is targeted to two audiences: Bank task teams and client-country counterparts in the Middle East and North Africa. The guide was formulated to provide the basic information and understanding needed to *plan*, *commission* (including preparation of terms of reference), and *review* an EA study or report. The first section focuses on preparation of the EA report, including environmental management plans for seven sectors covered by investment operations in the MNA region, and for project-specific and sector-specific EA reports. The second section covers the review of EA reports by the environment cluster team in MNA or environment agencies in client countries. The two sections complement each other, and should enable clients, operational staff, and consultants to address the minimum EA requirements for the preparation and review of EA reports.
- **Africa Region.** *The Environmental and Social Review of World-Bank Financed Activities in Africa: A Survival Kit for Operational Staff (In process)*

A step-by-step guide to understanding and implementing environmental and social safeguard policies, this guide defines EA as a framework for (a) diagnosing the present situation, (b) predicting the likely evolution and impacts of the project as submitted, and (c) recommending measures to prevent or mitigate the most severe impacts. The document covers each stage of the EA process—from screening at the Project Concept Document preparation stage to preparing the environmental aspects section of the Implementation Completion Report—clarifying roles and responsibilities of the Bank and the borrower and explaining how to proceed for each step to be taken. A second section covers environmental management plans (EMPs), defined as “the operational expression of the EA process.” The section explains how to prepare and apply an EMP, offering help to government agencies and the public to better understand their responsibilities for executing the plan, including monitoring and evaluation. “Ultimately,” the document points out, “the success of EA depends on the ability of professionals in [the Region] not only to understand EA procedures, but also to conduct EA studies and interpret the Bank’s environmental assessment requirements.”

- **Latin America and Caribbean (LAC) Region.** *Guidelines for Consistent Application of Social and Environmental Safeguard Policies (In process)*

This set of guidelines was prepared by the Quality Assurance Team of LAC’s Environmentally and Socially Sustainable Development unit in response to problems such as delays, higher transaction costs, and criticism from stakeholders when EA is implemented improperly. Based on the premise that EA offers too much room for interpretation and personal judgment, the guidelines are intended to clarify EA terminology and requirements, and thus contribute to a more consistent and effective application at all stages of the process. The tool consists mainly of a series of matrices covering different sectors (water, power, and so forth) that demonstrate how to assess any given project in light of environmental and social safeguards.

- **Latin America and Caribbean Region.** *Environmental Guidelines for Social Funds*¹

These guidelines serve as an introduction to the incorporation of environmental considerations into World Bank Social Funds in Latin America, the Caribbean, and other regions. The target audience is management staff and technical staff of social funds, as well as World Bank task managers of these projects. It serves as a “jumping off” point for staff in the establishment and implementation of environmental assessment procedures.

- *Biodiversity and Environmental Assessment Toolkit*

Given the vital importance of systematically assessing and evaluating the functions and services of natural habitats as part of cost/benefit analysis of programs and projects, there is an increasingly urgent need for environmental assessment to pull its weight in helping to prevent biodiversity loss. The objectives of the toolkit are to: (1) inform EA practitioners, task team leaders, executing agencies, and other project stakeholders about the costs and benefits of effective treatment of biodiversity in project design, acceptance, and long-term sustainability; (2) outline pragmatic and cost-effective approaches and methods to achieve effective treatment of biodiversity in EA and for a range of project investment types and scales; and (3) assess the implications of the above for the management of EA in the World Bank.

- *Roads and the Environment: A Handbook*

Although roads often bring significant economic and social benefits, they can also have substantial negative impacts on communities and the natural environment.² The Handbook was produced in response to growing awareness of these potentially negative impacts, and the consequent demand for improved knowledge on how to avoid them. It was developed for road agency managers; road engineers, planners, and contractors; and environmental specialists, community groups, academics, and development organizations. The Handbook consists of two parts; the first provides an overview of the EA process in the context of road planning and construction and describes the steps to

be taken to carry out environmental assessment in that context. The second part offers a more detailed discussion of each of the major factors involved in environmental assessment of road projects, including impact mitigation.

- *Setting Priorities for Environmental Management: An Application to the Mining Sector in Bolivia*

Managing environmental problems constitutes an important element of the quality of environmental actions, and is thus one of the important factors ranked in environmental assessment. This study grew out of work done by the Bank with Bolivia’s state mining corporation, COMIBOL, during a period in which COMIBOL was engaged in closing some mines and transferring others to the private sector.³ The company thus had to address environmental damage resulting from past mining activities—such as microbiological contamination of drinking water, lead, airborne dust, and possibly cadmium and arsenic in the environment. The study offers guidance, based on the Bolivian experience, in the areas of (a) ranking sites for remediation (given limited resources, where should project efforts be focused?), and (b) selecting priority investments and activities for environmental management. It sets out a series of steps that take into consideration human health hazards, economic infrastructure, ecosystems, and the need to attract private investment, and suggests criteria to be used in deciding how to manage each site requiring remediation. The study includes an extensive set of annexes that could be used by other, similar projects in assisting national authorities to manage environmental/safeguard aspects of mining sites. Thus it is a valuable companion to *EA Sourcebook Update 22*, covering EA in mining projects.

- *Resettlement and Rehabilitation Guidebook (also available on CD-ROM and the Bank’s web site)*

This important guidebook was developed jointly by staff from the social and environment groups and the World Bank Institute to provide guidance on planning and implementing resettlement programs. Organized around

the actions required at each stage of the World Bank's project cycle, it is designed to permit task team leaders, project staff, consultants, trainers, and nongovernmental organizations (NGOs) to understand the requirements for a successful resettlement program. It provides a framework for preparing, implementing, and monitoring resettlement action plans, the main vehicle for implementing safeguard policy on involuntary resettlement.

6.2 Knowledge Management

The World Bank's strategy for knowledge sharing, begun in 1997, has been explicitly external from the outset. Its objective is to make know-how and experience accessible not only internally to World Bank staff, but also externally to clients, partners, and stakeholders around the world, and in the process, to reach many who currently have little or no access to the organization's expertise.

Knowledge management (KM) has been accelerating through eight principal means, including: linking the community of practitioners; developing a helpdesk/advisory services and a directory of expertise; making development statistics available on-line; collecting and making accessible operational information; providing a dialogue space in electronic form to permit internal and external parties to express their views, exchange information, and get answers; and creating both internal and external access to information.

The World Bank web sites now constitute a vast repository of information on many subjects, including environmental assessment/safeguards. Some of the sites that serve as capacity-building tools for Bank staff or external readers in this field are mentioned below.

6.2.1 Social Assessment Methods Web Site Node

A visit to the external Bank web site will provide the viewer with numerous options. The four main query themes include *What We Do*; *Resources*; *Partners*; and *About Us*. From the Resources query heading, the viewer can choose any of 23 *Topics and Sectors*, several of which are pertinent for safeguard-related information. The two key sectors are *Environment* and *Social Development*. The Social Development gateway will allow access to six cat-

egories; *Overview*, *Topics and Regions*, *Resources*, *Projects and Policies*, *News and Events*, and *Partnerships*. There is also a pop-up window—*Special Features*—that contains information of recent vintage or of particular importance that the KM managers wish to highlight.

One of the 15 *Topics and Regions* categories, Social Assessment, drops into *Key Concepts*, *Policies*, *Methods*, *FAQs*, *Case Studies*, and *External Links*. Selecting the Methods portal takes the viewer into the *Social Assessment Methods* portal, a rich collection of information, guidance, and recommended procedures. Box 6.2 displays the extensive listing and supportive material in this portal. An example of the useful information contained in each subject tool site is illustrated in Box 6.3.

Box 6.2 Contents of the Social Assessment Methods Web Site

Analytical Tools

- Stakeholder Analysis
- Gender Analysis

Community-based Methods

- Participatory Rural Appraisal
- The SARAR process

Consultation Methods

- Beneficiary Assessment

Observation and Interview Tools

- Participant Observation
- Focus Group Meetings
- Semi-structured Interviews
- Village Meetings
- Secondary Data Review

Participatory Methods

- Role Playing
- Mapping
- Wealth Ranking
- Needs Assessment Exercise
- Access to Resources
- Pocket Charts
- Analysis of Tasks
- Tree Diagrams

Workshop-based Methods

- Objectives-Oriented Project Planning (ZOPP)
- TeamUp

Box 6.3 Contents of the Social Development Web Site “Analytical Tools: Stakeholder Analysis”

Stakeholder Analysis

Stakeholder analysis is a strategic entry point for social assessment and participatory work, since it gets at answering questions such as: who are the key stakeholders? what are their interests in the project or policy? what are the power differentials between them? and what relative influence do they have on the operation? Systematic analysis of this information enables the identification of institutions and relations that, if ignored, can have negative influence on projects and policies or, if considered, can be built upon to strengthen projects and policies.

A Four-Step Process

Step 1: Identifying key stakeholders

The purpose of this first step is to narrow the field of stakeholders from all those who potentially affect or are affected by the proposed project or program into the key stakeholders whose involvement will be sought. This purpose can be served by a simple list generated by answering the following types of questions. Who are potential beneficiaries? Who might be adversely impacted? Have vulnerable groups been identified? Have supporters and opponents been identified? What are the relationships among stakeholders?

When answering these questions, consider the Borrower, beneficiary, affected groups, other interested groups, and the Bank to be categories of stakeholders, and remember that stakeholders can be individuals, communities, social groups, or organizations. The list that results from this exercise can be put into a series of stakeholder tables that are used to organize information about interests, power, influence, and involvement of each key stakeholder or group.

Step 2: Determining stakeholder interests

Some stakeholder interests are more obvious than others. It is important to remember that many interests are difficult to define, especially if they are “hidden,” multiple, or in contradiction with the stated aims or objectives of the organization or individual. To focus the inquiry, remember to relate each stakeholder to the proposed objectives and activities of the specific project or policy. The following questions should guide the inquiry into the interests of each key stakeholder or group: What are the stakeholder’s expectations of the policy/project? What benefits are there likely to be for stakeholders? What stakeholder interests conflict with project/policy goals? What resources might the stakeholder be able and willing to mobilize? In some cases, these questions can be answered through review of secondary information. Often, however, some degree of social analysis or participatory consultation will be necessary to determine the answers.

Step 3: Determining stakeholder power and influence

Power and influence refer to the effect stakeholders can have on a project or policy, for example to control what decisions are made or to facilitate or hinder its implementation. Stakeholders’ interrelationships are as critical to consider as their individual relationship to the project or policy. The following questions are a good starting place for organizing information about social, economic, political and legal status, authority, control, and relative negotiating positions among stakeholders: What are the relationships between the various stakeholders? Who has power over whom? Who is dependent on whom? Which stakeholders are organized? How can that organization be influenced or built upon? Who has control over resources? Who has control of information? The answers to these questions reveal the kind of support that is needed for a given project or policy and which stakeholders are in the best position to provide that support.

Step 4: Formulating a stakeholder participation strategy

The plan for stakeholder participation should take into account interests, influence, and power, as well as level and timing of participatory activities. These three factors can be considered in a series of three stakeholder tables.

6.2.2 Pollution Management Discussion Notes

Geared at both an internal and external audience, “Pollution Management Discussion Notes” are part of the knowledge management effort of the Environment family. They are aimed at fostering professional discussion, disseminating lessons learned from Bank operations, and transferring best practices in pollution management. Recent contributions to the “Discussion Notes” (Box 6.4) series cover such issues as the impact of foreign direct investment on the environment and comparative risk assessment in developing countries—both of which are very pertinent to the process of environmental and social assessment.

6.2.3 EMPower Info (<http://www.worldbank.org/html/fpd/em/emhome.htm>)

This collaborative program, coordinated by the Bank, supports the integration of environmental concerns into project and power-system planning in developing countries. EMPower Info provides a broad range of information about the EA process, various energy sources and their environmental impacts, power conversion and pollution mitigation technologies, and standards that, together, assist policymakers to incorporate environmental issues into their decisionmaking. Among the higher-level themes addressed are:

- *EA process*: Broad overview (at the sectoral, regional, or project level) of how to assess the impacts of alternative power system expansion options. Also provides details on project definition, environmental impacts, methods and tools, standards and guidelines, and mitigation measures.
- *Environmental standards and guidelines*: An overview of country-specific environmental standards and guidelines used in the power sector.
- *EA methods and tools*: Information on various models that may be used in specific steps of the EA process.

6.2.4 Business Partners for Development—Natural Resources Cluster (www.bpd-naturalresources.org)

Business Partners for Development (BPD) is a program designed to study, support and promote the

creative involvement of businesses as partners alongside governments and civil society for the development of communities around the world. BPD is an informal network of private companies, central and municipal governments, NGOs, and donor agencies. The Natural Resources Cluster (NRC) is one of five BPD focus groups that is co-convened by CARE International, PB Amoco, and the World Bank to focus on projects operated by oil, gas, and mining corporations.

The Natural Resources Cluster seeks to enhance the role of oil, gas, and mining corporations in development. Its aim is to produce practical examples, based on ‘focus’ projects around the world, of how three-way partnerships involving companies, government authorities, and civil society organizations can be a more effective means of reducing social risks and promoting community development. Working in different countries and at different stages of project development, the Natural Resources Cluster is systematically testing the performance of tri-sector partnerships in terms of both business benefit and development impact.

Specifically, the NRC is exploring the role of tri-sector partnerships in providing answers to the unresolved social management and sustainable development challenges confronting nonrenewable natural resource (oil, gas, and mining) projects. For example, the initiative looks for creative ways in which these partnerships can:

- Promote more equitable and visible economic development in the region of operation
- ‘Pool’ resources, skills and experience to increase the quality, reach and sustainability of local public services—health, education, water supply, housing water disposal, and so forth
- Encourage local business activity and leave an economic legacy independent of the oil, gas, or mining business
- Improve the quality of resettlement and income restoration programs
- Deliver effective community development in situations of violent conflict
- Overcome weak capacities in civil society and local government.

The NRC also promotes “good practices” relevant to tri-sector partnerships in the oil, gas, and

mining sectors and undertakes to organize practitioner study visits and theme-based workshops to share knowledge; develop and deliver training modules to help build and maintain effective partnerships; commission research and synthesize existing knowledge on priority issues emerging from the focus projects; hold national workshops to promote the scaling-up of good practice; and disseminate ideas, learning, and conclusions to a wide audience.

6.2.5 Energy Sector Management Assistance Program (ESMAP) <http://www.worldbank.org/html/fpd/esmap/>

The Energy Sector Management Assistance Program (ESMAP) is a global technical assistance program sponsored by the World Bank and the United Nations Development Programme (UNDP) and managed by the World Bank. ESMAP focuses on the role of energy in economic development with the objective of contributing to poverty alleviation and economic development, improving living conditions, and preserving the environment in developing countries and economies in transition. ESMAP channels free policy advice and other technical assistance to governments, with a focus on three priority areas: (1) market-oriented energy sector reform and restructuring, (2) access to efficient and affordable energy, and (3) environmentally sustainable energy production, transportation, distribution, and use. ESMAP works along six main themes:

- Assisting with energy sector policy and restructuring
- Promoting energy access in rural and urban areas, and in underserved households and businesses
- Analyzing local, regional, and global energy-environment linkages
- Mainstreaming renewable energy technologies
- Encouraging more efficient energy practices
- Facilitating international energy trade.

ESMAP activities involve partnerships with all stakeholders in the energy sector: governments, private sector, research institutions, and nongovernmental organizations. ESMAP activities are managed by World Bank energy specialists.

ESMAP concentrates on issues not yet mainstreamed in the operations of bilateral or multilateral development institutions or in the private sector. It aims at designing innovative approaches to address energy issues.

6.2.6 Environmental Assessment CD-ROM

The World Bank's EA Knowledge Management Team produced this tool in 1999. It contains a diverse collection of information including EA Updates, World Bank Policies, Technical Reports, papers, sample terms of reference, conference proceedings, and lists of useful web sites. The CD-ROM is distributed with a hard copy binder that is used in the Region's safeguard training program, and is designed to serve as a handy, off-the-shelf computer learning and guidance toolkit.

6.2.7 Information Management Tools: Lotus Notes Tracking System

The East Asia Social and Environmental Safeguard (EASES) team has evaluated several approaches to improving both the type and consistency of safeguard information throughout the life of each project in the East Asia and Pacific regional portfolio. To this end, a Lotus Notes-based "Environmental Assessment Report—Quality Assessment Worksheet" is being tested. This new tool incorporates safeguards benchmark attributes used in a pilot Philippines country portfolio study that can be filled in or modified at any time. The utility of this tool is that it can be maintained as an active, iterative product at both the country and headquarters levels. It is considered a self-assessment tool, because the intention is that the task team maintain its information content. EASES staff would input the initial information, and on a regular, bi-annual basis request updates from a project environmental contact and/or the task team leader. (See chapter 7 for more information on this initiative.)

6.3 Conclusions

The guides, handbooks, and other material prepared by different Bank units since the publication of EA-II represent valuable contributions toward improving the quality of environmental

Box 6.4 Pollution Management “In Focus” Discussion Notes

Foreign Direct Investment: Boon or Bane for the Environment, June 2000

Foreign direct investment (FDI) can be a significant driving force for sustainable environmental management in developing countries. Its environmental effects depend on the investor, the sector, and the country context, especially the policy and regulatory framework. Many multinational firms are concerned about their reputation, prefer regulatory stability and predictability, and have incentives for efficient production. The longer-term nature of FDI and the potential congruence of investors' and host countries' interests can offer opportunities for many environmental benefits from this form of investment.

Comparative Risk Assessment in Developing Countries, January 2000

Comparative risk assessment (CRA) has been increasingly used around the world as a useful environmental planning tool. It allows policymakers and managers to focus institutional and financial resources on specific high-priority environmental issues at the city, regional, and national levels and even across national boundaries. CRA applications have helped develop local environmental management and planning capacity and increase public awareness of environmental concerns and public participation in dealing with these issues. This note looks at the application and results of CRA in developing nations around the world. Authors: Susan E. Keane and Jeannie Cho.

Environmental Challenges in Fuel Use, December 1999

Among the potential effects of fossil fuel combustion are urban air pollution, acid rain, and changes in global climate. A study of six cities in developing countries and of an industrial area of Poland examined how various fuels and sources contribute to health and other environmental damages and analyzed abatement strategies for reducing these damages. Substantial differences were found between cost-effective strategies for mitigating local and global environmental effects. The study illustrates the difficulty of devising efficient policies, given the complex relationships among pollution sources, control options, and environmental impacts. This real-world complexity calls for a skillful mix of policy instruments built on rigorous analysis. Authors: Kseniya Lvovsky and Gordon Hughes.

Environmental Funds—The Chinese Experience, November 1999

Environmental funds have become popular in developing and transition economies as a way of channeling money into environmental programs when access to financing for such activities is limited. In countries where state-owned enterprises are still important, environmental funds tend to focus on pollution abatement in that sector. Despite their appeal, environmental funds do not solve underlying problems; they are most useful as transitional measures that provide resources for some environmental improvement while stronger environmental policies and regulatory structure are being put in place. Chinese and World Bank experience bears out this experience.

Environmental Implications of Privatization, September 1999

Privatization fosters economic efficiency and contributes to governments' fiscal health by relieving them of burdens of state ownership. Besides these economic benefits, privatization also offers an opportunity for

environmental improvements. In order to use this opportunity, environmental considerations must be integrated into privatization transactions and proper environmental regulations, incentives, and enforcement must be in place. This note looks at the prerequisites for environmentally friendly privatizations on the basis of lessons from real world experience. Author: Magda Lovei.

Indoor Air Pollution, August 1999

Outdoor air pollution in developing-country cities is difficult to overlook. Indoor air pollution caused by burning such traditional fuels as wood, crop residues, and dung is less evident, yet it is responsible for a significant part of country and global disease burdens. The main groups affected are poor women and children in rural areas and urban slums as they go about their daily activities. This note reviews the evidence on health effects from indoor air pollution in developing countries, looking in detail at India. It outlines possible solutions and concludes that the only feasible long-term remedy is improved access to cleaner modern energy. Author: Kirk R. Smith.

Better Environmental Decisionmaking—The DSS/IPC, March 1999

Among the tools available to decisionmakers for assessing environmental problems and arriving at cost-effective solutions is the Decision Support System for Integrated Pollution Control. This instrument permits rapid estimations of the extent and impacts of pollution in a given situation and provides support for decisions on pollution management. Its use of standard emissions factors, simple dispersion models, and cost functions enables analysts to arrive at reasonable estimates even when field data are inadequate. By providing information about pollution problems and alternative abatement measures, the system can foster participation and consensus building. Author: Kseniya Lvovsky.

Comparative Risk Assessment, February 1999

In an imperfect world of finite resources, decisionmakers everywhere are faced with difficult choices about how to deal with environmental problems. Comparative risk assessment can help. CRA is a tool for comparing and ranking risks to health and ecosystems and identifying strategies for managing these risks, on the basis of both scientific data and public values. Recent experience in the United States and in other countries worldwide shows how CRA can assist in setting environmental priorities, promoting coordination between agencies, building consensus, and giving expression to the environmental concerns and preferences of the community. Authors: Ede Ijjasz and Laura Tlaiye.

Environmental Funds, January 1999

Environmental funds are increasingly popular environmental financing mechanisms in developing and transition economies. They, however, often only postpone rather than solve environmental problems, and they may contribute to existing distortions. This note provides guidance on approaches to dealing with such funds. Author: Magda Lovei.

assessment. Coming from different perspectives—Regional, Bank-wide, and sectoral—this material is designed to ensure that each step of the EA/safeguards process is taken at the right time and in the most effective manner to ensure compliance with Bank policies. EA-II noted that: “The quality of EAs depends on the accuracy of impact predictions, adequacy of data and methods, responsiveness of the consultation process, and appropriateness of mitigation, monitoring, and institutional measures.” By clarifying the steps and timing, roles and responsibilities, and technical procedures for carrying out each of these phases, the materials produced by different Bank actors constitute an important body of knowledge designed to provide staff with the tools they need to carry out high-quality EA/safeguards work.

To supplement training, Bank staff have developed numerous new information resources to ensure that the safeguard policies are understood and can be applied consistently and rigorously by staff in different sectors. And the Bank has gone beyond hard-copy publications to placing the bulk of this material on the Internet, thus making it more easily available to field staff and national actors

involved in the EA process—from government agencies to community groups. The new knowledge management activities should be viewed as part of the Bank’s internal and external capacity building efforts, especially since many of those who can obtain access to web material might never have the opportunity to attend a formal, Bank-sponsored training course.

Notes

1. D.J. Graham, K.M. Green, and K. McEvoy, “Environmental Guidelines for Social Funds,” Latin America and Caribbean Region, Sustainable Development Technical Paper 1 (Washington, D.C.: World Bank, 1998).

2. *Roads and the Environment: A Handbook*, Koji Tsunokawa and Christopher Hoban, eds., World Bank Technical Paper 376 (Washington, D.C.: 1997).

3. Wendy S. Ayres, Kathleen Anderson, and David Hanrahan, *Setting Priorities for Environmental Management: An Application to the Mining Sector in Bolivia*. World Bank Technical Paper 398, Pollution Management Series (Washington, D.C.: 1998).