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Strengthening Policy Dialogue on Environment

*Learning from Five Years of
Country Environmental Analysis*

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THE WORLD BANK ENVIRONMENT DEPARTMENT

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Environmental Analysis*

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Acronyms and Abbreviations

CAR	Corporaciones autonomas regionales (regional environmental protection agencies) [Colombia]
CAS	Country assistance strategy
CDM	Clean Development Mechanism (of the Kyoto Protocol)
CEA	Country environmental analysis
CMU	Country management unit
COED	Cost of environmental degradation
CONAM	Consejo Nacional del Ambiente (Council on Environmental Protection) [Peru]
DFID	U.K. Department for International Development
DPL	Development policy lending; development policy loan
DR–CAFTA	Dominican Republic–Central America Free Trade Agreement
EIA	Environmental impact assessment
ESW	Economic and social work
GDP	Gross domestic product
GEF	Global Environment Facility
GHG	Greenhouse gas
IDB	Inter-American Development Bank
MDGs	Millennium Development Goals
METAP	Mediterranean Environmental Technical Assistance Program
NEAP	National environmental action plan
NGO	Nongovernmental organization
OECD	Organisation for Economic Co-operation and Development
OP 4.01	Operational Policy 4.01, Environmental Assessment
OP 8.60	Operational Policy 8.60, Development Policy Lending
PCB	Pollution Control Board [India]
PEER	Public environmental expenditure review
PRSC	Poverty reduction support credit
PRSP	Poverty reduction strategy paper
QAG	Quality Assurance Group
SEA	Strategic environmental assessment
TAL	Technical assistance loan
TTL	Task team leader
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCC	United Nations Framework Convention on Climate Change

All dollar amounts are U.S. dollars.

Executive Summary

Over the past five years, the World Bank has undertaken a major effort to improve the quality of its upstream environmental analytical work. A key tool in this context is country environmental analysis (CEA), which aims to integrate environmental issues into country assistance strategies (CASs), poverty reduction strategy papers (PRSPs), development policy lending (DPL), and development assistance strategies and programs. The Bank has initiated 25 CEAs, 16 of them completed and nine ongoing; for several of the latter, completed drafts exist and have gone through internal Bank review. Currently, more than 10 new CEAs are planned. As the Bank scales up preparation of CEAs, it is important to learn from experience with completed CEAs to ensure continued improvement in the use of this tool.

The objective of this paper is to review experience with completed CEAs to improve the effectiveness of CEAs as a strategic analytical tool. Through in-depth analysis of the process, methodologies, costs, and results of completed CEA pilots, the paper assesses how effective CEAs have been in informing and providing strategic guidance to the Bank and client countries on environment-development issues and the extent to which they have facilitated donor coordination. The analysis carried out in this paper also provides feedback on when to prepare a CEA, how to prepare and structure CEAs, and how to use specific methodologies and processes in influencing policy dialogue with partner countries. The findings are of potential interest to World Bank sector managers, country directors, CEA task teams, and environmental staff, but also to

development partners who carry out work similar to CEAs.

The paper is based on a desk review of completed CEAs and on interviews with task managers and members of CEA teams. Several reports, including a fieldwork-based assessment of the Ghana, India, and Guatemala CEAs commissioned by the Environment Department; a review on Tunisia by the Quality Assurance Group (QAG); and a report commissioned by the Latin America and Caribbean Region, based on in-country assessments of completed CEAs, have also informed this study. A detailed case study analysis of each completed CEA was prepared for this exercise; it substantively informed the review and is available as a background paper.

Main Findings of the Review

The original CEA concept note proposed that CEAs have three main building blocks: (a) establishment of environment-development priorities linked with growth and poverty reduction, (b) assessment of the environmental implications of sector policies, and (c) institutional analysis. Assessing CEAs against this building block structure, the review highlights several findings.

Priority setting in CEAs. Many CEAs discussed links between environment and economic growth and poverty, but only a few have undertaken detailed analysis to establish priorities linked with both growth and poverty reduction. Good practice examples include the Peru and Colombia CEAs. Much more emphasis

has been placed on assessing priorities linked with growth than on poverty reduction. Several CEAs selected themes for analysis on the basis of two other criteria: focus areas of a DPL that formed part of the context in which the CEA was carried out, and consultation with partner country stakeholders. In terms of quantitative methods for priority setting, a number of different methods have been used: in particular, quantification of costs of environmental degradation and net savings indicator (to assess priorities linked with growth), and use of surveys and distributional analysis of environmental priorities (that is, analytic work that assesses priorities based on income) to determine priorities linked with poverty. Much more emphasis can be given in future CEAs to determine environment development priorities, in terms of growth and poverty through use of these quantitative tools and other innovative approaches.

Institutional and organizational analysis. Although CEAs have brought about considerable improvement in the quality of institutional analysis, compared with past country-level environmental analytical work, there are areas that could be improved further. Specifically, CEAs have tended to focus much more on public sector institutions than on the private sector and civil society, and point toward the need for stronger assessment of governance issues, including analysis of the “demand side” of environmental governance (that is analysis of actions and behavior of actors such as NGOs and communities that are outside the public sector). They have emphasized formal rules and organizations, with only a few assessing informal rules, and in analyzing organizations they have looked more at mandates, staffing, and resources than at decision-making processes or assessment of vertical and horizontal accountability structures. Only a few CEAs have focused on political-economy issues or assessed decision-making processes in the context of the power relations within which these are embedded. Public expenditure reviews, when carried out in CEAs, focus more on determining the adequacy of resources to meet priorities than on assessing issues of resource

flows between national and subnational levels, or transparency in use of resources. Finally, the depth and level of detail of subnational institutional analysis vary tremendously, from extensive analysis of resources and priorities at subnational levels to brief mentions in some cases.

In addition, environmental impact assessment (EIA) emerges as a key area of institutional analysis in CEA. The study shows the need to improve EIA and licensing in many of the countries reviewed.

Analysis of environment development priorities and themes in CEAs. Two main approaches have been used in undertaking detailed analysis of main themes and sectors: cost-benefit analysis of alternative interventions, and institutional assessment of issues linked with selected themes and priorities. The scope of institutional analysis with respect to key themes varies significantly; some CEAs focused mainly on the effectiveness of EIA processes in selected sectors (for example, analysis of the environmental implications of infrastructure expansion in the El Salvador and Guatemala CEAs); others looked primarily at the environmental implications of sector policies (as in the Belarus energy chapter); and still others focused on institutions and organizations linked with the theme. Although institutional analysis related to key themes and sectors is a significant improvement over past country-level environmental analytical work, it can be further improved by making greater use of existing methodologies, such as stakeholder analysis, for assessing political-economy and governance issues linked with a priority theme or sector.

CEA costs. The average cost for the CEAs reviewed was about \$288,000. This is comparable to the cost of certain diagnostic studies and ESWs Bankwide (OPCS 2004; World Bank 2006i). However, 9 out of 16 CEAs reviewed cost less than \$232,000. A comparison of costs assumed by CEA teams at the concept note stage and actual CEA costs shows that typically CEAs cost more than what is initially planned and budgeted. Although CEAs are supported through trust funds, a

considerable portion of the Bank budget is also spent on their preparation. In nine out of the 16 CEAs reviewed, bank budget accounted for a greater portion of overall CEA costs.

Rapid and Full CEAs. Out of the 16 CEAs reviewed, four were prepared as “rapid” CEAs. The average cost of a rapid CEA is about \$155,000. However, some rapid CEAs cost as much as extended CEAs. Even in terms of scope, rapid CEAs did not include fewer building blocks (for example, the Nigeria, El Salvador, and Guatemala CEAs). Thus, in terms of cost and scope, the distinction between rapid and full CEAs is not very meaningful.

Structure of CEAs. Whereas most CEAs included two building blocks, namely selection of themes, priorities, and institutional analysis building blocks, some studies characterized as CEAs did not include these core elements or cover them adequately. For instance, the Ghana and the Orissa CEAs did not include a broad analysis of environmental management institutions and decentralization. In CEAs, recommendations, too, are often not presented in a standard way that would facilitate their use in follow-up work and activities.

Results from CEAs. CEAs have contributed to a range of outputs and processes. Types of results included input to policy and institutional changes, identification of lending operations, integration of environment into CASs and PRSPs, input to DPLs, identification of strategic environmental assessments, and in some cases, improvement or facilitation of donor coordination. In many cases CEAs were part of an ongoing dialogue with the government on environment-development issues and were thus only one of the factors that have contributed to the outcomes. Types of results vary for each case and are linked to a range of factors, including the objective of the CEA, the quality of analysis, the process, and how various analytical tools were used in specific country contexts. Different types of analysis have been used to mainstream environment into policy dialogue in different ways. In several cases analysis

of costs of environmental degradation has helped raise the profile of environmental issues. Institutional analysis (including analysis of public expenditures and EIA systems) has contributed to results such as redistribution of expenditures to better address priority areas, identification of lending operations, design of policy reforms, and strengthening of EIA capacity.

Several of the CEAs reviewed were initiated in the context of the Bank’s policy on Development Policy lending, OP 8.60. With a few exceptions (for example, Orissa CEA), in most cases it has been a challenge to incorporate CEA recommendations either in the DPL program matrix, or the country program. It is important that preparation of CEAs be undertaken not only to meet due diligence requirements of OP8.60, but seen as an opportunity to enhance dialogue and engagement with partner countries to strengthen institutional capacity on environment-development issues.

Donor coordination. The review highlights four models of donor coordination: (a) no coordination, (b) limited coordination, (c) joint task management with part 1 country donors, and (d) strong coordination with local donor groups. The extent of donor coordination depends on a number of factors, including differences in donor agencies’ institutional mandates and capacities; the existence of common interests and the timing of CEAs (as in Bangladesh and Ethiopia); the extent of coordination of the local donor group; and the degree of involvement by various donors in specific countries. Strong coordination with the local donor group appears to be the most important factor in successful results. A good practice example here is the Ghana CEA.

Most of the CEAs reviewed have had some tangible results in strengthening the Bank’s dialogue with partner countries in the short run. The extent to which CEAs have helped consolidate dialogue over the longer run, or in any indirect way, was difficult to measure within the scope of this review.

Planning and Preparing CEAs

CEA is a tool for long-term engagement with partner countries on environment development issues. The review shows that CEAs can provide useful strategic analysis when prepared in advance of a number of different processes and contexts, including (a) preparation of DPLs; (b) mainstreaming environment into CASs and PRSPs; (c) strengthening country dialogue on environment and identifying areas of lending; (d) providing analytic basis for sustainable development DPL; and (e) reestablishing dialogue on environment development issues in postconflict situations. The report suggests actions with respect to timing, task management, team composition, and preparation of CEAs. Given that the average cost is \$288,000, it is suggested that teams consider this in the initial stages of planning CEAs.

Refining the CEA Structure—Balancing Standardization and Flexibility

From experience with CEAs reviewed and what seems to work better in terms of operational needs, this paper proposes a revised building block structure incorporating two standard building blocks, and a third building block that can be tailored to specific processes in the context of which a CEA is being prepared. The two standard building blocks include (a) determination of environmental themes and priorities linked to both growth and poverty reduction, and (b) a broad analysis of environmental institutions and governance that extends to informal rules and structures and to subnational levels of government. Assessment of environmental priorities is critical, as it helps identify key environment-development issues at a particular time and can be tracked over a long period. Assessing

these periodically (say, every four to five years) can show how well the institutions and organizations in a country are addressing these concerns. A broad assessment of environmental institutions and organizations is also crucial, as it provides an overall assessment of the historical evolution of environmental institutions and organizations, the main stakeholders involved, political-economy issues underlying environmental management, and the major strengths and weaknesses in the governance structure and how they can be addressed. This broad analysis of environmental institutions is also crucial from the perspective of integrating environmental issues into budget support and meeting the requirements of OP8.60 (Hessel-Andersen 2007). Standardization of the first two building blocks can lead to cost savings, as this part of the analysis need be conducted only every four to five years in a country.

The third building block includes detailed analysis of themes and priorities established as important in the CEA, or themes and sectors that are important from the perspective of specific processes such as development policy lending and PRSPs, in the context of which a CEA is being prepared. This third building block can thus be tailored to broader country-level processes and allows for flexibility in the choice of tools and the content of the assessment. Attention to all three building blocks thus gives scope for and promotes the necessary balance between standardization of key features of a CEA and country- and situation-specific variation. Ideally, CEAs should include all three building blocks. However, for an economic and sector work product to be coded as a CEA, “rapid” CEAs can be prepared that at minimum can include the first two building blocks.

1 Overview of Country Environmental Analysis (CEA) and the Purpose of This Review

Over the past five years the World Bank has made a significant effort to improve the quality of its environmental analytical work, with the goal of integrating environmental concerns into the earliest stages of decision making and strengthening the basis for development assistance. An important tool in this effort is country environmental analysis (CEA), developed in response to the call for systematic country diagnostic studies in the World Bank's Environment

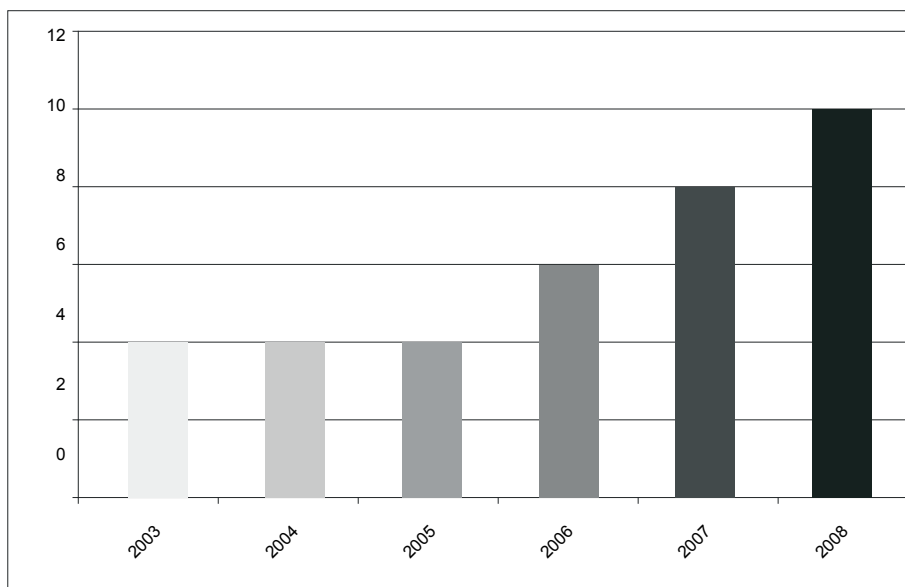
Strategy (World Bank 2001a). CEA is an upstream analytical tool that aims to integrate environmental considerations into country assistance strategies (CASs), poverty reduction strategy papers (PRSPs), development policy lending (DPL), and country-level development assistance strategies and programs. As originally conceived, CEAs have three methodological building blocks (figure 1):

Figure 1. Key Building Blocks of Country Environmental Analysis (CEA), as Originally Conceived

COUNTRY ENVIRONMENTAL ANALYSIS		
<p>State of the environment and priorities for development</p> <ul style="list-style-type: none"> • Prioritization of environmental challenges through available data, cost of degradation studies, stakeholder analysis, qualitative methods • Environmental trends in priority areas • Poverty-environment linkages • Indicators • Data gaps 	<p>Policy analysis</p> <ul style="list-style-type: none"> • Identification of key macroeconomic and sector policies with potential environmental implications • Lessons from strategic environmental assessments (SEAs), relevant studies, and analytical work • Areas for new SEAs 	<p>Institutional capacity assessment</p> <ul style="list-style-type: none"> • Assessment of policy making, administrative efficiency, and implementation capacity • Methodology and process for priority setting and cross-sectoral coordination • Assessment of environmental assessment capacity • Public environmental expenditure reviews • Indicators for measuring public sector capacity • Areas for intervention
BUSINESS PLAN		
<ul style="list-style-type: none"> • Stocktaking of and lessons from the Bank's and development partner's past environmental assistance to client country • Review of the Bank's planned lending and nonlending activities in key sectors and their links with environmental priorities • Review of development partners' ongoing and planned environmental support activities • Assessment of the Bank's comparative advantage in relation to development partners • Suggested Bank assistance in the form of lending and nonlending assistance and partnerships 		

Source: World Bank 2001a.

Figure 2. Growth in Demand for Country Environmental Analysis, 2003–8



Source: World Bank staff.

Note: The numbers include both completed CEAs and CEAs for which decision drafts exist at the time of writing. Numbers for 2007 and 2008 are estimates of CEAs expected to be completed in these years.

- Systematic evaluation of a country’s environment–development priorities, linked with growth and poverty reduction
- Assessment of the environmental implications of key macroeconomic and sector policies
- Assessment of institutional capacity for managing environmental concerns.

These, along with a review of Bank and donor activities, form the basis of a business plan that involves lending as well as nonlending activities and partnerships.

Since the approval of the World Bank’s Environment Strategy by the institution’s Board of Executive Directors in 2001, the Bank’s regions have initiated approximately 25 CEA pilots. At present, 16 pilots have been completed, nine are ongoing, and about 10 are planned (appendix A).¹ Given that the number of CEAs is increasing (see figure 2), it is important to take stock of experience with CEAs so far so as to streamline and strengthen preparation of future CEAs.

Background and Rationale for CEAs

Three primary concerns led to the introduction of CEAs in 2001 in response to the World Bank’s new Environment Strategy (World Bank 2001a).

1. *Quality.* Although the Bank was systematically producing a variety of diagnostic studies such as poverty assessments, public expenditure reviews, and investment climate assessments, diagnostic work on environmental issues tended to be sporadic (World Bank 2001a). Moreover, a review of Bankwide economic and sector work by the Bank’s Operations Evaluation Department

¹ CEAs are a form of Bank economic and sector work (ESW) and, like other ESW, are considered complete when a final report approved by the country government and the Bank country director is available. At the time of initiation of this paper, two of the CEAs counted here as “ongoing” already had decision drafts but had not received final approval from either the country government or the Bank’s country management unit (CMU). For counting purposes, they are therefore included in the “ongoing” category.

(OED) found that ESWs in the environment sector were among the most outdated products, compared with diagnostic work in other sectors, and emphasized the need to improve the quality and relevance of environmental analytical work (World Bank 2001b).

2. *The changing nature of development assistance.* In addition to traditional investment lending, increasing use was being made of long-term programmatic and policy-based lending. The revised Operational Policy 8.60 required assessment of the capacity of a country's policies and institutions to address the environmental implications of specific policy reforms, beyond project-level due diligence, and along with other tools such as strategic environmental assessment, CEAs were seen as a way to fill the analytical gap.

3. *More systematic integration of environmental issues into CASs, PRSPs, and country policies and programs was needed,* as noted in the Environment Strategy. CEA was seen as an important mainstreaming tool. Experience with national environmental action plans (NEAPs) prepared by partner countries underscored the need to design analytical tools that would focus on a few important issues and guide partner countries strategically, rather than yield exhaustive accounts of all environmental issues in a country. The experience with NEAPs highlighted the need to provide selective guidance on key entry points for improving environmental outcomes, focusing on intersectoral coordination and improved assessment of environmental institutions and governance (see Pillai 2002; for a review of NEAPS, see World Bank 1996).

Another consideration is that CEAs can facilitate donor coordination. Various development agencies carry out upstream analytical work that shows many similarities to CEAs. These include environment performance reviews carried out by the Organisation for Economic Co-operation and Development (OECD), country environmental analysis (Asian Development Bank), and environmental profiles (European Union). Coordination of upstream country-level work can lead

to greater harmonization between donors and thus to improved development effectiveness. The extent to which CEAs have contributed to donor coordination and the factors that are important for improving coordination between donors are discussed in this paper.

In addition to the factors outlined above, there is a broader rationale for upstream environmental analytical work. Environmental and natural resources contribute substantially to growth and poverty reduction in developing countries. In many African countries—Chad, Madagascar, and Sierra Leone, for instance—natural capital constitutes more than a quarter of national wealth (Gylfason and Zoega 2006). In countries such as Costa Rica and Tanzania, the growth rate in certain natural resource management sectors outpaces the overall rate of growth of the economy. Yet, despite the importance of environmental and natural resources to their economies, developing countries face a plethora of problems linked with natural resource degradation and environmental externalities such as air and water pollution, associated with unsustainable economic growth and consumption processes. Rather than being considered a resource and an asset that can contribute to sustainable economic growth, environment is in many contexts still regarded as an add-on to core development processes.

Macrolevel environmental analysis can help in determining a country's strategic environment-development priorities and in assessing institutional and governance issues related to these concerns. Such strategic analysis should feed into the formulation of the country's development strategies and the Bank's country assistance strategies. That environmental issues should be addressed at an upstream level—not simply at the project level, through a “do no harm” approach—has long been recognized. CEA is one in a range of upstream analytical tools that can facilitate the integration of environmental governance concerns at the earliest stages of policy making and decision making.

Approach and Methodology of the Study

This paper reviews the World Bank's experience with completed CEAs with a view to improving the overall effectiveness of CEAs as a strategic analytical tool. Through in-depth analysis of the process, methodologies, and results of completed CEAs, it assesses the effectiveness of CEAs in informing and providing strategic guidance to the Bank and client countries on environment-development issues and the extent to which they have facilitated donor coordination. The analysis carried out in this paper also provides insights on (a) when to prepare a CEA, (b) how to plan and prepare CEAs more effectively, and (c) how to use specific methodologies and processes to influence policy making in partner countries. The review highlights factors that are important to the effectiveness of CEAs and draws together lessons and experiences from the Bank's regions. An underlying assumption for the study is that CEAs are not a purely technical exercise but a process of negotiation and dialogue with partner country stakeholders that contributes to decision making regarding environmental issues at the country level.

The analysis draws on a desk review of 15 completed CEAs². One CEA listed as "ongoing" in appendix A (Orissa State in India) was also included in the review because the decision draft had been produced at the time of writing, even though final approval by the government and the country management unit (CMU) had not yet been obtained. In-depth interviews were conducted with task managers, and in some cases with other members of CEA teams, using the questionnaire presented in appendix B.

In parallel to the desk review, an in-country assessment of three completed CEAs (for Ghana, Guatemala, and India) was commissioned by the Environment Department (Hessel-Andersen 2007). In addition, the Bank's Quality Assurance Group reviewed the Tunisia CEA (QAG 2006), and the Latin America and Caribbean Region commissioned a study on the results of the Colombia CEA (Arturo Chavarro Vásquez

2006). These studies, all of which involved assessment of results based on interviews with stakeholders in the country, were consulted for this review. It was not possible to undertake field visits to assess results of all the CEAs reviewed in this paper.

The study takes a cross-sectional view of CEAs and aims at providing a broad perspective on the structure, methodologies, process, and results of completed CEAs rather than compiling detailed case studies. Detailed analysis of each completed CEA is, however, available as background to this report (see Posas 2007).

Audience

The main audiences for this review include (a) CEA task teams and team leaders, regional sector directors and managers, country management units, and country directors; (b) environment staff who are interested in integrating environment into CASs, PRSPs, and DPL; and (c) development partners who carry out work similar to CEAs and who may find the Bank's CEA experience useful. The review paper will also provide input to the Environment Strategy Update currently in preparation.

Structure of the Report

Chapter 2 next, summarizes key aspects of CEAs—the context in which CEAs have been prepared, their objectives, team composition, cost, and the methodologies employed for priority setting and institutional analysis. Chapter 3 focuses on the preparation process, including selection of a counterpart agency, donor coordination, engagement with stakeholders, and dissemination of CEAs. Chapter 4 summarizes the results and outlines how different types of analysis have been used to enhance the policy dialogue on environment. Chapter 5 presents lessons, proposes a revised building block structure for CEAs, and recommends actions for preparation of future CEAs.

² These were completed at the time this review was initiated.

2 Key Features and Methodologies Used in CEAs

This chapter describes the key features of CEAs, drawing heavily on interviews with task managers and on CEA reports. The context and objectives of CEAs are summarized in appendix C.

Reasons for Preparing CEAs

At the World Bank, CEAs are typically initiated and carried out by regional teams. Unlike the case in some other institutions such as the Asian Development Bank and the Inter-American Development Bank, they are not explicitly mandated by any Bank policy. Rationales for preparation of CEAs can be broadly clustered in four areas: (a) to meet the requirements of the World Bank Operational Policy on development policy lending (OP 8.60), and inform policy reforms proposed by DPLs; (b) to provide an analytical basis for programmatic environmental and sustainable development DPLs; (c) to strengthen or reestablish policy dialogue with a partner country on environmental issues; and (d) to integrate environmental issues into a range of Bank or country-level processes such as CASs and PRSPs and to inform implementation of national environmental policies or the United Nations Millennium Development Goals (see table C.1 in appendix C for a summary of the objectives of the CEAs reviewed). In some cases CEAs cannot be strictly placed in any one category; rather, they cut across them.

Meet the Requirements of OP 8.60 and Inform DPLs

The revised OP 8.60 (World Bank 2004a) requires the Bank to determine whether specific country policies supported by a DPL operation are likely to have significant effects on the country's environment and natural resources. Where such effects are likely, the Bank is asked to draw on relevant analytical work to assess the borrower's systems for reducing the adverse effects and enhancing the positive outcomes of the proposed policies. CEAs are one of several analytical tools used meet the requirements of OP 8.60 (World Bank 2004c).

CEAs prepared to provide an upstream assessment of a country's institutional capacity to address the potential environmental implications of policy reforms supported by DPLs include those for Bangladesh, El Salvador, Orissa, Guatemala, India, and Pakistan.³ In both El Salvador and Guatemala there was increasing stress on trade-related economic growth and infrastructure expansion in view of the impending adoption of the Dominican Republic–Central America Free Trade Agreement (DR–CAFTA). The focus areas of the CEA were linked to those of planned DPLs. How closely the objective and the analytical focus of the CEA were aligned with those of the DPL varied significantly, however.

³ Some of the CEAs (for example, Bangladesh, India, and Pakistan CEAs), as discussed later, had other objectives as well.

Provide an Analytical Basis for Sustainable Development DPLs

In Colombia the government had requested a sustainable development DPL to help implement the priorities set forth in its national development plan. The Bank was already conducting a dialogue with the country on environmental issues, but analytical work was needed to provide the basis for a long-term programmatic policy and investment program, and a CEA was accordingly initiated (see Posas 2007).

Strengthen Dialogue and Improve Lending

In several countries the aims of the CEAs were to strengthen the Bank's dialogue with the partner country, reengage with the government on environment and natural resource issues, and improve lending. In Ghana the Bank's environmental portfolio had been weak for many years, and a 10-year adaptable program loan for a natural resource management project had recently been closed because of unsatisfactory performance. Moreover, there was an increasing shift toward programmatic and budget support. Analytical work was needed to reengage with the country on environmental and natural resource issues and to develop concrete proposals for addressing environmental degradation (World Bank 2006d, 9). A CEA was therefore initiated.

CEAs have also been used to strengthen or reestablish dialogue following a conflict. The CEA for Serbia and Montenegro was initiated when the country was rejoining the Bank after years of civil war and a 10-year lapse in Bank engagement there. The Bank needed to take stock of the state of environment, in part to explore possibilities for cooperation. In Ethiopia, when the potential for a CEA was first discussed, the country was emerging from a two-year war with Eritrea, and the Bank was reestablishing dialogue to revive shelved initiatives and expand the country program.

Integrate Environmental Issues into Bank and Country-Level Processes

CEAs have been prepared as input into such documents as CASs and PRSPs, as in Nigeria, and to assist implementation of the Millennium Development Goals (MDGs). In the Arab Republic of Egypt, as in many of the countries reviewed, the Bank already had a dialogue with the country. The Egypt CEA was prepared to help mainstream environment into sector policies, inform implementation of the country's commitment to the MDGs, provide input into the CAS, and lay the foundation for the Bank's dialogue with the country on environmental issues.

CEA as a Multipurpose Tool

The CEAs in, for example, Bangladesh, India, Pakistan, and India, do not easily fit into any of the aforementioned categories. Some were initiated in the context of DPLs, but their objectives, as stated in the CEA reports, were to inform other Bank and country level-processes such as CASs and PRSPs, or to improve Bank lending. In Pakistan the Bank's Board suggested that a CEA be prepared as a condition for going ahead with a poverty reduction support credit. Since there had not been a Bank-supported environmental project in Pakistan for some time, the CEA (termed a strategic country environmental analysis, or SCEA) was used to strengthen policy dialogue on the environment and identify areas of engagement.

Cost, Time, and CEA Team Makeup

Available information in SAP indicates that the average cost of the 16 CEAs reviewed was approximately \$288,000 (table 1).⁴ However, 9 out of 16 CEAs reviewed cost approximately US\$232,000 or less. A

⁴ In some cases, information from SAP was missing, and for this reason estimates provided by task team leaders (TTLs) have been used.

Table 1. Cost Estimates for the CEAs Reviewed (1999–2008)

CEA	Planned	Actual (SAP & TTL)*		
Bangladesh	Total: Not available (NA)	Total: \$467, 687		
		BB: \$377,211	TF: \$90,476	
Belarus	Total: NA		Total: \$150,000	
		BB: \$150,000	TF: NA	
Colombia	Total: \$300,000		Total: \$347,000	
		BB: \$347,000	TF: NA	
Dom. Republic	Total: \$56,000		Total: \$120,578	
		BB: \$120,578	TF: NA	
Egypt, Arab Rep. of	Total: \$80,000		Total: \$170,000 *	Additional Costs
		BB: \$44,000	TF: NA	
El Salvador	Total: \$172,000		Total: \$225,631	
		BB: \$163,655	TF: \$61,976	
Ethiopia	Total: NA		Total: \$232, 921	
		BB: \$118,656	TF: \$114,265	
Ghana	Total: \$370,000		Total: \$309,226	
		BB: \$79,472	TF: \$229,754	
Guatemala	Total: \$185,000		Total: \$185,000 *	Additional Costs
		BB: \$132,203	TF: \$21,150	
India	Total: \$230,000		Total: \$534,909	
		BB: \$317,727	TF: \$217,182	
Nigeria	Total: \$90,000		Total: \$94,751	
		BB: \$67,180	TF: \$27,571	
Orissa	Total: \$230,000		Total: \$533,997	
		BB: \$369,180	TF: \$164,817	
Pakistan	Total: NA		Total: \$625,521	
		BB: \$462,626	TF: \$162,895	
Peru	Total: \$293,000		Total: \$250,000 ***	
		BB: \$334,316	TF: \$234,601	
Serbia & Montenegro	Total: \$115,000		Total: \$180,136	
		BB: \$180,136	TF: NA	
Tunisia	Total: \$171,000		Total: \$183,000	Additional Costs
		BB: \$88,756	TF: NA	
Average Cost of CEAs: \$288,147				

Source: World Bank staff.
NA = Not Available.

* Cost figures have been obtained from SAP. In some cases, TTLs estimated that larger funds were used and possibly linked to code different from the CEA code in SAP. In such cases TTL estimates have been used.

** Additional costs reflect costs of CEAs that may have been linked to different code.

*** In Peru the BB and TF costs add up to a higher figure because the Peru CEA code was also used to charge for 7 policy notes and other activities.

comparison of actual costs for preparing CEAs and costs assumed at the concept note stage shows that CEAs tend to cost considerably more than what is initially estimated and budgeted. This suggests that teams need to budget for more funds when planning CEAs.

In at least nine of the CEAs reviewed, greater Bank Budget (BB) was used compared to trust funds (TFs). This does not necessarily exactly reflect resources spent on staff and consultant costs, as in some cases BB was used to fund consultants as well. Examples of CEAs where greater BB resources were used include Bangladesh, Guatemala, El Salvador, and Nigeria. Although CEAs are supported through trust funds, table 1 provides strong evidence that substantial Bank staff and budgetary resources go into CEA preparation.

Average costs of CEAs are somewhat higher than average costs for Bankwide ESWs, which is closer to \$207,000 for FY 06 (QAG 2006; OPCS 2004).⁵ Costs of CEAs, however, vary considerably. The variation in costs of CEA preparation to some extent reflects differences in scope of analysis, as well as methodologies used.⁶ Whereas the El Salvador and Nigeria CEAs each addressed only two themes, the Bangladesh CEA analyzed four thematic areas, in addition to environmental policies and institutions,

⁵ The QAG review is available at <http://intresources.worldbank.org/INTQAGNEW/Resources/ARPPFY06eBoard.pdf>. See also OPCS review at http://intresources.worldbank.org/INTDELIVERYMGMT/Resources/AAA_OM2004-0047.pdf.

⁶ An analysis of how efficiently these resources were used was not undertaken for this review.

and incorporated a background study on public environmental expenditures. In the Orissa State assessment the focus was mainly on environmental issues in the minerals sector, but household surveys in two pilot areas contributed to the high costs of the study. In some cases CEAs have benefited from studies done prior to the CEA, or while the CEA is being prepared. In Ghana a natural resource management ESW study costing approximately \$300,000 had been carried out the year before initiation of the CEA. Although the earlier work was used in the CEA (for example, in the chapter on forestry), the costs of the prior analysis are not included in the costs of the Ghana CEA. However, CEA costs do not vary as much as some other diagnostic work. For instance, the costs of country social analysis (CSA) range from \$15,000 to \$950,000, depending on the scope of the work (see World Bank 2006i, annex 4).

As originally conceived (see CEA concept note)⁷, CEAs were distinguished between rapid and full CEAs. A full CEA, it was suggested, would undertake detailed analysis of issues identified in three key building blocks (see figure 1). When quick input into a Bank or country policy process was needed, a “rapid” CEA could be prepared. These could draw mainly on a desk review of available documents, require smaller budgets, and be prepared in a shorter time. Of the 16 CEAs reviewed for this paper, four (Nigeria, Dominican Republic, El Salvador, and Guatemala) were prepared as “rapid” CEAs. Our review, however, shows that all four of the rapid CEAs went beyond a desk review of available studies and documents, and involved field research and consultations in the countries involved. Rapid CEAs took approximately eight months to a year for completion. The average cost of a “rapid” CEA was approximately \$155,687. However, two of the “rapid” CEAs, those for El Salvador and Guatemala, cost approximately \$225,632 and 185,000 respectively—and were as expensive as some of the full CEAs. In terms of scope as well, the rapid CEAs did not have a narrower scope. The Nigeria CEA, for instance, includes a priority-setting building block, a broad analysis of

environmental institutions, and two sector-specific chapters on oil and water resources management. Thus, in terms of scope and cost, the distinction between rapid and full CEAs is not very meaningful.

CEAs typically take one to two years to complete. In some cases (for example, Nigeria) significant time elapses between finalization of the report, eventual launch of the CEA in the country, and closure of activity according to Bank procedures. Regional sector managers could play a stronger role in providing oversight and ensuring that finalized CEAs are completed more quickly according to procedures for ESWs.

All but one of the CEAs reviewed were task managed or co-task managed by regional staff. Only in Ethiopia was a CEA task managed solely by anchor staff. Typically, CEA teams comprise environmental economists, environmental specialists, and relevant sector specialists (see Posas 2007), and may include institution specialists. Teams consist of both Bank staff and consultants—in some cases, only local consultants, and in others, a combination of national and international consultants. Experience with CEA teams shows that expertise in both environmental and institutional analysis is needed for assessing environmental institutions. Poor-quality consultant work on economic and institutional analysis has in several cases contributed to higher staff costs.

Use of the CEA Building Block Structure

CEA is a flexible tool that has three building blocks: (a) identification of the main environment-development priorities linked with growth and poverty reduction; (b) assessment of the environmental implications of key sector policies; and (c) institutional capacity assessment (see figure 1 in chapter 1). The review showed that most

⁷ <http://siteresources.worldbank.org/INTRANETENVIRONMENT/214574-1175623851209/20797940/CEACConceptNote10Jan2005.pdf>.

CEAs include two of the three main building blocks. In one CEA—that for Serbia and Montenegro—numerous themes and sectors are discussed, but there is no systematic determination of environmental priorities, and thus the first building block is missing. The Ghana and Orissa State CEAs contain no general analysis of environmental policies, institutions, and organizations at the national or subnational levels; the analysis of institutions and organizations is undertaken only as part of the analysis of specific themes or sectors. Here, too, a primary building block, the third (see figure 1, chapter 1), is missing. Absence of a broad analysis of environmental institutions is limiting, because without this important piece of the analysis, the CEA cannot provide the analytic groundwork needed to mainstream environment into budget support or meet the requirements of OP8.60. In the India CEA, environmental institutions and organizations are only partially analyzed. The report focuses on a specific issue—public participation and consensus building—and assesses constraints on compliance and implementation of regulations in three sectors: industry, power, and highways.

Only a few chapters in a few CEAs focused primarily on assessing the environmental implications of macroeconomic policies—the second building block (see figure 1, chapter 1). Examples include chapters on trade and environment in the El Salvador and Guatemala CEAs, and chapters on macroeconomic trends and linkages and the environmental implications of energy policies in the Belarus report. Most CEAs treat the analysis of the environmental implications of sector policies within a broad assessment of environmental policies and institutions (as in the Ethiopia and Tunisia CEAs), or as part of institutional analysis of specific themes and sectors (as in the fisheries chapter in the Bangladesh CEA).

CEAs have used a number of tools and approaches for identifying environment-development priorities and key themes or sectors. These are discussed below and are shown by country in table 2.

Tools for Assessing Priorities

The CEA concept note suggested that CEAs determine environment-development priorities in light of their impact on growth and poverty (see box 1). Among the CEAs reviewed, the Colombia and Peru CEAs, undertook to determine priorities in this way and are among the best examples of priority setting in CEAs. In the Colombia CEA, analysis of the cost of environmental degradation found that among the most important environment-development problems in Colombia were urban and indoor air pollution; inadequate water supply, sanitation, and hygiene; natural disasters such as flooding and landslides; and land degradation. The burden of the associated costs, the equivalent of approximately 3.7 percent of gross domestic product (GDP), fell most heavily on vulnerable segments of the population, especially poor children under five years old. In addition, a survey of public perceptions was conducted in 2004 in which more than 2,600 persons were interviewed, including a random sample of 616 citizens and 2,024 individuals from a wide range of regions, sectors, and government agencies, civil society organizations, and ethnic groups (World Bank 2006f, 109). This survey showed that the environmental problems that impose the highest costs on the country's economy were also those of the greatest concern to the population; 79 percent of the population of the sample perceived air pollution to be the most serious problem. The survey revealed, however, significant differences between the priorities of different income groups: whereas upper income groups regarded global warming, loss of biodiversity, and inappropriate land use in urban areas as high priorities, low-income groups identified air pollution, noise, and natural disasters as major problems. About 74 percent of those in the low-income category cited air pollution as the main environmental problem.

In the Peru CEA, too, environmental priorities were determined both in view of terms of impact on economic growth, and the effect on the more vulnerable sections of the population (cf. World Bank 2007a).

Box 1. Quantitative Tools for Priority Setting

In CEAs, a number of quantitative tools have been used for setting priorities linked with growth and poverty reduction. The most frequently used quantitative tool is the quantification of costs of environmental degradation, which measures the loss in a country's welfare due to environmental degradation. It includes loss of healthy life and well-being of the population because of pollution, and productivity losses because of natural resources depletion, such as that linked to deforestation and soil degradation. Cost of degradation estimates are often expressed as percentage of gross domestic product (GDP) to provide a useful benchmark for economic policy makers (see Bolt, Ruta and Sarraf 2005).

In CEAs, the use of cost of environmental degradation analysis varies. In some, costs of degradation have been assessed more broadly to include brown issues (for instance, valuation of health impact of air and water pollution), natural resource sectors (soil degradation, deforestation, and so on), economic costs linked with impact of natural disasters. However, in some other CEAs, only costs linked with environmental health impacts were determined as part of the CEA (for example, Ghana CEA). In some CEAs, natural resource costs are only partially captured owing to lack of data availability (for example, Colombia and Nigeria CEAs). A limited number of CEAs go beyond cost of environmental degradation to include the costs of abatement (for example, Egypt). This is useful in that it allows a rapid assessment of priorities. In short, while we have improved in the use of cost of degradation analysis in the context of CEAs, it is important to understand that it is only one of several tools for decision making.

An important indicator used in some CEAs (Tunisia, Ghana) is the genuine savings indicator that measures the true savings rate in an economy by taking into account investment in human capital, as well as depletion of natural resources. This type of analysis, based on environmental accounting, can also show the importance of specific natural resource sectors that are important from the perspective of sustainable economic growth, and can be used as another tool for priority setting.

In order to assess priorities linked with poverty reduction, available tools include use of surveys and distributional analysis of environmental priorities. For instance, in the Peru CEA, the cost of degradation analysis was supplemented by distributional analysis to assess environment development issues relevant to people in different income quintiles. Although all of these methodologies have their limitations, they do provide an informed way of understanding what the key environment development issues in a country are, and are an improvement over ad hoc selection of key themes or selection of key issues, based mainly on consultation with a small set of stakeholders.

Source: Author.

The cost of environmental degradation was found to be equivalent to about 3.9 percent of GDP in 2003. Distributional analysis of environmental health impacts undertaken as part of the CEA showed that environmental health impacts (for all categories—urban air pollution; water, sanitation, and hygiene; and indoor air pollution) per 1,000 population were nearly 20 percent higher for the poor than for the nonpoor: the impacts on the poor were 4.5 times higher than for the nonpoor.

In the Egypt CEA a cost-of-degradation analysis was carried out, and the impact on the poor assessed, but the findings only partially shaped the selection of priorities. Analysis of poverty environment linkages showed that environmental degradation affected the poor more than nonpoor groups and, that ranked by per capita costs of environmental degradation for the poor and nonpoor, the main concerns for the poor were

soil degradation, water quality, and indoor air quality (see World Bank 2005a, 15). The focus areas assessed in the CEA, however, did not include analysis of soil and land degradation; rather, coastal zone management was chosen even though it was more of a priority for the nonpoor than for the poor (World Bank 2005a, 13). The presidential directives of May 28, 2002, and the cost of degradation analysis led to identification of air quality, water quality, solid waste management, and coastal zone management as the key issues in view of their impact on economic growth (World Bank 2005a). Environmental sustainability indicators were also used to substantiate this choice.

In numerous other CEAs, environmental priorities were assessed with an eye to the estimated costs of environmental degradation to a country's overall welfare but were not analyzed in relation to effects on poor socioeconomic groups. The implication is

Table 2. Approaches and Criteria Applied in Determining Focus Areas to be Analyzed in the CEAs reviewed

CEA	Inputs into determination of key themes and sectors and priority areas
Bangladesh	Cost of environmental degradation analysis and sector work on some topics such as climate change and forestry were conducted prior to the CEA; consequently these issues were not considered in the CEA.
Belarus	The main considerations in selection of focus areas were (a) harmonization with government priorities, (b) consistency with the country assistance strategy on issues of both global and local importance, (c) existence of studies and available information, and (d) the need to limit the scope for budgetary reasons.
Colombia	Cost of degradation analysis; surveys of public perception regarding environmental issues.
Dominican Republic	Stakeholder analysis in workshop; rough estimates from cost of degradation analysis.
Egypt, Arab Rep. of	Cost of degradation analysis; environmental sustainability indicators; presidential directive of 2002.
El Salvador	Priority development policy lending areas; cost of environmental degradation analysis.
Ethiopia	Available cost estimates of environmental degradation; consultations with government counterparts.
Ghana	Available estimates of cost of degradation analysis for natural resource management sectors; natural wealth estimates, cost of degradation analysis linked with brown sectors undertaken as part of CEA.
Guatemala	Priority development policy lending areas; cost of environmental degradation analysis.
India	Consultation with counterparts and key stakeholders; main issue was to select sectors important from the perspective of growth; no cost of degradation analysis.
Nigeria	Cost of degradation analysis; importance of oil in the economy.
Orissa State	Focus on mining, selected because of the sector's importance to growth in Orissa and the increasing investment in mining; no cost of degradation analysis.
Pakistan	Consultation with federal and provincial authorities regarding areas of intervention likely to have greatest impact; cost of degradation analysis.
Peru	Cost of degradation analysis combined with distributional analysis.
Serbia and Montenegro	Consultation with government counterparts and donors.
Tunisia	Cost of degradation analysis; wealth estimates.

Source: World Bank staff.

that much more attention needs to be given in CEAs to assessing priorities in light of poverty reduction, as well as growth. In the Ghana and Tunisia CEAs, environmental priorities were determined by drawing on natural wealth estimates based on net savings analysis and cost of degradation analysis, but no analysis to assess impacts on the poor was undertaken.⁸

CEAs do discuss the implications of environmental issues for economic growth and poverty, as can be

seen in the reports for Bangladesh, Belarus, Ethiopia, Pakistan, and Serbia and Montenegro. For example, the Belarus report discussed poverty trends, poverty in Belarus compared with other countries in the region, the primarily rural nature of poverty in the country, and the consequent pressure on natural resources (World Bank 2002, 9). Yet, in determining the main focus areas, poverty was not a consideration in the same sense as in the Colombia and Peru studies.

Dialogue with the Partner Country

In some countries the key CEA themes and focus areas were determined mainly through consultation with the government, counterparts, donors, and other stakeholders. For example, a cost of environmental degradation analysis was conducted for the Pakistan SCEA, but the focus areas (EIA implementation and air and water quality) were ultimately selected on the basis of consultation with federal and provincial authorities (World Bank 2006d, 4). Although a CEA report had previously been prepared, the government had not taken ownership of that document. In preparing

⁸ An ESW conducted prior to the preparation of the Ghana CEA yielded natural wealth and cost of degradation estimates for the natural resources sector (World Bank, ISSER, and DFID 2005). Additional cost estimates for health impacts linked with environmental degradation were made as part of the CEA. The natural wealth estimates showed cropland, forests, and minerals to be the main natural assets and found that the genuine savings rate (a measure of growth that takes environmental factors into account) for Ghana was negative and compromised the country's capacity to sustain its potential for growth (World Bank, ISSER, and DFID 2005; Hamilton 2006). Overall, the analysis showed that approximately 10 percent of the country's GDP was lost annually as a result of unsustainable management of the country's natural resources and health costs related to water supply and sanitation and to indoor and outdoor air pollution.

the new CEA, emphasis was placed on involving the government and making the process more participatory.

In the India CEA as well, consultation with counterparts and availability of existing research helped define the focus areas of the CEA (World Bank 2006e, 14).⁹ Three key sectors—power, industry, and highways—were selected for analysis because of their significance as drivers of economic growth and their potential environmental risks. Considerable secondary literature substantiating the environmental implications of growth and poverty risks was also cited.

Influence of the Focus Areas of Development Policy Lending and the CAS

In two CEAs, those for El Salvador and Guatemala, the main themes were chosen to align with the focus areas of the DPL program pipeline. In both cases cost of degradation analysis was conducted, and the CEA reports also drew on cost estimates of environmental degradation from available studies (see Strukova 2005; Larsen and Strukova 2006). These estimates, however, were not used to select the main focus areas of the CEAs. In Guatemala, although the cost of degradation analysis showed water pollution, indoor and outdoor air pollution, deforestation, soil and land degradation, and vulnerability to natural disasters to be the main priorities, given their implications for economic growth, the focus areas in the CEA were trade and infrastructure, in accordance with the DPL.

In two CEAs environmental priorities were not identified at all, or only weakly. The Serbia and Montenegro CEA covered a large number of issues, including energy and air pollution, water supply and sanitation, tourism and environment, waste management, coastal zone management, biodiversity and protected areas management, and forestry. Although the importance of these issues for growth and poverty reduction was discussed, the CEA did not undertake any systematic priority-setting exercise. This is understandable because in the prevailing postconflict

situation, data pertaining to the environment sector in the republics, which would be needed for cost of degradation analysis, was poor. In the Dominican Republic CEA, according to a team member, stakeholder consultation at a workshop, combined with (sparse) data on poverty-environment links, was used to identify key areas—a weak example of priority setting. A cost of environmental degradation study was apparently carried out later, but the data availability was weak.

Institutional Analysis in CEAs

Simply stated, the objective of institutional analysis in CEAs is to analyze existing institutions and organizational arrangements, identify institutional bottlenecks, and propose areas of reform or capacity building.¹⁰ This type of analysis should be undertaken in the context of broader political and economic processes and should assess decision making, accountability structures, and flows of resources between the national and subnational levels.¹¹ Institutional analysis undertaken in CEAs is also expected to provide input into the Country Policy and Institutional Assessment (CPIA) indicator

⁹ For instance, at the time of initiation of the India CEA, a review of environmental assessment commissioned by the Ministry of Environment and Forests was nearing completion.

¹⁰ Institutions refer to the “rules of the game” that shape collective action, while *organizations* refer to the “actors” that play a game (North 1990). Rules can be formal (policies, laws, and regulations) or informal (implicit codes of conduct; cultural practices). Although public sector institutions and organizations are key players in environmental governance, NGOs and private sector institutions also have crucial roles in a number of ways, including facilitating delivery of environmental services, mobilizing the community, and making government more accountable. This definition is closely linked with the Bank’s definition of governance more generally, as presented in a recent paper elaborating the Bank’s strategy on governance and anticorruption (for a summary, see “Governance and Anticorruption: Strategy,” <http://go.worldbank.org/Q0ZEMR8DM0>).

¹¹ A number of notes and papers have been developed to provide guidance and frameworks that can be used for institutional analysis; see Lovei and Pillai (2003); Pillai and Lunde (2006).

focusing on policies and institutions for environmental sustainability.¹²

The CEAs reviewed employed various approaches to assess institutional and governance issues. These include a framework drawn from *World Development Report 2003* (World Bank 2003b), as in Colombia; political-economy analysis (Nigeria); historical analysis of environmental institutions (Ethiopia and Peru); and combinations of these approaches. In the India CEA the chapter analyzing consensus building and public participation uses a broad stakeholder-type analysis to examine stakeholder positions and interests and mechanisms of coordination among the public sector, private sector, civil society, and judiciary.

The CEAs reviewed exhibit considerable variation in the scope, depth, and quality of institutional analysis. Factors involved included the participation by institutional experts in the team, the expertise of consultants selected to undertake institutional analysis, access to data, and the availability of existing research. Some of these issues are discussed next.

Formal and Informal Rules and Structures

One intended improvement in the CEA tool in comparison with past approaches is an emphasis on analysis not merely of formal policies and institutions, but also of informal rules that structure relations between actors and organizations. Analysis of informal rules, which are typically much harder to change than formal rules, is particularly important, as it can help show how an organization functions, why coordination between sectoral actors is difficult, and which behaviors and incentives need to change to improve implementation of formal rules and regulations. Of the completed CEAs, only a few (for example, those for Bangladesh, Colombia, and Nigeria) have examined the underlying informal rules, interests, and power relations that impede the successful functioning of formal rules. Although CEAs still shy away from the issues of corruption and rent seeking, some (again, including

those for Bangladesh, Colombia, and Nigeria) have addressed these issues.¹³

Emphasis on Public Sector Organizations

Although CEAs almost always addressed the roles of NGOs and the private sector, the thrust of institutional analysis tended to be much more on public sector institutions and organizations. This is true of the Bangladesh, Dominican Republic, Egypt, Nigeria, Peru, and Tunisia CEAs. The India CEA (World Bank 2006e) is an exception.

The Political-Economy Dimension

In assessing organizations, many CEAs tend to focus on the mandates and functions of ministries and agencies and on staffing, training, and resources. They accordingly point out weak capacity for key functions such as monitoring environmental quality and overlaps in mandates and responsibilities. Political-economy analysis is, however, shortchanged.¹⁴

¹² For an extended discussion of this issue, see Pillai and Lunde (2006), page 37. For a discussion of the Bank's CPIA—a performance based system for allocating resources to borrowing countries, see <http://intranet.worldbank.org/WBSITE/INTRANET/UNITS/INTOPCS/INTCOUNTECONOMICS/0,,contentMDK:20228840-menuPK:479870-pagePK:64137152-piPK:64136883-theSitePK:388784,00.html>.

¹³ Even though corruption can be considered a form of informality, it should not be conflated with informal rules. Corruption is typically understood as the abuse of public office for private gain (see Kaufmann 2005); informal rules refer to the implicit norms and cultural practices that shape interaction between organizations and actors.

¹⁴ In current development literature, political economy is used as a shorthand for the interaction between political and economic forces in a society, the distribution of power between different social groups, and the processes that maintain or change these relationships over time. In the context of environmental issues, political-economy analysis would involve explaining how political and economic processes influence access to environmental resources, public goods, or services and how power relations between different social groups shape decision making with respect to these resources. In the academic literature there has been a long-standing debate concerning the links between political and economic processes. Numerous approaches are taken, depending on the assumptions made about the role of

In-depth assessment of incentive structures, power relations, decision-making processes within environmental agencies, planning and priority setting for environment-development concerns, and processes of intersectoral coordination remains a weak area in organizational analysis in CEAs. Only a few CEAs assessed mechanisms of transparency and accountability between national and subnational agencies—Bangladesh and Nigeria—or examined organizational culture (Bangladesh). In many CEAs the analysis of environmental institutions was not placed in the context of broad public sector reforms, with attention to how the latter might influence the former. In assessing links between national and subnational agencies, the mandates and functions of various agencies were discussed, but with little attention to decision-making processes, the flow of information and resources between administrative levels, or the links between national and subnational priorities. None of the CEAs reviewed analyzed the role of frontline workers, staff motivation, or the mechanisms by which performance is monitored and rewarded within agencies—key issues in organizational analysis.

Intersectoral Coordination

Most CEAs assessed intersectoral coordination as part of a broad analysis of environmental institutions. The El Salvador CEA (World Bank 2006h, 39), for example, assessed the environmental mandates of sector ministries, the mechanisms used by the Ministry of Environmental and Natural Resources to encourage intersectoral coordination, and factors constraining the effective functioning of the National Environmental Management System. The Guatemala report similarly examined intersectoral coordination between environmental and sectoral

agencies. The Ethiopia CEA, drawing on extensive field research, highlighted various aspects of intersectoral coordination, including mandates, the presence of environmental units within sector agencies, the incorporation of environment into sector policies, relations with regional agencies regarding environmental management, environmental monitoring within sectoral agencies, and capacity for environmental management (World Bank 2004d, 56).

Subnational-Level Institutional Analysis

In most countries policies and regulations are implemented at lower administrative levels. Of the 16 CEAs reviewed, Belarus, Egypt, Serbia and Montenegro, and Tunisia did not include an in-depth examination of subnational-level environmental management in the analysis of environmental institutions. The Egypt CEA, for instance, contained one paragraph on the mandates and weak capacity of the 26 governorates (World Bank 2005a, 94). Although the Belarus report emphasized the importance of decentralization and of strengthening local government capacity (World Bank 2002, 43), it did not analyze subnational environmental management. The Tunisia CEA did not address this issue in its broad analysis of environmental institutions, but it called attention to subnational environmental management as an important issue emerging from the CEA (World Bank 2004e, 66, fifth bullet). The Dominican Republic CEA, noted that decentralization of environmental management was being initiated at the time of preparation of the report (World Bank 2004b, 29), but did not go farther to shed light on the decision making associated with the process, or on the entry points for strengthening environmental management in the context of decentralization.

Some CEAs offer a more detailed analysis of subnational environmental management. The Colombia CEA assessed the performance of 33 corporaciones autonomas regionales (CARs, the regional environmental protection agencies), the links

“politics” in the allocation of resources—whether it is an obstacle, or an inherent aspect of economic and social existence—and about the roles of the state or government, bureaucrats, politicians, and citizens. See, for example, Bates (1981); Bardhan (1984); Lal (1984); Grindle (1989).

between allocation of resources and priority setting, reforms in CAR governance, conflicts of interest, and the links of CARs with other agencies. An important finding of the study was that allocation of investment spending across various environmental risks was not well aligned with the severity of risks in the CARs (World Bank 2006f, 52–62). The Bangladesh CEA highlighted the country’s partially deconcentrated model of environmental management (World Bank 2006a, 74): it assessed relations of authority between national agencies and subnational units, analyzed the process of decision making regarding environmental issues at the *upazila* (subdistrict) level, and identified the potential role *union parishads* (local governments, covering 15–20 villages) can play in an otherwise highly centralized model of public administration. Subnational institutional issues are more likely to be addressed in the context of detailed analysis of themes and sectors; see, for example, the solid waste chapters in the Belarus and Egypt CEAs and the chapter on urban environmental issues in the Ghana CEA.

Assessment of Budgets and Expenditures

Whereas the CEAs for Bangladesh, Colombia, Egypt, Ghana, Peru, and Tunisia featured separate public expenditure reviews, in other CEAs analysis of budgets and resources for environment was undertaken as part of a broader analysis of environmental institutions. In Ghana, expenditure analysis was integrated into the thematic chapters. In the Serbia and Montenegro CEA, a brief chapter on environmental expenditures and financing summarized key issues relating to financing for environment; it was not possible to verify whether a separate expenditure analysis was carried out as part of the study.

Typically, public environmental expenditure reviews (PEERs) have focused on determining sources of revenue, identifying expenditures, and assessing how these match up with environmental priorities. In the Egypt CEA, the expenditure analysis focused on assessment of investments in environment (including

environment-related investments in other sectors), the link with priority areas, and the sustainability of financial resources (World Bank 2005a, 109). An important finding from the analysis was that, in contradiction to the prevailing assumption that investments in environment are donor driven, Egypt was allocating significant funds for environment-related projects. The review also looked at the use of resources, concluding that subsidies in the water and energy sectors were a drain on the state budget and had limited effect on changing consumer behavior.

The PEER for the Colombia CEA was carried out both at the national and subnational levels. The subnational analysis showed that in 2001 the regional environmental protection agencies (CARs) were allocating 28 percent of their investment funds to projects involving flora and fauna—much more than for pollution control projects (World Bank 2006f, 51). Collectively, the largest portion of CAR investments had gone for wastewater treatment plants, water basin management, reforestation, and conservation. This finding suggests the need to realign expenditures at the regional level with actual environmental priorities.

Overall, the review found that CEAs have used expenditure analysis primarily to show how environmental expenditures align with priorities. There has been less emphasis on issues of resource flow among government levels, transparency and accountability, the use of existing resources, and the impact of expenditures on improving environmental quality.¹⁵

Use of EIA and Other Environmental Management Tools

In many developing countries environmental impact assessment (EIA) is one of the main environmental management tools, if not the main one. That being so,

¹⁵ For a brief discussion of transparency and accountability with respect to use of resources, see the Nigeria CEA (World Bank 2007b), which does not, however, include an extensive PEER.

assessment of EIA capacity has received considerable attention in CEAs (as in those for Pakistan and Peru), and is a strong complement to country systems analysis.¹⁶ In most CEAs, EIA capacity assessment is incorporated into the broader institutional capacity assessment; in some (for example, Colombia, El Salvador, Ghana, and Guatemala), it is assessed in the context of a specific sector. In the Guatemala CEA the main focus of the analysis in the chapter on infrastructure was on the EIA system, the principal instrument for managing the environmental implications of infrastructure expansion in the country. The chapter assessed policies, organizational arrangements, and constraints related to implementing the EIA system.

An extensive discussion of how EIA is assessed in CEAs is not possible here, but it should be noted that CEAs consistently highlight shortcomings in various aspects of EIA policies and implementation. Examples of such weaknesses include, for example, Nigeria's three different EIA systems; unofficial payments for EIA approval and licensing in Bangladesh; lack of (or only limited) public participation in the EIA process in Bangladesh, India, and Tunisia; limited capacity in state agencies in Serbia and Montenegro and in Tunisia for screening projects, reviewing EIAs, and monitoring; and the weak role of state or local governments in EIA implementation in Bangladesh, India, and Orissa State, India. The CEAs highlight the urgent need to strengthen institutional and organizational arrangements for EIA and licensing in developing countries.

Sectors and Themes Covered in CEAs

As table 3 illustrates, environmental themes are defined in CEAs in several ways: (a) in terms of environmental media (urban air quality, water quality, land degradation, deforestation, waterborne diseases, and so forth); (b) by sector (industry, fisheries, infrastructure, mining, power); or (c) spatially (urban environmental issues, global environmental issues).¹⁷ The themes incorporate a range of environmental concerns or

sectors. Of increasing importance recently is the issue of climate change; appendix D provides a snapshot of how CEAs have addressed climate change issues.

In addition to determining themes and priority areas and analyzing environmental institutions issues, many CEAs include a more detailed analysis of specific themes and sectors. The main approaches to analyzing themes and focus areas are discussed next.

Cost-Benefit Analysis of Alternative Interventions

Some CEAs undertake extensive technical analysis using cost-benefit analysis to identify and weigh alternative interventions. For instance, the analysis of waterborne disease in the Colombia CEA looked at the government's main approach toward preventing waterborne diseases—increasing access to water and sanitation. It showed how gaps in the environmental regulatory framework (EIA requirements in the environmental licensing system, the effluent charge system, and wastewater discharge standards regulations) constrained the government's efforts to expand and improve access. Most of the analysis then focused on cost-benefit analysis of alternative interventions to reduce diarrheal illness and mortality in Colombia (World Bank 2006h, 129–46). A key finding was that “a hygiene program that includes a hand-washing component has the largest potential health benefits” (World Bank 2006h, 145), which led to

¹⁶ In Egypt and Tunisia a country systems analysis was carried out subsequent to the CEAs. For more information, see “Expanding the Use of Country Systems in Bank-Supported Operations,” at <http://go.worldbank.org/RHRJVXDW60>.

¹⁷ Urban environmental issues include water and sanitation, environmental health, solid waste management, urban air pollution, and environmental conditions associated with poor housing and slums. Global environmental issues include climate change, biodiversity, and transboundary environmental issues. For a review of how climate change issues have been addressed in CASs, PRSPs, and CEAs, see Jimenez (2006). The CEA review paper does not attempt to examine in detail how CEAs deal with each of the many environmental issues.

Table 3. Sectors and Themes Covered in the CEAs Reviewed

CEA	Environmental-development themes covered in depth
Bangladesh	Management of water quality in Dhaka; capture fisheries; soil quality; environmental health
Belarus	Environmental aspects of energy efficiency, water supply and sanitation, and municipal solid waste management
Colombia	Environmental health risks linked with water and sanitation, air quality, indoor air pollution, urban environmental issues (including housing and waste management), water resources management, land degradation and forestry, and global environmental issues, including climate change
Dominican Republic	Water quality; solid waste management; water scarcity; watershed and land degradation
Egypt, Arab Rep. of	Air quality; water quality; solid waste management; coastal zone management
El Salvador	Trade and environment; infrastructure and environment
Ethiopia	Land degradation–food security–energy access–livelihoods nexus; water resources–health–catchment management–power nexus; urban waste–pollution–health and productivity nexus
Ghana	Forestry and wildlife; mining; land resources; urban environment (water supply and sanitation, waste management)
Guatemala	Trade and environment; infrastructure
India	Highways; power; industry
Nigeria	Environmental issues in oil sector; water resources management
Orissa State, India	Mining; industry
Pakistan	Environmental impact assessment; urban air quality; water quality
Peru	Disease and mortality burden linked with environmental degradation; fisheries; natural disasters; conservation of natural assets; natural resource conservation (soil, forests, biodiversity)
Serbia and Montenegro	Energy and air pollution; water supply and sanitation; waste management; coastal zone management in Montenegro; forestry, biodiversity, and protected areas management
Tunisia	Water resources management; soil degradation; coastal management

Source: World Bank staff.

recommendations for the design and implementation of a hygiene program incorporating components on hand washing and point-of-use disinfection of drinking water, and for the reform of the environmental regulatory system to improve private sector participation.

The Peru CEA analyzed alternative interventions for addressing urban air pollution, indoor air pollution, and water and sanitation (World Bank 2007a, chapter 4). The Egypt CEA, drawing on the 2003 energy environment review (EER), assessed damage costs from air pollution in the energy sector for different pollutants by fuel and by sector to help the government weigh policy options and prioritize interventions. The CEA included recommendations on how to qualify for Clean Development Mechanism (CDM) status, and how to generate additional resources for reducing greenhouse gases.

Institutional Assessment linked with themes and priorities

The review showed variation in the focus and depth of sector- and theme-specific institutional analysis.¹⁸

Some CEAs concentrated mainly on assessing policy options, as in the analysis of environmental aspects of energy efficiency in Belarus (see box 2), or the trade and environment chapter in the Guatemala CEA. In the latter, although environmental implications of CAFTA are discussed, an analysis of the capacity of key organizations to address the environmental implications of CAFTA is not undertaken (see also Hessel Andersen, 2007). In the El Salvador and Guatemala CEAs sector-specific institutional analysis primarily emphasized assessment of the effectiveness of EIA in the infrastructure sector, as EIA was the primary tool for managing the environmental implications of infrastructure expansion in these countries (see, for Guatemala, World Bank 2006h, 59). Others surveyed the sector and examined key policies and organizations, the government's approach to addressing the issue, lessons learned, and recommendations. Examples include the solid waste management chapter in the Egypt CEA,

¹⁸ Approaches for addressing major themes vary not only among CEAs but often within the same CEA (for example, chapters on "Reducing death and disease caused by environmental degradation," and on "Reducing vulnerability to natural disasters" in the Peru CEA).

Box 2. Analyzing Environmental Aspects of Energy Efficiency in Belarus

A chapter in the Belarus report focused on the environmental implications of energy efficiency for various policy options and for the government's approach to improving energy conservation. The CEA identified several reasons for the decline in atmospheric emissions in Belarus, including overall economic decline, changes in the structure of production from heavy industry to services, a shift from fuel oil to natural gas, and implementation of the government's energy efficiency and environmental management program, which was designed to reduce dependence on imported fuel and electricity through such measures as investment in energy savings programs, increased use of renewable energy, and more sourcing of energy from independent power producers. The chapter recommended the introduction of energy price reforms that would contribute to energy efficiency in addition to benefiting the environment. Belarus' status in relation to the United Nations Framework Convention on Climate Change (UNFCCC) was also discussed.

Source: Author.

the capture fisheries chapter in the Bangladesh CEA, and the forestry chapter in the Ghana CEA.

Institutional analysis can be further improved by addressing political-economy issues and placing greater emphasis on explaining processes of decision making, as discussed earlier. In addition, much greater use can be made of specific tools for conducting political-economy analysis, such as stakeholder analysis. An example of such an approach was the assessment of environmental issues in the conflict-ridden oil sector in Nigeria.

Although the team had to work with very sparse data in preparing the rapid CEA, the analysis assessed gaps in formal rules, looked at the role of informality with respect to integration of environmental issues in the sector, and assessed the interests and incentives facing key stakeholders.

Presentation of Recommendations

The main CEA concept note suggested that CEAs arrive at a “business plan” based on an analysis that included (a) stocktaking of lessons from past Bank and donor assistance, (b) review of the Bank's lending and nonlending activities in key sectors and their links with environmental priorities, (c) review of development partners' past and ongoing development activities, (d) assessment of the Bank's comparative advantage with respect to development partners, and (e) suggested Bank assistance through lending and nonlending assistance and partnerships (World Bank 2005b, 4). CEAs, however, take a much more modest approach

that typically does not include in-depth analysis of lessons from past Bank and donor assistance, or a review of the Bank's lending and nonlending activities in key sectors and their links with environmental priorities. A summary matrix of all donor activities is often missing. The Serbia and Montenegro CEA does provide such a matrix; it includes areas of investment and capacity-building activities, based both on analysis and on assessment of areas where other donors are active (World Bank 2003a, xii).

The presentation of recommendations in CEAs varies considerably, even though consistency of presentation could be useful. The Egypt CEA is a good-practice example; it provides extensive recommendations on the roles of various public sector agencies, private sector actors, NGOs, and donors, and highlights issues that need to be addressed, specific actions for addressing them, policy and legal measures, and expected impacts (World Bank 2005a, 138). Also, it proposes a role for the Bank that involves “knowledge sharing,” lending, and partnerships (World Bank 2005a, 133). In the Pakistan CEA, although numerous recommendations are made, in only one area, that of the clean air program, are short-term and long-term actions proposed, along with identification of the responsible agencies. The Bangladesh CEA makes recommendations and highlights areas of Bank support, but these are not presented in matrix form showing short-term and long-term actions and broken down into policy reform, technical investment, and lending. Some CEAs do not propose a business plan

or role for the Bank. In the El Salvador and Guatemala CEAs, DPL triggers based on CEA recommendations are suggested (see World Bank 2006g, 92). The India and Orissa State studies highlight key issues emerging from the analysis, types of interventions, and responsible agencies in the partner country and suggest a timeline for action (World Bank 2006e, 99; World Bank 2006b, 63–65), but the Bank's role is not discussed.

Main Points

- CEAs have had a variety of objectives. The revised Operational Policy 8.60, on development policy lending, has provided an impetus for undertaking CEAs (and other types of analytical tools). CEAs have also been carried out to strengthen policy dialogue and improve lending, to mainstream environment into Bank and country-level processes such as CASs and PRSPs and implementation of the Millennium Development Goals, and to provide an analytical basis for sustainable development DPL.
- The average cost of a CEA was about \$288,000. However, 9 out of 16 CEAs reviewed cost \$232,000 or less. Whereas full CEAs do tend to cost more, some rapid CEAs cost as much as a full CEA. Although CEAs are sustained through trust funds, for most completed CEAs, Bank budget resources constituted a greater portion of the total cost of CEAs.
- Despite considerable variation in objectives, scope, methodology, and context, CEAs tended to share certain elements, including determination of environmental themes and sectors and broad analysis of environmental institutions and organizations. In a few CEAs, however, these two important building blocks were missing. The policy analysis building block is usually integrated into the analysis of main environmental issues, institutional analysis, or detailed assessment of focus areas and themes addressed in the CEA.
- Many CEAs considered growth and poverty reduction in selecting focus areas, but only a few undertook analysis (such as cost of degradation estimates, surveys of public perception, or distributional analysis) to arrive at priority areas in light of impacts on both growth and poverty. Good practice examples include the Colombia and Peru CEAs. A number of other factors shaped selection of CEA focus areas, including the thrust areas of DPL (for example, the El Salvador and Guatemala CEAs) and consultation with partners and donors.
- Institutional analysis has been a key element in CEAs, but its overall quality needs to be improved. Good practice examples include the Colombia, Bangladesh, and Nigeria CEAs. Greater emphasis needs to be placed on private sector and civil society institutions, assessment of informal rules, and political-economy issues.
- Two main approaches were used for the detailed analysis of themes and sectors selected in CEAs. These included cost-benefit analysis of alternative interventions, and institutional analysis. The scope of institutional analysis with respect to key themes varied significantly.
- CEAs considered lessons from past Bank or donor activities but typically did not engage in in-depth review of them.

3 CEA as a Means of Strengthening Policy Dialogue

CEAs are prepared in partnership with client countries and, ideally, with donors. They have three main audiences: the partner country, the Bank, and donors active in the country. This review of CEAs shows that CEAs have, overall, helped strengthen the Bank's dialogue with partner countries; they have provided an important platform for integrating environment into country-level policy dialogue; and in some cases they have contributed substantially to improving Bank lending in the partner country. This chapter examines various aspects of the CEA process and cites good-practice examples.

Building Ownership

The traditional approach for upstream environmental analysis has been to work with the ministry or department of environment as the main counterpart. For most of the CEAs reviewed, this has been still the case, but CEA analysis has often been used to engage relevant sector ministries. For instance, in the India CEA the main counterpart was the Ministry of Environment and Forests, but the team worked closely with the Ministries of Power, Highways, and Industry.

Some CEAs included other powerful ministries or cross-sectoral agencies as principal counterparts. In Ghana the Ministry of Environment and Science was the main counterpart, but the Ministry of Finance was an important champion of the CEA. Field research in Ghana showed that the CEA process did not sufficiently involve the EPA or the relevant sector institutions, but was more strongly anchored in the

Multi-Donor Budget Support Group (see Hessel-Andersen 2007).

In Peru the main counterparts were the Consejo Nacional del Ambiente (CONAM, National Environmental Council), the Ministry of Finance, and the Instituto Nacional de Recursos Naturales (INRENA, National Institute for Natural Resources). In El Salvador the two primary counterparts were the Ministry of Environment (MARN) and the Technical Secretariat, which coordinates all ministries in the government. Linking the CEA process with the Technical Secretariat greatly increased its potential for influence because of the political power of the secretariat and its links to the office of the president.

Engaging the Private Sector, NGOs, and the Media

Field research in India showed that engaging extensively with nongovernmental stakeholders, particularly NGOs, is not a straightforward matter, especially where the relationship between public sector institutions and NGOs is visibly antagonistic (Hessel-Anderson 2007). Some CEAs have been very successful in engaging a broad range of stakeholders and building long-term constituencies. A good practice example is the Colombia CEA, where engagement went beyond public sector institutions to include politicians, the media, and NGOs (see box 5, in chapter 4). In some other CEAs (El Salvador, Guatemala, India, Peru, and Orissa State, India), there is evidence of an attempt at broader engagement—though limited—not just with government actors, but also with NGOs, academics,

and the private sector, and with the media. In Orissa State the team consulted with government staff and NGOs before preparing the concept note. In addition, it provided funding to an NGO to publish and disseminate a bimonthly newsletter on environmental issues associated with the mining sector in the state, which apparently generated considerable debate in the community. In preparing the India and Orissa CEAs, workshops were held with private sector groups (Hessel-Andersen 2007). As in the case of the Colombia CEA, in the case of the Ghana CEA the media were invited to the workshops and have helped publicize the findings of the studies. In Ghana, findings from the net savings and cost of degradation analysis done as part of a prior study on natural resource management were picked up by the media. Although there was extensive donor involvement, field research did not find evidence for broader engagement with the private sector and NGOs in the preparation of the CEA (see Hessel-Andersen 2007). In some CEAs engagement beyond government agencies has been less extensive: for example, the preparation and dissemination of the Tunisia CEA focused mainly on government agencies, according to a QAG report (QAG 2006).

Coordination with Donors

The CEAs reviewed illustrate four models of donor coordination: (a) no coordination; (b) limited coordination with the local donor group, including peer reviewing and sharing of analytical work and information; (c) joint task management with development partners based in part 1 countries; and (d) strong coordination and joint follow-up activities with a local donor group.

There was one case of no coordination: the CEA for Orissa State. The more typical case, limited coordination, is seen in El Salvador, India, Nigeria, and Pakistan. In India background reports prepared by other donors were used, and the concept was discussed with DFID, but coordination did not go beyond that. It has also happened that Washington-based

donors have joined Bank CEA missions (as the Inter-American Development Bank did for the Colombia CEA), and have participated in discussions with the partner country and in CEA workshops. Sometimes representatives of local donor organizations were consulted and participated in CEA workshops (for example, in El Salvador, Guatemala, Nigeria, and Peru).

The third model, which includes joint task management and cofinancing of the CEA, represents more of a partnership approach. During preparation of the Ethiopia CEA there was extensive collaboration between the World Bank and DFID colleagues in London. In addition to joint task management, there was significant collaboration on the preparation of terms of reference, joint funding of consultant time and travel, comments on drafts, and joint missions and workshops. Yet despite the strong coordination, the CEA did not strengthen policy dialogue with the partner country because of lack of follow-up by the Bank. The lesson is that strong donor coordination is by itself insufficient to improve the Bank's dialogue on environment with partner countries.¹⁹

The fourth model involves strong coordination of the CEA team with the local donor group. In the Egypt, Ghana, and Tunisia cases this resulted in a number of joint follow-up activities. In Tunisia, for instance, coordination with development partners in the preparation of the CEA was achieved through engagement with the Mediterranean Environmental Technical Assistance Program (METAP), the European Commission, the European Investment Bank, the United Nations Development Programme (UNDP),

¹⁹ The Ethiopia CEA did, however, make important contributions. Institutional analysis undertaken in the CEA was used in an assessment of federal and regional capacity for environment management, which was supported by the United Nations Environment Programme (UNEP), and it was also employed to integrate environmental issues into Ethiopia's Plan for Accelerated and Sustained Development to End Poverty (PASDEP), the country's second PRSP. It also influenced environmental capacity building in the context of the national Productive Safety Net Programme (PSNP).

Box 3. Donor Coordination: A Good Practice Example

The Ghana CEA, a continuation of prior analytical work on natural resources, was prepared in collaboration with the group of donors that coordinates development partners' support to the environmental and natural resources sector in Ghana. Since there was already a strong donor network in place, all the donors soon became interested in the CEA. While the Bank took the lead on the CEA, development partners were kept informed and in general regarded the CEA as an activity being undertaken in common. Other donors financed certain components of the CEA, including the preparation of individual chapters (approximately \$100,000 total from the French Development Agency and the Royal Netherlands Embassy). Upcoming operations will cover all of the priority issues identified in the CEA through such means as the mechanism for the joint donor CAS—the Ghana Joint Assistance Strategy (GJAS).

Source: Posas 2007.

and the governments of Finland and Switzerland to promote a regional technical assistance program for water quality and coastal zone management, municipal waste management, and the development of environmental policy tools (see Posas 2007). In Ghana the strong coordination with the local donor group resulted in a harmonized approach toward support for the government (see box 3).

A number of factors have influenced donor coordination in CEAs. First, differences in donor agencies' institutional mandates, capacities, and operational needs pose a significant challenge to coordination of CEA preparation. For example, CEA is not a requirement for the World Bank, but in the Asian Development Bank (ADB) CEAs are mandated by the institution's environmental policy and are required input for its CASs. The ADB's assessments are carried out on a much smaller budget than those in the World Bank, and in some cases are managed by a local consultant. Although there is variation among CEAs prepared by the ADB, in some cases the same consultant has done CEAs for several countries (in, for example, Central Asia). Bank CEAs, by contrast, have higher budgets, are not mandatory, involve significant involvement by both headquarters and country office staff, entail two or more missions, and undergo much more rigorous peer review. CEAs are also mandatory for the Inter-American Development Bank.

Second, coordination seems to be more likely where donors have common interests in CEA preparation in

a particular country and the timing works for both. In Ethiopia common interests in CEA preparation were important for cooperation by the Bank and the DFID. At a time when the Bank was considering undertaking a CEA for Ethiopia, the DFID approached the Bank regarding the preparation of an environmental capacity assessment to support its strategy in the country and, in particular, to promote environmental mainstreaming in the Sustainable Development and Poverty Reduction Program (SDPRP). The proposal resonated with the Bank's interests of postconflict reengagement with Ethiopia on environmental issues. Ethiopia had also been selected as a pilot for donor harmonization and provided an opportune context for collaboration between the Bank and the DFID. This led to a productive partnership, at least for the duration of CEA preparation. In Bangladesh the Bank and donors coordinated extensively, as they were interested in providing joint input into the PRSP, then under preparation. In the later stages of CEA preparation, however, coordination among donors waned.

Third, the extent of coordination of the local donor group on environment and the initiative taken by the CEA team have shaped overall coordination. In Ghana the local donor group on environment appears to be well coordinated, and its coordination was strengthened in the course of CEA preparation. In Egypt and Tunisia local donors are coordinated through the METAP, and the CEA process seems to have strengthened the process, as indicated by a number of joint follow-up

Box 4. Importance of a Good Dissemination Strategy: The Peru CEA

Four workshops were held on the CEA for Peru, and the final report was placed on the Internet. In addition, four policy notes were prepared on the basis of the CEA, on environmental health, natural resources, fisheries, and mining. The team conducted discussions with all political parties during the presidential campaign and, after the elections, intensified its dialogue with the new administration. Alan Garcia attended discussions of one of the policy notes, and apparently e-mailed the team to express his appreciation for it.

The team is planning to produce a film based on the findings of the CEA. (Films linked to CEAs are also planned for other countries, including India.) In addition, the Peru team intends to publish three short documents on environmental assessment, public environmental expenditure review, and environmental health, drawing on analysis undertaken as part of the CEA.

Source: World Bank staff.

activities. Finally, different donors are involved to different degrees in partner countries: for example, the Canadian International Development Agency (CIDA) plays a much more active role in Bangladesh in environment than does the Danish development agency. The degree of involvement has influenced the extent of donor coordination and the possibilities for partnership with the World Bank team.

Strategies for Dissemination and Follow-up

Findings from CEAs have often been disseminated in the preparation stage while engaging stakeholders. Nevertheless, a well-planned dissemination strategy for the final document is important for gaining support for the analysis and publicizing its results. The Peru CEA is a good example of such a strategy (see box 4).

Main Points

- Although ministries of environment, or the equivalent, tend to be the main counterparts for CEAs, engagement is typically often broader, extending to sectoral ministries.
- Some CEAs (for example, those for Ghana, Guatemala, and Peru) galvanized multiple champions, which provided a strong anchor for the policy dialogue in the country.
- In at least a few cases there is evidence that engagement with NGOs and the private sector was substantial. Where distrust between NGOs and public officials is long-standing and deep, such engagement is not easy. Much more effort can be made by teams in engaging a broader set of stakeholders with a view to building long-term constituencies. A good practice example here is the Colombia CEA.
- Four models of donor coordination emerge from the review: (a) no coordination; (b) limited coordination; (c) joint task management with part 1 country donors; and (d) strong coordination with the local donor group. A good practice example of donor coordination is the Ghana CEA.
- Donor coordination depends on a number of factors, including differences in the institutional mandates and capacities of donor agencies; the existence of common interests and the timing of CEAs (as in Bangladesh and Ethiopia); the extent of coordination of the local donor group; and the extent of involvement of particular donors in specific countries. Strong coordination with the local donor group seems to be the most important factor in successful results.

4 Results from CEAs

This chapter discusses results from CEAs—that is, changes in World Bank, partner country, or donor activities that have been catalyzed through CEA preparation and follow-up (see table C.2 in appendix C for a summary of results of each CEA reviewed). Types of results can include integration of environmental issues into specific outputs such as CASs, PRSPs, and DPL; identification of a lending project; design of a policy reform process; and institutional changes within a country. It is not possible to attribute the results discussed here solely to the CEA process. In many cases, CEAs are part of an ongoing dialogue with the government on environment-development issues and so are only one of the factors that have contributed to the outcomes. The results of the Ghana CEA, for instance, cannot be separated from the cost of degradation and net savings analyses that preceded the CEA (see Hessel-Andersen 2007).

Results linked with CEAs can emerge during preparation of the CEA, in the postcompletion period (a span of one to three years), or over a longer time (more than three years). These breakdowns are, however, somewhat arbitrary. After a report has been peer-reviewed in the Bank, it may take anywhere from two months to a year to be approved by the country government and completed by CEA teams according to Bank procedures, so a strict distinction between “during preparation” and “after completion” is not possible. The categories “after completion” and “a longer period” are also arbitrary: in a few cases much time has elapsed since preparation, yet the report is not considered formally “completed.” Thus a discussion of the temporal dimension of CEA results is to be regarded

only as indicative, and should not be seen as adhering to rigid timelines.

Contributions of the Array of Analytical Tools

Different elements of the analysis have been used for different purposes in CEAs. Cost of degradation analysis has helped identify priority issues and raise the profile of environmental issues for various stakeholders. Institutional analysis and assessment of sector-specific issues have helped analyze institutional gaps and weaknesses, provide an analytical basis for policy reforms, and identify lending areas. In a few cases, as discussed below, they have contributed to incremental institutional changes.

Cost of Degradation and Net Savings Analysis

Despite the variation in how cost of degradation analysis has been used in CEAs (see box 1), in several cases (Colombia, Egypt, Ghana, and Tunisia), cost of degradation analysis has helped generate government interest and raise awareness of environmental issues. In Tunisia the cost of an environment degradation study was presented to the Council of Ministers in a session chaired by the president of the country. The 2006 QAG report found that because policy makers in Tunisia prefer quantitative analysis, the Bank’s CEA was still frequently being used and quoted two years later.

In Colombia (see box 5) analysis of the cost of environmental degradation received media coverage

Box 5. Engaging Stakeholders Through Cost of Degradation Analysis: The Case of Colombia

In August 2004 the Colombian government hosted a national workshop that brought together more than 150 individuals from more than 50 organizations representing bilateral and multilateral lending institutions, the public and private sectors, and civil society. In addition, 27 of the country's 33 regional environmental authorities were represented. Through this wide scope of engagement and dissemination, the results of the CEA have had a significant impact on the development of government policies and on public awareness of environmental priorities. For example, for the first time ever, Colombia's leading newspaper carried a front-page story on the country's environmental priorities and the costs imposed by environmental degradation. The story emphasized the magnitude of environmental degradation by comparing annual environmental costs with the costs of the country's ongoing internal armed conflict (see the following figure). In recent elections some politicians called for reductions in ambient air pollution in the country's largest cities, citing the findings of the CEA, and the National Planning Department has used the findings of the CEA to help design programs and policies, particularly for enhancing sustainability strategies. Both the medium-term National Development Plan and the long-term Visión Colombia II Centenario: 2019 (Vision for the Second Centennial: 2019) specifically call for policies based on the findings of the CEA, and the CEA was one of the key inputs to the 2005 National Sustainable Development Policy.

Source: Armstrong 2006a.

and generated broad discussion among stakeholders. Even in the case of Ghana, the cost of environmental degradation analysis received considerable media coverage.²⁰ In Peru initial estimates from the cost of degradation analysis helped bring together stakeholders interested in a range of environmental concerns—biodiversity, climate change, natural resource conservation, and air and water pollution. In El Salvador, the Ministry of Environment and Natural Resources was very interested in the results, seeing it as a way of promoting environmental issues and a tool for negotiating the budget.

Following up on the analysis. In several cases, issues identified by the cost of degradation analysis were picked up in follow-up work. In Bangladesh the analysis identified indoor air pollution as an important issue, and even though the CEA did not focus on this

Spreading CEA findings: Colombian media compare costs of environmental damage with those of war

The screenshot shows a news article from EL TIEMPO.COM, dated October 30, 2006. The headline reads: "Los daños ambientales le cuestan al país más que hacer la guerra, revela análisis del Banco Mundial". The article text states that environmental degradation in Colombia costs more than the war, with annual costs of billions of pesos equivalent to 3.7% of GDP. It mentions that the military forces require 3.4 billion pesos annually. A photo shows people in a polluted area. A related information box mentions that Minister of Environment Juan Lozano spoke about the study.

topic in great detail, a follow-up technical assistance activity on indoor air pollution was under way at the time of writing. Thus, while the immediate value of cost of degradation analysis is to provide an analytical base for priority setting and help raise the profile of

²⁰ In Ghana, an ESW done prior to the preparation of the CEA undertook net savings analysis based on natural wealth estimates and assessed costs of environmental degradation linked with a range of natural resource management sectors (forestry, land, fisheries, minerals, and so forth). Presentation of these results provided leverage to the Ministry of Environment to help increase the visibility of environmental issues. Results on the cost of environmental degradation presented at a workshop were later aired on a television show. Following the presentation of the net savings findings, the Ministry of Finance requested that net savings be included in the country's macroeconomic indicators. In fact, the CEA was prepared to help address issues identified through these tools. The Ghana CEA built on these earlier estimates and undertook additional cost of degradation analysis to value health impacts linked with the brown sectors.

environmental issues, in the longer run it can also assist with the identification of issues (such as indoor air pollution, importance of hygiene and sanitation) that would be important to pursue in more depth, in follow-up analytic activities.

Importance of reliability of estimates. Cost of degradation analysis has not always had the effect of raising awareness of environmental issues, and in some cases its use has been limited. The reliability of the estimate affects a team's ability to build consensus around it. In Nigeria the methodology of the analysis was contested during consultations with counterparts. In Ethiopia the existence of several estimates of costs of land degradation undermined the potential for building consensus around the analysis. The quality and availability of data are limiting factors; in a postconflict situation such as that in Serbia and Montenegro, it can be difficult even to carry out an analysis.

Institutional Analysis

Institutional analysis does not yield silver bullets; rather, it aims to assess strengths and weaknesses in existing governance structures and highlights actions and interventions for addressing them. Reforms and recommendations suggested by institutional analysis typically require consensus building between country stakeholders. They can have implications for other institutions than environmental agencies; and in many instances they involve changes in broader constitutional and governance structures. Recommendations coming out of a CEA can therefore be very difficult to implement politically and may never materialize. This was true of the suggestions for federal oversight of EIAs that emerged from the Pakistan CEA.

The Nigeria CEA called for consolidation of the country's three existing EIA laws into one. This would, however, be politically difficult because one of the agencies involved, the Department of Petroleum Resources, has over the years created a parallel system of environmental clearances without regard for the

authority of the (recently dissolved) federal Ministry of Environment and Natural Resources, and the checks and balances created by an earlier EIA law (World Bank 2007b, 38). Where maintenance of dysfunctional organizations takes precedence over broader poverty reduction goals, institutional change is incremental and slow.

Institutional analysis encounters difficulties in addressing sensitive issues such as regulatory capture, rent seeking, and corruption. The analytical work for the Bangladesh, Colombia, and Nigeria CEAs highlighted these issues, but the language had to be modified in the final CEA reports. All this means that results from institutional analysis cannot be expected to be immediate and, depending on the nature of the recommendation and support for them from main counterparts, may take a long time to emerge.

Bringing neglected environmental issues into the discussion. Despite the problems discussed above, institutional analysis can bring about a number of changes during preparation of CEAs and after completion. Table 4 provides specific examples of policy recommendations arising from broad institutional analysis, or from detailed analysis of specific themes or topics in CEAs. In Peru, for instance, a historical analysis of environmental institutions demonstrated that much more prominence had been given to conservation and natural resource management in the country's environmental agenda than to issues such as indoor and outdoor air pollution, water pollution, and sanitation and hygiene. The study thus helped bring "brown" issues into the discussion and reshape the environmental agenda.

Identifying investment areas and influencing policy reform and organizational change. In a number of cases institutional analysis of specific sectors and priority areas led to identification of investment activities. For instance, discussions based on institutional analysis relating to natural disasters in the Peru CEA led to a direct request by the president for a loan on natural

disasters. In Bangladesh the institutional analysis contributed to proposals for a project dealing with environmental issues in the Dhaka metropolitan area. Recommendations from institutional analysis have contributed to organizational change. In Tunisia the National Environment Authority ceded its mandate for solid waste management—one of the recommendations of the CEA—and a separate ministry was eventually established for this sector. In Colombia findings from subnational-level institutional analysis led to real-time reforms that resulted in budget allocations focused on the priorities of the poor, new arrangements for aligning specific regional environmental objectives with national ones, and stronger accountability mechanisms for the leadership of the regional environmental agencies. These changes were made well before the CEA findings were officially published (see Posas 2007).

Public Environmental Expenditure Reviews (PEERs)

In Egypt the PEER undertaken as part of the CEA showed that Egypt was investing in environment and undercut the myth that only donors were doing so. In Bangladesh findings from the broader institutional analysis and the PEER were used in discussions with the government concerning the Department of Environment budget. The outcome was endorsement of a preexisting strategic plan for the department through the development support credit (DSC) program and its inclusion in the matrix for the third DSC. In Peru CONAM was able to obtain a 100 percent increase in its budget allocation on the basis of PEER findings and relations with the new vice minister.

Environmental Impact Assessment (EIA)

In a number of cases the CEA analysis has contributed to small but important institutional changes in EIA systems. For example, El Salvador's Ministry of Environment had a backlog of 2,000 requests for EIA. Discussions about the EIA analysis led the ministry to

institute a better screening process and to increase staff responsible for EIA enforcement from none to 16. In Orissa State, India, CEA recommendations also led to an increase in staff, particularly educated tribals, for EIA, where previously only 15 inspectors had to cover 400 mining-related industries in the state. A number of EIA processes were streamlined—for example, by extending the period of consent for low-risk and medium-risk projects from one to five years, and by introducing an inspection strategy for “red” (high-risk) categories. Discussions during the CEA process also contributed to decentralization to regional offices of the Pollution Control Board (PCB) of such EIA-related functions as clearance for low- and medium-risk projects; consent at the state level is no longer needed. A joint inspection strategy at the regional level is currently being worked out, and experienced staff members from the state-level PCB are being moved to regional offices within Orissa.

The extent to which CEAs have contributed to the design of investment projects is not clear. In Bangladesh, Ethiopia, India, and Tunisia, for example, institutional analysis from CEAs is said to have influenced the design of follow-up investment projects. In India it is apparently being applied in the context of an ongoing industrial pollution control project. Institutional analysis from the Bangladesh CEA has been used with the Dhaka environmental management project currently in preparation. It should be noted that although upstream institutional analysis is an important starting point, it is not sufficient for designing follow-up investment projects. Project-specific institutional analysis needs to be conducted during project preparation to address governance issues specifically linked with the objectives and scope of the investment project.

Types of Results from CEAs

The results from CEAs can be grouped as follows (see table C.2 in appendix C for specific country details):

Table 4. Examples of How Recommendations from the CEAs Reviewed are being Implemented

CEA	Analytical issue or finding	Recommendation	Result
Colombia ^a	A high cost of environmental degradation was associated with air pollution.	Revise and establish national standards for particulate matter (PM _{2.5} and PM ₁₀) in priority areas; update major emission standards for mobile and nonpoint sources to reflect new scientific and technological advances.	Resolution 601 of April 2006 sets national air quality standards for PM ₁₀ , sulfur dioxide, nitrogen dioxide, ozone, and carbon monoxide. It also sets out a requirement by environmental authorities to begin measuring PM _{2.5} when they identify probable health concerns.
	Strategic and systematic tools for priority setting were needed.	Install and implement systems to monitor and evaluate environmental management and the extent to which the objectives of environmental priorities were efficiently met.	Establishment of a system of indicators to evaluate the implementation of the National Policy on Sustainable Development and adequate funding of Colombia's National Environmental System, as evidenced by improved functioning and coordination at various levels.
Egypt, Arab Rep. of	Need to reduce burden of respiratory disease, by improving air quality.	Reduce damage costs through readjusting pricing policies and through a set of 19 policies suggested in the energy environment review; establish energy policy support unit in the Ministry of State for Environment Affairs.	Project on natural gas; use of Clean Development Mechanism (CDM) initiated; 10 million euros of CDM credits purchased for pollution abatement.
India	Ministry of Environment and Forests (MoEF) has no offices at the state level.	Consider creating state-level authorities of the MoEF.	The New Environmental Policy (NEP) supports this recommendation, under certain conditions. After NEP approval, sector ministries are to prepare action plans; analysis in the CEA contributes to the action plan.
	Growth was putting pressure on state Pollution Control Boards (PCBs).	Capacity-strengthening plan for PCBs needed.	Despite an overall hiring freeze for public sector employees, the government made an exception to strengthen the capacity of the PCBs. Capacity strengthening will be supported as part of a capacity-building project currently in preparation.
Serbia and Montenegro	Environmental management system has been institutionally and legally weak.	Strengthen environmental management capacity, with a focus on monitoring key pollutants and clarifying responsibilities.	The CEA contributed to the establishment of an environmental protection agency, although enforcement remains problematic.
	Unique species of flora and fauna were under various degrees of threat.	Prepare a national biodiversity strategy, identify threatened species, and prepare an action plan.	A national biodiversity strategy was prepared.
	Energy subsidies were contributing to inefficient energy use.	Introduce measures to enhance energy efficiency and use of renewable energy. These would include phasing out energy subsidies and investing in more energy-efficient technology to offset the higher energy prices.	The Serbia Energy Efficiency Project was implemented with IDA funding. Other projects have also been implemented in response to the CEA findings.
Tunisia	Responsibilities for solid waste management rested with the National Environmental Protection Agency (NEPA).	Solid waste management functions should be decentralized; roles and responsibilities of different entities should be clarified.	NEPA ceded responsibility for solid waste management, and a new agency for this function was established.

Source: World Bank staff.

Note: DPL, development policy lending; IDA, International Development Association (of the World Bank).

a. See Agreed Program Matrix for Programmatic Development Policy Loan (World Bank 2005c, 102); this is also, based on information from country team based on ongoing dialogue with Colombian authorities.

b. World Bank 2005a (chapter on air quality).

- Identification of and request for investment projects
- Inputs to immediate policy reforms supported through development policy loan
- Upstream analysis to meet requirements of OP 8.60
- Integration of environment into CASs and PRSPs; input into country policies
- Preparation of strategic environmental assessments
- Improved donor coordination
- Stimulus for extensive political debate on improving public accountability with respect to environmental issues that had been traditionally neglected in the country
- Institutional changes
- Strengthening of EIA capacity
- Improved coordination between sectoral ministries in the implementation of a national environmental policy; improved sectoral engagement on environmental issues.

Link between CEAs and DPLs

Given that a number of CEAs were initiated in the context of DPLs and triggered by OP8.60, it is important to reflect briefly on how successful CEAs have been in providing input to DPLs. While an in-depth review of how DPLs have drawn on CEAs was not conducted for this paper, in only a few cases, recommendations of the CEA influenced the DPL program matrix (for example, Orissa).²¹ In others, it was included in the program document but not included in the DPL matrix or in the country program. In some instances this occurred even where the CEA was initiated in the context of OP8.60 (for example, Guatemala).²² It is important that CEA is not simply

seen as a safeguard compliance of OP8.60, but as an upstream strategic analytic tool that aims to inform and enhance a long-term process of engagement with partner countries to strengthen institutional capacity on key environment development issues.

Timing of CEAs

The review showed that timing of CEAs, particularly when prepared to provide environmental input into specific processes, was important for their overall effectiveness. For instance, the El Salvador and Guatemala CEAs were rapid CEAs intended as input into planned DPLs. The Nigeria CEA was prepared in parallel with the CAS, and the team contributed to the draft CAS document. The Bangladesh CEA was initiated during the PRSP process and provided input to it. The Colombia CEA was timed to feed into the design of the programmatic sustainable development DPL. In Ghana the CEA was carried out in parallel to preparation by the Multi-Donor Budget Support Group of a new joint assistance strategy for the country; the CEA provided input to the discussions on the strategy, and to the performance assessment framework for implementation of budget support (Hessel-Andersen 2007). The strategy contains a chapter on environment reflecting the findings of the CEA.

The timing of the CEA's completion, as well as its initiation, matters. In some cases, despite preparations for follow-up, country-specific contextual issues have led to limited engagement in that stage. In El Salvador, responding to the animosity between the reigning political parties, the Bank has slowed and reduced its current operations and engagement in the country in environment and in other sectors as well. This situation is limiting the Bank's dialogue on environmental issues. In Bangladesh the final launch workshop for the CEA report was delayed because of elections and political unrest, even though the CEA report was completed in June 2006 and has already had important results. In Nigeria, at the time of writing, follow-up was on hold as a result of major changes in the public sector

²¹ See Orissa Socio-Economic Development Program 2 at http://imagebank.worldbank.org/servlet/WDSContentServer?IW3P/IB/2006/07/13/000012009_20060713092547/Rendered/PDF/337670rev0pdf.pdf.

²² See program document for third Guatemala DPL at http://imagebank.worldbank.org/servlet/WDSContentServer?IW3P/IB/2007/07/13/000020439_20070713094930/Rendered/PDF/397390GT0R20071015211.pdf.

and government downsizing on the eve of elections. The main counterpart for the CEA, the Ministry of Environment and Forests, has been merged with the Ministry of Housing and Development, and a new autonomous regulatory agency has been formed, in difficult political circumstances.

Factors Contributing to Positive Results

A number of factors seem important if CEAs are to have positive results during preparation and follow-up. These include ownership by the counterpart ministry or agency, the presence of multiple champions in the partner country, the quality of the analytical work, and timing. Inclusion of CEAs in country programming as an ESW, as was the case in most of the CEAs reviewed, has helped validate the CEA process within the Bank. As for donor coordination, what matters most in the short or long run is coordination with the local donor group. Only a few CEAs, however, were helped by a strong local donor group and demonstrated this approach.

Even with limited engagement with NGOs and the private sector, some CEAs seem to have had tangible results in the near term. A broader engagement with these stakeholders in future CEAs will be critical to building constituencies and for a long-term impact for CEA recommendations.

Main Points

- Types of results from CEAs include input to policy and institutional changes, identification of lending

operations, integration of environment into CASs and PRSPs, input to DPLs, identification of strategic environmental assessments, and in some cases, improvement or facilitation of donor coordination.

- Important factors for positive results include the quality of the analysis, the process through which the analysis is integrated into policy dialogue, and the presence of multiple champions. Strong coordination with the local donor group matters for a harmonized approach to environmental actions in partner countries, although some CEAs seem to have had tangible results in relation to the Bank, even without a broader engagement with donors, the private sector, and NGOs.
- Different types of analysis have been used to mainstream environment into policy dialogue. In several cases, quantitative analysis of priorities in economic terms helped raise the profile of environmental issues. Institutional analysis, including analysis of public expenditures and EIA systems, has contributed to such results as redistribution of expenditures to better address priority areas, identification of lending operations, and improvements in EIA systems.
- For CEAs to yield concrete results and have the potential for strengthening policy dialogue on environment, active follow-up after completion of the CEA is crucial. Agreeing to do a CEA in a country should imply that the Bank is committed, in terms of resources and time, to a long-term engagement with a partner country on environmental issues.

5 Conclusion: Guidance for Future Preparation of CEAs

Country environmental analysis is a strategic, analytical, and decision-making tool for informing the Bank, partner countries, and donors about environmental development priorities and institutional capacity for addressing those priorities and themes. As we have seen, a number of CEAs have contributed to tangible results and have provided a strong analytical basis for a dialogue on environment in the short run. The extent to which CEAs have helped consolidate the Bank's dialogue with partner countries over the longer run, or in any indirect way, is difficult to measure within the scope of this review. In some cases CEAs did have concrete results but did not necessarily contribute to strengthening dialogue. Nor have all CEAs been successful in all respects; for instance, much needs to be done toward improving donor coordination with respect to CEAs.

As is the case with any form of policy dialogue, the process of CEA preparation is imperfect and depends heavily on the political context and the interests and perceptions of policy makers, donors, and other stakeholders. In this review it has not been possible to capture the extent to which individual CEAs have negotiated this difficult terrain, and have managed to influence political decision making and the perceptions of major stakeholders about environmental issues. (More detailed discussions are found in Hessel-Andersen 2007; Posas 2007.) What is provided here is a cross-sectional view of the approaches taken, the methodologies used, and the elements of the process that seem to work well or poorly in different cases. This chapter draws on lessons from the review to suggest some practical guidance for future preparation of CEAs.

Policy Context and Timing

If the Bank's regions seek to have long-term engagement on environment-development issues in specific partner countries in the Region, then those countries must first be identified. In countries where long-term dialogue on environment has been lacking, or where engagement on environmental issues has been weak or sporadic, CEAs can be a particularly important analytic tool to enhance a strategic and long-term process of engagement with partner countries, strengthen institutional capacity on key environment-development issues, and identify areas of lending. From experience, CEAs can be useful in the following contexts:

- To perform environmental analysis as mandated by OP 8.60 (as in El Salvador and Guatemala)
- As a tool for integrating environment into CASs and PRSPs, and for informing the implementation of national environmental and development policies and the Millennium Development Goals (as in Bangladesh, Egypt, Nigeria, and Tunisia)
- As a tool for strengthening country-level dialogue on environmental issues and identifying lending areas (as in Egypt, Ghana, and Peru)
- To provide the analytical basis for sustainable development DPL (as in Colombia)
- As a tool for reestablishing Bank dialogue on environment in postconflict situations (as in Serbia and Montenegro).

Planning and Preparing CEAs

In preparing a CEA, a number of process issues need to be managed, including support from Bank

colleagues (for example, country director, sector manager), selection of counterparts, choice of partner country stakeholders, dialogue with counterparts, donor coordination, and choice of consultants. How these decisions are made plays a key role in building ownership for the CEA process and shaping the eventual results of the CEA. The following issues are important:

- *Task management.* CEAs are more likely to be effective when regional staff members lead or co-manage tasks. If CEAs are led solely by the anchor, their effectiveness can be diminished.
- *Team composition.* In addition to sector specialists linked with priority issues being analyzed in the CEA, CEA teams should include staff with skills in institutional analysis and environmental economics (particularly economic valuation of environmental costs). The quality of both these kinds of analysis is also dependent on the quality of the consultants. Expertise in technical aspects of specific issues such as climate change, fisheries, or solid waste management is not a substitute for skills in institutional analysis and environmental economics.
- *Budget.* The average cost of a CEA has been about \$288,000, although nine out of 16 CEAs reviewed cost approximately \$232,000 or less (see table 1). CEA costs depend on the scope of the work, number of workshops, dissemination strategies, and follow-up. A comparison of costs assumed by CEA teams at the concept note stage and actual CEA costs shows that typically CEAs cost more than is initially planned and budgeted. Thus, task team leaders need to plan accordingly.
- *Counterpart ministry or agency.* In undertaking a CEA, the Bank is entering into a long-term policy dialogue, and the choice of counterpart agency is a critical decision. In most cases the main counterpart is the ministry of environment or its equivalent. Some CEAs were able to successfully include other powerful ministries or cross-sectoral agencies as key counterparts (as in Peru), or as champions that helped generate interest in CEA findings and

follow up on them (as in Ghana). CEA teams should consider at the beginning whether the ministry of finance or the ministry of planning would make valuable strategic counterparts, in addition to the ministry of environment, on account of these ministries' greater convening power and influence.

- *Timing.* When CEAs are intended to contribute to PRSPs, CASs, or national strategies or policy reforms, they need to be planned sufficiently ahead of time to be able to provide meaningful input into these processes.

Revising and Standardizing the CEA Building Block Structure

The CEA building block structure (see figure 1, in chapter 1) suggested what the main elements of a CEA should be when CEAs were originally conceived. Figure 3 presents a revised structure, based on experiences with CEAs reviewed, that may respond better to operational needs.

Over the past five years, CEA teams have experimented with various structures and analytical tools. As preparation of CEAs is scaled up, the tool should be standardized to some extent, while allowing for variation to accommodate adaptation to different outputs and processes. At a minimum, CEAs should include the first two building blocks shown in figure 3. This will allow for some level of standardization in CEAs. As explained below, the third building block can be tailored to the specific processes (for example, focus areas of the DPL) in the context of which the CEA is being prepared.

The first building block (in figure 3), assessment of environmental priorities with respect to growth and poverty reduction, is of critical importance: it helps identify the key environmental development issues at a particular time and tracks them over a long period. Mapping environmental trends and indicators in priority areas should be an important part of this analysis. Periodic review of the issues (say, every

four to five years) can show how well a country's institutions and organizations are addressing these concerns. The second building block (see figure 3), broad assessment of environmental institutions and organizations at the national and subnational levels (missing in some CEAs), provides an overall picture of the historical evolution of environmental institutions and organizations, the main stakeholders involved, the political-economy issues underlying environmental management, and the major strengths and weaknesses in the governance structure and how these can be addressed. Standardizing CEAs by including an analysis of the first two building blocks in figure 3 can also result in cost savings, as this part of the analysis need be conducted only every four to five years in a country. For instance, once this part of the analysis is done, it can provide input to DPLs or a CAS prepared at a later date.

The third building block, analysis of environmental priorities and themes, provides scope for variation in CEAs. Detailed assessment of environmental themes and priorities can be tailored to the focus areas of the specific processes (for example, sector-specific DPLs, PRSPs, and so on) in the context of which a CEA is being prepared.

Building Block 1: Identifying Environment-Development Priorities

Although many CEAs discuss poverty-environment links, only a few have undertaken analysis to determine environmental priorities with an eye to both growth and poverty reduction; greater emphasis has been placed on growth, as indicated by the large number of CEAs using cost of degradation analysis (see box 1 for quantitative tools that can be used in CEAs for priority

Figure 3. Revised Building Block Structure for CEAs

COUNTRY ENVIRONMENTAL ANALYSIS		
<p>Identification of environment-development priorities</p> <ul style="list-style-type: none"> • Importance of environment to economic growth and poverty reduction • Prioritization of environmental challenges through available data, cost of degradation studies, surveys, distributional and net savings analysis • Environmental trends in priority areas 	<p>Assessment of environmental policies and institutions</p> <ul style="list-style-type: none"> • Mechanisms through which information is monitored and shared with the public; processes through which citizen feedback is incorporated into priority setting, policy formulation, and planning • Assessment of gaps in formal rules (for example, policies and regulations) and in informal rules underlying implementation • Analysis of key actors and stakeholders and of interests; assessment of budgets, expenditures, and transparency in resource use • Analysis of main environmental management tools, including environmental impact assessment • Analysis of intersectoral coordination, horizontally between sector ministries and vertically between national and subnational levels • Subnational environmental management 	<p>Analysis of environmental priorities and themes</p> <ul style="list-style-type: none"> • Key indicators and trends; key environmental issues linked with the sector or priority • Cost-benefit analysis to identify appropriate interventions • Policy and institutional analysis focusing on <ol style="list-style-type: none"> a. Integration of environmental considerations into sector policies b. Analysis of stakeholders and assessment of underlying political-economy issues (analysis of formal and informal "rules of the game") c. Assessment of environmental management tools relevant to the sector (for example, environmental assessment, licensing, public disclosure) d. Analysis of budgets, resource flows, transparency, and accountability e. Subnational-level institutional analysis
BUSINESS PLAN		
<ul style="list-style-type: none"> • Stocktaking of and lessons from the Bank's and development partners' past environmental assistance to client country • Review of the Bank's planned lending and nonlending activities in key sectors and their links with environmental priorities • Review of development partners' ongoing and planned environmental support activities • Assessment of the Bank's comparative advantage in relation to development partners • Suggested Bank assistance in the form of lending and nonlending assistance and partnerships 		

Source: Author.

setting). In future CEAs much more attention should be given to systematically assessing priorities linked with poverty reduction as well as with growth. The main CEA concept note should be revised to further clarify this issue.

In some CEAs focus areas and themes were chosen on the basis of focus areas of the DPL, as in Guatemala, or other decision criteria such as issues important from the perspective of stakeholders, as in Pakistan. Selection of key themes and focus areas in CEAs, as in any other policy processes, is a process of negotiation. Nevertheless, even if the focus areas are chosen for other reasons, a systematic priority-setting exercise should be undertaken. If detailed analysis of priorities is not possible in the context of a CEA, this can be picked up in follow-up work, as happened in Bangladesh, which received technical assistance on indoor air pollution.

Building Block 2: Assessment of Environmental Policies and Institutions

The review showed that although institutional analysis is a core building block of CEAs, the scope, quality, and depth of analysis (see chapter 2) vary considerably, and institutional analysis needs to be strengthened in several areas. These include the following:

- Greater focus on assessing decision-making processes rather than limitation of organizational analysis to a static description of mandates and functions
- Focus on political-economy issues and analysis of power relationships underlying decision-making processes between stakeholders²³
- Assessment not only of gaps in formal rules, but also of informal rules and how they structure relations between organizations and stakeholders
- Assessment of the role of private sector and civil society institutions in environmental management, and thus a stronger assessment of the demand side of environmental governance

- More detailed analysis of environmental management at the subnational level; greater emphasis in PEERs to assessment of issues of resource flow between national and subnational levels.

Using the framework presented in *World Development Report 2003*, considerable guidance has been prepared on how to frame and structure institutional analysis in CEAs and in specific tools such as PEERs.²⁴ In addition, terms of reference for preparing institutional analysis with respect to a range of sectors and themes have been collected and made accessible to task teams electronically through the CEA toolkit.²⁵ CEA teams can also draw on indicator-based tools such as those developed by the Access Initiative to assess public sector performance with respect to access to information, participation, and justice in issues relating to the environment.²⁶ Building on existing literature, additional guidance can be developed on how to assess the role of the private sector and NGOs in environmental management. For example, the guidance can draw on a substantial literature dealing with the role of NGOs in service delivery, the organizational characteristics of successful NGOs, and the demand side of service delivery. As we improve the quality of institutional analysis in CEAs, the questionnaire used for determining the indicator for policies and institutions for environmental sustainability, part of the broader CPIA indicators needs to be revisited, to ensure greater synergy and cross learning between the two.

²³ Institutional analysis that involves analysis of “rules of the game” can be undertaken without examining the political relations within which rules are embedded, but in CEAs it is important to do both.

²⁴ See Markandya, Hamilton, and Sanchez-Triana (2006); Pillai and Lunde (2006).

²⁵ The External CEA Toolkit Website can be accessed at <http://www.worldbank.org/ceatoolkit>. Within the Bank, the internal CEA toolkit can be accessed by typing “ceatoolkit” in the Intranet address field.

²⁶ <http://www.accessinitiative.org/>.

Building Block 3: Institutional Analysis Linked with Themes and Sectors

A major shortcoming of past analytical work such as NEAPs and Bank environmental analytical work is that institutional analysis has typically not been carried out in relation to specific themes and sectors. The structure proposed in figure 3 includes institutional analysis linked with themes and sectors, or with issues identified as priorities. Where needed and relevant, cost-benefit analysis to weigh different interventions can first be done (as in Colombia and Peru; see also the chapter on air quality in the Egypt CEA), after which institutional analysis can be undertaken to assess the political feasibility of carrying out selected interventions. A framework for assessing environmental institutions using the *World Development Report* approach suggested for building block 2 can also be applied in assessing governance issues linked with a theme or sector. In addition, much greater use can be made of tools such as stakeholder analysis to assess systematically the interests and influence of different groups in relation to a sector or priority theme.

Writing Recommendations

As discussed in chapter 2, CEAs vary considerably with respect to presenting recommendations, and whether the role of the Bank is discussed. Although this flexibility is important for shaping follow-up discussions with partner countries, some consistency in presentation of recommendations would be helpful. On the basis of analysis undertaken in CEAs, recommendations can be made with respect to three

types of issues: policy reform and institutional changes, areas for technical assistance, and areas for investment lending. The time frame (short, medium, and long-term) for carrying out the recommendations should also be provided. Finally, the counterpart agency to which each recommendation is addressed should be noted. The format shown in figure 5 is drawn from recommendations presented in several CEAs.

CEA Process and Follow-up

This review consistently shows the importance of the process of CEA preparation and, in particular, of three process issues.

- The analysis in the CEA must be well integrated into the dialogue with key counterparts and stakeholders. As highlighted by the experience with the Colombia CEA, engaging different stakeholders, particularly politicians and the mass media, can play an important role in generating public debate about environmental priorities.
- CEA is not a single process. Different types of analysis undertaken in CEAs can be used for different purposes.
- Concerted follow-up is crucial after completion of the CEA report. If such follow-up does not take place, the potential for dialogue created by the CEA can be lost. A good dissemination strategy can in fact be the beginning of more focused discussions on strengthening environmental institutions and for working on specific areas of policy reform.

Figure 4. Template for Recommendations in CEAs

Issue	Recommendation	Time frame (short, medium, and long-term)	Counterpart agency/stakeholder	Role of the Bank (including sources of financing)	Activities coordinated with donors
	<ul style="list-style-type: none"> • Policy and institutional reforms • Areas of technical assistance • Investments 				

Source: World Bank staff.

Collaboration with Donors

Collaboration with donors is crucial for avoiding duplication and agreeing on a common platform for dialogue on environment. Donor coordination is influenced by a number of factors, including differences in agencies' organizational capacities and mandates, shared interests of different donors in a particular country, and coordination between local donors. The review shows that engaging with the local donor group seems to be the most important factor. In cases where a coordinated donor group does not already exist, CEA teams can work to galvanize one around the CEA process.

Sharpening the Profile of CEAs

Teams are encouraged to refer to the revised building block structure (figure 3) to assess whether to regard

a particular ESW product as a CEA. At a minimum, CEAs should consist of the first two building blocks—that is, determination of environmental priorities linked both with growth and with poverty reduction, and a detailed analysis of environmental institutions. This can be seen as a meaningful way of characterizing a “rapid” CEA. The third building block, which calls for detailed analysis of themes and priorities that are the focus of the particular CEA, allows for flexibility in the choice of tools and the content of the assessment, in accordance with the particular context. It is suggested that a CEA should typically include all three building blocks. Attention to all three building blocks thus gives scope for and allows the necessary balance between standardization of key features of a CEA and country- and situation-specific variation.

Appendix A — Completed, Ongoing, and Planned CEAs, as of December 15, 2007, by Region

Region	Country and date	Task team leader
Completed		
AFR	Nigeria (rapid) (2007)	Sergio Margulis
AFR	Ethiopia (decision draft, 2005)	Magda Lovei
AFR	Ghana (2007)	Jean Christophe Carret, Mani Muthukumara
ECA	Belarus (2003)	Anil Markandya
ECA	Serbia and Montenegro (2003)	Anil Markandya
EAP	Vietnam	Phillip Brylski, Giovanna Dore
LAC	Dominican Republic (rapid) (2004)	Pierre Werbrouck (took over from Theresa Bradley)
LAC	Colombia (2006)	Ernesto Sanchez Triana, Kulsum Ahmed
LAC	El Salvador (rapid) (2006)	Juan Carlos Belausteguigoitia
LAC	Guatemala (rapid) (2006)	Juan Carlos Belausteguigoitia
LAC	Peru (2007)	Ernesto Sanchez-Triana
MNA	Egypt, Arab Rep. of (2005)	Sherif Arif
MNA	Tunisia (2004)	Sherif Arif, Aziz Bouzaher
SAR	Bangladesh (2006)	Paul Jonathan Martin
SAR	Pakistan (2006)	Paul Jonathan Martin
SAR	India (national) (2007)	Kseniya Lvovsky
SAR	Nepal (2007)	Bilal Rahill
SAR	India, Northeast Region (2007)	Karin Kemper
Ongoing		
AFR	Namibia	Christophe Crepin
AFR	Senegal	Peter Kristensen
EAP	Indonesia	Joe Letimann, Giovanna Dore
ECA	Tajikistan	R. Sudharshan Canagarajah, Muthukumara Mani
LAC	Ecuador (decision draft, 2007)	Juan Carlos Belausteguigoitia
MNA	Jordan	Raffaello Cervigni
SAR	Orissa State, India (decision draft 2006)	Kseniya Lvovsky, Sanjay Srivastava
Planned		
AFR	Democratic Republic of Congo	Paul Jonathan Martin
AFR	Madagascar	Jean-Christophe Carret
AFR	Mali	Remi Kini
AFR	Sudan	Herbert Acquay
EAP	Philippines	Jan Bojo
EAP	Timor Leste	Jan Bojo
ECA	Armenia	Artavazd Hakobyan
LAC	Argentina	Carter Brandon
LAC	Honduras	Juan Carlos Belausteguigoitia
LAC	Panama	Juan Carlos Belausteguigoitia
MNA	Lebanon	TBD
SAR	Bihar State, India	Ernesto Sanchez Triana
SAR	Punjab Province, Pakistan	Ernesto Sanchez Triana

Source: World Bank staff.

*At the time of this review was initiated, only 16 CEAs were completed. Several CEAs included in the above list were completed later. Planned CEAs are indicative only and are subject to change.

Appendix B — Sample Questionnaire for CEA Teams and Task Team Leaders

Name of task team leader or person filling out the questionnaire: _____

Country: _____

Current status of the CEA: _____

1. How was the CEA identified? Who initiated the CEA (government, country management unit, regional economist, other?)
2. What was the main objective of the CEA?
3. What was the context in which it was prepared?
4. How did the team identify areas of focus, priority areas, and types of methodology to use?
5. What was the main methodology for priority setting?
6. What was the main methodology for institutional analysis?
7. If there were other methods used, please identify them.
8. What was the overall CEA process? How was the CEA discussed with the government? How was ownership of the process brought about? What was the main counterpart ministry? Which sector ministries were engaged with?
9. What was the nature of coordination with other stakeholders (private sector, civil society)?
10. How much did the CEA cost (staff plus consultant)?
11. What was the nature of donor coordination? What were the main issues and constraints?
12. How were findings from specific methodologies (for example, cost of degradation) used to generate discussion? What were the results?
13. How were the findings and recommendations from institutional analysis used in discussions with the government? What were the results?
14. What is the single most *useful* technique (process or methodology) applied in the CEA? Why?
15. What is the single most *useless* technique—that is, what you would not repeat again, either in terms of choice of methodology or process—applied in the CEA? Why?
16. What were main results of the CEA, and over what time frame were these achieved? Were they different from what was originally planned? To what extent did the CEA achieve its original objectives? Was there ownership of the process by different stakeholders (government, country director, sector manager, and so forth) in and outside the Bank?
17. What was the nature of follow-up? How did you/your team follow up with the government?
18. How did the CEA help (or not) mainstream environmental concerns into policy dialogue with the client country? Which factors contributed to this process?
19. To what extent was the CEA process successful in mainstreaming environmental concerns into PRSPs, CASSs, DPLs, and so forth? What were the main issues constraints?
20. In what way did the CEA help influence or shape the Bank's business plans with the client country?
21. What were the main lessons from the CEA process? What would you do differently if you were to prepare another CEA?

Appendix C — Overview of the Objectives and Results of the CEAs Reviewed

Table C.1. Context and Objectives of the CEAs Reviewed

CEA	Contextual factors	Objective (drawn from CEA reports)
Bangladesh	Development support credits planned; ongoing PRSP process; CAS in preparation; need to strengthen policy dialogue on environment and identify areas of engagement.	Help reduce the environmental constraints on economic growth by recommending measures to reduce environmental health burdens borne by the poor and to promote more sustainable management of the natural resources on which the poor depend. The recommendations are intended to help guide support provided by development partners and the Bank through technical assistance, DPL and investment projects (World Bank 2006a, 4).
Belarus	The government requested assistance in updating the Belarus Environment Strategy Study, which was carried out jointly with the Bank in the 1990s after Belarus became independent and was published in 1993. The CEA would be a mechanism for doing this and a means of identifying and targeting key priorities.	Engage the government and local stakeholders in a dialogue on the links between the more technical aspects of environmental management and the underlying national policy framework. The CEA recommended policy actions in four areas—water, energy, solid waste, and natural resource management— where there was potential for World Bank follow-up activities (World Bank 2002, 1).
Colombia	Sustainable development DPL program requested by the government.	Present an analytical framework to support the efforts of the government of Colombia toward achievement of the Millennium Development Goals (World Bank 2006h, 23). Findings from the CEA were expected to help design and implement policies to (a) improve the effectiveness and efficiency of Colombia's National Environmental System, and (b) integrate the principles of sustainable development into key sector policies, with emphasis on protecting the most vulnerable groups (World Bank 2006h, 24).
Dominican Republic	CAS in preparation; planned environmental loan to newly formed Ministry of Environment.	Identify environmental priorities, develop recommendations for institutional and policy reforms, and support the Ministry of Environment and Natural Resources in its reform efforts; provide input for the CAS and an analytical basis for the proposed environmental loan (World Bank 2004b, 5).
Egypt, Arab Rep. of	CAS (2005–07) in preparation; need for analytical basis for mainstreaming environment into CAS, sector policies, and strategies; helping to meet Millennium Development Goals (MDG) targets, particularly MDG 7, on environmental sustainability; defining priority actions for Bank engagement with Egypt; and supporting policy dialogue on environment.	Facilitate mainstreaming of selected environmental issues into relevant sector activities for improving development and poverty alleviation; improve capacity and strengthen environmental mainstreaming (World Bank 2005a, 3). The CEA sought to focus sharply on key environmental issues (a) having detrimental impacts on public health or key natural resources, (b) resulting in irreversible damage, and (c) requiring multisectoral intervention.
El Salvador	Planned series of DPLs	Analyze the efficiency and effectiveness of El Salvador's environmental policy and institutional framework to address current and future environmental issues, particularly those arising from trade liberalization and infrastructure investments; identify gaps and provide politically feasible and cost-effective recommendations (World Bank 2006i, 3).
Ethiopia	Country emerging from war with Eritrea; Bank was reengaging to revive shelved initiatives and build country program; several initiatives were in progress—the CAS, PRSP process, a public sector capacity-building program, and a countrywide decentralization initiative.	Analyze Ethiopia's institutional capacity for sustainable natural resource and environmental management in support of the Sustainable Development and Poverty Reduction Program (SDPRP); identify key constraints on achievement of good environmental performance; and identify areas for capacity building (World Bank 2004d, 12).

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Table C.1. Context and Objectives of the CEAs Reviewed *(continued)*

CEA	Contextual factors	Objective (drawn from CEA reports)
Ghana	Need to improve environmental and natural resource management (NRM) lending; economy driven by a few NRM-driven sectors; shift toward budgetary support and sectorwide approach.	Assist the government of Ghana and its development partners in (a) assessing the country's environmental priorities, the environmental implications of key economic and sector policies, and the country's institutional capacity to address them, and (b) finding practical management, institutional, and policy solutions to issues of natural resource management, environmental degradation, and sustainability of growth.
Guatemala	Planned series of DPLs; adoption of Dominican Republic–Central America Free Trade Agreement (DR–CAFTA) likely to accelerate trade-related economic growth and expand infrastructure; need to assess capacity of borrower's institutions to address the environmental implications of trade and infrastructure expansion as mandated by OP 8.60.	Analyze the efficiency and effectiveness of Guatemala's environmental policy and institutional framework in addressing current and future environmental issues, with special emphasis on those arising from trade liberalization and infrastructure investments (World Bank 2006h, 3).
India	Rapid economic growth; major sectors driving growth included industry, power (coal, hydro, and transmission), and highways; draft New Environmental Policy prepared.	Help strengthen the environmental policy implementation framework in the context of a rapidly growing economy (World Bank 2006e, 14).
Nigeria	CAS in preparation; revised OP 8.60 approved; improved dialogue on environment with partner country on environmental issues needed.	Provide environmental input into the CAS and strengthen policy dialogue on environment; make proactive attempt to inform potential DPL lending (World Bank 2006f, 4).
Orissa State, India	Growth led by planned investments in mining and industry.	Support growth objectives of the state government by helping to analyze strategies for addressing key environment-development pressure points, with a focus on the mining and industry sectors (World Bank 2006b, 11). Specifically, the study was aimed at (a) assisting the government of Orissa with improving the effectiveness of environmental institutions, procedures, and processes; (b) supporting the development of a broad-based partnership between stakeholders for improved environmental management and compliance; (c) identifying critical institutional and technical capacity needs for managing the environmental implications of growth, particularly in the mining and industry sectors; and (d) assisting mining regulators in improving environmental compliance by the mining industry and developing a benefit-sharing framework to address social risks.
Pakistan	Development policy lending planned; need to strengthen dialogue with the government on environment, identify areas of lending; CAS in preparation, with DPL lending representing almost half of proposed lending program; new National Environmental Policy (NEP) approved; significant budget allocated to implement NEP; PRSP agenda embodied in MTEF (Medium Term Expenditure Framework) 2005–10.	Review status of high-priority environmental concerns; assess capacity of environmental institutions charged with managing these concerns; propose areas of Bank support for strengthening capacity (World Bank 2006g, 2).
Peru	Ongoing reforms being undertaken by the government to reform environmental institutions; planned DPL lending;.	Provide government of Peru with an analytical framework with a view toward integrating principles of sustainable development into country policies and programs and reversing loss of environmental resources. Findings were designed to help improve the effectiveness and efficiency of the environmental management system and integrate the principles of sustainable development into key sector policies, with emphasis on protecting the most vulnerable groups (World Bank 2006c, 10).
Serbia and Montenegro	Postconflict situation; break-up of country into two semiautonomous republics; 10 years of Bank disengagement with country; need to reengage with government on environmental issues and to integrate environmental input into ongoing CAS process; country interest in input into planned NEAP process.	Review situation, identify priority areas for investment, and examine role of donors, the private sector, and government; assess macroeconomic-environmental linkages and measures that affect long-term sustainability and financial viability in the environment sector; provide a basis for defining the Bank's future engagement in the environment sector (World Bank 2003a, 1).

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Table C.1. Context and Objectives of the CEAs Reviewed (*continued*)

CEA	Contextual factors	Objective (drawn from CEA reports)
Tunisia	CAS (2000) in place at time of CEA concept note (2002); long history of Bank cooperation in Tunisia through METAP; need to take stock of progress on environmental issues since 1992 Rio Summit and identify areas of Bank support.	Facilitate integration of environmental issues into economic development strategies of sectors that affect the sustainability of development; improve and build institutional capacity and decision-making processes for environmental mainstreaming (World Bank 2004e, 6).

Source: World Bank staff.

Note: CAS, country assistance strategy; DPL, development policy lending (or development policy loan); METAP, Mediterranean Environmental Technical Assistance Program; NEAP, national environmental action plan; PRSP, poverty reduction strategy paper; SEA, strategic environmental assessment.

Table C.2. Summary of Results Linked with the CEAs Reviewed

CEA	Date completed	Results (and main counterpart)
Bangladesh	2006 (launch workshop pending)	<p>Assistance with identifying second Urban Air Quality Management project (Department of Environment).</p> <ul style="list-style-type: none"> • Technical assistance on indoor air pollution (Ministry of Local Government); ongoing. • Dhaka Environment Project; in preparation. • Integration of Department of Environment strategic plans into development support credit discussions (counterpart, Department of Environment). • Potential support for an inland fisheries project (in the CAS as a reserve project, pending clear request from the government). • Assistance with integrating environment into PRSPs. • Integration into CAS; aforementioned projects are in the 2006 CAS.
Colombia	2006	<ul style="list-style-type: none"> • Help with design of sustainable development DPL and technical assistance loan. • Stimulus for major debate about environmental priorities in Colombia among the media, politicians, academics, and NGOs. • Use of study findings by candidates for Congress in election campaigns. • Input into several projects in the pipeline, including a solid waste disposal program at the national level; a second DPL; a water resources management project; a conservation project; a carbon finance project; and a project on natural disasters and emergency response.
Dominican Republic	2005	Summarized in the 2005–9 CAS; findings provided supporting rationale for possible further investment in water and sanitation, as well as a GEF-financed project to support the national park system in combination with a watershed management program (financed by an external partner) to reduce hurricane-induced flood impacts.
Egypt, Arab Rep. of		<ul style="list-style-type: none"> • Mainstreaming into CAS. • Second Pollution Abatement Project derived from CEA. • Study on air and water pollution, for which the Bank contributed \$20 million and donors, \$150 million, for a loan of \$170 million—an example of how CEA follow-up was used to bring donors together to address air and water quality issues (CEA was referenced in the project appraisal document). • Project on natural gas; use of Clean Development Mechanism (CDM) initiated; 10 million euros of CDM credits purchased from Onyx for pollution abatement. • Water quality project focusing on water and sanitation issues at the governorate level (currently in preparation). • Request by Ministry of Environment for a loan on solid waste management, agricultural waste, and hospital waste (currently pending approval by Ministry of Finance and the president of Egypt). • SEA for integrated coastal zone management initiated; includes cost-benefit analysis relating to renowned pristine areas. • Establishment (following completion of the CEA) of an environmental management system, as well as creation of a national committee for sustainable development, as recommended by the CEA, that includes all sectors and is headed by the Minister of Environment, following a presidential decree. • Creation of new environmental guidelines as a result of use of country systems, harmonization with OP 4.01, on environmental assessment (World Bank 2005a, 92); use of country systems approved as of March 2006.
El Salvador	2006	<ul style="list-style-type: none"> • Government request for a regional SEA, which is being partially funded by the Bank. • Government request to the Bank for help in determining water tariffs. • Launch of a process for establishing a single environmental policy, which did not exist before; CEA contributed to this step. • Initiation of a voluntary program to educate large agricultural producers about compliance promotion and certification. • Projected input into next DPL.

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Table C.2. Summary of Results Linked with the CEAs Reviewed (*continued*)

CEA	Date completed	Results (and main counterpart)
Ethiopia		<ul style="list-style-type: none"> Facilitation of environmental mainstreaming in a national development program; input of CEA analysis—particularly regarding environmental capacity building at the <i>woreda</i> (district) level—into core component of the Productive Safety Net Programme (PSNP), which is aimed at upgrading the natural resource base through community-executed public works. Input into National Sustainable Land Management Programme (submitted by the GEF for PDF funding). Input into UNEP-supported government program for federal and regional capacity assessment. Help in integrating environmental issues into Ethiopia's Plan for Accelerated and Sustained Development to End Poverty (PASDEP), which is the country's second PRSP. Creation of more favorable climate for discussing environmental issues in the federal Environmental Protection Agency and other sector ministries; the federal EPA endorsed the CEA; although the environment agenda was advanced, the potential for strengthening the dialogue on environment was not realized, as a result of limited follow-up by the Bank
Ghana		<ul style="list-style-type: none"> Inclusion of environment and natural resources in the joint assistance strategy that has replaced the CAS and also in the PRSP process. Inclusion, for the first time, of forests as a sector for budgetary support by the Bank and other development partners. Government request for a SWAP with other donors for \$60 million for environmental governance; a joint mission took place along with the U.K. Department for International Development (DFID) and the Dutch international assistance agency Change in stance of country director, who has become supportive of the policy dialogue that has been established and is interested in financing environmental issues. (There had been no environmental portfolio in the country.) Facilitation of donor coordination agenda.
Guatemala	2006	<ul style="list-style-type: none"> Assistance to minister of environment in presenting arguments regarding Guatemala's environment policy, which is now sanctioned by the president. In large part thanks to the CEA, acceptance of SEA as a tool for strengthening environmental management in the sectors. A refinery project to be implemented will undertake an SEA, for which the Bank will finance one consultant. Allocation by the government of \$5 million to improve the EIA process, in light of the coming investments and trade expansion. Plans to follow up some of the recommendations on trade by simplifying enforcement and certifying laboratories.
India		<ul style="list-style-type: none"> Input into the final content of the New Environmental Policy (NEP). For example, one recommendation of the CEA was to establish state-level environmental authorities of the Ministry of Environment and Forests (MoEF), and the NEP recommends this, under certain conditions. Promotion, through the participatory CEA process, of bridge building between different stakeholders, particularly sector ministries, providing a good foundation for implementing the NEP; CEA recommendations were agreed to by various sector ministries. Strengthening of country dialogue: the CEA helped make the case for capacity strengthening in the Pollution Control Boards, a step already under consideration. Within the Bank, support for higher priority for environmental issues—for example, CAS update. Environment is now a higher priority for India. Input of CEA institutional analysis into a capacity-building project. Discussions on a second CEA in India in progress. Influence of CEA recommendation on work in the transport sector and on the energy sector agenda.
Nigeria	2006	<ul style="list-style-type: none"> Input into the CAS.^a
Orissa State, India		<ul style="list-style-type: none"> Increase in staff (particularly educated tribals) for EIA (previously, there were 15 inspectors for 400 mining-related industries in Orissa); the Bank team requested the central government to exempt the state Pollution Control Board (PCB) from the existing hiring ban. Streamlining of some EIA processes (for example, extension of period of consent for low-risk and medium-risk projects from one to five years). Introduction of inspection strategy for red (high-risk) projects. Input to decentralization of EIA-related functions such as clearance for low- and medium-risk projects to regional offices. A joint inspection strategy at the regional level is being worked out, and experienced staff members from the state-level PCB are being moved to regional offices within the state. Significant influence on second DPL operation.
Pakistan	2006 (launch workshop pending)	<ul style="list-style-type: none"> Identification of Urban Air Quality Project (Ministry of Environment); request pending. Discussion with Bank about an environmental program; performance-based partnerships to link federal and provincial authorities under discussion. Project on industrial pollution and clean production (Ministry of Industry); request from government pending.

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Table C.2. Summary of Results Linked with the CEAs Reviewed (*continued*)

CEA	Date completed	Results (and main counterpart)
Peru	2006	<ul style="list-style-type: none"> Based on PEER findings and relations with the new vice minister, 100 percent increase in CONAM's budget allocation obtained. Ongoing discussion on DPL; official request for DPL pending. Request for a loan on natural disasters, as a result of a policy note based on CEA analysis on this issue. Government interest in using the analysis of EIA effectiveness to design regulations; interest in publishing EIA analysis as a book.
Serbia and Montenegro	2003	<ul style="list-style-type: none"> Contribution to generating project ideas, some of them currently being prepared or implemented (for example, Serbia Danube River Enterprise Pollution Reduction Project; Serbia In-Situ Agro-Biodiversity Project, now part of the transitional Agricultural Reform Project; MN Tara and Lim Integrated Watershed Management Project). Wide use by the governments of the CEA in PRSPs (fiscal 2003). Input to the CAS. Reduction of energy subsidies as recommended in the CEA. Contribution to agreement with water agencies to raise water and wastewater treatment charges. Contribution to preparation of biodiversity strategy; impetus for national discussions on climate change and persistent organic pollutants.
Tunisia		<ul style="list-style-type: none"> Cessation by National Environment Authority of responsibility for solid waste management (QAG 2006). Establishment, as a result of the CEA and with METAP assistance, of a new agency for solid waste management; government request to the Bank to cofinance a solid waste management project of \$22.0 million, in preparation; CEA influence on preparation of both the solid waste management project and an upcoming carbon finance operation (QAG 2006). Greater awareness of economic costs of environmental degradation up to level of the presidency (QAG 2006). Government request, based on CEA recommendations, for economic and sector work on soil and water conservation policies; request included in the 2004 CAS. Assessment of cost of environmental degradation of water quality being conducted by METAP, as well as a new study to be launched in fiscal 2007 on the impact of climate change on agriculture. Identification of Tunisia as a country systems pilot; follow-up work on strengthening EIA capacity in progress (QAG 2006). Strengthened capacity in environmental economics at University of Tunis through work carried out as part of the CEA.

Source: World Bank staff.

Note: CAS, country assistance strategy; CONAN, Council on Environmental Protection, Peru; DPL, development policy lending, or development policy loan; EIA, environmental impact assessment; GEF, Global Environment Facility; METAP, Mediterranean Environmental Technical Assistance Program; PEER, public environmental expenditure review; PSP, poverty reduction strategy paper; SEA, strategic environmental analysis.

a. Environmental issues linked with oil sector management are discussed in the Nigeria Country Partnership Strategy (World Bank and DFIC 2005, 7, 26). Analytical work on environmental sustainability in the Niger Delta region is also included in the Country Partnership Strategy matrix (see World Bank and DFIC 2005, annex 7, p. 8). It was not possible to assess in the short term whether the Nigeria CEA contributed to strengthening the policy dialogue on environmental issues with the partner country.

Appendix D — Snapshot of Climate Change Issues in CEAs

As is being increasingly recognized, changes in human activities—especially those associated with release of greenhouse gases (GHGs) from the burning of fossil fuels—are cumulatively contributing to extreme changes in weather patterns and climate variability that affect water quantity and quality, agricultural production, human health, human settlements, and biodiversity. Research shows that in addition to the significant constraints these changes impose on sustainable economic growth, often it is the poorest population groups that are most vulnerable to severe weather patterns and other effects of climate change. Thus, there is a need to address climate change issues at the national level through country-level policy dialogue. As this review shows, CEAs have discussed climate change issues in the context of sectoral or thematic analysis and cost of environmental degradation analysis.

1. *Analysis of specific sectors or environmental concerns identified as priorities in the CEA.* The Peru CEA showed that even though Peru's contribution to GHG emissions was modest, climate change was one of the factors contributing to the country's high vulnerability to natural disasters. Economic costs linked with natural disasters in Peru were approximately 0.5 percent of GDP and affected roughly 2 million people in fiscal 2000–2004. The CEA discussed Peru's ratification of the United Nations Framework Convention on Climate Change (UNFCCC) and the Montréal Protocol, implementation arrangements for these agreements, approval of the National Strategy for Climate Change in 2003, and various programs and initiatives (for example, the Peruvian Climate Change and Air Quality

program and the Sustainable Cities program) linked with mitigation and adaptation (World Bank 2006c, 32). The Colombia CEA also looked at climate change issues in relation to natural disasters. In the Egypt and Tunisia CEAs climate change was assessed in the context of coastal zone management; the Egypt CEA also discussed climate change in relation to air quality, which was identified as one of the main environmental priorities in the country, and described policies and initiatives being undertaken to improve air quality. Drawing on cost-benefit analysis, the Egypt CEA suggested several mitigation measures, including energy policies and the use of the Clean Development Mechanism (CDM) to raise funds. In the Belarus CEA climate change was addressed in the context of energy efficiency. In the India CEA, one of the priority areas is the power sector, which has implications for GHG emissions.

2. *Cost of environmental degradation estimates.* The Nigeria CEA found that Nigeria's contribution to global greenhouse gases was substantial. Flaring and venting of gas accounted for more than half of the country's total carbon dioxide emissions, and the costs of these emissions were estimated at 1.27 percent of GDP.

A number of CEAs recommended measures specifically linked to climate change issues. For example, the Tunisia CEA recommended undertaking an “SEA of the impacts of climate change and adaptation policies and their impact on the management of natural resources” in the area of integrated soil and water management. The Egypt CEA report proposed establishing a Climate Change Unit within the

Egyptian Environmental Affairs Agency to oversee the implementation of the Energy-Environment Review Action Plan as well as the CDM, the Global Environment Facility (GEF), and other mechanisms established by international conventions, and to assist in building a portfolio of projects with local and global benefits. In some CEAs (for example, those for Ethiopia and Ghana) the importance of climate change issues was mentioned but was not explored in detail. In Bangladesh detailed work on vulnerability to natural disasters already existed, so the CEA did not address it, but the report did highlight planning for adaptation as a high priority for future work.

Both mitigation measures (emissions reductions and the like) and adaptation measures, including risk preparedness and management and engineering solutions, were described and promoted in the CEAs—although statements about climate change were more often presented as background than as actionable recommendations. An increased focus on assessing institutional and governance arrangements related to climate change could go a long way toward strengthening both internal country dialogue and the impact of CEAs on the topic.

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