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Status and Evolution of Environmental Priorities in the Poverty Reduction Strategies

*An Assessment of Fifty Poverty
Reduction Strategy Papers*

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Rama Chandra Reddy

November 2003



THE WORLD BANK ENVIRONMENT DEPARTMENT

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Abstract

More than 50 countries are in various stages of preparation and implementation of Poverty Reduction Strategies. This report examines the extent to which countries have integrated environmental considerations into such strategies.

The assessment is based on the 50 PRSPs and 7 PRSP Progress Reports available as of October 2003, and their Joint Staff Assessments. Of the 50 PRSPs, 20 are in an interim stage, while the rest are full. This report uses a simple scoring scale applied to 17 variables related to

environment. An unweighted average for each country is reported.

The results show (a) considerable variation across countries, (b) an average level of mainstreaming that is still low, and (c) a strong tendency for full PRSPs to better integrate environmental factors than interim PRSPs.

This report contains several examples of good practice in mainstreaming, and identifies areas of potential improvement.

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This report is the second in an ongoing review of environmental considerations in PRSPs. A large number of colleagues and participants at

seminars inside and outside the World Bank have commented on the previous edition of this review (Bojö and Reddy 2002) Many of those comments have been integrated into this report.

We thank Robert Livernash for his editorial support and Jim Cantrell for editorial assistance and managing production of the report.

The authors are solely responsible for the views expressed here, which do not necessarily represent the opinion of the World Bank, its executive directors, or the countries they represent.

Abbreviations

| | |
|-------|--|
| AET | Actual evapotranspiration |
| CAS | Country Assistance Strategy |
| DFID | Department for International Development, United Kingdom |
| EC | European Commission |
| HIPC | Heavily indebted poor countries |
| IDA | International Development Association |
| IMF | International Monetary Fund |
| IPR | Implementation Progress Report |
| IPRSP | Interim Poverty Reduction Strategy Paper |
| JSA | Joint staff assessment |
| MDG | Millennium Development Goals |
| PRSP | Poverty Reduction Strategy Paper |
| UNDP | United Nations Development Programme |
| UNEP | United Nations Environment Programme |
| WDI | World Development Indicators |

Executive Summary

Poverty Reduction Strategy Papers (PRSPs), which are written by the Bank's client country governments, are comprehensive, results-oriented frameworks for reducing poverty.

This paper (a) assesses the degree to which integration (mainstreaming) of environmental factors occurs in PRSPs, Joint Staff Assessments (JSAs), and PRSP Progress Reports (PRSP-PRs); and (b) provides selected examples of good practice.

This assessment builds on a previously published review (Bojö and Reddy 2002), but goes beyond that report in several ways. First, it expands the sample to cover 50 PRSPs, of which 30 are now full PRSPs. Second, it includes reviews of the Joint Staff Assessments of the World Bank and IMF. Third, the seven available Implementation Progress Reports are also included.

We have assigned ratings across 17 variables under four major areas of environmental mainstreaming: (1) diagnosis of environmental issues; (2) analysis of poverty-environment links; (3) environmentally relevant actions; and (4) the extent to which participation and consultation processes have allowed environmental concerns to be heard. The PRSPs are assessed on each of the 17 criteria, using an integer scoring range of 0 (no mention), 1 (mention, but no elaboration), 2 (elaboration), to

3 (good practice). The country scores are unweighted averages.

The main findings are:

- *High variance.* There is considerable variation in environmental mainstreaming. It ranges from marginal attention (0.3) to consistent mainstreaming across sectors (2.4).
- *Low but improving average.* The average score across the sample is only 1.3 on the 0–3 scale. It is not reasonable to expect all countries to score a “3” across the board, as priorities differ across countries. The average is an improvement over the 2002 assessment, which averaged 0.9.
- *Full PRSPs are better mainstreamed.* In comparison to interim PRSPs, there is a tendency for full PRSPs to better integrate environmental factors. As the sample matures, we expect mainstreaming to further improve.
- *High-scoring countries.* Countries in the high-scoring cluster are Zambia, Ghana, Cambodia, Mozambique, Azerbaijan, Sri Lanka, Yemen, Honduras, Nicaragua, and Bolivia. Examples of good practice are given from these and other PRSPs.

- *Environmental priorities.* As expected, environmental priorities differ across countries. PRSPs devote relatively more attention to issues such as water supply, sanitation, vulnerability to natural hazards, land tenure, and institutional capacity. They devote relatively less attention to indoor air pollution, biodiversity, gender and environmental relationships, urban environment, and the impacts of macroeconomic policies on the environment.

The conditions for effective monitoring are often weak. Few PRSPs present quantified, time-bound, costed, realistic targets and indicators relating to environment. Environmental health indicators generally get more attention than natural resources management indicators.

- *Long-term perspective.* A few PRSPs explicitly introduce a long-term perspective and make reference to MDGs for 2015, but most do not. PRSPs that present long-term targets corresponding to the MDG 2015 horizon often present unrealistic plans without adequate budget support and institutional capacity for implementation.

The JSAs are quite varied. Attention to environmental issues in the Joint Staff Assessments is inconsistent. To the extent that

such issues are dealt with, the discussion is often focused on water and sanitation. Inadequate feedback on the treatment of environmental issues is associated with PRSPs giving limited attention to the environment. On the other hand, PRSPs with much attention given to environment sometimes have JSAs urging further improvements.

- *PRSP Implementation Progress Reports.* Implementation progress reports are generally not satisfactory in their discussions of the environmental proposals outlined in the PRSPs. Future annual progress reports provide good opportunities to address these gaps.

This report includes many examples of good practice across the 17 assessed variables.

Among the areas identified as needing improvement, probably the most important one is environmental health. PRSPs generally do not take a holistic view of the burden of disease in a country; in addition, indoor and outdoor air pollution are generally given no or very cursory attention. The severity of these issues varies across countries, but this is often a genuine shortcoming rather than the result of a rational priority-setting process.

1 Introduction

A Poverty Reduction Strategy Paper (PRSP) provides a framework for domestic policies and programs, as well as for foreign assistance, with the overall aim of reducing poverty. Written by the countries, PRSPs are comprehensive and results-oriented documents.¹

If PRSPs are country-owned, what justifies their assessment by World Bank staff? We undertake this assessment with a clear recognition of the country authorship of PRSPs. This perspective is captured in the following statement of the IDA 13 Deputies: *“Early experience shows that countries’ strategies have often given insufficient weight to issues that are important for sustainable development, such as the role of women, environmental management, fiduciary controls, and analysis of the social impacts of policy reforms. While recognizing that the PRSP is a country-owned document, Deputies reaffirmed that IDA should continue to advocate good policies.”*² (IDA 2002, p. 11).

Why should poor countries be concerned with environmental issues? Isn’t it possible to have growth first and clean up later? It is generally agreed that poverty reduction and environmental management are closely linked—primarily through livelihoods based on natural resources, environmental factors impacting health, and vulnerability to natural hazards.³ If we define “environment” in this way,⁴ it becomes clear that the environment is not a

“luxury” that concerns only a rich elite in industrialized countries. It is an integral part of the well-being of poor people, and “the environment cannot wait.”⁵ In short, economic growth matters a great deal, but so does the quality of that growth. The World Bank’s Environment Strategy (World Bank 2001a) specifically states that *“..integrating environmental considerations into the new Poverty Reduction Strategy Papers is an urgent task.”*

Building on Previous Reviews

An earlier assessment of environmental issues in the PRSPs of 40 countries was published as World Bank Environment Department Paper 86 in June 2002. During 2002–03, several interim PRSPs were revised into full PRSPs; in many cases, implementation is under way. This report builds on the assessment reported in the previous Environment Department Paper and focuses on the progress made during the year, including:

First, all countries that progressed from interim PRSP to full PRSP stages and countries that joined the PRSP process by preparing interim PRSPs during 2002–03 were considered in this report.

Second, the Joint Staff Assessments (JSAs) of PRSPs provide feedback from the staffs of the World Bank and the IMF to a country on its

PRSP (World Bank 2000). World Bank staff guidelines recommend that JSAs comment on cross-sectoral issues such as environment and on the scope of PRSP proposals in addressing environmental sustainability. The guidelines recommend that these assessments should focus *“on the extent of income/consumption and other dimensions of poverty (health including environmental diseases, natural resource degradation, vulnerability, disempowerment) and their evolution over time.”* This report includes a review of JSAs.

Third, the annual PRSP Progress Reports (PRSP-PR) provide insights into the extent to which environmental priorities are reflected in the implementation process (World Bank and IMF 2002a, 2002b).

Fourth, feedback from the relevant World Bank country teams is considered in this assessment. While undertaking the assessment of a country PRSP, each World Bank country director was provided with a preliminary assessment with a request for specific comments.

Because of resource constraints, this report focuses only on the text of the PRSPs, JSAs, and progress reports.⁶ It would be useful (but not possible) to undertake an in-depth country study for each of the 50 cases we have reviewed. This assessment thus should be seen as an overview that supplements country-level analyses.

We have tried to develop a transparent framework to maximize consistency in the assessment across countries. However, subjectivity cannot be eliminated. Our aim is not scientific precision—only for transparent and consistent reporting on the approximate

levels and trends of environmental mainstreaming in PRSPs.

Does it matter what is written in the PRSP document? It is certainly possible that a well-articulated strategy may not be implemented well. However, PRSPs are public documents that are widely available and often translated into local languages. Annual progress reports and built-in systems for monitoring and evaluation—including targets and indicators, timetables, and explicit costs—force an increasing level of transparency. Underpinning this is the enhanced participation encouraged in the development of PRSPs, which will gradually build greater accountability for results. As the PRSP process matures, we will increasingly be able to compare the text of the PRSP with the implementation record.

Purpose and Organization of the Report

The objectives of this paper are to (a) assess the status and evolution of mainstreaming of environmental issues in PRSPs, Joint Staff Assessments (JSAs), and PRSP Progress Reports (PRSP-PRs); and (b) provide examples of good practice.

What we mean by “mainstreaming” of the environment is summarized here and discussed in detail in the methods chapter. It is not the existence of a stand-alone section or chapter in the PRSP, nor is it the frequent reference to the “environment” in the PRSP. The term “mainstreaming” is used to denote the (a) description of environmental issues and opportunities; (b) analysis of links between poverty and environment; (c) design of responses to meet the identified challenges; and (d) inclusion of the environmental constituency

in the processes leading to the design and implementation of the PRSP.⁷

This report is organized into six chapters. Chapter 2 describes the PRSP sample. Chapter 3

presents the methods used in the environmental review of PRSPs. Chapter 4 presents the results of the assessment. Chapter 5 highlights examples of good practice. Chapter 6 presents concluding remarks.

2 The PRSP Sample

This report is based on an assessment of 50 Interim and full PRSPs, their Joint Staff Assessments, and 7 Implementation Progress Reports. The list of countries included in this assessment and their stage in the PRSP are presented in Appendix A.

Interim PRSPs and Full PRSPs

Of the 50 PRSPs considered for this assessment, 30 are full PRSPs and 20 are interim PRSPs. In the previous assessment in 2001–02, 40 PRSPs were reviewed, including 8 full PRSPs and 32 interim PRSPs. The regional breakdown in Table 1 illustrates the dominance of the Africa region.

Table 2 categorizes countries according to their stage in the PRSP process.

Joint Staff Assessments

Joint Staff Assessments are prepared by the staffs of the World Bank and IMF. They provide

feedback on the core elements of a PRSP, such as poverty diagnosis, priority public actions, participatory process, targets, indicators, and monitoring systems. The JSAs provide an important opportunity for the Bank and the IMF to advise countries on their poverty reduction agendas. All PRSPs reviewed here also have an associated JSA.

PRSP Progress Reports

Annual reports on the implementation of PRSPs highlight efforts to convert identified priorities into actions.⁸ Of the 30 countries that are in the full PRSP stage, only seven have submitted implementation progress reports. Table 3 presents the list of countries and their implementation progress reports. The World Bank and IMF guidelines on implementation progress reports recommend consistency between national decisionmaking and reporting processes and their integration into annual budget and national development reports (World Bank and IMF 2002a).

Table 1. Regional distribution of PRSPs

| <i>Region</i> | <i>Interim PRSPs</i> | <i>Full PRSPs</i> | <i>Total PRSPs</i> |
|-------------------------------|----------------------|-------------------|--------------------|
| Sub-Saharan Africa | 11 | 17 | 28 |
| Eastern Europe & Central Asia | 5 | 4 | 9 |
| East Asia | 1 | 3 | 4 |
| South Asia | 2 | 1 | 3 |
| Latin America & Caribbean | | 4 | 4 |
| Middle East & North Africa | 1 | 1 | 2 |
| Total | 20 | 30 | 50 |

This report seeks to assess environmental issues in PRSPs and the progress reports submitted during 2002–03. For purposes of comparison, the 8 full PRSPs and 10 interim PRSPs that were

not revised into full PRSPs and covered in the previous report (Environment Department Paper 86) have also been retained as part of the sample.

Table 2. Countries in the PRSP preparation process during 2002–03

| <i>Region</i> | <i>Interim PRSPs</i> | <i>Full PRSPs</i> |
|-------------------------------|--|---|
| Africa | Cote D'Ivoire, Democratic Republic of Congo, Djibouti | Cameroon, Ethiopia, The Gambia, Ghana, Guinea, Malawi, Mali, Níger, Rwanda, Senegal, Zambia |
| East Asia and Pacific | | Cambodia, Vietnam, Mongolia |
| Eastern Europe & Central Asia | Bosnia and Herzegovina, Maldova, Serbia and Montenegro | Albania, Azerbaijan, Kyrgyz Republic, Tajikistan |
| Middle East | | Yemen |
| Latin America & Caribbean | | Guyana |
| South Asia | Bangladesh, Pakistan | Sri Lanka |

Table 3. PRSP implementation progress reports

| <i>Region</i> | <i>Country and year</i> |
|-------------------------------|---|
| Africa | Burkina Faso 2000 -01, Burkina Faso 2001 -02, Mauritania 2001 -02, Mozambique 2001-02, Tanzania 2000 -01, Tanzania 2001 -02, Uganda 2000-01, Uganda 2001-02 |
| Eastern Europe & Central Asia | Albania 2002-03 |
| Latin America & Caribbean | Nicaragua 2001-02 |

3 Method of Assessment

The assessment framework used in this report is built on the previous work on mainstreaming the environment in PRSPs (Bojö and Reddy 2002); aligning the environmental priorities of poverty reduction strategies with the Millennium Development Goal on Environmental Sustainability (Bojö and Reddy 2003); mainstreaming the environment in the Country Assistance Strategies (Ekblom and Bojö 1997; Shyamsundar and Hamilton 2000); and on the Guidelines for the Joint Staff Assessment of PRSPs (World Bank 2000).

We define the term mainstreaming to include (a) a description of environmental issues; (b) an analysis of links between poverty and environment; (c) policy and program responses to meet those challenges; and (d) the process underpinning the strategy. Each of these components is further broken down into specific items under 17 variables. A brief description of these variables is provided below.

Components of Mainstreaming Considered

The format for assessing environmental priorities in interim and full PRSPs is grouped into four major categories:

- *Issues* — A description of specific concerns and opportunities relating to the environment
- *Causal links* — An analysis of multiple poverty-environment linkages
- *Responses* — An outline of proposals relating to environmental management, investments in natural and human-made capital, monitoring, and evaluation
- *Process* — Approaches used to promote the inclusion of environmental constituencies and the environmental agenda.

Issues

Priority environmental issues in developing countries vary significantly based on their resource base, problems, and opportunities. Not all countries are expected to give the same level of attention to all issues. There are four themes:

- *Land use.* Issues relating to soil and sub-soil resources, including mining, erosion, desertification, waterlogging, salinization, nutrient depletion, and overgrazing; and aboveground resources, including deforestation and the degradation of forests and woodlands
- *Water.* Issues relating to the quantity and quality of water supply for human consumption, irrigation and other uses; water pollution; coastal zone and marine aspects; climate variance; and droughts and floods
- *Air and climate.* Issues relating to indoor and outdoor pollution—including lead, particulate matter, sulfur, nitrogen oxides

and emissions of greenhouse gases—from domestic energy use, industrial processes, and transport systems.

- *Biodiversity.* Issues relating to the degradation of ecosystems, threats to species or genetic resources, and opportunities for sustainable use.

Causal links

Diagnosing a country's environmental issues provides the foundation for a causal analysis. In such an analysis, two important questions need to be answered. First, is poverty contributing to environmental degradation? Second, is environmental degradation hurting the poor? In this context, we look at seven key linkages to assess the performance of PRSPs:

- *Natural resource degradation and poverty.* Most poverty is still rural, and most rural people are directly dependent on the use of natural resources to secure a livelihood. The linkage between poverty and the quality of soils, vegetation, and water resources is critical.
- *Environmental health.* Up to one-fifth of the total burden of disease in the developing world, and close to a third in Sub-Saharan Africa, may be associated with environmental risk factors (Lvovsky 2001). PRSP analysis of how indoor and outdoor pollution, provision of water supply and sanitation, and the housing environment are linked to health outcomes and the burden of disease can be valuable in preparing cost-effective interventions.
- *Vulnerability.* Globally, natural hazards claim about 100,000 lives per year, most of them in developing countries (DFID and others 2002). Analysis of how climate variability and natural disasters such as droughts, floods, earthquakes, and hurricanes impact the poor is valuable for implementing mitigation and adaptation strategies.
- *Property rights.* An analysis of how natural resources are "owned" and how tenure regimes impact their utilization can be of significant value. Unequal land ownership and insecure tenure can force the poor to cultivate marginal environments, and may deter long-term investments.
- *Incentives.* Policies relating to pricing, subsidies, taxes, restrictive trade practices, and the exchange rate can significantly influence the use of natural resources and the emission of pollutants into the environment. Gasoline and diesel fuel sales benefited from about \$18 billion in subsidies in 1999, and irrigation from \$10–\$15 billion (IMF, UNEP, and World Bank 2002).
- *Empowerment.* In this context, empowerment largely concerns the degree to which the poor control the decisionmaking of a country's resources and environment. While this point is closely related to property rights, it is more concerned with the level of participation and rules of collective decisionmaking about the environment than about legal title.
- *Gender and environment.* This link draws attention to gender-related policies such as the extent to which women have a voice in the management of communal resources, and whether they have the right to secure tenure. Women and girls are particularly burdened by the degradation of the environment; for example, shortages of fuelwood and water often mean that women must travel longer distances and spend more time searching for these resources.

Response systems

To be meaningful, the discussion on issues and an analysis of causal links must be followed by a set of actions. These are grouped into five categories.

- *Environmental management capacity.* Environmental management capacity is assessed in terms of actions concerning legislation, regulation, environmental standards, data and information systems, institutional capacity, enforcement capability, and the use of economic instruments such as user fees, effluent/ emission charges, and green taxes.
- *Investment in natural capital.* The proposed programs for natural resource management indicate the government's priorities and its commitment to improve natural resource productivity. Examples include programs supporting the sustainable management or restoration of soils, forests, woodlands, wetlands, coral reefs, fisheries, and management of protected areas.
- *Investment in human-made capital.* Programs relating to slum improvement, water supply, sanitation, energy efficiency, waste management, air and water pollution, urban and rural infrastructure investments aimed at environmental improvements indicate the government's commitment in these areas.
- *Monitoring natural resource outcomes.* Indicators are important components of the PRSP monitoring process. In this context, targets and indicators for natural resource management—including land use and soil conservation, such as trends in productivity or the rate of rehabilitation of degraded lands; forest resources, such as the annual rate of deforestation; area protected, such as the percent of land or sea area protected;

water stress or scarcity, such as per capita availability in cubic meters; and energy, such as dependence on traditional energy and the shift to renewable energy—provide the relevant information.⁹

- *Monitoring human resource outcomes.* Indicators that measure human resource outcomes such as health are important. Examples include infant mortality and morbidity, such as the infectious and respiratory disease burden attributable to indoor pollution; access to safe water, such as the percent of the population with access to safe water in rural/urban areas; sanitation, such as the percent of population and poor households covered; and housing standards, such as crowding (floor area/ person).

Process

The description of the process employed in the preparation and implementation of a PRSP is part of the assessment. Process issues are relevant for all aspects of the PRSP, but they are considered in this assessment because an inclusive and participatory process is required for identifying and addressing the concerns of environmental health, natural resource degradation, vulnerability to natural disasters, and for undertaking environmental investments and monitoring their progress.

It is not possible here to evaluate the *quality* of consultation other than through its expression in the PRSP. Critics have argued that “participatory” events are sometimes designed as top-down events, leaving little room for upward feedback. It has also been argued that consultations often result in the focus of immediate priorities to the detriment of long-term ones such as those relating to the environment. This may be true in some cases,

but the lack of inclusion of environmental concerns or actions is then reflected in low ratings under those categories.

Joint Staff Assessments

Guidelines for the Joint Staff Assessment (JSA) of full Poverty Reduction Strategy Papers (World Bank 2000) recommend that the JSA examine the *trends in key poverty determinants and outcomes presented, specifically, the extent of income/consumption and other dimensions of poverty, including environmental diseases, natural resource degradation, vulnerability, disempowerment, and their evolution over time.* Feedback from the JSA could serve to improve the focus on environmental sustainability aspects during implementation. JSAs are assessed according to the extent their comments and feedback relating to environment in the PRSPs are explicitly noted. The JSAs of 22 full PRSPs, 8 interim PRSPs, and 7 Implementation Progress Reports are considered in this report.

Scoring

Assessing 50 PRSPs across 17 variables is not practical unless qualitative judgments are formalized and simplified. The 17 variables discussed below are scored with respect to each country's PRSP. A score in the range of 0 to 3 is used depending on the treatment of relevant issues:

- 0 = no mention
- 1 = mentioned but not elaborated
- 2 = elaborated
- 3 = good practice

Though not intended to be scientifically precise, this scoring method is a practical way to condense considerable information into numbers that have a clear interpretation. The unweighted average scores are presented in the results section (Table 4). We considered applying explicit weights to different variables, but this would have made the scoring process less transparent.¹⁰ Instead, we assigned scores according to our valuation of the significance of each set of variables.

Any assessment, including scoring, involves subjective judgments. In this format, subjectivity is transparent and consistent across countries. We do not encourage attention to small differentials in scores between countries. The assessment process enables us to succinctly present quantitative information to complement the qualitative analyses undertaken by the Country Teams and the Poverty Reduction and Economic Management (PREM) Network within the Bank, as well as by external donors and NGOs. An overview of the aspects incorporated in the scoring format is presented in the following sections; the scoring format used is summarized in Appendix B.

PRSP Progress Reports are scored in a similar manner. However, the focus of that assessment is only on the follow-up of the implementation envisaged in the PRSP. Hence, that assessment is more of a consistency check between the Progress Report and the PRSP.

In contrast to the use of a structured scoring format used for the PRSPs, the JSAs are assessed qualitatively on the coverage of environmental issues and the feedback provided on the PRSP.

4 Results

This section presents scores of countries with respect to environmental mainstreaming; the salient aspects of environmental mainstreaming common to PRSPs; and an overview of their evolution from the interim to the full PRSP stage.

Average Country Scores

From the scores in Table 4, three observations stand out. First, it is clear that there is a significant variation in the integration of

environmental priorities into PRSPs, with the average country score ranging from 0.3 to 2.4. Second, the average score is about 1.3 on the 0-3 point scale. This is a broad indicator of the level of attention paid to environmental aspects. There may be more or less good reasons for not mentioning or elaborating on such issues. We are not in a position to pass judgment on each particular case, but offer these scores for more detailed country-specific scrutiny to our readers. Third, the full PRSPs generally rank much higher than the interim PRSPs. The

Table 4. Average country environmental mainstreaming scores

| S.No | Country | Region | PRSP type | Average environment score |
|------|------------------------|--------------------|-----------|---------------------------|
| 1 | Zambia | Sub Saharan Africa | Full | 2.4 |
| 2 | Ghana | Sub Saharan Africa | Full | 2.2 |
| 3 | Cambodia | East Asia | Full | 2.2 |
| 4 | Mozambique | Sub Saharan Africa | Full | 2.2 |
| 5 | Azerbaijan | Central Asia | Full | 2.1 |
| 6 | Sri Lanka | South Asia | Full | 2.1 |
| 7 | Yemen | Middle East | Full | 2.1 |
| 8 | Honduras | Latin America | Full | 2.1 |
| 9 | Nicaragua | Latin America | Full | 2.0 |
| 10 | Bolivia | Latin America | Full | 2.0 |
| 11 | Vietnam | East Asia | Full | 1.9 |
| 12 | Kenya | Sub Saharan Africa | Interim | 1.9 |
| 13 | Bosnia and Herzegovina | Eastern Europe | Interim | 1.9 |
| 14 | Mali | Sub Saharan Africa | Full | 1.7 |
| 15 | Burkina Faso | Sub Saharan Africa | Full | 1.7 |
| 16 | Senegal | Sub Saharan Africa | Full | 1.7 |
| 17 | Rwanda | Sub Saharan Africa | Full | 1.7 |
| 18 | Malawi | Sub Saharan Africa | Full | 1.7 |
| 19 | Albania | Eastern Europe | Full | 1.6 |
| 20 | Ethiopia | Sub Saharan Africa | Full | 1.6 |
| 21 | Guinea | Sub Saharan Africa | Full | 1.6 |
| 22 | Lao PDR | East Asia | Interim | 1.6 |

Table 4. Average country environmental mainstreaming scores (continued)

| S.No | Country | Region | PRSP type | Average environment score |
|----------------------|---------------------|------------------------|-----------|---------------------------|
| 23 | Niger | Sub Saharan Africa | Full | 1.5 |
| 24 | Guyana | L. America & Caribbean | Full | 1.5 |
| 25 | Benin | Sub Saharan Africa | Full | 1.5 |
| 26 | Mauritania | Sub Saharan Africa | Full | 1.4 |
| 27 | Bangladesh | South Asia | Interim | 1.4 |
| 28 | Tajikistan | Central Asia | Full | 1.2 |
| 29 | Gambia | Sub Saharan Africa | Full | 1.2 |
| 30 | Kyrgyz Republic | Central Asia | Full | 1.2 |
| 31 | Uganda | Sub Saharan Africa | Full | 1.1 |
| 32 | Madagascar | Sub Saharan Africa | Interim | 1.1 |
| 33 | Pakistan | South Asia | Interim | 1.1 |
| 34 | Georgia | Central Asia | Interim | 1.0 |
| 35 | Cape Verde | Sub Saharan Africa | Interim | 1.0 |
| 36 | Tanzania | Sub Saharan Africa | Full | 0.9 |
| 37 | Mongolia | East Asia | Interim | 0.8 |
| 38 | Moldova | Eastern Europe | Interim | 0.8 |
| 39 | Chad | Sub Saharan Africa | Interim | 0.8 |
| 40 | Cote d'Ivoire | Sub Saharan Africa | Interim | 0.8 |
| 41 | Armenia | Central Asia | Interim | 0.7 |
| 42 | Cameroon | Sub Saharan Africa | Interim | 0.6 |
| 43 | Lesotho | Sub Saharan Africa | Interim | 0.6 |
| 44 | Sierra Leone | Sub Saharan Africa | Interim | 0.6 |
| 45 | Dem Rep of Congo | Sub Saharan Africa | Interim | 0.6 |
| 46 | Guinea-Bissau | Sub Saharan Africa | Interim | 0.5 |
| 47 | Djibouti | Sub Saharan Africa | Interim | 0.5 |
| 48 | Serbia & Montenegro | Eastern Europe | Interim | 0.4 |
| 49 | Central African Rep | Sub Saharan Africa | Interim | 0.3 |
| 50 | Sao Tome Principe | Sub Saharan Africa | Interim | 0.3 |
| Average score | | | | 1.3 |

average as a sub-group is about 1.8 for the full PRSPs.

In the debate about environmental mainstreaming, we are sometimes asked to identify “the best example.” Rather than picking a specific PRSP, we would point to a top cluster of PRSPs with scores of at least 2.0 to reflect the coverage of environment priorities. This includes the geographically diverse PRSPs of Zambia, Ghana, Sri Lanka, Cambodia, Mozambique, Azerbaijan, Yemen, Honduras, Nicaragua, and Bolivia.

The cluster of PRSPs with low scores is made up entirely of interim PRSPs.¹¹ Readily

available data from the *World Development Indicators 2003* (World Bank 2003b) show that several of these countries have a high level of rural population dependent on natural resources for their livelihood; high levels of traditional fuel usage; low levels of access to safe water and adequate sanitation; and high infant mortality. Low ratings on these variables indicate that there is considerable scope for improvement in focusing on such issues.

Disaggregated View of Environment Scores

The country averages reported in Table 4 mask the differences in scoring among the 17

variables considered. Disaggregated analysis of the overall environment score into component scores provides additional insights. We refrain from commenting separately on all variables, but consolidate the scores (in accordance with section 3) into (a) diagnosis of issues and opportunities; (b) analysis of poverty-environment links; (c) proposed responses; and (d) process.

Issues. There is strong heterogeneity in the issues covered in PRSPs, with land and water receiving some attention, while air pollution, energy use, and biodiversity receive limited attention. The environmental issues that PRSPs often highlight in rural areas are land degradation and deforestation; in the urban context, water pollution, lack of proper sanitation, and growth of slum environments are often mentioned. Poor air quality—indoor or outdoor—is seldom mentioned and rarely discussed at length. Biodiversity receives limited attention, although a few countries see this as an important asset that can generate income to poor people. Short-term climatic variability is sometimes discussed, and is extensively discussed in countries facing persistent drought and severe flooding. The average score of this component (covering four aspects) is 1.0 on a scale of 0 to 3 (see Appendix B for a summary format). The low score indicates that many countries have not utilized the diagnostic basis laid down in their National Environmental Action Plans or similar initiatives.¹²

Links. Poverty-environment links—in terms of natural resources degradation, environmental health, and climate vulnerability—received more attention than aspects of property rights, empowerment, incentives, and gender. The average score for the seven items listed under

this theme is 1.2. It shows that even with a weak description of environmental issues, several PRSPs highlight the links between poverty and environment.

Responses. On this theme, the average score across five rated aspects is 1.7. Most PRSPs present a generic outline of proposals relating to legislation, institutions, and regulation to strengthen environmental management. Though programs relating to natural resources management, water supply, and sanitation are often described, information on the cost of interventions and schedule for the interventions is often missing. Inadequate information on targets and indicators makes it difficult to assess performance of actions of the PRSP countries.

Process. The average score across countries for this one item (participation) is about 1.6. Though PRSPs describe the processes undertaken to promote consultation, it is difficult to assess the extent to which environmental constituencies have been consulted and the extent to which environmental concerns of the poor are considered in developing the implementation priorities. The attention devoted to process issues is generally improving as interim PRSPs are turned into full PRSPs.

Evolution of Environmental Priorities from Interim to Full PRSPs

The revision from the interim into the full PRSP stage improved the treatment of environment significantly. As shown in Table 5, the average environment score of the interim PRSPs that underwent revision to full PRSPs more than doubled.

Table 5. Evolution of country environment scores from Interim PRSP to Full PRSP

| S.No | Country | Score of interim PRSP | Score of full PRSP |
|----------------------|-----------------|-----------------------|--------------------|
| 1 | Zambia | 0.5 | 2.4 |
| 2 | Ghana | 0.9 | 2.2 |
| 3 | Mozambique | 0.5 | 2.2 |
| 4 | Cambodia | 1.2 | 2.2 |
| 5 | Honduras | 1.6 | 2.1 |
| 6 | Yemen | 0.4 | 2.0 |
| 7 | Nicaragua | 1.3 | 2.0 |
| 8 | Bolivia | 0.7 | 2.0 |
| 9 | Vietnam | 0.8 | 1.9 |
| 10 | Senegal | 0.4 | 1.7 |
| 11 | Rwanda | 1.3 | 1.7 |
| 12 | Malawi | 0.6 | 1.7 |
| 13 | Mali | 0.6 | 1.7 |
| 14 | Albania | 0.7 | 1.6 |
| 15 | Ethiopia | 0.8 | 1.6 |
| 16 | Guinea | 0.9 | 1.6 |
| 17 | Guyana | 1.0 | 1.5 |
| 18 | Benin | 0.5 | 1.5 |
| 19 | Tajikistan | 0.4 | 1.2 |
| 20 | Gambia | 0.9 | 1.2 |
| 21 | Kyrgyz Republic | 0.5 | 1.2 |
| Average Score | | 0.8 | 1.8 |

The Implementation of Environmental Priorities

What ultimately matters is how a PRSP is implemented. To assess the extent to which countries are successful in implementing the environmental priorities outlined at the PRSP stage, it is useful to review the PRSP Progress Reports (World Bank and IMF 2003). A total of seven countries have made their implementation reports available. Countries that initiated the implementation in 2000 have reported for two years, while countries that initiated the implementation in 2001 provide one year of implementation progress.

For this assessment, we considered the portion of the PRSP scoring format under *response systems*, which is most directly relevant for the

implementation (see Appendix B). Under the response systems, we assessed (a) measures to enhance environmental management capacity, (b) investment in natural capital, (c) investment in human-made capital that can improve environmental quality, and (d) monitoring and evaluation of environmental programs and plans.

From Table 6, it is clear that progress reported on the environmental proposals outlined in the PRSPs is not satisfactory except for Albania. In this case, the progress report discusses priorities outlined in the PRSP, along with information on indicators used in the implementation and the gaps in implementation. In the case of Mozambique, the implementation report was assessed to be particularly weak, particularly in

Table 6. Implementation progress on the PRSP proposals

| <i>Country</i> | <i>Score on the environment programs and monitoring proposed in the full PRSP (part score under response systems)*</i> | <i>Score of PRSP Progress Reports</i> |
|----------------|--|---------------------------------------|
| Albania | 2.4 | 2.4 |
| Burkina Faso | 2.0 | 0.8 (2000-01); 1.2 (2001-02) |
| Mauritania | 2.2 | 1.6 |
| Mozambique | 3.0 | 0.6 |
| Nicaragua | 2.2 | 2.0 |
| Tanzania | 2.2 | 0.8 (2000-01); 1.2 (2001-02) |
| Uganda | 2.4 | 1.2 (2000-01); 1.4 (2001-02) |

Note: * This score considers a specific part of the overall score, so it varies from the overall score presented in Table 1. The scores for Burkina Faso, Tanzania, and Uganda are for two annual progress reports.

view of the high score for the environment proposals in the full PRSP. In the cases of Burkina Faso, Mauritania, Tanzania, and Uganda, the Progress Reports are considered to be weak in comparison to their full PRSPs.

There is a strong need to examine the reasons behind weak implementation scores, and suitable actions should be initiated to strengthen the implementation and reporting processes. The continued weak environment scores of the implementation progress reports is a cause for concern in terms of the realism of the proposals made and resources committed to their implementation. Implementation progress and the reporting process should be a high priority in the country level monitoring of PRSPs to generate reliable information on the translation of PRSP priorities into action.

JSA Comments on Environmental Mainstreaming in PRSPs

An overview of JSAs and their feedback on environmental priorities indicates a highly uneven level of attention. Scant feedback on the environment is strongly associated with the countries having low attention to the environment. In several JSAs, environmental

issues received either no or passing reference. However, certain JSAs give explicit attention to the environment, holding the PRSPs to high standards. Interestingly, some of the best mainstreamed PRSPs (such as Zambia) still receive JSA comments on the need for improvements—and vice-versa. Informally, there appears to be some correlation between the level of attention of the PRSP and the JSA in terms of environmental mainstreaming. This is probably based on close communication between PRSP teams and the associated World Bank teams. Some—but not all—JSAs focus on environmental priorities; those that do present feedback on a variety of multi-sectoral issues. Some examples are given below.

The JSA for the Cambodia PRSP expresses concern about three environmental issues. First, it notes the resource and capacity constraints of the ministry of environment to lead national environment initiatives. Second, the JSA discusses the low level of integration of environmental considerations into the strategic plans of ministries and line agencies as a cross-cutting theme requiring action. Although there are examples of forest crime monitoring and ecotourism development, very few line agencies have defined objectives in their planning. Third,

the JSA— in the context of protected area management—points to conflicting institutional roles of agencies in wildlife development, community development, and land tenure administration. With respect to forestry, the JSA notes the slow progress on governance and monitoring, while it appreciates progress made with respect to a new forestry law and the extension of land titling benefits to women.

For Guinea, the JSA highlights the overly ambitious nature of long-term targets coinciding with the MDG time frame. The JSA notes that the target for access to safe water supply (to increase from 49 percent in 1999 to

100 percent in 2010) is unrealistic, given past progress and anticipated budget allocations.

For the Zambia PRSP, the JSA highlights the importance of consistent coverage of environment across sectors, the need for a review of the extent of current coverage, the development of a cross-cutting agenda, and the need for better environment indicators.

For Sri Lanka, the JSA calls for improvements in the monitoring framework, with a focus on environment appraisal, data collection, analysis, linkages with policy, and monitoring of inputs, outputs, and outcomes.

5 Good Practice in Environmental Mainstreaming

Many priorities compete for attention in a PRSP. One should therefore not expect to find lengthy elaboration or comprehensive coverage of issues. This section highlights good practice in PRSPs in terms of (a) the issues identified; (b) the analysis of poverty-environment linkages; (c) response systems; and (c) the process followed in developing PRSP priorities. The section presents only brief examples of good practice, as the full PRSPs are easily available to the general public.

Issues

Several countries highlight the environmental issues resulting from unsustainable use of water, land, air, and biological resources.

Land use

Countries present diverse issues of land use such as loss of vegetation, soil erosion, desertification (Yemen, Niger). Severe deforestation has been highlighted as a major land use change in Ghana, Niger, and Sri Lanka. The forested area in Ghana is reported to have declined from 8.2 million ha to 1.7 million ha in the last few decades. Niger highlights the impact of deforestation and desertification, leading to the loss of 2 million ha of forest cover during the 1990s. Sri Lanka reports adverse impacts of deforestation and degradation of biodiversity, irregular water flows, soil erosion, and a shortage of fuelwood.

Water resources

PRSPs highlight water resources issues such as water scarcity (Yemen), inadequate planning and usage (Zambia), pollution (Sri Lanka), and fishery loss (Ghana). Increasing water pollution is attributed to a poor regulatory framework, lack of enforcement, inadequate sanitation, and poor waste management.

The imbalance in available water resources and their usage is clearly reflected in the Yemen PRSP, which notes that the per capita share of 137 m³ is 2 percent of the world average per capita and is expected to decline to 66 m³ by 2026. Over 91 percent of the water is used for agriculture, most of it very inefficiently. The expansion of Qat cultivation has adversely impacted water resources. The scarcity of water resources constitutes a real constraint to development projects that depend upon water, since most of the known water resources have already been tapped and are subject to rapid depletion. Costs rise significantly during drought periods, affecting the ability of the poor to access groundwater.

In contrast, Zambia's PRSP highlights the issues of inadequate planning, utilization, and lack of reliable data as major factors influencing the country's water resources. It is estimated that Zambia accounts for over 35 percent of Southern Africa's water resources and is a source of several wetland ecosystems that

support economic activities of significance such as tourism, fishing, and transport.

Sri Lanka emphasizes the widespread erosion of 55 percent of the country's coast, which is adversely affecting the livelihoods of fishing families. The armed conflict has also contributed to the destruction of rainwater harvesting, lagoon barrages, and solid waste management facilities on the Jaffna Peninsula, causing aquifer pollution and a decline in recharge.

In Ghana, marine fish production has declined. Factors contributing to the decline include a drop in marine fish stocks, the proliferation of demersal trawling activities near shore, the high cost of fishing operations, the absence of a legal framework, and the lack of active fisheries resource management.

Air quality

With the exception of countries in Eastern Europe, most PRSP countries use biomass fuels to a large extent in rural and even in urban areas. Solid fuel usage has adverse impacts on indoor and outdoor air quality, as well as on forest resources. Urbanization and the ensuing air pollution is also a source of concern for some countries.

In Sri Lanka, a large number of old cars and trucks and the poor quality of gasoline and diesel fuels contributed to an alarming rise in urban air pollution. Vehicular emissions of lead and particulates affect the poor disproportionately; malnourished children and those with iron or calcium deficiency have a particularly high propensity for lead absorption.

Air pollution in Azerbaijan is mainly from the emissions of toxic pollutants of power plants, industry, and transport. The health of the

population living on the Absheron Peninsula is severely affected because of the large concentration of nearby manufacturing industries and power plants and the poor enforcement of pollution controls.

Biodiversity

PRSPs do not often present information on biodiversity. Countries that mention this issue are either those with high threats to their biodiversity (Yemen) or countries that have a large untapped potential (Zambia).

Zambia's protected areas—including 19 national parks and 34 game management areas—cover 33 percent of the country, but only 5 percent has been developed for tourism. In Yemen, rich biodiversity is found in the mountain and coastal areas and islands of the Red Sea and the Gulf of Aden. However, overgrazing and firewood collection have adverse impacts on diversity in the mountain region. Chemical pollutants, explosives, and fishing with dragnets threaten coral reefs and marine diversity.

Poverty-Environment Links

The relationships between poverty and environment are complex and vary across countries. Some of the linkages noted in the assessed PRSPs are summarized below.

Poverty and natural resources degradation

Cambodia notes that on average fish consumption accounts for 30 percent of the population's intake of animal protein. The increasing population has placed strong pressures on natural resources, especially on community fisheries. The failure of legal procedures has also resulted in growing

conflicts between small and commercial fishery stakeholders.

In Zambia, five major environmental problems impose high social costs: water pollution, inadequate sanitation, soil degradation, air pollution in the copper belt, and deforestation/wildlife depletion. The environmental and social costs fall disproportionately on the poor.

In Yemen, small and fragmented land holdings pose major impediments to land productivity improvements. The cultivated area is distributed among 1.2 million landholders, with 44 percent holding less than 5 ha. The rapid growth in population density on agricultural land and the per capita decline in water reflect the adverse impact of demographic pressure on Yemen's natural resources.

Azerbaijan inherited several environmental problems from the Soviet period. Poverty is an aggravating factor in the overgrazing of pastures and in overfishing of the Caspian Sea. Poor people cannot afford the cost of modern energy; as a result, the country's forests are threatened due to uncontrolled fuelwood removals for cooking and heating.

Environmental health

Environmental risks account for approximately one fifth of the Disability-Adjusted-Life-Years (DALYs) in developing countries. The proportion is even higher for Sub-Saharan Africa, where most of the PRSP countries are located.¹³ In this context, the role of environmental factors in the disease burden of poor households cannot be overemphasized.

The high incidence of diarrhea in northern Ghana is attributed to the lack of access to safe drinking water and adequate sanitation. A

study of 60 communities in the Kumasi municipality and five other districts found that 23 percent of the sample did not have access to piped water. More than 63 percent had a piped network, but did not have water or experienced irregular flow, and up to 30 percent of households depended on dug wells. Using water as an indicator of poverty, it is estimated the level of poverty falls between 50–75 percent. Those hardest hit by high exposure to contamination are the poor.

In Mali, trypanosomiasis infection causes sleeping sickness in humans and animals and is transmitted by the tsetse fly, which infests 200,000 km² with moderate to severe intensity. The disease causes mortality, morbidity, infertility, stunting, and low work capacity of animals, accentuating the protein deficiencies in already poor regions.

Poor households in Sri Lanka cite the provision of safe drinking water and sanitation as the highest social service priority. Inadequate sewage and sanitation infrastructure in urban and peri-urban areas is a leading public health problem, requiring active participation of the private sector in the provision of water and sanitation services to urban settlements.

Vulnerability

Natural hazards such as hurricanes, floods, and droughts affecting rainfed agriculture can be formidable sources of vulnerability to the poor.

In Niger, average annual rainfall varies significantly from the Sahara to the Sahel-Sudan zone. Since it is difficult to manage rivers that cross international boundaries, water potential is limited to ponds and artificial reservoirs. Underground water replenishment is low. People perceive population growth,

drought, poor harvests, isolation, and locust attacks as major constraints that compromise their already difficult living conditions. In rural areas, livestock is the second leading activity after crop cultivation, and is affected by recurrent droughts. A poor rainy season always leads to a famine that increases the vulnerability of the impoverished.

Property rights

Several PRSPs highlight the importance of land tenure to investment in land productivity and rising income levels.

Cambodia proposes to establish a nationwide land administrative system as part of land tenure reform. This includes measures to improve incentives for investment in agriculture, enhance the value of land as collateral, and improve land registration, dispute resolution, and demarcation of administrative boundaries. With respect to land distribution, idle state land is proposed to be distributed as part of social concessions to the landless and the victims of natural disasters.

The Sri Lanka PRSP finds that state ownership of over 80 percent of the land is the most important impediment to agricultural prosperity. Most poor farmers operate land parcels without a clear title. Since the poor are not empowered to make choices on land use, they cannot use land to its most productive potential. Uncontrolled access and insecure usufruct rights to natural resources are the two major causes of common land degradation. The fragmented nature of land tenure also creates inefficiencies in farm management decisions. Since most farmers do not have clear title, they cannot use it as collateral for loans.

In Zambia, customary tenure accounts for about 94 percent and leaseholds for about 6 percent of

land holdings. As a result, about 97 percent of farmers do not have title to the land they cultivate, strongly limiting their motivation to invest in land improvement and infrastructure development.

Incentives

Public policy can enhance the incentives for environmental management, but policy distortions have the potential to increase the adverse impacts on the environment. A few PRSPs highlight the negative impacts of the existing policy and incentive structure.

The Azerbaijan PRSP discusses the perverse influence of energy subsidies. It is estimated that government spending on energy is 50 percent higher than on health and education because of the subsidies granted to energy and gas companies. Even subsidized prices are not effectively passed on to consumers. The average level of energy bill collection was found to be 27 percent for electricity and 30 percent for gas, encouraging wasteful use of energy and ensuing pollution. Since the amount of subsidy received by households depends upon the quantity they consume, and low-income families have limited access to modern energy sources, household utility subsidies have been found to be regressive.

In Zambia, state control of prices for water supply and waste disposal discouraged new investments in these sectors. This led to deterioration of plant and equipment, causing outbreaks of diseases such as cholera.

Empowerment

Cambodia's fishery management is slowly transforming from a state monopoly to co-management. This entails encouraging the participation of local communities in the

management and conservation of fisheries, and controlling undesirable practices of illegal fishing and toxic pesticide dumping in fishing areas.

Zambia's Community-Based Natural Resource Management Program seeks to build the necessary capacity of local communities in the management of their natural resources such as forests, wildlife, fisheries, water, and arable land. The Zambia Forestry Action Program and Provincial Forest Action Programs seek to assess forest resources, and to support national and provincial capacity. The Soil Conservation and Agro-Forestry Extension Program promotes extension efforts in soil conservation.

Gender and environment

Poverty and environmental degradation have a profound influence on women and girls in terms of greater time expended in gathering fuelwood and water. Women also often do not have property rights to land, which limits their ability and incentive to invest in land productivity improvements. Their knowledge is sometimes ignored by male-dominated agencies, and extension services tend to direct their information more to males than females.

The Zambia PRSP emphasizes the actions proposed to integrate women's traditional knowledge for environmental management into extension programs. The government of Zambia has initiated policies to mainstream gender into land use policies and reserved 30 percent of land allocations to women.

Under the land development ordinance of Sri Lanka, women are not ensured the right to tenure and title in land settlement areas, and incomplete land records further exacerbate their disadvantages. Proposals include a policy to sell

and allocate state-owned land on the basis of marketable title, and correcting anomalies in the legal structure relating to land inheritance that discriminate against women.

Response Systems

As expected, the response systems of countries vary depending on socioeconomic conditions, pressing environmental issues, institutional framework, and policy measures already implemented. Some initiatives mentioned in PRSPs are summarized below.

Environmental management capacity

Environmental management capacity refers to the institutional capacity to plan, legislate, and implement environmental interventions. It includes the capacity to enforce environmental standards, implement economic instruments, build data systems, and manage knowledge. A strongly related variable is the level of public expenditure for environmental management.

Sri Lanka proposes to revise the tourism law, rain forest law, and human settlement planning law. The revisions of the tourism and rain forest laws have the potential to improve the tourism sector and to improve the conservation of natural resources. The regulatory framework and tariff structure for water supply aim to facilitate private sector involvement in the delivery of clean urban drinking water. The strategy for solid waste management is to combine the capacity of local authorities and form public-private partnerships to expand sanitary disposal systems.

In the case of Zambia, environmental legislation is already enacted, but implementation needs improvement. The Environmental Council of

Zambia seeks to enforce the standards for mining and industrial production and to implement and monitor the environmental management plans for mines and define the commitments for adherence. In the context of water supply and sanitation, the Water Supply and Sanitation Act 28 of 1997 seeks to improve service provision and to provide support to the National Water Supply and Sanitation Council as regulator for service provision. The Zambia Wildlife Authority Act 12 of 1998 supports community management of resources and generates revenue and employment benefits from wildlife resources.

Investment in natural resources

Many countries are concerned about the decline in their natural resource productivity. The PRSPs provide opportunities to commit resources to improve their productivity and promote resource conservation.

Cambodia seeks to improve the management of water resources in both lowland and highland areas. It proposes to expand irrigation to improve productivity, generate employment, and control floods. It seeks to improve the efficient use of groundwater and surface water by licensing water uses, generating resources through user fees, promoting private investment in irrigation and drainage, regulating groundwater mining, and implementing the provisions of the Mekong Agreement.

Yemen seeks to implement the Agricultural and Fisheries Production Promotion Fund, the Social Fund for Development, the Management of the Land Resources Project, and Local Community Development programs as vehicles for investment in natural resources. The programs to enhance the productivity of natural

resources include improvements in farm-level irrigation with active farmer participation, and optimal use of fisheries and the marine environment. Proposed surveys would develop a database on fishery resources. This will provide a basis for regulation of fisheries through definition of appropriate methods and quantity limits.

Investment in human-made capital

The investment programs relating to environmental infrastructure and service provision concern water supply, sanitation, waste management, slum improvements, and other forms of environmental infrastructure improvements.

Zambia's energy sector programs focus on electrification, efficient charcoal production, improved stoves, and substitution of charcoal with millennium gel fuel in urban households. The Rural Electrification Master Plan aims to integrate renewable energy to support energy services to rural communities, and would promote solar energy in education, health, and rural development sectors.

In Mali, water supply and sanitation priorities include increasing access, reducing regional disparities, developing sanitation infrastructure, and linking water supply and sanitation policy to health, education, nutrition, rural development, and revenue-generating activities.

The Sri Lanka government's objective is to ensure safe water to the entire population by 2010 and to at least 79 percent of the population by 2005 (from the present 70 percent). In rural areas, community-based organizations are to provide safe drinking water systems in response to local demand. The costs of

maintaining and operating these systems are to be borne by the community. In towns and cities, the private sector is encouraged to invest and operate clean drinking water systems.

Monitoring outcomes

Tracking the outcomes of PRSP implementation requires a sound monitoring and evaluation system. To judge progress, baseline data are essential to monitoring and evaluation. Most countries maintain baselines and targets relating to access to water and sanitation. In other areas such as deforestation and biodiversity, very few PRSPs provide baselines and targets. The definition of input, output, outcome, impact, and process indicators is often missing, which makes the sample of good practice limited.

Zambia presents targets for ecotourism in terms of tourist arrivals, investment per annum, and revenue from park fees. For water supply and sanitation, the targets are service provision to 2.5 million peri-urban residents and 2.5 million people in rural areas. Energy access is targeted

to grow from 20 to 35 percent by 2010, charcoal production to be increased by 400,000 metric tons, and electricity exports to increase by 300 percent. Deforestation is targeted to be reduced from 300,000 ha per year in 2001 to 100,000 in 2004, air pollution to decline from 500 $\mu\text{g}/\text{m}^3$ in 2001 to 200 $\mu\text{g}/\text{m}^3$ in 2004, and nitrate pollution in water from 6.36 mg/l in 2001 to 3.5 mg/l in 2004. The PRSP also sets targets for enforcement of environmental laws, curriculum development, training of personnel, and environmental impact assessments.

Process

Process refers here to both the design and implementation of the PRSP's environmental priorities. PRSPs describe the series of consultations involving civil society, government, and donor agencies. Participation appears to have increased from interim to full PRSP stages in most countries. Improvements in the process and participation are reflected in the higher scores on several aspects of environmental priority setting. The true

Box 1

Environment Targets and Indicators

Ghana. Degradation relating to crop and livestock activities to be reduced by 20 percent; loss of forests through fire, logging, fuelwood extraction, and encroachment to be reduced by 10 percent; environmental resource degradation from mining and manufacturing to be reduced by 20 percent.

Yemen. Increase the coverage of water supply to 69 percent in urban areas and 65 percent in rural areas; increase electricity access to 40.3 percent of the population, including 22.2 percent coverage in rural areas, and reduce electricity losses to 25 percent.

Mali. Monitor access to water supply and sanitation, villages benefiting from at least one accessible water point, number of hectares reforested, regional development plans implemented, and operational rural wood markets.

Azerbaijan. The number and efficiency of protective structures, extent of salinity, number of hectares recultivated, replanting and rehabilitation of native vegetation, new protected areas established, reduction of mercury and oil contamination of soil, transparency of implicit energy subsidies, payment of energy bills, quality of energy supply, and environmental education in secondary schools.

influence of consultation and participation can only be observed from the implementation results. Programs implemented with greater participation are more likely to be cost-effective and have larger impact than those implemented primarily as government initiatives.

Improved participation involving the private sector, NGOs, local communities, and donor agencies is reported in several full PRSPs (Malawi and Zambia). The consultation and awareness of the PRSP process also improved because of the dissemination of key documents in local languages (Rwanda and Vietnam).

The Poverty Reduction Strategy Plan of Mozambique exemplifies a strong commitment to incorporating priorities highlighted in the consultations through an interactive and informative multiple stakeholder dialogue at both national and regional levels. In these consultations, the focus on environment formed a cross-cutting theme. Important priorities relating to environmental protection were raised under the umbrella of rural

development, agriculture, health, and infrastructure development. During the 1998–2000 period, 99 consultations were held with the active involvement of line ministries and with important contributions from the private sector, donors, NGOs, provincial authorities, and local people.

In Sri Lanka, community-driven development has a major role in the implementation of the PRSP. Community participation is stressed in coastal zone management, reef stabilization, fisheries, and social infrastructure development. The government will support community-led initiatives in cooperation with nongovernmental and community-based organizations to assist specific target groups of very poor communities. Local community organizations established in park buffer zones will be provided a share of ecotourism earnings and trained to assist in wildlife preservation. The PRSP proposes a system of transferable water use entitlements for large-scale water users and community-based organizations.

6 Scope for Improvement

Though the PRSPs have improved in the scope and quality of environmental issues covered, there are still gaps. This section highlights the major gaps. For interim PRSPs, the time available for revision from interim to full stage can be effectively utilized to improve the focus and coverage of the identified priorities. For full PRSPs, improvements in the implementation phase and revision possibilities at 3-to-5-year intervals provide opportunities to build on the achievements and to address the gaps.

Dissemination of Implementation Lessons

It was noted above that the description of environmental issues and opportunities is often cursory. All IDA countries could utilize their National Environmental Action Plan (NEAP) or similar strategic environment plan. Experience from the implementation of NEAPs needs to be analyzed and built into the PRSP implementation

Long-Term Perspective and MDG Horizon

Developing countries have committed themselves to the Millennium Development Goals (MDGs). While a few PRSPs explicitly introduce a long-term perspective and make references to MDGs for 2015, this is not observed consistently. Even for those PRSPs that present long-term targets corresponding to the MDG horizon, they are often without

adequate budget support and institutional capacity. To verify whether the current and medium-term strategies are consistent with achieving those goals, the PRSPs need to be aligned with the MDG timeline.¹⁴

A Holistic Perspective on Environmental Health

This point is perhaps the most fundamental in terms of identifying cross-cutting deficiencies in PRSPs. Most often, the documents take a sectoral perspective on providing health services through the ministry of health, and providing water supply and sanitation through the ministry of water & sanitation. Therefore, they lack a holistic perspective on the burden of disease in the country, and there is generally no discussion about cost-effective measures to deal with cross-sectoral issues.

In this context, it is noteworthy that there is generally very little attention paid to air pollution, and particularly indoor air pollution. The number of premature deaths due to air pollution has been estimated at close to 3.5 million per annum. Of this total, the number of premature deaths attributable to outdoor air pollution is estimated at 1.8 million, and to indoor air pollution at 1.6 million. However, in Africa, the number of deaths due to indoor air pollution is almost nine times that of outdoor air pollution (Lvovsky 2001). In estimating the

burden of disease for developing countries classified as “high mortality,” WHO (2002) ranks unsafe water, sanitation, and hygiene third, and indoor smoke from solid fuels fourth. Together, these risk factors account for almost 10 percent of the DALYs in high mortality developing countries. Many of the PRSP countries within our sample fall within that category. A holistic perspective on the burden of disease would have identified indoor air pollution as an issue. We hypothesize that (a) the damage function of indoor air pollution is not well understood, and (b) because women and children bear the brunt of this damage, their concerns are not effectively identified and addressed.

Targets and Budgets

Several PRSPs present generic targets that are linked to identifiable budget allocations. More attention needs to be given to linking medium-term expenditures (where applicable) to the PRSP’s priorities.

Monitoring

Institutional capacity to monitor progress appears to be a major constraint in most countries. It is essential to clearly define environmentally relevant targets and indicators. This can be combined with disaggregated

analysis, which allows for a more targeted approach to environmental management. In this context, the initiative to use regional maps (Burkina Faso) is commendable and deserves to be elaborated.

Progress Reports

The PRSP Progress Reports present good opportunities to also update the PRSP’s environmental priorities. As noted above (section 4), our review shows that some Progress Reports fall short of the standard that the country’s own PRSP has established.

Joint Staff Assessments

It is not surprising that JSAs are written with a strong emphasis on macroeconomics. That is appropriate. However, an institution such as the World Bank—concerned with environmentally and socially sustainable development—should take a cross-cutting approach to its assessment of the PRSP. That must also include the environment.

In summary, we have pointed here to a set of issues where improvements are possible with very limited additional effort and resources. Our paper can only go so far: we provide an overview and leave the details for more specific country-by-country discussions.

Appendix A — Interim PRSPs and Full PRSPs

| <i>S. No</i> | <i>Country</i> | <i>Region</i> | <i>IPRSP</i> | <i>PRSP</i> | <i>Implementation progress report</i> |
|--------------|----------------------|------------------------|----------------|---------------|---------------------------------------|
| 1 | Albania | Eastern Europe | Dec 4, 2001 | April 2002 | |
| 2 | Armenia | Central Asia | Jan 11, 2001 | | |
| 3 | Azerbaijan | Central Asia | May 22, 2001 | May 14, 2003 | |
| 4 | Bangladesh | South Asia | June 2003 | | |
| 5 | Benin | Sub Saharan Africa | July 13, 2000 | Feb 23 2002 | |
| 6 | Bolivia | L. America & Caribbean | Jan 27, 2000 | June 5, 2001 | |
| 7 | Bosnia & Herzegovina | Eastern Europe | Oct. 2, 2002 | | |
| 8 | Burkina Faso | Sub Saharan Africa | | June 30, 2000 | Dec 6, 2001, Sept 2002 |
| 9 | Chad | Sub Saharan Africa | July 25, 2000 | | |
| 10 | Cameroon | Sub Saharan Africa | Oct 10, 2000 | | |
| 11 | Cambodia | East Asia | Jan 18, 2001 | Feb 2003 | |
| 12 | Cape Verde | Sub Saharan Africa | April 8, 2002 | | |
| 13 | Central African Rep. | Sub Saharan Africa | Jan 18, 2001. | | |
| 14 | Congo, DR | Sub Saharan Africa | June 11, 2002 | | |
| 15 | Cote D'Ivoire | Sub Saharan Africa | March 28, 2002 | | |
| 16 | Djibouti | North Africa | Feb 27, 2001 | | |
| 17 | Ethiopia | Sub Saharan Africa | Mar 20, 2001 | Sept 17, 2002 | |
| 18 | Gambia | Sub Saharan Africa | Dec 14, 2000 | July 16, 2002 | |
| 19 | Georgia | Eastern Europe | Dec 19, 2000 | | |
| 20 | Ghana | Sub Saharan Africa | Aug. 24, 2000 | March 4, 2003 | |
| 21 | Guinea | Sub Saharan Africa | Dec. 22, 2000 | July 25, 2002 | |
| 22 | Guinea Bissau | Sub Saharan Africa | Dec. 14, 2000 | | |
| 23 | Guyana | Caribbean | Nov 14, 2000 | Sept 17, 2002 | |
| 24 | Honduras | L. America | July 6, 2000 | Oct 11, 2001 | |
| 25 | Kenya | Sub Saharan Africa | Aug 1, 2000 | | |
| 26 | Kyrgyz Rep. | Central Asia | July 5, 2001 | Jan 23, 2003 | |
| 27 | Lao PDR | East Asia | April 24, 2001 | | |
| 28 | Lesotho | Sub Saharan Africa | March 6, 2001 | | |
| 29 | Mali | Sub Saharan Africa | Sept 7, 2000 | Feb 27, 2003 | |
| 30 | Malawi | Sub Saharan Africa | Dec 21, 2000 | Aug 29, 2002 | |
| 31 | Madagascar | Sub Saharan Africa | Dec 19, 2000 | | |
| 32 | Mauritania | Sub Saharan Africa | Feb 6, 2001 | Sept 25, 2001 | June 18, 2002 |
| 33 | Moldova | Eastern Europe | Dec 14, 2000 | | |
| 34 | Mongolia | East Asia | Sept 27, 2001 | | |
| 35 | Mozambique | Sub Saharan Africa | April 6, 2000 | Oct 1, 2001 | April 2003 |
| 36 | Nicaragua | L. America | Dec 21, 2000 | Sept 25, 2001 | |
| 37 | Niger | Sub Saharan Africa | Dec 20, 2000 | Feb 7, 2002 | |
| 38 | Pakistan | South Asia | Dec 4, 2001 | | |

Status and Evolution of Environmental Priorities in the Poverty Reduction Strategies

| <i>S. No</i> | <i>Country</i> | <i>Region</i> | <i>IPRSP</i> | <i>PRSP</i> | <i>Implementation progress report</i> |
|--------------|---------------------|-----------------------|----------------|---------------|---------------------------------------|
| 39 | Rwanda | Sub Saharan Africa | Dec 21 , 2000 | Aug 6, 2002 | |
| 40 | Sao Tome & Prin. | Sub Saharan Africa | April 27, 2000 | | |
| 41 | Serbia & Montenegro | Eastern Europe | June 20, 2002 | | |
| 42 | Senegal | Sub Saharan Africa | June 20, 2000 | Nov 20, 2002 | |
| 43 | Sierra Leone | Sub Saharan Africa | Sept 25, 2001 | | |
| 44 | Sri Lanka | South Asia | | March 7, 2003 | |
| 45 | Tajikistan | Europe & Central Asia | June 8, 2000. | Oct 10, 2002 | |
| 46 | Tanzania | Sub Saharan Africa | April 4, 2000 | Nov. 30, 2000 | Nov 27, 2001 , March 2003 |
| 47 | Uganda | Sub Saharan Africa | | Nov. 30, 2000 | March 2001 , 2002 |
| 48 | Vietnam | East Asia | April 12, 2001 | July 2, 2002 | |
| 49 | Yemen | Middle East | Nov 27, 2001 | Aug 2002 | |
| 50 | Zambia | Sub Saharan Africa | August 4, 2000 | May 22, 2002 | |

Appendix B — Scoring Format of the PRSP Assessment

1. Issues in Focus

1. **Land use:** degradation, deforestation, erosion, overgrazing, etc.
2. **Water:** drinking water, irrigation, fisheries and water pollution, etc.
3. **Air & climate:** air quality, solid fuel usage, emissions, climate variability
4. **Biodiversity:** threats to ecosystems, species and genes, nature-based opportunities

2. Causal Link Assessment

1. **Poverty and NR degradation:** resource dependence and inequality
2. **Environmental health:** communicable diseases, housing environment, and pollution
3. **Vulnerability:** impacts of natural hazards
4. **Property rights:** tenure and user rights
5. **Incentives:** pricing interventions, taxation, subsidies, exchange rate, trade, etc.
6. **Empowerment:** community-based management, decentralization and partnerships
7. **Gender:** role of women in environmental management

3. Response systems

1. **Environmental management capacity:** legislation, regulation, institutional reform, data systems, cross-sectoral coordination, environmental standards, environmental economic instruments, etc.
2. **Investment in natural capital:** investment in natural resource productivity
3. **Investment in human-made capital:** investment in environmental infrastructure
4. **Monitoring natural resource outcomes:** deforestation, afforestation, rehabilitated areas, protected areas, soil & water conservation measures, renewable energy use, etc.
5. **Monitoring human resource outcomes:** infant and child mortality, disease burden related to environmental risk factors, time spent collecting fuelwood and water

4. Process

1. Description of the participatory process and inclusion of environmental constituencies, particularly with respect to the identification of environmental issues, poverty links, and actions

Score: 0 = not mentioned; 1 = mentioned by not elaborated; 2 = elaborated; 3 = good practice.

Notes

1. For countries that have high external debt, PRSPs form the basis for debt relief under the enhanced Heavily Indebted Poor Countries Initiative.
2. "IDA13" signifies the 13th round of replenishment to the International Development Association, also known as the "credit window" of the World Bank.
3. For a detailed discussion of poverty-environment links, see the World Bank's Environmental Strategy (2001) *Making Sustainable Commitments*, and DFID, EC, UNDP, and The World Bank (2002): *Linking Poverty Reduction and Environmental Management: Policy Challenges and Opportunities*, paper prepared for the World Summit on Sustainable Development, Johannesburg. For environmental health risks, see WHO (2002).
4. More precisely, "environment" refers to both the living and non-living components of the natural world. The environment is (a) a source of raw material and energy, (b) a recipient and partial recycler of waste products from the economy; and (c) an important source of recreation, beauty, spiritual values, and other amenities. See DFID and others (2002) for further discussion.
5. For an expansion of that argument in economic terms, see "Can the Environment Wait" (World Bank 1997), which illustrates the significant cost of environmental pollution to poor people today.
6. The World Bank and IMF Reviews on PRSP preparation and implementation are also to a large extent based on the PRSP documents (World Bank and IMF 2001b, 2002b, 2002c, and 2003).
7. In this paper, for the sake of simplicity we use the term "PRSP" to also include interim PRSPs when the distinction is not essential.
8. The World Bank Board may discuss PRSP Implementation Progress Reports and its JSA on its own or in association with the IMF and IDA operational programs. The annual progress report is also required for countries under the poverty reduction growth facility (PRGF) of the IMF and for those countries that do not update their PRSP within three years under an IDA arrangement (World Bank and IMF 2002b).
9. For a detailed discussion about environmental indicators, see Shyamsundar (2002).
10. In our discussion with Country Teams, we share our entire scoring sheet, not only the average score.
11. In the country with the lowest scoring full PRSP (Tanzania), the government is currently active in shaping a mainstreaming program together with a set of supportive donors.
12. See *World Development Indicators 2003* for a listing of environmental action plans covering most PRSP countries.
13. Definitions of "environmental risk" vary, but generally include at least the impacts of

unsafe water, poor sanitation, indoor and outdoor air pollution, and agro-industrial waste. See Lvovsky (2001) and WHO (2002) for background on these issues.

14. See Bojö and Reddy (2003) for a detailed review of PRSPs in the context of the Millennium Goal on Environmental Sustainability.

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