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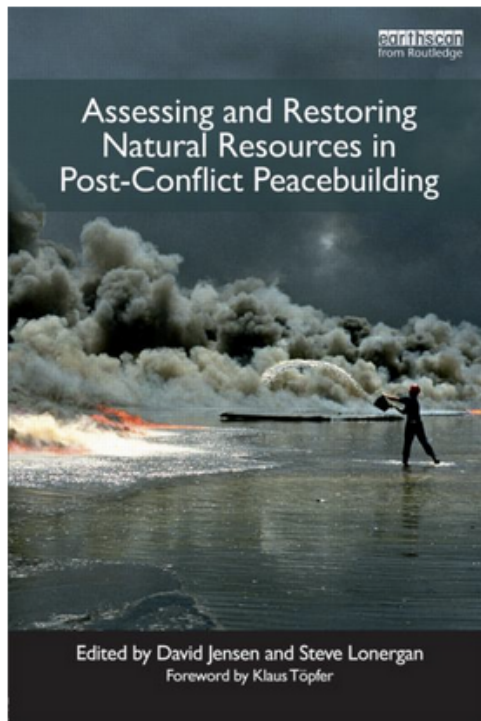
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Evaluating the impact of UNEP's post-conflict environmental assessments

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Evaluating the impact of UNEP's post-conflict environmental assessments

David Jensen

In a post-conflict situation, some of the immediate challenges for the international community include defining and prioritizing needs, coordinating responses, and sending the right level and type of support to the right place at the right time. All of this must be accomplished in a way that reflects national priorities and helps stabilize and consolidate the peace process. But efforts often take place in a volatile and complex political environment, where national authorities may lack full legitimacy and public support, have low capacity, or be more interested in their political survival and regime security. Prioritizing the management of natural resources is often difficult, given competing priorities, such as security sector reform; disarmament, demobilization, and reintegration; return of displaced persons; and holding of national elections. Yet natural resources are essential to the peace process because they often underpin other peacebuilding sectors. From water for drinking and agriculture, to forests and rangelands that support livelihoods, to high-value natural resources that can kick-start economic growth and become an engine for recovery, the way natural resources are used can influence the success of peacebuilding endeavors. Furthermore failure to effectively manage natural resources, such as land and water, is often one of the most common sources of local-level conflict.

To ensure that natural resource management and environmental governance needs are reflected in post-conflict relief, recovery, and development plans, the United Nations Environment Programme (UNEP) has built new capacity and technical expertise in conducting post-conflict environmental assessments at the request of national authorities and the United Nations system. UNEP's work, which began in 1999, has been part of an overall process to make UNEP more operational and relevant at the field level. There are three situations in which UNEP can be

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requested to conduct a post-conflict environmental assessment—first, when national authorities lack the scientific expertise or operational capacity to conduct a field-based assessment; second, when the conflict causes environmental damage that may involve one or more neighboring countries; and third, when political stakes are high and impartiality is needed to objectively analyze environmental drivers and impacts.

Since 1999, UNEP's post-conflict environmental assessment toolkit has gradually expanded to meet various needs and policy processes. UNEP now offers four distinct types of assessments, each with a different scope, objective, and approach. These include needs assessments, quantitative risk assessments, strategic assessments, and comprehensive assessments. The chapter compares the overall impact of the four methods in seven field operations conducted between 1999 and 2007.

The effects of the assessments are first evaluated according to three indicators: policy influence, financing of environmental needs, and media coverage. For each indicator, the level of impact is categorized on a four-point scale in order to provide a standardized framework for comparison. From the country case studies, successes, failures, and lessons learned are drawn. The chapter then considers a number of questions: Are assessments useful and which methods have worked best? What are the conditions for success? Does more time and funding lead to more impact? How can environmental and natural resource management needs be effectively integrated into peacebuilding plans? How can national ownership be maintained when international actors carry out the assessments?

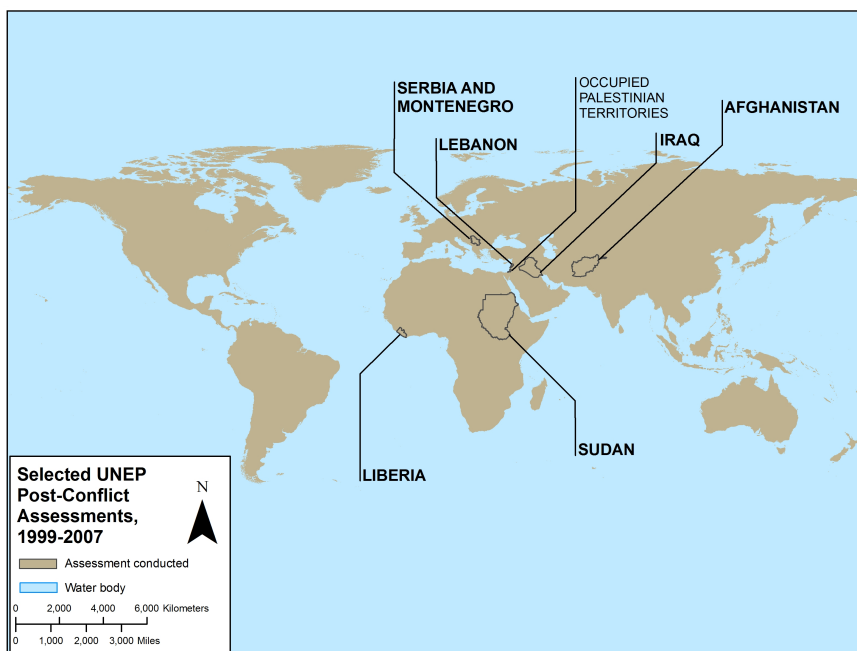
All of the countries where UNEP conducted post-conflict assessments from 1999 to 2007 are covered.¹ These include the Federal Republic of Yugoslavia (FRY), Afghanistan, the occupied Palestinian territories (oPt), Iraq, Liberia, Lebanon, and Sudan. Assessments conducted by UNEP since 2008 have not been included because their full impact could not yet be evaluated at the time of this writing.

POST-CONFLICT ENVIRONMENTAL ASSESSMENT METHODS

UNEP has developed four types of post-conflict environmental assessments to meet the distinct needs of policy processes. A summary of each method and a list of countries where it was applied are provided below:

- **Needs assessments and desk studies:** During or after a conflict, UNEP can collect preexisting secondary information on environmental trends and natural resource management challenges from international and national sources. The information is compiled into a desk study report that attempts to identify and prioritize environmental needs. Limited field visits of one to two weeks are

¹ For another perspective on UNEP's post-conflict assessments, see Ken Conca and Jennifer Wallace, "Environment and Peacebuilding in War-Torn Societies: Lessons from the UN Environment Programme's Experience with Post-Conflict Assessment," in this book.



Notes:

1. Post-conflict operations in UN member states are set in bold.
2. At the time of UNEP's respective assessments, the Palestinian territories were known as the occupied Palestinian territories; Serbia and Montenegro comprised the Federal Republic of Yugoslavia; and South Sudan was not yet an independent country.

often conducted to verify data, conduct stakeholder meetings, and validate initial findings. These assessments inform the post-conflict needs assessment (PCNA) process of the UN, World Bank, and European Union (EU). They are also often published as self-standing desk study reports and serve as a basis for further national analysis. The chapter evaluates the impact of UNEP needs assessments and desk studies conducted in the oPt, Iraq, Liberia, and Sudan.

- **Quantitative risk assessments:** These assessments focus on the direct environmental impacts of conflicts caused by bombing and destruction of buildings, industrial sites, and public infrastructure. They were designed to assess environmental damage following short-duration, high-intensity conflicts that often occur in urban environments. Teams of environmental experts conduct rigorous field sampling of possible environmental contamination of water, soil, and air, with a view to identifying serious risks to human health and environmental hot spots. Field missions are conducted in a span of three to four weeks and involve the extensive use of laboratory analysis and satellite imagery. Depending on how soon after a conflict they are conducted, the assessments

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can inform humanitarian priorities or early recovery plans. The chapter evaluates the impact of UNEP's quantitative risk assessments conducted in FRY and Lebanon.

- **Strategic assessments:** In addition to the direct environmental effects of conflict addressed by quantitative risk assessments, strategic assessments evaluate the indirect impacts of the survival and coping strategies of local people and the institutional problems caused by the breakdown of governance and capacity. Potential environmental risks to human health, livelihoods, and security, as well as capacity gaps, are then identified. The assessments provide a snapshot of the environmental needs in order to inform larger recovery or peacebuilding strategies. They were designed primarily for use following long-duration, low-intensity conflicts. Strategic assessments are often conducted in two to six months and are based on field missions lasting three to six weeks. They are used when a specific planning or policy process requires updated field information quickly and when there is insufficient time to conduct a comprehensive assessment. The chapter evaluates the impact of a UNEP strategic assessment conducted in Afghanistan.
- **Comprehensive assessments:** When sufficient time and resources exist, UNEP can conduct a comprehensive assessment of the environmental situation. Comprehensive assessments provide a detailed picture of each natural resource sector and the environmental trends, governance challenges, and capacity needs. Based on national consultations with stakeholders, comprehensive assessments attempt to identify priorities and cost the required interventions over the short, medium, and long terms. Comprehensive assessments last from one to two years, depending on the size of the country and area affected by the conflict, the security conditions, and the logistical infrastructure. The assessments contain enough information upon which to build detailed intervention programs. The chapter evaluates the impact of a UNEP comprehensive assessment conducted in Sudan.

The type of assessment used in each case depends on the scope of the request made by the national authority, the conflict, funding, and the time line of the post-conflict policy framework as discussed below. Each assessment is also tailor-made to address the political, security, and logistical conditions in each country. To the extent possible, each assessment methodology involves senior international experts partnered with national experts. UNEP's neutrality and independence are maintained throughout the assessment process, leading to an objective technical evaluation of environmental needs.

POST-CONFLICT POLICY FRAMEWORKS

The findings of post-conflict environmental assessments are used by a number of policy frameworks. This section describes the five post-conflict frameworks used by the UN system and member states where UNEP has taken an active role

Table 1. UNEP 1999–2007 post-conflict assessments: Methodology and policy frameworks evaluated

<i>Case</i>	<i>Assessment methodology</i>	<i>Flash/CAP^a</i>	<i>PCNA^b</i>	<i>National recovery plan</i>	<i>PRSP^c</i>	<i>CCA/UNDAF^d or equivalent</i>
FRY ^e	Quantitative	X				
Afghanistan	Strategic			X	X	X
oPt ^f	Desk study			X		
Iraq	Desk study	X	X	X		X
Liberia	Desk study		X	X	X	X
Lebanon	Quantitative			X		
Sudan	Desk Study/ Comprehensive		X	X		X

a. Flash appeal/consolidated appeal process.

b. Post-conflict needs assessment.

c. Poverty reduction strategy paper.

d. Common country assessment/UN Development Assistance Framework.

e. Federal Republic of Yugoslavia.

f. Occupied Palestinian territories.

in helping national authorities assess environmental issues, identify priorities, and integrate needs. Table 1 summarizes the post-conflict environmental assessment methods and relevant policy frameworks that were used in each of the seven case studies.

- **Flash appeal and consolidated appeal process (CAP):** Following a peace agreement or ceasefire, the UN often issues a flash appeal to respond to urgent humanitarian needs. These usually address food, water, and shelter for refugees and internally displaced persons, as well as other critical services and protection. In some cases, when more planning and analysis are possible, such as during complex emergencies and protracted conflicts, a CAP covers the humanitarian needs for a full year. The flash appeal and CAP are the primary relief instruments used by the international community for identifying needs and coordinating and financing relief efforts. The chapter reviews the impact of environmental assessments on the humanitarian appeals for FRY and Iraq.
- **Post-conflict needs assessment (PCNA):** First used in 2003, PCNAs are undertaken by the UN Development Group, the World Bank, and the EU in collaboration with the national government and donor countries. PCNAs are used for jointly assessing needs, identifying targets, and financing a shared strategy for recovery in post-conflict situations. The PCNA includes the assessment and the national prioritization and costing of needs. Most PCNAs take between two and twelve months to complete and cover two to four years of activities. The chapter reviews the impact of environmental assessments on the PCNA processes for Iraq, Liberia, and Sudan.
- **National recovery plan or development strategy:** In cases when a PCNA was not conducted, or a government chooses to replace the PCNA with a new

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strategy, a national recovery plan or development strategy is issued by the transitional or elected national government. The document sets out the costed national priorities and requests assistance from the international community to meet the identified needs. The chapter reviews the impact of environmental assessments on national recovery plans for Afghanistan, oPt, Iraq, Liberia, Lebanon, and Sudan.

- **Poverty reduction strategy paper (PRSP):** Once a post-conflict country has moved from the transition phase to the development phase, interim or full PRSPs are often developed. Designed by the International Monetary Fund (IMF) and the World Bank in 1999, PRSPs are produced in cooperation with governments, stakeholders, and international partners. PRSPs focus on the economic and financial profile of a country and provide a plan for reducing poverty and supporting the economy through various actions. PRSPs are instrumental for a country to obtain financing and debt relief from the IMF and the World Bank. The chapter reviews the impact of environmental assessments within the PRSPs for Afghanistan and Liberia.
- **Common country assessment (CCA) and UN Development Assistance Framework (UNDAF):** In response to a national recovery plan, development strategy, or PRSP, the UN country team conducts a CCA to determine how the UN can meet national priorities. The CCA attempts to focus UN efforts on three or four pillars, or areas of need. Based on the CCA, an UNDAF establishes concrete outcomes and indicators in each area and provides detailed costing. Specific agencies and partners are listed with a time line. In post-conflict countries, CCAs and UNDAFs are typically conducted once the country has moved from the transition phase to the development phase (e.g., three to five years after the conflict). The chapter reviews the impact of environmental assessments within CCAs and UNDAFs for Afghanistan, Iraq, Liberia, and Sudan.

ANALYSIS METHODOLOGY

The seven case studies are presented in chronological order from 1999 to 2007. The impact of each environmental assessment was analyzed according to policy influence, financing of environmental needs, and media coverage. These indicators were selected because objectively verifiable data were available in all seven cases. For each indicator, a standardized four-point scale ranging from none (0), to low (1), medium (2), and high (3) was used to classify the level of impact. Assessments conducted after 2007 were not included because their full impact could not be evaluated at the time of writing.

To analyze the policy impact of an assessment, all relevant post-conflict policy frameworks issued after the release of a UNEP report until January 2010 were collected. The environmental content of each policy framework based on the UNEP assessment report was categorized on the following four-point scale: no impact (0) means that environmental issues were not mentioned in the policy

framework; low impact (1) means that a general statement was included on environmental issues, but no specific sectors, targets, indicators, or financial resources were included; medium impact (2) means that environmental needs were included with priorities and sectors, but no targets, indicators, or detailed budget information were included; and high impact (3) means that environmental needs and sectors were included with a detailed budget and targets. To determine the overall policy impact, the individual scores for each policy framework were averaged.

To analyze the financial impact of an assessment, the financial resources that were mobilized by UNEP from donors to address the recommendations of the assessment were calculated. The level of financing raised, compared to the amount requested, was categorized on the following four-point scale: no impact (0) means that UNEP was unable to mobilize any funds for follow-up work; low impact (1) means that UNEP was able to mobilize less than 50 percent of the requested funds for follow-up activities; medium impact (2) means that UNEP was able to mobilize between 50 and 75 percent of the requested funds for follow-up activities; high impact (3) means that UNEP was able to mobilize over 75 percent of the requested funds for follow-up activities. To determine the overall financial impact, the individual scores were averaged. The indicator was restricted to the amount of funding UNEP was able to mobilize for follow-up activities from donors because information on the total amount of funding raised for the environmental sector is not systematically tracked by the UN system or by national governments.

To analyze the media impact of the assessment, four types of media were considered, including print, Web, radio, and television. For each format, the study counted either the presence (yes) or absence (no) of coverage in stream media at the national and international levels. The overall media impact was then categorized on the following four-point scale: no impact (0) means that no coverage was achieved in any media; low impact (1) means that coverage was achieved in only one format; medium impact (2) means that coverage was achieved in two media; high impact (3) means that coverage was achieved in three or four media. To determine the overall media impact, the individual scores were averaged.

Finally, to determine a total impact score, a weighted average calculation was applied to the policy (40 percent), financial (40 percent), and media (20 percent) scores. A weighted process was used because UNEP's objectives relate to the policy and financial impacts, with media coverage a secondary objective. The final impact score was also categorized on the following four-point scale: no impact was 0; low impact was any score less than 2; medium impact ranged from 2 to 2.49; high impact ranged from 2.5 to 3. The scale was arbitrary, rather than robust and quantitative, and was used to compare the cases. Consistent with UNEP's internal categorization, the low category is allocated a wider band than the medium and high categories. A total impact score of 3 means only that the assessment had a high impact within each indicator, rather than a perfect outcome. Following the indicator analysis, each section concludes with a summary of the positive and negative factors that influenced the overall impact of the assessment.

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The information presented in this chapter was collected from various public reports and official UN documents, as well as from interviews with UNEP program managers and experts who participated in the assessments.² Information on media coverage was collected from UNEP staff and experts who tracked the national and international media coverage of report-launch events and follow-up projects.

The chapter does not attempt to assess subsequent projects developed to address the environmental needs, nor does it analyze the adequacy of the funding allocated or spent in the environmental sector. This kind of analysis would require detailed field-based evaluations and is beyond the chapter's scope. An environmental assessment with a high impact does not automatically translate into a field project with a high impact. Although that may be the case, it is the topic of separate research. Moreover, many of the assessments reviewed occurred before UN reforms were implemented, including the humanitarian cluster system, the UN Peacebuilding Commission, and the environmental toolkit for the PCNA (UN and World Bank 2009). As a result, the possible impact of the reforms on addressing environmental and natural resource needs has not been considered. Notwithstanding the limitations, the chapter provides a good opportunity to objectively review and compare the impacts of assessment methods to inform the scope, approach, and substance of future programs.

CASE STUDIES

Case studies that follow are those conducted between 1999 and 2007, and include the Federal Republic of Yugoslavia, Afghanistan, occupied Palestinian territories, Iraq, Liberia, Lebanon, and Sudan.

Federal Republic of Yugoslavia

During the Kosovo conflict in 1999, bombing of industrial sites, military bases, and public infrastructure raised concern about a potential environmental catastrophe from the release of toxic chemicals. The North Atlantic Treaty Organization insisted that sophisticated weapons and targeting minimized collateral damage, yet the government of FRY claimed extensive environmental destruction.³ Neighboring countries also expressed concerns about possible transboundary water and air pollution.

² Technical and policy input was provided by Henrik Slotte, Asif Zaidi, Belinda Bowling, Silja Halle, Andrew Morton, Aniket Ghai, Maliza van Eeden, Koen Toonen, and Hassan Partow. Additional research and reviews were conducted by Dennis Hamro-Drotz, Renard Sexton, Fanny Rudén, Divya Sama, and Abigail Sylvester.

³ On February 4, 2003, the Federal Republic of Yugoslavia changed its name to Serbia and Montenegro. Montenegro became independent on June 3, 2006.

A UN interagency needs assessment mission was deployed May 16–27, 1999, to assess damage and identify humanitarian needs (UN 1999a). The mission, headed by UN Under-Secretary-General Sergio Vieira de Mello, stated that a detailed assessment of the full extent of the environmental impact was urgently required.

To determine the extent of the damage and risks to human health, the UN Secretary-General supported UNEP and the UN Centre for Human Settlements (UNCHS) Programme to undertake an independent, scientific assessment of the effects of the conflict on human settlements and the environment. The scope of the assessment, which started in May 1999, focused on five conflict-related impacts: pollution from bombed industrial sites, damage to the Danube River, harm to protected areas and biodiversity, impacts on human settlements, and the use of depleted uranium weapons (UNEP and UNCHS 2009). A quantitative risk assessment was used to detect contamination and hot spots. The assessment also considered the existing legal and institutional framework for environmental management and national capacity for implementation and enforcement. The joint UNEP/UNCHS environmental assessment report was an input to the UN Consolidated Inter-Agency Appeal for Southeastern Europe Humanitarian Operations in 2000.

Assessment impact

The UNEP/UNCHS assessment report was launched through a series of press conferences in Geneva and Nairobi in October 1999 (UNEP and UNCHS 1999). It consisted of 104 pages detailing the environmental impacts of the conflict and thirty recommendations for addressing risks and building governance capacity. Overall the report concluded that the conflict had not caused an environmental catastrophe. Although some serious pollution and environmental damage had occurred, it was largely limited to four environmental hot spots and did not represent a national or regional threat. Still the hot spots required urgent cleanup on humanitarian grounds in order to prevent health risks and further environmental degradation. The assessment received widespread press coverage at the national and international levels in all media. Local media ran extensive articles about the environmental hot spots, and BBC's *Earth Report* ran a special segment on the environmental consequences of the conflict. A number of television interviews were also conducted by the chairman of the assessment, Pekka Haavisto, former minister for environment and development cooperation in Finland.⁴

The UNEP environmental assessment report was used in the UN Consolidated Inter-Agency Appeal for 2000 (UN 1999b). The UN appeal identified nearly US\$200 million of urgent needs in FRY and US\$250 million in Kosovo. It

⁴ Pasi Rinne, UNEP program manager for FRY, personal communication with the author, December 2009.

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included US\$1.5 million for environmental assessment and further feasibility studies at the four hot spots identified by UNEP. The cleanup of environmental hot spots at bombed industrial sites was seen as an urgent humanitarian priority. This was the first appeal ever to include financing for mitigating environmental risks and set an important precedent for how humanitarian needs were defined. For the first time, human health was directly tied to environmental contamination. Because the UNEP assessment was directly referenced by the appeal, including detailed priorities and budget estimates, the policy impact of the report was considered to be high.

Following further feasibility studies conducted by UNEP and local authorities at the hot spots, US\$20 million of cleanup needs were identified. Based on this analysis, an additional US\$7 million for hot spot cleanup was included in the 2001 humanitarian appeal and US\$5.5 million in the 2002 appeal (UN 2000, 2001). Even though the US\$12.5 million raised fell short of the US\$20 million of cleanup projects identified, the money did allow the most urgent risks to be addressed. Cleanup financing was provided by a coalition of nine donors, including Denmark, Finland, Germany, Ireland, Luxembourg, the Netherlands, Norway, Sweden, and Switzerland.

UNEP conducted cleanup operations at the four hot spots from August 2000 to December 2003. The primary objective was to reduce the most significant risks to human health and the environment at Novi Sad, Pancevo, Kragujevac, and Bor. It was accomplished through a combination of field-based remediation and rehabilitation projects and complementary capacity-building activities in hazardous waste management, cleaner production practices and technologies, direct foreign investment, sustainable consumption, and multilateral environmental agreements.

In 2003, the UN system decided not to issue an additional humanitarian appeal for Southeastern Europe. The decision reflected a wide consensus that the region was by and large in a phase of increasing stability and was transitioning to development. Moreover donors were shifting their emergency support to other parts of the world. Because the program had cleaned up the environmental hot spots, UNEP closed its field office.

The effect of the assessment was evaluated according to the three indicators in table 2. The weighted average score for all three indicators was 2.8, showing a high overall impact, divided between policy (3.0), financial (2.5), and media (3.0) impacts.

Conclusions and lessons learned

Drawing upon the three indicators selected, the review demonstrated that the post-conflict environmental assessment following the Kosovo conflict had an overall high level of impact. Based on the findings of the UNEP assessment, environmental needs were included within the three humanitarian appeals from 2000 to 2002, and 63 percent of the needs were funded by international donors.

Table 2. Evaluation of assessment impact indicators for the Federal Republic of Yugoslavia

<i>Indicator</i>	<i>Categories</i>	<i>Policy frameworks</i>		
		<i>Humanitarian appeal (2000)</i>	<i>Humanitarian appeal (2001)</i>	<i>Humanitarian appeal (2002)</i>
Policy impact	No impact (0): Environmental needs not mentioned Low (1): Environmental needs mentioned at a general level, but no detail provided Medium (2): Specific environmental needs and sectors mentioned High (3): Specific environmental needs and sectors mentioned with budget	3	3	3
Average policy impact:				3.0
<i>Indicator</i>	<i>Categories</i>	<i>Environmental needs</i>		
		<i>Cleanup phase 1 (2001–2002)</i>	<i>Cleanup phase 2 (2003)</i>	
Financial impact	No impact (0): No financing raised for UNEP follow-up program Low (1): Less than 50 percent of UNEP follow-up program financed Medium (2): From 50 to 75 percent of UNEP follow-up program financed High (3): Over 75 percent of UNEP follow-up program financed	3	2	
Average financial impact:				2.5
<i>Indicator</i>	<i>Categories</i>	<i>Media coverage</i>		
		<i>National</i>	<i>International</i>	
Media impact	No impact (0): No coverage achieved in any media format Low (1): Coverage in only one media format Medium (2): Coverage in two media formats High (3): Coverage in three or four media formats	3	3	
Average media impact:				3.0
Weighted total impact:				2.8

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Extensive national and international media coverage was also achieved in all types of media. Four factors likely account for the high impact.

First, rather than conducting a broad-based study of all environmental issues, the assessment focused on environmental threats to human health and successfully argued for hot spot cleanup measures on humanitarian grounds. By classifying the cleanup of the environmental hot spots as a humanitarian priority, a high level of visibility was given to the issue with immediate financial support. Timing the findings of the assessment to inform major donor conferences and international assistance frameworks maximized the policy impact.

Second, although the post-conflict environmental assessment was implemented by UNEP in a scientific and impartial manner, a number of national experts and the FRY Ministry of Environment, Mining and Spatial Planning were involved in the process, leading to a high level of national ownership of the findings and interest in follow-up.

Third, UNEP's project office in Belgrade played an important role in disseminating the results of the assessment to decision makers and advocating for cleanup measures to be integrated within the three humanitarian appeals. UNEP also briefed the donor community in Geneva and selected donor capitals to ensure financing was mobilized to meet needs. The briefings included political advocacy by Pekka Haavisto, the chairman of the assessment.

Finally, UNEP's communications strategy was an important factor in the overall impact. By identifying immediate health risks from environmental contamination, the assessment helped to define *environment* in real terms that made sense to people and decision makers alike. The use of photos, maps, and satellite imagery in the final report also helped to maintain reader interest and stimulate media attention.

Afghanistan

Afghanistan has been affected by waves of violence and conflict for decades. When the Bonn Agreement was signed on December 5, 2001, the international community committed to long-term reconstruction support. In terms of assessing and addressing environmental needs, the situation in Afghanistan differed vastly from that in FRY. Before the decades of conflict that began in the 1970s, there was little industrial infrastructure. Therefore few industrial sites could be bombed and become environmental hot spots. Nevertheless the environment was severely damaged by military activities, human displacement, intense exploitation of natural resources, and inadequate institutional capacity for natural resource management. The national government was in disarray and had no capacity to conduct an environmental assessment.

In order to determine the short- and long-term environmental needs of Afghanistan, UNEP developed a new methodology focused on assessing not only the direct environmental impacts of military operations but also the indirect effects of survival and coping strategies and the institutional impacts of the breakdown

of governance. Potential environmental risks to human health, livelihoods, and security, as well as capacity gaps were then identified. The new framework was a strategic assessment in that it selected the environmental issues and natural resources that were most relevant to peacebuilding. They included fertile land, rangelands, woodlands, protected areas, water resources, urban environmental infrastructure, waste management, and institutional capacity for environmental governance. The assessment was designed to provide a snapshot of environmental needs that could inform recovery priorities. The national partner in conducting the assessment was the Ministry of Irrigation, Water Resources, and the Environment. The assessment was timed to support the national recovery plan, *Securing Afghanistan's Future (SAF)* (TISA et al. 2004). But it also provided input into the CCA/UNDAF process and a second national recovery plan, the *Afghanistan National Development Strategy (ANDS)*.

Assessment impact

The assessment report was launched at a press conference in Kabul in January 2003 and the UNEP Governing Council in February 2003 (UNEP 2003a). It consisted of 176 pages of findings with sixty-three sectoral and area-based recommendations. The conclusion was that the environmental degradation of forest, soil, and water resources was so extensive and severe that it threatened to undermine the peace process by contributing to displacement, disease, poverty, and economic instability. The recovery and reconstruction process would need to go hand in hand with sustainable management and restoration of the natural resource base. Although the assessment received widespread press coverage at the international level, national media were still emerging and provided only limited coverage.⁵

The UNEP assessment was primarily designed to identify environmental needs and priorities that could inform a national recovery plan. The SAF presented a broad vision for the reconstruction of Afghanistan, totaling US\$27.8 billion for the period 2004–2011 (TISA et al. 2004). A nationally led process with support from international agencies and experts, the plan reflected the findings of the UNEP assessment. In particular, it called for US\$1.8 billion of investments in the natural resource sector over the seven-year reconstruction period, approximately 6 percent of the reconstruction budget. The government advocated an integrated approach to natural resource development and management, with efficient and sustainable use of natural resources by communities and the private sector to achieve economic growth and support peacebuilding, security, and equity. Priorities focused on improved management and rehabilitation of fertile land, water, forests, and rangelands; institutional strengthening and capacity building; and development of new supporting policies and laws. The SAF was the first

⁵ Asif Zaidi, UNEP program manager for Afghanistan, personal communication with the author, December 2009. Information, unless cited otherwise, was obtained from this personal communication and internal project documents.

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national reconstruction plan to explicitly link natural resource management and rehabilitation to peacebuilding and security, thus setting an important precedent. An additional US\$612 million of investments were included for water supply and sanitation in urban environments. Therefore US\$2.4 billion covered natural resource management and related environmental infrastructure, representing 8.6 percent of the entire reconstruction budget.

In addition to the SAF, the UNEP assessment also acted as a critical input to the 2004 CCA and the 2006–2008 UNDAF (UN 2004, 2005a). The CCA emphasized that the contested allocation of natural resources, decades of unsustainable use, and a lack of governance institutions were major risks to peace, security, economic development, and social well-being. Consequently the CCA recommended that the UN focus on three pillars of support to Afghanistan: human rights and peacebuilding; good governance and participatory development; and basic social services and environmental sustainability. It was the first time that environmental sustainability was identified as a critical priority in a post-conflict country.

Based on the analysis contained in the CCA, the 2006–2008 UNDAF recognized the fundamental importance of natural resources to Afghan livelihoods and the economy: roughly 80 percent of Afghans remained dependent on natural resources for income and sustenance. The UNDAF further mentioned that, in order to achieve sustainable development, enhanced natural resource management and environmental governance had to be national objectives. As a result, of the six UNDAF objectives, one addressed environment and natural resources; and a second, sustainable livelihoods. Priorities were developing a legal framework and effective institutions for natural resource management at the national and community levels, and resolving issues related to ownership of and access to land.

Finally the environmental assessment was also used to inform the ANDS (IRA 2007). The ANDS served as Afghanistan's PRSP. Within this strategy, natural resource management needs were divided along two of the eight pillars: infrastructure and natural resources, and agriculture and rural development. Environment was identified as one of six crosscutting issues underpinning the social and development framework of the entire country. For the five-year period of the ANDS, the budget was US\$50.1 billion of which 34.1 percent (US\$17.1 billion) was dedicated to the infrastructure and natural resources pillar and 8.8 percent (US\$4.4 billion) was allocated to agriculture and rural development.

To help respond to the natural resource management and environmental governance needs identified in the SAF, CCA/UNDAF, and ANDS, UNEP designed a multiphase capacity-building program for the Environment Department of the Ministry of Irrigation, Water Resources, and Environment. The proposed program focused on five pillars: institutional development, environmental law and policy, environmental impact assessment and pollution control, environmental education, and community-based natural resource management. Phase 1, covering 2003–2004, was budgeted at US\$1 million of which US\$936,528 was mobilized (94 percent). Based on this initial work, the Environment Department was eventually transformed into the self-standing National Environmental Protection Agency (NEPA) in 2005.

Therefore Phase 2, covering 2005–2007, focused on extending the capacity-building efforts to NEPA. It was budgeted at US\$7 million of which US\$6,856,288 was mobilized (98.6 percent). Phase 3, covering 2008–2010, was budgeted at US\$7 million of which the full amount was mobilized. The European Commission (EC), government of Finland, and the Global Environment Facility financed the phases. At the time of this writing, a fourth phase for 2011–2014 was being discussed.

The effect of the assessment was evaluated according to the three indicators in table 3. The weighted average score for all three indicators was 2.9, showing a high overall impact, divided between policy (3.0), financial (3.0), and media (2.5) impacts.

Conclusions and lessons learned

The analysis revealed that UNEP's post-conflict environmental assessment of Afghanistan had a high impact based on the three indicators evaluated. The findings of the UNEP assessment were reflected in the SAF, CCA/UNDAF, and ANDS. Within all four documents, the natural resource management and rehabilitation pillar was listed as a major priority for reconstruction and development. To help build national and local capacity for environmental management, UNEP requested US\$15 million of which US\$14,792,815 was raised (98 percent). Three factors account for the high impact.

First, UNEP's assessment was the first environmental study conducted in the country in over thirty years. In most cases, the environmental degradation was worse than expected, natural resource management capacity was nonexistent, and community management structures had collapsed. The report convinced the national authorities, the UN country team, and donors that long-term peace and security would depend on sustainable management and restoration of natural resources, including land, forests, soils, and water, given that 80 percent of the population was directly dependent on them.

Second, the findings of the UNEP environmental assessment had a direct effect on the priorities and programming of the EC. Within their country strategy papers for 2003–2006 and 2007–2013, the EC recognized the need to establish and support an environmental authority and invest in natural resource management policies and programs (EC 2003, 2007). UNEP was provided seed funding to support the fledgling environmental administration and help navigate it through the national reform process. With this critical support, the NEPA was able to build its internal capacity and effectively advocate elevation of environmental issues and natural resources on the political agenda.

Finally, UNEP's project office in Kabul played a major role in coordinating the environmental sector, strengthening the hand of NEPA, and advocating an environmental agenda. UNEP's approach was inclusive, focused on rebuilding local capacities, empowering communities, and demonstrating the value of sustainable resource management through pilot projects. National ownership and handover were core management principles from the outset.

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Table 3. Evaluation of assessment impact indicators for Afghanistan

<i>Indicator</i>	<i>Categories</i>	<i>Policy frameworks</i>		
		<i>SAF^a</i> <i>(2004–2011)</i>	<i>CCA/UNDAF^b</i> <i>(2006–2008)</i>	<i>ANDS^c</i> <i>(2008–2013)</i>
Policy impact	No impact (0): Environmental needs not mentioned Low (1): Environmental needs mentioned at a general level, but no detail provided Medium (2): Specific environmental needs and sectors mentioned High (3): Specific environmental needs and sectors mentioned with budget	3	3	3
Average policy impact:				3.0
<i>Indicator</i>	<i>Categories</i>	<i>Environmental needs</i>		
		<i>Follow-up phase 1</i> <i>(2003–2004)</i>	<i>Follow-up phase 2</i> <i>(2005–2007)</i>	<i>Follow-up phase 3</i> <i>(2008–2010)</i>
Financial impact	No impact (0): No financing raised for UNEP follow-up program Low (1): Less than 50 percent of UNEP follow-up program financed Medium (2): From 50 to 75 percent of UNEP follow-up program financed High (3): Over 75 percent of UNEP follow-up program financed	3	3	3
Average financial impact:				3.0
<i>Indicator</i>	<i>Categories</i>	<i>Media coverage</i>		
		<i>National</i>	<i>International</i>	
Media impact	No impact (0): No coverage achieved in any media format Low (1): Coverage in only one media format Medium (2): Coverage in two media formats High (3): Coverage in three or four media formats	2	3	
Average media impact:				2.5
Weighted total impact:				2.9

a. Securing Afghanistan's Future.

b. Common country assessment/UN Development Assistance Framework.

c. Afghanistan National Development Strategy.

Occupied Palestinian territories

From the outset of the second intifada in 2000, the capacity of the Palestinian Authority to manage and maintain basic infrastructure for water, energy, and waste virtually collapsed. International funding for water and waste management projects evaporated because of donor fatigue and concerns that new infrastructure could not be protected. As public concern over groundwater quality and waste management mounted, there was a need to determine how the environment had been affected and identify risks to human health.

In 2002, UNEP's Governing Council requested that the organization conduct a desk study as a step toward assessing the state of the environment in the oPt. The scope of the assessment was broad, covering water, waste, biodiversity, institutional capacity, and international cooperation. It involved collecting secondary sources of information and traveling on short field missions to hold stakeholder meetings. The assessment was accomplished in close cooperation with the Palestinian Environment Quality Authority and the Israeli Ministry of the Environment. At the time the study was commissioned, it was not designed to inform a specific policy process.

Assessment impact

The UNEP desk study was released at the UNEP Governing Council in Nairobi in February 2003 (UNEP 2003b). It was 188 pages in length and contained 136 recommendations on environmental needs. The conclusion was that institutional collapse from decades of protracted conflict had led to severe declines in environmental quality, especially of water and land. The study flagged the need to increase cooperation on environmental issues between Israelis and Palestinians and to invest in water and waste management infrastructure to protect groundwater resources from contamination. National and international Web, print, and radio media covered the desk study, so the media impact was deemed to be high.

Because the UNEP desk study was mandated by the UNEP Governing Council to provide an overview of the environmental situation, it was not designed to inform a specific policy process. The first opportunity to influence UN recovery policies was the CCA in 2004. Within the draft document, the findings of the desk study were strongly integrated into the needs analysis. Environmental health and water and waste management, which the Palestinian Authority identified as priorities, were addressed in a section of the CCA. But the CCA was never published because of various political events and continued conflict.⁶

⁶ Aniket Ghai, UNEP program manager for oPt, personal communication with the author, December 2009. Information, unless cited otherwise, was obtained from this personal communication and internal project documents.

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The next opportunity for the desk study to influence national planning was the 2005–2007 Medium Term Development Plan (MTDP), within which water and sanitation were identified as the core needs (PNA 2005). The planned budget for water infrastructure, including the installation of desalination facilities and waste management, amounted to US\$337 million out of over US\$5.6 billion (6 percent of the total). The need for environmental governance was also mentioned. Based on the findings of the desk study and other international reports, emphasis was placed on managing groundwater and land pollution resulting from the unmanaged disposal of wastewater and solid waste and intensive use of hazardous agricultural chemicals. The need for standards, regulations, and monitoring systems for conserving environmental resources, such as water, land, plants, and animals, was also identified. But there was no budget for developing them.

A second MTDP, covering 2006–2008, was also developed, using the desk study. The environment was acknowledged as important for the Palestinians' quality of life (PNA 2006). Of the six national priorities, the last focused on the protection and development of natural resources and recognized the necessity of improving waste and sewage management and neutralizing environmental and health hazards. The required total budget for the three years was estimated to be US\$7.2 billion, with US\$2.1 billion allocated to “infrastructure support” (including water, energy, and solid waste), and US\$40 million to “cultural heritage/natural resources.”

To help build the capacity of the Palestinian Authority to address environmental risks, UNEP initially designed a US\$3.5 million capacity-building program for 2004–2006. The proposed program focused on water and waste management, hot spot remediation, and regional cooperation. But given the ongoing conflict, donors were reluctant to invest in capacity building. As a result, UNEP could only mobilize US\$157,855, representing only 4.5 percent of program needs. Therefore, although the desk study had a high media and policy impact, it generated little financing.

The effect of the assessment was evaluated according to the three indicators in table 4. The weighted average score for all three indicators was 2.1, showing a medium overall impact, divided between policy (2.7), financial (1.0), and media (3.0) impacts.

Conclusions and lessons learned

Although the CCA and both MTDPs reflected many of the environment and natural resource management issues identified by the UNEP desk study, recurring bursts of violence and insecurity in the area prevented donors from investing in environmental capacity-building programs and remediation efforts. Most funding was channeled into emergency projects and meeting humanitarian needs. The priorities primarily explain the poor financial impact of the assessment. Despite the outcome, identifying the factors that account for the report's relatively high policy impact is important.

Table 4. Evaluation of assessment impact indicators for the occupied Palestinian territories

<i>Indicator</i>	<i>Categories</i>	<i>Policy frameworks</i>		
		<i>CCA^a</i> <i>(2004)</i>	<i>MTDP^b</i> <i>(2005–2007)</i>	<i>MTDP</i> <i>(2006–2008)</i>
Policy impact	No impact (0): Environmental needs not mentioned Low (1): Environmental needs mentioned at a general level, but no detail provided Medium (2): Specific environmental needs and sectors mentioned High (3): Specific environmental needs and sectors mentioned with budget		2	3
Average policy impact:				2.7
<i>Indicator</i>	<i>Categories</i>	<i>Environmental needs</i>		
		<i>Capacity-building program</i>		
Financial impact	No impact (0): No financing raised for UNEP follow-up program Low (1): Less than 50 percent of UNEP follow-up program financed Medium (2): From 50 to 75 percent of UNEP follow-up program financed High (3): Over 75 percent of UNEP follow-up program financed		1	
Average financial impact:				1.0
<i>Indicator</i>	<i>Categories</i>	<i>Media coverage</i>		
		<i>National</i>	<i>International</i>	
Media impact	No impact (0): No coverage achieved in any media format Low (1): Coverage in only one media format Medium (2): Coverage in two media formats High (3): Coverage in three or four media formats	3	3	
Average media impact:				3.0
Weight total impact:				2.1

a. Common country assessment.

b. Medium term development plan.

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First, the fact that the UNEP Governing Council mandated the desk study elevated its political profile and generated interest and momentum in addressing environmental needs. Over 120 countries and ninety ministers participating in the session, including observers from the Palestinian Authority and the Israeli government, unanimously supported the decision for UNEP to conduct a desk study. Klaus Töpfer, executive director of UNEP, held high-level meetings in Ramallah with Yasser Arafat, president of the Palestinian Authority and chairman of the Executive Committee of the Palestine Liberation Organization, and in Jerusalem with Ariel Sharon, prime minister of Israel. Both Middle Eastern leaders backed the assessment process. All parties accepted Pekka Haavisto, former Finnish minister of environment and development cooperation, as chairman of the desk-study team.

Second, the presentation of the desk study at the UNEP Governing Council was an excellent opportunity to attract national and international media coverage. Hundreds of journalists from around the world attended the session to write articles and conduct radio interviews.

Finally, while maintaining strict political neutrality, UNEP conducted the assessments in close coordination with the Palestinian Environment Quality Authority and the Israeli Ministry of the Environment to encourage dialogue and technical cooperation between environmental agencies and ensure transparency. The draft of the desk study was shared with both sides for technical review. The rigor, balance, and transparency of the assessment process led Palestinians and Israelis to support release of the report.

Iraq

Iraq has seen three major conflicts in the last thirty years. Following the U.S.-led military intervention in Iraq in 2003, an environmental-assistance standby group was established by UNEP, at the request of the government of Switzerland, to monitor potential environmental impacts and identify needs. As part of the process, UNEP undertook a desk study of environmental issues. It was released in April 2003, while military operations were ongoing. It included all available information on the environmental impacts of the Iran-Iraq War and the 1990–1991 Gulf War. The study was meant to provide background on environmental needs and isolate priorities that could contribute to an eventual field-level environmental assessment. It was also designed to inform the 2003 humanitarian appeal and the post-conflict needs assessment—the first PCNA ever conducted by the UN system and the World Bank (UN and World Bank 2003).

As part of the desk study, UNEP held three information-sharing sessions in Geneva during the conflict to identify and involve regional experts and organizations that had worked on environmental projects or had collected environmental data in Iraq. The aim of these meetings was to share datasets on environmental quality and identify experts who could participate in a future field assessment. Because of the ongoing conflict, insecurity, and limited lines of communication, authorities in Iraq could not participate.

Assessment impact

The desk study was released at a press conference in Geneva in April 2003 (UNEP 2003c). The ninety-six-page study included twenty recommendations. The most critical issue identified by the study was the need to minimize and mitigate immediate environmental threats to human health from disrupted or contaminated water supplies, oil leaks, and inadequate sanitation and waste systems. Media coverage at the national and international levels was restricted to the Web.⁷

The 2003 Humanitarian Appeal for Iraq directly referenced the UNEP desk study and included a specific section on the need to assess environmental damage, pollution, and risks to human health (UN 2003). A total of US\$850,000 was sought to meet the need.

Following the release of the humanitarian appeal, the desk study was used by UNEP to integrate environmental needs into the PCNA process (UN and World Bank 2003). But because Iraq was the first country to utilize the new PCNA methodology, there was no standard approach for addressing environmental issues. Environment was treated as a crosscutting issue, and resource management needs were addressed in the infrastructure sector as well as the agriculture, water resource, and food-security sectors. Of the overall budget of US\$35.8 billion, US\$6.8 billion was included to address water and sanitation infrastructure, and US\$3 billion was included for agriculture and water resource management needs. A number of environmental priorities were also mentioned in the document, including strengthening the Ministry of Environment and environmental governance at all levels, building capacity for environmental impact assessments, cleaning up environmental hot spots, and building public awareness of environmental issues. But addressing these needs was not directly budgeted. Although an estimate of US\$3.5 billion by the Coalition Provisional Authority was included for environmental governance and rehabilitation needs, it was not included in the final PCNA budget because there was no agreement on the costing methodology.

The PCNA was the international reconstruction framework for only one year. It was seen as lacking national ownership and not fully reflecting national priorities. It was replaced by the 2005–2007 National Development Strategy (NDS) (MPDC 2005). An approach like that of the PCNA was used to address environment and resource management. Within the budget of US\$34.3 billion, US\$2.6 billion was included to deal with water and sanitation infrastructure, and US\$1.8 billion was included for agriculture and water resource management. Other environmental governance needs were broadly reflected in the NDS but not budgeted. The strategy aimed “to accelerate reconstruction and make [the] citizens [of Iraq] measurably better off, whilst assuring that [the] priceless heritage of natural resources has proper stewardship” (MPDC 2005, viii). A ministry of

⁷ Koen Toonen, UNEP program manager for Iraq, personal communication with the author, January 2006. Information, unless cited otherwise, was obtained from this personal communication and internal project documents.

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environment was called for to ensure environmental quality. But no specific budget was provided.

Based on the NDS, the 2005–2007 UN Assistance Strategy for Iraq (UNAS) fully reflected many of the environmental issues identified in UNEP’s assessment (UN 2005b). Agriculture, water resources, and the environment comprised one of the eleven clusters in the strategy, and environmentally sustainable economic growth was mentioned as one of the seven goals. Although it followed most of the NDS recommendations, the UNAS document prioritized the recommendations in a manner that gave more importance to environmental issues. It also included the environmental impacts of the three wars fought since 1980. Precise indicators were incorporated to monitor environmental improvements. Of the budget of US\$1.7 billion, US\$178 million (10.5 percent) was designated for the agriculture, water resources, and environment cluster with a detailed budget breakdown.

To help build national capacity for addressing environmental needs, UNEP developed an initial US\$2 million capacity-building program for 2003–2004. Donors provided US\$1.7 million of the program budget, representing 85 percent of the program needs. As follow-up, a second program covering 2005–2006 was developed to address environmental hot spots caused by the looting and abandonment of industrial sites. One hundred percent of the US\$4.7 million budget was financed by the government of Japan.

The effect of the desk study was evaluated according to the three indicators in table 5. The weighted average score for all three indicators was 2.4, showing a medium overall impact, divided between policy (2.5), financial (3.0), and media (1.0) impacts.

Conclusions and lessons learned

UNEP’s *Desk Study on the Environment in Iraq* was a mixed success, with only a medium overall level of impact. Although the PCNA and NDS mentioned environment and natural resource management as important, they failed to include specific targets, indicators, and budgets. The desk study also failed to generate a high level of national and international media coverage. Nevertheless the desk study did have a high impact on mobilizing financial resources and influencing the content of the humanitarian appeal and the UNAS. The mixed outcome can be explained by three factors.

First, the lack of detailed budget information in the PCNA and NDS on environmental issues stems from the fact that the desk study did not provide detailed budget information. The desk study was structured as an analysis of environmental issues rather than in a manner that could inform reconstruction planning and priorities. Because it was the first PCNA, neither the sector coordinators nor UNEP could include a robust methodology for integrating environmental needs.

Second, the desk study had a low level of involvement of national experts because it was launched and conducted during conflict. Under hostile conditions,

Table 5. Evaluation of assessment impact indicators for Iraq

<i>Indicator Categories</i>		<i>Policy frameworks</i>			
		<i>Appeal (2003)</i>	<i>PCNA^a (2004–2007)</i>	<i>NDS^b (2005–2007)</i>	<i>UNAS^c (2005–2007)</i>
Policy impact	No impact (0): Environmental needs not mentioned				
	Low (1): Environmental needs mentioned at a general level, but no detail provided				
	Medium (2): Specific environmental needs and sectors mentioned		2	2	
	High (3): Specific environmental needs and sectors mentioned with budget	3			3
Average policy impact:					2.5
<i>Indicator Categories</i>		<i>Environmental needs</i>			
		<i>Follow-up program phase 1 (2003–2004)</i>		<i>Follow-up program phase 2 (2005–2006)</i>	
Financial impact	No impact (0): No financing raised for UNEP follow-up program				
	Low (1): Less than 50 percent of UNEP follow-up program financed				
	Medium (2): From 50 to 75 percent of UNEP follow-up program financed				
	High (3): Over 75 percent of UNEP follow-up program financed		3		3
Average financial impact:					3.0
<i>Indicator</i>	<i>Categories</i>	<i>Media coverage</i>			
		<i>National</i>	<i>International</i>		
Media impact	No impact (0): No coverage achieved in any media format				
	Low (1): Coverage in only one media format	1	1		
	Medium (2): Coverage in two media formats				
	High (3): Coverage in three or four media formats				
Average media impact:			1.0		
Weighted total impact:			2.4		

a. Post-conflict needs assessment.

b. National Development Strategy.

c. UN Assistance Strategy for Iraq.

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achieving effective communication and peer review by national environmental experts and the Ministry of Environment was nearly impossible. Stakeholder consultation was also out of the question. As a result, national ownership of the report's content was low.

Third, the UN agencies that maintained a full-time presence in Baghdad throughout the PCNA and NDS drafting processes had a greater effect on the final content than nonresident agencies such as UNEP. Sending inputs remotely and conducting limited field missions were not adequate substitutes for daily interaction and real-time technical support of national partners. The treatment of environmental issues within reconstruction plans improved once UNEP became a full member of the UN country team (which had been relocated to Amman, Jordan, following the bombing of the Canal Hotel on August 19, 2003). Environmental needs were more effectively integrated within the UNAS, including priorities, indicators, and detailed budgets. Although the hot spot–assessment program was successfully implemented, with two pilot cleanup projects, security conditions continued to decline.⁸ Eventually UNEP closed its field-assistance program for Iraq in 2007 and continued providing support on a remote basis only.

Liberia

Two civil wars in Liberia, from 1989–1996 and 1999–2003, resulted in the total collapse of the Liberian state, the displacement of nearly one-third of the population, and destabilization of the entire subregion (UNMIL 2008). Liberia's rich natural resources, particularly timber and diamonds, played a significant role in the conflicts of the region. As part of the reconstruction planning process, the UN was requested to execute a PCNA with the World Bank and the National Transitional Government of Liberia. The PCNA was conducted in November and December 2003 in preparation for a donor conference in February 2004. UNEP was requested to participate in the PCNA as the focal point for the environment and to produce a desk study—to be an input to the PCNA—similar to that conducted on Iraq.

To assess environmental needs, UNEP divided the issues into three areas: human and urban environment, natural resources, and environmental governance and institutions. To conduct the work, all previous environmental studies and information from international organizations, including the United Nations Development Programme (UNDP), the World Health Organization, the United Nations Children's Fund, the Food and Agriculture Organization of the United Nations, and the World Bank, as well as from nongovernmental organizations, such as the International Union for the Conservation of Nature (IUCN), Global Witness, and Fauna and Flora International were collected and analyzed. The national

⁸ For additional information on the remediation of environmental hot spots, see Muralee Thummarukudy, Oli Brown, and Hannah Moosa, "Remediation of Polluted Sites in the Balkans, Iraq, and Sierra Leone," in this book.

partners were the National Environmental Commission of Liberia (NECOLIB) and the Forestry Development Authority (FDA). Although the Environmental Protection Agency (EPA) of Liberia was legally established in 2002, it was only formally gazetted and created in April 2004, two months after the release of the desk study.

Assessment impact

The UNEP *Desk Study on the Environment in Liberia* was released in New York at an international donors' conference for Liberia in February 2004, in parallel with the PCNA. It was also released in Monrovia (UNEP 2004). At 116 pages, it included sixty recommendations. The conclusion was that the future peace and security of Liberia depended directly on the sustainable management of its natural resources, with transparent concession processes and equitable wealth sharing. Building management capacities for timber and mining and implementing a legal framework for natural resources and environmental governance were priorities. The findings of the desk study were covered by national print media and international Web reporters.⁹

The results of the desk study were used in the PCNA process. The PCNA—known as the Results Focused Transition Framework—was completed in February 2004 and included the priorities for the 2004–2005 transition. It set recovery and reconstruction costs over this period at US\$487.7 million (UN and World Bank 2004). In the PCNA document, environmental and natural resource management needs were addressed in two ways. First, environment was listed as one of the crosscutting priorities during the transition period. The document noted that environmental concerns should be properly addressed in the transition period to support the sustainable development of the country's natural resources. Priority needs were related to environmental contamination and human health, environmental danger zones, environmental governance, and conservation. The issues were largely based on the findings of the UNEP desk study. But specific programs to address environmental needs and a dedicated budget were not included. Capacity-building support for the EPA was mentioned as part of forestry reform, but no specific budget was included.

Second, the PCNA recognized that immediate control of Liberia's forests by the government was imperative, given that revenue from timber and other forest resources was misappropriated by combatants and government officials. It noted that "a first priority is that Liberia's forested areas are brought under the effective control of UNMIL [United Nations Mission in Liberia] and the National Transitional Government of Liberia" (UN and World Bank 2004, 25). One of the needs identified by the PCNA was improving stewardship of public finances

⁹ Grant Wroe-Street, UNEP program coordinator for Liberia, personal communication with the author, December 2003. Information, unless cited otherwise, was obtained from this personal communication.

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by relevant government agencies, including proper management of revenues from Liberia's natural resources, such as diamonds and forest products. Policies and practices to address forest management were prioritized, and a budget of US\$8.7 million was included (UN and World Bank 2004). One of the needs was to undertake the necessary institutional steps to lift the timber and diamond sanctions. Capacity-building support for the EPA was included, but no detailed budget was provided.

In January 2006, the newly elected president Ellen Johnson Sirleaf was sworn into office. She issued the 150 Day Action Plan, which described how the new government would kick-start the recovery process (ROL 2006). The action plan included a number of important provisions related to natural resources based, in part, on the UNEP desk study—most notably, canceling noncompliant forestry and ports concessions and initiating a process to review the legality of all other concessions and contracts entered into during the tenure of the National Transitional Government of Liberia (ROL 2006). The action plan also committed the country to the Kimberley Process Certification Scheme and to strengthening the capacity of the FDA and the EPA. Increasing access to water and sanitation was also listed as an activity.

As a follow-up to the action plan, a PRSP—Lift Liberia—was released in 2008. It covered 2008–2011 and had a budget of US\$1.6 billion (ROL 2008). The PRSP treated the environment as a crosscutting issue and included resource management needs in two sectors: economic revitalization, and infrastructure and basic services. A total of US\$38 million was included for food and agriculture needs, and US\$143 million was included for water and sanitation. The strategy acknowledged that the sustainable use of natural resources and strong environmental management were crucial for growth, job creation, and poverty reduction. It also committed the government to undertake community-based natural resource management reforms that focus on boosting economic activity through sustainable utilization of timber products, nontimber forest resources, and agroforestry products, while improving environmental management and conservation. Crosscutting issues, including the environment, were allotted US\$57.9 million, representing 3.6 percent of the PRSP budget.

In parallel with the PRSP, the UN conducted a CCA in 2006 and finalized a UNDAF in 2007, covering the period from 2008 to 2012 and US\$230 million of needs (UN 2006, 2007a). The UNEP desk study was used as an input to both documents. Within the CCA, the environment was treated as one of nine challenges. The CCA acknowledged the importance of natural resources, such as timber, rubber, gold, and diamonds, to the national economy and people's livelihoods. Among other issues, the CCA mentioned a lack of water and waste management, deforestation, loss of biodiversity, and the lack of capacity of environmental agencies. The UNDAF recommended that national capacity for sound natural resource management be developed, transparency in the concession-agreements procedures be enhanced, and environmental impacts of public construction be systematically assessed. Budgetary needs were aligned with those of the PRSP.

To help build national capacity for addressing environmental needs, UNEP developed an initial US\$2 million capacity-building program for 2004–2006. Donors provided US\$750,000 of the program budget, representing 37.5 percent of the program needs. Because of the shortfall, UNEP's program in Liberia closed at the end of 2007. UNEP was not in a position to assist in the implementation of the UNDAF.

The effect of the desk study was evaluated according to the three indicators in table 6. The weighted average score for all three indicators was 1.6, showing a low overall impact, divided between policy (2.5), financial (1.0), and media (1.0) impacts.

Conclusions and lessons learned

Overall the UNEP desk study had a low impact in Liberia. Although the PCNA mentioned environment and natural resource management as important, it failed to include a detailed budget. The weakness was rectified in the PRSP and CCA/UNDAF, but UNEP was unable to mobilize sufficient financial resources to help rebuild national capacity for resource management and environmental governance. Only 37.5 percent of the program needs were financed, causing UNEP to eventually withdraw from Liberia because of a lack of funds. The low impact of the desk study can be explained by three factors.

First, during the desk study, the EPA did not have the capacity or formal institutional status to be UNEP's national partner. Instead the NECOLIB and the FDA performed this role. When the EPA was formally established two months after the release of the desk study, it did not feel full ownership of the content or the process. The handover process from NECOLIB to the EPA was not smooth, and internal infighting undermined political momentum.

Second, after its establishment, the EPA was starved for funding, was marginalized, and became one of the weakest institutions in the government. It subsequently gained a reputation for a lack of transparency in decision making and financial management, causing donors to hesitate in their support. Instead many preferred to support capacity building of the FDA and the Ministry of Land, Mines, and Energy so that timber and diamond sanctions could be lifted. The two entities attracted the bulk of capacity-building funding, leaving the EPA with few means to engage in and influence policy processes.

Finally, UNEP's desk study for Liberia did not include detailed costing of environmental needs and interventions. As a result, it was difficult to integrate environmental needs and provide detailed budgets in the PCNA. The same weakness was observed in the case of Iraq.

Lebanon

The July 2006 conflict between Israel and Lebanon lasted thirty-four days and resulted in significant civilian casualties and damage to public buildings and

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Table 6. Evaluation of assessment impact indicators for Liberia

<i>Indicator Categories</i>		<i>Policy frameworks</i>			
		<i>PCNA^a (2004–2005)</i>	<i>150 Day Lift plan (2006)</i>	<i>Lift Liberia (2008–2012)</i>	<i>CCA/ UNDAF^b (2008–2012)</i>
Policy impact	No impact (0): Environmental needs not mentioned				
	Low (1): Environmental needs mentioned at a general level, but no detail provided				
	Medium (2): Specific environmental needs and sectors mentioned	2	2		
	High (3): Specific environmental needs and sectors mentioned with budget			3	3
Average policy impact:					2.5
<i>Indicator</i>	<i>Categories</i>	<i>Environmental needs</i>			
		<i>Capacity-building program (2004–2006)</i>			
Financial impact	No impact (0): No financing raised for UNEP follow-up program				
	Low (1): Less than 50 percent of UNEP follow-up program financed				1
	Medium (2): From 50 to 75 percent of UNEP follow-up program financed				
	High (3): Over 75 percent of UNEP follow-up program financed				
Average financial impact:					1.0
<i>Indicator</i>	<i>Categories</i>	<i>Media coverage</i>			
		<i>National</i>	<i>International</i>		
Media impact	No impact (0): No coverage is achieved in any media format				
	Low (1): Coverage in only one media format	1		1	
	Medium (2): Coverage in two media formats				
	High (3): Coverage in three or four media formats				
Average media impact:					1.0
Weighted total impact:					1.6

a. Post-conflict needs assessment.

b. Common country assessment/UN Development Assistance Framework.

infrastructure in Lebanon. When the Jiyeh power plant was hit, 10,000–15,000 tons of burning oil was released into the sea.

To assess the environmental impact of the conflict in Lebanon, the Lebanese minister of environment requested that UNEP conduct a quantitative environmental assessment. The assessment included five issues: industrial and urban contamination, solid and hazardous waste treatment, polluted water resources, the oil spill, and environmental impacts from the use of weapons (including depleted uranium). Close to 200 samples of soil, sediment, seawater, surface water, and groundwater were taken to evaluate possible environmental contamination. The review was matched with before-and-after satellite images obtained from the UN community, the U.S. Department of Homeland Security, the EU Satellite Centre, and the EU Joint Research Centre. The assessment included various partners, notably the Lebanese Ministry of Environment, UNDP-Lebanon, IUCN, and local counterparts. From the outset, it was designed to inform the national early recovery plan because a PCNA was not requested by the government of Lebanon.

From an environmental assessment perspective, the case of Lebanon is unique because UNDP and the World Bank conducted parallel environmental assessments, each with a different analytical approach. The UNDP assessment—*Lebanon Rapid Environmental Assessment for Greening Recovery, Reconstruction and Reform*—focused more on greening the recovery process than on quantitative data gathering and analysis (UNDP 2007). In contrast, the World Bank report—*Economic Assessment of the Environmental Degradation Due to the July 2006 Hostilities*—evaluated the cost of the environmental degradation caused by the conflict at US\$740 million, representing 3.6 percent of Lebanon's gross domestic product (World Bank 2007). It was the first and only time that three separate but complementary post-conflict environmental assessments were issued. Given the three reports, it is difficult to isolate the UNEP report to evaluate its full impact.

Assessment impact

The UNEP post-conflict environmental assessment for Lebanon was released in January 2007 in Berlin (UNEP 2007a). It included 181 pages and twenty-seven institutional and sectoral recommendations. The conclusions of the report were that rubble and waste were environmental risks and that the oil-spill response had been relatively effective in limiting damage. Furthermore no samples contained evidence that depleted uranium had been used during the hostilities. The report received a high level of media coverage at the national level but only medium coverage at the international level.¹⁰

The governmental recovery and reconstruction plan was issued in September 2006 at the Stockholm Conference for Lebanon's Early Recovery (LER). Entitled *Setting the Stage for Long-Term Reconstruction: The National Early Recovery*

¹⁰ Muralee Thummarukudy, UNEP program manager for Lebanon, personal communication with the author, December 2007.

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Process, the plan listed eleven types of recovery needs for 2006–2007 (GOL 2006). Environment was one of nine sectors identified within the LER. Issues included the Jiyeh oil spill, rubble from the extensive destruction of buildings, and excess solid waste from reduced ordinary collection and treatment. Two projects were included: an oil-spill cleanup project with an estimated cost of US\$52 million and a rubble-cleanup project estimated at US\$8 million. Although these needs were reflected in the UNEP assessment, it is difficult to evaluate the precise policy impact of the UNEP report, given the other reports by UNDP and the World Bank. In this case, it is likely that all three had a substantial policy impact on the LER plan because all three were used as inputs.

To assist the Lebanese Ministry of Environment in building its pollution-monitoring capacity, UNEP developed a US\$4 million follow-up program on waste management, covering the period 2007–2008. In total, US\$1.6 million (40 percent) of the program needs were met by the government of Greece for air-pollution monitoring.

The effect of the desk study was evaluated according to the three indicators in table 7. The weighted average score for all three indicators was 2.1, showing a medium overall impact, divided between policy (3.0), financial (1.0), and media (2.5) impacts.

Conclusions and lessons learned

Overall the UNEP environmental assessment had a medium impact in Lebanon based on the three indicators evaluated. The LER prioritized environmental needs and provided for detailed program budgets. But UNEP was able to mobilize only 40 percent of the funding required to address capacity-building needs for waste management. It is difficult to determine the overall impact of the UNEP report because it cannot be isolated from those of the other two reports. The final score may overrepresent the actual impact of UNEP's assessment.

One notable lesson learned from the three assessments is that the content of the reports differed significantly in their findings on the oil spill. The UNEP report, based on quantitative sampling and technical analysis, concluded that the oil spill did not lead to significant long-term environmental damage. The UNDP and World Bank reports, based on qualitative approaches and expert opinions only, concluded that the environmental impacts were significant. In the end, the government endorsed the UNDP and World Bank reports because they provided stronger support for compensation claims for war-time damage. UNEP's more objective and science-based findings were sidelined. Ideally there should have been better coordination on the three reports and common conclusions.

Sudan

The recent history of Sudan has been marked by turmoil, with several periods of violent conflict and a series of natural disasters leading to massive population

Table 7. Evaluation of assessment impact indicators for Lebanon

<i>Indicator</i>	<i>Categories</i>	<i>Policy framework</i>	
		<i>Lebanon early recovery plan (2006–2007)</i>	
Policy impact	No impact (0): Environmental needs not mentioned Low (1): Environmental needs mentioned at a general level, but no detail provided Medium (2): Specific environmental needs and sectors mentioned High (3): Specific environmental needs and sectors mentioned with budget	3	
Average policy impact:			3.0
<i>Indicator</i>	<i>Categories</i>	<i>Environmental needs</i>	
		<i>Waste management–capacity building program</i>	
Financial impact	No impact (0): No financing raised for UNEP follow-up program Low (1): Less than 50 percent of UNEP follow-up program financed Medium (2): From 50 to 75 percent of UNEP follow-up program financed High (3): Over 75 percent of UNEP follow-up program financed	1	
Average financial impact:			1.0
<i>Indicator</i>	<i>Categories</i>	<i>Media coverage</i>	
		<i>National</i>	<i>International</i>
Media impact	No impact (0): No coverage is achieved in any media format Low (1): Coverage in only one media format Medium (2): Coverage in two media formats High (3): Coverage in three or four media formats	3	2
Average media impact:			2.5
Weighted total impact:			2.1

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displacement. In addition to the long-standing North-South conflict, low-level conflict ongoing in Darfur for a generation developed into a new regional civil war in 2003. In January 2005, the North-South conflict finally came to an end with the signing of the Comprehensive Peace Agreement (CPA) between the Sudanese government and the Sudan People's Liberation Movement.

In anticipation of the CPA, a PCNA was conducted in 2004 by the UN and World Bank with the government of Sudan and the Sudan People's Liberation Movement for the period 2005–2007. UNEP was requested to be the lead for environmental needs within the PCNA process. But given Sudan's size and the lack of data on the country, UNEP adopted a new approach by splitting the assessment into two major stages. UNEP began with a rapid desk study that provided an initial input to the PCNA. It was followed by an eighteen-month comprehensive assessment in 2005–2006. The comprehensive assessment was designed to inform the National Plan for Environmental Action, the National Strategic Plan (NSP) covering 2007–2011, and the annual UN work plan. To implement the findings and recommendations of the assessment, UNEP established a project office in Khartoum and became a formal member of the UN country team.

Twelve themes were included in the comprehensive assessment: natural disasters and desertification, conflict and peacebuilding, population displacement, urban environment and environmental health, industry, agriculture, forest resources, freshwater resources, wildlife and protected area management, marine environments and resources, environmental governance and awareness, and international aid. Consultation with local and international stakeholders formed a large and continuous part of UNEP's assessment work, with over 1,000 interviewees. Parties consulted included representatives of federal, state, and local governments; non-governmental organizations; academic and research institutions; international agencies; community leaders; farmers; pastoralists; foresters; and business people. The assessment team was composed of a core UNEP team and a large number of national and international partners who worked collaboratively. UNEP also worked closely with the Government of National Unity (GNU) and the GOSS.

Assessment impact

UNEP's inputs were well reflected in the final document of the PCNA (UN and World Bank 2005a). Environment was addressed not only as a crosscutting sector but also as one of the guiding objectives for eradicating poverty while managing natural resources in an environmentally friendly and sound way. Competition over access to natural resources, including land and water, was also listed as a driving factor in the civil war and a potential threat to peacebuilding. Desertification, land degradation, loss of biological diversity, deforestation, and the pollution of water resources were mentioned as problems. To address environmental needs in a comprehensive way, the PCNA called for a review of the legal framework combined with institutional capacity-building programs and coordination mechanisms at the national and local levels to improve the management and monitoring

of natural resources. But only a few specific targets were included in the monitoring framework, and only US\$6.5 million was earmarked for specific environmental capacity-building projects (UN and World Bank 2005b).

Following the PCNA, UNEP implemented a comprehensive environmental assessment during 2006–2007. The final report was released in June 2007 at press conferences in Khartoum; Juba; Nairobi; Washington, D.C.; and Geneva (UNEP 2007b). At 354 pages, including eighty-five costed recommendations with designated actors, it was UNEP's largest post-conflict report to date. It concluded that investments in the management and rehabilitation of natural resources were central to conflict resolution and peacebuilding in Sudan. The cost of this report's recommendations was estimated at approximately US\$120 million over three to five years. The report was widely covered in all media formats at the national and international levels. UN Secretary-General Ban Ki-moon and Jeffrey Sachs from Columbia University publicly mentioned the report, creating additional press interest.¹¹

Due to the detailed nature of the assessment, it was used as a technical input to four major policy processes, including the NSP; the UN work plans of 2007, 2008, and 2009; and the Sudan Country Analysis (SCA) and the UNDAF.

A five-year NSP was prepared for 2007–2011 (NCSP 2006). It was designed to cover North and South Sudan. It built upon the conclusions of the PCNA, setting out new priorities and aiming to improve coordination in the implementation of the CPA in development efforts. UNEP's ongoing comprehensive assessment was used as an input to the NSP. The document lists the abundance of natural resources in Sudan as a strength and development opportunity, and includes deforestation and desertification in parts of the country as threats. Economic priorities were presented, and the need for an optimal use of natural resources and an increase in the contribution of renewable resources to the gross national product were mentioned. Natural resources were linked to security as assets requiring protection from external threats. Environment was also mentioned as one of nine crosscutting issues.

To meet the humanitarian and development needs of Sudan and the goals of the NSP, the UN country team and partner nongovernmental organizations, with government counterparts, developed annual work plans. The comprehensive assessment had a high impact on the work plans that were issued in 2007, 2008, and 2009. Within the 2007 work plan, environmental and natural resource management needs were addressed in two ways (UN 2007b). First, environmental sustainability was listed as one of four crosscutting issues to be addressed by all sectors when relevant. The work plan directly referenced the UNEP post-conflict environmental assessment and included projects for capacity building, dispute resolution, and awareness raising. The plan also addressed natural resource management in the food-security and livelihood-recovery sectors. It noted that tensions

¹¹ Andrew Morton, UNEP program manager for Sudan, personal communication with the author, December 2007.

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resulting from competition over natural resources and livestock ownership continued and that conflicts were erupting over access to grazing land and water, especially during the dry season. On the list of development projects, seven natural resource management projects (totaling US\$5.4 million) and six humanitarian projects (totaling US\$4.5 million) were included. But it was impossible to track all of the projects that either affected or relied on natural resources.

The weakness in tracking environmental-related projects was addressed in the 2008 work plan. For the first time, all projects that either addressed environmental needs directly or mitigated environmental impacts were specifically categorized and mapped as part of a self-standing summary—an important innovation by the UN country team in Sudan that stands as a best practice. A total of 396 projects were listed for US\$787 million, nearly 35 percent of the total work plan budget (UN 2008). Within the 2009 work plan, a similar approach was taken. The projects totaled US\$552 million (nearly 26 percent of the work plan budget) (UN 2009a). Additionally, the 2009 work plan was the first work plan that included a specific budget line of US\$1 million from the Common Humanitarian Fund to promote environmental approaches to humanitarian emergencies. Known as the Green Pot, the fund was to be managed by UNEP to support innovative projects that would kick-start new environmental approaches to humanitarian response. Across the UN system, the Green Pot remains a unique example of a best practice.

The SCA was completed by the UN country team in November 2007 (UN 2007c). It was designed to inform a subsequent UNDAF. The environment and natural resource management sections of SCA were based heavily on the UNEP post-conflict assessment report. Priorities were organized along four pillars: peacebuilding; governance, rule of law, and capacity building; livelihoods and productive sectors; and basic services. Although there were no crosscutting issues identified, environment and natural resource needs were explicitly addressed within all four pillars. The SCA recognized that environmental degradation and mismanagement of natural resources were root causes of insecurity and threats to peace. The analysis also mentioned possible livelihood risks from climate change, environmental degradation, and conflict-induced displacement. It emphasized the need to develop appropriate land use and land tenure practices and to ensure that the potential environmental side effects of the commercial mining and oil industries were contained. The document also highlighted the necessity for sustainable management of water resources, including testing and monitoring groundwater. The SCA is the most comprehensive treatment of environment and natural resources ever achieved in a UN document and stands as a true best practice.

The 2009–2012 UNDAF, also a best practice, integrated environment and natural resource needs (UN 2009b). The UNDAF used the same four-pillar organizational framework as the SCA and incorporated environmental needs within each pillar. Detailed environmental outcomes, budgets, responsible organizations, and partners were included for each pillar. The combined natural resource management

projects amounted to US\$419 million, about 18 percent of the UNDAF budget of US\$2.3 billion. It was the largest allocation made to resource management programs in any UNDAF.

To help the GNU and GOSS build natural resource management and environmental governance capacities, UNEP developed a comprehensive, two-phased capacity-building program covering 2007–2012 for US\$30 million, which was financed at a rate of 97 percent. The United Kingdom and the United States provided the majority of the funding (Foster et al. 2010; USAID 2008). The program addresses the environmental drivers of extreme poverty and conflict, recognizing that natural resources provide for the most basic needs of the population. It is coordinated from a central office in Khartoum, with project offices in Darfur and South Sudan. Ongoing activities include integrated water resource management, forestry and energy, waste management, as well as integrating environmental considerations into ongoing humanitarian aid, peacekeeping, and development operations in the country.

The effect of the desk study was evaluated according to the three indicators in table 8. The weighted average score for all three indicators was 3.0, showing a high overall impact, divided between policy (3.0), financial (3.0), and media (3.0) impacts.

Conclusions and lessons learned

UNEP's environmental assessment work has had a higher overall impact on Sudan than on any of the other areas addressed in the chapter. In every policy framework, environment and natural resources were mentioned as priorities, program targets were included, and detailed budgets were provided. In addition, the UN work plans for 2008 and 2009 specifically categorized all projects that either addressed environmental needs or attempted to mitigate environmental impacts. They allowed for transparency in and accountability for tracking environmental investments, stakeholders, and outcomes. The 2009 work plan also included a Green Pot to help kick-start innovations in using environmentally sound approaches to humanitarian response. Nearly US\$30 million was mobilized to help build national environmental management capacity. The high level of impact can be explained by four factors.

First, the environmental assessment undertaken by UNEP was conducted in close cooperation with the GNU and GOSS environmental authorities and was well connected to national planning processes. The assessment also underwent six months of consultations with national stakeholders and UN agencies, resulting in a high level of national and international buy-in. These partnerships were crucial to the project's success because they supported the fieldwork, ensured that the study matched local issues and needs, and contributed to national endorsement of the assessment's outcomes. UNEP also worked closely with the GNU and the GOSS on efforts to align UNEP activities with the National Plan for Environmental Management.

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Table 8. Evaluation of assessment impact indicators for Sudan

<i>Indicator</i>	<i>Categories</i>	<i>Policy frameworks</i>			
		<i>PCNA^a</i> <i>(2005–2007)</i>	<i>NSP^b</i> <i>(2007–2011)</i>	<i>UN Work</i> <i>plans</i> <i>(2007–2009)</i>	<i>SCA/</i> <i>UNDAF^c</i> <i>(2009–2012)</i>
Policy impact	No impact (0): Environmental needs not mentioned				
	Low (1): Environmental needs mentioned at a general level, but no detail provided				
	Medium (2): Specific environmental needs and sectors mentioned				
	High (3): Specific environmental needs and sectors mentioned with budget	3	3	3	3
Average policy impact:					3.0
<i>Indicator</i>	<i>Categories</i>	<i>Environmental needs</i>			
		<i>Capacity-building program phase 1</i> <i>(2007–2008)</i>	<i>Capacity-building program phase 2</i> <i>(2009–2012)</i>		
Financial impact	No impact (0): No financing raised for UNEP follow-up program				
	Low (1): Less than 50 percent of UNEP follow-up program financed				
	Medium (2): From 50 to 75 percent of UNEP follow-up program financed				
	High (3): Over 75 percent of UNEP follow-up program financed	3		3	
Average financial impact:					3.0
<i>Indicator</i>	<i>Categories</i>	<i>Media coverage</i>			
		<i>National</i>	<i>International</i>		
Media impact	No impact (0): No coverage achieved in any media format				
	Low (1): Coverage in only one media format				
	Medium (2): Coverage in two media formats				
	High (3): Coverage in three or four media formats	3		3	
Average media impact:					3.0
Weighted total impact:					3.0

a. Post-conflict needs assessment.

b. National Strategic Plan.

c. Sudan Country Analysis/UN Development Assistance Framework.

Second, the Sudan environmental assessment was the first UNEP report in which recommendations were prioritized and costed over three to five years. The advocacy process for follow-up projects was greatly facilitated by providing concrete project proposals with budgets.

Third, during the implementation of the assessment, the UNEP program manager actively engaged in the UN work-planning process to provide advice on environmental and natural resource issues. Following the release of the assessment, UNEP established a program in Sudan and became the lead on the environment on the UN country team. In this capacity, UNEP was able to fully participate in the annual work-planning process, providing detailed inputs on projects and associated costs. UNEP was also able to ensure that the SCA and UNDAF fully incorporated the results of the environmental assessment.

Finally, a number of donors, including the United Kingdom and the United States, were keen to support environment and natural resource management as a priority. They provided funding to ensure the UN country team could address the issue in a real way and could integrate it throughout the work-planning process.

SUCCESS FACTORS AND LESSONS LEARNED

Across the seven case studies, the post-conflict environmental assessment reports had impacts ranging from low to high (see table 9). Sudan had the highest score (3.0) followed by Afghanistan (2.9) and FRY (2.8). Medium scores were earned by the assessments in Iraq (2.4), oPt (2.1), and Lebanon (2.1). A low score was achieved in Liberia (1.6). On average, desk studies and quantitative assessments have led to a medium impact, strategic and comprehensive assessments have had a high average impact (see table 10). But given the low sample size for strategic and comprehensive assessments, it is difficult to determine if this pattern will continue.

Table 9. UNEP's post-conflict assessments: Summary of assessment impacts by case study

<i>Case</i>	<i>Policy impact</i>	<i>Financial impact</i>	<i>Media impact</i>	<i>Total impact</i>	<i>Impact score</i>	<i>Total value of follow-up (US\$)</i>
FRY ^a (1999)	3.0	2.5	3.0	2.8	High	12,500,000
Afghanistan (2003)	3.0	3.0	2.5	2.9	High	14,792,816
oPt ^b (2003)	2.7	1.0	3.0	2.1	Medium	157,855
Iraq (2003)	2.5	3.0	1.0	2.4	Medium	6,392,967
Liberia (2004)	2.5	1.0	1.0	1.6	Low	750,000
Lebanon (2007)	3.0	1.0	2.5	2.1	Medium	1,600,000
Sudan (2007)	3.0	3.0	3.0	3.0	High	29,109,644

Note: To determine the total impact score, a weighted calculation was applied to the policy (40 percent), financial (40 percent), and media (20 percent) scores.

a. Federal Republic of Yugoslavia.

b. Occupied Palestinian territories.

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Table 10. Summary of assessment impacts by method used for UNEP post-conflict assessments, 1999–2007

<i>Assessment method</i>	<i>Number of cases</i>	<i>Policy impact</i>	<i>Financial impact</i>	<i>Media impact</i>	<i>Total impact</i>	<i>Impact score</i>
Desk studies	3*	2.56	1.67	1.67	2.03	Medium
Quantitative assessments	2	3.00	1.75	2.75	2.45	Medium
Strategic assessments	1	3.00	3.00	2.50	2.9	High
Comprehensive assessments	1	3.00	3.00	3.00	3.00	High

Notes: To determine the total impact score, a weighted calculation was applied to the policy (40 percent), financial (40 percent), and media (20 percent) scores.

* The Sudan desk study was removed from the total because its impact cannot be isolated from the overall comprehensive assessment that was also conducted.

Success factors

Based on the lessons learned from the assessments, five factors appear to have influenced the overall impact. They include the amount of funding and time available to conduct the assessment, the level of national ownership and involvement, the clear identification of priority needs with a detailed budget, timing an assessment process to coincide with and inform a policy process, and securing early and sustained financial and political support from donors.

Amount of funding and time available to conduct the assessment

In general, the greater the assessment's budget and the time available, the higher its impact was. Although that conclusion may be intuitive, one of the aims of the analysis was to determine if less costly assessments, such as desk studies, had the same impact as more costly and time-consuming comprehensive and strategic assessments. Based on the cases reviewed, there appears to be an increasing impact moving from desk studies to quantitative assessments to strategic assessments to comprehensive assessments. The increase makes sense, given the expanding scope, budget, time, and level of consultation involved in each of the four types.

When time or financial resources are limited, desk studies have provided important inputs to policy processes such as PCNAs. Such inputs have ensured that environmental needs were at least flagged within PCNAs, providing an important justification for follow-up work. Future desk studies should be more tailored to the needs and overall framework of the PCNA, and interventions should be costed. It is encouraging to note that the PCNA process was reviewed and revised in 2007 to take into account more systematically the issue of integrating environmental and natural resource needs (UN and World Bank 2007). A new toolkit for environmental and natural resource needs was included in the revised PCNA framework (UN and World Bank 2009).

To date, the highest overall impact of environmental assessments has been achieved in Sudan, where an initial desk study was conducted for the PCNA,

followed by a comprehensive environment assessment. The two-step assessment process may constitute a new best practice.

Overall level of national ownership

Regardless of the precise nature of the assessment, one of the features of a UNEP post-conflict environmental assessment is the institutional neutrality that UNEP maintains throughout the process, combined with independent scientific expertise. On one hand, this ensures that the assessment focuses on the technical state of the environment, rather than political dynamics. On the other hand, the neutrality of the report and the associated process can undermine national ownership and support. Within each assessment, balance must be considered and addressed.

UNEP's experiences in the seven cases highlight the importance of having national experts on the international environmental assessment team. Doing so not only helps to build capacity but also strengthens national ownership of the final product. The success of assessments and their consequent policy impact have also depended in large part on the degree to which UNEP involved stakeholders and conducted awareness-raising efforts to ensure national and local ownership. It may be no coincidence that the Sudan assessment, which invested nearly six months in conducting stakeholder meetings and building national support for the final product, also had the highest policy impact of any report to date.

Clear identification of priority needs with a detailed budget

The review has revealed that the policy and financial impact of an assessment report is significantly influenced by the presence or absence of detailed priorities and costing to address environmental needs. In situations in which environmental needs were not prioritized and budgeted, such as in the PCNA processes for Iraq and Liberia, the resulting policies failed to provide cost estimates for addressing environmental issues in a substantive way. Conversely, in the cases of FRY and Sudan, where all environmental needs were costed in detail, the corresponding policy frameworks and supporting financial budgets included environmental needs.

Timing an assessment process to coincide with and inform a policy process

The cases reviewed suggest that tailoring the assessment time line and output to meet the specific needs of a policy process maximizes the policy impact of an assessment. At the outset of any assessment, the potential policy process should be identified with the engagement windows, focal points, and process requirements. Quantitative risk assessments that target humanitarian appeals or early recovery programs must be issued during the needs-analysis process. Models of such best

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practices stem from FRY and Lebanon. Similarly more detailed assessments that aim to influence reconstruction and peacebuilding plans should clearly demonstrate how natural resources can support national recovery and peacebuilding priorities. Sudan provides a model of good practice.

Securing early and sustained financial and political support

In most cases, the financial and political support of one or two donors for addressing environment and natural resource issues at an early stage played a role in keeping environment and natural resource management issues on the recovery agenda. In the case of Afghanistan, the EC and the government of Finland provided an initial lifeline to the fledgling NEPA for early capacity-building and institutional-development efforts. Although other ministries tried to downplay the role of sustainable resource management in recovery, NEPA held its ground. After demonstrating the inherent connection between many peacebuilding goals and natural resources, environment eventually became one of six crosscutting national priorities. A similar story can be told about Sudan, where the UK Department for International Development took a strong interest in natural resource management issues and provided early support for integrating them throughout the UN work plan. Japan played a similar role in supporting hot spot assessment and cleanup in Iraq. But it is also important to note that the amount of donor support is also a critical success factor. A program worth at least US\$1.5 million per year is needed for UNEP to have any significant impact. Programs that started with less, such as those in Liberia and oPt, failed to have sufficient policy gravity and human resources to have a significant impact.

Lessons learned

Based on analysis of the seven cases, five critical lessons learned can be identified. First, environmental needs that clearly support peacebuilding are often elevated as priorities. Second, field presence is often vital to influence policy and coordinate effectively. Third, national capacity development should be integrated as a crosscutting theme of the assessment process. Fourth, there are multiple approaches to integrating environmental and natural resource management needs within policy frameworks. Finally, the type and scope of the environmental assessment influence the longevity of its policy impact and the extent of media coverage. Each of these lessons is discussed in more detail below.

In addition to the lessons learned, the cases reviewed demonstrate that every post-conflict situation is different and requires an approach custom-made to the geographical and political context and the targeted policy process. Trade-offs must frequently be made between rapid and more detailed assessments, qualitative versus quantitative methods, and the degree of national ownership. In many cases, the scope and duration of an assessment are determined by a number of

constraints and boundary conditions. In general, the scope of each assessment should be informed by a conflict's characteristics, including its root causes, duration, intensity, weaponry, and geographic distribution. Matching the assessment content and method to the political needs and processes is always of paramount importance.

Environmental needs that clearly support recovery and peacebuilding are often elevated as priorities

The chapter has demonstrated that environmental and natural resource management needs that clearly support peacebuilding efforts are often elevated as priority issues. The mismanagement of scarce natural resources, such as water and land, contributed to the conflicts in Sudan and Afghanistan. Similarly a lack of water and sanitation infrastructure in the oPt and Iraq worsened instability. Investments in natural resource management and environmental infrastructure were seen as important peace dividends and identified as priorities within the relevant recovery frameworks. Rubble and waste clearing in Lebanon and the cleanup of environmental hot spots in Serbia were also identified as priorities for protecting the health of communities, erasing the visible legacy of war, helping psychological recovery, and protecting critical natural resources such as water.¹² The importance of equitable sharing of high-value natural resources, such as oil in Iraq and Sudan, was also seen as key to peacebuilding and reconciliation.

Field presence is vital to influence policy and coordinate effectively

Simply issuing an assessment report cannot influence policy. The report must be coupled with the development of an action plan and an active field presence in the post-conflict country. Time and significant awareness-raising efforts may be required before environmental issues and other needs are seriously considered within the post-conflict relief, recovery, or development agenda. It is also imperative that the assessment results be structured to precisely fit the needs of the policy framework or programming process. A field presence also helps to ensure that environmental strategies and projects are well coordinated between ministries and other actors. Doing so helps avoid duplication and ensures more coherent programming.

In cases in which different international actors conduct multiple environmental assessments, coordinating the release of the technical findings and ensuring a common communications strategy are important. Multiple assessments with competing or contrasting messages only create confusion and political division that tend to undermine financing of environmental needs. When politically and technically feasible, multiple assessments should be combined into a single report.

¹² While the assessment was conducted for the Federal Republic of Yugoslavia, the majority of cleanup operations occurred only in Serbia.

Developing national capacity to address environmental needs should be integrated as a crosscutting theme of the assessment process

At the outset of any assessment, it is critical to take into account existing governance and institutional structures and frameworks already in place in the country. In most post-conflict countries, national capacity for addressing environmental needs remains low. Consequently environmental authorities often have no access to policy and programming processes, and environmental needs are marginalized. Building the capacity of national authorities should be integrated into the design and implementation of the assessment in order to focus not only on technical issues but also on advocating inclusion of the issues in the development of national policy.

There are multiple approaches to integrating environmental and natural resource needs within policy frameworks

There is significant variation in the treatment of environmental and natural resource needs across policy frameworks. Three approaches have emerged. Some frameworks, such as the PCNA for Liberia, the ANDS for Afghanistan, and the 2009 work plan for Sudan, addressed environment in two ways. A natural resource management sector was established, and environment was included as a crosscutting issue within every relevant sector. The success of this approach was mixed. In some cases, although environmental needs were mentioned, targets were rarely set, and activity budgets were not provided. In others, in which UNEP had an active field presence and could supply technical advice, such as in Afghanistan and Sudan, environmental needs were effectively taken into account by the relevant sectors. The outcome demonstrates the importance of an active field presence through which environment can be addressed as a crosscutting issue. The approach seemed to generate the best results in terms of detailed activities and budgets. The Sudan work plan also went a step further by requiring all other projects that use or affect natural resources to be clearly identified. It also provided dedicated funding to kick-start better environmental practices while addressing humanitarian needs. Both of the approaches set important new benchmarks in terms of best practice.

In other cases, such as the UNDAF for Afghanistan and the early recovery plan for Lebanon, environment and natural resources were treated at the highest level as one of the sectors. Although the approach led to targets and detailed budgets for environmental interventions, it also had drawbacks because it isolated environmental projects and prevented the other sectors from considering how they were using or affecting natural resources. Environment became “someone else’s problem,” rather than a collective challenge and shared responsibility.

In the cases of the CCA for Afghanistan and the SCA and UNDAF for Sudan, a third approach was used. Environmental needs were treated as neither

a sector nor a crosscutting issue. Rather problem trees were developed, and root-cause analyses were conducted. In both cases, environmental degradation and natural resource–mismanagement challenges were identified as outcomes of the analyses. The analyses demonstrated that natural resources and environmental quality actually underpinned many other core goals, such as peacebuilding, governance, economic development, and livelihoods. The analyses thus justified why natural resource management should be a national priority and a central part of the UNDAF. The approach not only avoided supply-driven and top-down structures but also demonstrated the inherent connection between many peacebuilding and development interventions and natural resources.

The scope of an environmental assessment influences the duration of policy impact and extent of media coverage

The chapter has shown that quantitative assessments have a shorter-term policy impact—ranging from two to three years—than desk studies, strategic assessments, and comprehensive assessments, which range from four to ten years, primarily due to the more restricted scope of quantitative assessments, which focus on direct environmental impacts and risks to human health. Once critical environmental risks are addressed through cleanup and remediation efforts, their recommendations are less relevant for longer-term development policies.

It is equally important to note that quantitative assessments tend to have a higher media impact (2.75) than desk studies (1.67) and strategic assessments (2.5), most likely because the focus on immediate risks lends itself to a clearer and more striking media message. The media impact of assessments is also enhanced when relevant high-profile figures lead the assessment process and actively engage the media during launch events and follow-up activities. Media coverage can also be increased when assessment reports include dramatic photos, maps, videos, and satellite images depicting environmental damage.

Overall the effective communication of environmental assessment findings and priorities to political leaders, the broader population, and potential funding partners is an important component of impact. Assessments that fail to communicate their content in a manner that captures media attention and public interest often fail to mobilize political support and donor funding for follow-up work. A communications and media strategy must be built into the design of the assessment from the outset.

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