

Darfur Crisis

Rapid Environmental Assessment at the Kalma, Otash and Bajoum Camps



Joint UNEP/OCHA Environment Unit



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Background

Darfur Crisis and the Environment

Long-term ethnic conflict in the states of Northern, Southern and Western Darfur along Sudan's western border escalated in 2002-03 into warfare and a humanitarian emergency.¹ The results include an estimated 1.6 million internally displaced people (IDPs), effects on 420,000 host community residents,² deaths from attacks on villages and fighting, and an estimated 200,000 refugees who have fled Darfur to neighboring Chad³. The majority of people forced from their homes are in IDP camps within Darfur, where they remain vulnerable to attacks and often have inadequate access to relief supplies⁴.

The current, complicated crisis has strong links to environmental and natural resource issues, a fact that must be reflected in humanitarian response and rehabilitation efforts.

For example, competition over land and water between sedentary farmers and nomadic tribes has long been a part of Darfur's history. Environmental degradation, desertification in northern Sudan and the impacts of prolonged droughts exacerbated the situation, however, causing nomadic groups to move further south in search of suitable land and water. This intensified friction with farmers in Darfur's more fertile agricultural belt and contributed to the current crisis. Related factors that compound environmental issues include poverty and underdevelopment⁵⁶.

Environmental impacts are also expected where the movement of large numbers of people is involved. For example, refugee populations can contribute to soil erosion and deforestation. Greater impacts are also expected where background natural resources conditions are poor. In the case of refugees, the United Nations High Commissioner for Refugees (UNHCR) recognizes that environmental considerations must be integrated into operations and planning to ensure both environmental quality, and the well being of human populations⁷.

Joint UNEP/OCHA Environment Unit (Joint Unit) involvement

The Joint Unit is the integrated United Nations mechanism with a mandate to assist countries facing environmental emergencies. Given the close links between environment and the current Darfur crisis, and the fact that environmental considerations should play an important role in relief operations, the Joint Unit supported CARE International in Sudan and the Benfield Hazard Research Centre/Care International in conducting a Rapid Environmental Assessment (REA) in Darfur. The assessment also received support from the US Agency for International Development (USAID), Office of Foreign Disaster Assistance, and Norwegian Church Aid in South Darfur.

The objective of this report is to identify environmental issues with immediate relevance to human welfare and response efforts in Darfur, and where possible, offer recommendations that should be considered in response and rehabilitation work.

The report is intended for humanitarian, disaster management, and environmental professionals in international organizations, non-governmental organizations and national governments who are involved in Darfur response measures.

Internally Displaced Persons

"Internally displaced persons are persons or groups of persons who have been forced or obliged to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights, or other natural or human-made disasters' and who have not crossed an internationally recognized state border"

from OCHA Handbook for Applying the Guiding Principles on Internal Displacement

There are three distinct but closely related findings from the assessment:

- Environmental problems, including water and waste management issues, are emerging in some camps, notwithstanding the availability of solutions.
- Environmental considerations and available solutions are not consistently integrated into relief efforts, which undermines their effectiveness.
- A relief assistance gap forces IDPs to deplete natural resources to survive, with significant humanitarian *and* environmental consequences.

The report recommends measures to reduce environmental impacts of the Darfur crisis, thereby improving the lives and welfare of IDP camp residents. Recommendations are in four main areas: *improving safety and sustainability of natural resource collection, integrating environment into programs and activities, enhancing capacity for environmental activities, and addressing issues linked to returning IDPs*.

Assessment methodology

The Darfur crisis environmental assessment was based on a REA developed by the Benfield Hazard Research Center and CARE International with support from the Joint Unit, USAID and the Royal Norwegian Ministry of Foreign Affairs⁸. The REA is an analytical and decision-making framework designed to identify significant environmental issues that relate most closely to the humanitarian objectives of saving lives and improving human welfare. Following the REA process, group assessment sessions were held in Khartoum and Nyala with individuals knowledgeable about or directly involved in relief operations. Four community meetings were held following the REA process in three IDP camps. Interviews were also held with key international organization (IO) and non-governmental organization (NGO) staff in Khartoum and Nyala. Where possible, initial conversations were followed by specific discussions on issues noted during the REA. Initial results from each stage of the REA were circulated to those involved in that specific stage. There was no opportunity to provide community meeting participants with assessment results. Following discussions with assessment participants, it was agreed that specific individuals and organizations would not be cited.

The field assessment⁹ was followed by briefings for UN agencies in Khartoum and in Geneva, including with the Office for the Coordination of Humanitarian Affairs (OCHA), the Office of the UN High Commissioner for Refugees, and UN Volunteers. Results were also covered in a briefing for USAID in Washington.

Mr. Charles Kelly, Rapid Environmental Impact Assessment Project Lead Researcher, conducted the assessment. For logistical, time and security reasons, this was limited to the Nyala area of South Darfur. This assessment is therefore not comprehensive. Interviews in Khartoum suggest that assessment findings may apply to all affected areas, however this must be validated on a location-by-location basis.



2. Key Findings

Overview

The findings of the assessment and interviews can be divided into three distinct, but closely related components:

- Environmental problems, including water and waste management issues, are emerging in some camps, notwithstanding the availability of solutions.
- Environmental issues are not a consistently integrated component of relief efforts, which undermines their effectiveness.
- A relief assistance gap forces IDPs to deplete natural resources to survive, with significant humanitarian *and* environmental consequences.

1. Emerging environmental issues

A number of environmental problems were discovered during the assessment. The majority remain only locally significant, and could be addressed through changes to current assistance activities or remediation.

Areas of concern include:

Need for sustainable water management plans.

- Comprehensive plans to address water needs were not in place at all camps visited. For example, wells at the Kalma camp could not meet needs, and water was being brought in by truck to provide a minimum level of supplies, which is an expensive option. Agency staff expressed concerns that some existing wells would not be able to continue full operation throughout the dry season, thus increasing the need for trucking. Furthermore, access to water was not equal in all camps or in all parts of the camps.
- The assessment found that there were no plans for the future use of wells installed in the camps, notwithstanding that access to water is a cause of the current conflict and that emergency wells could become a source of future conflict.
- Poor management of wastewater was in evidence. For example, water from tap stands was not being properly drained, creating pools of stagnant water that could contribute to the spread of disease. Some NGOs working in the camps had plans to deal with this problem, but there was no uniform approach to address this recognized issue.



Collecting water in Darfur. Sustainable water management solutions are available but not consistently in place (photo: IRIN News).

Environmentally unsound solid and liquid waste management.

- The assessment found no evidence of plans for how communal latrines in Kalma and Otash would be drained once they become full, or for how effluent would be safely treated. Such planning did not appear to be part of the overall planning for camp sanitation. In one camp, it was observed that garbage was being burned inside the camp, creating a fire risk, while in other areas it was being burned outside the camp.

Site management problems.

- Many camp facilities were made from local resources, such as tree branches and grass, which are highly flammable during the dry season. Provisions for fire prevention or control were not found in the assessment. A fire in the camps could create another disaster for IDPs, and lead to additional harvesting of scarce wood and grass from near the camps.
- There was evidence of improper use of pesticides and other chemicals in camps. IDPs reported that in one chemical spraying of huts, standard precautionary measures were not taken. IDPs were allowed back in their huts immediately following the spraying, and were not told to cover food and water. In a subsequent spraying associated with a different agency, more appropriate precautionary measures were taken.

These are ‘standard’ environmental issues associated with IDP or refugee camps, and for which solutions are readily available. Agency representatives working in the camps were aware of many of the concerns. They also acknowledged that it would have been more effective to incorporate solutions to these concerns as part of the initial response. However, they reported that they felt unable to address the issues due to a lack of staff, time and resources. The next sections address these topics in more detail. The *Recommendations* section suggests possible solutions to assist these professionals and the IDPs.

2. Limited integration of environment into response efforts reduces their effectiveness

The Sphere Standards for Humanitarian Assistance¹⁰ identify the environment as a crucial, cross-cutting issue in relief operations. Where refugees are concerned, UNHCR recognizes the close links between human and environmental well-being, as well as the need to integrate environmental components into project and program implementation¹¹. The REA found, however, that many of the approaches and solutions recommended or considered good practice in refugee situations are not being consistently applied in Darfur.

Findings from the assessment include:

- Interviews in Khartoum indicated that no single international organization or non-governmental organization has a specific mandate to consider and address environmental issues as part of the immediate and long term response to the Darfur crisis, in contrast to recommended practice in refugee situations.
- Basic camp level environmental assessments were not being carried out as a matter of course, notwithstanding the fact that UNHCR has developed a camp level assessment tool and has been testing it in eastern Sudan.
- Camps did not have environmental focal points. Normal UNHCR practice in refugee situations is to identify and work with an NGO to focus efforts on environmental issues within camps, and within surrounding communities.

- There were major differences in the level of assistance and facilities between the camps assessed. At the time of the assessment the rural Bajoum camp had received no food aid, had not established latrines, and its nearest water source was 4 kms away. Otash camps has two large health clinics, but its residents had uncertain water supplies, and the latrines were observed to be overloaded and insufficient to meet camp needs. At the Kalma camp, there were different approaches to the provision of latrines, meaning varied and potentially incompatible latrine maintenance and waste disposal systems, with some systems requiring more recurrent technical support.
- IDPs reported a developing lack of wood around some camps, but there was no systematic monitoring of short or long-term environmental change. Such monitoring is important to track changes, identify areas of sustainable or unsustainable resource use and resolve future claims for compensation for environmental damage attributed to the presence of IDPs. The technical systems and benefits of such monitoring have been established by UNHCR, but their use was not in evidence during the rapid environmental assessment.



A child by a shelter. Greater integration of environment into relief efforts would strengthen their effectiveness (photo: IRIN News)

These above findings are particularly noteworthy given that UNHCR is already addressing, in eastern Chad, environmental challenges that are comparable to those of Darfur. More generally, many environmental problems are common to both IDP and refugee situations, and could be addressed by similar approaches and solutions. For example, UNHCR has available products such as the *Refugees Operations and Environmental Management* handbook¹² that describes a wide range of solutions based on past field experience which could be used in Darfur. However, the above findings must be understood within the context that Darfur is not a refugee situation, that the camps are within the control of the Government of Sudan, and that camp management is not, according to interviews conducted, being systematically provided. These factors are taken into account in the *Recommendations* section, below.

3. Relief assistance gap forces IDPs to rely on natural resource collection to survive.



Few options: IDPs collect natural resources to make up a relief assistance gap – with consequences for their safety and the environment (photo: © CARE International)

Most IDPs have lost their possessions due to the thefts and destruction of homes and property, and few livelihood options remain to them. As a result, relief assistance focuses on the basics of water, food, shelter, basic sanitation, health care and protection. However, these needs, except protection, are being met at levels estimated at between 40% and 54%¹³ of the minimum standards for the displaced population as a whole. This gap forces IDPs to acquire natural resources such as water, wood and grass to meet basic needs. It also places significant demands on the environment near camps, and forces IDPs to enter areas in which physical violence or death are real risks.

From an environmental perspective, natural resources are being depleted around camps at rates that the IDPs themselves report to be of concern. From a humanitarian perspective, it is considered extremely dangerous for men to move outside towns or camps. This places the burden of collecting wood and grass primarily on women and children. However, women are also vulnerable to violence while outside camps. There are reports that children have been kidnapped while collecting resources outside camps. Even as relief levels increase, IDPs will likely continue to go to the natural environment around camps to collect resources to replace those essential items lost as the result of destruction of their houses and loss of animals and other productive assets.

Activities are underway to provide IDPs with locally produced, fuel-efficient stoves. The hope is that these stoves will reduce the need to collect fuel from dangerous locations. However, the impact on IDP safety and resource collection may be limited, as this assessment indicates that the relief assistance gap is likely the most important issue driving IDPs to collect natural resources, rather than just a need for firewood.

4. Upcoming Issues: Returning IDPs

Discussions have begun on the possible return of IDPs to their original homes. During assessment interviews, some IDPs expressed willingness to return to their homes if peace were assured. Others expressed a wish to remain in new settlements near existing camps. Either outcome requires that environmental considerations have a core position in plans for and the eventual provision of assistance.

Factors that would need to be considered include:

- Some current camps are in areas prone to natural hazards, and present problems for the sustainable provision of water and sanitation.
- Most returnees would need to totally rebuild their homes, which will place a significant, if temporary, demand on local natural resources.
- Interviews with IDPs willing to return indicated their anticipation that basic facilities such as water supplies and public facilities would be reconstructed as part of the return process.

The assessment found that the development of policies and plans to consider the environmental issues for returning refugees has not yet begun.



Dust in the air at a Darfur IDP camp. Photo © CARE International

3. Recommendations

1. Improve safety and sustainability of natural resource collection

- **Increase levels of basic food and non-food assistance.** Include as a priority camps where options for collecting natural resources outside camps are most dangerous or where resources around the camp are most poor.
- **Establish safe zones around camps** within which IDPs can securely and sustainably collect natural resources. Where sustainable collection is not be possible, rehabilitation activities will be needed during or following the IDP presence. These activities should involve populations residing outside but near the camps, to prevent further conflict.
- **Increase in-camp livelihood options** for IDPs. This could include processing wood and grass products (e.g. bed making from local wood and grass), skills building, wage labor for NGOs and camp management activities, and micro-credit for product and service sector undertakings.
- **Provide IDPs with milled cereals and quick-to-cook pulses** to reduce the need to collect natural resources to cook or to sell for milling, or the need for IDPs to trade food aid for milling services. This is good practice in refugee situations.
- **Consider providing cash to IDPs in lieu of food and non-food items** or as income for camp-based work in urban and peri-urban areas to reduce relief needs and increase options to meet needs in the market, rather than from natural resources. This would need to be managed to avoid market distortions or increased security problems.
- **Develop a comprehensive approach to cooking and stove provision** that takes into account the safety of the camp location, the sustainable availability of combustible resources and the specific purposes for which cooking is done. Conflict mapping is key to finding a local solution to this problem. UNHCR materials on cooking in camps, appropriate stoves and fuel, as well as work by organizations including the FAO could be used in finding a solution appropriate for each camp. The priority should be IDP safety. Promoting sustainable approaches to cooking should occur, but not at the expense of improving IDP safety.



Sitting by camp stove. Photo: IRIN

2. Integrate Environment into Programs and Activities

- **Consistently apply existing solutions.** The Joint Unit could facilitate this in cooperation with national and international partners. Specific steps could include disseminating and promoting relevant products such as the UNHCR *Refugee Operations*

and Environmental Management handbook. The Humanitarian Information System for Darfur, an appropriate UN agency, or other organization could be tasked with establishing an environmental impact monitoring system covering camps and neighboring locations, allowing better monitoring of and planning for environmental impacts. The Inter Agency Standing Committee¹⁴ could be used consistently to share relevant environmental information, as could the UNEP/OCHA Environmental Emergencies Partnership¹⁵.

- **Camp-specific assessments** could identify the conditions and locations for safe and sustainable collection of wood, grass and other natural resources. **Rapid environmental impact reviews** of current and planned UN programs should also take place. NGOs in Darfur should be encouraged to conduct similar reviews. In-depth **environmental impact assessments** should be conducted in more camps in Darfur. IDPs should be involved in all assessments and resultant planning. The Joint Unit could work with CARE, Benfield Hazard Research Center and others to facilitate the assessments, and a coordination role could be played by OCHA to ensure the implementation of recommendations resulting from them.

3. Enhance capacity for environmental activities

- **Increase environmental field support** using United Nations Volunteers. At the time of writing, 27 UN volunteers were in place in Darfur, and there are others in surrounding countries. UN Volunteer sponsoring agencies could consider increasing environmental field support through additional recruitment, assigning environmental tasks to current volunteers, or short-term redeployment from neighboring countries. The Joint Unit and CARE International should consider additional training of UN Volunteers as appropriate.
- **Establish environmental focal points** within the UN Darfur response to provide cross-sector coordination of environmental considerations in planning, provide input on peace plans and relief policies to highlight negative and potential positive environmental impacts, and support field efforts to address negative environmental impacts.
- **Establish camp level IDP groups** to monitor environmental conditions and advise on progress in addressing issues identified in the assessment.

4. Upcoming Issues: returning IDPs

- **Ensure environment is a core element of return/resettlement plans.** As and when camps are closed, the sites need to be rehabilitated. This is good practice in refugee operations. Wells, latrines, public buildings and other facilities should be decommissioned or transferred for local use. If camps are not closed in the near future, then the provision of basic services needs to shift to a more sustainable basis, with environmental considerations key in determining sustainability.
- **Establishing camp and program-level return/resettlement environmental working groups** to ensure multidisciplinary approaches to all aspects of return, resettlement or long-term camp development plans, including environmental considerations.
- **Resettlement and return plans and projects should undergo a rapid environmental impact screening.** Issues identified through these screenings should be addressed through project changes or mitigation.

Endnotes

¹ Sudan: A Future Without War? IRIN Web Special on the prospects of peace in Sudan.
<http://www.irinnews.org/webspecials/SudanDarfur/Darfurlnt.asp>

² Darfur Humanitarian Profile No. 7 at <http://www.unsudanig.org/emergencies/darfur>

³ IRIN West Africa Weekly, 23-29 October 2004.

⁴ Sudan: Now or Never In Darfur. International Crisis Group, 23 May 2004 at
<http://www.crisisweb.org/home/index.cfm?l=1&id=2765>

⁵ Darfur Rising: Sudan's New Crisis. International Crisis Group Africa Report no. 76, March 25 2004.

⁶ Sudan: A Future Without War? IRIN Web Special on the prospects of peace in Sudan.
<http://www.irinnews.org/webspecials/SudanDarfur/Darfurlnt.asp>

⁷ <http://www.unhcr.ch>

⁸ http://www.benfieldhrc.org/SiteRoot/disaster_studies/rea/rea_index.htm

⁹ A more extensive assessment report can be found at http:
http://www.benfieldhrc.org/SiteRoot/disaster_studies/rea/Sudansumrtp.pdf

¹⁰ <http://www.sphereproject.org/>

¹¹ <http://www.unhcr.ch> and download link at
<http://www.humanitarianinfo.org/darfur/infocentre/idp/index.asp>

¹² Download link at <http://www.humanitarianinfo.org/darfur/infocentre/idp/index.asp>

¹³ Darfur Humanitarian Profile No. 6 (September 2004), Office Of UN Resident And Humanitarian Co-ordinator for the Sudan, www.unsudanig.org.

¹⁴ <http://www.humanitarianinfo.org/iasc>

¹⁵ <http://www.humanitarianinfo.org/eep>