

# Desk Study on the Environment in Iraq

United Nations Environment Programme

First published in Switzerland in 2003 by the United Nations Environment Programme.

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ISBN 92-1-158628-3

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Cover Design and Layout: Matija Potocnik Maps: UNEP/PCAU and UNEP/DEWA/GRID-Geneva Cover Photo: Caren Firouz - Reuters Printer: Imprimerie Chirat, France Printed on Recycled Paper



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## Foreword

Every conflict generates risks to human health and to the environment. The post-conflict situation in Iraq compounds a range of chronic environmental issues, and presents immediate challenges in the fields of humanitarian assistance, reconstruction and administration. Now that major military combat operations have ended, the United Nations Environment Programme (UNEP) is addressing post-conflict risks to the environment and to human health, and promoting long-term environmental management.

Timeliness is paramount. Lessons learned from earlier conflicts show that the immediate environmental consequences must be addressed as soon as possible to avoid a further deterioration of humanitarian and environmental conditions. For this reason, UNEP, as a part of the wider UN family, integrated its post-conflict activities into the UN Humanitarian Flash Appeal launch on 28 March 2003.

Earlier UNEP post-conflict studies also demonstrate that the environment can have major implications for human livelihoods and for sustainable economic development. As such, environmental issues must be integrated across all sectors in post-conflict situations. Following this most recent conflict, Iraqi citizens may have fears about environmental threats from military activities, such as air pollution, drinking water contamination, and the presence of hazardous substances, including heavy metals and depleted uranium. Objective and reliable information will help set aside such fears where the risk is minimal, and will help to target measurement and clean up activities in areas where the risk is higher. For these reasons, and based on this study and the information currently emerging from Iraq, UNEP is recommending that field research and analysis be carried out in Iraq at the earliest possible time.

The approach of this Desk Study is environmental and technical. The intent is not to attach blame for various environmental problems. Rather, it is to provide an overview of chronic and war-related environmental issues, and to identify the steps needed to safeguard the environment. Top priorities include environmental issues that have a direct link with easing the humanitarian situation, especially the restoration of water, power, sanitation networks and ensuring food security.

Identifying, assessing and cleaning up possible pollution 'hot spots' that pose immediate risks to human health, will also be important. These sites could include targeted industrial and/or military sites, damaged sewage treatment systems, and places where municipal or clinical waste has accumulated in the heart of towns and cities. Potential health risks from air pollution, due, for example, to burning oil wells and trenches, or fires at targeted sites, also need to be assessed.

While priority should be given to urgent humanitarian needs related to the environment, there will also be longer-term health and environment problems with consequences for the future of Iraq and its people. In order to address these effectively, the environment should be integrated into all reconstruction and development plans and operations. This will require building a sound knowledge base and strong national institutions and capacities for sustainable environmental management.

This Desk Study of the environmental situation in Iraq was initiated at a humanitarian meeting convened by the Government of Switzerland in Geneva in February 2003. As a consequence of the ongoing conflict, it has not been possible to work in the field, to obtain early results from environmental measurements, or to contact Iraqi scientists and scientific institutions. For these reasons, and because the study was conducted during a limited period of just six weeks, it is not a comprehensive work covering all environmental issues facing Iraq, and does not purport to be a complete inventory of all war-related environmental damage. Therefore, it should be treated as background information for future work on the environment in Iraq.

UNEP hopes the report will give clear guidance on the next steps for addressing key environmental concerns, and that it will catalyze action to meet both the immediate and long-term needs of the Iraqi people.

#### Geneva 24 April 2003

## Introduction

#### 1.1 Overview

This Desk Study has been prepared by UNEP as a contribution to tackling the immediate postconflict humanitarian situation in Iraq, and the subsequent rebuilding of the country's shattered infrastructure, economy and environment. It is intended for a wide audience and includes information likely to be of value to many of the stakeholders involved in shaping the future of Iraq.

The study focuses on the state of Iraq's environment against the context of decades of armed conflict, strict economic sanctions and the absence of environmental management principles in national planning.

Attention is drawn to possible next steps, including urgent measures to minimize, mitigate and remediate immediate environment-related threats to human health (e.g. from disrupted or contaminated water supplies, and from inadequate sanitation and waste systems). Suggestions are also made for wider measures, including field missions at an early stage to address the key environmental vulnerabilities and risks identified, and to prepare appropriate action plans, including clean-up and risk reduction measures. At the time of writing (22 April), restoring law and order is a key priority and a prerequisite for dealing effectively with humanitarian and environmental problems.

It is important to underline the scope and limitations of this report, which has been prepared on the basis of a rapid of assessment of published and on-line information sources. The section of Chapter 4 that deals with the conflict of March and April 2003 in particular draws heavily on media reports and military briefings.

#### 1.2 Background and objectives

Prior to the outbreak of the conflict of March/April 2003 the government of Switzerland convened in Geneva a 'Humanitarian Meeting Iraq' to provide a platform for expert dialogue between relevant actors. The Swiss delegation proposed the establishment of an 'environmental assistance stand-by group', and explicitly asked UNEP to be part of such a group. Subsequent to this request, UNEP initiated this Desk Study to assess environmental vulnerabilities in Iraq.

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