

Chapter 1

Introduction

In the 1990s events in Bosnia, the former Soviet Union countries, Afghanistan and Northern Iraq showed that humanitarian disasters are not limited to the South, Africa, or the tropics, but may strike anywhere in the world. Relief workers have had to be ever more adaptable in order to provide life-saving water supplies and sanitation facilities in areas where freezing conditions occur. This second edition of *Out in the Cold* includes new material gathered from humanitarian workers returning from the Kosovo crisis and has been revised on the basis of comments made about the first edition.

1.1 Who this book is aimed at

All humanitarian workers, especially managers, engineers and logisticians working in ex-Soviet states, China, Eastern Europe or any other country in cool temperate or cold regions will find sections of this book relevant to them. Techniques are described fairly simply, although engineering design recommendations are also included.

1.2 How to use *Out in the Cold*

This guide is written in such a way that readers can dip into specific subjects by using the contents and index pages. Basic information is not covered extensively because *Out in the Cold* is designed to provide supplementary information that can be used in addition to the information given in more general emergency manuals, such as those listed on overleaf. This is a specialist guide to cold regions and will not duplicate information already well covered by existing manuals.

1.3 Scope

Out in the Cold takes into account that areas can be cold either because of their geographical location (high latitude, or non-tropical continental interior), or because an area is mountainous and at a relatively higher altitude than the surrounding area. Specific points relating to mountainous areas are incorporated in the text.

OUT IN THE COLD

Water supply and sanitation (watsan) techniques appropriate for emergencies in warm regions are well documented. Excellent manuals exist, for example *Engineering in Emergencies* by Jan Davis and Bobby Lambert (1995), which describes many techniques that could be used successfully anywhere in the world. However, there are some techniques that are not covered in the emergency manuals because the tendency has been to concentrate on water supply and sanitation systems that are appropriate for use in Africa, South Asia and other warm places.

Engineering techniques introduced in this manual are specifically designed to be used for emergencies in areas where freezing conditions are likely to cause problems, although wider issues relating to the provision of water supply and sanitation in all cold areas are also discussed. The fact that techniques appropriate in cold regions are different affects the planning and location of refugee camps (needs assessments), the sourcing of appropriate materials (logistics) and the associated management of emergency operations.

1.4 Emergency engineering manuals

The following provide technical advice for use in emergency situations, although they do not specifically address cold climate emergency considerations:

1. Assar, M, 1971, *Guide to Sanitation in Natural Disasters*. WHO, Geneva, Switzerland
2. Davis, Jan and Lambert, Robert, 1995, *Engineering in Emergencies, A Practical Guide for Relief Workers*. IT Publications, London, UK
3. House, Sarah and Reed, Bob, 1997, *Emergency Water Sources, Guidelines for Selection and Treatment*. WEDC, Loughborough, UK
4. MSF, 1994, *Public Health Engineering in Emergency Situations*. MSF, Paris, France
5. Ockwell, Ron, 1986, *Assisting in Emergencies, A Resource Handbook for UNICEF Field Staff*. UNICEF, Geneva, Switzerland
6. UNHCR, 1982, *Handbook for Emergencies, Part One, Field Operations*. UNHCR, Geneva, Switzerland
7. UNHCR, 1992, *Water Manual for Refugee Situations*. UNHCR, Programme and Technical Support Section, Geneva, Switzerland

An additional bibliography, including books about utilities engineering in cold regions and emergency water and sanitation, can be found in section 7.5.