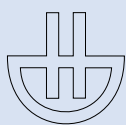


ACTION CONTRE LA FAIM

Water, sanitation and hygiene for populations at risk



HERMANN

Water, sanitation and hygiene for populations at risk

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Water, sanitation and hygiene
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Editorial

At the time of publishing this book, we know that around the world, more than 1 billion people do not have access to potable water and 2.4 billion people do not have access to basic sanitation facilities, consequently more than 15 000 people die each day from water borne diseases¹.

The Action contre la Faim International Network (ACFIN)², governed by Jean-Christophe Rufin, implements water and sanitation programs for populations in humanitarian situations. Water-supply and sanitation conditions directly affect health and food security and are key components in the fight against Hunger and Malnutrition. This fight leads us to work together with local vulnerable populations, and the general public, by organising awareness campaigns each year to improve the public knowledge about water and sanitation and the consequences it has on public health³. ACFIN defends the right to have water accessible for everyone.

The present edition was coordinated by Hubert Sémiond and Francisco González, respectively head of the *Action contre la Faim* and *Acción contra el Hambre* water and sanitation departments.

This edition is the second edition of "Alimentation en eau des populations menacées", by Éric Drouart and Jean-Michel Vouillamoz, published in 1999, that has been deeply reviewed, revised, updated and extended, with more than 60% of new information.

The main contributors to this edition are (in alphabetical order) : Francisco González (Curro), Jean Lapegue, Élisabeth Lictevout, Hubert Sémiond, Álvaro de Vicente and Jean-Michel Vouillamoz. An exhaustive list of authors is presented in the summary.

The final English version has been entirely reviewed by John Adams.

This book is the summary of more than ten years experience of project implementation in water supply, sanitation and hygiene promotion, for populations in danger. This field experience has been strengthened and informed by the scientific research, technical development and literature review that *Action contre la Faim* permanently undertakes to optimise its interventions. One of the purposes of this second edition is to capture recent experiences and expertise developed by the *Action contre la Faim* international network.

The present edition particularly benefited from the PhD work done on groundwater prospecting by Jean-Michel Vouillamoz between 2001 and 2003 in collaboration between *Action contre la Faim*, the *Institut de Recherche pour le Développement* (IRD) and the *Bureau de Recherche Géologique et Minière* (BRGM).

This work is the fruit of teamwork and of the dynamism that has driven the Water and Sanitation department since its creation in Paris and later in Madrid, New York and London. But above all, this book is the result of the strong commitment and creativity of the *Action contre la Faim* teams on the field, national and international staff, who developed appropriate technology and approaches in collaboration with the beneficiary communities.

1. Kofi Annan, Summit of Johannesburg (30.08.2002).

2. ACFIN include four headquarters: Paris, Madrid, London and New York.

3. Water Day ACF event's.

This book has come into existence thanks to the confidence shown and the resources provided by *Action contre la Faim* in order to facilitate the project. Our thanks are due to all the team, and especially to Jean-Luc Bodin, who has sustained and accompanied the development of the Water and Sanitation department since its creation and strongly encouraged and supported the first edition. The publication and the promotion of this second edition was followed up by Frank Hourdeau.

We would also like to thank our partners from the NGO's community and donors, with whom we collaborate daily to implement water and sanitation programs.

The main objective of this book is to transfer our knowledge acquired from years of experience in the field, in order to better reach the largest possible number of national and international humanitarian actors.

Happy reading!

Benoît MIRIBEL
Executive director

Acknowledgements

Many people have contributed to the writing of this book, (the main authors are mentioned in the following table). For their contributions to the first edition that is basis of this book (and for their great humour), thanks are due to Jocelyn Lance, previous manager of the Water and Sanitation Department of *Accion Contra el Hambre* for his enthusiasm, his unshakeable interest in innovative techniques, and his capacity to fly in all weathers. Thanks also to Alexandre Langlois, Miguel Ángel Barba, David Blanc, Paul Cottavoz, Patrick Dannard, José Benavente, Philippe Masliah, Dominique Porteau, Philippe Leborgne, Jean-Pierre Veyrenche and Philippe Weis.

For the second edition, thanks are due to John Adams for his holistic knowledge of humanitarian interventions that led to numerous comments and corrections. Thanks are due to Loïc Raigondeau for the detail of his work. For their various contributions thanks are due to Pierre Fourcassié, Thierry Arhan, Cyndy Cushner, Serge Breysse, Hervé Bonino, Pablo Alcalde, Alejandro Zurita, Olivier Seyiadji, Massimo Caporilli, Carmelo Gallardo, Amador Gómez, Marta Valdés, Julián Carrazón, Zaza Gvelesiani, Anne Boemare, Bertrand Brecqueville, Daniel Chevrolet and June Hirsh. Finally, thanks are due to Paul Cottavoz and Olivier Stoupy for the spirit they gave to the department and that is reflected in this present edition.

For their English translations and revisions, thanks to Mark Rowney, Jose de Bettencourt, Michael Walls, Andrew Mitchell, Cyndy Cushner, Lisa Rudge, Chris Wardle, Lisa Ernoult, Kate Ogden and Caroline Wilkinson. We are also grateful to Marián Hernández, BA and M Shields, FIInfSc, MITI, for carrying out the main part of the translation, often in place of more lucrative work.

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Finally, thanks to Jacques-Henry Lahaye, Loïc Raigondeau and Álvaro de Vicente for their talent in producing the technical diagrams.

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The chapters 1, 2, 4, 5A-B, 6, 8B, 13, 15, 16, 17B, 18 and 19, and the annexes 1, 2, 3, 4, 5, 7B-C-E and 11B-C-D are new.

The chapters 3, 7A, 8A-C-D and 9, and the annexes 8 have been updated and extended.

Action contre la Faim

Action contre la Faim (formerly *Action Internationale Contre la Faim*) is an independent, apolitical non-governmental humanitarian organisation which, for the last twenty five years, has waged an unremitting war on hunger in crisis situations around the world.

Internationally recognised as one of the world's premier organisations in combating hunger, *Action contre la Faim* intervenes in humanitarian situations involving war, famine, natural disasters and other crises to bring help to displaced people, refugees and any other populations in danger. After the emergency is over, continuity of action helps affected people recover their independence through medium and long-term programmes. The prevention of disasters is also one of its objectives.

In order to increase its capacity for action and advocacy, *Action contre la Faim* developed an international network with the opening of *Accion Contra el Hambre* in Madrid and *Action Against Hunger* in London and New York. This network allows intervention in more countries, the pursuit of new areas of technical development and an enlarged human-resources potential.

From its four headquarters (Paris, London, Madrid and New York), and with its 350 international volunteers and 4 000 national staff, *Action contre la Faim* focuses on rapid, effective, and highly-targeted responses in all four areas intimately involved in the fight against hunger and malnutrition: nutrition, health, food security, and water and sanitation.

A parallel aim of the organisation is to bring the world-wide problems caused by hunger sharply into focus, to increase awareness of the fate of those civilian populations who are victims of discrimination and violence in famine-hit areas, to alert public opinion to the true causes of hunger and to prompt the international community to take action.

If you would like to become a volunteer, to become a member of the organisation, to help by organising a "race against hunger" in your area, to enter into partnership with the organisation by sponsoring one of our programmes, or simply to make a contribution, you can contact us at : www.action-contrelafaim.org

The Charter

Action contre la Faim is a non-governmental organisation. Private, non-political, non-denominational and non-profit making, it was set up in France in 1979 to intervene in countries throughout the world.

Action contre la Faim's vocation is to save lives by combating hunger, disease, and those crises threatening the lives of helpless men, women and children.

Action contre la Faim intervenes in the following situations :

- in natural or man-made crises which threaten food security or result in famine,
- in situations of social/ economic breakdown linked to internal or external circumstances which place particular groups of people in an extremely vulnerable position,
- in situations where survival depends on humanitarian aid.

Action contre la Faim intervenes either during the crisis itself, through emergency actions, or afterwards, through rehabilitation and sustainable development programmes.

Action contre la Faim also intervenes in the prevention of certain high risk situations.

The ultimate aim of all of *Action contre la Faim*'s programmes is to enable the beneficiaries to regain their autonomy and self-sufficiency as soon as possible.

Action contre la Faim respects the following principles :

INDEPENDENCE

Action contre la Faim acts according to its own principles so as to maintain its moral and financial independence.

Action contre la Faim's actions are not defined in terms of domestic or foreign policies nor in the interest of any government.

NEUTRALITY

Action contre la Faim maintains a strict political and religious neutrality. Nevertheless, *Action contre la Faim* can denounce human rights violations that it has witnessed as well as obstacles put in the way of its humanitarian action.

NON DISCRIMINATION

A victim is a victim. *Action contre la Faim* refutes all discrimination based on race, sex, ethnicity, religion, nationality, opinion or social class.

FREE AND DIRECT ACCESS TO VICTIMS

Action contre la Faim demands free access to victims and direct control of its programmes. *Action contre la Faim* uses all the means available to achieve these principles, and will denounce and act against any obstacle preventing it from doing so. *Action contre la Faim* also verifies the allocation of its resources in order to ensure that the resources do, indeed, reach those individuals for whom they are destined. Under no circumstances can partners working together with or alongside *Action contre la Faim* become the ultimate benefactors of *Action contre la Faim* aid programmes.

PROFESSIONALISM

Action contre la Faim bases the conception, realisation, management and assessment of its programmes on professional standards and years of experience, in order to maximise its efficiency and the use of its resources.

TRANSPARENCY

Action contre la Faim is committed to respecting a policy of total openness to partners and donors and encourages the availability of information on the allocation and management of its funds. *Action contre la Faim* is also committed to providing guarantees of proof of its good management.

All members of *Action contre la Faim*, world-wide, adhere to the principles of this Charter and are committed to respect it.