

Resilience of Water Supply in Practice: Experiences from the Frontline

Resilience of Water Supply in Practice: Experiences from the Frontline

Edited by

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Published by**IWA Publishing
Unit 104–105, Export Building
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London E14 2BA, UK**

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Email: publications@iwap.co.ukWeb: www.iwapublishing.com

First published 2021

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British Library Cataloguing in Publication Data

A CIP catalogue record for this book is available from the British Library

ISBN: 9781789061611 (paperback)

ISBN: 9781789061628 (eBook)

ISBN: 9781789061635 (ePub)

This eBook was made Open Access in December 2021.

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Editors

Leslie Morris-Iveson is a chartered environmentalist who has, since 1999, worked in both policy and practice in the water and environment sectors, with particular focus on risks and threats to water resources and water supply. Leslie has spent over a decade in field based and national roles in the water and disaster risk reduction (DRR) sectors in many countries across Asia, Africa and Latin America, with similar experiences in the UK and Canada. Through this, she has gained first-hand experience in responding to water threats in insecure environments and in promoting approaches that scale up access to water for marginalized populations at global and national levels. Leslie has worked with a wide range of international organizations and non-governmental organizations and is now a consultant, specializing in policy advisory support related to global challenges and risks that affect water availability and supply.

Dr. St John Day is a chartered water engineer and environmental manager who has worked extensively on infrastructure and institutional reform programmes throughout his career. His interests have always focused on water, especially in humanitarian, post emergency and development contexts. He has worked on major water supply, river engineering and flood alleviation projects in the UK and previously served on the Institution of Civil Engineers Advisory Panel for International Development. Over the past 22 years, St John has undertaken assignments in multiple countries in sub-Saharan Africa and Asia. He has worked with and advised national governments, multi-national agencies, international non-governmental organizations and the private sector, often with a focus on Fragile and Conflict Affected States. Prior to his engineering career, St John served in the UK's Parachute Regiment. He is now a Principal Consultant at IOD PARC.



Preface

This book aims to highlight the challenges in water supply that are faced in a range of locations, from industrialized, to fragile and conflict affected, and low- and middle-income countries. Water supplies globally are at risk from both slow and rapid onset threats. As a result, services need to become more resilient and those working on the frontline, more prepared to respond to threats rapidly. This book describes the different ways in which water suppliers respond to the challenges faced.

The book is the outcome of a motivation to bridge the gap between theory and practice: between the somewhat complex concept of resilience promoted in recent years, and how the concept is evolving on the ground. It is also the result of the belief that awareness or even learning can emerge by seeing how others (including those in vastly different contexts from your own) react and respond to challenges. It is hoped that the cases will stimulate ideas when you look at what professionals in a similar role to you are doing in a different part of the world, and by considering how they are stepping up to the challenge of integrating resilience into their operations.

By presenting the experiences of those directly involved in water provision, this book draws out some key challenges and the common factors involved in building resilience. Many practitioners are working under very difficult and testing conditions and are forced to operate some way below their desired performance levels. Meanwhile, other water suppliers that are performing well are under increasing pressure to maintain standards as uncertainty continues to increase. Therefore, the experiences presented have resulted in a wide range of resilience initiatives.

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doi: 10.2166/9781789061628_xiii

This book aims to contribute in a small way to the ongoing debate regarding how to make water services more resilient. It also aims to “give a voice” to the managers and practitioners who are working daily to deliver more durable services. We accept the scope, scale and innovation of what is taking place far exceeds this volume. It is hoped however, that some of the thinking and the cases that are presented – in plain language—will contribute to building a basic and realistic understanding of what different practitioners are doing to implement resilience into critical water services.

The book’s introduction describes the challenge faced, who this book is for, and describes what resilience means for water supply. It brings out what resilient water services look like and outlines some key elements in building such services. In spite of the many resilient approaches in practice around the world, millions face the impacts when services are not resilient. Some of those impacts are described. The individual chapters of the book are then summarized to help highlight the key points to the reader. The chapters in this book describe differing contexts and are contributed by authors with extensive experience of the approaches described. Finally, the conclusions draw out some lessons from the cases and offer recommendations based on practice.

Acknowledgements

This book is the result of a collaboration between international water professionals, who have worked together from time to time over the last 15 years and followed similar career paths in conflict, natural disasters and other crises – both in the UK and in locations in Africa and South Asia. Having worked on water policy and on water supply and resource management projects on the ground where risk is a given, the book has been generated from a genuine interest to contribute to the emerging resilience agenda, in terms of water supply, and the desire to communicate how global concepts, or sector terminology are interpreted on the ground. The process began in late 2017, and the concept of the book has evolved over a few years, however, the focus has always been to document the experiences of frontline practitioners (and hence the use of the term in the title). It is our belief (and experience) that multiple threats to water supply are now an absolute given and our awareness of the situation is changing. We believe that “expert” views should come not only from people with a broad, global overview, but also from those with specific knowledge and experience in their particular location of action. Whatever can be done to de-mystify how we plan and act, and demonstrate what we’ve done (and reflect on actions) in a realistic way – not always the best and biggest and most well-known cases—should be considered essential sector learning.

As co-editors we extend our sincere thanks to those who supported this project, for their advice, assistance and encouragement. Specifically, the authors thank Mark Hammond (IWA Publishing) for the encouragement to develop the concept for this book. We are grateful to Mark and others at IWA Publishing for their support in making this book open-access, as it is our belief that field knowledge, no matter how imperfect, should be open. As such, we are pleased that our work on this has been not for profit. We thank them for their advice and patience.

Thank you to Alena Čierna (Ecorys) who has also supported this project with inputs and advice. We are also both proud associates of Richard Carter, and wish to thank

Richard for advice and patient support throughout, particularly on the review of the introduction.

Thanks to the peer reviewers of this book, and other professionals who gave guidance at various stages, many of whom have inspired the editors' work as well. They have included:

Dipankar Aich (Consultant)
Clarissa Brocklehurst (Consultant)
Vincent Casey (WaterAid)
Sue Cavill (Consultant)
Chris Cormency (UNICEF)
Richard Franceys (Consultant)
Stephanie Hurry (Waterwise)
Hussam Hussein (University of Oxford)
Emmett Kearney (UNHCR)
Harold Lockwood (Aquaconsult)
Neil Macleod (Consultant)
Gary Morris-Iveson (Consultant)
Phil Outram (United Kingdom Foreign Commonwealth Development Office)
Nathan Richardson (Waterwise)
Fiona Ward (UNICEF)

We have been inspired by a number of other water sector professionals, and are grateful for the many informal conversations we have had over the years, and the general collaboration in the water-risk sector.

Finally, the authors thank the contributors for their participation in this book, willingly sharing their experiences and their enthusiasm for this project, and for sharing knowledge, despite the turns the book has taken. We have had the privilege of working with many of the contributors to this book over several years. The book would not exist without the contributors.

Disclaimer

The content of this book reflects only the authors' views.