

# WATER INTEGRITY GLOBAL OUTLOOK

2016





# Water Integrity Global Outlook 2016

---

## **WATER INTEGRITY GLOBAL OUTLOOK 2016**

The *Water Integrity Global Outlook (WIGO) 2016* is published by the Water Integrity Network Association e.V. (WIN) and is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License (CC BY-NC-SA 4.0).

WIN encourages printing or copying the information contained herein for personal and non-commercial use with proper acknowledgement of WIN and partners. Users are restricted from reselling, redistributing or creating derivative works for commercial purposes without the express written consent of WIN.

Every effort has been made to verify the accuracy of the information contained in this report. All information was believed to be correct as of January 2016. The views expressed in this publication have been compiled from various contributors and do not necessarily reflect the views and policies of WIN or those of its partner organizations. WIN and its partners cannot guarantee the accuracy and the completeness of the content, nor can they accept responsibility for the consequences of its use for other purposes or in other contexts.

The presentation of the material does not imply the expression of any opinion whatsoever on the part of WIN or partners concerning the legal status, frontiers or boundaries of any country, territory or area, or of its authorities.

WIN and its partners have no responsibility for the persistence or accuracy of URLs for external or third-party websites and cannot guarantee that any content on such websites is, or will remain, accurate or appropriate.

**ISBN: 978-3-00-051295-7**

### **Editorial team**

Binayak Das, Carmen Fernández Fernández, Nikki van der Gaag, Peter McIntyre and Marta Rychlewski

### **Copy-editing**

Mike Richardson

### **Design and layout**

Studio Kleinod, Berlin  
[www.studiokleinod.com](http://www.studiokleinod.com)

### **Printed at**

Druckerei Conrad GmbH, Berlin

### **Typeset**

Roboto by Christian Robertson

### **Financed by**

BMZ, DGIS, SDC and Sida

### **Available from**

Water Integrity Network  
Alt Moabit 91b, 10559 Berlin, Germany  
[www.waterintegritynetwork.net](http://www.waterintegritynetwork.net)  
[info@win-s.org](mailto:info@win-s.org)

# Water Integrity Global Outlook 2016



**WIN** Water Integrity Network  
Fighting corruption in water worldwide



WIN acknowledges its donors





# Contents

Illustrations	9
Acknowledgements	13
Abbreviations	15
Foreword	19
Executive Summary	23
Recommendations	30
<b>CHAPTER 1 A GLOBAL MANDATE FOR WATER INTEGRITY</b>	<b>37</b>
1 Water: stewardship of a precious resource	39
1.1 Water integrity: good health for the sector	40
2 Water as a driver of sustainable development	41
3 Challenges to integrity in the water sector	43
3.1 Multiple pressures put water resources at risk	43
3.2 Obstacles to addressing challenges	45
4 Corruption: 'a crime against all of humanity'?	47
4.1 Who wins and who loses?	50
4.2 Blurred boundaries: few signposts	51
5 The link between governance and integrity	52
6 A decade of action on water integrity	54
7 Conclusions: securing water resources for future generations	56
SPREAD: Transparency, accountability and participation	58
<b>CHAPTER 2 THE IMPORTANCE OF POLICIES AND LAWS</b>	<b>61</b>
1 Introduction: why are laws and policies important for water integrity?	63
1.1 Laws and policies and the link to social dynamics and moral values	64
1.2 Policy capture	65
2 International anti-corruption and water laws	67
2.1 The human rights to safe drinking water and sanitation	67
2.2 International anti-corruption instruments	68
2.3 Regional cooperative frameworks on corruption	70
3 Government responsibilities in preventing corruption in the water sector	71
3.1 Putting policies into practice	73
4 Good governance does not exist in a vacuum: regulation and enforcement	73
4.1 Challenging cultures of impunity	75

<b>5 Moving beyond lip service: ensuring participation</b>	<b>75</b>
5.1 Stakeholder mapping and participation	77
5.2 Participation challenges	80
<b>6 Conclusions: water for the good of all</b>	<b>80</b>
<b>SPREAD: Water integrity is a woman's issue</b>	<b>82</b>
<b>CHAPTER 3 FOLLOWING THE MONEY</b>	<b>85</b>
<b>1 Introduction: what we need to know</b>	<b>87</b>
1.1 The challenge to integrity	88
<b>2 The basics of financing: how much, where from and who takes care of integrity?</b>	<b>89</b>
2.1 The role of government in public finances	89
2.2 Financing needs: the trillion-dollar challenge	89
2.3 Sources of funding: the three 'T's (taxes, tariffs and transfers)	92
2.4 Expenditure in the water sector	93
<b>3 Public finance for water: taxes and beyond</b>	<b>93</b>
3.1 Budget formulation	94
3.2 Budget approval	97
3.3 Budget execution (implementation)	98
3.4 Supreme audit institutions	100
3.5 Collaborating with civil society monitoring	101
<b>4 Tariffs: user fees and accountability</b>	<b>102</b>
4.1 Commercialization and the human rights to water and sanitation	103
4.2 Tariffs must be 'fair' and promote responsible water use	103
4.3 Informal service providers	104
<b>5 Transfers and beyond: donor funding in the water sector</b>	<b>105</b>
<b>6 Repayable finance: private sector investments</b>	<b>110</b>
6.1 Debt, equity and other private investment	111
6.2 Water: a risky investment?	112
6.3 Private investment: a risk to fair and sustainable water management?	113
<b>7 Conclusions: protecting water as a public good</b>	<b>113</b>
<b>SPREAD: Private space in public water</b>	<b>116</b>
<b>CHAPTER 4 FROM PLANNING TO IMPLEMENTATION</b>	<b>119</b>
<b>1 Introduction</b>	<b>121</b>
<b>2 Planning and preparing</b>	<b>122</b>
<b>3 Design phase</b>	<b>124</b>
<b>4 Procurement and contracting: public-private interface</b>	<b>125</b>
<b>SPREAD: Mega-dams must share benefits</b>	<b>126</b>
4.1 Weaknesses in the procurement chain	129
4.2 Warning signals in procurement	130
4.3 'Revolving door' employment carries a risk	131
4.4 Strengthening procurement	132
<b>5 Construction phase</b>	<b>136</b>



<b>6 Permits and licensing</b>	<b>138</b>
6.1 The need for transparency of data in licensing	139
<b>SPREAD: Building integrity in river basin management</b>	<b>140</b>
6.2 Strengthening licensing to promote TAP	143
<b>7 Operation and maintenance (O&amp;M): what happens when a water system breaks down?</b>	<b>144</b>
7.1 Good practice in O&M	145
<b>8 The interface with consumers: payments and complaints</b>	<b>147</b>
8.1 Improving billing and payments	148
8.2 Complaints systems	150
<b>9 Conclusions: capacity building and practical action are key</b>	<b>150</b>
<b>SPREAD: Smart cities: public interest over politics</b>	<b>152</b>
<b>CHAPTER 5 ENHANCING INTEGRITY: APPROACHES AND TOOLS</b>	<b>155</b>
<b>1 Introduction: challenging power</b>	<b>157</b>
<b>2 Giving voice to the voiceless: how independent media can help fight corruption</b>	<b>157</b>
2.1 Whistleblowers: a job for the brave	162
<b>3 Advocacy: helping to bring about change</b>	<b>163</b>
3.1 The importance of bottom-up approaches	164
3.2 How institutional reform is linked to advocacy	166
<b>4 Building capacity on water integrity</b>	<b>168</b>
4.1 The importance of capacity building	168
4.2 Building an enabling environment	168
4.3 From national to local to regional: building capacity development	171
4.4 Capacity development as part of anti-corruption training	173
4.5 Putting capacity development into practice	174
4.6 Assessing the impact of capacity development	176
<b>5 Tools to build integrity: an inspiration, not a blueprint</b>	<b>178</b>
<b>6 Conclusions and way forward</b>	<b>183</b>
<b>SPREAD: Information and communication technology: boosting integrity?</b>	<b>188</b>
<b>CHAPTER 6 WHAT COUNTS? MONITORING AND EVALUATION</b>	<b>191</b>
<b>1 Introduction: the importance of monitoring for water integrity</b>	<b>193</b>
1.1 Indicators for monitoring water integrity	194
1.2 Who should be involved in monitoring?	195
<b>2 Indicators and approaches for monitoring integrity in the water sector</b>	<b>197</b>
2.1 Monitoring perceptions	197
2.2 Monitoring across the chain	198
2.3 Linking monitoring to integrity	198
<b>3 How can monitoring enhance integrity at national and local levels?</b>	<b>200</b>
3.1 The 'black box': monitoring and water sector governance	200
3.2 Building a national framework for monitoring	201
3.3 Monitoring at local level: successes and challenges	203
<b>4 Can international or regional monitoring raise levels of accountability?</b>	<b>205</b>

4.1	International monitoring initiatives	205
4.2	The challenges of international monitoring	206
4.3	Holding the international community accountable	208
4.4	Beyond borders: initiatives at regional level	208
<b>5</b>	<b>The importance of information and data in the monitoring process</b>	<b>209</b>
<b>6</b>	<b>Evaluation and integrity in the water sector</b>	<b>210</b>
6.1	The challenges of evaluation in relation to integrity	211
6.2	How can evaluations build integrity in the water sector?	213
<b>7</b>	<b>Conclusions and way forward</b>	<b>213</b>
	<b>References</b>	<b>216</b>
	<b>Glossary</b>	<b>256</b>

## ILLUSTRATIONS

### Figures

Figure 1.1	The SDGs tree	42
Figure 1.2	TI's Corruption Perceptions Index 2014	48
Figure 1.3	Who wins, who loses	51
Figure 2.1	The legislation around water integrity	67
Figure 2.2	Stakeholder power plays	77
Figure 2.3	Stakeholder mapping in Nepal's WASH sector	79
Figure 3.1	The budget cycle and major integrity risks	95
Figure 3.2	Aligned mechanisms for water sector finances	114
Figure 4.1	The public procurement process and major risks	125
Figure 4.2	Leading obstacles to urban infrastructure and services	137
Figure 5.1	Components and requirements for enhancing integrity	159
Figure 5.2	Development of water tariff at the Berlin water utility	167
Figure 5.3	Building synergies in capacity development training	173
Figure 5.4	Steps of an integrity risk management process	182
Figure 6.1	Monitoring and the relationship with integrity	194
Figure 6.2	The 'black box': monitoring and water sector governance	200

### Boxes

Box 1.1	What do we mean by 'water integrity'?	41
Box 1.2	Integrity challenges in the water sector	46
Box 1.3	What do we mean by corruption?	47
Box 1.4	Delhi households see no decline in corruption	49
Box 1.5	The OECD Principles on Water Governance	52
Box 1.6	Summary of the Delft Statement on Water Integrity	54
Box 2.1	The lack of synergy in state and customary laws	64
Box 2.2	Falling trust in business: is integrity the key?	66
Box 2.3	The global impact of the Foreign Corrupt Practices Act	69
Box 2.4	The OECD Convention on Combating Bribery	69
Box 2.5	The UN Watercourses Convention	69
Box 2.6	The ECOWAS Protocol on the Fight against Corruption, 2001	70
Box 2.7	The African Union Convention on Corruption	71
Box 2.8	Addressing corruption in the water sector	71
Box 2.9	Country commitments to eliminate inequalities in WASH	72
Box 2.10	Community rights to water in Colombia	73
Box 2.11	Kenya Water Services Regulatory Board integrity measures	74
Box 2.12	Who is in the room when decisions are made?	76
Box 2.13	Transparency International's National Integrity System	78
Box 3.1	Safely managed WASH services require three times current spending levels	90
Box 3.2	Malawi: 'Cashgate' shows that technology alone is not enough	93
Box 3.3	A human rights approach to participatory budgeting	96

Box 3.4	The WASHCost initiative	96
Box 3.5	Guiding local budgets in Ethiopia	97
Box 3.6	State-owned enterprises in South Korea	99
Box 3.7	Integrity risks in climate finance in Bangladesh	101
Box 3.8	Open budgeting initiative monitors government accountability	102
Box 3.9	Chinese reform of agricultural water prices	104
Box 3.10	Mozambique: reducing the level of financial risk	107
Box 3.11	Kenya: risk management in the Water Services Trust Fund	108
Box 3.12	Benin fraud leads to suspension of development cooperation	109
Box 3.13	Linking investments to performance improvements	109
Box 4.1	Supreme Court of India: keep rehabilitation promises	123
Box 4.2	World Bank demands faster compensation	123
Box 4.3	Corruption in planning and implementation in Ghana	125
Box 4.4	The ADB finds that procurement is susceptible to corruption	128
Box 4.5	Weaknesses in the public–private interface	129
Box 4.6	Companies made secret agreement to rig bidding process	130
Box 4.7	Code of Ethics seeks to block conflicts of interest	131
Box 4.8	EU seeks to protect small bidders	132
Box 4.9	Setting standards for contractors	133
Box 4.10	Positive improvements found in African procurement	134
Box 4.11	'A broken borehole is a broken promise'	134
Box 4.12	Transparency in contracting	135
Box 4.13	Integrity pacts and procurement MAPS	135
Box 4.14	Ethiopia improves contract information and public disclosure	137
Box 4.15	Criminal cases against contractors in Kyrgyzstan	138
Box 4.16	Unlicensed sand mining challenged in Sri Lanka	139
Box 4.17	Conflicting interests over the US Clean Water Rule	142
Box 4.18	Chennai farmers sold their futures	143
Box 4.19	Water losses due to vandalism, illegal connections and leaks	144
Box 4.20	Trust and respect improve irrigation management	146
Box 4.21	Nicaragua: user complaints fall and payments increase	147
Box 4.22	The positive: an SMS system enables rapid pump repairs in Uganda	148
Box 4.23	The negative: complaints without action go nowhere	149
Box 5.1	Radio raises awareness in Nepal	159
Box 5.2	Journalist jailed after filming water protest in Mexico	160
Box 5.3	Journalists making a difference in water and sanitation in Africa	161
Box 5.4	The media in California exposes the cost of a water meter plan	161
Box 5.5	The importance of the right to information	163
Box 5.6	Good practices for advocacy campaigns	164
Box 5.7	The marches against corruption in the water sector in Brazil	165
Box 5.8	Public protest leads to institutional change in Ecuador	165
Box 5.9	Berlin's tryst with transparency	166
Box 5.10	What is capacity development in relation to water integrity?	168
Box 5.11	The <i>Training Manual on Water Integrity</i>	169
Box 5.12	Capacity needs assessment in Latin America	170
Box 5.13	Building capacity on water integrity in the MENA region	171
Box 5.14	Building capacities across sub-Saharan Africa	172

Box 5.15	More than gender balance	176
Box 5.16	The impact of water integrity capacity development courses	177
Box 5.17	Defining an integrity tool	178
Box 5.18	Information sharing in Uganda increases impact	179
Box 5.19	A tool for assessing WASH in schools in India	180
Box 5.20	What are water integrity studies and why are they useful?	180
Box 5.21	The Integrity Management Toolbox	181
Box 5.22	How to embed tools in an integrity risk management process	181
Box 6.1	Definitions in assessing water governance	196
Box 6.2	Monitoring gender in the water sector	199
Box 6.3	Taking action on non-compliance in Zambia	201
Box 6.4	INFObbras, Peru	202
Box 6.5	Monitoring the impact of climate change	202
Box 6.6	Water Watch Groups in Zambia	204
Box 6.7	I-Watch in the Philippines	204
Box 6.8	Governance, integrity and the functionality of water points	206
Box 6.9	The East African Bribery Index	208
Box 6.10	Monitoring the Total Sanitation Campaign in India	210
Box 6.11	Monitoring, evaluating and adapting to failure in Malawi	212

## Tables

Table 3.1	Summary of estimates for water sector financing needs	91
Table 3.2	Donor support: different modalities and risk management measures	106
Table 5.1	Examples of media coverage of water integrity issues	158
Table 5.2	Integrity strategies and tools for the water sector	184
Table 6.1	Regulatory risks in the water sector	209



# Acknowledgements

---

The *Water Integrity Global Outlook (WIGO) 2016* would not have been possible without the expertise and contributions of many individuals and institutions. The Water Integrity Network (WIN) would like to thank and acknowledge everyone who has contributed, directly and indirectly.

WIN would like to thank our publication co-partners Cap-Net, GIZ, Global Water Partnership (GWP), UNDP Water Governance Facility at SIWI (WGF), Transparency International (TI), TI-Bangladesh (hosting BAWIN) for their continuous support and significant contributions, including editorial review.

Particular thanks go to the Advisory and Review Board (ARB) created specifically for WIGO, whose expertise and guidance were crucial to the process. ARB members Donal O’Leary and Henk van Schaik reviewed the various drafts and significantly improved the publication. WIN is also very grateful for the guidance provided by ARB chair Teun Bastemeijer (WIN) and members François Brikké (GWP), Themba Gumbo (Cap-Net), Kenneth D. Irvine (UNESCO-IHE), Sumaiya Khair (TI Bangladesh), Marianne Kjellen (WGF), Detlef Klein (GIZ), Madar Samad (IWMI), Gareth Sweeney (TI) and Fred Pearce (independent journalist).

Many individuals researched, led, wrote and shaped the various chapters and content for WIGO. Thanks therefore go to Lotte Feuerstein (WIN) for co-writing the finance chapter as well as the tools and strategies chapter; Janek Hermann-Friede for contributing to the monitoring and evaluation chapter; Damian Indij (Cap-Net) and Maria Jacobson (WGF) as lead writers on capacity building in the tools and strategies chapter; and Samuel Moon for co-writing the finance chapter. WIN also thanks the following people for coordinating and co-writing WIGO sections: Rozemarijn ter Horst for the policies and laws chapter; Andrea van der Kerk for the advocacy and tools and strategies chapters; Kiran Pereira for the planning and implementation chapter; Ellen Pfeiffer for the policies and laws and planning and implementation chapters as well as for the Global Mandate for Water Integrity chapter; and Jonathan Stevens for the monitoring and evaluation chapter.

WIN is also grateful to all others who have contributed to this publication: Dilini Abeygunawardane, Amitangshu Acharya, Sarah Achermann, Junaid Kamal Ahmad, Gemma Aiolfi, Aziza Akhmouch, Moez Allaoui, Alex Bielax, Theresa Bradley, Kerstin Jonsson Cissé, Floriane Clement, Peter Cook, Moa Cortobius, Piers Cross, Ulrike Pokorski da Cunha, Vivien Deloge, Sam Drabble, Jan Drozd, Tandiwe Erlmann, Catarina Fonseca, Barbara Frost, Almas Haider, Herman Havekes, Nick Hepworth, Céline Hervé-Bazin, Maximilian Leo Hirn, Jaime Hoogesteger van Dijk, Zachary Hurwitz, Ina Jurga, Johannes Kannicht, Muhammad Zakir Hossain Khan, Barbara van Koppen, Christoph Kowalewski, Michael Kropac, Huguette Labelle, Jesper Elias Lauridsen, Ella Lazarte, Roberto Lenton, Per Ljung, Danai H. Mabuto-Kudya, Grit Martinez, Chola Mbilima, Alexander McPhail, Hans Merton, Fredrick Mugira, Daniel Nordmann, Guy Norman, Juanita Olaya, Grace Orishaba, Stuart Orr, Ángel Paniagua Pérez, Thomas Petermann, Nicci Russell, John Sauer, Ton Schouten,

Zaki Shubber, Stef Smits, John D. Sparks, Vishwanath Srikantaiah, Patrik Stålgren, Neill Stansbury, Frank van Steenberg, Lena de Stigter, Arto Suominen, Peter Tausz, Bart Teeuwen, Christian Teriete, Jean Brice Tetka, Danka Thalmeinerova, Luciana Torchiario, David Trouba, Uta Wehn, Kai Wegerich, Roland Werchota and Syeda Maheen Zehra.

WIN sincerely thanks KayeScholer LLP and Arnold & Porter (UK) LLP – specifically, Sebastian Jungermann, Jens Steger and Ian Dodds-Smith – for their pro bono libel advice.

WIN management stepped in during crucial phases to provide guidance, critique and early promotional support. Thanks go to executive director Frank van der Valk and the WIN Supervisory Board: Ravi Narayanan (chair), Håkan Tropp, Chantal Uwimana, Susanne Weber-Mosdorf and Thomas Zeller.

Without the support and involvement of WIN staff, this report would have been impossible. Special thanks go to WIN team members Tammi L. Coles and Claire Grandadam for their key contributions in the publication production process and communications, as well as to Jacopo Gamba, Françoise Ndoume and Matthias Ribbentrop for their assistance in content development and project implementation processes.

The WIGO 2016 editorial team consists of Binayak Das, Carmen Fernández Fernández, Nikki van der Gaag, Peter McIntyre and Marta Rychlewski.

Finally, the Water Integrity Network would like to express its gratitude to its donors – BMZ, DGIS, SDC and Sida – for their trust in WIN and for making WIGO possible.



## ABBREVIATIONS

3ei	International Initiative for Impact Evaluation
ACWUA	Arab Countries Water Utilities Association
ADB	Asian Development Bank
AfDB	African Development Bank
ALAC	Advocacy and Legal Advice Centre (TI)
AMCOW	African Ministers' Council on Water
AMUNIC	Association of Municipalities of Nicaragua
ASCE	American Society of Civil Engineers
ASEAN	Association of Southeast Asian Nations
AWIS	Annotated Water Integrity Scan
BCCTF	Bangladesh Climate Change Trust Fund
BDEW	Federal Association of Energy and Water Industries (Germany)
BMC	basin management committee
BMZ	Federal Ministry for Economic Cooperation and Development (Germany)
BWB	Berliner Wasserbetriebe (Berlin's water utility)
CESCR	UN's Committee on Economic, Social and Cultural Rights
cewas	International Centre for Water Management Services
CGIAR	Consultative Group for International Agricultural Research
CoST	Construction Sector Transparency Initiative
CSO	civil society organizations
DAC	Development Assistance Committee (OECD)
DFID	Department for International Development (UK)
DoU	Department of Utilities (Sacramento, USA)
EAC	East African Community
EBRD	European Bank for Reconstruction and Development
EC	European Commission
ECOWAS	Economic Community of West African States
EIU	Economist Intelligence Unit (UK)
EPA	Environmental Protection Agency (USA)
EPM	Empresas Públicas de Medellín (Colombia)
FANSA	Freshwater Action Network South Asia
FCPA	Foreign Corrupt Practices Act (USA)
FEDURICC	Federation of Water Users of the Province of Cotopaxi (Ecuador)
GCR	<i>Global Corruption Report</i>
GEMI	Integrated monitoring of water- and sanitation-related SDG targets (formerly Global Expanded Water Monitoring Initiative)
GII	Ghana Integrity Initiative
GIS	geographic information system
GIZ	Gesellschaft für Internationale Zusammenarbeit (Germany)
GLAAS	Global Analysis and Assessment of Sanitation and Drinking-Water
GLONEHDO	Global Neighbourhood Healthcare Development Organization
GRC	grievance redressal committee
GWA	Gender and Water Alliance
GWP	Global Water Partnership
HSAP	Hydropower Sustainability Assessment Protocol

IADB	Inter-American Development Bank
IBP	International Budget Partnership
ICESCR	International Covenant on Economic, Social and Cultural Rights
ICT	information and communication technology
IEA	International Energy Agency
IFC	International Finance Corporation
IHA	International Hydropower Association
IISD	International Institute for Sustainable Development
INAA	Nicaraguan Institute of Aqueducts and Sewers
INBO	International Network of Basin Organizations
IPCC	Intergovernmental Panel on Climate Change
IRC	International Water and Sanitation Centre
IUCN	International Union for Conservation of Nature
IWA	International Water Association
IWMI	International Water Management Institute
IWRM	Integrated Water Resources Management
JMP	Joint Monitoring Programme
M4W	Mobile for Water project (Uganda)
MDG	Millennium Development Goal
MENA	Middle East and North Africa
MIGA	Multilateral Investment Guarantee Agency
MSP	multi-stakeholder process
MWSS	Metropolitan Waterworks and Sewerage System (Manila, Philippines)
NASA	National Aeronautics and Space Administration (USA)
NWASCO	National Water Supply and Sanitation Council (Zambia)
OAI	Office of Anticorruption and Integrity (ADB)
ODI	Overseas Development Institute (UK)
OECD	Organisation for Economic Co-operation and Development
Ofwat	economic regulator of the water sector in England and Wales
OHCHR	Office of the High Commissioner for Human Rights (UN)
PET	public expenditure tracking
PFM	public financial management
PLA	project-level association
PPEA II	Programme Pluriannuel d'appui au secteur de l'Eau et de l'Assainissement – Phase II (Benin)
PPP	public–private partnership
PSI	Public Services International
PSIRU	Public Services International Research Unit (UK)
PWGSC	Public Works and Government Services Canada
RBA	river basin agency
RBO	river basin organization
RSPO	Roundtable on Sustainable Palm Oil
RTI	Right to Information Act (India)
RWSN	Rural Water Supply Network
SAARC	South Asian Association for Regional Cooperation
SAI	supreme audit institution
SDG	Sustainable Development Goal

SDSN	Sustainable Development Solutions Network
SEI	Stockholm Environment Institute
SIA	social impact assessment
Sida	Swedish International Development Cooperation Agency
SIWI	Stockholm International Water Institute
SME	small and medium-sized enterprise
SOE	state-owned enterprise
SWA	Sanitation and Water for All
TAP	transparency, accountability and participation
TASU	Technical and Administrative Support Unit (Uganda)
TI	Transparency International
TSC	Total Sanitation Campaign (India)
U4	U4 Anti-Corruption Resource Centre
UN	United Nations
UN-ESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNCAC	United Nations Convention against Corruption
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNESCO-IHE	UNESCO Institute for Water Education
UNFCCC	United Nations Framework Convention on Climate Change
UNODC	United Nations Office on Drugs and Crime
UNOSD	United Nations Office of Sustainable Development
UNSGAB	United Nations Secretary-Generals' Advisory Board on Water and Sanitation
UNU-INWEH	United Nations Institute for Water, Environment and Health
USGS	US Geological Survey
WAPDA	Water and Power Development Authority (Pakistan)
WASH	water, sanitation and hygiene
WASPA	Water Services Providers Association (Kenya)
WASREB	Water Services Regulatory Board (Kenya)
WCD	World Commission on Dams
WFD	Water Framework Directive (EU)
WGC	Water Governance Centre
WGF	UNDP Water Governance Facility at SIWI
WIGO	<i>Water Integrity Global Outlook</i>
WIN	Water Integrity Network
WMTI	Water Management Transparency Index
WRM	water resources management
WSP	Water and Sanitation Program (World Bank)
WSTF	Water Services Trust Fund (Kenya)
WUA	water users' association
WWF	World Wide Fund for Nature
WWG	Water Watch Group



# Foreword:

## Uschi Eid, former Chair of UN Secretary-General's Advisory Board on Water and Sanitation (UNSGAB)

---

As we embark on the United Nations' 2030 Agenda for Sustainable Development, with its integrated and ambitious vision for water, there is an urgent need to take stock of what has been accomplished and to point out unfinished business in the water and sanitation sector, internationally and nationally. After eleven years of work the Secretary-General's Advisory Board on Water and Sanitation, in its final report 'The UNSGAB Journey', has provided a range of forward-looking recommendations. Some of the report's key recommendations to governments worldwide are to fast-track institutional reforms, boost funding, eliminate corruption and strengthen capacities in their water and sanitation sectors. These findings are set against the background that the Board has identified slow progress on institution building and governance as one of the major challenges in realizing the 2030 water agenda. In this connection, I welcome the *Water Integrity Global Outlook 2016*, which takes on this challenge.

The 2030 Agenda recognizes the importance of ensuring the accountability of governments to their citizens in the implementation of the Agenda. It therefore calls for systematic progress follow-up and review to be provided for all 17 Sustainable Development Goals (SDGs). SDG 6, in combination with the water-related targets of other SDGs, has elevated the status of water and sanitation within the UN. This now needs to be underpinned by a global follow-up and review structure that is able to institutionalize transparency and governmental accountability. It is in this light that UNSGAB's final report recommends the establishment of a UN Intergovernmental Committee on Water and Sanitation, to enable a comprehensive and integrated follow-up and review of the 2030 water agenda. A political structure of this type will provide the much-needed link between the water expert community and the international political level. It will need to accommodate strong representation of multiple relevant stakeholders, including major groups of civil society.

The UNSGAB report also calls for increased and improved financial flows into the water sector, improved knowledge of country-wide expenditures on water and sanitation, through monitoring initiatives such as the Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS), and thoroughgoing estimation of the economic costs and benefits of achieving the SDGs. In this regard, the *Water Integrity Global Outlook* rightly points out that there are hardly any assessments of the costs of corruption and that data on financial flows in the water sector is scarce. More and better data is urgently needed. Moreover, there is a need to strengthen the public finance capacity of water institutions and to improve their communication with the finance ministry within countries.

To strengthen integrity, monitoring and evaluation mechanisms are crucial in addition to financial reporting. Furthermore, it is high time that the quality of governance became an integral part of sector monitoring everywhere. Monitoring itself, at national and global levels, is an essential tool for accountability. At the global level, there is a need for stringent, harmonized and nationally relevant monitoring and reporting mechanisms, including on the progress towards achieving the SDG water and sanitation targets. The new UN-Water initiative 'Integrated monitoring of water- and sanitation-related SDG targets' (GEMI; formerly Global Expanded Water Monitoring Initiative) represents an important effort to this end and should be strongly supported by UN Member States.

The *Water Integrity Global Outlook 2016* is a central guiding document for the coming years. It will inspire us to strengthen integrity in the water and sanitation sector and beyond.

# Foreword:

## Frank van der Valk, Executive Director of the Water Integrity Network Association

---

Globally, 663 million people lack access to what is called ‘improved’ drinking water. However, the number of people without *safe* drinking water could be as large as those who lack access to basic sanitation: still around 2.5 billion in 2015, 32 per cent of the total human population. The aim of the Sustainable Development Goals is to ensure the fulfilment of these basic human rights and needs, as well as several others that are crucially dependent on water, such as food, health and healthy ecosystems.

However, as (clean) freshwater is becoming increasingly scarce, it is clear that UN-Water in *The Future of Water: A Vision for 2050* (UN-Water, 2015c) is right to call for dramatically changing the way water is used, managed and shared. This *Water Integrity Global Outlook (WIGO) 2016* is a clear and timely reminder that *increasing integrity and reducing corruption are essential components of that required change*. Failure to recognize this will mean that we will continue to face the breakdowns and inefficiencies that corruption cause.

WIGO’s predecessor, the *Global Corruption Report 2008* on water, opened the world’s eyes to corruption in the water sector. We know that integrity in decision making processes needs to be safeguarded to prevent and reduce corruption. WIGO takes stock of approaches to strengthen integrity that have been developed and tested in recent years and shares the lessons that have been learned in order to support wider action. Because if there is one thing that WIGO shows, it is that we are only at the very beginning of making the dramatic changes needed. In far too many places corruption remains pervasive. Throughout the water sector more action is needed. Change will come about only if there is a push. Such pushes are required both from organizations and from individuals.

From organizations we need the recognition that integrity is a shared responsibility and interest of the whole sector, and that *each* organization working in or with the sector should play its part in ensuring integrity in decision-making. In order to increase the efficiency and sustainability of investments, we must do a better job of ensuring that integrity measures are in place against all forms of corruption – from policy capture to service-level bribes – before decisions on large amounts of money are taken, defying pressure for quick decisions or worse. First things first. Within organizations, more recognition is needed that safeguarding integrity is a most crucial element of the quality of work.

Any individual actor in the sector – you, reader! – needs to consider ‘What can I do against corruption?’ and become a change agent in his or her own environment. As the Swedish International Development Cooperation Agency has so rightly put it: ‘Always prevent. Never accept. Always inform. Always act.’ Admittedly, it depends on your position how much you can do, but are you really doing all you can along these four lines? Are you sure money is being used cleanly, transparently and efficiently? Are there credible mechanisms for prevention, safe reporting and correction if needed? Or can you bring about better practice in your own organization?

This is not easy, of course. Fighting corruption requires leadership and courage. Nonetheless, it has been shown in practice that administrators and managers at various levels can take both the responsibility and the opportunity to create more integrity in their organization’s decision-making and operations. Even so, where corruption is entrenched in the political system and decisions are rigged towards the benefits of political and economic elites, it can be very hard to tackle. In particular, in such cases, *all* other stakeholders – including professionals, citizens and funders – need to consider how they can follow the Sida motto, build alliances and support the necessary initiatives for change. Pressure from citizens may take various forms and can often benefit from external support, even from elementary but crucial activities such as provision of information about their rights, including the human rights to water and sanitation. Support to setting up social accountability mechanisms in order to increase the quality of governance would also form a valuable addition to focusing on the development of institutions.

We at WIN hope that this *Global Outlook* will provide inspiration for you to take up or continue your role as change agent for more integrity in the water sector. With the help of our donors, we at WIN will continue to provide and mobilize support for your much-needed efforts.



# Executive Summary

---

## **WATER INTEGRITY: CLEAN WATER NEEDS CLEAN GOVERNANCE**

Water is vital for life: the life of every human being on this planet and the life of the planet itself. However, despite international legislation over many decades, access to safe, clean and adequate water supply and sanitation services is still not available to all – especially the poorest in the world. Pressure on the precious resource is increasing, from climate change and from the growing human population and its needs for food and energy. Today 40 per cent of the world's population live in areas of water stress, but this level is forecast to rise to more than 65 per cent within ten years. Satellite observations show that 21 of the world's 37 largest freshwater aquifers are dwindling at a rapid rate.

International agencies, governments, private companies, local authorities and communities spend hundreds of billions of dollars each year on infrastructure and water services. But their efforts are not keeping pace with the demand for water uses, in part due to abuse of resources, resulting in slower development and polluted environments.

Two critical weaknesses allow this to happen. The first is that governance of water is neither universal nor effective. Globally, levels of capacity and coordination to improve the care of water resources and water services are woefully short of what is required.

The second is that corruption and a lack of integrity threaten every area of life where power, money and prestige are at stake.

*This report provides strong arguments that corruption in the water sector needs to be reduced or eliminated to ensure that the UN's Sustainable Development Goal of 'availability and sustainable management of water and sanitation for all'<sup>1</sup> will be achievable.*

Fulfilling global water requirements for drinking, sanitation, irrigation, power generation, food production and environmental protection requires an effective, coordinated and urgent response in managing the increasingly scarce resource. This requires trust and engagement.

Water integrity must be at the heart of such efforts to develop a sector that works effectively and with equity as it provides an environment of trust – a combination of commitment, competence, honesty and ethical standards – in which principles of good water governance, technical developments and investments converge into improved sector performance.

The *Water Integrity Global Outlook 2016* explores how this can be done. It examines the strengths and weaknesses of integrity via examples from various countries. It demonstrates how integrity requires a new sense of openness and citizen involvement, notably through building transparency, accountability and participation (TAP). It provides examples of innovative programmes and

---

<sup>1</sup> UN-Water: [www.unwater.org/sdgs/a-dedicated-water-goal/en](http://www.unwater.org/sdgs/a-dedicated-water-goal/en).

projects that challenge the status quo, and showcases tools and techniques that can drive better performance in the sector. It argues that having the courage to stand up for integrity is the only sustainable way forward.

## WHAT HAS CHANGED SINCE 2008?

Eight years ago Transparency International (TI) and the Water Integrity Network (WIN) published the *Global Corruption Report 2008: Corruption in the Water Sector*, capturing the scale of corruption in the sector and setting out what needed to be done to build integrity. The report helped to build awareness and momentum, though resistance persists in many places.

Today, there is a growing recognition of the need for good governance and for measures to combat corruption to improve sector performance. The UN Sustainable Development Goals (SDGs) include the need for participation, accountability and transparency. The Organisation for Economic Co-operation and Development (OECD) Principles on Water Governance highlight integrity, TAP principles and the need to combat corruption as crucial elements for better water management. Integrity sessions feature prominently in the annual World Water Week in Stockholm. The term 'water integrity' challenges those with a leadership role to adopt and promote the positive values that promote delivery.

This *Global Outlook* shows how integrity is vital to the ability of governments, institutions, companies and citizens to protect water and to use it with equity. It underlines how institutional fragmentation makes the water sector vulnerable to inefficiencies, mismanagement and corruption. It demonstrates the need to improve transparency within governments, companies, the private sector and NGOs. Above all, it delivers a warning to the sector about the power of corruption to undermine good governance, resources and services. The main victims of corruption are the poor and powerless: women, children and the landless. However, in the end, corruption and a lack of integrity are harmful for all: both the victims of corruption and those who are corrupt. Ultimately, when resources are wasted and the environment is damaged, everybody loses.

There is no evidence that corruption has declined since 2008. Indeed, repeated scandals inside and outside the sector suggest that it is as prevalent as ever.

*Although there are no reliable estimates of total losses, illustrating the need for better research and data, every 10 per cent of investment that is lost to corruption implies annual losses to the sector in excess of US\$ 75 billion; some guesstimates put potential losses many times higher.*

This *Global Outlook* highlights numerous instances of what is called 'grand corruption', which leaches money out of development and which takes place both within public institutions and in interactions with the private sector. In Benin, € 4 million of Dutch funding vanished from the Ministry of Water in 2015. In Malawi, a reformed public financial management (PFM) system was misused to divert US\$ 55 million from public funds to the private accounts of officials. In California, a member of the State Senate in 2015 declared a system of permits that allowed oil companies to discharge wastewater into underground aquifers to be corrupt.

A major area of concern is in the planning and construction of infrastructure, much of which is vitally needed to provide water services, irrigation and hydropower for millions of people. However, small- and large-scale projects alike require careful scrutiny in their planning and delivery. In some cases data has been misused to justify the construction of prestige projects that never achieve their aims or value for money. In other cases communities displaced by large-scale dams have been cheated out of their compensation. In a project in Pakistan, it is estimated that 80 per cent of compensation went to bogus owners.

Petty corruption – in which people pay bribes to officials or take water illegally – is a misnomer, as small thefts can add up to major fraud. The Nairobi City Water and Sewerage Company in Kenya loses 40 per cent of its supply to theft and leaks while poor residents are forced to buy water from vendors at ten to 25 times the price they would pay the water utility. In South Africa, eThekweni Metropolitan Municipality in KwaZulu-Natal lost more than a third of its water in one year because of illegal connections and vandalism, costing US\$ 44 million.

Action taken once fraud is discovered often comes too late to prevent losses and public mistrust.

The *Water Integrity Global Outlook 2016* demonstrates that we now know what the issues are in relation to corruption in the water sector. These need to be addressed systematically, politically, professionally – and urgently. The time has come to act. We must no longer allow corruption to flourish and integrity to be undermined.

## A GLOBAL MANDATE FOR WATER INTEGRITY

The human rights to water and sanitation are far from being met: in 2015 there were some 663 million people without access to an improved drinking water source, and in the least developed countries only 37 per cent of the population had access to improved sanitation. Yet the vast majority of countries have no comprehensive system for tracking funding to water and sanitation – and fewer than half know how well services are reaching the poor.

In 2015 the United Nations adopted ambitious Sustainable Development Goals for 2030. The outcome document adopted by the UN General Assembly cites inequality, corruption, poor governance and illicit financial flows as factors that give rise to violence, insecurity and injustice. Only a well-functioning and corruption-free water sector will be able to overcome the enormous challenge ahead.

There are steps in the right direction. In June 2015 the OECD Ministerial Council ratified a set of principles on water governance with the potential to address corruption and improve performance, endorsed by public, private and non-profit organizations. They include measures to broaden participation, increase accountability and improve transparency. The UN Secretary General and the UN Global Compact have established a CEO Water Mandate to assist private companies with water sustainability policies to commit to 'transparency and disclosure in order to hold themselves accountable'. By December 2015 the mandate had been endorsed by 144 companies worldwide.

Clearly, though, much more needs to be done.

## HOW POLICIES AND LAWS CAN SUPPORT WATER INTEGRITY

Properly defined and enforced policies, laws, guidelines, rules, rights and duties can reduce corruption, ensure credibility and give people the security to call upon their rights.

However, legislations can be influenced by powerful groups. This can occur through political capture by politicians and influential groups within government or, for example, when international companies with money and influence are able to seize water and land rights, overriding customary laws that protect communities.

This report showcases the gaps that allow corruption to flourish: those between policy and implementation. These can be partly bridged by collaboration between the water sector, anti-corruption groups, the private sector, public finance institutions and the judiciary. One example is the legal protection for whistleblowers supported by TI's Advocacy and Legal Advice Centres (ALACs), which operate in 50 countries. Many citizen organizations are engaged in holding service providers and authorities to account. However, enforcement mechanisms need to be strengthened for legislation to make a difference in people's lives.

## FINANCING THE WATER SECTOR

Some estimates put the investment required to meet the water needs for WASH, hydropower and irrigation at more than US\$ 1 trillion a year, but there is little agreement on how this can be provided and protected.

There is no part of the financing system – public or private – that is immune from corruption and that does not suffer from integrity failures. Common examples include bribery and collusion in procurement, fraudulent expenditure and reporting or the bias towards large investments even when these are not cost-effective or when smaller-scale or mixed solutions would provide better benefits for local communities. Institutional fragmentation makes it impossible to track how financing needs are met, while complex funding arrangements make the water sector especially vulnerable. Within countries, subsectors are managed across different ministries and regulated in different ways. The public financial management system is frequently weak.

*National supreme audit institutions (SAIs) can and must play a powerful role in holding public-sector institutions to account and dealing with frauds such as double-counting or 'ghost' projects.*

SAIs need to engage with civil society to gain traction and protect themselves from political pressure. Budget execution reports from finance ministries should be made public and monitored by independent oversight bodies. State-owned enterprises (SOEs) require special attention, as they are soft targets for political interference and corruption.

Donors increasingly undertake anti-corruption initiatives such as risk assessments with partner countries. The Swedish International Development Cooperation Agency (Sida) has adopted a mantra: 'Always prevent. Never accept. Always inform. Always act.' But donors also need to work with countries to strengthen financial management systems. Some donors have pulled back from international commitments under the Paris Declaration to improve aid effectiveness through

joint budgeting. It is important for donors to work with countries to strengthen financial systems rather than bypassing them and risking greater fragmentation.

With the SDGs coming into effect, calls on private sector involvement in the water sector are increasing significantly in response to the demand for financing for water supply and sanitation to meet the SDG for water. This will require security for the public interest and for private sector investments, with a greater focus on sectoral sustainability. Decision-making on awarding water and sanitation service contracts must become fully transparent, with clear objectives and measurable performance indicators, and the involvement of regulators, civil society and water consumers.

## FROM PLANNING TO IMPLEMENTATION

The sequence of budget development, project planning and implementation carries opportunities for both grand and petty corruption. Large-scale projects for irrigation, hydropower and water are prone to bribery and collusion. Contracting, permit and licensing processes are also vulnerable to corrupt practices.

Data from global surveys strongly suggests that the interface between the public and private sectors is a hotspot for bribery. The bidding process can be subverted by covert agreements. Inspections, alertness and the rapid deployment of measures at an early stage are crucial to engage with stakeholders fairly and build mutual trust. Unfortunately, these practices to ensure public accountability are often neglected under the influence of demands for efficient policy-making, commercial confidentiality and security, a lack of capacity or deliberate policy capture.

More than half the respondents in an Economist Intelligence Unit survey of cities in which infrastructure is poor cited 'corruption or misuse of funds' as a leading cause for dissatisfaction. When integrity fails, consumers face pressure to pay bribes to get services restored or problems resolved.

There are many examples of emerging good practices that are helping to stem both grand and petty corruption.

- + The World Bank works with countries to produce Country Procurement Assessment Reports to improve the national capacity to plan, manage and monitor procurement.
- + The African Development Bank (AfDB) says that improving the capacity of sector staff to police anti-corruption methods is critical.
- + The Hydropower Sustainability Assessment Protocol (HSAP) lists 23 criteria for good practice that can be applied to dam projects to tackle corruption.
- + A Canadian integrity framework bars companies guilty of bribery, tax evasion, bid-rigging, and other offences from bidding for government contracts.
- + The Construction Sector Transparency (CoST) initiative supports governments to develop systems for public access to detailed information on construction projects, with the aim that citizens, media, parliaments and oversight agencies can challenge poor performance, mismanagement and corruption.

## COMBATING CORRUPTION: TOOLS AND STRATEGIES

A series of practical tools and strategies are available to combat corruption and increase integrity. *Assessment tools* detect integrity risks while *actionable tools* manage integrity, improve governance and fight corruption. A WIN integrity management toolbox provides a step-by-step methodology for initiating and facilitating an integrity change process. Political will and a sufficient level of capacity are required to make tools effective and address power relationships and inequalities as part of a broader strategy to build integrity and combat corruption.

*Water integrity training has to become part of a long-term action programme of processes that build capacity, from grass-root to government levels.*

Capacity development should aim to create synergy between water sector training and anti-corruption training. Most participants surveyed after capacity-building courses over four years in African and Latin America said they had led to improvements in integrity, including better citizen understanding and stronger regulations.

The media can be vital in challenging corruption and giving a voice to disadvantaged social groups. In California, the media exposed the costs to families of a US\$ 474 million water meter plan, which the city auditor declared to be costly and unnecessary.

Advocacy and awareness raising can significantly influence attitudes and behaviour. Winning support for change sometimes requires naming and shaming, but a non-confrontational approach is also crucial and can be successful, especially when aiming to win vital leadership support for anti-corruption measures. One striking example is the annual town-to-town walk, supported by Amarribo Brasil in Piauí region, to raise awareness about water rights and corruption in the sector, check the delivery of promised water infrastructure and advocate for greater accountability.

## MONITORING AND EVALUATION

The monitoring and evaluation of governance and integrity in the water sector require dramatic improvement. There are huge gaps in the data relating to the quality, reliability, frequency and other levels of service being received by users, or of the sustainability of services. Proper monitoring boosts integrity by fostering transparency and accountability, tracking performance levels, exposing and preventing corrupt practices, confronting vested interests and highlighting priority areas for financial and human resources. The OECD suggests adopting a legal framework to define who does what monitoring, when, where and how, and to ensure that monitoring is aligned with policy objectives and is carried out efficiently.

A monitoring framework also needs checks and balances, such as through an independent auditor general, to monitor the expenses of government organizations. Value-for-money studies and public expenditure tracking (PET) can improve integrity, while information technology and smartphones make it easier to collect accurate data and identify fraud.

*Monitoring works best when officials and users engage with each other.*

In the Philippines, I-Watch is a water anti-corruption group that trains volunteers to use participatory financial management processes and keep track of purchase and procurements by the water utility, mapping corruption hotspots and surveying vulnerability to corruption.

There are many examples of evaluation in the water sector, but few that focus on the integrity of projects and programmes. And yet such evaluations, alongside rigorous monitoring, are key to building integrity.

## THE WAY FORWARD

The *Water Integrity Global Outlook 2016* captures many positive examples of how integrity has been built into the water sector in different countries.

- + In Kenya, a regulatory board was established that specifically included TAP measures for regulating urban water utilities.
- + A climate finance tracking project was developed to ensure the proper use of funds in Bangladesh.
- + A public referendum in Berlin forced the authorities to reveal the details of contracts with a private company for the city's water utility.
- + In rural Nepal, community radio stations have been used to broadcast information about local WASH investment plans.
- + In Peru, the information system for public works, INFObras, aims to align information systems and increase the transparency of public works.
- + The Government of Ethiopia launched a fiscal transfer policy to improve service delivery for those entrenched in poverty in remote areas; this attracted donor funds to local budgets.
- + The American Society of Civil Engineers (ACSE) has drawn up a code of ethics describing 'revolving door' employment as 'replete with ethical pitfalls'.
- + The Municipal Water Company of Quilalí (EMAQ), Nicaragua, improved monitoring, billing and complaints procedures, resulting in better user satisfaction, fewer complaints and prompter payments.
- + In Zambia, the National Water Supply and Sanitation Council (NWASCO) monitors commercial utility companies and takes action if persistent performance problems are encountered.

This *Global Outlook* demonstrates that integrity in water sector governance is key to the delivery of sustainable development, the human rights to drinking water and sanitation, and the SDGs. It constitutes a call to arms to policy-makers, governments, international agencies, institutions, citizens and the private sector to collaborate in order to build integrity in policies, investments, decisions, implementation and monitoring and evaluation.

*Sector professionals, leaders and civil society groups can use this report as a trigger for active dialogue on the topic of water and corruption that will lead to changes in both policy and practice.*

There is no time to lose. Powerful forces and vested interests must no longer be allowed to use corruption to hamper water justice. And corruption must no longer be a barrier to development, to achieving the water and sanitation rights of billions of people and to preserving the life of our planet.

The *Water Integrity Global Outlook 2016* makes the following recommendations.

## OVERALL RECOMMENDATIONS

- + **Ensure the full involvement of all relevant stakeholders in processes to build integrity and fight corruption in the water sector.** Civil society and the private sector, as well as legislators, regulators and the justice system, all have a role to play in protecting and sharing the use of water resources. Reform processes need to be based on a multi-stakeholder approach. Winning over stakeholders requires political and institutional leaders, with the support of influential figures to lead from the front.
- + **Generate reliable data on the extent of corruption in the water sector and the economic and social damage that results.** Better information and data are needed, both to guide the development of anti-corruption programmes and to be able to establish the impact of such programmes.
- + **Put principles into practice: build ‘integrity walls’ appropriate to the context.** It is no longer enough to enumerate the problems and weaknesses; it is time to build ‘integrity walls’ that keep out corruption and cement integrity as a core element of the water sector (see page 34/35). The four main building blocks in ‘integrity walls’ are:
  - transparency: develop flow of accurate and open information
  - accountability: hold decision-makers and implementers accountable
  - participation: include all relevant stakeholders in decision-making
  - anti-corruption: strengthen laws and regulations

## CHAPTER 1: A Global Mandate for Water Integrity

- + **Explicitly recognize and address the lack of integrity and the presence of corruption as major concerns in water governance and management.** Attempts to improve water governance and management will fail if these concerns are not addressed. Water integrity requires deep social, political and economic changes and therefore needs to be tackled explicitly, systematically and over long periods, by taking into account the root causes of corruption.
- + **Strengthen water integrity in order to support the implementation of the SDGs and ensure the fulfilment of the human rights to water and sanitation.** Integrity in water governance is a prerequisite to achieving not only the SDG water goals but also those to end hunger, promote sustainable agriculture, achieve gender equality and develop reliable sustainable energy sources. It is essential for building safe and sustainable cities and for protecting the environment and ecosystems. The OECD water governance principles, resulting from an inclusive multi-stakeholder process, can support this. They specifically highlight the need for integrity and the importance of TAP as essential elements of more effective and equitable governance that builds trust and engagement.



## CHAPTER 2: How Policies and Laws Can Support Water Integrity

- + **Develop and enforce water policies that incorporate TAP principles along with anti-corruption measures in accordance with the obligations of the human rights to water and sanitation.** The human rights to water and sanitation are a crucial obligation for states to deliver on the rights of their inhabitants. The TAP framework is a powerful tool to fulfil these human rights. Strengthening enforcement mechanisms is important to ensure that water legislation and anti-corruption legislation effectively improve people's living conditions, and requires cooperation between anti-corruption, judicial and water institutions.
- + **Ensure public scrutiny and balance stakeholder interests in political and legislative processes.** Water management experiences of the last decade suggest that mobilizing stakeholders is one of the key ways to ensure that policy is developed and implemented so that it works for integrity and against corruption. The interests of all relevant actors must be taken into account fairly. The current rush for land and water to secure food and energy can lead to hasty policy-making. In this context, the voices of the poor and marginalized – who suffer most from the changes – must be taken into account. Water access in many regions depends on traditional institutions and power relations that do not connect to the state's legal framework. Adopting, extending or linking customary laws to state laws, when applicable and fair, can help protect the rights of the marginalized and the vulnerable in many cases.

## CHAPTER 3: Following the Money

- + **Establish a comprehensive accountability mechanism anchored in the public finance system for water sector financing from all sources.** Where public finance systems are weak, money can be managed through parallel systems to avoid risks. Nonetheless, planning and reporting should be undertaken jointly by government and civil society to ensure that government fulfills its obligations related to water management and service delivery.
- + **Engage with ministries of finance, audit institutions and parliamentarians to make water and sanitation a priority and increase their understanding of the sector.** Public finance institutions and water sector actors, including service providers, donors, private investors and civil society, should collaborate to understand where and why systems are underperforming and how these can be improved.

## CHAPTER 4: From Planning to Implementation

- + **Strengthen control mechanisms for projects.** Water projects are susceptible to corruption and impact on both the human and the natural environment. Careful and transparent design, planning and implementation, and a critical evaluation of the use of resources and the generated outcomes are essential to ensure sustainability and effectiveness. Participatory processes and transparency are especially important in the complex processes leading to large-scale infrastructure.

- + **Build an effective relationship with stakeholders to ensure the fair and sustainable implementation of projects.** Governments and institutions should work with the private sector, donors and civil society in order to create sustainable funding mechanisms to support participation and so as to build the capacities of stakeholders to understand, monitor and improve public contracting. Informing and involving the public in overseeing the development, awarding, execution, performance and completion of public contracts constitute effective means to achieve fairness, non-discrimination, accountability and verifiability. It is important that water users' committees and associations receive support and recognition from the authorities, and are included in decision-making processes early on.

## CHAPTER 5: How to Enhance Integrity: Strategies, Tools and Approaches

- + **Develop targeted water integrity advocacy at multiple levels.** Advocacy on water integrity has to target political leadership as well as involve the grass roots in order to create the momentum and legitimacy to drive institutional reforms and to build a sustainable base of support for change. The media can also provide substantial support to integrity in the water sector.
- + **Develop capacity-building initiatives within comprehensive frameworks for action.** Water governance and management capacity-building programmes must include water integrity tools and build synergies between water sector and anti-corruption bodies. Capacity building should be part of an overall programme of reform, with established targets and goals.
- + **Adapt tools to local contexts and combine them in broader strategies.** Tools are most effective when they focus on what matters locally, when they have political and institutional support and when they link the local level to the national level. Above all, they need to be embedded in a broader strategy with clear objectives.

## CHAPTER 6: What Counts? Monitoring and Evaluation

- + **Monitor and evaluate the quality and sustainability of water services in order to assess the impact of projects and enhance service accountability.** All projects and services should have an assessment of how far they meet their aims. In addition to standard information on the quality of performance, information on water governance mechanisms and the behaviour of those responsible for water services provision should be included. Stakeholders should diagnose the sector not only for technical issues but also by including the managerial and integrity indicators that lie at the core of its performance challenges.
- + **Enable and encourage independent monitoring of activities by the media, non-governmental institutions and civil society.** Independent monitoring efforts will expose or prevent the provision of biased, blurred or censored information. They will help sector actors reduce illicit practices and unethical decisions by increasing the chances of these being unveiled. Monitoring activities should involve stakeholders at the most appropriate and relevant levels (local, national, basin, regional, etc.). It is in the dialogue and contestation between different organizations and their data sets that corruption can be tackled and high-quality water services delivered with the highest integrity.



## THE INTEGRITY WALL: HOW TO STRENGTHEN INTEGRITY IN THE WATER SECTOR

### TRANSPARENCY

develop flow of accurate and open information

### ACCOUNTABILITY

hold decision-makers and implementers accountable

Strengthen 'right to information' laws and processes

Research extent of corruption and social and economic damage

Clarify lines of responsibility in governance and funding systems

Build sector capacity to deliver on human rights and SDG targets

+ Publish proposals and plans in accessible formats

+ Combine tools and adapt to local context

+ Audit finances and make results public

+ Encourage and protect whistleblowers

+ Develop advocacy and encourage media reporting

+ Publish research findings on corruption

+ Develop formal and informal monitoring

+ Promote culture of public service and punish abuses

## PARTICIPATION

include all relevant stakeholders in decision-making

## ANTI-CORRUPTION

strengthen laws and regulations

Balance stakeholder interests in policy-making and legislation

Ensure places at table for civil society, private sector and excluded groups

Strengthen role of regulators and justice systems

Legislate to make participation and transparency mandatory

+ Develop complaints systems with feedback loops

+ Build capacities for stakeholder involvement

+ Build links and joint action with anti-corruption bodies

+ Zero tolerance for corruption: nobody above the law

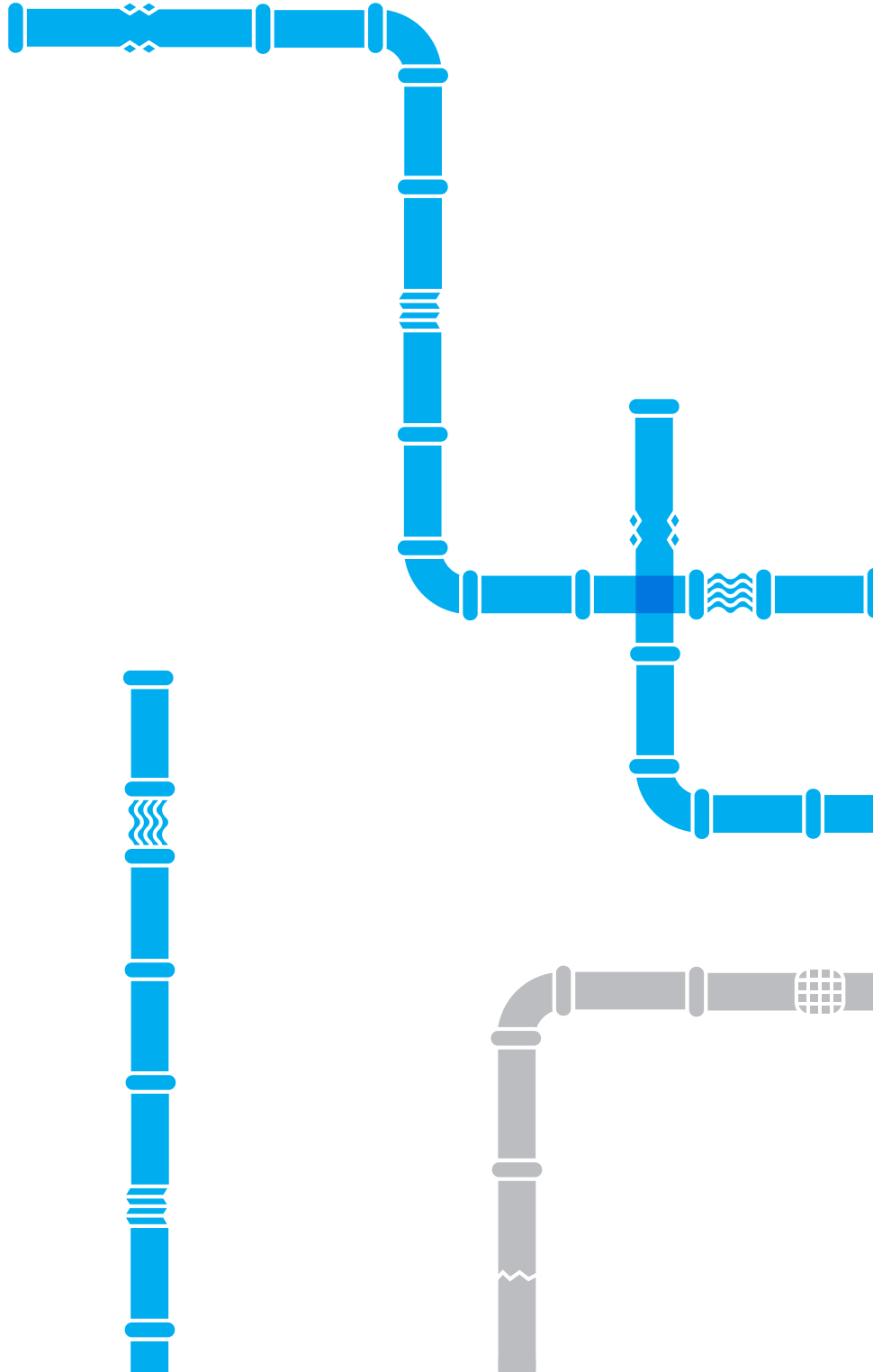
+ Include water user associations in decision-making

+ Address gender disparities

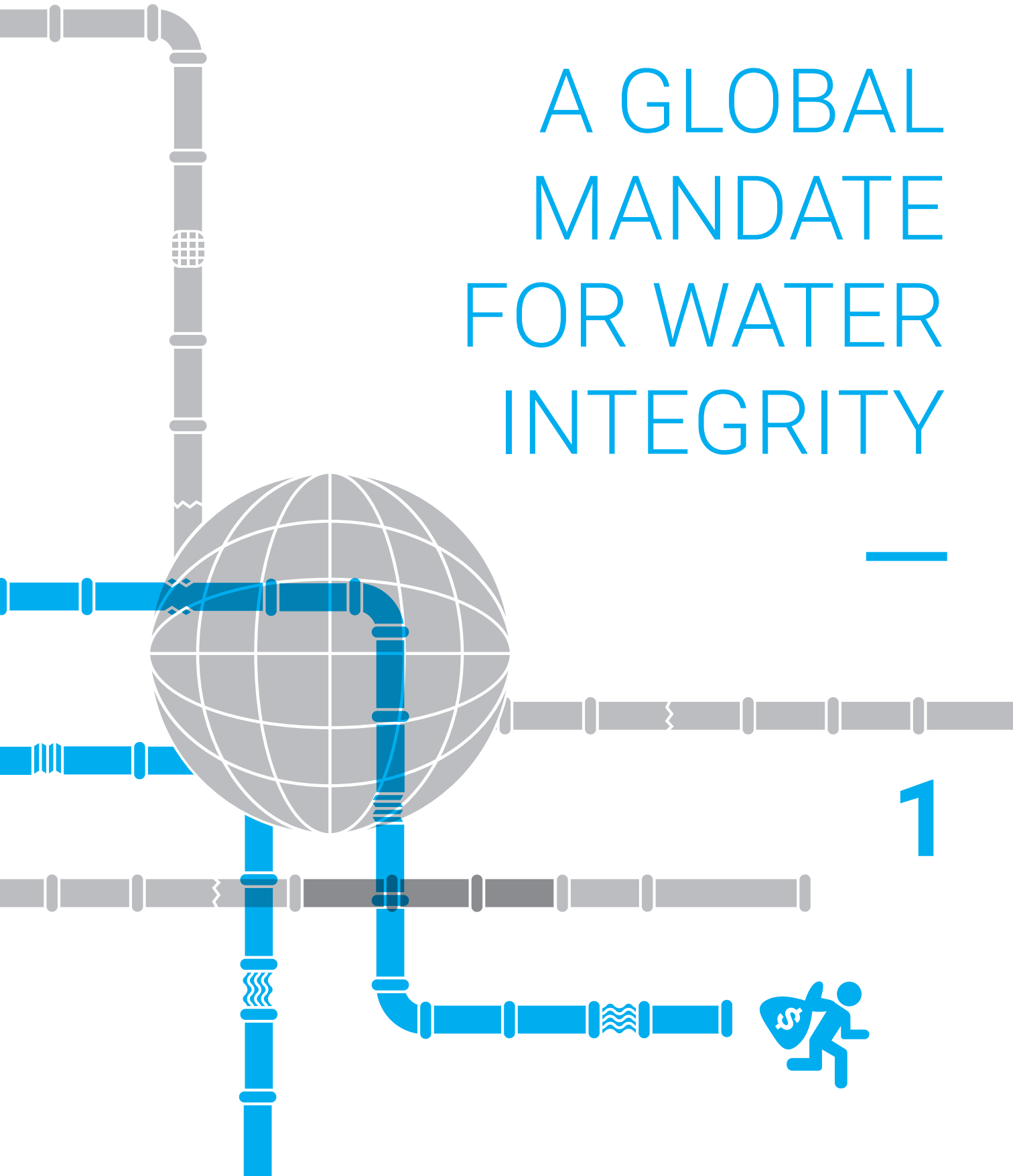
+ Legislate to recognize human rights to water and sanitation

+ Publish 'conflict of interest' rules

(developed by WIN)



# A GLOBAL MANDATE FOR WATER INTEGRITY

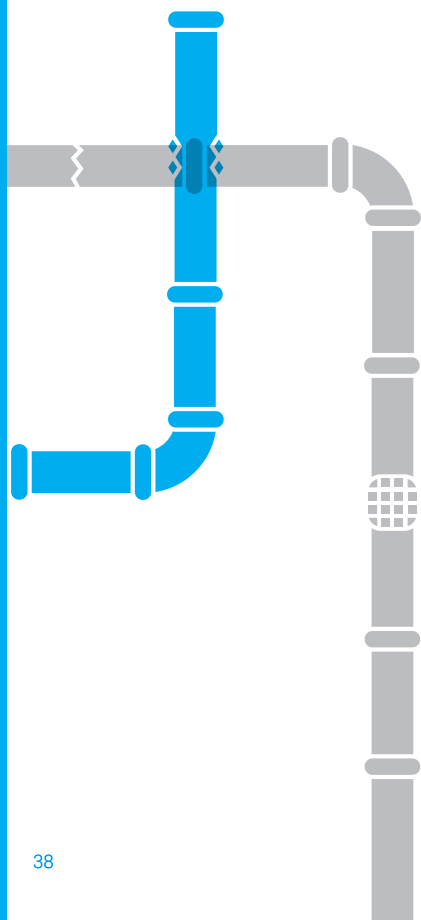


‘ *The core of water integrity lies in the integrity of people and institutions governing water resources. It requires decision-making that is fair and inclusive, honest and transparent, accountable and free of corruption. The term recalls that management decisions have an ethical dimension, and that leadership needs courage as well as technical skills.* ’

Water Integrity Forum 2013 (WIN et al., 2013)

#### KEY MESSAGES

- + Water integrity is a measure of the health of the sector; corruption is a disease that most harms children, women, the poor and the powerless.
- + Corruption in the sector undermines the global ability to provide food, water and energy security for all, to achieve the Sustainable Development Goals and to adapt to climate change.
- + The integrity challenge is to achieve transparency, accountability and participation in every aspect of water governance – coupled with anti-corruption measures.





# A Global Mandate for Water Integrity

This chapter introduces the concept of water integrity. It highlights an urgent need to increase integrity in the global water and development agenda and describes how a lack of integrity and corruption are linked to poor governance of water. It identifies key challenges in the water sector, looks at what progress has been made in tackling integrity issues in the sector over the past decade and sets the scene for the remainder of this *Water Integrity Global Outlook* (WIGO).

## 1 WATER: STEWARDSHIP OF A PRECIOUS RESOURCE

Humans ask a lot of the precious resource that is water, especially from the tiny proportion that is freshwater.<sup>1</sup> We need water to be accessible and available for drinking, washing and cooking, for agriculture (and animal consumption), for industry, for energy and to sustain the environment. Climate change, population growth and related pressures on water for food and energy are among the major challenges of our age. If we are to survive, the Earth's water resources must be protected, conserved, shared and valued – by everyone, for everyone.

We depend on freshwater for our existence, and yet we fail to protect it. As the InterAction Council<sup>2</sup> pointed out, 'Water underpins health, nutrition, equity, gender equality, well-being and economic progress, especially in developing countries. But equitable water supply and quality problems are also threatening the security of some of the most developed countries in the world' (Bigas et al., 2012).

The OECD estimates that 40 per cent of the world's population already lives in water-stressed river basins, and that over-abstraction and the contamination of water pose significant challenges to food security, the health of ecosystems and the supply of safe drinking water (OECD, 2015b).

- + Climate change is affecting global patterns of rainfall and is expected to increase regional inequalities, disrupting agricultural productivity and the habitability of land (IPCC, 2014).
- + Groundwater resources, the primary source for more than two million people and used to provide half the world's irrigation supply for food crops, are being depleted and are poorly monitored and managed (Famiglietti, 2014). The US National Aeronautics and Space Administration (NASA) has detected from satellite surveys that 21 of the world's 37 largest freshwater aquifers are dwindling at a rapid rate (Richey et al., 2015).

<sup>1</sup> Only 2.5 per cent of the world's water is freshwater, and more than two-thirds of this is locked up in glaciers and ice caps: <http://water.usgs.gov/edu/earthwherewater.html>.

<sup>2</sup> The InterAction Council mobilizes the experience of leaders who have held highest office in their own countries.

- + Half the world's major rivers are extremely polluted or depleted.<sup>3</sup>
- + Population growth and rising living standards contribute to the pressure on freshwater resources.<sup>4</sup>

Those most affected by the pressures we put on water are the world's most vulnerable and marginalized communities. But by 2025 two-thirds of the world's population could be living in conditions of severe water stress (USAID, 2013).

Action to protect water and to prevent pollution and depletion is dependent on the quality and integrity of governance and decision-making and the ability of governments and institutions to implement and enforce decisions to protect water and to share it. However, there is no single authority with a mandate to protect the world's water resources, and water does not stay within national boundaries: 276 major watersheds cross the borders of 145 countries (UN-Water, 2013). Just as water crosses borders and flows above and below the surface, so decision-making is dispersed across policy domains and jurisdictions, and some takes place where it can be seen while some decisions are made out of public view. Policy initiatives, legislation, conventions and agreements are required at national and international levels. There is also a need for public support, vigilance and enforcement at national, regional and local levels, so that national authorities and communities can become custodians of water resources.

Who gets to take decisions about the care and use of water, the way in which they are taken and the ability of political and organizational systems to put decisions into effect are critical to protecting and using water effectively. The human stewardship of water requires a quality without which there can be no trust and no common progress. That quality is integrity.

### 1.1 Water integrity: good health for the sector

Integrity (from the Latin word for 'whole' or 'complete') today carries connotations of honesty and high moral and ethical standards. The integrity of water itself implies that a resource maintains its essential life-giving qualities; this was the objective, for example, of the US Clean Water Act (as amended 1972), 'to restore and maintain the chemical, physical and biological integrity of the Nation's waters' (EPA, 2002).

Integrity in the stewardship of water connotes an ethical approach to the protection, conservation and use of water. Integrity is critical to human ecology, the relationship between humans and their natural, social and built environments. It affects the reliability of, and trust in, research, information giving, decision-making, capacity, consultation, participation and accountability. Integrity in the water sector, like clean water itself, demands transparency. It involves keeping and delivering on promises. Institutions that have integrity are seen to have 'fair' procedures, even if some disagree with their decisions: processes are transparent, stakeholders' voices are heard and decision-makers are accountable. Integrity requires a level of competence and capacity within organizations and institutions, or that steps are taken to increase them.

Water integrity can be seen as the equivalent of good health for the sector. Just as good health is more than the absence of disease, an ethical approach to the sustainable use of water resources is more than the absence of corruption.

<sup>3</sup> The Nature Conservancy: [www.nature.org/ourinitiatives/habitats/riverslakes/threatsimpacts](http://www.nature.org/ourinitiatives/habitats/riverslakes/threatsimpacts).

<sup>4</sup> Climate Institute: [www.climate.org/topics/water.html](http://www.climate.org/topics/water.html).

### Box 1.1 What do we mean by 'water integrity'?

The Water Integrity Network (WIN) definition of water integrity cited at the start of this chapter focuses on 'the integrity of people and institutions governing water resources'. WIN regards transparency, accountability and participation (TAP) as the three pillars of water integrity (see Spread on TAP).

The Stockholm International Water Institute (SIWI) defines water integrity as 'the adherence of stakeholders and institutions to governance principles of TAP in water resources management, based on core values of honesty, equity and professionalism'.<sup>5</sup>

The 2013 Delft Statement on Water Integrity also included 'the integrity of water resources, as well as the integrity of people and institutions' (WIN et al., 2013).

This connection between ecological integrity and the integrity of institutions is further developed in the Lusaka Statement on Water Integrity (WIN, 2014): 'Challenges posed by depleting water resources, fast population growth and urbanization, rapid destruction of productive aquatic ecosystems and climate change all threaten to overwhelm water management systems. Managing and maintaining the integrity of water resources is part and parcel of managing water with integrity.'

'Water integrity' in this *Global Outlook* refers mainly to the actions and ethics of people, institutions and governance systems. However, it also includes the quality of water insofar as this is affected by human decisions that lead to the pollution, degradation or depletion of water resources.

## 2 WATER AS A DRIVER OF SUSTAINABLE DEVELOPMENT

The United Nations (UN) has agreed on a global framework for development over the next 15 years through Sustainable Development Goals (SDGs) that must be met by all countries, rich and poor alike. Strengthening 'democracy, good governance and the rule of law' is a primary aim of the SDG agenda (UN General Assembly, 2015c). The outcome document adopted by the UN Summit in September 2015 cites inequality, corruption, poor governance and illicit financial flows as factors that give rise to violence, insecurity and injustice. Ensuring integrity in the governance and management of water is critical to achieving the SDGs.

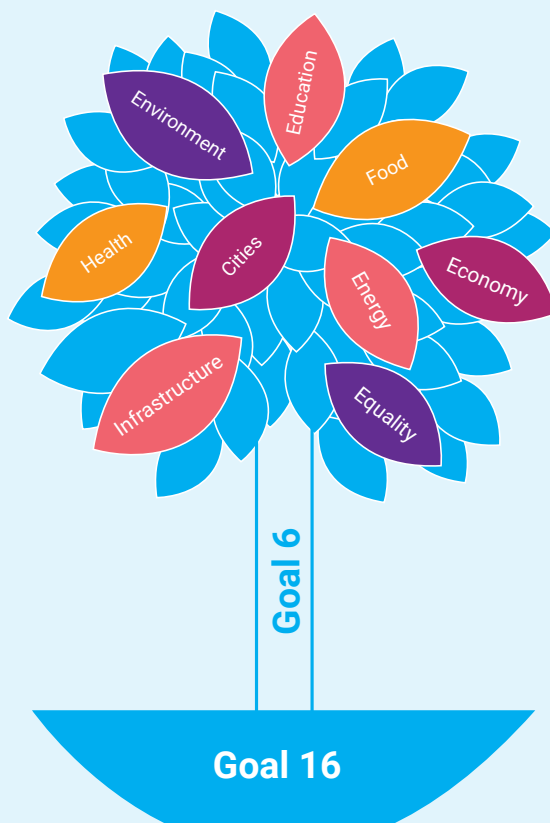
The SDGs acknowledge that the sustainable management of water (including sanitation) is a primary goal, alongside ensuring human rights, ending poverty and hunger and promoting health, education and gender equality. Goal 6 ('Ensure access to water and sanitation for all') goes beyond drinking water alone, and encompasses river basin management, with an emphasis on integrated water resources management (IWRM), and environmental concerns. These are subsectors that are highly vulnerable to corruption and in need of protection. One positive sign

<sup>5</sup> SIWI: [www.siwi.org/about/cross-cutting-issues](http://www.siwi.org/about/cross-cutting-issues).

towards developing integrity is the inclusion of a sub-target (6b) to 'support and strengthen the participation of local communities in improving water and sanitation management'. Many of the other SDGs are also strongly related to water governance and management. Together they set a challenge to the sector to create systems with robust integrity.

- + Goal 2 ('End hunger, achieve food security and improved nutrition and promote sustainable agriculture') is dependent on appropriate allocations of water.
- + Goal 3 (healthy lives) includes the need to combat waterborne diseases.
- + Goal 5 (gender equality) aims to ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making.
- + Goal 7 (affordable, reliable, sustainable and modern energy) and Goal 9 (infrastructure) are highly relevant to the construction of dams (for hydropower). Goal 11 (safe cities) makes reference to protecting against water-related disasters.
- + Goal 12 (sustainable consumption) calls for 'public procurement practices that are sustainable, in accordance with national policies and priorities'.

**Figure 1.1 The SDGs tree**



(developed by WIN)

Goal 16 (effective, accountable and inclusive institutions at all levels) is the fundamental base that sustains the growth towards fulfilment of all the other SDGs. Goal 6 (water and sanitation for all) is strongly related to many of the other SDGs and it supports and strengthens their success.

- + Goal 13 (resilience and adaptive capacity to climate change) includes an aim for transparency in implementation, vital in view of a potential budget of US\$ 100 billion a year to address the needs of developing countries.
- + Goal 15 (ecosystems) calls for 'the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services'.
- + Goal 16 calls for accountable and inclusive institutions and aims to 'substantially reduce corruption and bribery in all their forms' (16.5). There are commitments to reduce illicit financial flows, and to promote effective, accountable and transparent institutions (16.6) and inclusive, participatory and representative decision-making (16.7).

The preceding Millennium Development Goals (MDGs), although not met in full, did have an impact on the provision of water and sanitation. However, there were also challenges in monitoring real progress, because of a lack of reliable data, which often led to coverage figures being overstated. The SDG process has sought to address this. Targets were arrived at through a process that ensured participation by a greater number of countries than normally are included on UN committees, and representing every region (UN General Assembly, 2013). Proposals for monitoring indicators, designed to track the SDGs at local, national, regional and global levels, were downloaded from the UN website more than 50,000 times and attracted input from nearly 300 organizations (SDSN, 2015). The SDGs also require higher-quality data than was available to track the MDGs. There is therefore a greater focus on accountability and transparency. UN Secretary-General Ban Ki-moon says that the SDGs are designed to 'finish the job' started by the MDGs (MDG Advocacy Group, 2014). Tackling these challenges will have a positive impact on integrity in the water sector.

### 3 CHALLENGES TO INTEGRITY IN THE WATER SECTOR

*'Integrity challenges come in many forms, involving financial transactions, manipulation of knowledge and information, discrimination in all forms, illegal or irresponsible water abstraction and waste discharge, as well as biased rules and processes that favour power and short-term interests over equity, fairness, societal welfare and long-term sustainability.'*

Water Integrity Forum Report 2013 (WIN et al., 2013)

#### 3.1 Multiple pressures put water resources at risk

Water integrity and corruption need to be viewed in the context of challenges in the water sector that stem from greater uncertainty in the supply of water due to climate change, raised expectations about the human rights to drinking water and sanitation, and increasing demand for water to meet the needs of rising populations and rising living standards. These relate strongly to integrity, as global commitments have been made in each of these areas, and integrity is about keeping promises. The risks to water are both physical, in terms of scarcity and pollution, and related to integrity, in its protection, management and use.

##### **Climate change**

Climate change affects the whole water cycle and is altering patterns of water availability and making supply more erratic. The resulting uncertainty and need for adaptive governance further increase complexity (Pahl-Wostl and Kranz, 2010). Integrity issues relate to the large sums of money

that are being committed to mitigation and to the quality of information used to take decisions. The United Nations Framework Convention on Climate Change (UNFCCC) commits industrialized countries to channel up to US\$ 100 billion a year by 2020 to support developing countries in mitigating the effects of climate change 'in a transparent way'.<sup>6</sup> There are questions over whether developed countries are willing and able to deliver these sums and whether developing countries will be able to use them appropriately (McIntyre and Kinghan, 2010). There are also concerns over the quality of information on climate change and the way that data may be (mis-)used to attract funds. It may be politically and financially advantageous to see every instance of flood or drought as related to climate change in the hope of receiving financial support to adapt to or to ameliorate the impact.

In January 2010 the Intergovernmental Panel on Climate Change (IPCC) had to retract a statement that glaciers in the Himalayas may be gone by 2035, after it was found that the claim was based on a media interview rather than on scientific research (*The Guardian*, 2010). While some errors are clumsy accidents, there are concerns about misleading statements in scientific reports. The technical knowledge required to understand climate science makes it more difficult for civil society organizations (CSOs) to hold specialists to account. The test is whether they can withstand peer review.

### **Meeting the human rights to water and sanitation**

International conventions recognize water as a precious resource, an economic good<sup>7</sup> and a human right (UN General Assembly, 2010b). These acknowledgements come with challenges. Partly due to impetus from the MDGs, 91 per cent of the global population now uses an improved drinking water source (UNICEF and WHO, 2015). However, in 2015 there were still some 663 million people without such a supply, and, although 147 countries did meet the MDG target for water, many did not, and – taken as a whole – the Caucasus and Central Asia, Northern Africa, Oceania and sub-Saharan Africa missed the target. The sanitation target was missed globally. In the least developed countries only 37 per cent of the population has access to improved sanitation.

A report from the Special Rapporteur on the human rights to safe drinking water and sanitation identifies both corruption and poor governance as significant factors on the cost of water and sanitation service provision. The Special Rapporteur told the 30th session of the Human Rights Council of the United Nations: 'Corruption tends to disproportionately affect poor and disadvantaged individuals and groups, as they lack the necessary power to oppose the vested interests of elites, and do not have the necessary resources to pay bribes.' (UN General Assembly, 2015b).

The UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) for 2014 drew attention to the fact that most sector decisions are not evidence-based due to the widespread lack of capacity for monitoring, inconsistent or fragmented data gathering and limited use of information management systems and analysis (UN-Water and WHO, 2014a): 'The vast majority of surveyed countries have no comprehensive process in place to track funding to water and sanitation. Consequently, countries are unable to confirm whether funding was directed to investment needs, nor credibly report back on whether they have met financial allocation targets.' Fewer than half the countries reporting on the MDG goals tracked progress in extending sanitation and drinking water services to the poor. In sub-Saharan Africa, fewer than 15 per cent of countries had established and applied finance measures targeted towards reducing inequalities in access to sanitation for the poor and fewer than one-third had done so for drinking water (UN-Water and WHO, 2015).

<sup>6</sup> UNFCCC: <http://cancun.unfccc.int/financial-technology-and-capacity-building-support/new-long-term-funding-arrangements>.

<sup>7</sup> Dublin Statement on Water and Sustainable Development, 1992: <http://www.gdrc.org/uem/water/dublin-statement.html>.

### **Water for food**

Water for agriculture accounts for 70 per cent of global water withdrawals.<sup>8</sup> In 2010 the World Bank estimated that anywhere between 445 million and 1.7 billion hectares of land had been identified for new agricultural investments (Deininger et al., 2011). There are a number of integrity issues. In most countries water rights are directly linked to land rights, so, when investors obtain a large tract of land, they often automatically gain unfettered access to the associated available water resources (Mbengue and Waltman, 2015). This impacts on communities, who lose their traditional rights to those water resources and who are rarely consulted (see Box 2.1) Agriculture provides food, but it also withdraws and pollutes water and rarely meets the cost of cleaning it up, which is borne by downstream users. Upstream agricultural users can in many instances dictate the terms of water releases and controls. The increase in the use of water and land for biofuel in some areas can create difficulties for agriculturalists in obtaining sufficient water for growing food.

### **Water for energy**

Energy production depends on water. It is used in thermal power plants, in the extraction, transporting and processing of fuels and in the generation of hydropower. Some 580 billion cubic metres of freshwater are withdrawn for energy production every year, at about the same rate as water flows down the rivers Ganges or Mississippi (OECD and IEA, 2012). Although most of this is used for cooling thermal power plants and is therefore not lost but returned to its source, about 66 billion cubic metres are consumed in energy production for biofuels and fossil fuels (OECD and IEA, 2012). Higher-efficiency power plants abstract less water so an increase in energy production does not increase the use of water proportionately. However, according to the International Energy Agency (IEA), an increase in biofuel production means that water consumption for energy production is rising four times more rapidly than water withdrawal. Water is increasingly used in growing biofuel crops; it has been estimated that global crop demand will double from 2005 levels by 2050 to meet demand for food and biofuel (Tilman et al., 2011) and the IEA has predicted that the amount of water consumed by the energy sector (water not returned to the environment) could rise by 85 per cent by 2035. Growing crops for energy has raised ethical questions about the use of fertile land and water. However, it should be noted that these predictions pre-date the most recent global slowdown in demand for energy and may overestimate the increase. Hydropower development has also been associated with some unethical practices, especially when affected people are not adequately consulted or compensated (see Spread on Mega-dams).

## **3.2 Obstacles to addressing challenges**

There are major weaknesses that affect the ability of the water sector to respond adequately to these challenges. Among the most significant are the following.

### **Fragmented responsibilities**

The capacity of governments and institutions to resolve water problems is hampered by fragmented responsibilities (Teisman et al., 2013). Water may be considered a 'sector' but it does not fall within a single remit. Water for food, water for energy and water for human consumption fall under different ministries and mandates. The changing role of government as a provider, the challenges of local government decentralization, the role of the private sector and the development of community-based management organizations result in mosaics of decision-making powers that are often unreconciled. The ability of governments to take unilateral decisions about resources and

<sup>8</sup> UN-Water: <http://www.unwater.org/statistics/statistics-detail/en/c/246663>.

public services is limited. This may be regarded as a good thing when it broadens the inclusion of other stakeholders as, for example, when central government institutions are increasingly required to consult and negotiate with local or regional government. However, participation cannot be effective when there is a lack of coordination and no clear divide between policy, implementation and regulation. Where responsibilities are fractured rather than shared, this leads to unclear mandates, poor delivery and problems with enforcement. Populations affected by these decisions may be ignored, rather than decision-making moving closer to those who use water.

### **Ageing and inadequate infrastructure**

Investment estimated at US\$ 6.7 trillion is required globally by 2050 to renew and upgrade water supply and sanitation infrastructure – and far more if other water-related infrastructure is included (OECD, 2015b). This is not just a problem for low- and middle-income countries. The OECD says that infrastructure in its 34 member (industrialized) countries is ageing, technology is outdated and governance systems are often ill-equipped to handle rising demand, environmental challenges, continued urbanization, climate variability and water disasters (OECD, 2015b).

#### **Box 1.2 Integrity challenges in the water sector**

Integrity challenges in the water sector can be summarized as follows.

##### **Global pressures**

- + Freshwater is a scarce resource with multiple essential uses: water/food/energy competition can cause shortages or lead to over-abstraction. This happens across borders as well as within countries.
- + Water insecurity, conflicts, disasters (and consequent population migration) and transboundary challenges raise tensions and weaken transparency and participation.
- + Climate change challenges require developed nations to keep financial promises and all countries to improve governance.

##### **Policy capture**

- + Critical decisions on water resources, allocations, pricing, etc. can be made outside the democratic or sector systems due to political or financial influence, leading to decisions being made without transparency, accountability or proper participation.

##### **Sector issues**

- + The sector is broad: water governance spills across agencies, river basins and national boundaries and defies simple institutional or legal classification.
- + Poorly functioning or missing multi-sector water resources institutions and practices lead to the pollution of vital water sources and exacerbate competition and shortages.
- + Large flows of public money, investments and aid in the water sector attract corrupt and unethical practices; the water sector is twice as capital-intensive as other utilities.
- + Weak regulations or financial systems leave the sector open to corruption or sharp practice.
- + Regulating the role of the private sector and enforcing regulations for both the public and private sectors is increasingly important.



- + Monitoring and reporting on performance must be up to the task of protecting resources and the quality of service delivery
- + A lack of capacity leads to poor-quality decision-making that lacks integrity.
- + A lack of training, status and salary makes sector employees vulnerable to corrupt approaches.
- + A lack of trust between donors and the sector leads to development priorities being distorted and sector procedures being bypassed.
- + A rush to meet spending targets threatens the ability to monitor implementation.
- + Large financing gaps, especially in the provision of sanitation services, cast doubt on the ability to meet global targets.

#### 4 CORRUPTION: 'A CRIME AGAINST ALL OF HUMANITY'?

*'In many places in the world, corruption is resulting in the haemorrhaging of precious financial resources that could and should be made available to eliminate poverty and support SDGs particularly as they relate to water. Corruption at any level is not just a criminal act in its own right. In the context of sustainable development it could be viewed as a crime against all of humanity.'* (Schuster-Wallace and Sandford, 2015)

Corruption in the water sector is an issue of critical social, environmental and financial significance. It damages people's rights, disrupts attempts to meet people's needs for water use and in extreme cases steals lives. It subverts public policies and undermines confidence in the collective ability to protect the global environment and precious water resources. It introduces additional financial burdens that put development at risk.

The past decade has seen a greater understanding of issues around integrity, but this does not mean that levels of corruption have declined. Piers Cross, former global programme manager of the Water and Sanitation Program (WSP) of the World Bank and a founder of WIN, warns:

*'If you want to maintain and increase WASH [water, sanitation and hygiene] services you have to take account of corruption because all the achievements will be undermined by corruption. If you measured it in 2008 and do it again in 2015 you will probably find similar levels of corruption.'*<sup>9</sup>

##### Box 1.3 What do we mean by corruption?

Transparency International (TI) says:

*'Corruption is the abuse of entrusted power for private gain. It hurts everyone whose life, livelihood or happiness depends on the integrity of people in a position of authority.'*

(TI, 2010)

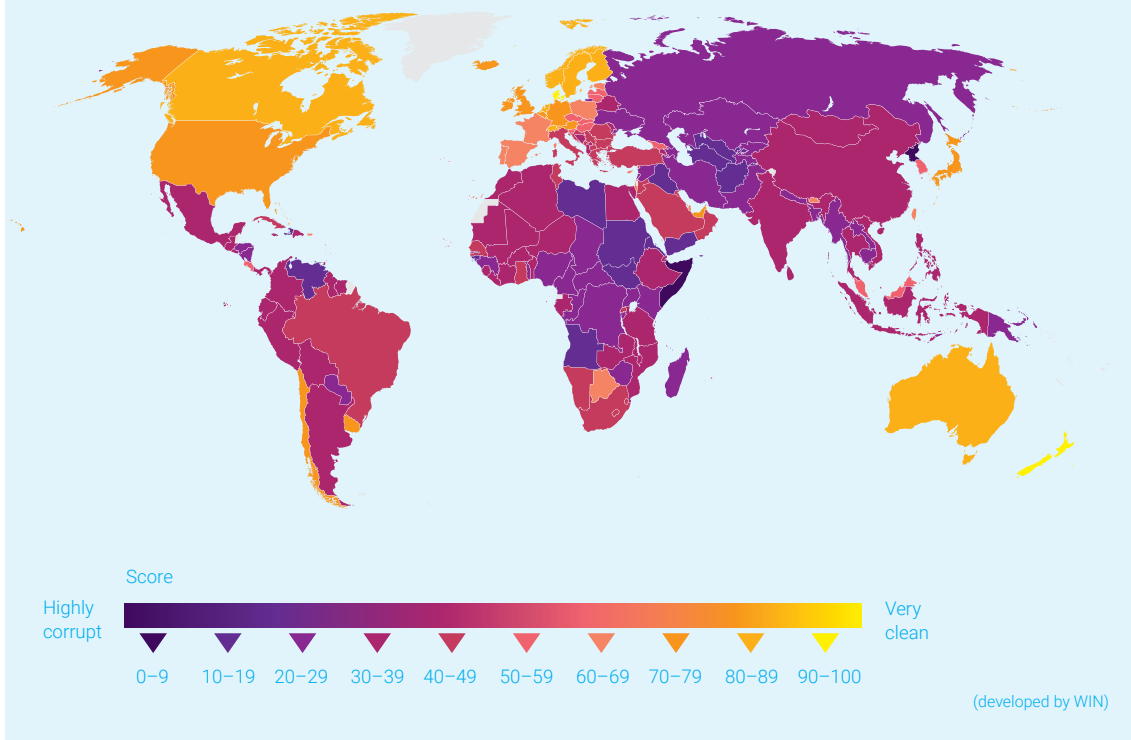
<sup>9</sup> Piers Cross, former global programme manager of the WSP at the World Bank (telephone interview, February 2015).

Corruption is categorized by TI as ‘grand corruption’ or ‘petty corruption’ depending on where it occurs and its scale. Grand corruption involves large sums and tends to involve those at high levels of government or companies who distort policies or the functioning of the state, enabling leaders to benefit at the expense of the public good. Petty corruption refers to the everyday abuse of entrusted power and typically involves smaller payments made to secure or expedite the performance of routine, legal or necessary action, such as getting a water connection or having a repair attended to expeditiously (González de Asís et al., 2009).<sup>10</sup>

Corruption covers all forms of extortion, fraud and embezzlement as well as the covert exchange of favours through patronage, misinformation, clientelism and nepotism or acts of political manipulation. Corrupt use of data to mislead or use of language to conceal unethical or corrupt practices can also be considered corruption.

Further definitions can be found in the glossary.

**Figure 1.2 TI’s Corruption Perceptions Index 2014**



Drawing co-relations: the countries displayed in dark colour are countries that perform poorly in the Corruption Perceptions Index. Most of these countries have lagged behind in achieving the MDG targets on water and sanitation too (TI, 2015a).

<sup>10</sup> TI: [www.transparency.org/what-is-corruption](http://www.transparency.org/what-is-corruption).

TI conducts global surveys of expert views and publishes the results as a Corruption Perceptions Index. The 2014 report presents an alarming picture, in which more than two-thirds of countries score below 50 on a scale from 0 (highly corrupt) to 100 (very clean).<sup>11</sup>

In a separate survey of bribe payers in 2011, TI asked more than 3,000 business executives worldwide about their views on the extent to which companies from 28 of the world's leading economies are perceived to engage in bribery when doing business abroad (Hardoon and Heinrich, 2011). The Netherlands and Switzerland were found to be the least likely to offer bribes, with China and Russia filling the bottom two (most likely to bribe) places. The main findings included the following.

- + Bribery within the private sector (company to company) was just as common as bribery between private companies and public officials.
- + There was no improvement in the index between 2008 and 2011.
- + The perceived likelihood of companies to bribe abroad is closely related to views about the level of business integrity at home and to perceptions of corruption in the public sector.

The TI survey also looked at bribery within different sectors. Although water is not included as a sector, other sectors that are critical for water integrity are especially affected. Public works contracts and construction are seen as constituting the most likely sector for bribery to take place, followed by utilities, including water utilities.

Bribery has adverse effects around the world. TI says: 'It distorts the fair awarding of contracts, reduces the quality of basic public services, limits opportunities to develop a competitive private sector and undermines trust in public institutions. Engaging in bribery also creates instability for companies themselves and presents ever-growing reputational and financial risks' (Hardoon and Heinrich, 2011).

In a survey by *The Economist* magazine, more than 50 per cent of respondents who lived in cities cited 'corruption or misuse of funds' as a leading cause of poor infrastructure (EIU, 2015).

#### Box 1.4 Delhi households see no decline in corruption

In a survey of 1,500 households in Delhi, nearly 45 per cent of the households believed that the level of corruption in water supply services had gone up during the previous year, while 37 per cent felt it had remained the same. Few (below 2 per cent) had actually paid bribes, but of those who did the most common reasons were:

- + to get a water tanker delivery from the Delhi water board;
- + to install a piped water supply; or
- + to repair a water pipeline.

Bribes ranged from 300 rupees (around US\$ 4.5) for a water tanker to deliver water to 5,000 rupees (about US\$ 77) to have a water bill reduced (CMS, 2015).

<sup>11</sup> TI: [www.transparency.org/cpi2014](http://www.transparency.org/cpi2014).

## 4.1 Who wins and who loses?

The main victims of corruption are the poor and the powerless. Those who gain more are the strong, who misuse influence or money: private individuals or companies profiting from bending the rules; public officials taking bribes or favours to turn a blind eye; politicians bartering pumps and pipes for votes.

The greatest impact falls on the weakest.

- + Children and babies fall ill or die when water quality is poor. Globally, an estimated 2,000 children under the age of five die every day from diarrhoeal diseases, and of these some 1,800 cases (90 per cent) are linked to water, sanitation and hygiene (WASH) (UNICEF, 2013).
- + Women, the usual managers of household water, have little say in how water services are provided.
- + Poor households may be expected to bribe officials to secure water.
- + The urban poor often pay more per litre of water from vendors than the richest people in society pay for water that flows from their tap. For example, the Karachi Water Partnership in Pakistan found that poor people were paying 12 times more for drinking water than the affluent (WIN et al., 2013; *Dawn*, 2011).
- + The Nairobi City Water and Sewerage Company in Kenya loses 40 per cent of its supply to theft and leaks. In the Kibera slum poor residents are forced to buy water from vendors at ten to 25 times the price they would pay the water utility as landlords are reluctant to invest in piped water. Charities that sell water more cheaply often find their own piped connections vandalized (Reuters, 2014).
- + Those who rely on land or water for their livelihoods – farmers, fishers and pastoralists – lose out when water resources are annexed or polluted. Poor farmers see livelihoods threatened if a company abstracts water at a rate that lowers the water table.
- + Schoolchildren, girls especially, are affected by the lack of clean water and basic sanitation in schools. In Andhra Pradesh, India, a WASH survey on integrity in schools found that poorly defined responsibilities, a lack of awareness, engagement and coordination, and poor planning were making school WASH investments vulnerable to corruption. The study reported no toilet facilities in 10 per cent of schools (Reddy and Murali, 2015) (see Box 5.19).
- + The disadvantaged, minorities and vulnerable groups are also disproportionately affected. Discrimination in access to water is a form of corruption, favouring some groups and penalizing others. Those affected include those from 'lower castes' or ethnic minority groups, who may be denied access to water points; people with disabilities, who cannot use facilities; and marginalized people, who may be excluded from consultations.
- + First Nation (aboriginal) people in Canada reported that consultations over the river Athabasca in Alberta failed to honour treaties and traditional fisheries and navigation rights stretching back thousands of years (*Fort McMurray Today*, 2010; ForestEthics Advocacy Association, 2015).

There is no 'victim-free' corruption. Ultimately, society as a whole loses from corruption, since it leads to the loss of efficiency, sustainability and trust. Corruption breeds cynicism, undermines public confidence and pushes up costs. It undermines public servants who do their jobs honestly and private companies that behave ethically. When corruption is not challenged it can become institutionalized.



#### 4.2 Blurred boundaries: few signposts

All cultures have a concept of corruption, and corruption is always condemned. However, there are patterns of behaviour (different in every society) that some consider corrupt but others see as grey areas or even acceptable norms. Small 'extra payments' are not always seen as bribes. There can be 'cultural' differences, not just between countries or peoples but even in different workplaces, as to what is considered to be 'normal practice' and what is considered corruption, often in petty areas such as lunch allowances or the use of a company car. These examples may appear trivial but demonstrate that rules are set by societal norms as much as by legal instruments. The rule of law applies to everyone, but, on a larger stage, there is a danger of the rules of corruption being set by those who have adequate incomes and access to legal instruments, while binding most on those who struggle to survive.

Failure to act in accordance with responsibilities may lead to loss of a resource or service failure and is another 'grey area'. It can be seen as corruption by neglect or simply as a failure of management.

Ambiguities need to be factored into integrity campaigns, not to make excuses for corruption but to open discussion on ethical behaviour without labelling someone as a criminal. This is important, since 'good practice' cannot flourish without public support.

## 5 THE LINK BETWEEN GOVERNANCE AND INTEGRITY

Many water crises are primarily due to governance failures rather than resource scarcity (WIN et al., 2013). Weaknesses in governance systems provide incentives for unethical behaviour and poor professional practice. Good governance in the water sector can help prevent corruption, which is why increasing attention has been paid to this issue by international organizations, including those that focus on water.

The Global Water Partnership (GWP) has defined water governance as 'the range of political, social, economic and administrative systems that are in place to develop and manage water resources, and the delivery of water services, at different levels of society' (Rogers and Hall, 2003). Put more simply: 'Ultimately, water governance determines who gets what water, when and how' (Cap-Net et al., 2009).

The OECD spent five years collecting evidence on gaps in governance that hinder water policy, design and implementation. In June 2015 the OECD Ministerial Council ratified a set of principles on water governance, also endorsed by 70 public, private and non-profit organizations (OECD, 2015b).

### Box 1.5 The OECD Principles on Water Governance

**Principle 1.** Clearly allocate and distinguish *roles and responsibilities* for water policy-making, policy implementation, operational management and regulation, and foster co-ordination across these responsible authorities.

**Principle 2.** Manage water at the *appropriate scale(s)* within integrated basin governance systems to reflect local conditions, and foster co-ordination between the different scales.

**Principle 3.** Encourage policy coherence through effective *cross-sectoral co-ordination*, especially between policies for water and the environment, health, energy, agriculture, industry, spatial planning and land use.

**Principle 4.** Adapt the level of *capacity* of responsible authorities to the complexity of water challenges to be met, and to the set of competencies required to carry out their duties.

**Principle 5.** Produce, update and share timely, consistent, comparable and policy-relevant water and water-related *data and information*, and use it to guide, assess and improve water policy.

**Principle 6.** Ensure that governance arrangements help mobilise water finance and allocate *financial resources* in an efficient, transparent and timely manner.

**Principle 7.** Ensure that sound water management *regulatory frameworks* are effectively implemented and enforced in pursuit of the public interest.

**Principle 8.** Promote the adoption and implementation of *innovative water governance practices* across responsible authorities, levels of government and relevant stakeholders.

**Principle 9.** Mainstream *integrity and transparency* practices across water policies, water institutions and water governance frameworks for greater accountability and trust in decision-making.

**Principle 10.** *Promote stakeholder engagement* for informed and outcome-oriented contributions to water policy design and implementation.

**Principle 11.** Encourage water governance frameworks that help manage *trade-offs* across water users, rural and urban areas, and generations.

**Principle 12.** Promote regular *monitoring and evaluation* of water policy and governance where appropriate, share the results with the public and make adjustments when needed.

These principles come with specific proposals for making them work at country level. The OECD has called for measures, adapted to each country, to broaden participation, increase accountability and improve transparency. In welcoming the framework the OECD said:

*'Policy responses will only be viable if they are coherent, if stakeholders are properly engaged, if well-designed regulatory frameworks are in place, if there is adequate and accessible information, and if there is sufficient capacity, integrity and transparency.'*

(OECD, 2015b)

The private sector also needs to address governance issues (see Spread on Private space). The UN Global Compact lists ten principles for companies based on human rights conventions. Principle 10 says: 'Business should work against corruption in all its forms, including extortion and bribery.'<sup>12</sup>

As a part of the UN Global Compact, the UN has also established a CEO Water Mandate as a public-private initiative to assist companies with water sustainability policies and practices. By December 2015 the mandate had been endorsed by 144 companies worldwide. This commits companies to 'transparency and disclosure in order to hold themselves accountable and meet the expectations of their shareholders'. In 2014 the Mandate published a set of corporate water disclosure guidelines to harmonize practice for reporting on water-related topics (CEO Water Mandate, 2014). They provide guidance for companies to measure their water performance, assess conditions in river basins where they operate, understand their water-related risks, impacts and opportunities, develop effective water management strategies and communicate these issues to stakeholders.<sup>13</sup>

Good governance in the water sector involves the informal as well as the formal sector; the public, the media and civil society have a vital role in monitoring the protection of water resources, with the aim of maintaining the integrity of water as a resource. As the OECD puts it: 'Structuring, institutionalising, and/or formalising institutions should not detract from the ultimate objective of delivering sufficient water of good quality, while maintaining or improving the ecological integrity of water bodies' (OECD, 2015b).

<sup>12</sup> UN Global Compact: [www.unglobalcompact.org/aboutthegc/thetenprinciples](http://www.unglobalcompact.org/aboutthegc/thetenprinciples).

<sup>13</sup> The guidelines and resources are available online: <http://ceowatermandate.org/disclosure>.

## 6 A DECADE OF ACTION ON WATER INTEGRITY

*'Today it is a question of how and what to do about corruption, rather than whether it exists.'*

Patrik Stålgren, depute head and senior programme manager, Swedish embassy, Nairobi, Kenya<sup>14</sup>

Issues of integrity and corruption have long been a concern in the water sector, with studies ranging from the earliest examination of irrigation bureaucracy in South India (Wade, 1982) to rent-seeking (Repetto, 1986) and corruption in the WASH subsector (Davis, 2003). Over the last decade leading international organizations such as the United Nations Development Programme (UNDP) and the OECD have recognized water integrity as a key step to the achievement of good water governance (OECD, 2015b). The OECD Principles on Water Governance were drawn up over a period of three years by a multi-stakeholder group established after the World Water Forum of 2012 in Marseille. The work to develop, agree and promote these principles, along with the international efforts to develop policies and programmes relating to the post-2015 global framework for development, have provided space and opportunities to strengthen partnerships in which water integrity can be leveraged and mainstreamed.

The Water Integrity Forum in 2013 led to the Delft Statement on Water Integrity, which calls for extended networks to work on water integrity and for a more rapid response to challenges related to water management and governance (WIN et al., 2013).

### Box 1.6 Summary of the Delft Statement on Water Integrity

The Delft Statement on Water Integrity, adopted in June 2013 by the Water Integrity Forum, declares water to be a fundamental resource for sustainable development, and essential to eradicate poverty, secure water, food and energy and maintain life-sustaining ecosystems.

The Statement says that the primary cause of water crises is not resource scarcity but governance failures. Fragmented institutions obstruct accountability in a sector vulnerable to corruption. A lack of integrity incurs huge cost in terms of lost lives, stalled development, wasted talent and degraded resources.

Water integrity extends beyond corruption to encompass the integrity of water resources, people and institutions. Challenges arise in financial transactions and through the manipulation of knowledge and information, discrimination, illegal or irresponsible water abstraction and waste discharge and through biased rules and processes.

The Statement calls for 'expanding the base', through multi-stakeholder approaches that recognize interconnectedness between water, food production and energy supply; between water, sanitation and human health; and between poverty, informal settlements and vulnerability to corruption.

It also advocates 'increasing the pace' to protect existing structures, and to scale up systems to provide evidence on water-related integrity, establish effective regulatory bodies and overcome institutional fragmentation.

<sup>14</sup> Telephone interview, February 2015.



The Statement calls for steps to build trust between stakeholders, raise awareness and develop professional capacity on the basis of clear codes of conduct. These include actions to:

- + expand networks and build alliances between sectors to develop a consensus on water integrity and to raise awareness;
- + include water integrity in the development of organizational policies, strategies and action plans;
- + invest in inclusive multi-stakeholder processes (MSPs) to foster collaboration beyond the water sector;
- + incorporate water integrity into capacity development, professional training and teaching;
- + advocate the incorporation of water integrity in post-2015 SDGs;
- + promote informed engagement in decision-making by citizens; and
- + move towards a universal code of conduct for individual and institutions based on ethical principles, values and competence.

The Water Integrity Forum, held from 5 to 7 June 2013, was organized by WIN, the UNESCO-IHE Institute for Water Education and the Water Governance Centre (WGC) and attended by more than 100 water and integrity experts.

Other significant events include the first African Water Integrity Summit, held in Lusaka in 2014; regional attempts to measure corruption in governance (Boehm, 2013); and regional training programmes in Africa, Latin America and the Middle East and North Africa (MENA) region by WIN or its partners.

Assessments of water integrity have been carried out in many countries, and assessment methodologies have been refined. Active country networks and coalitions have been developed.

This progress has been reflected by increasing coverage in the media, which in turn has raised the profile of corruption and anti-corruption measures in the sector in different countries (DFID, 2015).

A number of specific initiatives over the past decade have helped to open up this agenda.

- + **2006: the Water Integrity Network (WIN)** was founded by the International Water and Sanitation Centre (IRC), SIWI, Swedish Water House, TI and the World Bank's WSP to respond to increasing concerns among water and anti-corruption stakeholders regarding the impact of corruption in the water sector.
- + **2008: the publication of the *Global Corruption Report (GCR) on water***, a collaboration between WIN and TI, was a milestone in bringing the corruption issues in the sector to wider global attention. The report described corruption as a factor destroying lives and livelihoods all over the world and aggravating ecological disasters at an escalating scale. The report introduced frameworks for classifying corruption risks and encouraged governments and other stakeholders to work together. It remains an important source of information for water sector professionals.

- + **2013: the first Water Integrity Forum** brought together professionals and activists with the aim of raising the profile of water integrity on the international agenda for sustainable development, and resulted in the Delft Statement on Water Integrity.
- + **2013: the OECD Water Governance Initiative** was launched, coordinating the process towards establishing the OECD Principles on Water Governance.
- + **2011–2014: the Water Integrity Regional Capacity Development Programme and Lusaka Learning Summit**, a partnership with regional communities in sub-Saharan Africa, trained 500 water professionals, concluding with the first water integrity summit for Africa.
- + **2014: the UN Global Compact CEO Water Mandate** published corporate water disclosure guidelines for companies to disclose elements of corporate water management practice to stakeholders.
- + **2015: the OECD Principles on Water Governance** were endorsed by ministers in June (OECD, 2015b). The OECD will monitor how member countries carry out their mandate to adjust policies and improve water governance.
- + **2015: the SDGs** were approved by the UN Sustainable Development Summit in September.

## 7 CONCLUSIONS: SECURING WATER RESOURCES FOR FUTURE GENERATIONS

Water has economic value but is also a human right. Competition in its use for food, energy security, household use, industry and leisure has to be managed or human health and welfare, development and ecosystems are put at risk. Achieving the SDGs is heavily dependent on decisions related to water governance and management in the water sector. Integrity in the water sector affects the ability to protect and conserve water resources for use by future generations.

Progress has been made over the past decade in putting the need for integrity and the risks of corruption in the water sector onto the global agenda. The OECD Principles on Water Governance have set markers for mainstreaming integrity and transparency practices in water policies, institutions and frameworks. Integrity is a positive imperative to build accountability and trust and to deliver on promises and protect ecosystems. Public opinion, the media and civil society, as well as legislators, regulators and the justice system, all have a role to play in protecting and sharing the use of water resources.

Corruption leads to a loss of efficiency and sustainability. It undermines public confidence and pushes up costs. It affects most those with least power and fewest resources. In addition to strengthening integrity it is essential to have robust and specific anti-corruption measures that punish those who practise corruption and protect those who expose it.

There is a need to raise awareness so that citizens understand the extent of the damage that corruption causes in their lives and for future generations. The SDGs point to a future in which people can meet their basic needs, with an environment and livelihoods that bring them out of poverty. However, corruption in the water sector pollutes life-giving resources such as rivers, lakes, wetlands and aquifers, wastes investments and leads to a loss of trust and engagement, as well as poor public health.

Building a consensus within countries to promote integrity and expose corruption is essential to protect the environment and ecosystems, build safe and sustainable cities and ensure that freshwater is available for all its many uses for generations to come.

This leads to the following recommendations.

- + **Explicitly recognize and address the lack of integrity and the presence of corruption as major concerns in water governance and management.** Attempts to improve water governance and management will fail if these concerns are not addressed. Water integrity requires deep social, political and economic changes and therefore needs to be tackled explicitly, systematically and over long periods, by taking into account the root causes of corruption.
- + **Strengthen water integrity in order to support the implementation of the SDGs and ensure the fulfilment of the human rights to water and sanitation.** Integrity in water governance is a prerequisite to achieving not only the SDG water goals but also those to end hunger, promote sustainable agriculture, achieve gender equality and develop reliable sustainable energy sources. It is essential for building safe and sustainable cities and for protecting the environment and ecosystems. The OECD water governance principles, resulting from an inclusive multi-stakeholder process, can support this. They specifically highlight the need for integrity and the importance of TAP as essential elements of more effective and equitable governance that builds trust and engagement.

# TRANSPARENCY, ACCOUNTABILITY AND PARTICIPATION

*'Corruption violates the core human rights principles of transparency, accountability, non-discrimination and meaningful participation in every aspect of life of the community. Conversely, these principles, when upheld and implemented, are the most effective means to fight corruption.'*

Navi Pillay, UN High Commissioner for Human Rights (OHCHR, 2013)

## A HUMAN RIGHTS APPROACH

The Universal Declaration of Human Rights (1948) asserts the rights of citizens to play their part in government and public service and sets out a framework for freedom of information, combating discrimination and the right to legal redress.<sup>1</sup>

In the decades since then the interconnection between good governance, human rights and sustainable development has become more explicit.

- + In 2000 the Office of the High Commissioner for Human Rights (OHCHR) recognized that 'transparent, responsible, accountable and participatory government, responsive to the needs and aspirations of the people, is the foundation on which good governance rests' (OHCHR, 2000).
- + In 2011 the OHCHR noted that the right to development 'embodies the human rights principles of equality, non-discrimination, participation, transparency and accountability'.<sup>2</sup>
- + In September 2015 the SDG targets were agreed, including Goal 16: 'Effective, accountable and inclusive institutions at all levels' (UN General Assembly, 2015).

## TAP FOR WATER INTEGRITY

In combination, transparency, accountability and participation (TAP) create a framework for integrity so that the water sector can protect the marine environment and optimize its use for food, energy and consumption. The OECD Principles on Water Governance include Principle 9, to 'mainstream integrity and transparency practices across water policies, water institutions and water governance frameworks for greater accountability and trust in decision-making'.

### Transparency

*'Transparency comprises all means to facilitate citizens' access to information and their understanding of decision-making mechanisms.'* (Cap-Net et al., 2009)

Transparency is about openness and public access to information. Citizens need to be familiar with decision-making processes and the standards expected from public officials. They must be able to anticipate when significant decisions are to be made and how to make their voices heard.

Maximizing transparency in the water sector entails the capacity to generate and make freely accessible high-quality data and information that are understandable and usable.

Participants at the Delft Water Integrity Forum in 2013 recognized a key requirement of transparency as 'free and easy public access to relevant, reliable and consistent data and information, including legal documents' (WIN et al., 2013). Reliable, timely information is required to be able to hold service providers, policy-makers and those who pollute or misuse water to account (Lister, 2010).

By February 2014 102 countries had adopted access to information legislation or similar measures (Right2INFO, 2012) (see Chapter 5). However, these are not always effective. Procedures need to be simplified and costs set at a level at which they do not impede access.

<sup>1</sup> Universal Declaration of Human Rights, articles 2, 7, 8, 10, 19, 21: [www.un.org/en/documents/udhr](http://www.un.org/en/documents/udhr).

<sup>2</sup> OHCHR: [www.ohchr.org/EN/Issues/Development/Pages/Introduction.aspx](http://www.ohchr.org/EN/Issues/Development/Pages/Introduction.aspx).

## Accountability

*'Accountability issues, and not investments, are the key constraint to securing the delivery of improved and efficient services.'* WSP (Agrawal, 2009)

Elected officials and water managers should be held accountable for their actions and answer to those they serve. Citizens, civil society organizations and the private sector must be able to scrutinize actions and decisions by leaders, public institutions and governments and hold them accountable for what they have, or have not, done (Cap-Net et al., 2009).

The UNDP states that accountability is a core human right that 'contributes to ensuring that the interests of the poorest and most marginalized groups in society are taken into account' (Lister, 2010).

Tools for accountability include monitoring systems, performance agreements, annual reports, audits, report cards, complaints systems, public meetings and satisfaction surveys.

Accountability also means appropriate sanctions for corrupt behaviour, so that corrupt officials are dismissed, companies that bribe or cheat are excluded from public contracts and, in the final resort, there are legal penalties in the form of fines or imprisonment.

In 2013 the Human Rights Council published guidance on incorporating the human rights to water and sanitation into state constitutions and legislation – including the means for citizens to enforce the right and seek remedies through competent and effective courts and tribunals (de Albuquerque and Roaf, 2012). The internet has dramatically increased opportunities for citizen monitoring, while social media has a growing role for enhancing accountability.

## Participation

*'[P]articipation is a human right in itself... [V]iolations may arise from direct denial of participation as well as indirect, by failure to take reasonable steps to facilitate participation, including by ensuring the right to access to information.'*

Ex-UN Special Rapporteur (de Albuquerque, 2014)

Participation implies that all stakeholders, including marginalized and resource-poor groups, are meaningfully involved in deciding how water is used, protected, managed and allocated. Initiatives such as river basin associations, water stewardship initiatives, water users' groups and participatory budgeting broaden the base of decision-making.

Participation involves obligations as well as rights: it also implies that all stakeholders have to adhere to and comply with legal rules and regulations.

**Figure: Strategies and approaches for enhancing integrity in the water sector**

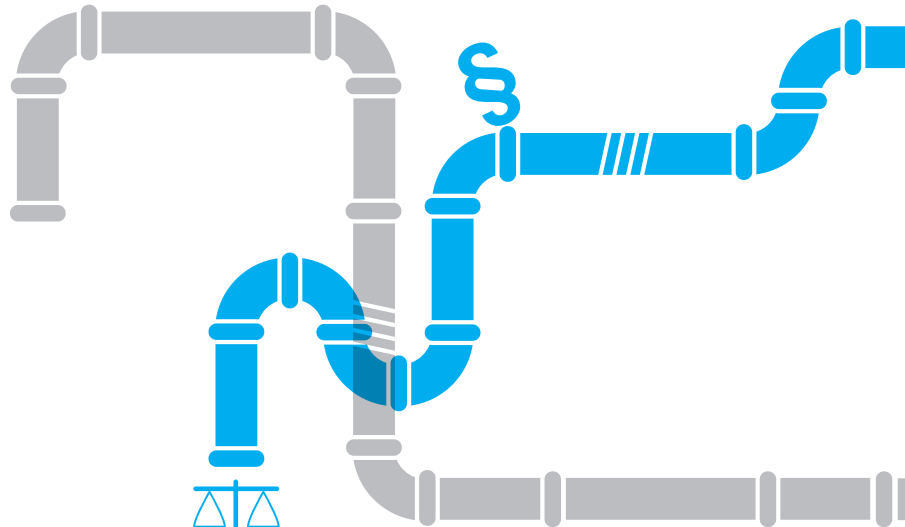


Corruption

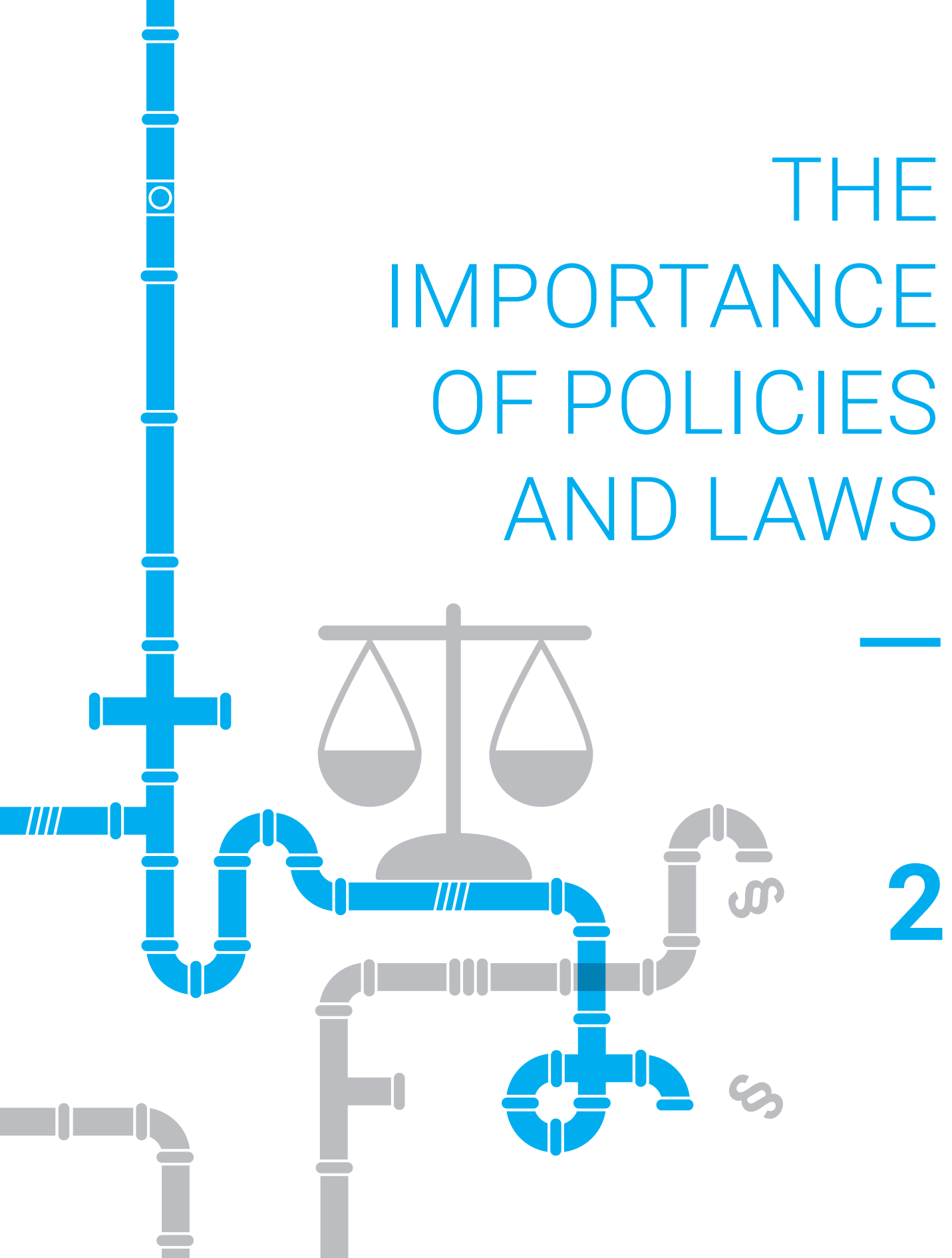


Integrity

(developed by WIN)



# THE IMPORTANCE OF POLICIES AND LAWS

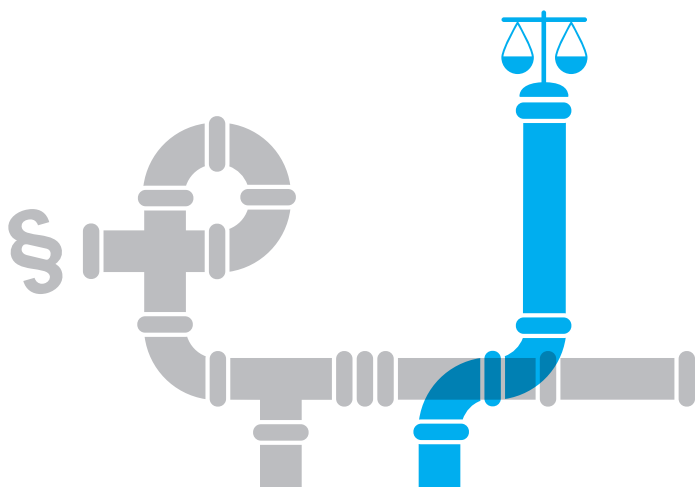


‘ Governance systems determine who gets what water, when and how and decide who has the right to water and related services and their benefits. The representation of various interests in water decision-making and the role of politics are important components in addressing governance dynamics. ’

UNESCO, 2006

#### KEY MESSAGES

- + Clearly defined, implemented and enforced laws and policies are needed to safeguard the integrity of the water sector.
- + Water policies should incorporate TAP principles in accordance with the obligations of the human rights to water and sanitation.
- + Multi-stakeholder participation in policy-making processes is key to ensuring that policy is implemented so that the most vulnerable do not lose out.





# The Importance of Policies and Laws

---

This chapter looks at how policies and laws can support integrity in the water sector. It highlights the need for integrity to fulfil the human rights to water and sanitation and shares some key international, national and regional anti-corruption and water integrity legislation. It notes the contradictions between state and customary law. It stresses the importance of regulation and enforcement as well as citizen participation and makes recommendations to ensure that legislation is implemented so that it has an impact on everyday practice.

## **1 INTRODUCTION: WHY ARE LAWS AND POLICIES IMPORTANT FOR WATER INTEGRITY?**

The complexity of water management, together with the involvement of both public and private partners, leaves it open to corruption. Laws and policies are needed to allocate water in a just manner, to ensure that institutions are well managed and to safeguard the integrity of the water sector. The risk of corruption can be reduced by clearly defined, implemented and enforced policies, laws, guidelines, rules, rights and duties. They can ensure the credibility of a system and its representatives and give people the security needed to criticize the system and call upon their rights when needed. This is of increasing importance given the growing demand for the use of water and the greater complexity of the question of how to divide and safeguard the quality of water (Havekes et al., 2013; UNODC, 2004a). It is also an essential component of good governance, and for many a prerequisite for development.

The network of policies, laws and other instruments that govern the protection, allocation and use of water resources reflects the fragmented state of the sector and the multiple uses of water. Policies and legal instruments relate both to the management of water resources and to the provision of services for water supply and sanitation, irrigation, industry and the environment. They provide a framework for institutions, regulations and initiatives that are mandated to cope with these competing demands. Policies and laws concerning integrity and corruption in general have a large effect on the political and legal instruments available for the water sector at the national and local levels.

As well as national laws and policies, there are multiple international and regional conventions and legal frameworks, and many non-binding legal instruments, such as guidelines, recommendations, principles and protocols. All can influence levels of integrity in the water sector (Havekes et al., 2013). In many countries, there are also customary laws, which may conflict with state laws.

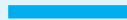
### Box 2.1 The lack of synergy in state and customary laws

In many formerly colonized countries in Africa and South Asia, water laws continue to be influenced by policies that have their origins in the common and civil laws of Western Europe from Roman to Napoleonic times (van Koppen et al., 2014). Many of the original laws took no account of the traditional legal systems that have been in practice in the colonized countries, and even today the two systems often continue to exist in parallel.

Customary law governs the land and water rights of most local communities (Pannatier and Ducrey, 2005), acquired through a recognition that the land or water has been used over many years by a person or persons (Mbengue and Waltman, 2015). Such rights are often unwritten, and may even be unrecognized. They may vary according to locality. This dichotomy of law is of particular concern at the current time, when there is a rush for land and water to secure food and energy. In many countries customary rights clash with the national legal framework, as there is a significant increase in foreign direct investment in land and water. While both government and customary rules welcome investments, there are concerns related to accountability and transparency when pre-existing land users' water rights are compromised.

Synergizing the old and the new laws is a challenge, and loopholes allow the vulnerable to be exploited, particularly because foreign investors are likely to have formal written rights from the government of the country (Mbengue and Waltman, 2015). A study by the United Nations Conference on Trade and Development (UNCTAD) and the World Bank found that, in many cases, local communities often have no formal title deeds and do not understand the rights they have under the laws of the state (Fisher, 2009).

In Gambela, the poorest province of Ethiopia, the government is leasing land and water bodies to investors from Saudi Arabia and India, violating local people's customary rights. The government over the years has undertaken 'villagization', a programme for resettling the locals into centralized villages away from their traditional land. This allows the government to overcome customary rights and lease the land and water out to the highest bidder (Pearce, 2012; *The Guardian*, 2012a).



## 1.1 Laws and policies and the link to social dynamics and moral values

Social and moral values influence the implementation and enactment of laws and policies. At the most fundamental level, the presence of robust and appropriate laws and public policies builds trust in society (Andvig et al., 2000; Rose-Ackerman, 1997). Rules and laws govern individual actions insofar as a consensus exists that they are legitimate, and most citizens believe it is in their interests to follow them and believe that others will do the same.

In the management of common resources, trust-based collaboration and collective action are essential to avoid the ‘tragedy of the commons’, whereby individuals acting in their own self-interest behave contrary to the best interests of the whole group or community by depleting the resource – such as water or forests (Ostrom et al., 2002).

This explains in part why compliance with rules is not uniform, and why integrity is important during policy-making processes, as individuals assess rules on ethical as well as legal grounds before they decide to follow them (Edmundson, 2002). People may not comply with a law or policy on water management if there is a culture of impunity or if they feel the law or policy is unfair. Moreover, if corruption undermines belief in the legitimacy of a policy, compliance levels drop, as people stop contributing to voluntary collective action and feel morally justified in breaking the rules (Dong et al., 2011; Persson et al., 2012). This connection in the public mind between legitimacy and compliance establishes the fundamental rationale for participation and integrity as required dimensions of good water governance.

This argument applies just as much in developed countries as in developing ones. The OECD cites a ‘crisis of trust’ in governments and their services in its recent writings on (water) governance across its 34 member countries and proposes a set of tools to fight against it (Unsworth, 2007; OECD, 1998; OECD, 2003; OECD, 2014a).

The values that define corruption and support water integrity need to be contextualized. Different societies have different perceptions of personal and political affiliations, of the line between the public and the private and between the formal and the informal (Venot et al., 2011; Andvig et al., 2000). Cultural notions influence the local definition of integrity and corruption, manifested, for example, in acceptable norms for gift-giving (Nguyen et al., 2012).

People may also break rules simply because they are ignorant of the law, in the conviction that they are doing ‘the right thing’. In Zambia one study revealed that many small companies behaved in a ‘corrupt’ way simply because they had no knowledge of good management procedures (WIN and cewas, 2015). One of the main findings from the first African Water Integrity Summit in Lusaka was that a significant amount of water governance is corrupt because many people do not know any better (Hermann-Friede, Kropac and Erlmann, 2014).

Nevertheless, there is no society that does not have a concept of corruption. The abuse of power for personal gain, the siphoning of public or common resources into private pockets at the expense of a social group, occurs in all societies, and all have notions of personal enrichment that are considered unacceptable. Promoting water integrity in policy-making and resource management requires a keen awareness of these fundamental social dynamics.

## 1.2 Policy capture

Integrity issues are broader than corruption and criminality. With an increasing range of organizations involved in public policy discussions about water, there is concern about transparency, legitimacy and accountability in decision-making. There are risks of policy capture, both in overall decisions about water and in large-scale projects. According to the Pacific Institute, an implementation partner in the CEO Water Mandate, ‘Policy capture exists where organizations

unduly dominate policy-making or implementation processes to the extent that other stakeholder views tend to be excluded or subdued with the result that policy favours narrow vested interests to the detriment of the public good' (Morrison and Schulte, 2010).

A form of policy capture of special interest in the water sector is known as 'regulatory capture', in which a regulatory body, created to act in the public interest, fails to do so but instead advances the commercial or political concerns of special-interest groups that dominate the (water) sector (see Section 4 in this chapter).

Policy capture is a risk both inside and outside the water sector and undermines trust in the integrity of decision-making. While the greatest pressure for policy capture can come from private sector organizations and lobby groups, non-governmental organizations (NGOs) and academia also lobby to influence policy. It also seems that there is a declining level of trust in business and in NGOs, as well as generally low levels of trust in governments.

### Box 2.2 Falling trust in business: is integrity the key?

The 2015 Edelman Trust Barometer, based on surveys in 27 countries, showed trust in governments at below 50 per cent overall and trust in businesses, NGOs and the media all falling. Growth targets, greed and money are seen as bigger drivers of business innovation than a desire to improve people's lives or make the world a better place.

Half the countries showed that trust levels in business were below 50 per cent and that the least trusted sources of information about business are the chief executive officers of companies or (worst of all) government officials or regulators.

In relation to the food and beverage industry, one of the largest users of water, 52 per cent of respondents thought there was not enough regulation and only 14 per cent thought there was too much.

Integrity was seen as the most important of 16 key attributes to building trust in a company. This includes ethical practices, taking responsibility to address crises and having transparent and open business practices. Overall, business was seen to be underperforming on integrity and engagement. However, 81 per cent of respondents agreed that 'a company can take specific actions that both increase profits and improve the economic and social conditions in the community where it operates'.

The 15th of Edelman's annual Trust Barometers interviewed 33,000 respondents online in 27 countries.<sup>1</sup>

Ángel Gurría, Secretary-General of the OECD, noted that in 2014 only 15 per cent of people trusted their leaders to make ethical and moral decisions. Among the main factors cited by respondents to explain their distrust were 'wrong incentives driving policies' and 'corruption or fraud' (Gurría, 2014).

<sup>1</sup> Edelman: [www.edelman.com/insights/intellectual-property/2015-edelman-trust-barometer](http://www.edelman.com/insights/intellectual-property/2015-edelman-trust-barometer).

In the water sector, policy capture can occur at the macro scale, at which laws and policies on land and water rights are set, and at the project scale, in terms of winning agreement for large-scale construction projects. Is a government decision to construct a large dam based on public need or has it been partly driven by the influence of companies that hope to win construction contracts? Such influence can be brought to bear through covert lobbying or financial support to favoured politicians – a form of bribery. Research has shown that firms specializing in public works projects in Brazil could expect a boost in contracts of at least 14 times the value of their contributions if they donated to the ruling party candidate and that candidate won office (Boas et al., 2014).

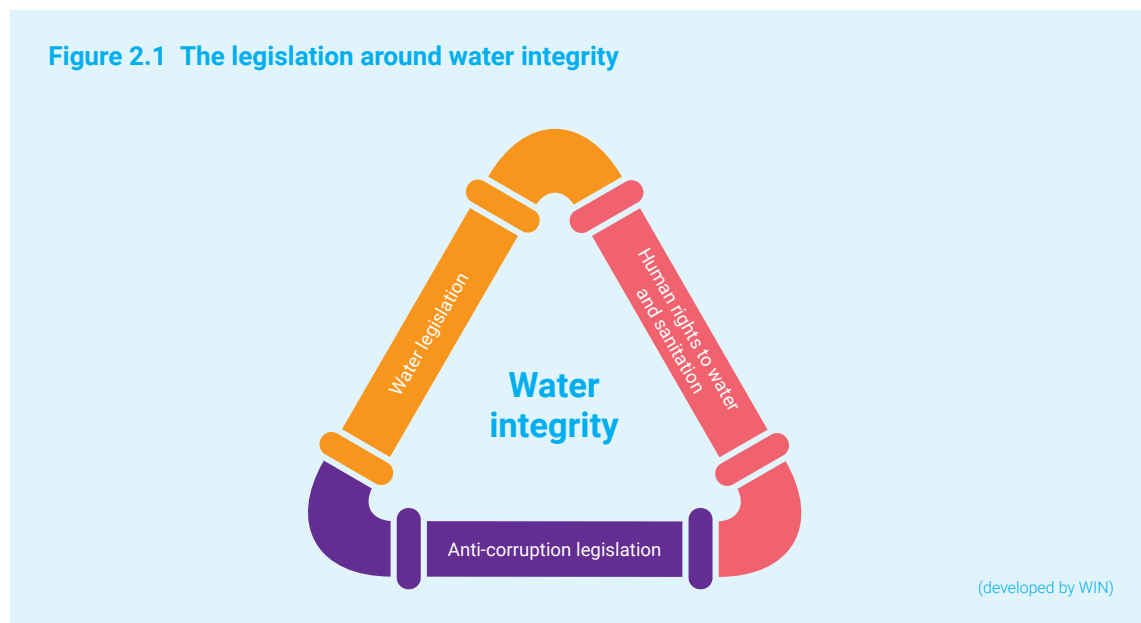
## 2 INTERNATIONAL ANTI-CORRUPTION AND WATER LAWS

International policies and laws concerning integrity and corruption can have a significant effect on the political and legal instruments available for the water sector at national and local levels.

### 2.1 The human rights to safe drinking water and sanitation

The UN General Assembly officially recognized safe and clean drinking water and sanitation as human rights 'essential for the full enjoyment of life and all human rights' on 28 July 2010 (UN General Assembly, 2010b). Two months later the 2010 UN Human Rights Council Resolution on Human Rights and Access to Safe Drinking Water and Sanitation affirmed:

*'The human right to safe drinking water and sanitation is derived from the right to an adequate standard of living and inextricably related to the right to the highest attainable standard of physical and mental health, as well as the right to life and human dignity.'* (UN General Assembly, 2010a)



The legal instruments available to support water integrity concern aspects that touch upon water legislation, anti-corruption legislation and the human rights to water and sanitation.

The human rights to safe drinking water and sanitation entails three levels of obligation: the *obligation to respect* requires states not to take measures that result in preventing individuals from enjoying their rights; the *obligation to protect* requires measures to ensure that third parties do not interfere with the enjoyment of those rights; and the *obligation to fulfil* requires states to adopt necessary measures directed towards the full realization of the rights (CESCR, 2003).

This Resolution called upon states to develop appropriate tools and mechanisms to achieve the right progressively; to pay attention to vulnerable and marginalized groups; and to ensure effective remedies through accessible accountability mechanisms. It noted the responsibility of states

*‘to ensure full transparency of the planning and implementation process in the provision of safe drinking water and sanitation and the active, free, meaningful participation of the concerned local communities and relevant stakeholders.’* (UN General Assembly, 2010a)

Subsequent meetings have enabled countries to make specific commitments in this area; for example, the third Sanitation and Water for All (SWA) High Level Meeting in 2014 provided an opportunity for countries to table specific commitments to strengthen accountability in the WASH sector (see Box 2.9).<sup>2</sup>

## 2.2 International anti-corruption instruments

The international community has accepted several instruments on corruption and integrity that can be used in the water sector. The United Nations Convention against Corruption (UNCAC), which entered into force in 2005, focuses on specific acts: the bribery of national public officials, foreign public officials or officials of public international organizations; the embezzlement, misappropriation or other diversion of property by a public official; trading in influence; the abuse of functions; illicit enrichment; the laundering of the proceeds of crime; and the concealment and obstruction of justice (articles 15 to 25). The UNCAC facilitates the efforts of UN member states to develop a common approach to corruption, and focuses on preventative measures for public and private actors, as well as training, research and information sharing.

The UN also created an UN-Anti-Corruption Toolkit (UNODC, 2004a), which has to be tailored to the specific needs of each country, to support them in implementing the Convention (UNODC, 2004b). However, the structural recommendations regarding anti-corruption measures are so technical that the Convention has been criticized for creating a new cycle of aid dependency and associated corruption risks (see Boxes 2.3, 2.4 and 2.5).

The international legal landscape was affected in the 1970s by investigations into 400 companies in the USA that admitted making illegal payments to foreign government officials, politicians and political parties. In 1977 the US Congress approved the Foreign Corrupt Practices Act, by which US companies were barred from using bribery and corruption as a tool to gain contracts abroad. Two other international conventions that play a key role in strengthening integrity are the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions and the UN Watercourses Convention.

<sup>2</sup> SWA: <http://sanitationandwaterforall.org/priority-areas/political-prioritization/2014-hlm>.

### Box 2.3 The global impact of the Foreign Corrupt Practices Act

The US Foreign Corrupt Practices Act (FCPA) 1977<sup>3</sup> had a global impact, as prosecution is not restricted to companies operating or with headquarters in the USA but includes all those with connections to the country. This makes it relevant for the water sector on a global scale, as liability can lie with management as well as with employees who commit a corrupt act or intend to commit one. Managers have increasingly become aware of this liability risk. In order to avoid it, they have to ensure that a comprehensive anti-corruption programme, often called a compliance management system, is in place. This comprises a comprehensive set of measures, starting with risk assessments and internal controls and including the responsibility for ensuring that all employees are well informed about corruption. In 2014 this Act was used to prosecute Texas-based Layne Christensen Company, a water management, construction and drilling company that had self-reported improper conduct, and it was charged with violating the FCPA by making improper payments to foreign officials in several African countries. Layne agreed to pay more than US\$ 5 million to settle the charges. 'Layne's lack of internal controls allowed improper payments to government officials in multiple countries to continue unabated for five years,' said Kara Brockmeyer, chief of the Securities and Exchange Commission Enforcement Division's FCPA Unit in a press release. 'However, Layne self-reported its violations, cooperated fully with our investigation, and revamped its FCPA compliance program. Those measures were credited in determining the appropriate remedy' (US Securities and Exchange Commission, 2014).

### Box 2.4 The OECD Convention on Combating Bribery

The 1997 OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions focuses on the 'supply side' of bribery transactions, and recognizes the role of governments in preventing the solicitations of bribes from individuals and businesses in international transactions. It is legally binding for signatories, although the Convention does not seek to bridge gaps between the various legislative systems (George et al., 2000; Rubin, 1998; OECD, 2011a).

### Box 2.5 The UN Watercourses Convention

The UN Watercourses Convention entered into force in 2014 and forms the basis of most transboundary negotiations. The Convention standardizes a set of criteria for countries with international river basins and transboundary waters (University of Dundee, 2014).

<sup>3</sup> US Department of Justice: [www.justice.gov/criminal-fraud/foreign-corrupt-practices-act](http://www.justice.gov/criminal-fraud/foreign-corrupt-practices-act).

Integrity-related elements include collaboration between states over data sharing and information exchange and using the principle of equity to protect watercourses from pollution. However, the impact of the Convention is at risk if only some countries adhere to its principles. One example is that Israel is the only state in the Jordan River Basin not to have signed the Convention, which has implications for the sustainable management of water in the basin.

### 2.3 Regional cooperative frameworks on corruption

Regional cooperative frameworks, such as the Union of African States, the Economic Community of West African States (ECOWAS), the Organization of American States, the Association of Southeast Asian Nations (ASEAN), South Asian Association for Regional Cooperation (SAARC), the OECD and the European Union, form arenas in which countries agree to cooperate, and can be held to those agreements. The OECD Water Governance Initiative produced universally applicable OECD Principles on Water Governance that were endorsed by the meeting of ministers of 34 OECD member countries in 2015, who pledged to ensure more integrity and transparency across water policies (OECD, 2015b) (see Box 1.5). However, these frameworks take a long time to become legally binding.

#### Box 2.6 The ECOWAS Protocol on the Fight against Corruption, 2001

This Protocol obliges state parties to adopt necessary measures to criminalize corruption in the public and private sectors. From the water sector perspective, it was an important step in ensuring that publicly and privately owned water utilities introduce measures to prevent and criminalize such activities (Dell, 2006). But signing the Protocol is not enough: it needs to be ratified by at least nine countries in a region. In West Africa, only eight countries have ratified it (UNODC, 2015). Clearly, until the Protocol enters into force, it remains difficult to establish enforcement mechanisms at national level.

If a state fails to comply with its obligation to make itself accountable through a sound legal order providing for the enforcement of the rule of law and judicial review, it can be ordered to comply by a regional body, though such procedures are slow and cumbersome. Such systems have the power, for example, to hold a state in violation of the right to a fair trial should public authorities fail to enforce a judicial ruling ordering a private water service provider under a public concession contract to connect an apartment to the supply system (WaterLex and WASH United, 2008), or to provide individuals with the possibility of appealing a decision that impacts their ability to use their water well (European Court of Human Rights, 1993).



### Box 2.7 The African Union Convention on Corruption

The 2003 African Union Convention on Preventing and Combating Corruption and Related Offences obliges parties to adopt legal and administrative measures and seeks to promote and strengthen anti-corruption mechanisms and facilitate cooperation (African Union, 2003). It makes a clear link to human rights in stating that its objective is to 'promote socio-economic development by removing obstacles to the enjoyment of economic, social and political rights' (article 2.4) and to 'establish the necessary conditions to foster transparency and accountability in the management of public affairs' (article 2.5) (Baillat, 2013). However, the Convention focuses mainly on public rather than private transparency and accountability and assumes that the institutions of member states are efficient and accountable (Olaniyan, 2004).

## 3 GOVERNMENT RESPONSIBILITIES IN PREVENTING CORRUPTION IN THE WATER SECTOR

Ultimately, it is national governments that are responsible for managing river basins, protecting water resources, ensuring a fair allocation between competing users, and making sure that citizens have access to drinkable water and sanitation that meets national standards. They hold the duty of developing policies and rules, including a fair and effective system of regulation and enforcement, and ensuring provision, either by providing public services directly or, indirectly, by contracting private service providers. Government policy for water supply regulates the structure for water utilities, establishing public monopolies or private markets for water services, for example, and deciding which powers are devolved to which bodies. Both sets of provisions influence major issues along the water chain.

### Box 2.8 Addressing corruption in the water sector

Why should governments reduce corruption in the water sector?

- + It helps global development goals and budget targets to be met.
- + It attracts and retains resources for the sector.
- + It encourages other sectors to follow suit by openly tackling corruption at the sector level.
- + It leads to improved service delivery and accountability to citizens, especially to poor people.
- + It improves sector status and reputation in the eyes of the public.

(Jacobson et al., 2010)

Government departments and institutions established for the governance of water require clear responsibilities with matching capacities and financial resources, as well as transparent administrative procedures. Corruption risks occur at many points in the management of water, from the set-up of the water bureaucracy through to approvals, licences, etc. (see Chapter 4). Complicated and unclear administrative procedures, excessive regulation, opaque decision-making, a lack of public information, bureaucratic discretion and long delays can all allow corruption to thrive. Process design, monitoring and supervision can play a big role in preventing corruption (see Chapter 6). Independent government agencies are also key to enhancing oversight and the proper use of public money to provide high-quality services for all.

Many national laws aim to prevent corruption and enhance integrity and can be related to the water sector. The Dutch Criminal Code and the Dutch General Administrative Law Act (Ministry of Justice 1881; Ministry of Home Affairs 1994) forbids officials favouring private parties, accepting gifts beyond a certain value and influencing decisions if they are personally involved. In relation to the water sector, a member of a regional water authority cannot vote on any decision in which he or she has a personal stake, such as owning land the authority wants to buy. Members of the Water Board are not allowed to do business with the public water authorities. When assuming office, they have to declare their other functions. A forthcoming provision will make the chair of a regional water authority responsible for the integrity of his or her organization, and the same rule will apply to provincial commissioners and city mayors.

### Box 2.9 Country commitments to eliminate inequalities in WASH

The third SWA High Level Meeting, in 2014, provided an opportunity for countries to table commitments to strengthen accountability in the WASH sector.<sup>4</sup> A focus on eliminating inequalities and improving sustainability was evident in the commitments made by African nations. Some examples of country commitments for sub-Saharan Africa include the following.

- + Mozambique committed itself to allocating at least 40 per cent of WASH sector funds to district and municipal governments.
- + Senegal committed itself to acknowledging WASH as a human right.
- + Côte d'Ivoire committed itself to including the elimination of open defecation in the 2014–2016 Poverty Reduction Strategy and in the National Health and Nutrition Plan.
- + Benin, Burundi, Côte d'Ivoire and Liberia committed themselves to carrying out studies in peri-urban areas to understand the sanitation approaches that are most effective for the urban poor.
- + Ghana and Sudan made commitments to monitor inequalities in WASH.

Measuring and monitoring commitments are a vital component of the process and key to strengthening accountability in the sanitation and water sector. Developing country governments, donors and development banks agreed in 2014 to report annually on the progress made in implementing the commitments. The mid-term review in 2014 found that 56 per cent of commitments had been met.<sup>5</sup>

<sup>4</sup> SWA: <http://sanitationandwaterforall.org/priority-areas/political-prioritization/2014-hlm>.

<sup>5</sup> SWA: <http://sanitationandwaterforall.org/priority-areas/political-prioritization/high-level-commitments-dialogue>.

### 3.1 Putting policies into practice

Passing laws and adopting policies is one thing; putting them into practice is much more difficult. A lack of coordination between authorities and contradictions between laws or regulations can undermine enforcement. Improper political influence and the erosion of the independence of the judiciary and the accountability of institutions responsible for law enforcement can create a culture of impunity.

#### Box 2.10 Community rights to water in Colombia

In Colombia, article 365 of the constitution<sup>6</sup> notes that addressing 'unsatisfied drinking water needs' is one of the basic objectives of the state. However, informal settlements in the neighbourhood of Bogotá were not provided with adequate water and sanitation, which meant that people had to use hosepipes connected to water tanks. One tank was damaged and the other was not able to ensure a continuous water supply.

In the meantime, parts of the settlements were legalized. The Administrative Tribunal of Cundinamarca asserted the constitutional obligation of the municipality to guarantee and secure the provision of public services. It found that 'water services do not meet the needs of the community and sanitation services are non-existent; therefore, the collective rights invoked by the community are currently being violated'. The Tribunal further declared that the Capital District had to take the necessary steps to provide services, in conjunction with the public water service provider and the residents (Bohórquez Forero, 2012).

The above example illustrates the importance of using litigation to apply a human-rights-based approach to support those who are most vulnerable and to narrow the gap between policy and practice so that legislation enhances 'respect for the rule of law, smart decision-making and efficient water sector administration' (OECD, 2014b), which are at the heart of water integrity.

## 4 GOOD GOVERNANCE DOES NOT EXIST IN A VACUUM: REGULATION AND ENFORCEMENT

A sound legal, policy and institutional framework needs to be supported by a regulatory framework that is easy to understand and implement. The job of a regulator is to ensure compliance with rules and guidelines, including tariff-setting procedures, the licensing of utilities, public performance reporting and service standards (such as for water quality) (Nordmann, 2013), and – when necessary – to enforce them through sanctions and public information campaigns. The monitoring of compliance with service standards and benchmarking by regulatory authorities are important drivers for efficiency and increased accountability (see Chapter 6).

<sup>6</sup> Constitución Política de Colombia 1991 (as amended).

Corruption can thrive if complex regulations and official secrecy hide what is happening from the public eye. This is why 'regulatory capture' – whereby a regulator acts in a biased or non-transparent manner (Plummer, 2008) and makes the rules work for the benefit of just a few – is a major integrity concern in the water sector. Regulators are supposed to be independent contributors to water integrity but, unless they themselves are held accountable, they may become corrupt and attempt to extort from regulated institutions such as water utilities (Boehm, 2011). This is more likely, for example, if permits are issued in an improper process (Kenny, 2007). In São Paulo, poor regulatory frameworks have created opportunities for officials to demand bribes and resulted in discretionary decision-making (Ethisphere, 2013). Regulators are sometimes accused of being too close to the agencies they are overseeing, and failing to uphold the interests of the consumers (Philipponnat, 2014).

### Box 2.11 Kenya Water Services Regulatory Board integrity measures

In Kenya, the Water Services Regulatory Board (WASREB) was established by the Government through the Water Act in 2002. WASREB's mandate comprises economic and social regulation and quality regulation for urban water utilities. An annual public report entitled *Impact* documents the efficiency of the utilities. WASREB is audited by the Kenya National Audit Office. In addition, WASREB actively promotes better governance at sector and utility levels through the following measures (Nordmann et al., 2012).

#### Transparency includes:

- + public reporting on the commercial and technical performance of water utilities;
- + clear and publicly available standards and procedures (e.g. for licensing, tariff setting, service standards, public access to information); and
- + the collection and provision of information for informed decision-making and tariff adjustments (e.g. making transparent the cost structure of utilities).

#### Accountability includes:

- + the public exposure of poor-performing utilities to increase accountability;
- + the benchmarking of utilities against performance targets and recognizing good performers;
- + standards and procedures for customer complaints handling; and
- + guidelines on corporate governance (e.g. nomination and performance evaluation of board directors).

#### Participation includes:

- + guidelines on consumer engagement (e.g. stakeholder representation on boards of directors);
- + institutionalized consultation with consumers by the regulator and utilities (e.g. with the assistance of local Water Action Groups composed of volunteers); and
- + public consultations of stakeholders as part of tariff adjustment processes.

#### 4.1 Challenging cultures of impunity

If a given state has adopted all the necessary measures to aim at the full realization of the human rights to water and sanitation but fails to enforce them, its legal and policy framework will have no impact on people's living conditions. This is why the judiciary has a major role to play in facilitating the enforcement of legislation and respect, protection and the fulfilment of an individual's right to water. Cultures of impunity for powerful actors and low demand for accountability lead to situations in which public officials publicly condemn corruption but systematically undermine, sideline and obstruct anti-corruption efforts.

In India, for example, there is very low enforcement of water quality statutes to prevent industries discharging untreated sewage into the Ganges – one of the world's most polluted rivers. Politically appointed national and state pollution control boards, which review and issue permits, have been accused of being corrupt and being part of the problem (News Security Beat, 2015).

In Ghana a project called Transparency and Integrity in Service Delivery in Africa (TISDA) (2008–2011) found weak execution of laws, especially in relation to water pollution. Rules were flouted and there was no prosecution of offenders. Regulations controlling gifts and hospitality to public officials existed as 'guidelines' and were unenforceable. Government officials were supposed to file asset disclosures, but these were never audited or reviewed. Although the Attorney General has suggested that the public should be allowed access to these asset disclosures, the Ghanaian Parliament remains reluctant to grant it (Anas, 2009).

A paper by WIN and GIZ in 2013 (Nordmann, 2013) made a number of recommendations for setting up and promoting regulatory frameworks in the water sector, covering the autonomy of regulators, the importance of monitoring, the need for minimum standards (e.g. for water quality) and the need to collaborate with other regulatory and public oversight institutions, such as anti-corruption commissions, parliaments, public procurement authorities and auditors. It also noted the importance of strengthening consumer feedback and analysing (high-quality) media reports as sources of information to assess service quality and utility governance.

### 5 MOVING BEYOND LIP SERVICE: ENSURING PARTICIPATION

Governance is not only about written rules, laws and policies; it is also the sum of actions and decisions made by many different institutions and groups that determine 'who gets what water, when and how, and decides who has the right to water and related services' (UNESCO, 2006).

Although a country's government is the main actor for policies and laws, the process of policy-making typically includes at least five different groups of actors.

### Box 2.12 Who is in the room when decisions are made?


**Governments** formulate and enforce laws and policies, which are necessary for a transparent and accountable water sector. They play a leading role in the delivery and implementation of water initiatives as well as the regulation and monitoring of the sector. However, there is often mistrust of government services, which can be bureaucratic and slow and prone to corrupt practices. **Local government** is often tasked with carrying out laws in practice, but governance may be poor at this level.

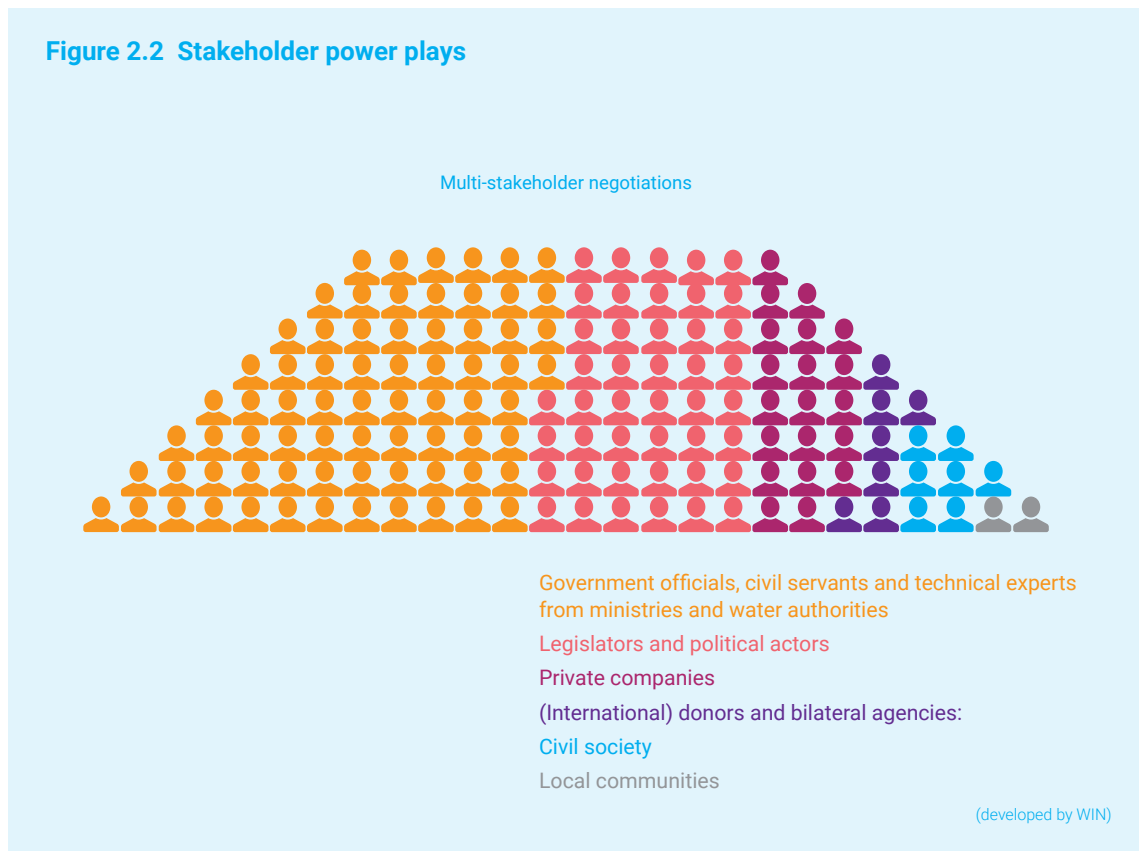
**Local communities** are the least powerful in this process, but the most affected by bad decisions; they have least say in the provision and supply of water and often have less technical knowledge, know-how and expertise to negotiate their rights. However, their participation, especially the most marginalized communities, is key in promoting water integrity and preventing corruption. Grass-roots organizations, such as water and sanitation committees and farmers' associations, can represent local users.

**International donors and multilateral organizations** play an influential role in the sector. As funders of national government programmes, NGOs and civil society groups, they are in a position to work with government to ensure that anti-corruption policies are implemented. Donors are also important contributors of finance to the water sector in the Global South, and therefore have a significant say in policy-making and the development of legal frameworks.

**Private companies and service providers** are increasingly involved in the water sector. They are key players in processes in which large sums of money are involved, and can therefore be either drivers of water integrity or promoters of corruption. The private sector has a lot to lose from corruption, in terms of cost, efficiency and reputation, but it is often party to corrupt practices. Governments frequently blame corporations for suborning public servants, while private sector companies complain they cannot win contracts without giving bribes (see Spread on Private space).

**Non-governmental and other CSOs** play an important role in achieving policy reform and social change, in combating corruption and in explaining water integrity issues in ways that invite participation. International NGOs have insider/outsider status and are often in a position to blow the whistle on corrupt practices. However, they too sometimes act unilaterally and bring in their own procedures and hardware that are hard to sustain, or they may want to influence decision-making processes to support their organizational position. NGOs that make short-term interventions and leave without adequate follow-up arrangements can damage the integrity of services by putting sustainability at risk.



**Figure 2.2 Stakeholder power plays**

The process of policy-making should encourage the active participation of all stakeholders. However, multi-stakeholder approaches are frequently misbalanced, with some actors having a much louder voice than others.

## 5.1 Stakeholder mapping and participation

A requirement to involve stakeholders is mandated in most water programmes; for example, the Water Framework Directive (WFD) for the European Union states: 'Member states shall encourage the active involvement of all interested parties in the implementation of this Directive, in particular in the production, review and updating of the river basin management plans' (European Parliament, 2000).

The European Convention of Aarhus in 1998 enshrined participation and access to information as a principle for environmental decision-making. This was subsequently incorporated into the European WFD and the national legislation of member states.

Promoting integrity in the water sector requires engaging with all levels of government and interacting with other stakeholders as well as within organizations. A multi-stakeholder process (MSP) involves government, civil society and the private sector. Involving local stakeholders and their concerns in activities and decision-making processes from the bottom up as well as from the top down can help prevent conflicts, manage trade-offs, foster shared benefits, raise awareness, align divergent objectives and support result-oriented action.

The principles of TAP improve policy-making processes only when they change the relationships between these different groups and actors, so that participation is meaningful and officials hold themselves accountable. Process guidelines that simply codify and formalize steps to 'guarantee' participation and transparency do not achieve change if they exist only on paper. This is why modern approaches to water governance place a high priority on MSPs (Sanchez and Roberts, 2014; Lankford, 2008).

Policy frameworks for good water governance need to identify who is, and who should be, involved in water-related decision-making processes. Only by knowing all the stakeholders and their interests at policy level can water integrity be reflected in the fairness and transparency of the resulting decision-making process. Mapping the entire mosaic of water-related institutions and actors and then diagnosing the risks and strengths of this mosaic constitute an important first exercise when starting work on integrity related to sector policies. TI's National Integrity System is an approach that maps and assesses such systems at a country level, as Box 2.13 shows.

### Box 2.13 Transparency International's National Integrity System

TI has developed a National Integrity System approach that diagnoses strengths and weaknesses in a country's integrity system, identifying areas for reform and making recommendations to institutions. These include supreme audit institutions; electoral management bodies; ombudsmen; the judiciary; the executive (government); law enforcement; legislatures; the media and civil society; political parties; the public sector; the private sector; and anti-corruption agencies. The consultative assessment highlights discrepancies between the formal provisions and reality on the ground, making it clear where there is room for improvement in a national report that aims to 'build momentum, political will and civic pressure for relevant reform initiatives'.<sup>7</sup>

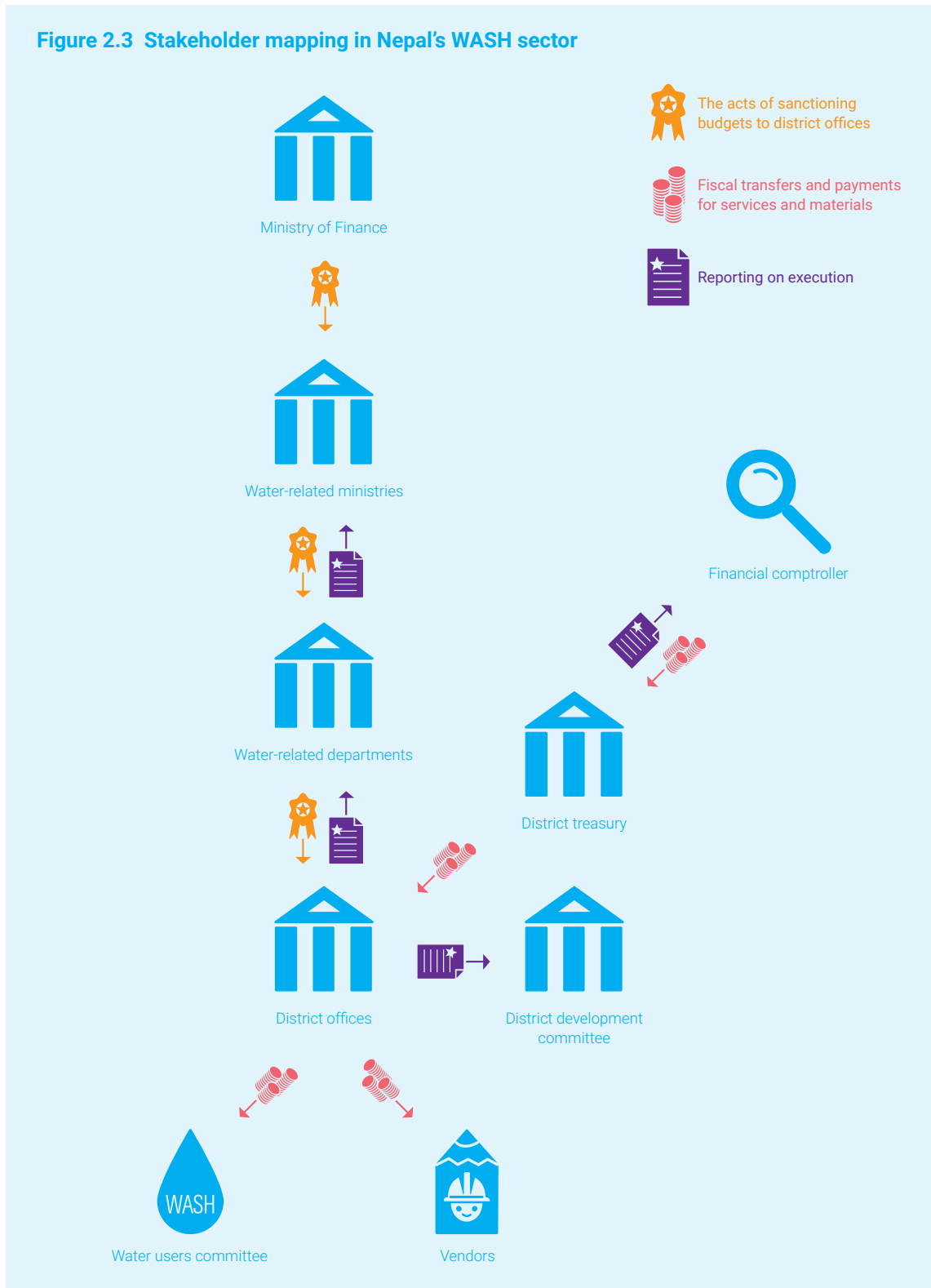
In Namibia, the 2013 Water Resources Management Act addressed aspects of integrity and participation in implementing an integrated approach to water management and promoting transparency. A basin management committee (BMC) was established to support stakeholder participation in policy formation and decision-making via a Basin Stakeholder Forum, with representatives from communities and from organizations and institutions with rights and interests in the basin. Typically the BMC fosters the sharing of knowledge and experience, as well as providing feedback. It is accountable to central government (Republic of Namibia, 2013).

As we can see in the example in figure 2.3, from the WASH sector in Nepal, stakeholder mapping helps to identify the complex relations between principal state actors and their accountability regarding decision-making: who sits where in the hierarchy and how it influences the decisions that are made.

<sup>7</sup> [www.transparency.org/whatwedo/nis](http://www.transparency.org/whatwedo/nis).



Figure 2.3 Stakeholder mapping in Nepal's WASH sector



Key accountability relations among actors in the Nepal water sector (adapted from WIN and Helvetas, 2013b).

## 5.2 Participation challenges

Ensuring participation by involving stakeholders as part of TAP in the water sector is not without its challenges (Baillat, 2013). Too often attempts merely play lip service to the idea of participation. Alternatively, citizens may be unaware of their rights or uninterested, or not have enough information or knowledge about the system or situation to provide clear feedback. Officials need to be able to convey the relevant information in the right way to an audience that is willing to listen and able to provide input. This means producing documents in local languages or, if the audience cannot read, finding other ways of communicating the information required. Engaging stakeholders in a meaningful negotiation can have a substantive impact on outcomes if previously unheard voices are properly reflected and actively involved.

Catarina de Albuquerque, the former UN Special Rapporteur on the human rights to water and sanitation and currently SWA vice-chair, has said: 'Participation must be active, free and meaningful. It must go beyond mere information-sharing and superficial consultation, and involve people in decision-making, providing real opportunities to influence the planning process' (de Albuquerque, 2011).

## 6 CONCLUSIONS: WATER FOR THE GOOD OF ALL

We have seen that water integrity can be fostered by treaties, conventions, laws and anti-corruption frameworks and non-binding agreements. The human rights to water and sanitation is a crucial obligation for states, to ensure that their inhabitants have the right to water and to provide a level playing field in order to enhance integrity in the sector. An approach based on human rights, laws and policies on water and against corruption, and enforcement mechanisms can serve to strengthen water integrity.

The gaps between traditional rights and modern state laws need to be overcome and synergized so that concerns related to the seizing of land and water can be addressed.

The experience of water management over the past decade suggests that the mobilization of stakeholders is crucial for ensuring that policy is implemented so that it works for integrity and against corruption.

Finally, the challenge of building water integrity lies not only with policies and laws but with practice. Formal policies and laws must be enforced and implemented for the good of all.

This leads to the following recommendations.

- + **Develop and enforce water policies that incorporate TAP principles along with anti-corruption measures in accordance with the obligations of the human rights to water and sanitation.** The human rights to water and sanitation are a crucial obligation for states to deliver on the rights of their inhabitants. The TAP framework is a powerful tool to fulfil these human rights. Strengthening enforcement mechanisms is important to ensure that water legislation and anti-corruption legislation effectively improve people's living conditions, and requires cooperation between anti-corruption, judicial and water institutions.

- + **Ensure public scrutiny and balance stakeholder interests in political and legislative processes.** Water management experiences of the last decade suggest that mobilizing stakeholders is one of the key ways to ensure that policy is developed and implemented so that it works for integrity and against corruption. The interests of all relevant actors must be taken into account fairly. The current rush for land and water to secure food and energy can lead to hasty policy-making. In this context, the voices of the poor and marginalized – who suffer most from the changes – must be taken into account. Water access in many regions depends on traditional institutions and power relations that do not connect to the state’s legal framework. Adopting, extending or linking customary laws to state laws, when applicable and fair, can help protect the rights of the marginalized and the vulnerable in many cases.

# WATER INTEGRITY IS A WOMAN'S ISSUE

*'Women and the poor are most often the main victims of corruption in water governance.'*

Huguette Labelle (TI, 2008)

Corruption in the water sector affects women and girls on many levels and yet the link between integrity, gender and water is not sufficiently recognized. A study by the UNDP showed that grassroots women suffer more than men from the impact of corruption (UNDP, 2012) and have a broader understanding of the issues in relation to water. They include women being excluded in decision-making around water (and thus deprioritized when it comes to service delivery); women and girls doing the majority of water collection; women and girls suffering sexual harassment and exploitation; and, finally, their lack of access to key resources such as land and water.

## DECISION-MAKING AND SERVICE DELIVERY

Despite the prominence of roles for women in the water sector, they are rarely consulted about the provision and delivery of water services, and women's needs for water for families or for irrigation are often given a low priority by water managers and decision-makers – a failure of integrity (Cap-Net and GWA, 2014). For example, service failures affect women from a young age. Toilets for girls in schools are not prioritized, with the result that they may stay away from school when menstruating (van der Gaag, 2010). And women are often the ones who have to pay for water, whether this is an above-board user fee or a bribe, even though their income is often lower than men's (Cap-Net and GWA, 2014).

## WOMEN AND WATER COLLECTION

Women are the main collectors and managers of water for the household. Women and girls bear the majority of the burden of water collection in many parts of the world, especially in Africa and rural Asia.<sup>1</sup> In Africa, 90 per cent of the work of gathering water and wood is done by women.

Water collection leaves women and girls less time for other activities, including income generation, studying and participating in decision-making or leisure, and it has proved to have detrimental health effects (Evans et al., 2013; Geere et al., 2010). In Tanzania, a survey found school attendance to be 12 per cent higher for girls living 15 minutes or less from a water source than for girls whose homes were an hour or more away (Redhouse, 2004). Attendance rates for boys appear to be far less affected.<sup>2</sup>

Women may be threatened or attacked when making the long journey to fetch water, or the shorter journey at night to find a private place to relieve themselves. Water providers may demand sex as a 'bribe' for providing services (known as 'sextortion'). However, sextortion is neither recognized in the main international conventions nor monitored in international surveys. Therefore, it remains a hidden (and contentious) form of corruption. It is also one that affects women and girls disproportionately (UNDP, 2012).

## LAND AND RESOURCES

Women own only 2 per cent of the world's private land, and even when they have a legal title they are often prevented from accessing its resources. Water rights, including access to official irrigation systems, are linked to land rights. Although women's involvement in subsistence farming is key to feeding entire families, they often have little or no access to irrigation to grow the food they need (Cap-Net and GWA, 2014).

In 2010 UN-Habitat and the Italian NGO YAKU started a collaboration to answer the demand for

<sup>1</sup> UN-Water: [www.un.org/waterforlifedecade/gender.shtml](http://www.un.org/waterforlifedecade/gender.shtml).

<sup>2</sup> Ibid.

a sewer system and water treatment plant in Villa Satélite, a peri-urban town in Bolivia. From the outset the project aimed to introduce the cross-sectional approach on the gender perspective. The project worked with technical professionals and local communities to raise awareness about the importance of taking women's opinions into account. Common meetings were held for both men and women to discuss the project, but in addition women-only spaces were organized, for them to gather their concerns, needs and suggestions and to boost their confidence. The project managed to incorporate women at the same level as men in the decision-making process, address some of their main concerns (such as toilets inside the house, for safety reasons) and set up the basis for female participation in future projects (Cap-Net and GWA, 2014; UN-HABITAT and GWA, 2013).

## WHAT NEEDS TO BE DONE?

The water needs of women and girls are explicitly mentioned in Goal 6.2 of the current Sustainable Development Goals (SDGs), as are their access to economic resources, basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services (Goal 1.4). Moreover, women's 'full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life' are mentioned in Goal 5.5.<sup>3</sup>

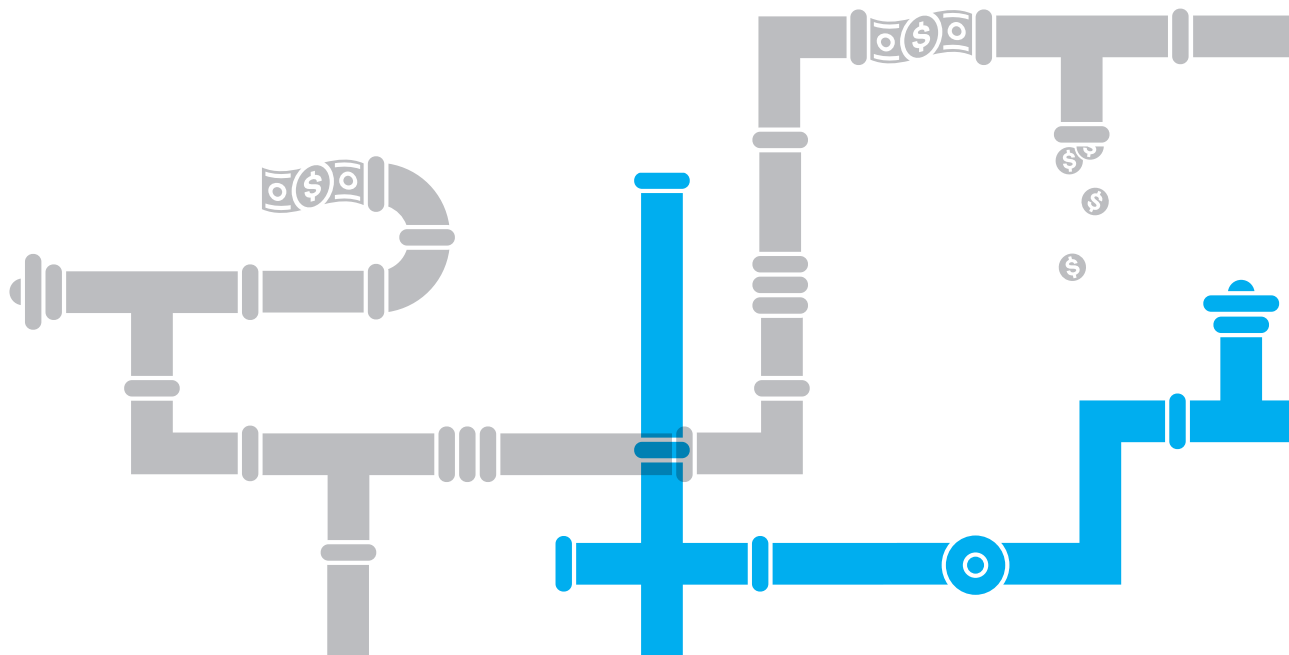
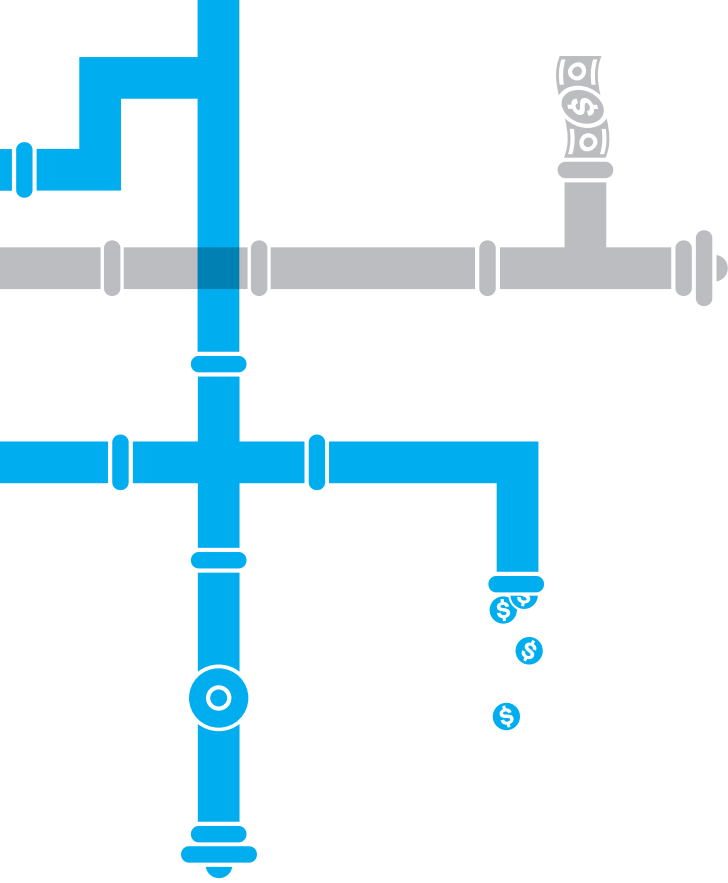
A number of international organizations, among which are the Gender and Water Alliance (GWA)<sup>4</sup> and the Women for Water Partnership,<sup>5</sup> have been working on these issues for years, and at local level women's self-help groups play a key role in water management, many of them heavily engaged in the fight against corruption and devising innovative strategies for increased accountability and transparency. Women's skills and knowledge are key for the effective and efficient management of water and there can be no integrity without full participation by women in decision-making. Many institutions need to review their policies and procedures in this light.

- + Promote gender budgeting in the water ministry and other institutions as one way of tracking the expenditure of funds on initiatives that are relevant to women, especially poor women.
- + Ensure that projects and programmes, whether public or private, begin with a gender analysis, understanding how labour is divided and valued and disaggregating data by sex.
- + Analyse how activities, decisions and plans affect women differently from men, and boys differently from girls.
- + As part of integrity development, involve women in planning water for livelihoods; they bring a new perspective on the value of water in promoting small-scale enterprises and agriculture that can lift people out of poverty.
- + Understand that hygienic sanitation for women is an issue of safety and dignity, and therefore one of integrity.
- + Provide gender-targeted programmes, involving women as well as men in development projects, including water system infrastructure and operation and maintenance.
- + Raise the understanding of government workers about the negative societal consequences of corruption in the water sector and the impact on women in particular. Train technical and managerial personnel and raise their capacity in gender participation, analysis and methods.
- + Recognize sextortion as a specific form of corruption, in legislation, monitoring and integrity initiatives.
- + Support women's grass-roots organizations, for example with training in the technical details of water management, to monitor contractors' work and to be involved in audits of water users' financial contributions (Muylwijk, 2013).
- + Promote research analysis from a gender perspective on corruption in the water sector.

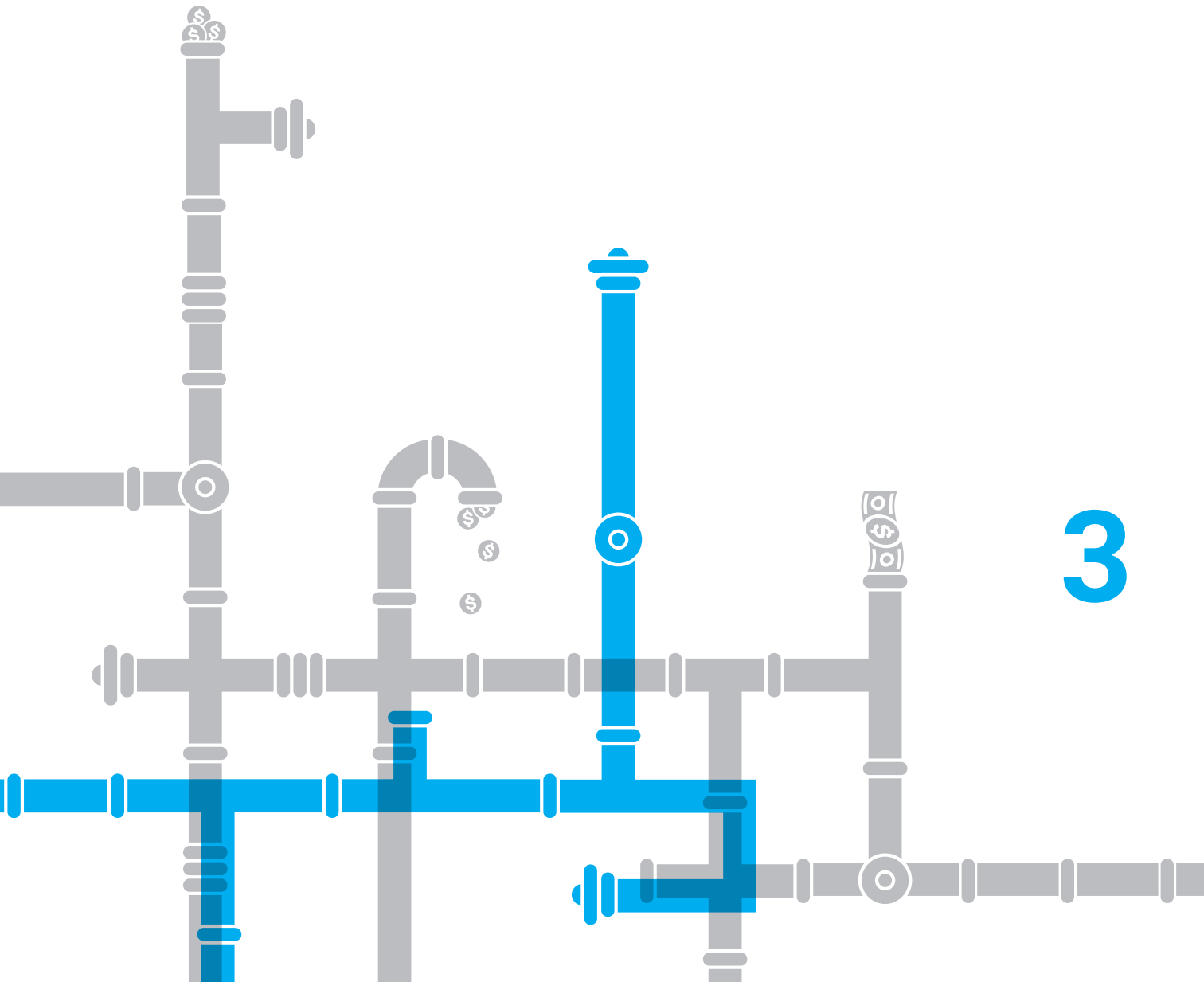
<sup>3</sup> UN-Water: <http://www.unwater.org/sdgs/a-dedicated-water-goal/en>.

<sup>4</sup> Gender and Water Alliance: <http://genderandwater.org/en>.

<sup>5</sup> Women for Water Partnership: [www.womenforwater.org/openbaar/index.php?sitedeellID=68](http://www.womenforwater.org/openbaar/index.php?sitedeellID=68).



# FOLLOWING THE MONEY



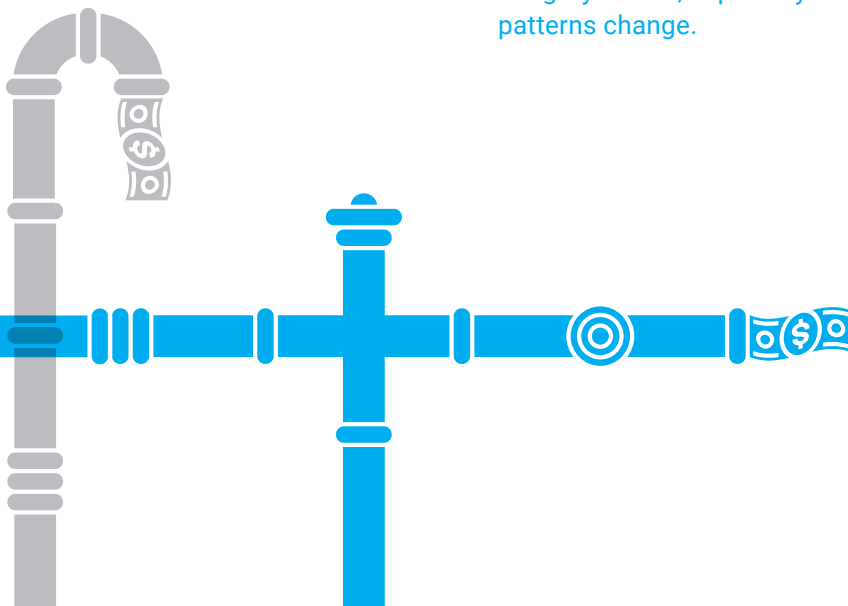
3

‘ Until recently, financing was not a priority for most water professionals and officials ... Water plans often did not show where the money would come from, how they would be paid for or who would pay for them ... It was as if finance was somebody else’s problem. ’

GWP<sup>1</sup>

#### KEY MESSAGES

- + Institutional fragmentation and complex funding arrangements make the water sector vulnerable to financial inefficiencies, mismanagement and corruption.
- + There is no comprehensive overview of funding levels available to the sector worldwide. Weak financial data makes it difficult to track finances and losses.
- + The main sources for sector funds – tariffs, taxes and transfers (the three ‘T’s) – each pose integrity issues, especially as global financing patterns change.





# Following the Money

---

This chapter identifies the main sources of funding for the water sector as taxes, tariffs and transfers (the three 'T's). It points out that institutional fragmentation poses significant challenges for the sector's financial integrity and that there is no global plan to meet its financing needs. The chapter outlines the importance of countries' public financial management (PFM) systems and calls for a greater role for civil society voices in the process. It gives examples of how countries are trying to secure financial integrity and calls on donors to work with countries to strengthen financial systems.

## 1 INTRODUCTION: WHAT WE NEED TO KNOW

Hundreds of billions of US dollars are spent every year in the water sector, and the financial requirements to meet future needs will be higher still (Rodriguez et al., 2012). Population growth, climate change and the growing need for food and energy place demands on the finite amount of freshwater and finances that current systems struggle to meet. The good news is that these issues are high on the global agenda, and are seen as priorities in achieving sustainable water resources management and services. The downside is that there is no comprehensive overview of the level of funding available to the sector worldwide. The lack of robust information makes it difficult to track how money going into the sector is used and how much is lost, meaning that efforts to combat corruption and build financial integrity lack clear numbers. Moreover, there has not been any recent research on the economic costs of corruption in the water sector – a shortcoming that urgently needs to be addressed. Patterns of expenditure are changing, and existing systems and institutions are ill-equipped to allocate and account for the finances efficiently and effectively.

This institutional fragmentation poses significant challenges for the integrity of the sector, especially in view of its requirement for new investment for irrigation, drinking water supply and sanitation, for hydropower and for adaptation to climate change. The estimates given here present a mosaic rather than a clear picture of what needs to be done. Although the chief sources of funding are the three 'T's of taxes, tariffs and transfers, funding gaps are increasingly being closed through loans – which ultimately also have to be repaid from one of these sources.

The PFM system within countries is frequently weak, and public finance reforms do not translate sufficiently often into service delivery gains. Budgeting for the sector within countries is challenging, but there are opportunities for civil society to have a voice within the process. Corrupt practices can exploit these systems yet some countries have tried to make the integrity of their finances more secure. It is preferable for donors to work to strengthen country-level financial systems rather than bypass them.

---

<sup>1</sup> [www.gwp.org/The-Challenge/The-Urgency-of-Water-Security/Water-Financing](http://www.gwp.org/The-Challenge/The-Urgency-of-Water-Security/Water-Financing).

There is potential for private sector support for infrastructure and for innovative financing. However, integrity risks and uncertainty present the sector as a risky investment, and there are some limitations in relying on private finance to fill the gaps.

## 1.1 The challenge to integrity

Institutional fragmentation and complex funding arrangements make the water sector particularly vulnerable to financial inefficiencies, mismanagement and corruption. In many countries subsectors are managed across different ministries, and regulated in different ways. Water resources management is rarely integrated even at national level. In some countries the water ministry is responsible for hydropower; in others it is a separate ministry (Biswas et al., 2013). Agriculture and irrigation are usually managed separately. Urban water issues often remain disconnected from basin-level management while water supply, sanitation and urban settlement planning often neglect cross-scale interdependencies in freshwater, wastewater, flood control and storm water management (GWP, 2011). Semi-autonomous lower levels of government have an increasing mandate to deliver services and manage finances for water but lack the requisite capacity.

At international level the UN system, multilateral lending institutions and regional basin organizations all work on different aspects of water management and service delivery, with the result that the implementation of coherent action is hampered by differing agendas among organizations and agencies that overlap in some areas but not in others (Cooley et al., 2013). Overlapping mandates and a lack of integration in planning at international and national levels may duplicate resource usage and undermine oversight.

The risks associated with PFM systems are a major concern for efficiency and accountability, either because they have limitations or are excessively complex, or because there are gaps in implementation, communication and enforcement. Capacity gaps in resources and skills result in financial data being unreliable or unavailable, especially at lower levels of government in decentralized systems. These risks may persuade donors to bypass government systems by establishing separate accountability mechanisms, adding new layers of complexity. Service providers such as water utilities may under-report income from tariffs because they fear losing control of funds, or in order to lobby for higher subsidies. A comprehensive overview of the resources available to the sector – a prerequisite for accountability – is not possible unless countries and donors produce adequate national budget reports.

The complexity of funding flows overburdens local government and service providers, which have to comply with an array of accounting and reporting systems (National Audit Office of Finland, 2011). Overlapping budget reports challenge the ability of civil society to independently monitor water sector budgets (Moon and Williamson, 2010).

Other major issues include the lack of information about investment outcomes, in terms of the quality of water services, and the levels of household/community contributions, especially in rural water and sanitation. Commercial banks and energy and construction companies play an increasingly important role in financing water resources development projects.

## 2 THE BASICS OF FINANCING: HOW MUCH, WHERE FROM AND WHO TAKES CARE OF INTEGRITY?

### 2.1 The role of government in public finances

The PFM system comprises the laws, organizations and systems that manage public finances in a country. In the water sector, PFM provides a framework, together with water policies and regulations, for sector planning, programming and reporting and for financial accountability and dialogue with citizens.

There is no part of the water financial system – public or private – that is immune to corruption and that does not suffer integrity failures. However, water is a public good, and access to safe water and improved sanitation are human rights that governments have the duty to deliver. The oversight and responsibility of governments in the sector therefore extend beyond the projects and services they finance to the people they serve. Government accountability has to be maintained regardless of whether the money comes from taxes, donors, private investors or tariffs and whether governments are directly involved in service delivery or delegate this function to commercialized, civil society<sup>2</sup> or private providers.

Governments are also at least partly involved in managing money from other sources, such as providing subsidies for water utilities or approving and (co-)managing donor-financed activities. This is why the risks associated with weak PFM systems and a lack of government accountability mechanisms are a major concern, even if service delivery and infrastructure development are not carried out by government itself.

### 2.2 Financing needs: the trillion-dollar challenge

Estimates of the investment required to provide water for drinking, to irrigate land for food security, to develop hydropower and to address climate change are difficult to assemble and understand. Different sources use different definitions of what constitutes the water sector and the costs they take into consideration. Nonetheless, they all indicate a need that could rise to well over US\$ 1 trillion a year. The most comprehensive estimate for WASH and related infrastructure, capacity development, hydropower, irrigation and environmental services indicates global financing needs of somewhere between US\$ 770 and 1,760 billion annually (UNU-INWEH et al., 2013).<sup>3</sup>

There are three reasons why it is important to highlight these figures in the context of integrity. First, these extremely large sums make this an attractive sector for corruption and in need of strong integrity measures. Every 10 per cent increase in investment cost as a result of corruption would add an extra US\$ 77 to 176 billion each year to this sum globally. If one World Bank estimate is correct, that 20 to 40 per cent of water sector finances are lost to dishonest and corrupt practices (Stålgren, 2006), that would imply sector losses in the range of US\$ 155 to 700 billion annually.

Second, estimates include what is needed to meet international financial commitments – notably on the SDGs and to adapt to climate change. Keeping promises is a fundamental integrity issue.

<sup>2</sup> Civil society providers include co-operatives, user associations and other forms of community management.

<sup>3</sup> The UNU-INEWEH headline estimate is US\$ 1.29 trillion to 2.74 trillion a year. However, this includes a sum of to cover the costs of corruption, and these have not been included in the estimates given here. The cost effects of various levels of corruption are discussed in the next paragraph.

Third, the very fact that these figures are hard to collate and compare presents a challenge for the future collection and processing of financial data, so that it can be reconciled and more easily understood. This is vital for transparency.

There is currently no overall approach to financing the sector, or even an agreed methodology for understanding how much is being spent on various aspects of the sector or for estimating the size of the financial gap. A 2015 UNEP report, called *Inquiry*, aiming to identify a financial system that will deliver on sustainable development says that efforts to identify financing needs are hampered by 'a confusing picture based on overlapping and incomparable approaches and definitions and compounded by patchy data' (UNEP, 2015). There is a need to improve data collection and to increase transparency in these areas.

### **Global costs and funding of WASH**

The World Bank estimates that the global capital cost of meeting the WASH targets for the SDG on water will be \$ 114 billion each year from 2015 to 2030, with a range of US\$ 74 to 166 billion (Hutton and Varughese, 2016). This covers the annual capital costs for safe water, basic sanitation and safe faecal waste management, plus hygiene. The World Bank gives a lower estimate of about US\$ 28.4 billion annually simply to extend basic WASH services to unserved populations.

#### **Box 3.1 Safely managed WASH services require three times current spending levels**

Targets 6.1 and 6.2 of the SDG for water and sanitation seek to achieve by 2030 'universal and equitable access to safe and affordable drinking water for all' and 'access to adequate and equitable sanitation and hygiene for all', and end 'open defecation, paying special attention to the needs of women and girls and those in vulnerable situations'.

Extending safely managed water supply and sanitation services to all will require three times current annual expenditure levels, while extending basic services would cost about the same as is currently spent. These averages hide variations that challenge countries with currently low levels of services, notably in Africa and South Asia. Some 50 per cent of the capital costs of basic water and sanitation and 58 per cent of the capital costs of becoming free of open defecation needs to be spent on extending coverage to the poorest two wealth quintiles.

The World Bank says that institutions and regulations need to be strengthened to ensure sufficient and high-quality spending on operations and maintenance.

Tariff policies will also need to be strengthened, but affordability will remain a critical issue, especially in low-income countries. The report says: 'If operational costs cannot be covered by tariffs, policy makers and service providers should be aware of the increasing burden on limited grant financing and (cross-) subsidies to operate the services' (Hutton and Varughese, 2016).

The 2013/14 GLAAS survey (UN-Water and WHO, 2014b) provides insight into current WASH financing, showing annual commitments of US\$ 28.1 billion in the national budget allocations of the 49 low- and middle-income countries surveyed.<sup>4</sup>

### Irrigation

The UN University and Stockholm Environmental Institute (SEI) estimate that global costs for maintaining, rehabilitating and expanding irrigation infrastructure are US\$ 198 to 248 billion per year (UNU-INWEH et al., 2013).

### Hydropower

Hydropower investments accounted for more than a half (56 per cent) of the US\$ 4.1 billion lent by the World Bank for power generation in 2014 (World Bank, 2014b). An analyst report predicts total investment in the sector to reach US\$ 75 billion over the period 2012 to 2020 with cumulative hydropower capacity expected to increase from 1,065 GW in 2012 to 1,407 GW in 2020 (GlobalData, 2013).

**Table 3.1 Summary of estimates for water sector financing needs**

Subsector	The numbers
Water infrastructure and services	US\$ 777–1,756 billion annually (UNU-INWEH et al., 2013)
SDG targets for WASH to achieve universal and equitable access to safe and affordable drinking water and access to adequate and equitable sanitation for all and to eliminate open defecation	US\$ 114 billion annually (Hutton and Varughese, 2016)
Global costs for maintaining, rehabilitating and expanding irrigation infrastructure	US\$ 198–248 billion annually (UNU-INWEH et al., 2013)
Predicted investment in hydropower over the period 2012 to 2020	US\$ 75 billion total (GlobalData, 2013)
WRM and climate change cost of adapting to a 2°C increase in global average temperature between 2010 and 2050	US\$ 70–100 billion annually (World Bank, 2010)
Developed countries' 2010 commitment to mobilizing Green Climate Fund by 2020	US\$ 100 billion annually (UNFCCC)

Table 3.1 shows estimates of sums required globally for various aspects of the water sector. NB: These sums cannot be totalled as they are based on different definitions and assumptions. The lack of solid financial data and standardized processes/assessments in many areas is one of the key themes of this *Global Outlook*.

<sup>4</sup> The OECD finds that donors disbursed just US\$6.2 billion in 2013 out of US\$9.5 billion committed. While definitions of the WASH sector may not be fully compatible between surveys, the lower rate of disbursements versus commitments is clear. OECD: <https://stats.oecd.org/Index.aspx?DataSetCode=CRS1>.

## Water resources management (WRM) and climate change

There are no comprehensive estimates on the global investments required for water resources management (WRM), including the management of water-related disaster risks. The World Bank estimates that the cost of adapting to a 2°C increase in global average temperature will be US\$ 70 to 100 billion per year between 2010 and 2050, with water supply and flood management ranking as one of the top three adaptation costs (World Bank, 2010). To address climate change across all sectors, developed countries have committed themselves to mobilizing from a mix of public and private sources US\$ 100 billion a year for the Green Climate Fund by 2020.<sup>5</sup>

Table 3.1 summarizes the estimates. Note that these estimates cannot be totalled and are not comparable, being based on different assumptions.

### 2.3 Sources of funding: the three 'T's (taxes, tariffs and transfers)

Sources of funding for water are commonly categorized into taxes, tariffs, and transfers – the three 'T's.

**Taxes:** the public funding allocated to the sector through national or local government budgets, mainly from national or local tax revenues, though in many countries other revenues are also included, such as royalties from natural resource exploitation.

**Tariffs:** user charges collected from private households and institutions for services. Since basic services such as drinking water provision constitute a right that it is the duty of government to fulfil, this money requires the same public accountability standards as public finances. In addition, large but unknown contributions to the sector include household contributions (financial, material, labour) to formal and informal private sector service providers to improve public facilities or to improve the quantity and quality of water. The volume of these informal funds is difficult to measure, and usually not reflected in official statistics, but in developing countries it constitutes a significant proportion of overall tariffs (Fonseca, 2015).

**Transfers:** funds provided through bilateral and multilateral development aid (from donors), concessionary loans from, for example, development banks (such as the Asian Development Bank) and aid from charitable foundations or NGOs. Transfers are largely public money from foreign countries, but also include private donations.

Other types of finance are also important. Funds from the private sector may be inserted into the system as debt financing (through commercial loans, bonds, etc.) to bridge funding gaps. Loans are an important source of funding for the sector as they allow new infrastructure to be brought forward. However, loans must ultimately be repaid by funding from the three 'T's (they are usually financed by tariffs collected from the service). Although it is small in scale at the micro level, investment by households in their own infrastructure (from water tanks to household pipes and improved sanitation) is a highly significant and increasing source of investment, especially in middle- and higher-income countries.

The balance between the three 'T's varies between countries. Country estimates on the share of tariffs in overall WASH expenditure reported in the 2013/14 GLAAS survey, for example,

<sup>5</sup> UNFCCC: <http://cancun.unfccc.int/financial-technology-and-capacity-building-support/new-long-term-funding-arrangements>.

range from 6 per cent in Burkina Faso to 25 per cent in Pakistan and 81 per cent in Uruguay. Of 19 countries in the survey, 13 reported that taxes and transfers accounted for more than half their overall WASH expenditure (UN-Water and WHO, 2014b).

## 2.4 Expenditure in the water sector

Broadly speaking, sector expenditure can be placed into two categories: capital expenditure, often described as investment; and recurrent expenditure. Capital expenditure is one-off spending made to extend services to underserved areas by putting in place new infrastructure such as water supply, sewerage or irrigation networks, water harvesting and storage facilities or dams. Capital investments also include sums to replace or upgrade existing infrastructure.

Recurrent expenditure comprises the money spent on sustaining an existing service and includes, for example, routine maintenance, production and salary costs, though it also supports processes such as annual planning, administration and monitoring.

Capital investments have implications for future recurrent costs; for example, staff and routine maintenance costs are likely to increase after new infrastructure is installed. As the overall volume of facilities managed by the state grows, recurrent governance and core institutional costs also rise.

## 3 PUBLIC FINANCE FOR WATER: TAXES AND BEYOND

There is a growing recognition that the water sector needs to improve its ability to attract funding from each of the three 'T's and to absorb and manage such funding in a transparent and accountable manner.

The PFM system is typically designed and managed by the Ministry of Finance and the national treasury, but all agencies using public money have to follow it. PFM systems provide the framework and tools for the budget cycle, from planning, budgeting, legislative approval, disbursing funds, accounting for their use and, finally, the audit. PFM systems have a major influence on governance in the water sector, as they can enable or restrict TAP and thus close or allow windows for mismanagement. The example from Malawi (see Box 3.2) shows how a PFM system can fail as a result of misuse and poor design.

### Box 3.2 Malawi: 'Cashgate' shows that technology alone is not enough

Public financial management (PFM) in Malawi has undergone comprehensive reforms with technical support from donors. Nonetheless, in 2013 a whistleblower alleged that the modern integrated financial management information system had been systematically misused by officials to divert at least US\$ 55 million to private accounts through ghost contracts. This became known as the 'Cashgate' scandal. Security gaps were due to flaws in the system as well as staff misuse. Staff from line ministries often had to go to

the finance ministry to enter the system and line up to access a computer, because the technology in their own departments was lagging behind. Senior staff who did not want to stand in line transferred their user rights to junior officers, some of whom then abused the system. In a secure system such a transfer of login rights would not have been possible. Other systematic flaws included continuing with some manual accounting because many agencies lacked sufficient bandwidth to use the electronic system. In this way a modern secure system was rendered vulnerable. It demonstrates that technology alone does not protect a system from corruption (*The Guardian*, 2015c; GIZ, 2014a).

There is growing concern among public finance experts and institutions that public finance reforms are not translating sufficiently into service delivery gains (World Bank, 2011a; GIZ, 2014b). A study funded by the UK's Department for International Development (DFID) emphasizes the 'missing middle' in service delivery: public service providers with poor capacity and incoherent systems for receiving and spending money, resulting in poor management, delivery and accountability (Williamson and Dom, 2010). This 'missing middle' partly relates to a common problem of PFM reforms that are designed by experts seeking to introduce state-of-the-art systems. The experts primarily consider the capacities of the finance ministry when assessing if a system is suitable for the country context. However, of all public institutions the finance ministry usually has the most qualified staff and best infrastructure, far in advance of other ministries and subsidiary institutions, especially at local level. This leads to situations in which line ministries and other sector bodies do not properly understand how the system functions and fail to make good use of it. Finance ministries often complain about a lack of competence in sector institutions, rather than helping them to take on board reforms. In addition, water sector institutions and donors often try to bypass the PFM system rather than engaging with it, and this has the effect of reducing confidence in the system and increasing fragmentation.

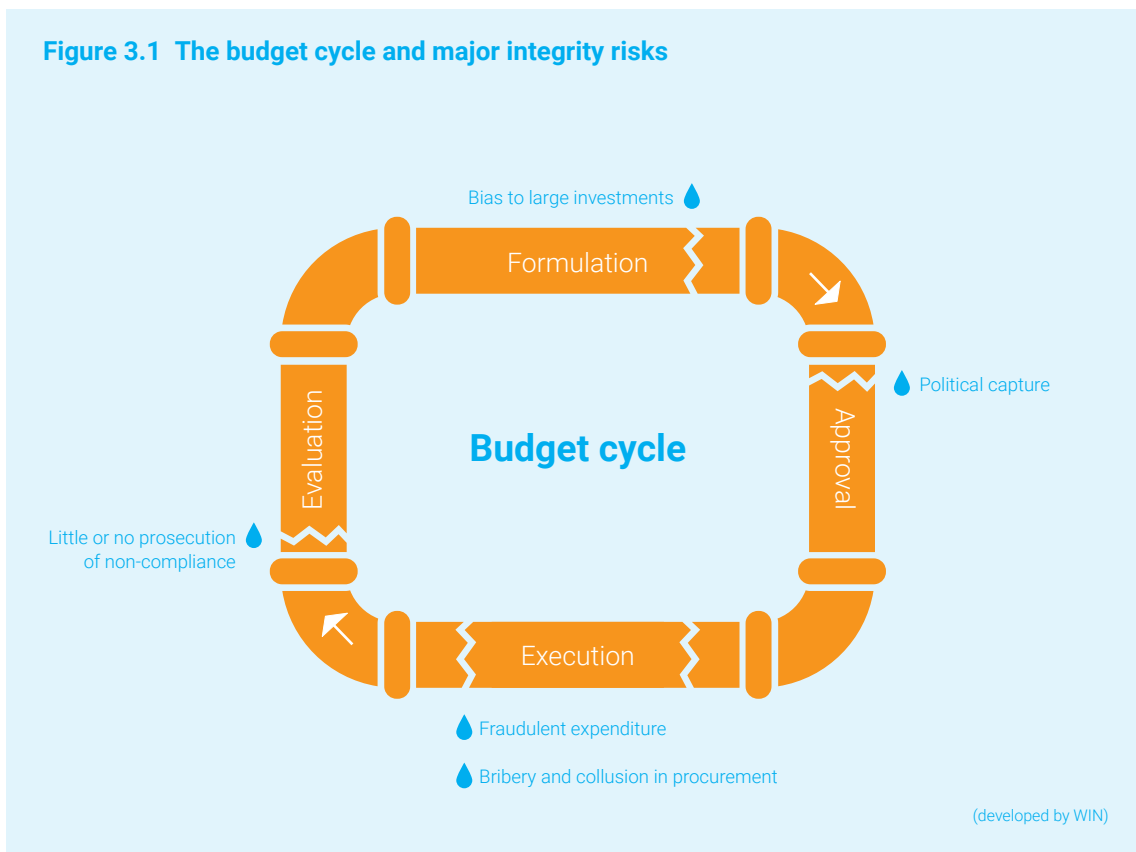
### 3.1 Budget formulation

Budget formulation varies across countries, but typically takes place in two phases: strategic and operational.

#### **Strategic budgeting**

Strategic budgeting is the annual opportunity for water sector agencies to establish a consensus on their overall objectives for the forthcoming three to five years. This is undertaken within a broad expenditure-planning framework, and coordinates medium-term capital investments and changes to recurrent budgets. The process is essentially top-down, with the overall resources, budget ceilings and some key allocations proposed by the Ministry of Finance. Typically, the water sector lays out an aggregated budget to implement a multi-year plan coordinated with a national planning framework, such as a poverty reduction strategy. It is important for sector actors to raise issues if investments deviate from agreed plans, or are prioritized to suit political demands. Integrity issues in the first phase revolve around decisions for major investments and the efficiency of overall budget allocations. In countries with high levels of corruption, there is a bias towards new



**Figure 3.1 The budget cycle and major integrity risks**

The budget process goes through a number of stages from formulation to approval and execution (implementation), followed by evaluation. Each stage contains specific integrity risks. Transparency throughout the budget cycle, together with audits and robust accounting and reporting systems, are critical in preventing corruption.

big investments that offer more opportunities to divert money or channel contracts, and these are prioritized over operation and maintenance (Grigoli and Mills, 2011). In addition, it is common to find ministries under-budgeting for the implied recurrent costs and management requirements when new capital investment is undertaken. This often results in new facilities not being used or starting to fall apart after a short time. Underestimating costs is a way of winning approval for new investments in the expectation that it will be easier to increase budgets at a later stage.

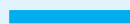
### The operational phase

Once a strategic budget is approved by the Cabinet or legislature, the operational phase begins. Agencies prepare detailed budgets based on unit costs and build them into budget proposals. This usually includes bottom-up budgeting, in which lower levels of administration and/or service delivery units propose individual budgets. Scrutiny by independent non-governmental actors during budget preparation is central to reducing opportunities for corruption or inefficiencies. A market-based and comparable calculation of unit costs is crucial to guard against inflated budgets that include potential for kickbacks or bribes. Specific issues to watch out for include inflated costs or excessive allocations for training, travel or car purchase.

Budgets must also meet the human rights objectives of the water sector in each country.

### Box 3.3 A human rights approach to participatory budgeting

The Article 2 and Government Budgets Project is an international collaboration of CSOs. In 2014 it published a booklet entitled 'Article 2 and Governments' Budgets' that details how governmental budgets should help realize human rights and how civil society can engage (Blyberg and Hofbauer, 2014). The booklet explores the implications of article 2 of the International Covenant on Economic, Social and Cultural Rights (ICESCR), which sets out what governments are obliged to do to help realize these rights. It looks at key phrases in article 2 and explains what 'achieving progressively', 'to the maximum of its available resources' and 'without discrimination' mean for how governments should raise, allocate and spend budgets.



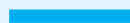
The IRC WASHCost initiative provides a checklist of life cycle costs for different types of water infrastructure in countries across the world; this can be used to estimate whether proposals are within benchmark costs. In-country performance reviews and programme assessments will also add relevant information on cost effectiveness.

### Box 3.4 The WASHCost initiative

The WASHCost initiative started as a five-year project, funded by the Bill & Melinda Gates Foundation and implemented by the IRC (Netherlands) with partners in Burkina Faso, Ghana, India and Mozambique. It addressed the challenge that a lack of accurate data prevents governments and other stakeholders from monitoring investment and outputs, making it difficult to estimate the cost of extending sustainable, good-quality water and sanitation services to the poor. A lack of transparency 'shielded corruption and obstructed comparisons of efficiency and value for money' (McIntyre et al., 2014).

WASHCost developed a framework to analyse the 'life cycle costs', taking into account everything from construction, finance and installation to maintenance, repairs and eventual replacement, so that the sector could 'make informed decisions, policies and practices'.

WASHCost succeeded in producing cost figures and developed a methodology to cover all the costs needed to keep services running, together with the advocacy for these to be included in budgets. When this is brought together with service levels, it makes it possible to compare data on services across regions and evaluate what would bring in the greatest cost-efficiency.



Water sector expenditure often contains spending peaks for capital investment, because, for example, boreholes can be drilled only during the dry season. These context-specific variations

need to be represented in the budget proposal so that funds are available at the correct times – to prevent problems during budget execution.

Budget planning is coordinated by national-level actors, but participation by lower levels of government and service delivery units is necessary for the budget to be relevant for local service delivery needs. For local government to play its role effectively, local civil society must also be able to participate in local planning, budgeting and oversight processes, for example through social accountability tools such as participatory budgeting and social audits.

### Box 3.5 Guiding local budgets in Ethiopia

The Ethiopian Government became concerned that spending distortions resulted in preferential treatment and political bias in budget allocations to regions, zones and *woredas* (districts). The country launched an inter-governmental fiscal transfer formula designed to promote similar levels of service delivery throughout the country. The transfer aims to ensure that regions spend more on dispersed populations and those who are entrenched in poverty. The transfer system has expanded and has been successful in attracting donor funds to co-finance local budgets (Calow et al., 2013).

## 3.2 Budget approval

Budgets define what policies and programmes will be funded, and approval should be legitimized democratically, in most countries through parliamentary scrutiny and approval. Politicians may properly request changes to finance emerging priorities, but improper political interventions, entailing political capture, lead to inefficient expenditure or geographically skewed allocations. In some countries the approval process provides entry points for civil society to engage with needs-based decision-making. In Mozambique, for example, advocacy by civil society in 2014 resulted in a US\$ 58 million supplementary budget for social services, including water and sanitation, reallocated from royalties in the extractive industries (WIN and Helvetas, 2013a).

For civil society to play a role in decision-making, higher levels of transparency and participation are needed. Inadequate or untimely information makes it impossible for oversight bodies to challenge budget proposals effectively. If budgets lack detail, are incomplete and/or there is too little time for scrutiny before approval, inefficient expenditures that slip through the approval process are hard to reverse. One important factor is to ensure that data is published in a format that can be downloaded and manipulated.

The budget approval process is an opportunity for the legislative body and other stakeholders, including government ministries, to consider cross-sectoral coordination that may result in efficiency gains in the medium term. For example, it may be cheaper to install a new urban water distribution system at the same time as a nearby road-building project.

### 3.3 Budget execution (implementation)

Even a well-prepared budget is meaningless if it is not credibly executed. Reasons for budget deviation may be political or technical and can stem from the highest levels of the executive, the Ministry of Finance or within the sector. Integrity issues generally fall into one of three categories:

- + opaque procurement;
- + the diversion of funds and fraudulent reporting; and
- + capacity issues, including poor absorption of resources.

#### **Procurement**

Lack of transparency in procurement as a problem in the water sector is discussed in Chapter 4.

#### **Misappropriation or fraudulent reporting**

Funds may simply be misappropriated. Double-counting and ghost projects are risks whereby many actors are engaged in providing similar outputs, such as new boreholes. There is a need to match what is happening on the ground with what is happening in the finance books. Poor information control may allow agencies to report deliverables as their own even though they were implemented by another actor with other funds. There is an important role for civil society in advocating for better transparency and in a critical analysis of existing information, in order to challenge government and implementing partners when necessary on budget management and service delivery.

Tackling poor and fraudulent reporting and the misappropriation of funds requires better coordination and information at the planning stage, regular publicly available budget execution reports from the finance ministry and monitoring by independent sector agencies or oversight bodies.

While private and public utilities alike are exposed to corruption issues, state-owned enterprises (SOEs) may not require detailed accountability reporting, and therefore may become soft targets for political interference and corruption.

In many countries water services are at least partially provided through state-owned commercialized enterprises designed to turn a profit, even if they are partly or fully owned by the government. SOEs are important in the context of water sector integrity for three reasons: (1) they provide public water services that impact on communities; (2) they receive public funds, but in some cases have very limited accountability requirements; and (3), without transparency, SOEs can be used for political objectives. Government guarantees may be provided to support SOE activities, political patronage can influence board appointments, or governments can impose uncompensated public service obligations, effectively causing an SOE to run at a loss. The risk in these cases is that the sector increasingly channels funds through SOEs with lighter regulation, potentially increasing risks for leakage or fund misappropriation. However, there are also examples of good practice in SOEs; see, for example, the Jasa Tirta I Public Corporation measures (see Spread on River Basins).

### Box 3.6 State-owned enterprises in South Korea

South Korea has a history of SOEs being used to implement political priorities, including non-commercial obligations. After the 2007 election the new president wanted to push through a restoration project for the country's four main rivers at a cost of KRW 8 trillion (some US\$ 7.8 billion) to stimulate the economy. Lacking sufficient support to pass a budget through the National Assembly, he permitted the Water Resource Corporation to issue bonds, whose repayment burden will eventually fall on the government. The total cost amounted to 35 per cent of the 2011 budget for the Ministry of Land, Transport and Marine Affairs. This is an example of the use of political power to circumvent the authorization processes and politicize budgetary decisions (Petrie et al., 2014).

#### Capacity issues

One leading cause of inefficiency and waste is a lack of capacity on the part of agencies to plan and deliver services that have been budgeted. This lack of capacity (known as poor absorption) is an integrity issue, because it demonstrates a gap between decision-making and execution that amounts to a broken commitment. There has been improvement in the absorption of funds in the global water sector: the percentage of water departments that absorbed more than 75 per cent of domestic allocations rose from just over one-third (36 per cent) in 2011 to more than a half (57 per cent) in 2013 (UN-Water and WHO, 2014b). However, only just over one third (35 per cent) achieved this for external funds.

Low absorption capacity can also lead to unplanned (and potentially misdirected) spending. In all countries (high- or low-income) agencies risk budget cuts in future if they fail to absorb the current budget, so there is a risk of last-minute inefficient spending on large procurements, or a scheme being rushed through without proper scrutiny. However, one should be cautious that this can work the other way round: strict budgeting can force spending on outdated infrastructure or service delivery methods.

On the other hand, agencies may lobby the Ministry of Finance to divert funds for unapproved uses, distorting budget implementation and depriving the water sector of funds or reallocating spending to items more attractive to those making the decision.

Budget implementation may be undermined by financial pressures or lobbying from other sectors that lead to the Ministry of Finance withholding part of the approved budget, or because of shifting priorities or rising costs.

If budgets consistently deviate from plan, service providers are faced with a high degree of uncertainty over the actual amount that will be at their disposal.

### 3.4 Supreme audit institutions

The budget evaluation phase is a (legally required) opportunity for governments and external actors to review the physical and financial performance of publicly funded programmes.

Supreme audit institutions (SAIs) have a powerful role in holding public sector institutions to account. They are the main national public sector audit organizations, tasked with examining whether public funds are spent economically, efficiently and effectively, in compliance with existing rules and regulations and with parliamentary oversight. An OECD report notes: 'Compliance, regularity and financial audits are of critical importance for the verification of accounts of the government – the mandate of a SAI – and for integrity and better financial management in the public sector' (OECD, 2015d).

In Uganda, for example, the Office of the Auditor General was used to analyse corruption in various sectors, including water and the environment. A report published in September 2013 by the Technical and Administrative Support Unit (TASU) of Uganda's Joint Budget Support Framework (TASU, 2013) found that 'the water sector performs relatively poorly in providing adequate accountability for funds provided', and noted: 'Of particular concern are the poor public finance management practices in the lead Ministry of Water and Environment, with large sums of money transferred to officials' personal bank accounts and numerous problems with subsequent accountability. The Ministry also avoids budget controls by mischarging against codes ... There are also doubtful expenditures on procurement with the supporting documents providing inadequate evidence of delivery of goods or services, including provision of portable meters and rehabilitation of bore holes.' The level of inadequate accountability in the water sector ranked second only to public sector management and was worse than health, agriculture, education, works and transport, and justice, law and order.

However, SAIs can come under political pressure, affecting their independence, and may be understaffed or simply be ignored. One of the biggest issues in audit is the lack of official reaction to damning reports and the fact that prosecutions are very rare. This was summed up by a prosecutor in the Ugandan Anti-Corruption Division of the High Court: 'Come rain, come shine, they're never going to court, not while there's somebody close to them in power. That's because of the politics involved' (*Daily Monitor*, 2013).

SAIs in many countries are transforming themselves by undertaking performance audits and taking on an advisory role that requires them to build water sector expertise. The Yemeni SAI, supported by GIZ, carried out compliance and performance audits in rural and urban water and basin management in Sana'a between 2006 and 2008, providing recommendations on the more efficient use of resources (GIZ, 2011). SAIs have also started to directly engage with civil society to get information and feedback, which opens a promising avenue for advancing good financial governance and integrity (OECD, 2015d).

### 3.5 Collaborating with civil society monitoring

A paper by WIN and GIZ in 2013 (Nordmann, 2013) made a number of recommendations for setting up and promoting regulatory frameworks in the water sector, covering the autonomy of regulators, the importance of monitoring, the need for minimum standards and the need to collaborate with other regulatory and public oversight institutions, such as anti-corruption commissions, parliaments, public procurement authorities and auditors. Finally, it noted the importance of strengthening consumer feedback and analysing (high-quality) media reports as sources of information for assessing service quality and utility governance.

Efforts to stop the misuse of climate finance funds in Bangladesh show that lobbying governments can succeed, but often requires years of perseverance.

#### Box 3.7 Integrity risks in climate finance in Bangladesh

Bangladesh is one of the countries most vulnerable to the effects of climate change, in particular the risks of flooding, increased cyclonic activity and the salinization of freshwater. The government has allocated around 20 per cent of its climate finance funds to construct water infrastructure in coastal areas, mostly through the Bangladesh Climate Change Trust Fund (BCCTF) and the Pilot Program for Climate Resilience (PPCR).

Transparency International Bangladesh (TI Bangladesh), concerned about governance challenges in the Bangladesh Water Development Board, monitored the quality of climate finance projects in WRM with the assistance of local CSOs. Between 2012 and 2014 various integrity challenges were identified. During visits to the coastal areas, TI Bangladesh uncovered failures in the consultation processes with local stakeholders and found that money and materials for a cyclone-resistant housing construction project had been siphoned off by local contractors, leaving the work unfinished. In a BCCTF-funded project for the construction of sluice gates and the reconstruction of dykes on the rivers Morichchap and Betna, proper project feasibility studies had not been conducted to assess the rivers' navigation capacity and risks to climate change adaptation. Moreover, it was found that funds had been disbursed despite a lack of significant progress, budgets had been inflated by 72 per cent and public procurement rules had been violated. Local CSOs alleged that around BDT 5.4 million (some US\$ 70,000) had been embezzled from funds allocated for reconstructing dykes in Satkhira.

The TI Bangladesh findings have led to some positive developments. WRM-related climate finance projects to the value of about BDT 260 million (US\$ 3.4 million) have been reassessed; the deputy commissioner has included CSO representation on a committee to oversee project works; and the BCCTF has reviewed the status of all WRM-related projects and put millions of dollars of funding on hold. It has also arranged external evaluation of its projects and made environmental impact assessments mandatory for any new dams or dykes (Khan et al., 2013).

### Box 3.8 Open budgeting initiative monitors government accountability

The Open Budget Survey initiative assesses countries according to levels of transparency in budgeting by looking at the availability, comprehensiveness and accessibility of eight documents related to revenue expenditure, budget execution and auditing. Established by the International Budget Partnership (IBP), the initiative supports CSOs in monitoring how well their governments hold themselves accountable.

IBP says that many countries make budgetary decisions behind closed doors with little regard for the public interest, resulting in poor policy choices and a squandering of resources. 'Our experience shows that when ordinary people have access to comprehensive and timely budget information, skills, and opportunities to participate, broader public engagement in government budget processes can promote substantive improvements in governance and poverty.'

IBP publishes an open budget index based on the results of its Open Budget Survey using 109 budgetary questions. These look at budget transparency, citizen participation and independent oversight institutions. In the latest survey (2015) of 102 countries, 98 fall short on at least one level of accountability while 32 fall short in all three categories. Countries said to have consistently provided scant or no budget information at all include Algeria, Bolivia, Cambodia, China, Equatorial Guinea, Fiji, Iraq, Myanmar, Qatar and Saudi Arabia.

The Index puts only five countries (New Zealand, Sweden, South Africa, Norway and the United States) in the top category of 'extensive' openness, while 17 countries have minimal openness and a further 17 countries are said to demonstrate 'scant or none'.



## 4 TARIFFS: USER FEES AND ACCOUNTABILITY

There is a broad consensus that increasing the funds collected through tariffs is key to financial sustainability for the sector. While cost recovery expectations differ among water subsectors and between countries, approaches for developing countries largely set out to recover recurrent costs for service provision from tariffs, recognizing that taxes and transfers will be needed to subsidize capital investments (OECD, 2011c; Malik et al., 2014). Depending on the institutional framework in a country and subsector, tariff setting may be regulated to a greater or lesser degree. Urban water supply tariffs are usually more strongly regulated than rural water supply or irrigation tariffs. Bodies collecting and managing the use of tariffs can be government agencies, SOEs, private companies or community groups.

There are a number of integrity concerns in the mobilization and use of tariffs.



#### 4.1 Commercialization and the human rights to water and sanitation

Water supply tariffs should be based on a formula that reflects the costs of producing and distributing water at the quality needed and that addresses affordability and the ability to pay. UN Special Rapporteurs on the human rights to safe drinking water and sanitation have made it clear that the human rights to water and sanitation take precedence, as stated, for example, in an August 2015 report: ‘The starting point for State decision-making on public financing and policy for water and sanitation service provision is that water and sanitation must be affordable to all. [...] Economic perspectives and human rights perspectives are not impossible to reconcile, but human rights require ensuring affordable service provision for all, regardless of ability to pay, and economic instruments must be (re-)designed to achieve this objective’ (UN General Assembly, 2015b).

This can include cross-subsidies from customers who can afford to pay more (as in the case of stepped tariff systems) or, if necessary, from public funds (subsidies). The Special Rapporteur draws attention to the effect of hidden subsidies that benefit the better off: ‘Subsidies are “hidden” when public financing is used to construct infrastructure and services that are intended to be used by all, but in fact are only available to middle- and high-income households’ (UN General Assembly, 2015b).

How tariffs are set and managed has a direct impact on the users’ willingness to pay. For example, an assessment of irrigation schemes in India showed that cost recovery was likely to be much higher in areas where tariff setting and collection and the maintenance of infrastructure directly involved water users’ associations (WUAs) than in areas where irrigation departments took charge (Malik et al., 2014).

Tariff setting is usually a negotiation between the service provider and a (local) government oversight body or regulator. This process needs to be transparent and to allow for the engagement of customers. The resulting contracts, including the service standards that have been set, should be published. Tariffs (or subsidies) need to cover the cost of servicing loans provided to the service provider as well as depreciation and maintenance costs if the services are to remain sustainable.

Tariff setting is a policy issue, but it may become an integrity issues if there is political interference (such as lowering tariffs around election times or allowing a hike in tariffs to attract investors) or the authorities neglect to extend services to poor areas, where the ability to pay is low and distribution costs are higher than for piped water in well-off urban areas.

#### 4.2 Tariffs must be ‘fair’ and promote responsible water use

There is debate around the appropriate tariffs for water abstraction by large industrial and agricultural users, with many voices claiming that water is undervalued. In many OECD countries agricultural producers pay substantially less for water than industrial or urban users (OECD, 2008). Some countries (such as South Korea) charge less for industrial use than for domestic consumption (*Korea JoongAng Daily*, 2015). World Water Council chairman Benedito Braga says that governments should take responsibility for ensuring that charges for industrial

water use reflect its value, and that currently it is undervalued. 'The private sector will understand the importance of water if it is priced right. The correct signal to send is that a resource has a high price because it is precious' (*Korea JoongAng Daily*, 2015).

From an integrity perspective, it is crucial that such tariffs provide incentives for responsible water use and bear on small and large consumers fairly. Regulatory bodies play an important role in safeguarding appropriate tariff calculation.

### Box 3.9 Chinese reform of agricultural water prices

China is piloting a comprehensive reform of agricultural water prices, to encourage cost recovery and improved water conservation and management. This includes:

- + setting up water-pricing mechanisms: pricing agricultural water reasonably, differentiating water price based on irrigation methods and crop types and improving policies on groundwater pricing;
- + establishing an incentive mechanism for water saving: creating a water-saving reward fund, subsidizing the maintenance fee for the operation of water conservancy and repurchasing the water that farmers have purchased but managed to save; and
- + the promotion of social participation: encouraging farmers to participate in decision-making, tariff setting and project management through publicity and guidance.

Zhongba village in Luliang county, Yunnan province, is one of 80 pilot villages. It has allocated agricultural water rights, established a differentiated water price, built in higher prices for excess water use, established a subsidy and water-saving reward system, created the Farmers' Water Use Association and constructed irrigation and water-saving projects. Prices are now far lower for certain activities and crops, particularly rice, but financial penalties for excess use of water can double the base price. Hundreds of thousands of cubic metres of water are being saved on an annual basis. The reform also attaches importance to disclosure, transparency and the broad participation of stakeholders (Tang, 2015).

## 4.3 Informal service providers

Informal service providers and water cartels are a major challenge in informal settings and some rural communities, where the poor end up paying more for lower-quality water. There is no accountability at all in what happens with these out-of-pocket payments. If the revenue is not used to protect, improve, extend or restore services it is effectively lost to the sector.

A related integrity issue is the failure of local governments, regulators and service providers to intervene, as their staff may themselves be involved in the informal water business. In Mexico, for example, senior and lower-level staff in the water bureaucracy are said to benefit from the illegal sale of water rights, which is forbidden under Mexican law (Reis, 2014).

## 5 TRANSFERS AND BEYOND: DONOR FUNDING IN THE WATER SECTOR

In many developing and post-conflict countries, external support from donors remains a major source of funding in the water sector, especially for capital investments. The 2013/14 GLAAS survey (UN-Water and WHO, 2014b) identified annual commitments of US\$ 15 billion in external financing for WASH financing in low- and middle-income countries. In middle-income countries, the relative share of donor funding as compared to government budget for water might be lower, but the absolute amount is often higher.

Donor support is typically either in the form of grants or concessional loans, which represent almost two-thirds of aid in the water sector, with emerging markets such as India and China as major recipients. While aid commitments to the water sector have been increasing (by 30 per cent, from US\$ 8.3 billion to US\$ 10.9 billion between 2010 and 2012), disbursement has remained almost the same: US\$ 6.7 billion in 2012 (UN-Water and WHO, 2014b). Reasons for the gap between commitments and disbursements include a lack of capacity on the part of ministries to take on more projects, and issues with meeting donor implementation and management requirements. Integrating internal donor requirements with local procedures can create complex or redundant compliance requirements, causing delays and inefficiencies. Countries that are in receipt of aid may have inherent barriers to efficient delivery, as a result of either incoherent management systems or weak implementation capacity. Unrelated political events affecting the relationship between donor and partner countries can also cause donors to withhold or delay funds. Efforts to close the commitment–disbursement gap should not undermine risk management and control standards but, rather, focus on strengthening the capacities of implementing institutions.

Donors have their own priorities, which may not sit well together, and a lack of coordination can hinder effectiveness (Cooley et al., 2013). Finally, donors may over-focus on ‘state-of-the-art’ systems and ‘international best practices’ that are inappropriate or poorly designed to work in the context, with the risk that they will undermine existing, simpler systems.

In the water sector and beyond, donor funding modalities and approaches have undergone substantial changes in the past decade. In reaction to the aid effectiveness agenda set by the Paris Declaration in 2005 and the subsequent fora in Accra and Busan, the water sector began to follow the trend towards programme-based approaches and pooled-funding schemes, especially for upscaling services and needed infrastructure to the poor (Williamson and Dom, 2010). However, this trend has been far from consistent, and many donors have backtracked, either due to implementation concerns or political issues. Support for individual projects (rather than pooled support) remains at 85 per cent in the water sector, 10 per cent higher than overall aid but showing slower progress towards the Paris aid effectiveness principles than in other sectors (WaterAid, 2015).

Aid to the water and sanitation sector has grown more rapidly than the average growth of aid flows (WaterAid, 2015). Sub-Saharan Africa (135 per cent growth over ten years) has seen the largest flows over the past decade, and the largest nominal increase in aid resources. However, South-East Asia and Oceania have seen far larger relative growth of funds, quadrupling and tripling respectively over the same period. Table 3.2 gives an overview of some of the main types of support provided by donors in the form of a grant or a loan and

**Table 3.2 Donor support: different modalities and risk management measures**

<b>Aid modality</b>	<b>Description</b>	<b>Features/risk management measures</b>
General budget support	Direct transfer of funds to national government treasury without specific earmarking for use.	Accompanied by governance conditions and targets, coordinated with sector objectives.
Sector budget support	Transfer of funds to national government earmarked for supporting the broad delivery of water sector programmes.	Coordinated with sector programme objectives.
Pooled funds	Joint programme by several donors. Varying degree of government leadership.	Incentives for service delivery improvements.
Bilateral project support	Direct support to a specific sector project. Managed by government agencies or donor and external implementing partners (consulting companies or NGOs).	Quick delivery of objectives, often with sustainability issues once the project ends. Integration into wider sector reform needed.
Payment for results	Release of funds is bound to assessment after implementation (ex-post assessment) Funds are combined with government finances and cannot be directly tracked.	Can be a component of a larger programme that includes other types of donor support.
Cash transfer	Direct transfer of funds or vouchers to households, allowing greater equity and individual choices about paying for their services.	Complementary to government support. Especially relevant for disaster response (Juillard and Opu, 2014).

their risk management features. Large investments are usually accompanied by technical assistance to the ministry, regulator or local government bodies in charge of water and/or water service providers.

The degree to which a donor uses a country's own PFM system depends on how much trust donors place in those systems in general and in the capacities of water sector institutions in particular.

Donors undertake regular fiduciary risk assessments to identify the level of risk that funds channelled through government systems will not be used for their intended purpose or will fail to

achieve the planned objectives. These are usually undertaken for the entire PFM system, but can be undertaken for the water sector in particular, especially if there have been corruption cases. The Public Expenditure and Financial Accountability tool developed by the World Bank provides a broad assessment of the effectiveness and integrity of a country's PFM system.

### **Box 3.10 Mozambique: reducing the level of financial risk**

In 2011 the Mozambican ministry in charge of water embarked on the development of an integrity strategy aimed at improving a culture of transparency, accountability and integrity and encouraging sector stakeholders to take action to prevent corruption. This was undertaken partly under pressure from donors and to strengthen the case for more funding for the government-led water sector pooled fund. However, the process was affected by sector fragmentation, limited resources, delays and capacity constraints. Although the integrity strategy was approved by the ministry in 2013, it has not been authorized or published by the government (Potter and Butterworth, 2014; Das et al., 2014).

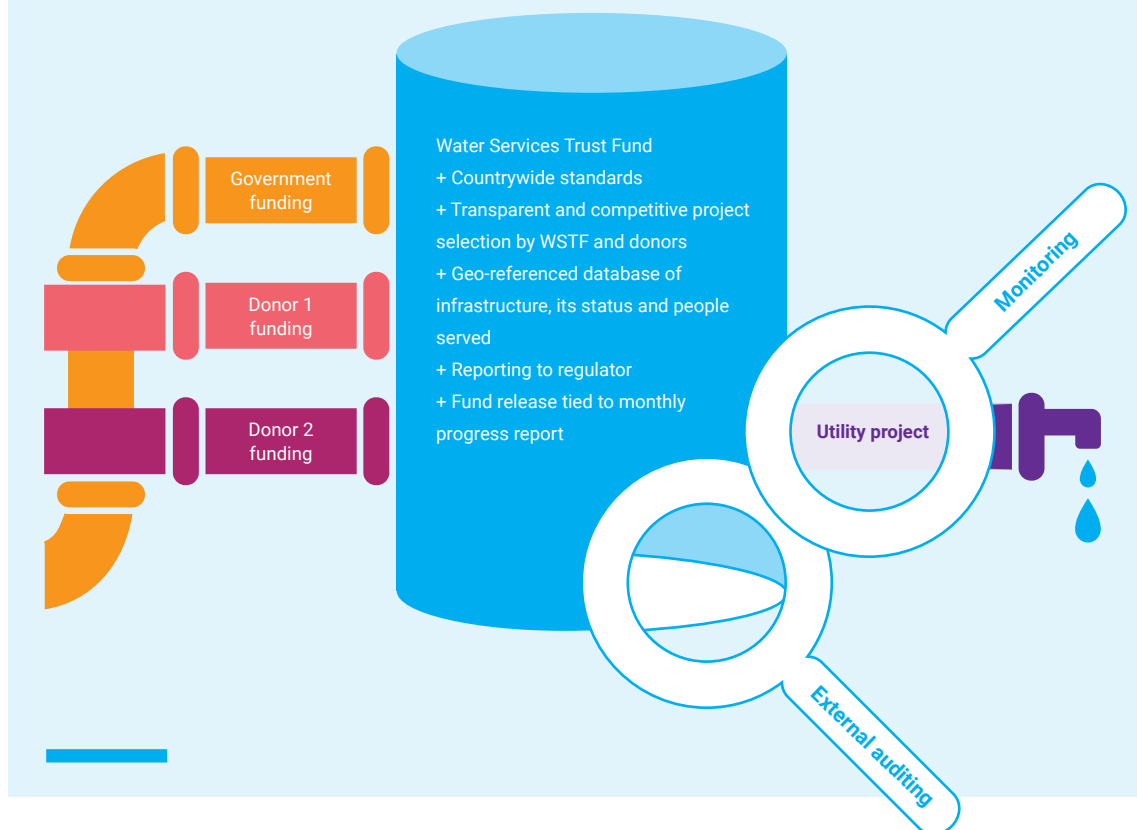
In 2013 DFID conducted a fiduciary risk assessment of the Mozambique water sector and came to the conclusion that the overall level of financial risk in the sector is reducing following the introduction of safeguards. The highest-rated risks were associated with the availability of funding and with financial and procurement management in the provinces and districts. The corruption risk was assessed as substantial but stable. The assessment has generated renewed attention for the integrity strategy and motivated the ministry to follow up on the authorization process.

Donors adopt a range of approaches to safeguard funds and support anti-corruption interventions, but few have systematically mainstreamed anti-corruption policies into their work (Hart and Taxell, 2013) in the water sector (and beyond). According to the U4 Anti-Corruption Resource Centre (U4), most donors have moved away from focusing only on national anti-corruption strategies and also now focus on their own internal controls, in keeping with their fiduciary obligations to avoid waste and the misuse of public funds (Hart and Taxell, 2013). They also provide guidance for in-country programming to strengthen accountability and international engagement on issues such as illicit financial flows, financial secrecy and tax evasion.

Donors are increasingly undertaking risk assessments with partner countries. The UK's DFID, for example, is developing country-level anti-corruption strategies. The German Ministry for Economic Cooperation and Development (BMZ) promotes a 'systemic risk-based approach' that links country-, sector- and institution-level framework risks with corruption-sensitive programming and the risk levels of specific aid modalities (BMZ, 2012). The Swedish International Development Cooperation Agency (Sida) promotes a four-pronged approach through regulation it introduced in 2013: 'Always prevent. Never accept. Always inform. Always act' (Sida, 2013).

### Box 3.11 Kenya: risk management in the Water Services Trust Fund

The Water Services Trust Fund (WSTF) in Kenya is a state corporation mandated to finance water and sanitation services for the poor and underserved communities. It receives funding from the Government and various donors.<sup>6</sup> The Fund has developed well-functioning risk management systems and produced outcomes that give good value for money (a 2014 survey of the condition of infrastructure found 84 per cent functionality). WSTF has established project selection procedures and a robust monitoring system. External audits are regularly carried out to verify the use of funds from the Fund down to the utility that implemented a project. However, so far the Fund has been an isolated sector initiative. Its integration into the country's public finance system is limited (Feuerstein et al., 2013).



#### Accountability trade-offs around development aid

From an accountability perspective, using partner country systems can be a trade-off between domestic accountability in donor and partner countries. On the one hand, parallel systems to manage donor funds may provide the required level of control and risk management systems and get much-needed basic water and sanitation services to the poor quickly.

<sup>6</sup> GIZ: <https://goodgovernance-wiki.org/wiki/Download>.

On the other hand, bypassing government systems is harmful in at least three ways. First, any parallel systems eventually have to be handed over to government bodies, or at least come under government oversight. Second, it may lead to situations in which communities simply expect external donors or NGOs to build new facilities, rather than themselves engaging as rights-holders that recognize their government as responsible for making sure systems are sustained. Third, capital investment has implications for recurrent costs that may not have been factored in by the donor. Government systems need to be strengthened, not bypassed.

Finding balanced solutions for this trade-off requires strong understanding of the context, the capacity to monitor changes and the flexibility to adjust. Pooled funds and payment by results are increasingly used to coordinate donor support between donors and with government while managing fiduciary risks.

### **Box 3.12 Benin fraud leads to suspension of development cooperation**

Channelling funds through government systems may imply an unacceptable level of risk to taxpayers in donor countries. An audit of the €70 million phase II national water programme (PPEA II) in Benin (€50 million from the Netherlands, €20 million from the EU) unveiled alleged misuse of €4 million by the Benin Ministry of Water. This led to a suspension of Dutch development cooperation with the government of Benin to safeguard funds from further misuse. Emergency action to prevent fraud means that services the programme was designed to deliver will be delayed (Government of the Netherlands, 2015).

### **Box 3.13 Linking investments to performance improvements**

KfW Development Bank, from Germany, is financing water and wastewater projects in the western Balkans on behalf of BMZ. Investments are linked to improvements in the performance of public utility companies and the capacity of responsible municipalities to arrive at sustainable investments (covering, for example, operational costs).

Key benchmarks being monitored include improvements in the efficiency of billing and collection, the establishment of separate service accounts, the approval of tariff adjustment plans, clear staff assignments, contracts with customers, and service-level agreements with municipalities. Improvements in the performance of the utilities have contributed to them covering more of their costs. Increased transparency, the simplification of administrative procedures and clearly defined rights and duties for water utilities reduce space for discretionary decisions and increase accountability (Vallerien, 2013).

## 6 REPAYABLE FINANCE: PRIVATE SECTOR INVESTMENTS

It appears unlikely that the financial demands to achieve the SDGs that relate to the water sector and for mitigation and adaptation to climate change impacts will be met by the public sector alone. The financing gap will increasingly mean mobilizing greater financing from the private sector for water sector and sanitation investments, combined with its knowledge and entrepreneurial abilities. In relation to water supply and sanitation, according to the World Bank, during the 1990s private investment amounted to 15 per cent of total investment, covering less than 10 per cent of the world's population. There has more recently been a paring back of private sector participation in the water sector. However, because of the unprecedented need for financing for water supply and sanitation, the calls on private sector involvement may significantly increase. This creates challenges for the capacity of both the private and public sectors to manage the process with integrity. A greater focus is essential on sectoral sustainability, including the financial viability of the water service providers as well as devolved budgets. Decision-making on awarding water supply and sanitation service contracts needs to be fully transparent, with clear objectives and measurable performance indicators. This needs to be backed up by effective monitoring by a water supply and sanitation regulator, with appropriate involvement of civil society and water consumers.

Private funding, referred to as market-based repayable finance, can come in the form of *debt finance*, which includes commercial loans, bonds and project finance, and *equity finance*, in which the investor takes ownership or part-ownership of assets (OECD, 2011c).

However, private financing is not a solution for every aspect of the financial gap. It is hard to get good statistics on the level of private finance in the water sector, but it is known to be quite small in comparison with that in other sectors such as energy, telecommunications or transport. Private investment is very selective in where it flows, what it funds and on what terms. It favours capital markets in emerging economies, large established companies and large-margin sectors, such as hydropower and agriculture (see Spread on Mega-dams). Since 2001, new private activity in the water sector has concentrated in China, Latin America and the MENA region (Rodriguez et al., 2012). Indeed, in 2011 the Chinese economy was the largest sponsor of water sector private activity globally, mostly investing in domestic treatment plants (World Bank, 2014a). Concern has been expressed that, as commercial banks and energy and construction companies play an increasingly important role in financing water resources development projects, social and environmental lending standards that have been established by the World Bank, the Asian Development Bank (ADB) and other multilateral lenders are being diluted (Cooley et al., 2013).

Private finance can speed up investments and infrastructure in the sector, but in many developing countries the private sector faces difficulties in obtaining sufficient finances to expand. Research by the International Finance Corporation (IFC) suggests that more than half the formal small and medium-sized enterprises (SMEs) in developing economies are unserved or underserved with finance, and the figures are still higher for micro-enterprises in developing economies (IFC, 2013). Good investment is investment that helps to develop the water sector and provides a fair rate of return for the investor. This implies that there must be sufficient finance in the sector and among the public to repay loans and meet user fees.



One financing option that has gained increased attention is the aggregation of funds, in the form of public–private partnerships (PPPs) and pooled funds (from multiple sources, including the private sector). These can help to align programmes and financial schemes and therefore help to minimize risks and increase transparency (KPMG, 2008; OECD, 2009b).

However, UNCTAD's *Trade and Development Report* for 2015 is sceptical about the value of PPPs in the water sector, noting that it is being strongly promoted in the post-2015 context (UNCTAD, 2015). 'While PPPs have shown some successes in some countries and activities, the most needy areas and services tend to be neglected, such as in least developed countries or in water services. Moreover, even where PPPs have grown in number, the historical experience in many settings suggests they do not succeed in creating "additional" finance in a real economic sense; indeed, their use still tends to be just an accounting exercise to get project debt off the government budget. [...] Particular caution is needed in assessing the long-term fiscal costs to governments, as the scale of obligations and liabilities that governments have incurred through the use of PPPs has often been much greater than anticipated.'

The report notes that it is partly dissatisfaction with PPPs that has prompted some 180 cities and communities in 35 countries to take back control of their water services, even in cities that have been internationally renowned for PPP-based water supply.

At an individual level, the ability of households to access funds to improve their access to water and sanitation services is limited by income and location. According to the World Bank, 2.5 billion people, including three-quarters of the world's poor, do not have a bank account, not only because of poverty but also due to costs, travel distance and the paperwork involved (Demirguc-Kunt and Klapper, 2012). In high-income countries only 11 per cent of adults do not have a bank account but this figure rises to 59 per cent for adults in developing economies and 77 per cent for adults who earn less than US\$ 2 a day. Women are 8 percentile points less likely than men to have access to banking. For people without accounts, borrowing from friends and family is the most common reported source of credit.

## 6.1 Debt, equity and other private investment

Debt financing has been fundamental for most infrastructure investment in developed countries. Low- and middle-income countries need similar levels of investment to afford equitable and sufficient access to water for all. Utilities in developing countries traditionally rely on loans from development banks (especially concessional loans) to finance capital investments. However, these service providers have difficulties in accessing commercial loans for long-term investments, because the water sector is frequently perceived as a risky investment.

Other forms of debt finance, such as bond finance, project finance or microfinance, are gradually emerging, especially in countries where capital markets are more developed, such as India, Brazil and South Africa. The scale of these alternative forms of finance can vary from corporate bonds from large water and sewerage companies in the UK to microcredits for rural community water projects (OECD, 2010). Even the small-scale innovative forms of debt finance have proved very efficient in some cases. For instance, the non-profit organization WaterCredit claims that it has disbursed a total of US\$ 120 million in loans, with a 99 per cent repayment rate (90 per cent of its

borrowers being women). These financing options are not exempt from corruption risks and need adequate regulation to avoid exploitation of the poor, which, unfortunately, has happened in some microfinance schemes (Hulme and Maitrot, 2014).

Equity finance is a more participatory and flexible approach, in which the investor shares risks in return for a share of the profits. This form of finance may come from private businesses, capital markets or private equity funds. It involves some degree of privatization, such as the acquisition of full or partial ownership of infrastructure.

It is often stated that a constraint on making loans is the low quality of projects seeking financing. However, it takes time, skill and resources to put together well-prepared projects, and this preparation also needs financing. In this regard, project preparation funds can be an important tool.

## 6.2 Water: a risky investment?

Overall, as mentioned earlier, investing in the water sector is considered risky by commercial financiers, who have become less risk-tolerant since the financial crisis. Three important factors contribute to high risks: insufficient guarantees; uncertainty about future availability and supply; and weak transparency and compliance management.

First, water utilities frequently fail to provide sufficient guarantees that debt and interest can be repaid as agreed. As a consequence, private investors mostly offer loans with very high interest rates (often more than 15 per cent) and/or very short repayment period (often less than ten years) (IRC, 2015). Leveraging long-term loans and lower interest rates requires risk mitigation and the building of trust. The Multilateral Investment Guarantee Agency (MIGA) of the World Bank Group promotes private investment by providing political risk insurance and credit enhancement to investors and lenders against losses caused by non-commercial risks. MIGA also offers expertise to help deter harmful actions, resolve disputes, access funding, lower borrowing costs, increase the repayment period and comply with the highest social and environmental safeguards. IFC offers not only loans, equity and other types of funding for the water sector but also advice on risk management and access to foreign and domestic capital markets.

Second, the uncertainty of future water supplies is a major risk, which requires comprehensive adaptation plans, including for climate change, and consistency in financing and tariff adjustments.

Third, high levels of corruption and inefficiency, low transparency and weak compliance management are major risks hampering private sector investment. Getting the sector ready to leverage repayable financing can be a driver for improving transparency and compliance management. Initiatives such as benchmarking and credit rating are highly valued by the private sector as ways to promote clarity and trust by measuring performance transparently and showing it to the market. The private sector itself operates under a stringent system of anti-corruption laws and compliance management systems in many countries. This is why most private investors carry out due-diligence investigations of their partners in terms of financial management and compliance. Strengthening the integrity management systems of water companies and institutions needs to become integral to efforts to get them fit for private financing.

### 6.3 Private investment: a risk to fair and sustainable water management?

There are some clear integrity risks related to private capital that need to be managed carefully both in debt and equity finance. Private investments often bring powerful actors with vested interests to the table, and they are sometimes able to capture the agenda to advance their own interests (Hepworth and Orr, 2013). Private companies highly dependent on water for their operations, such as beverage and textile firms, may have a genuine interest in water stewardship initiatives and be able to contribute substantially to social water projects (Poore, 2013; *The Guardian*, 2012b), but there is intense debate around the risk of allowing corporate entities to gain control over otherwise publicly managed water resources (Sojamo, 2015) (see Licensing in Chapter 4).

Governments need to be able to attract private investment while retaining the ownership of their water resources and maintaining independent regulation of private sector involvement. A recent report by the Eurodad network of CSOs highlighted ‘high public sector debt that can result from PPPs and the often opaque government procurement practices’ (Romero, 2015). A strong, well-organized and critical civil society is essential to provide independent oversight of investments with high risks of capture, and to remind governments that they remain accountable to their citizens, since private investments need to be paid back through tariffs and tax money.

## 7 CONCLUSIONS: PROTECTING WATER AS A PUBLIC GOOD

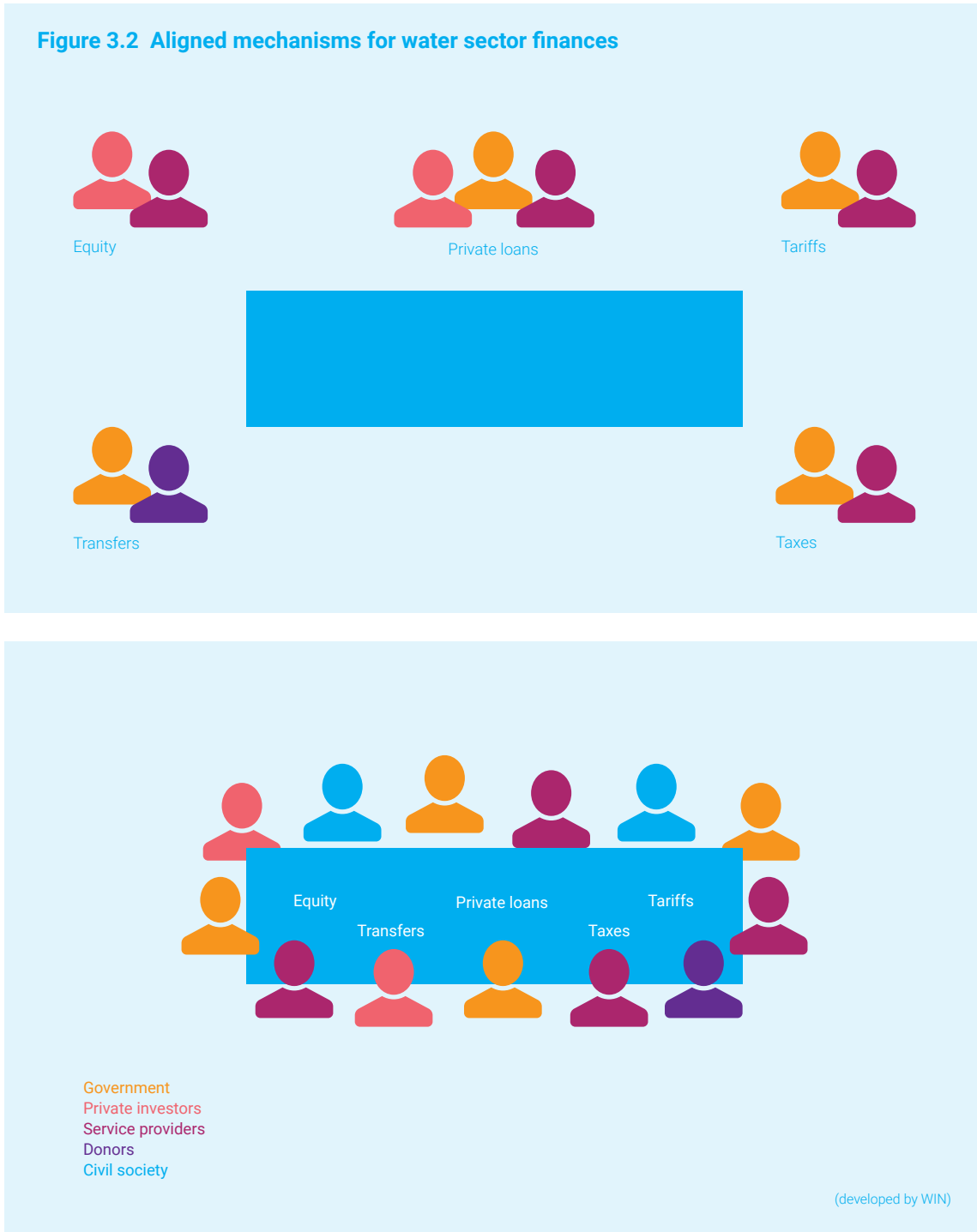
This chapter has outlined the complexities and structural weaknesses that make the water sector vulnerable to financial inefficiencies, mismanagement and corruption.

**Tariffs, taxes and transfers.** Increasing the money collected through tariffs is desirable, in order to give the sector greater sustainability and strengthen direct accountability to users. However, this is a long-term goal for most developing countries, and, realistically, the sector will continue to depend on public subsidy through taxes and support from donors. Private investment will play an important role in closing the financing gap towards reaching the SDGs, but governments need to protect the public interest. The same levels of transparency and accountability need to apply in both the private and public sectors, and particularly at the point where they intersect.

**Accountability for finances.** Water is a public good, and access to safe water and improved sanitation are human rights. Governments remain accountable to their citizens for how the money for managing water and providing services is spent, regardless of whether the money comes from donors, private investors or tariffs collected by private operators.

Governments need to establish a **comprehensive accountability mechanism** for water sector finances that is vested in the public finance system but also provides a platform for joint planning and reporting and requires donors, utilities, private investors, NGOs and other sector stakeholders to publish budgets and expenditure figures. Civil society needs to be included as part of an active external oversight policy. This will enable donors to minimize fiduciary risks while at the same time strengthening government structures and accountability towards citizens.

**Figure 3.2 Aligned mechanisms for water sector finances**



The upper panel represents the lack of coordination that is frequently found between the different financing systems and actors; the lower panel represents the desired situation in which planning and reporting are coordinated in a comprehensive mechanism with independent oversight.

Water sector actors – service providers, donors, private investors and civil society – need to engage with finance ministries, audit institutions and procurement and anti-corruption agencies to understand where and why government systems are underperforming, and how water programmes can support the improvement of systems. It is essential for donors to engage fully with a country's public financing management system and to support moves to train water ministries and other sector bodies in using the system effectively. Bypassing the system obstructs countries in establishing appropriate and coherent financing and accountability arrangements and resource capacity. The **interaction of systems and actors** needs to be better coordinated at all levels of the service delivery chain, from ministries and regulators to water and sanitation service providers as well as river basin organizations (RBOs) and other (waste-)water management agencies.

**Civil society and water users.** Water users and communities need to become 'budget-literate', so that they can engage in budget planning, track how money is being spent and hold government and service providers to account at local level. Governments and service providers need to institutionalize appropriate public participation and feedback mechanisms; development partners and NGOs can support and facilitate this process through capacity development for local communities.

Making public finance systems more open to civil society participation will strengthen systems. Other important factors are parliamentary oversight; having clear responsibilities and reporting lines at all levels of the water sector service delivery chain; and improving the human resources and overall capacity to implement programmes, especially at lower tiers of government.

These improvements are partly dependent on government-wide reforms. However, if the water sector can use pooled donor funding and align government and donor planning and accountability requirements, it can improve transparency and accountability.

This leads to the following recommendations.

- + **Establish a comprehensive accountability mechanism anchored in the public finance system for water sector financing from all sources.** Where public finance systems are weak, money can be managed through parallel systems to avoid risks. Nonetheless, planning and reporting should be undertaken jointly by government and civil society to ensure that government fulfills its obligations related to water management and service delivery.
- + **Engage with ministries of finance, audit institutions and parliamentarians to make water and sanitation a priority and increase their understanding of the sector.** Public finance institutions and water sector actors, including service providers, donors, private investors and civil society, should collaborate to understand where and why systems are underperforming and how these can be improved.

# PRIVATE SPACE IN PUBLIC WATER

## THE PRIVATE–PUBLIC INTERFACE

The private sector plays significant roles in water infrastructure financing, development and management while industry and agriculture require reliable supplies of water.

The private sector has a strong interest in improving integrity in the sector. More than a quarter of business people claimed that their company had failed to win a contract in the previous year because a competitor had paid a bribe.<sup>1</sup> For utilities and for public works, contracts and construction this figure was well over a third (37 per cent and 38 per cent respectively).

## THE PROVISION OF FINANCE<sup>2</sup>

**Benefits** The public sector has limited funds and a restricted ability to borrow. The private sector fills the investment gap through loans or equity finance. This can accelerate the development of infrastructure and services, without which communities may suffer long delays or shortages. Attracting private investment at a reasonable interest rate requires countries to minimize their perceived risk, including the risk of corruption.

**Integrity concerns** Under many arrangements, the public sector bears the financial risk for large water sector projects through government guarantees, while the public voice in the development and cost of vital services can be lost. Public–private partnership (PPP) can commit future payers to significant long-term debt, without sufficient attention being paid to the impact on the next generation.<sup>3</sup>

## CONTRACTORS AND SUPPLIERS<sup>4</sup>

**Benefits** Large-scale civil engineering works procured by the public sector, such as dams, reservoirs, water treatment plants and piped systems, can benefit from the technical and managerial expertise of the private sector.

**Integrity concerns** Large public sector contracts can be a magnet for corrupt practices. It takes only a few unscrupulous companies or public officials to make the process vulnerable to major fraud. Power asymmetries weaken the ability of communities to influence decisions.

## CORPORATE USE OF WATER RESOURCES

**Benefits** Water is a critical input for food and drink production, industry and large-scale agriculture. The private sector requires security of provision to meet people's needs.

**Integrity concerns** Unsustainable consumption, pollution and environmental damage are all concerns, along with a loss of water amenity.

In Cameroon, a contract signed in 2009 between the Government and US-based investor SG Sustainable Oils Cameroon PLC shows how the rights of foreign investors can take precedence over those of water users in a country (Republic of Cameroon and SG Sustainable Oils Cameroon PLC, 2009). The contract gives the foreign investor water rights over the production area for 99 years. Further, the Government cannot take action that would lessen the amount of water available in the area or restrict access to the investor in any way. A further provision overrides any claims to water or land by local communities based on customary law. If there are conflicting claims, the investor's rights will prevail (Achobang et al., 2013). The company has reacted by highlighting measures that will help in handling some of the concerns. (RSPO, 2012). This agreement undermines Cameroon's obligations under international and human rights law because of the impact on downstream countries and local communities (Mbengue and Waltman, 2015).

<sup>1</sup> TI: <http://www.transparency.org/research/bps2011>.

<sup>2</sup> This topic is covered in Chapter 3.

<sup>3</sup> CEE Bankwatch Network: <http://bankwatch.org/public-private-partnerships/background-on-ppps/build-now-pay-heavily-later>.

## WATER SERVICES

Large-scale privatizations of water services have been introduced in cities as a way to increase provision and cost efficiency, especially where governments have failed to deliver reliable services (Lessmann and Markwardt, 2010; Asthana, 2004).

Water privatization in Manila, the Philippines, began in 1997, covering 11 million people. The concession in Eastern Manila led to significant improvements in access, service quality and efficiency. The company that ran the service in Western Manila went bankrupt, and the city had to find a new provider. By 2014 more than 98 per cent of households were receiving water 24 hours a day, and water losses had decreased from 45 per cent to 12 per cent in Eastern Manila and from 66 per cent to 39 per cent in Western Manila (Verougstraete and Enders, 2014). Efficiency gains resulted from extending coverage and reducing staffing. In 1997 the governmental Metropolitan Waterworks and Sewerage System (MWSS) employed 13 people for every 1,000 connections; by 2014 Manila Water required just 1.4 employees for every 1,000 connections.

According to a Global Water Intelligence report, in 2013, the number of people being served by services contracted to the private sector exceeded one billion<sup>4</sup> for the first time. On the other hand, between 2000 and 2014, around 180 cities in 35 countries either terminated or did not renew contracts after their normal conclusion. The reasons for these decisions included concerns over rising prices, transparency and fulfilment of the human rights to water. Cities that have gone back to public management of their water systems over the past 15 years include Buenos Aires, Johannesburg, Paris, Accra, Berlin, La Paz, Maputo and Kuala Lumpur (Lobina et al., 2014). In March 2015 Jakarta District Court ordered two private companies (offshoots of British and French multinationals) to hand back what is said to be the world's largest water privatization contract to the city-owned water operator Pam Jaya (SixDegrees, 2015a; *The Jakarta Post*, 2015).

## PRIVATE SECTOR IMPROVING INTEGRITY

Robust incentives and sanctions are needed, internally (for example, through compliance management systems) and externally (for example, through anti-corruption laws), to protect integrity.

Many companies realize the need to avoid reputational damage and legal risks. The Alliance for Water Stewardship is a multi-stakeholder body with a broad private sector and NGO membership that works through standard setting, verification and training to promote socially and economically beneficial use of freshwater that is environmentally sustainable.<sup>6</sup>

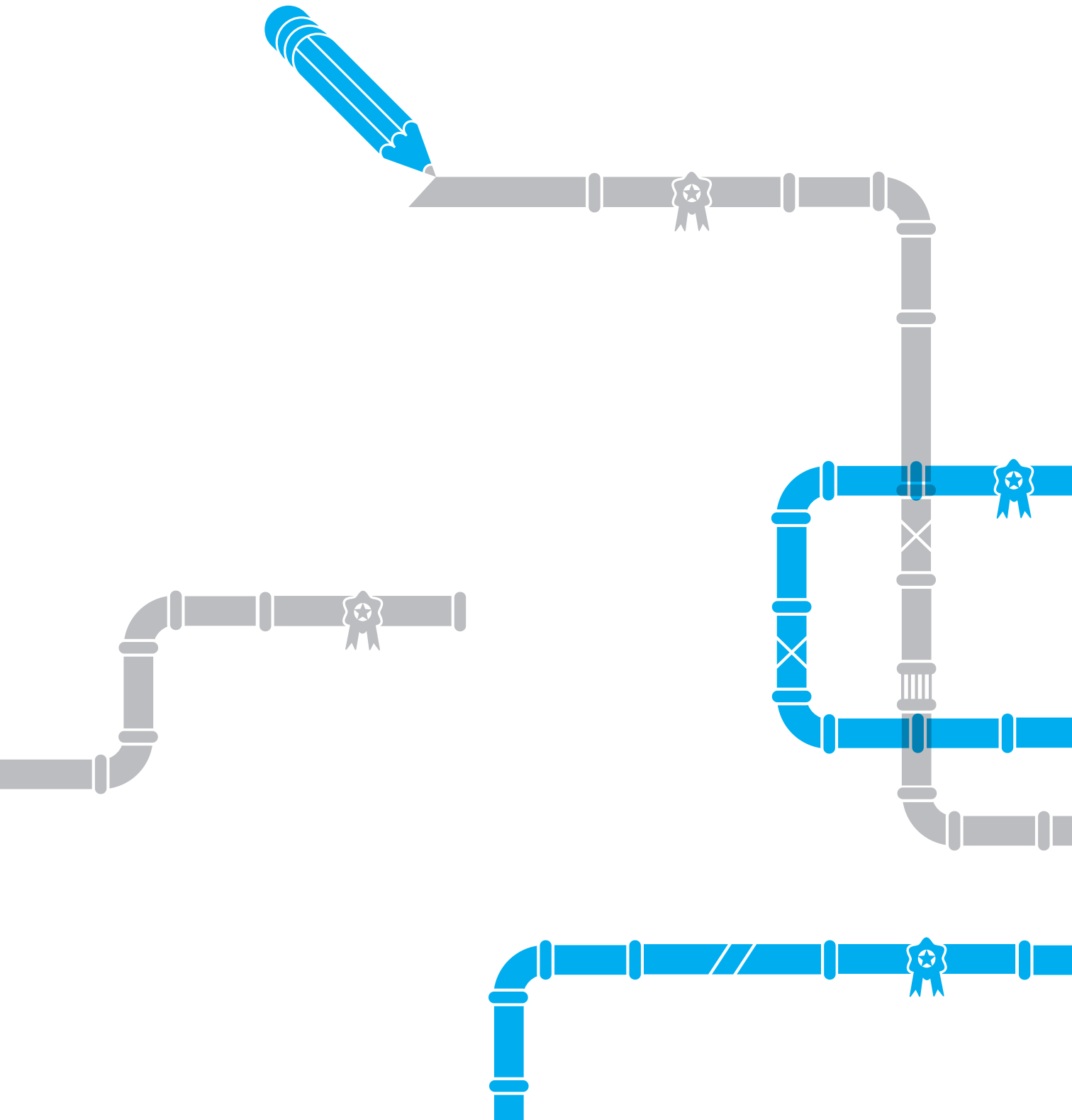
In 2013, GIZ commissioned the CEO Water Mandate, WIN, Water Witness International, Pegasys and Partnership in Practice to develop the Guide for Managing Integrity in Water Stewardship Initiatives. This guide responds to the integrity challenges facing water stewardship initiatives that were identified during field research in 18 WSIs in three countries (CEO Water Mandate, 2015). To put these guidelines into practice, WIN, GIZ and WWF are providing capacity development on community engagement and advocacy for water resources user associations in the Lake Naivasha basin in Kenya. The initiative is supported by DGIS, DFID and BMZ.

The 2030 Water Resources Group was established on the initiative of the International Finance Corporation and has a membership including PepsiCo, SAB Miller and the Coca-Cola Company, as well as the Swiss Agency for Development and Cooperation, the Global Green Growth Institute and the US Agency for International Development. In 2009 the Group published *Charting Our Water Future*, drawing attention to global water security challenges. A central theme was the need for transparency about costs, demand and supply. 'A lack of transparency on the economics of water resources makes it difficult to answer a series of fundamental questions: What will the total demand for water be in the coming decades? How much supply will there still be? What technical options for supply and water productivity exist to close the "water gap"?' (2030 Water Resources Group, 2009).

<sup>4</sup> This topic is covered in Chapter 4.

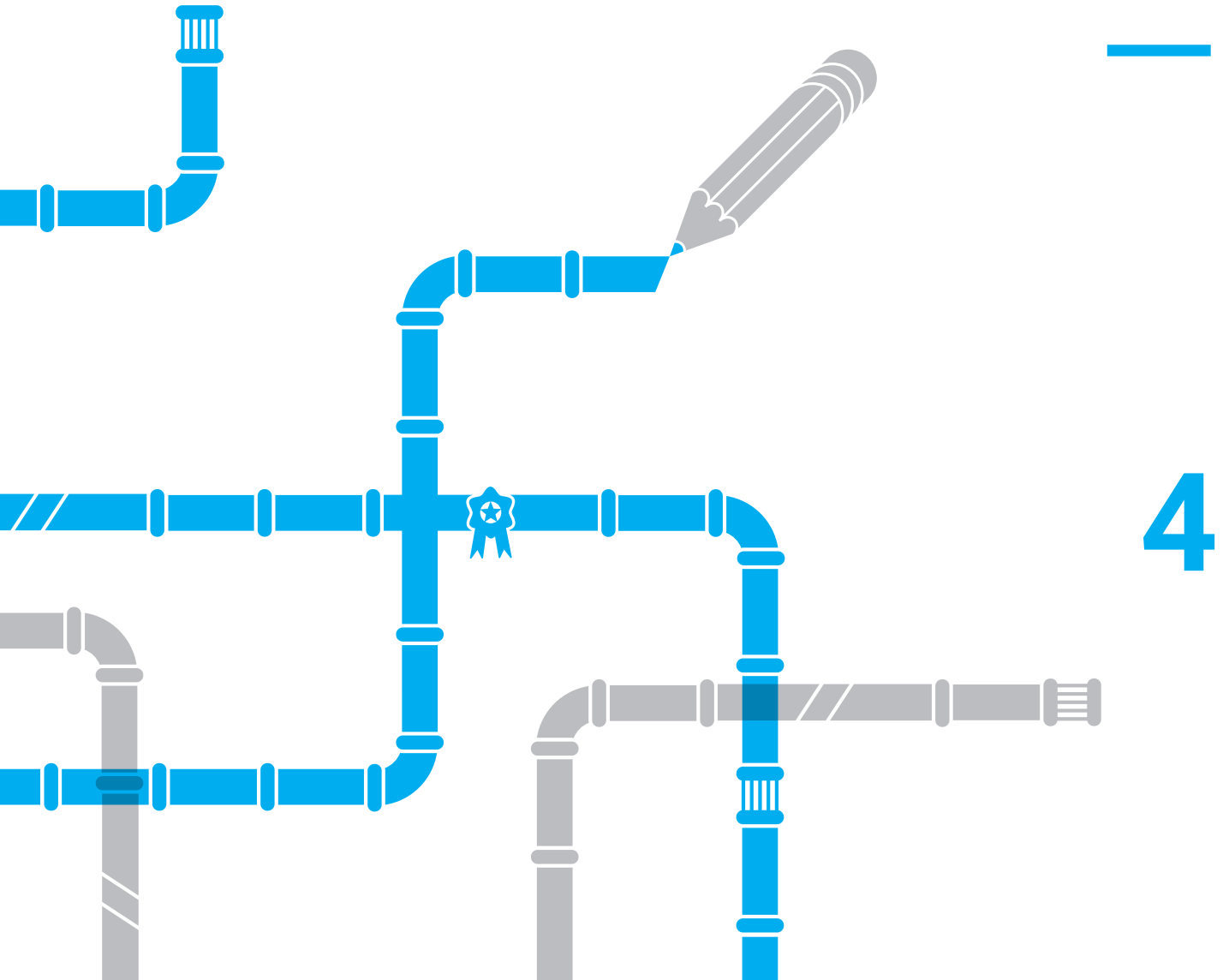
<sup>5</sup> AquaFed: [www.aquafed.org/page-6-124.html](http://www.aquafed.org/page-6-124.html).

<sup>6</sup> Alliance for Water Stewardship: [www.allianceforwaterstewardship.org](http://www.allianceforwaterstewardship.org).





# FROM PLANNING TO IMPLEMENTATION



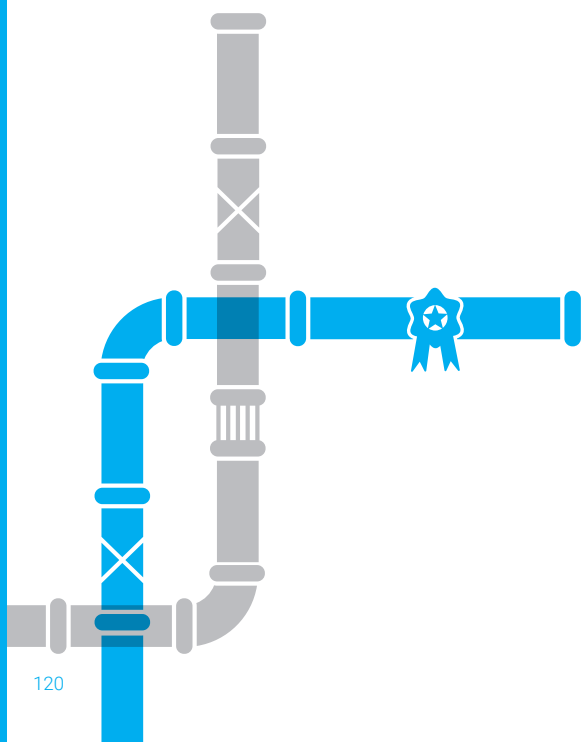
4

‘ *The successful delivery of any infrastructure project is about more than meeting deadlines or budget mandates. [...] If citizens don’t feel like the project is worth the investment, or that city leaders ignored their concerns, or abused the funds, these projects will be viewed as failures, regardless of whether they met their goals.* ’

EIU, 2015

#### KEY MESSAGES

- + Establishing integrity, trust and respect as ground rules at the outset of planning process sets a standard for preventing corruption and for a project or programme in achieving its aims.
- + All phases of a water project carry high integrity risks and require transparency, fairness, non-discrimination and accountability.
- + Involving citizens, consumers and civil society organizations is important for establishing integrity, especially in large-scale and complex processes.



# From Planning to Implementation

This chapter deals with integrity issues and good practice during the preparation and implementation stage of water projects and programmes, from the planning of infrastructure and services, through the design and building, to the provision of services. The chapter further shares concerns and good examples related to operations and maintenance and customer relationships.

## 1 INTRODUCTION

Water projects and programmes are designed for the public good and to meet a public need. The resources that fund them come, ultimately, mainly from public money. The money and the process both need careful stewardship to protect the public interest. The path from the design of a programme to implementation involves a series of steps that should flow with competence and integrity; from procurement and tendering to construction and implementation, and operation and maintenance, taking in issues of permits and licensing. These are all areas of high integrity risk.

This chapter suggests that – despite some good anti-corruption policies and declarations – effective action to prevent corruption and promote integrity is often weak. This is demonstrated at the interface between the public and private sectors, which has historically proved vulnerable to back-door deals, rule-bending and corrupt practices. Building in measures to promote integrity at the start of a project or programme can set a positive culture that promotes honest dealing, high professional standards and trust between different stakeholders.

Data from global surveys strongly suggests that the interface between the public and private sectors is a hotspot for bribery, involving corruption on both sides of the transaction: the private sector making the bribe, the corrupt public official soliciting or accepting it. This is the area in which most large-scale water projects are located – especially in relation to publicly funded water projects or when allocating water rights, permits or licences.

The World Bank Enterprise Survey on Corruption, based on country-level surveys carried out from 2009 to 2015, shows that, while fewer than 2 per cent of companies in high-income OECD countries admit to having received at least one public sector bribe request, this figure rises to 18.1 per cent for all countries and more than 23 per cent in East Asia, South Asia, the MENA region and sub-Saharan Africa.<sup>1</sup>

In East Asia, South Asia and the MENA region bribes or ‘gift’ requests were requested in more than a fifth of all transactions dealing with public utilities (access, permits, licences and taxes).

<sup>1</sup> World Bank Group: [www.enterprisesurveys.org/data/exploretopics/corruption](http://www.enterprisesurveys.org/data/exploretopics/corruption).

In the MENA region and South Asia more than 40 per cent of firms expected to give gifts to secure government contracts.

Large-scale civil works are needed for a wide range of projects and programmes, including water supply, sewerage and drainage networks, storage reservoirs (including dams), water and wastewater treatment plants, irrigation channels, gates and inter-basin transfers. These works and the way in which they are carried out can affect the lives of many thousands of people – those who benefit from the water systems and schemes and those whose livelihoods are disrupted. Resources on this scale are also attractive for those who put private gain above public good. The ability to protect the public interest and the integrity of water sector development relies in large part on the involvement of skilled, innovative and conscientious contractors and public sector officials. Levels of training and organization, openness in the system, effective supervision and scrutiny through independent audits are all central to promoting integrity and preventing corruption.

Once infrastructure has been developed, it must be brought into use so that services are sustained and people receive what they were promised. Integrity at this stage means maintaining commitment and a sense of service. These can be damaged by failures of management as well as by dishonesty.

A vital aspect of management is the relationship with customers, including agreed service levels, a grievance resolution mechanism that delivers prompt investigation and remedy, transparency of operations and participation in planning service development.

Corruption can become ingrained within organizations, so that everyone turns a blind eye to bribes and kickbacks. But integrity can also become embedded as an organizational culture, given strong leadership, clear rules and a day-to-day focus on integrity issues in the workplace within public bodies, water utilities, institutions and the private sector.

## 2 PLANNING AND PREPARING

The initial phases of planning and preparing large-scale projects and programmes for irrigation, for energy or for water and sanitation services are complex and can be controversial and politically charged. The process includes acquisitions of land, organizational mergers, leases, transfers or contracts with a private company or local authority. Land for an irrigation scheme or a dam needs to be acquired from a public or private entity or individuals in an agreement that may affect a whole community. Governmental bodies must oversee fair processes to balance interests according to agreed policies and principles, so that stakeholders can arrive at an agreement. Participatory processes and transparency are especially important in these processes. These may be neglected if demands for rapid policy-making, commercial confidentiality and security are allowed to trump public accountability, or if site selection is manipulated, environmental concerns are disregarded or an elite captures the benefits.

The need for prompt and adequate resettlement and compensation is widely recognized. If a World-Bank-backed project involves involuntary resettlement, the Bank requires the project to follow its resettlement policy 'to assist the affected people in improving their living standards, capacity for income generation, and production levels, or at least to restore them to their

former levels'.<sup>2</sup> The Bank says that attention to this issue is needed at all stages, from project identification to implementation and monitoring. However, there have been many examples of rehabilitation and compensation packages not being implemented fairly or in full. Money that has been promised may be siphoned off, people without a verifiable legal title to land can be excluded from compensation and the quality of replacement houses or land may be compromised.

#### Box 4.1 Supreme Court of India: keep rehabilitation promises

More than 100 dams have been built along the river Narmada in the states of Gujarat and Madhya Pradesh as part of the Narmada Valley Development Project. The biggest of these is the Sardar Sarovar Dam, which had displaced tens of thousands of families by the time the first stage was completed in 2007. The resettlement and compensation scheme was uneven, with the result that many families returned to their former home areas even though they were considered to be uninhabitable (Dawson and Farber, 2013). The 80-metre-high dam has since been raised on several occasions, each increase bringing further displacement. In June 2014 permission was given to raise the height again, to 138 metres (*The Times of India*, 2014).

At a much earlier Supreme Court hearing (in 2000), Justice Bharucha had ruled that, before any new construction went ahead, the Grievance Redressal Authorities of Gujarat should certify that all those displaced by earlier stages had been satisfactorily rehabilitated, and that suitable vacant land was already in the possession of respective states (Sahoo et al., 2014).

#### Box 4.2 World Bank demands faster compensation

The Tarbela Dam in north-west Pakistan feeds the largest irrigation system in the world with water from the river Indus, and provides more than 18 per cent of the country's electricity. A 2012 World Bank appraisal for a fourth extension describes the dam as 'Pakistan's most valuable infrastructure...vital for the economy' (World Bank, 2012a).

The original dam had inundated 120 villages and displaced 96,000 people by 1976. Many never gained access to land they were promised in compensation because the land was unproductive or because of resistance from communities already living there. An investigation by the World Bank found that litigation was still pending for 2,100 families three and a half decades later. The Bank funded the project but lacked the authority to enforce compensation schemes (Dawson and Farber, 2013).

When the World Bank considered a US\$ 440 loan and credit deal for a fourth stage of the dam in 2012, a social impact assessment (SIA) showed that construction work would impact on public health and safety and cause disturbances to local communities. The Bank helped to establish a grievance redressal committee (GRC) with representatives from

<sup>2</sup> World Bank: <http://go.worldbank.org/J2H75S2RB0>.

the Water and Power Development Authority (WAPDA), contractors, local communities, social organizers and local civil society. A public information centre was set up to register grievances, on which the GRC promised to make decisions within ten days of their receipt. The Government committed itself to addressing outstanding resettlement claims still pending from the original dam project and from the Ghazi Barotha Hydropower Project, completed more than a decade earlier (World Bank, 2012a).

### 3 DESIGN PHASE

The way a project is designed, the choice of technology and material and the selection of companies to undertake implementation all reflect on integrity. A design may receive approval on the basis of unrealistic and underestimated costs, overestimated revenues, overvalued development effects or underestimated environmental and social impacts (Flyvbjerg, 2005).

Bidders are usually required to tender based on specifications in the bidding documents, normally drawn up by the design consultant. Here, under-specification and over-specification are twin dangers. Bidders may under-specify materials or time, with the aim of making a low bid in order to win a contract, in the expectation of amendments to upgrade the project later. If the brief for a project design is under-specified it will not achieve its objectives: a water system may not reach all the taps on the network with adequate water pressure, or an irrigation system may run dry at critical points. With very large projects there is a temptation to minimize the apparent costs and environmental impact – one reason why dams tend to overrun cost estimates (Ansar et al., 2014).

On the other hand, contracts may be over-specified so as to generate extra work for contractors or suppliers. Specifications can be written to favour one supplier over another.

UK Government guidance on infrastructure programmes notes that '[e]arly cost estimates are vulnerable to influencing behaviours when allied to the desires of key stakeholders to ensure a proposal secures funding and meets (sometimes conflicting) objectives. These factors can undermine reliable cost estimation and representation of the risk and uncertainties and so affect delivery of public value' (HM Treasury, 2015). The advice notes a risk of the cost–benefit ratio ending up both lower than expected and lower than an alternative option excluded in the investment decision process.

The scope or quality of a design may be compromised in order to allow scope for 'commission' or some other form of kickback. The selection of materials for construction during the design phase is one area of risk. On the other hand, materials may be accurately specified but not bought. The comptroller and auditor general's office in Bangladesh found that the Bangladesh Water Development Board had used undersized dredger blades to keep waterways open and deal with river sedimentation, and concluded that the difference in costs was probably siphoned off. The number and quality of sandbags used in embankments was also compromised (*The Daily Star*, 2015; Rahman and Islam, 2014).

### Box 4.3 Corruption in planning and implementation in Ghana

A detailed study of the planning and implementation processes of two small reservoirs in Ghana found corrupt practices and a lack of accountability in planning and design, which later flowed into implementation. Factors found to have increased the risks of corruption in planning and construction included political agendas, an inadequate timescale, low-quality feasibility studies, delays in payment and insufficient construction and site supervision (Venot et al., 2011). Design studies were either not undertaken or done rapidly and poorly just before the bidding process. The report said: ‘Whether the designs were really adequate could not be assessed.’

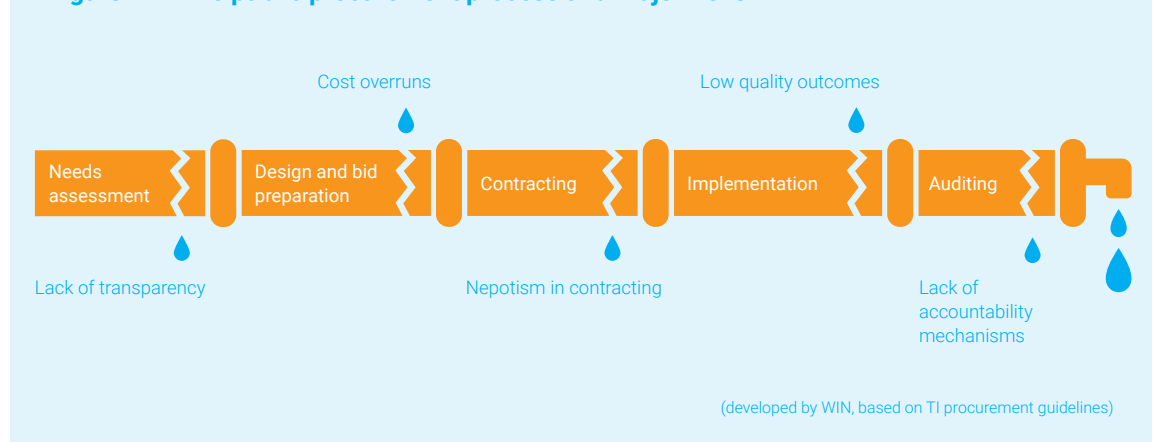
## 4 PROCUREMENT AND CONTRACTING: PUBLIC–PRIVATE INTERFACE

*‘Public procurement is the purchase of goods and services by governments and state-owned enterprises. It encompasses a sequence of related activities starting with the assessment of needs through awards to contract management and final payment.’ (OECD, 2007)*

In many countries, public procurement via a bidding process through government contracting to consortia or firms with specialized skills and experience represents a large percentage of the economy, and, without strong measures in place, provides opportunities for corruption.

The OECD estimates that government procurement represents 29 per cent of total general government expenditures among its members and 13 per cent of total GDP.<sup>3</sup> Local government, within which processes are especially vulnerable, is responsible for more than a half of this expenditure.

**Figure 4.1 The public procurement process and major risks**



Each stage in the procurement process needs particular integrity steps to protect against fraud and losses.

<sup>3</sup> OECD: [www.oecd.org/gov/ethics/public-procurement.htm](http://www.oecd.org/gov/ethics/public-procurement.htm).

# MEGA-DAMS MUST SHARE BENEFITS

The number, size and impact of large-scale dams around the world have increased with the rising global demand for power and food. Agriculture fed by dams produces 12 to 16 per cent of world food production (AQUASTAT, 2007), while hydropower contributes about 85 per cent of global renewable electricity and 16 per cent of total electricity.<sup>1</sup> Dams also play a significant role in flood control and water supply systems.

There has been long-standing debate over how to balance these benefits against the risks of damage to the environment and communities. The report of the World Commission on Dams (WCD) notes: 'At the heart of the dams debate are issues of equity, governance, justice and power' (WCD, 2000).

## WINNERS AND LOSERS

Many hydropower projects are located in countries with weak mechanisms to protect the environment and human rights (International Rivers, 2015). Power asymmetries stem from the influence of powerful politicians and big energy companies. Mechanisms for public participation are poor, and institutional frameworks are overridden by the drive for completion. Promises of relocation and compensation are frequently broken and funds for relocation embezzled. Once dam construction has started, communities have little leverage to enforce their rights.

In Pakistan, the Chotiari wetlands reservoir project was completed in 2003 with World Bank funding to store water for irrigation (Husnain, 2013). It is estimated that 80 per cent of compensation went to bogus owners (Naumen, 2003; *The News Pakistan*, 2009).

In Brazil, the indigenous population has been unable to prevent the construction of one of the world's largest hydroelectric complexes on the river Xingu. After 30 years of protest the Norte Energía consortium was granted a licence in 2011 to build the Belo Monte Dam. About 20,000 people have been relocated but many complain of inadequate compensation (*The Guardian*, 2015a). When the Inter-American Commission on Human Rights granted indigenous tribes an injunction, the Brazilian Government withdrew funding from the body. Norte Energía has invested US\$ 68 million that it says will benefit 3,000 people (IPS Tierramérica, 2015). However, in June 2015 federal prosecutors said that it had violated agreements (*The Guardian*, 2015b). Ibama, Brazil's environmental protection agency, has withheld an operating licence for the operators because they failed to compensate the local communities (*The Guardian*, 2016).

## DISTORTED DECISIONS

WWF International's report *Seven Sins of Dam Building* (Kraljevic et al., 2013) lists distortions such as failing to acquire a social licence, neglecting downstream flows and a 'bias to build'. A study from Oxford University finds 'overwhelming evidence that budgets are systematically biased below actual costs of large hydropower dams' (Ansar et al., 2014). The researchers put this down to over-optimism by experts 'often exacerbated by deception, i.e. strategic misrepresentation by project promoters'. Cost overruns and schedule slippage means that many large dams never recover their costs. However, the International Hydropower Association (IHA) says that the 20 per cent of dams associated with hydropower deliver electricity cheaply for many decades (IHA, 2014): 'The question should not be "does the project overrun?", but rather "is the project a good investment?"'

## BUILDING INTEGRITY INTO DAMS

The WCD report (WCD, 2000) sets seven priorities as a framework for dialogue to assess costs and benefits and undertake consultations with

<sup>1</sup> IEA: [www.iea.org/topics/renewables/subtopics/hydropower](http://www.iea.org/topics/renewables/subtopics/hydropower).



stakeholders and communities:

- + gaining public acceptance;
- + a comprehensive options assessment;
- + making best use of existing dams;
- + sustaining rivers and livelihoods;
- + recognizing entitlements and sharing benefits;
- + ensuring compliance; and
- + sharing rivers for peace, development and security.

However, a report from the International Institute for Environment and Development says that widespread criticism of dams has actually resulted in controls being weakened as previous donors have withdrawn (Skinner and Haas, 2014). China has expanded its finance for dams in Africa, Asia and Latin America without accepting the WCD recommendations for mitigating social and environmental impacts. The European Union's Emissions Trading Scheme has become a major source of funding, but the report describes EU rules for screening as weak. Few of the private banks backing dam projects have signed up to the Equator Principles for assessing and managing environmental and social risk.

The authors say that it is indeed possible to build dams to mitigate climate change and to deliver environmental and social outcomes, using the Hydropower Sustainability Assessment Protocol (HSAP), launched in 2011 and devised by a forum of experts and institutions representing industry, governments and NGOs (Skinner and Haas, 2014).

The protocol assesses 23 criteria for good practice and is undertaken by an external certified assessor. Unlike the WCD criteria, the HSAP can be applied to individual dam projects at the early stages of project design, during detailed planning or during operation (Liden and Lyon, 2014).

The HSAP is supported by governments, including those of Germany, Norway, China and Zambia; by banks that subscribe to the Equator standards; by the World Bank; and by civil society organizations, including the Nature Conservancy, the WWF and TI.

Apart from the HSAP, there are a number of other tools to promote good practice.

In 2015 International Rivers benchmarked international hydropower companies from China that operate globally. Key performance indicators cover environmental policies, social responsibilities, ethics and integrity, bribery and corruption. A website<sup>2</sup> is open for communities and others to assess the performance of these dam builders (International Rivers, 2015).

The Upper Kotmale Hydropower Project (UKHP) in Sri Lanka organized public consultations following protests from NGOs and local communities over social and environmental impacts. The Ceylon Electricity Board liaised with local people and agreed a resettlement action plan with community leaders (Pangare et al., 2012).

**Table: Tools for promoting good practice in the water sector**

<b>Aids to good decision-making</b>	
Rights-based approach (Hurwitz, 2014)	Assesses hydropower dams and institutions involved in basin competition.
The Economics of Ecosystems and Biodiversity <sup>3</sup>	Results in structured approach to decision-making.
Rapid basin-wide sustainability assessment tool <sup>4</sup>	Allows for assessment of impact of developments, including hydropower, on sub-basin or basin.

<sup>2</sup> International rivers: <http://www.hydroscorecard.org>.

<sup>3</sup> TEEB: [www.teebweb.org](http://www.teebweb.org).

<sup>4</sup> Mekong River Commission: [www.mrcmekong.org](http://www.mrcmekong.org).

Governments recognize the potential of procurement to improve public sector performance through savings and economies of scale. However, the OECD identifies procurement as the government activity most vulnerable to waste, fraud and corruption due to the size of the financial flows: 'Integrity in public procurement is essential in maintaining citizens' trust in government,' it says.

The World Bank has introduced a new procurement framework from 2016 'to achieve value for money with integrity in delivering sustainable development' (World Bank, 2015a). The framework governs how borrowers acquire works, goods and services under investment project financing, and defines roles and responsibilities for the Bank and the borrower.

During consultation, stakeholders said that they saw fraud and corruption as two of the major problems facing procurement globally. The Framework Document says that the Bank will add specific integrity management actions relevant to procurement to its anti-corruption guidelines (World Bank, 2015b).

The Bank is strengthening its approach to procurement-related complaints, with dedicated senior Bank staff to give advice and speed up processes. Many private sector organizations have requested stronger Bank involvement in handling complaints about procurement in order to inspire trust in companies, making them in turn more likely to bid for Bank-financed procurements.

The new framework incorporates TI suggestions on beneficial ownership transparency and on civil society procurement monitoring, anti-corruption policies and capacity building (TI, 2015c).

The World Bank is currently funding some 1,800 procurement projects to the value of US\$ 42 billion in 172 countries, often in challenging environments. The World Bank's chief procurement officer and the director for public integrity and openness will report annually on progress with and implementation of the new framework.

#### **Box 4.4 The ADB finds that procurement is susceptible to corruption**

A report by the Asian Development Bank (ADB) identifies public procurement in Nepal as highly susceptible to corruption, which it says was common in local bodies such as municipalities. This ranged from demands for small amounts of money to huge bribes and the embezzlement of large amounts allocated for infrastructure projects (ADB, 2013).

The 2013 report, prepared as part of the ADB Nepal country partnership strategy for 2013 to 2017, says that the institutional capacity of municipalities to manage their finances was low, with internal controls and auditing, monitoring and evaluation systems that were ineffective. Procurement was not integrated with financial management and there was an absence of safeguards to ensure budget adequacy. 'Bribes and corruption are accepted and taken for granted by the society.'

## 4.1 Weaknesses in the procurement chain

When large-scale projects were mainly handled in the public sector the endemic problems of bureaucracy were present: a slow pace, high costs and a strong potential for political manipulation. The private sector promised a solution, being more efficient and more flexible and having an ability to drive down costs through competition. However, the accountability of private companies is set by the need to ensure returns to investors and owners, as well as meeting obligations imposed by clients and regulators. Company law in many countries tends to elevate the interests of the company and its shareholders above those of stakeholders and the environment (Hermann-Friede et al., 2012).

Public agencies such as water utilities, water boards and river basin organizations may lack the experience and capacity to make effective judgements about the quality of the bids for large-scale contracts (Andvig et al., 2000). This makes the procurement processes less transparent and allows work to go to less skilled consultants and contractors (WIN and Helvetas, 2013a).

A lack of capacity can itself open the door to corruption. The OECD says: ‘The capacity gap consists in the lack of scientific, technical, and infrastructural capacity of local actors, hindering the design and implementation of water policies. It often generates a vicious circle that triggers an information gap (quantity, quality, type), which in turn can generate an accountability gap (i.e. lack of transparency and integrity)’ (OECD, 2016).

Low capacity in public sector bodies slows down decision-making, drives up costs and acts as a disincentive for local contractors. Private contractors in turn cut costs by allocating inexperienced staff to jobs or failing to make site visits.

Another concern is linked to contracts always being won by the lowest bidder. If cost (rather than value for money) is the only driver, quality may suffer in a ‘race to the bottom’. Companies that underbid to win contracts are often not able to deliver the right quality within a time frame. The UK’s Public Contracts Regulations expect procurers to avoid simply letting the lowest bid win but to adopt the ‘most economically advantageous’ approach to find a balance between cost and quality (Practical Law, 2015).

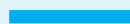
### Box 4.5 Weaknesses in the public–private interface

According to a report for the One WASH National Program in Ethiopia, most private drilling companies that moved into the water sector came without a business plan, failed to properly research the market and found the sector more complex than expected (Defere, 2015). Private sector weaknesses included:

- + bidding without fully understanding the work or making a site visit;
- + bidding for a very low price to win contracts, leading to low quality and delays;
- + a lack of appropriate machinery and problems in the supply of materials;
- + using advance payments for other purposes, leading to difficulty in keeping to schedule; and
- + using senior staff to win contracts but having the work done by less skilled junior staff.

However, the private sector complained of difficulties in completing contracts for the public sector because of its excessive bureaucracy and reluctance to take decisions on design changes, leading to delays and cost increases. Many consultants believe that only the lowest bid will win a public contract, which leads them to compromise on quality. They complained that weak or corrupt supervision was leading to poor-quality work.

Similar issues have been highlighted in other African countries, with drillers in Nigeria complaining that they did not stand a chance of winning government contracts, which were often awarded to non-professionals. In Malawi and Uganda some companies would not tender for work with certain district governments (Danert et al., 2009).

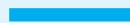


## 4.2 Warning signals in procurement

Warning signals of a lack of due diligence in awarding contracts include there being an unusually small number of bidders or strong similarities between bids.

### Box 4.6 Companies made secret agreement to rig bidding process

When the ADB investigated three bids with many similarities it found that the winning company had family and business connections with one of the other companies and that all three had entered into an agreement about who would win. The ADB's Office of Anticorruption and Integrity (OAI) debarred two of the companies from bidding for four years and the other for three years. The ADB toughened its anti-fraud measures in general in 2012. However, relatively few complaints are about water sector loans. In 2014 the OAI reported that only 2 per cent of its due-diligence investigations concerned the water sector, compared with 66 per cent for finance and 13 per cent for energy (ADB, 2015).



The OECD lists a number of ways in which unethical suppliers and bidders can rig the process by eliminating competition so that public organizations pay more.<sup>4</sup> These include the following.

- + **Cover bidding.** A competitor agrees to submit a non-competitive bid that is too high or contains terms it knows will be unacceptable to the buyer.
- + **Bid suppression or withdrawal.** A competitor agrees not to bid or to withdraw a bid.
- + **Market sharing.** A competitor agrees to submit bids only in certain geographic areas or to certain organizations.
- + **Bid rotation.** Competitors agree to take turns at winning business.

<sup>4</sup> OECD: [www.oecd.org/governance/procurement/toolbox](http://www.oecd.org/governance/procurement/toolbox).

Processes for advertising invitations to tender must be open and fair and the invitations must have clear technical requirements. Steps are needed to prevent companies with a poor integrity record or that have shown themselves to be less than competent from obtaining contracts. The selection process should be defined in advance, confidential information must be protected and good records kept of all selection procedures.

There are also danger signals after a contract has been awarded.<sup>5</sup> These include companies seeking changes to contract conditions to allow more time and/or higher prices, or cutting costs by substituting substandard materials. These can be prevented or exposed through internal or external auditing. From the point of view of the company, late payments from the contracting authority can put business at risk.

### 4.3 'Revolving door' employment carries a risk

Former employees of government departments are often hired as advisers by private sector companies that bid for public contracts; ex-government employees may use internal knowledge or internal networks to gain an advantage for the private company. Similar conflicts of interest may arise when a procurement department brings in private sector advisers on secondment to help them improve performance. Government departments, public sector bodies and private companies all need rules to control such 'revolving door' employment and to ensure that an employee or consultant does not misuse insider information.

#### Box 4.7 Code of Ethics seeks to block conflicts of interest

The American Society of Civil Engineers (ASCE) cites a case in which a senior civil engineer for a port authority recommended a company for a multi-million-dollar contract on a marina. After the contract was awarded he left the port authority for a better-paid job in the winning company. A whistleblower revealed that the company had inflated its estimate and that the engineer who recommended it was discussing the job during the procurement process. The engineer was sentenced to two years' probation and a substantial fine after pleading guilty to criminal conflict of interest.

The ACSE says that the 'revolving door' between the public and private sectors is 'replete with ethical pitfalls'. It has drawn up a Code of Ethics that says: 'Engineers shall act in professional matters for each employer or client as faithful agents or trustees, and shall avoid conflicts of interest.' The accompanying guidelines say that engineers 'shall promptly inform their employers or clients of any business association, interests, or circumstances which could influence their judgment or the quality of their services', and that engineers 'shall not solicit or accept gratuities, directly or indirectly, from contractors, their agents, or other parties dealing with their clients or employers in connection with work for which they are responsible' (ASCE, 2015).

<sup>5</sup> Ibid.

#### 4.4 Strengthening procurement

A company can demonstrate that it has the capacity to undertake a contract through pre-qualification. Potential bidders express an interest and provide evidence, on the basis of which commissioners can draw up a shortlist of contractors or companies.

The European Bank for Reconstruction and Development (EBRD) is one of many funding organizations that seeks to strengthen procurement through this method. In a set of guidance notes for public sector clients it recommends pre-qualification of contractors for large or complex works and for custom-designed equipment or systems and specialized services (EBRD, 2012). Pre-qualification can also be used when a large number of contracts are tendered and let as one or more lots ('slice and packaging') or as the basis of framework arrangements. The main purpose of pre-qualification is to select those contractors/suppliers whose qualifications and experience would minimize the risk of non-performance under the proposed project/contract. Many of the problems raised above about ethical and effective procurement can be resolved through prequalification, especially for complex projects such as control systems for hydroelectric power plants.

However, pre-qualification itself has some integrity issues, as it may unfairly exclude smaller bidders and increase bureaucracy.

##### Box 4.8 EU seeks to protect small bidders

The European Union has issued a directive to limit the role of pre-qualification in government procurement, concerned that it unfairly rules out some smaller or medium-sized bidders and creates extra paperwork. Under the directive (which EU countries must bring into national legislation by April 2016), the public sector contracting authority will be required to accept a 'European single procurement document' as preliminary evidence of satisfaction. The bidder submits full evidence of competence only if it wins the bid.

Companies are already excluded from bidding for public sector contracts in EU countries if they have been convicted of criminality, corruption, fraud or money laundering. They will in future also be excluded for offences linked to child labour, people trafficking or terrorism, and if they breach tax or social security obligations (until the breach is rectified) and are bankrupt or insolvent.

Governments may also choose to exclude bidders that breach collective agreements in the fields of environmental, social or labour law or are guilty of grave professional misconduct (Frazer and Davies, 2014).

### Box 4.9 Setting standards for contractors

The Port Authority of New York and New Jersey has published five pages of ‘integrity provisions’ for contractors.<sup>6</sup> Contractors are debarred from bidding if they have been indicted or convicted, had a previous government contract terminated for breach of contract, used another name or are currently under investigation. The Port Authority has set standards to prevent bidders colluding with each other on prices, and enforce a strict ban on offering gifts to any Authority staff – including meals, entertainment or offers of employment.

Public Works and Government Services Canada (PWGSC) reinforced its Integrity Framework in March 2014 to ensure that Canadian Government contracts are awarded only to ‘reliable and dependable’ contractors (McCarthy Tetrault, 2014). The Framework debars bids from corporations and individuals who have committed an integrity offence, even by a subsidiary in another country. PWGSC lists 18 broad categories of offences, including bribery, extortion, tax evasion, bid-rigging, forgery, the fraudulent manipulation of stock exchange transactions, insider trading, the falsification of books, money laundering and the acceptance of secret commissions.

Many organizations inside and outside the sector take special measures to protect procurement processes.

The World Bank works with countries to produce a Country Procurement Assessment Report, which identifies strengths and weaknesses and aims to increase the national capacity to plan, manage and monitor the procurement process, improve accountability, integrity and transparency and reduce the scope for corruption.<sup>7</sup>

However, codes of practice and integrity frameworks have to be internalized and policed if they are to be effective. The AfDB sees the most critical factor as improving the capacity of sector staff to introduce and police anti-corruption methods.

*‘Many African countries have developed or established anti-corruption policies, legislation, guidelines, processes and organizations. Anti-corruption measures often focus on improving procurement procedures, increasing stakeholder participation, and setting-up functional monitoring and evaluation systems. [...] Unfortunately, many of these countries continue to lack the necessary human resource capacity to implement these reforms effectively and do not have sufficient political will to drive them forward.’* (McGarry et al., 2010)

The AfDB also wants improvements so that CSOs become ‘credible, active and vocal’ to monitor WRM and environmental protection.

<sup>6</sup> Port Authority of New York and New Jersey: [www.panynj.gov/business-opportunities/pdf/PA3764B.pdf](http://www.panynj.gov/business-opportunities/pdf/PA3764B.pdf).

<sup>7</sup> World Bank: <http://go.worldbank.org/J2H75S2RB0>.

### Box 4.10 Positive improvements found in African procurement

The Water Partnership Programme of the AfDB carried out a Water Governance Study in seven countries<sup>8</sup> and noted some improvements in the performance of public sector procurement in the water sector (McGarry et al., 2010).

- + In Uganda, the environment for bidding on water projects became more competitive and sector monitoring systems and procedures improved, so it became possible to compare and track unit costs.
- + Senegal and South Africa made sector procurement processes more open and transparent and appeal mechanisms more effective. Bid evaluation results are disclosed to all bidders. Sector monitoring systems allow equitability and quality to be tracked, and this information is made public in easily understandable forms.
- + In South Africa, civil society advocacy organizations watch over sector institutions, officials and politicians.
- + Sector procurement in Kenya, which had been heavily affected by corruption, improved after reforms to the legal framework and improvements to public procurement institutions and monitoring and evaluation mechanisms.

The AfDB has called on water sector institutions to introduce their own codes of conduct. The Rural Water Supply Network (RWSN) has developed a Code of Practice for Cost Effective Boreholes based on studies in Ethiopia, Ghana, Nigeria, Niger, Mozambique, Burkina Faso and Zambia.

### Box 4.11 'A broken borehole is a broken promise'

The RWSN Code of Practice for Cost Effective Boreholes seeks to improve the professional standards of drillers and public sector regulation and standards. It promotes the putting in place of arrangements to ensure contract management, supervision and timely payments, with the regular monitoring of boreholes for functionality in the medium and long term and for findings to be published (Danert et al., 2010).

UNICEF says that application of the code has led to significant cost reductions in Mozambique and Zambia. For example, under the One Million Initiative in Mozambique, UNICEF achieved a reduction of 31 per cent in the unit cost of a borehole, from more than US\$ 13,000 in 2008 to less than US\$ 9,000 a year later, mainly through changes in contract procedures (UNICEF, 2011).

However, it is hard to make changes on the ground when resources are low. Country studies on the Code of Practice showed that, in Burkina Faso and Zambia, the supervision of drilling is often undertaken by young technicians with very limited knowledge and experience (Danert, 2010). Slow progress in Ghana was partly attributed to the fact that 'this is one

<sup>8</sup> Senegal, Uganda, Burkina Faso, Kenya, Malawi, Tunisia and South Africa.



of many initiatives taking place in the country, and Government simply does not have the human resources to deal with all of them'. The fact that the work started outside the country may also have contributed to the lack of uptake.

The RWSN has established a Sustainable Groundwater Development working group and an online community of more than 270 members, and continues to make the link between effectiveness, competence and integrity. 'Too many boreholes are failing because the job wasn't done properly. This is a waste of time, and money from water users, tax-payers and charitable donations. A broken borehole is a broken promise. Let's fix that.'<sup>9</sup>

#### **Box 4.12 Transparency in contracting**

The OECD has published a Recommendation on Public Procurement, which calls on governments to implement 12 principles, including 'an adequate degree of transparency of the public procurement system in all stages of the procurement cycle' (OECD, 2015c).

The Open Contracting Partnership, an organization set up to work for disclosure and participation in public contracting, published a set of global principles for good practice in 2014.<sup>10</sup> It points out that governments around the world sign contracts to a value of US\$ 9.5 trillion every year, yet in most countries information about these contracts is unavailable for public scrutiny, rendering the process vulnerable to corruption and mismanagement. This project is developing an open data standard, with the aim of making contracting more competitive and fair, improving performance and securing development outcomes. Its main goal is transparency: it calls on governments to recognize the right of the public to access information related to the formation, award, execution, performance and completion of public contracts.

#### **Box 4.13 Integrity pacts and procurement MAPS**

Integrity pacts were devised by TI as an anti-corruption tool that promotes agreements between a government agency offering a contract and companies bidding for it that companies will abstain from bribery, collusion and other corrupt practices. The Pacts have been successfully implemented in numerous drinking water and irrigation projects in Pakistan, including by the water utility of Karachi (TI Pakistan and Karachi Water and Sewerage Board, 2003). TI and the European Union will conduct a pilot project in 11 European countries to introduce such pacts; the expectations is that they will in future become a standard tool for monitoring the procurement and implementation of EU projects (TI, 2015b).

<sup>9</sup> RWSN: [www.rural-water-supply.net/en/projekts/details/65](http://www.rural-water-supply.net/en/projekts/details/65).

<sup>10</sup> Open Contracting Partnership: <http://standard.open-contracting.org>.

Another interesting tool is the Methodology for Assessing Procurement Systems (MAPS), developed by the OECD and the World Bank and currently under revision.<sup>11</sup> It is designed to provide a common tool that developing countries and donors can use to assess the quality and effectiveness of procurement systems.

## 5 CONSTRUCTION PHASE

A new era of large-scale construction of infrastructure in all aspects of the water sector is under way – for dams, for irrigation, for piped water systems and for wastewater and sewerage treatment. The last period of expansion (1980s and 1990s) made gains but also brought disappointment, partly because of grandiose planning and poor delivery, but also thanks to ‘grand theft infrastructure’ (Kenny et al., 2011). The World Bank and other development banks identified corruption as a key vulnerability due to weak institutions and poor governance.

Infrastructure projects for water and energy are generally more capital-intensive than in other sectors, and public services are monopolistic in nature, which allows room for corruption and abuse (Estache, 2006). Infrastructure may be given a high priority for political reasons, especially when large projects are seen as symbols of national prosperity and pride.

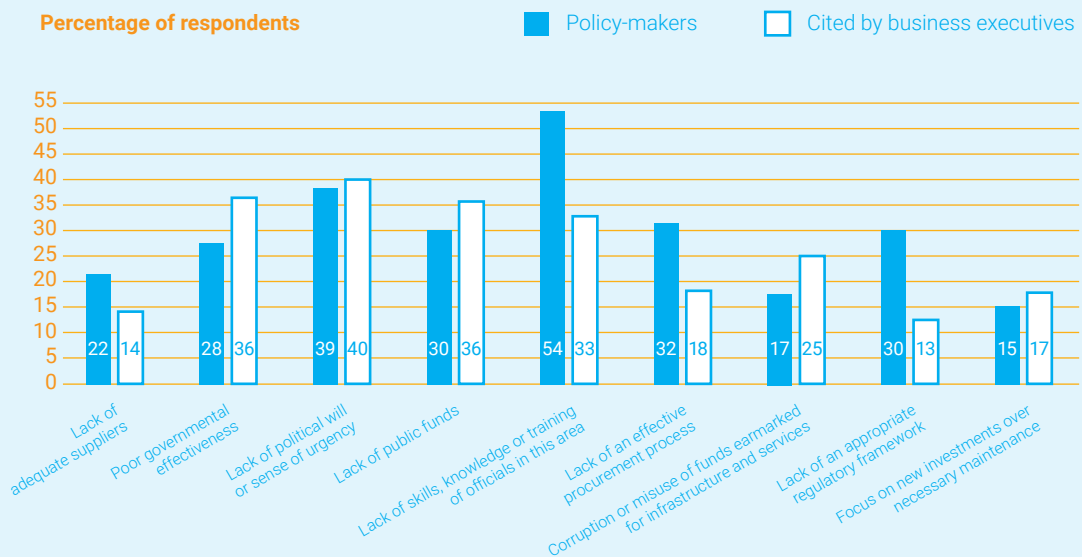
In a 2014 survey, 17 per cent of policy-makers and 25 per cent of business leader cited corruption or the misuse of funds earmarked for infrastructure and services as a leading obstacle to improved urban infrastructure and services (EIU, 2015).

A World Bank working paper on ‘grand theft infrastructure’ acknowledges that ‘if there is a sector that is particularly plagued by corruption it is construction, including for infrastructure projects’ (Kenny et al., 2011). However, it concludes that infrastructure-related bribe payments are no more significant than bribes related to tax payments or various forms of licensing. It argues that the first line of defence is to rely on consumer prices effectively covering the full cost. ‘Existing sources on bribery surrounding specific projects suggest that the value of bribe payments may not be the biggest problem but the choice of uneconomic and inefficient projects.’

The Construction Sector Transparency (CoST) initiative was launched in 2012 to raise standards of transparency and accountability.<sup>12</sup> CoST supports governments in developing systems to allow the public access to reliable and detailed information on construction projects, encourages multi-stakeholder groups to scrutinize the information and helps target audiences to understand what it means. The aim is that citizens, media, parliaments and oversight agencies will use this information to challenge poor performance, mismanagement and corruption and so achieve good-quality infrastructure projects at lower cost. CoST has highlighted cases when failures in the design and tendering process have led to vastly inflated costs.

<sup>11</sup> OECD: [www.oecd.org/dac/effectiveness/commonbenchmarkingandassessmentmethodologyforpublicprocurementsystems/version4.htm](http://www.oecd.org/dac/effectiveness/commonbenchmarkingandassessmentmethodologyforpublicprocurementsystems/version4.htm).

<sup>12</sup> CoST: [www.constructiontransparency.org/home](http://www.constructiontransparency.org/home).

**Figure 4.2 Leading obstacles to urban infrastructure and services**

Source: Economist Intelligence Unit survey, November 2014.

#### Box 4.14 Ethiopia improves contract information and public disclosure

CoST found that incomplete and inadequate designs and improper tendering led to a US\$ 13.3million (90 per cent) cost increase for the Gidabo irrigation project in central Ethiopia (CoST, 2014). Poor performance on this water project was attributed to construction contracts being awarded for incomplete or flawed designs. Costs increases were partly due to a delay in deciding to increase the height of the Gidabo Dam.

CoST Ethiopia supported the Ministry of Water and Energy in the development of a system for collecting and storing project and contract information as part of performance evaluation, and in establishing a public disclosure policy (Ahmed, 2013). The government has acted to improve information capacity across several ministries, with a public procurement website, a manual on disclosure and training for officials from more than 100 procuring entities (CoST, 2015).

### Box 4.15 Criminal cases against contractors in Kyrgyzstan

The Taza Suu project was launched in Kyrgyzstan in 2002 to enhance WASH access in 730 villages, financed by the Government with loans from the World Bank and the ADB. The project came under scrutiny when improvements to services were found to be below target. The Kyrgyz prosecutor initiated 31 criminal cases against contractors. The ADB, one of the key lenders, conducted its own investigation and found fraud in the provision of new water pipes, which were not of the required standard. According to the Kyrgyz Institute for Public Policy, the tendering process was poorly implemented, and some contractors had established their contracting company only a few days before the tendering process was announced. A 2013 report concluded that internal accountability mechanisms were not up to standard. The contract first came under scrutiny thanks to the intervention of national NGOs (Isabekova et al., 2013). It is worth noting that an effective pre-qualification system would have prevented substandard companies from being awarded contracts.

## 6 PERMITS AND LICENSING

Licensing systems are important tools for setting clear allocations for how water is used and by whom. Licensing systems comprise a mix of rights and obligations and recognize competing uses for water. A system of licences and permits to regulate effluent and other discharges can also reduce pollution and institutionalize the 'polluter pays' principle.

However, licensing is subject to political and commercial manipulation, as a permit or licence to extract is a valuable asset, and failure to gain a licence can be a severely limiting factor on business or agriculture. Safeguards are needed to preserve the integrity of the process.

Licensing seeks to regulate a situation of scarcity, and there is a need for participation and transparency in drawing up the rules. Licensing arrangements for users with large economic, social and environmental footprints should include requirements for transparency.

A number of different sorts of rights have been described, not all of which need licensing, but they do all need to be considered when drawing up licensing systems. They include *withdrawal rights* to take or use water, *usufructus rights* to earn income from selling the water and *management rights* to make rules and modify the resource.

Developing countries typically feature large communities of smallholders operating with informal customary water rights. Customary practices place a high value on conciliation and conflict avoidance, and these traditional systems rarely translate into licensing arrangements, leading to the systematic dispossession of such communities (van Koppen et al., 2007). In contexts in which accountability and public awareness are low, governments have been accused of using tailored laws and licences to facilitate water-favoured industries (Mehta et al., 2012).

Licensing affects bulk suppliers, rather than household or small-scale productive uses. This may lead to a lack of effective regulation or means of enforcement for informal water providers, who collectively may contribute to large-scale unregulated water use.

There is a strong argument for transferring licensing authorization to municipalities, local government and river basin authorities, which are more aware of existing user rights, but local governments often have less capacity than national bodies to deal with conflicting rights and demands. Licensing systems rely on a stable institutional environment with sound monitoring and enforcement capacities (Klein, 2005; Ostrovskaya and Leentvaar, 2011).

Apart from water abstraction and the discharge of surface water and groundwater, licences can cover other water-related activities, such as sand mining in the riverbed or construction permits for structures close to dykes.

#### **Box 4.16 Unlicensed sand mining challenged in Sri Lanka**

A women's self-help group in Sri Lanka had to travel several kilometres to fetch water that had previously been available at their doorstep. Problems such as this led communities along the rivers Deduru Oya and Maha Oya to file public interest litigation cases to stop illicit river sand mining, which was lowering the groundwater table and causing saline intrusion into the freshwater stream (Pereira and Ratnayake, 2013).

The cases were supported by local environmental NGOs with backing from the Sri Lanka Water Partnership. The partnership launched an initiative funded by the GWP and WIN to raise awareness with the media, the community and the police. The Geological Survey and Mines Bureau declared river sand mining without a licence to be an arrestable offence on which the police could act without a magistrate's order. After several arrests and a series of public events, including a vigil, there was a decrease in illegal sand mining.

Coordination is required between IWRM organizations, along with data sharing and public access to information at all levels of water policy and management. Given the importance of licensing for water management, tools to protect integrity require attention.

### **6.1 The need for transparency of data in licensing**

The food and beverage sector has a special interest in water licensing. The total supply chain footprint of beer, for example, is between 45 litres and 155 litres of water per litre of beer (2010 figures) (Hall and Lobina, 2012). Water footprints have an ethical dimension, while controversy over water abstraction in areas of shortages makes the integrity of data critical to making decisions about licensing.

Multinational beverage companies, such as Coca-Cola, PepsiCo, Nestlé and Unilever, have been in conflict with communities and authorities in India and elsewhere but have been making strenuous

# BUILDING INTEGRITY IN RIVER BASIN MANAGEMENT

River basin management is a highly complex process, and institutions need to embed ethics and integrity both internally and externally. A river basin is an area of land drained by a river and its tributaries. River basins support a great diversity of people, environments, cultures and jurisdictions and require suitable institutions; allocating a basin's water resources requires policy instruments and management strategies to ensure just and equal access to water without compromising the health of the river (Das, 2012).

Integrated water resources management (IWRM) is promoted globally as an effective way of improving the coordination of river basin management. The SDGs now target global implementation by 2030. However, there is no formal standard for integrated, holistic or adaptive approaches to the management of water in river basins. The closest to a global standard is the guidelines maintained by the Global Water Partnership (GWP) and adopted by international agencies collaborating under the UN-Water umbrella (GWP and INBO, 2009), but a myriad of interpretations and variations have been developed (Sanchez and Roberts, 2014; UNESCO, 2009).

River basin organizations (RBOs) play a key role in basin management, in the form of councils, committees, commissions, agencies, authorities or corporations, with jurisdictions crossing districts or municipalities. While necessary for effective basin management, such cross-sectoral cooperation may increase corruption risks, as the level of social control and administrative monitoring decreases

when interactions occur outside the established system (Butterworth, 2008). Water integrity is often neglected or not systematically factored in (WIN et al., 2011).

Integrity issues in RBOs resemble those of water utilities, and require similar answers. Specific issues include the following.

- + **Financial autonomy** RBOs can be funded by transfers from central government or be awarded the right to collect and use revenues. Budget responsibility is essential to protect organizations from political pressures and allow them to act as effective links between local and national authorities.
- + **Human resources** RBOs particularly are vulnerable to the effects of cronyism and low capacity. Key staff might be appointed by national governments or local authorities with vested interests and biased agendas, while the complexity of basin management requires skilled professionals with technical, managerial and inter-personal skills.

RBOs are making efforts to address the integrity challenges, and a 'good practice' example from Indonesia elaborates on some of these efforts.

The Jasa Tirta I Public Corporation (PJT1) is a state-owned legally independent RBO in Indonesia that operates five river basins. It was established to solve managerial, personnel and financial problems affecting water resources infrastructure in three river basins of Indonesia starting with the Brantas river basin. It is supervised by central and provincial government representatives.

PJT1 has adopted a consultative and proactive approach, developed a series of tools and become a model for integrity for other Indonesian river basins.

- + It adopted the Indonesia Financial Accounting Standards, leading to financial auditing equivalent to international standards, increasing the level of credibility.

- + It was the first river basin organization in Indonesia to apply the quality management system<sup>1</sup> for the design, operation and maintenance of water resources and infrastructure.
- + It has implemented good corporate governance using a series of assessment tools, such as codes of conduct, integrity pacts, whistleblower assistance and a code of corporate governance. All employees sign the integrity pact.
- + It is developing an integrity charter for employees in collaboration with Anti-bribery Indonesia Businessman Community and a religious alumni community with the core values of honesty, responsibility, vision, discipline, cooperation, fairness and caring.
- + It is implementing a performance excellence assessment tool to increase company competitiveness, effectiveness and capability; to increase consumer value; and for organizational and individual learning.
- + It has joined the Network of Asian River Basin Organizations (NARBO) performance benchmarking and peer review programme for best practices.

## ALLOCATION CHALLENGES

The management of river basins is fraught with challenges in relation to integrity. The need for basin management is in itself an integrity problem, best captured in the concept of upstream/downstream. An upstream position in a river basin is a position of power. Downstream users need to invest significant resources to secure their rights and entitlements. Powerful user groups might attempt to pressure basin management institutions to influence water allocation and environmental regulation in their favour, creating conflicts with other sectors and small-scale users. Intersectoral coordination bears risks of corruption when different sectors have unequal powers. There is a need for countervailing powers through mechanisms including monitoring. It is important to analyse

integrity risks and find ways to reduce corruption in basin institutions.

- + **Authority and accountability** Discretionary power in water institutions can be a major integrity risk, since the award of water licences and the enforcement of regulations are core functions of basin authorities. Basin organizations involved in the planning and approval of dams and flood protection schemes are potential targets for bribes. Ensuring accountability and civil society monitoring is crucial where authority straddles jurisdictions, and to ensure traditional water rights are acknowledged in formal allocation schemes.
- + **Data sharing** Many integrity challenges revolve around data and information, from obstructing citizens' access to information to falsifying records. For example, governments may avoid tabling harsh facts about painful reforms needed to solve problems in water basins (Allan, 2003). Open-source and shared data is vital for the successful management of river basins.
- + **Social mobilization** Public engagement is crucial for the successful implementation of IWRM. Mobilization events in communities help build personal identification with a river basin, and systematic awareness and public participation campaigns during IWRM roll-out create acceptance and make social control more likely.
- + **Transboundary basin management** International conflicts over water resources are notoriously hard to resolve, and frequently treated as national security issues behind closed doors. The establishment of formal international basin organizations with negotiated benefit-sharing schemes for infrastructure can help to increase transparency and integrity in international water allocation.

<sup>1</sup> Based on the ISO 9001:2008.

efforts to reduce their water use and to improve their reputational status. In 2010 Coca-Cola estimated that it used 35 litres of water to produce a half-litre plastic bottle of Coca-Cola, taking into account growing the sugar beet and other ingredients, manufacturing the bottle and bottling (Coca-Cola Company and the Nature Conservancy, 2010). By 2015 the company had made a 10 per cent reduction in water use per bottle during the manufacturing process over its product range (which includes Sprite, Fanta, juices and tea), and it aims to improve this to a 25 per cent saving by 2020.<sup>13</sup>

Understanding the context of water use figures is important. A report for Public Services International (PSI) points out that savings may not take place where they are most needed. 'Global reductions in the water footprint of the product, for example by reducing the water use of vanilla growers in Madagascar, does nothing at all to offset the local impact of a bottling plant in India' (Hall and Lobina, 2012).

The CEO Water Mandate and the World Wide Fund for Nature (WWF) say that corporate engagement with water issues should be founded upon an appreciation of the potential risks and perverse outcomes to communities, the environment and others, and that greater due diligence, dialogue and transparency are essential to success (Schulte et al., 2014). Their discussion paper identifies underlying conflicts of interest and tensions between a company's desire to support measures that limit water use and a reluctance to drive up operational costs. 'Many companies will not actively promote stringent regulatory frameworks that increase operational costs, limit production, or significantly undermine company influence in water decision making' (Schulte et al., 2014). Companies willingly support measures that build their reputations among local stakeholders, but 'only the rare company will choose to promote water governance processes such that their own influence on water decision making is significantly lessened'.

These underlying conflicts of interests will weaken trust in the decision-making process unless they are openly discussed and dealt with. Ultimately, it is the duty of the bodies involved in governance procedures to agree procedures for dealing with these decisions, and the role of central and local government to ensure that all stakeholders are included.

#### Box 4.17 Conflicting interests over the US Clean Water Rule

The US Environmental Protection Agency (EPA) announced a Clean Water Rule in May 2015 to bring 60 per cent of freshwater sources under the protection of the Clean Water Act. All water sources that have a greater than 1 per cent chance of flooding each year and are within 1,500 feet (457 metres) of a connected waterway will come under regulations for agricultural use and pollution protection. The EPA, strongly supported by environmental groups, says that this will protect drinking water sources for 117 million Americans. However, agricultural lobbies have described this as protecting 'ponds and ditches' and an infringement of property rights. The US House of Representatives has attempted to block the rule and has demanded more consultation, saying that it 'could have substantial economic impacts on states, local governments, farmers, businesses, and private citizens' (*The Guardian*, 2015d; *The Huffington Post*, 2015; US House of Representatives, 2015).

<sup>13</sup> Note that these reductions are in the manufacturing process rather than across the complete chain, from field to bottle.



## 6.2 Strengthening licensing to promote TAP

Licensing can be used to promote TAP. In the UK, where much of the drinking water sector (England and Wales) was privatized in 1989, the regulator can insist on a satisfactory consumer redress scheme being in place before granting a licence for water abstraction (Home Office, 2014). However, such measures are only as strong as the institutions that stand behind them. A study of market-based water-licensing systems in Chile and state-focused systems in Kazakhstan found that dated infrastructure, poor monitoring and control mechanisms and a lack of data were damaging to equitable resource distribution and law enforcement (Warner et al., 2009).

Some attempts have been made to increase participation in the assessment of water risks and bring greater transparency to the data. A strategic alliance between GIZ, SABMiller Beer Company and WWF has established Water Futures Partnerships in four countries (South Africa, Tanzania, Ukraine and Peru) (Aarnoudse and Belalia, 2012). This has led to a global water stewardship programme funded by DfID and BMZ, and implemented by GIZ. The programme now operates with a large number of public, private and civil society partners and brings them together in multi-stakeholder platforms. A separate project by the CEO Water Mandate, in conjunction with WIN and GIZ, has developed a comprehensive set of guidelines for integrity in water stewardship initiatives.<sup>14</sup>

The rights and obligations of farmers need special consideration in relation to increasing competition for water for crops and animals. Irrigation systems that serve more than one farm require coordination and some form of regulation to identify who has what rights to use, manage and exclude others from the associated land, infrastructure and water (Meinzen-Dick, 2014).

Peri-urban areas on the edges of rapidly growing cities also need special attention, as traditional rights are swept aside without any functioning system to replace them (Butterworth et al., 2007).

### Box 4.18 Chennai farmers sold their futures

In 2000, when Chennai, in India, was in desperate need of drinking water, Chennai Metro Water made an agreement with the peri-urban farmers to buy their water and transport it to the city in tankers. No impact assessment of the consequences was conducted (Pangare et al., 2006). The farmers made sizeable short-term gains by selling water but were unaware of the long-term consequences. As the groundwater table fell due to over-extraction, the farmers lost water for crops and cattle. The area now suffers from saline water ingress. Chennai Metro Water has moved on to other sources (*The Hindu*, 2015).

Simplifying licensing procedures and protecting traditional local control mechanisms can protect traditional user rights and guard against water grabbing. Safeguards include flagging vested interests during the allocation process, strengthening regulatory, administrative and enforcement capacities and ensuring that rights holders have a seat at the table in discussions about water use (Meinzen-Dick, 2014).

<sup>14</sup> CEO Water Mandate: <http://ceowatermandate.org/integrity>.

## 7 OPERATION AND MAINTENANCE (O&M): WHAT HAPPENS WHEN A WATER SYSTEM BREAKS DOWN?

The integrity of a water system is seen when there is a fault; the breakdown of a water system often leads to a long-term loss of service. Many failures are due to mismanagement or neglect. In some cases water systems that can be maintained are abandoned and new ones built because (re)investment seems more attractive than sustaining what exists. The processes governing international aid can aggravate this problem, as donors often find it difficult to find ways to provide small-scale support that can finance maintenance and keep systems running. Extending services without sustaining them is an integrity issue, since it dissipates resources.

RWSN has estimated that only two out of three hand pumps in sub-Saharan Africa are working at any given time and that this represents a crisis of wasted infrastructure investment (RWSN, 2010): 'The disturbing truth is that installed rural water supply infrastructure is far harder to keep operational than hoped for, and often fails before its planned design lifetime due to poor maintenance.' A lack of maintenance and transparency causes suspicion about what has happened to user fees and leads to reluctance to pay. In one baseline survey in Uganda, almost no rural consumers trusted water users' committees to use maintenance fees correctly (Jacobson et al., 2010). However, committees that have a sound structure and good capacity can become trusted stewards of community water systems. Often willingness or unwillingness to pay water fees reflects the degree of trust that users have in their committees.

In the case of urban water management, water utilities are responsible for maintaining networks, treatment plants and other assets and for allocating water. By comparison with rural areas, communities may be less aware of what action has been taken or why. Water rationing and decisions to pump water to certain localities are open to abuse. Individuals may be tempted to seek their own solution to access water, such as illegal connections or paying bribes to persuade water board staff to turn a blind eye. The manipulation of meter readings is also common. Non-revenue water – a combination of illegal connections and leaks – can consume a significant proportion of water that enters a system and cost water authorities large sums of money. Identifying leakages, reducing non-revenue water and eliminating illegal connections are integrity issues as well as management issues, since they impact on both cost and fair allocation (see Spread on Smart cities).

### Box 4.19 Water losses due to vandalism, illegal connections and leaks

eThekweni Metropolitan Municipality in KwaZulu-Natal, South Africa, is losing more than 230 million litres of water a day, mostly because of illegal connections and vandalism (*Sunday Tribune*, 2015; eThekweni Municipality, 2015). The losses, reported in the auditor general's report for 2013/2014, amount to more than a third (39 per cent) of the total water and cost the municipality ZAR 600 million (some US\$ 44 million) in lost revenue over the course of a year.

Tozi Mthethwa, speaking for the municipality, said the losses were caused by illegal water connections, vandalism and unreported leaks. In the worst-affected areas staff had been

attacked when they went to remove illegal connections. Non-paying consumers use more water than paying customers and repeatedly reconnect themselves after the municipality has removed the illegal connection, she said.

The municipality has declared a 'war on leaks', aimed at educating communities on water saving and reporting water leaks. Between 2007 and 2010 the municipality spent close to ZAR 2 billion (around US\$ 146 million) on replacing ageing asbestos cement pipes. More than 15,500 leaks were repaired over 6,716 kilometres of pipework.

The operation, distribution and maintenance of bulk water facilities for irrigation require the authorities, such as a river basin organization or irrigation board, to work closely with farmers and water user groups. Participatory management, clear procedures and enforcement mechanisms are crucial in these complex processes. When irrigation management and bulk water supply are left solely to a water agency there is scope for corrupt practices, as these are independent, powerful bodies.

### 7.1 Good practice in O&M

Operation and maintenance are generally management issues, but they have implications for integrity since what is promised should be delivered. The planning phase should ensure sufficient staff to run the service and sufficient revenue to pay for recurrent repairs. Roles and responsibilities need to be clear both for providers of services and for users, so that they are used responsibly and run and maintained well by skilled staff who are well trained and committed to an ethical code. There should be a clear system for reporting faults, with standards for response times. Finally, there need to be transparency and accountability at the level of service delivery and the service authority, both for levels of service and for the use of funds (Skinner, 2009).

An ADB study concludes that participation by community organizations is essential for the good governance of irrigation projects and that participatory irrigation management may generate more benefits and perform better than other approaches (ADB, 2012). The lesson the ADB drew from experiences in South and South-East Asia included the following.

- + Stakeholder (especially farmer) interests must be addressed before committing to a project, to avoid problems during implementation.
- + The quality of construction work undertaken by farmers is often better than work by contractors, and participation gives farmers a sense of pride and ownership.
- + Participatory processes with farmers for irrigation development are demanding and time-consuming.
- + WUAs can play a role in social mobilization and village-level agriculture extension services.

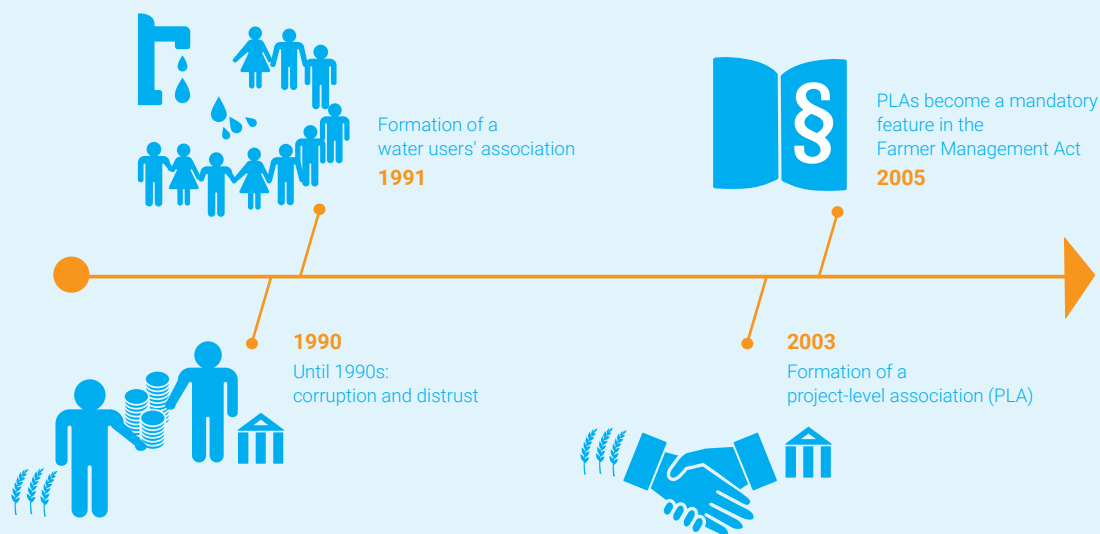
### Box 4.20 Trust and respect improve irrigation management

The Waghad Medium Irrigation Project in the tribal area of Nashik in Maharashtra, India, demonstrated impressive increases in farmer output and income after farmers formed WUAs and took over the management of their irrigation system. Before 1990, when water distribution to 15,000 farmers from the Waghad Dam was managed by the Department of Irrigation, farmers at the tail end of the system received no water.

Corruption was rampant and farmers had to bribe irrigation officials to get an allocation. Some were stealing water. Revenue was so low that the irrigation department had no incentive to maintain the system.

In 1991 the farmers took action. Local NGOs encouraged farmers to involve themselves in decision-making and the operation and maintenance of the system, and the farmers took the irrigation department to court demanding improvements. Things began to change. Today there are 24 WUAs, nine lift irrigation user associations and a project-level association (PLA), which coordinates between the WUAs and the Department of Irrigation. Trust has been established, along with a consensus on water allocation rules. The system has robust monitoring and enforcement arrangements and sound financial management.

The project has won numerous awards, and WUA members are regularly invited to lecture and conduct training sessions across India. Irrigation department revenue is 14 times higher than in 1990, while farmer income has increased almost 50-fold. Farmers now grow fruits and vegetables that require high levels of reliable water that they would not previously have considered. Participation in the WUAs has stayed consistently high (Pacific Institute, 2011).



(developed by WIN)

Good practice examples generally start with positive leadership and a clear set of practices that build integrity.

The National Water Policy in Ghana led to the development of laws, rules and procedures, including a code of ethics, codes of conduct and manuals to maintain the quality of service delivery. Consumers are involved through public hearing sessions, consumer satisfaction studies, monitoring at service and community centres and the representation of citizens in commissions and boards (GII and TI, 2011).

In Phnom Penh, Cambodia, the city water utility has installed state-of-the-art technology to detect high leakages and illegal connections and put a 24-hour monitoring system in place. The staff are bound by incentives and penalties, which have helped to reduce non-revenue water (Das et al., 2010).

## 8 THE INTERFACE WITH CONSUMERS: PAYMENTS AND COMPLAINTS

The relationship between consumers and service providers is largely one of trust: users of water services do not have any independent way of checking the quality of the water they receive and often lack information about the way charges have been drawn up.

Before it can be used, water has to be cleaned, collected, delivered and protected. One way or another, the customer pays for this service, and when there is no monetary charge there is often no service. Being a 'customer' includes having rights to a standard of service, clear information (including about charges) and a clear line and means of communication, including complaints and redress.

Clear payment procedures increase trust and revenue collection. Good practice includes: having a billing and consumer desk with onsite or remote payment options; team visits to areas where people are not literate to explain the process; and an up-to-date customer database (Das et al., 2010; Rahman and Islam, 2014). Pro-poor policies ensure that charges are commensurate with available resources and that services are affordable, but this can be achieved only with meaningful consultation and the participation of intended beneficiaries (Levenzon et al., 2008).

### **Box 4.21 Nicaragua: user complaints fall and payments increase**

The Municipal Water Company of Quilalí (EMAQ), Nicaragua, has worked to improve its monitoring, billing and complaints procedures, with very positive results. A tripartite committee comprising the company, the municipal government and users reviewed and adapted the automated billing system, improved customer service and ensured that the office was staffed with competent people who addressed user complaints promptly. User satisfaction improved sharply, with complaints falling from 250 per month before the reforms to one or two per month afterwards. The changes resulted in prompter payments and greater participation in activities to improve the municipal water company. People's perception of corruption has also

undergone a drastic change; 90 per cent of surveyed users now believe that the company has improved its services and its customer service. The water company was supported by WIN, the Nicaraguan Institute of Aqueducts and Sewers (INAA), the Association of Municipalities of Nicaragua (AMUNIC) and the WSP of the World Bank (WIN, 2010b).

When integrity breaks down, trust disappears. Many respondents in corruption surveys affirm that they have offered a bribe – or know someone who has offered a bribe – to obtain services (GII and TI, 2011; Jacobson et al., 2010; Jalsrot Vikas Sanstha, 2012). In some countries corruption is institutionalized, to the extent that there are standard rates for ‘informal payments’ (WIN, 2010a).

In Zimbabwe, clients informed TI's Advocacy and Legal Advice Centre (ALAC) there that a lack of transparency in the handling of bills and the calculations by the city council resulted in strong fluctuations in the water bill, which clients believe is due to extortion, fraud and nepotism.<sup>15</sup>

Concerns related to user relationships become more acute when it comes to informal water providers who deliver to places that the formal services do not reach. In cities, informal settlements are usually not recognized by the authorities, and, as water suppliers are not allowed to connect them, illegal connections are the norm. Monopolies or price agreements among private water vendors result in consumers paying higher tariffs, and there is a lack of accountability towards their clients, often the poorer population.

## 8.1 Improving billing and payments

A transparent and accurate billing system can increase the trust that clients have in water providers and improve payment levels. An efficient system for reporting faults and acting on them is also critical to integrity and trust. There have been great hopes that mobile phone technology might revolutionize fault reporting, and some case studies show that indeed it can. However, a series of recent discussions warn against expecting the technology to do the work; it can be effective as a tool only if it is part of an effective system (see Spread on ICTs).

### Box 4.22 The positive: an SMS system enables rapid pump repairs in Uganda

In Uganda, the Mobile for Water (M4W) project tracks and monitors the performance of more than 8,000 water points in seven districts. Hand pump mechanics use stickers on water pumps as an identifier, and users can send a text message to report a faulty pump or tap (Water Services That Last, 2013b). The system is designed to ensure that districts and sub-counties have current, accurate information and can respond rapidly to faults.

Hand pump mechanics register water points on M4W. Status information sent from their mobile phones is logged on the district water management information system.

<sup>15</sup> ALAC database; TI: [www.transparency.org/getinvolved/report/288](http://www.transparency.org/getinvolved/report/288).

When a community member sends an SMS message about a fault, the unique identifying number allows it to be automatically routed to the local hand pump mechanic and the district water officer, who tracks how quickly the repair is carried out.

The IRC Triple-S (Sustainable Services at Scale) project tested the system in Kabarole and Lira districts with efforts to step up public awareness. It has dramatically speeded up repairs, and ground information is now available much more readily as to the number of water points that are functional.

At the same time, hand pump mechanics' associations have worked to improve ethical behaviour as well as competence and skills. Their constitution gives their aim as 'championing access to clean, safe and adequate water for a healthy community'.

Vincent Nyakoojo, chairperson of the Kabarole District Hand Pump Mechanics Association, says:

*'Water users would get mechanics from other sub counties and some of them would come and pretend to repair the pumps but would take the parts and sell them somewhere else. Now these bad practices have stopped.'*

(Water Services That Last, 2013a)

His colleague Sylvester Katesigwa, who works as a mechanic in Kicwamba sub-county, agrees. 'In the old days, especially when someone was not fully trained, these mechanics would spoil the water source. They would put in parts that were not even necessary. Now communities get a better service because we are organized. The Hand Pump Mechanics Association has really made things better.'

#### **Box 4.23 The negative: complaints without action go nowhere**

Daraja NGO initiated the Maji Matone ('Raising the Water Pressure') programme in 2013 in Tanzania, where only 54 per cent of water points reportedly function properly. The programme enables communities to report breakdowns directly to the local authorities via SMS text messages. The project initially had a positive response, in drawing attention to problems. However, problems in rural areas were not addressed and did not catch the attention of the media to the same extent as urban complaints. The government's reaction to complainants was not positive, and some people began to consider it unsafe to complain about the water system. The number of complaints began to fall away. This highlights how reporting mechanisms work only when justified complaints result in positive responses (Ardigó, 2014).

Speaking at the Stockholm World Water Week in 2013, Ned Breslin, CEO of Water for People, said that consumer feedback could force governments to listen. However, it was easier to collect data than to use it. 'Can organizations handle the data and do they know what to do with it? [...] We need a key dramatic shift towards programmatic improvements and building organizations in new ways, so they are able to take information and make it useable and actionable so we can improve' (Schouten, 2013).

## 8.2 Complaints systems

A well-designed and well-managed mechanism can enhance trust and confidence and contribute to holding service providers accountable.

Complaints systems have an important function in detecting and dealing with fraud and corruption at local level and providing victims of corruption with redress. Systems need support from senior management and clear regulations to ensure that citizens can access procedures and feel safe from reprisals.

- + Complaints mechanisms should be free and accessible. Information about the process must be widely shared, in simple language, with clear rules about how to report.
- + Channels can include hotlines, helpdesks and suggestion boxes. Information should be available in local languages, with special arrangements for people who are illiterate.
- + The mechanism must have transparent and independent structures to ensure that the process shows consistent levels of impartiality and objectivity.
- + Complaints staff should have the authority to gather evidence, investigate and respond.
- + Outcomes should be made public. However, the process must ensure anonymity and confidentiality for complainants.
- + The mechanism must work for vulnerable and marginalized people.

## 9 CONCLUSIONS: CAPACITY BUILDING AND PRACTICAL ACTION ARE KEY

This chapter has shown that negotiations and dialogue with stakeholders are required in every link in the programme and project life cycle – from planning to implementation to O&M – to prevent or deal with potential breaches of integrity, whether failures in the procurement process or any kind of corruption.

There are capacity challenges to securing procurement with integrity, including the need to protect the process, upgrade skills and capacity and introduce transparency and measures to prevent corruption. When there are losers in large-scale water projects, open and structured dialogue is required to reach agreements and to ensure that rights are protected. At every stage in this chain, attention must be focused on delivering on commitments.

The challenge is to bring together the public and private sectors, with citizen oversight, for beneficial outcomes, protecting the public interest and avoiding undue influence.

The relationship of a water agency with consumers requires mutual trust, and a robust and trusted system for handling complaints and redressing failures.



This leads to the following recommendations.

- + **Strengthen control mechanisms for projects.** Water projects are susceptible to corruption and impact on both the human and the natural environment. Careful and transparent design, planning and implementation, and a critical evaluation of the use of resources and the generated outcomes are essential to ensure sustainability and effectiveness. Participatory processes and transparency are especially important in the complex processes leading to large-scale infrastructure.
- + **Build an effective relationship with stakeholders to ensure the fair and sustainable implementation of projects.** Governments and institutions should work with the private sector, donors and civil society in order to create sustainable funding mechanisms to support participation and so as to build the capacities of stakeholders to understand, monitor and improve public contracting. Informing and involving the public in overseeing the development, awarding, execution, performance and completion of public contracts constitute effective means to achieve fairness, non-discrimination, accountability and verifiability. It is important that water users' committees and associations receive support and recognition from the authorities, and are included in decision-making processes early on.

# SMART CITIES: PUBLIC INTEREST OVER POLITICS

## GOOD LEADERSHIP MAKES A DIFFERENCE

Water is a political business, and integrity concerns are often heightened in large cities, where provision is complex. More than half the respondents in a survey of cities in which infrastructure is regarded as inadequate cited 'corruption or misuse of funds' as a leading cause (EIU, 2015). Respondents overwhelmingly blamed their leaders for the plight.

In early 2015 a drought and water rationing in São Paulo, Brazil, were widely accepted to be primarily due to the bad management of resources. The water utility company SabeSP had deferred action on infrastructure improvements ahead of the 2014 FIFA World Cup and, again, before elections in early 2015. Three days after the election SabeSP finally admitted there was a crisis; it emerged that the reservoir that served the city had been running dangerously low for at least five years (Public Radio International, 2015). A UN report placed the responsibility firmly with the São Paulo state government and SabeSP (Brasil Wire, 2015).

In Spain, water services for 50 per cent of the population are run by public operators, 35 per cent by private operators and 15 per cent by mixed enterprises. Politicians, public officials and water management companies have collaborated closely. Some of these close relationships are now being investigated. In Galicia more than 100 people, including politicians, public officers and businessmen, are accused of being involved in bribery, fake invoices and nepotism related to the concession of water management contracts.

This includes the capital city of the region, Santiago de Compostela. In the neighbouring region of Asturias, dozens of city councillors and mayors are under investigation as part of what is known as 'Operation Pokemon'.<sup>1,2,3</sup>

Piped water services cater for only a small part of the population in most low-income urban areas (UNICEF and WHO, 2012). Many urban settlements rely on informal water vending and reselling systems that function with the blessing of the water utility but outside the regulatory framework, and this leaves space for corruption. The daily struggle for water affects the poor and marginalized most acutely, especially women and girls.

Without leaders who push for improvements, there is little interest in utilities to expand networks to informal localities, especially when there is a potential for utility staff to earn extra money from extra-legal water sales (Plummer and Cross, 2006).

A 2014 Bangladesh country assessment by WIN, as part of its DGIS-funded water integrity initiative, found that political leaders and agents who informally govern water distribution in Dhaka fix water fees that are unaffordable for slum dwellers (Rahman and Islam, 2014). In Delhi, India, well-to-do communities, politicians and businesses in the city receive well above the prescribed standard of 160 litres per person per day, while three-quarters of Delhi's citizens, who live in informal or illegal and peri-urban settlements and slums, struggle to acquire 30 to 90 litres, at a usually more expensive rate and of lower quality (InfoChange India, 2005).

## SMART LEADERS, SMART CITIES

City leaders, mayors and councillors, as well as those in charge of water utility companies, should play a key role in improving integrity and anti-corruption action in water and sanitation services.

In Cameroon, nine city mayors from Mbam and Inoubou established the SYCOMI union in 2010 to

<sup>1</sup> La Voz de Galicia: [www.lavozdegalicia.es/noticia/galicia/2014/03/04/lara-destapa-trama-agua/0003\\_201403G4P5991.htm](http://www.lavozdegalicia.es/noticia/galicia/2014/03/04/lara-destapa-trama-agua/0003_201403G4P5991.htm).

<sup>2</sup> La Voz de Galicia: [www.lavozdegalicia.es/noticia/galicia/2014/09/27/correos-intervenidos-revelan-enchufes-decenas-alcaldes-cargos-publicos/0003\\_201409G27P6991.htm](http://www.lavozdegalicia.es/noticia/galicia/2014/09/27/correos-intervenidos-revelan-enchufes-decenas-alcaldes-cargos-publicos/0003_201409G27P6991.htm).

take charge of water and sanitation. SYCOMI set up water point users' committees for training, information exchange and decision-making (World Bank, 2011b).

In 2012 the Guma Valley Water Company in Sierra Leone, led by the vice-president with support from the president, undertook tough reforms to deal with institutionalized corruption, bringing almost all illegal tampering with customer billing to an end. By 2015 the company was generating enough revenue to cover operations and maintenance. It is now trying to tackle corruption on the expenditure side (Kpenge, 2014).

In 1993 the general director of the Phnom Penh Water Supply Authority (PPWSA) in Cambodia instituted reforms that, over a 20-year period, strengthened integrity and fostered constructive relationships between staff and the public. The regular publication of performance indicators and activity reports demonstrated transparent accountability (Das et al., 2010). There were heavy fines for defrauders, as well as customer participation (Chan et al., 2012). The utility undertook community connection campaigns in 'illegal' colonies, regulating informal vendors to serve peri-urban areas that could not be reached with a piped network.

## CONNECTING WITH CITIZENS

Engagement with citizens is crucial to raise awareness of the right to water services, and this depends on data and information being open to public scrutiny. In 2010 Lyonnaise des Eaux, a Suez Environnement subsidiary, launched 'New Ideas for Water' with an online platform to engage the public in a dialogue about water resources, triggered by growing concerns over low trust in private companies (Suez emag, 2011).

In 2014 the mayor of Mexico City created an anti-corruption hotline for citizens and instituted whistleblower protection. The mayor signed the first code of ethical conduct for local government

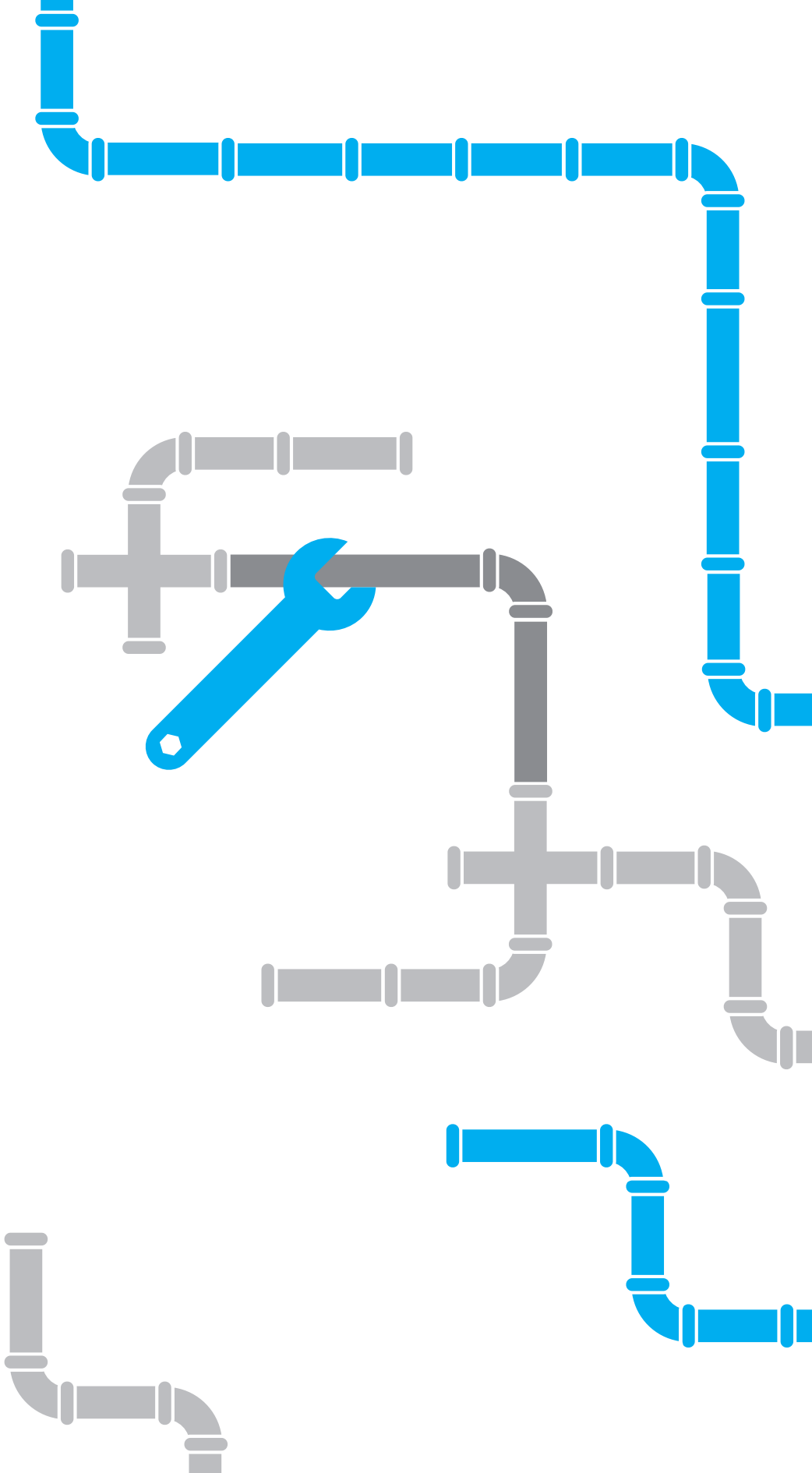
employees, including water and sanitation staff, and adopted the World Bank's Open Contracting Partnership, to publish all documents during a contracting process (Citiscope, 2015).

The city of Santander, in Spain, has launched a SmartWater app with Cantabria University giving citizens real-time information from devices and sensors about consumption, repair work and cut-offs (EIU, 2015).

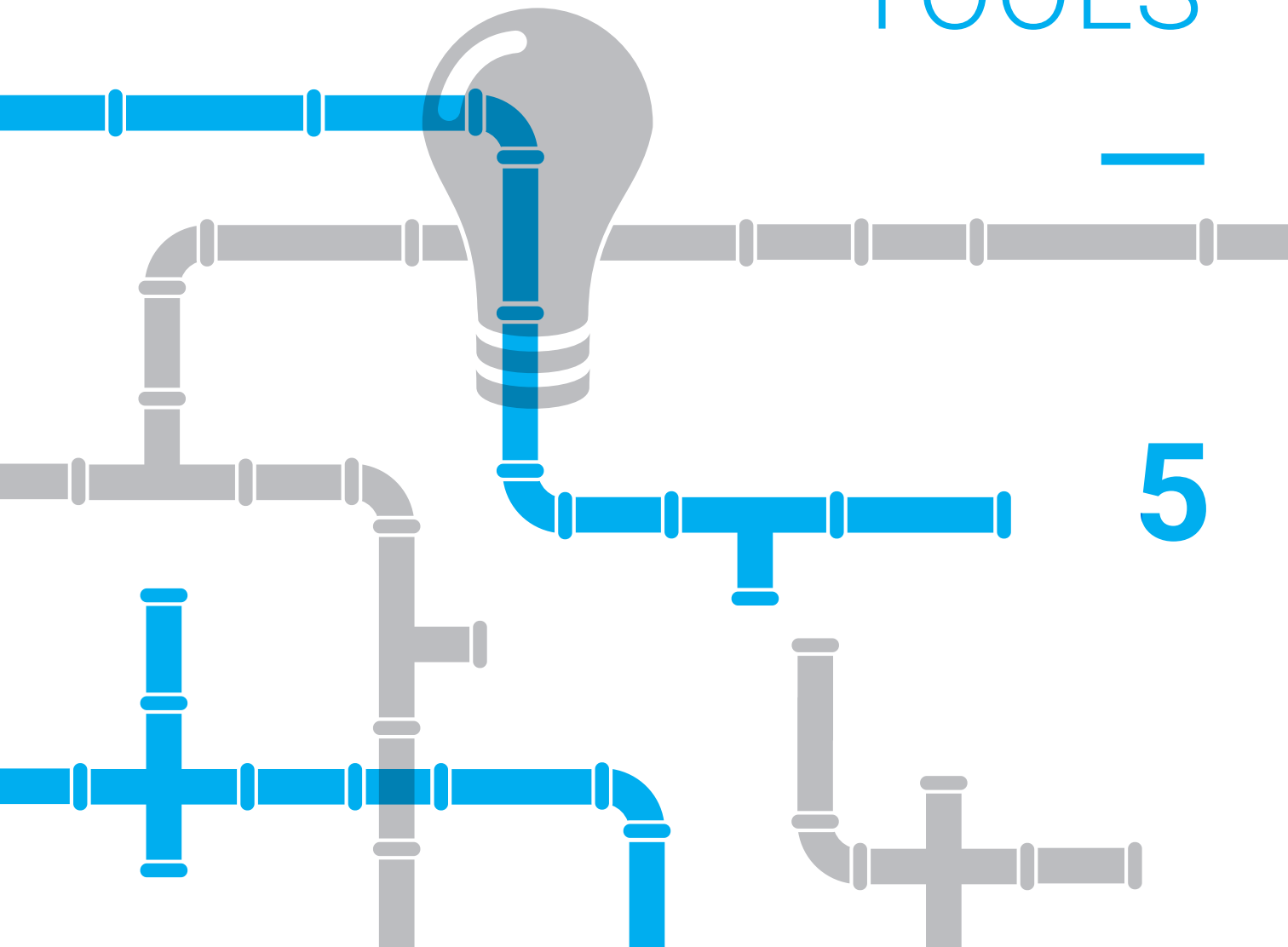
Well-run public utilities can be central to transforming the fortunes of cities. Parts of Medellín in Colombia were once known for having one of the highest murder rates in the world. The city has been transformed by a pioneering mayor and a social programme that brought the best projects to the poorest areas. This was partly made possible by the revenue generated by Empresas Públicas de Medellín (EPM), one of South America's best-run utility companies, which includes water services in its portfolio. In 2013 it generated nearly US\$ 869 million in profits – US\$ 640 million of which were paid into city funds. Citizens feel a strong sense of ownership of their facilities. 'There is a massive social control of what we do,' says Juan Calle, the firm's chief executive (*The Economist*, 2014).

---

<sup>3</sup> El Pais: [http://elpais.com/tag/operacion\\_pokemon/a](http://elpais.com/tag/operacion_pokemon/a).



# ENHANCING INTEGRITY: APPROACHES AND TOOLS



‘ Today it is a question of how and what to do about corruption, rather than whether it exists. ’

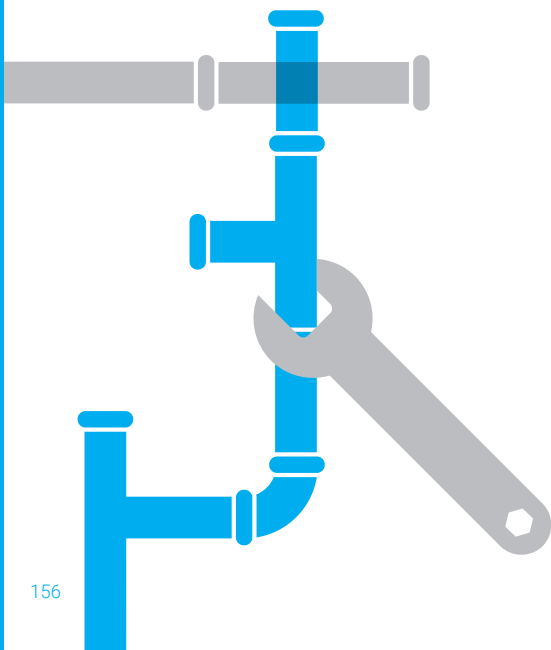
Patrik Stålgren, deputy head and senior programme manager, Swedish embassy, Nairobi, Kenya<sup>1</sup>

#### KEY MESSAGES

+ Advocacy on water integrity has to target political and institutional leadership as well as the grass roots. The media can help to highlight and root out corruption.

+ Capacity building for water integrity needs to incorporate anti-corruption tools and trainings.

+ Tools are most effective when they are combined, when they focus on what matters locally, when they have political and institutional support and when they are evaluated.



# Enhancing Integrity: Approaches and Tools

This chapter begins by showing the importance of the media and advocacy and campaigning to prevent corruption and promote water integrity. It looks at the importance of capacity development and notes that a lack of capacity is often mentioned as one of the drivers of poor governance in general and of corruption in particular. Finally, it describes a range of tools that can be used to build water integrity, and explains how they can be embedded in an integrity risk management process.

## 1 INTRODUCTION: CHALLENGING POWER

Integrity is a sensitive, difficult and highly political topic. Especially in corrupt systems, change cannot just be prescribed through rules and incentives, but requires a broader approach. The water sector cannot be made more transparent, accountable and participative unless there is a change in power relations and accountability mechanisms. This means holding to account those who hold the power over knowledge, resources and decision-making. It also involves the participation and empowerment of NGOs, grass-roots organizations and CSOs. This requires a range of strategies and approaches, which include advocacy and campaigning, the media, capacity development and the use of a range of appropriate tools.

## 2 GIVING VOICE TO THE VOICELESS: HOW INDEPENDENT MEDIA CAN HELP FIGHT CORRUPTION

The first step is that, in order to fight corruption, people need to recognize that something is corrupt. This is why the media, both local and global, has enormous potential to combat corruption. Local and specialized media is often the first to reveal dubious politics and shady deals, and it can also publicize advocacy messages. The effectiveness of the media depends on several factors: the freedom of the press in each country, who owns the media, the quality of journalism and investigations, the media's reputation for reliability (or otherwise) and its reach. It can have a major impact on exposing corruption in the water sector, as the following stories from around the world show.

The media helps to monitor corruption and give a voice to the needs of the disadvantaged social groups and stakeholders whose positions are not captured through official monitoring systems (Holloway, 2006). The independent media has the power to bring an issue to public debate and official attention. The scrutiny of official monitoring outcomes by journalists can

---

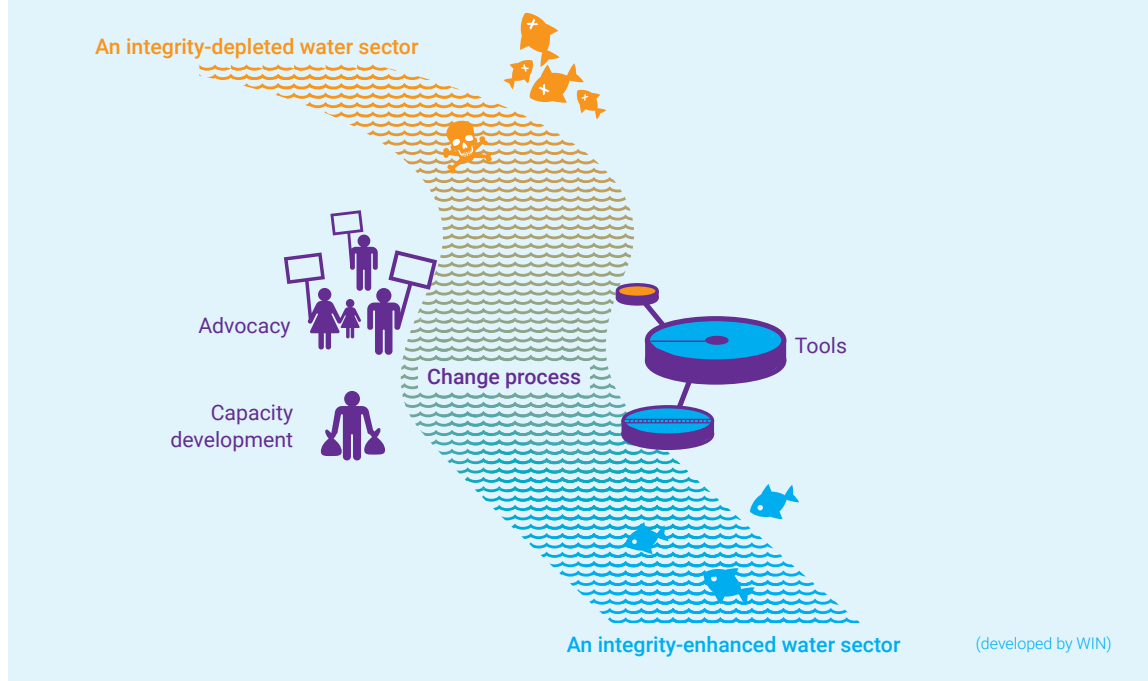
<sup>1</sup> Telephone interview, February 2015.

therefore be a mechanism for quality control. Journalists need skills and information to do their job effectively, and getting the media interested in water integrity issues is itself an advocacy objective. Water integrity training events targeted towards journalists make them aware of the importance of such stories and report on them. This helps to keep the media interested in pursuing such stories.

**Table 5.1 Examples of media coverage of water integrity issues**

Country	Headlines	Newspaper/source and date
Bangladesh	Indiscipline and corruption in the Bangladesh Inland Water Transport Authority	<i>Financial Express</i> 11/3/2015
Hong Kong SAR	Corruption watchdog starts probe into lead in water scandal	Hong Kong Free Press 22/9/2015
India	Six water resources department officials suspended in bribery case in Chhattisgarh	<i>Daily News and Analysis</i> 19/1/2015
Kuwait	Kuwaiti minister resigns over corruption charges	ConstructionWeekOnline.com 1/10/2015
Pakistan	Corruption scandal in Indus Water Commission, where millions of dollars from the official account of the commission went missing	Dunya News 8/2/2015
Philippines	Watchdog group seeks probe into Butuan City's lone water distributor, which functions in a non-transparent and non-accountable manner	<i>Inquirer News</i> 19/1/2015  <i>Daily Tribune</i> 31/2/2015
Romania	Bucharest's French water supplier in the centre of a bribery scandal in Romania	Romania-Insider.com 25/9/2015
South Africa	Corruption and favouritism allegation at Lapelle's water authorities	<i>Mail and Guardian</i> 13/5/2015
USA	California water regulation called corrupt	Courthouse News Service 10/3/2015



**Figure 5.1 Components and requirements for enhancing integrity**

The change process aiming at driving the water sector into an integrity-enhanced state requires a range of strategies and approaches, including advocacy, capacity development and a variety of integrity tools.

### Box 5.1 Radio raises awareness in Nepal

In rural Nepal, with limited internet access, community radio stations are a major means of communication. An SDC supported project, which is part of a joint WIN-Helvetas multi-country water integrity initiative, conducted a day's training for the national media, presenting the concept of water integrity and discussing the role of the media in promoting integrity in the WASH sector. A total of 19 media people, from newspapers, TV and radio, took part. The district authorities were also involved, after having been persuaded of the importance of the project.

One outcome was that the Community Information Network, a network of 105 community radios, recorded a half-hour programme focusing on water integrity. Local radio stations in a number of districts also broadcast the WASH investment plan and other important information related to local WASH activities. The dissemination of WASH-related information through newspapers and radio has contributed to making users more aware of their right to water and sanitation and to better services. It has also supported users in contacting the relevant agencies to address their concerns (Helvetas and WIN, 2015; Pant, 2015).

However, there are limitations to media effectiveness. First, the media can be an erratic partner in advocacy processes, if owned by individuals such as politicians or by corporate bodies who try to manipulate the information and/or public opinion towards their own vested interests (Arnold and Lal, 2013).

Second, the ability of the media to act as a watchdog on water integrity is affected by resource issues. In developing countries, in particular, the media often has few resources for investigative reporting. Competition from the internet has reduced revenue for traditional media and led to newsrooms in newspapers, radio and television being downsized, limiting the time available for investigations.

Third, the rise of the internet has made it easier for news to be published where anyone can find it, but it has also made it difficult to assess which reports are credible (AllAfrica, 2014).

Finally, in many countries it is difficult to publicly criticize officials; in some countries journalists can be fined or jailed for 'insulting' politicians. Even in Australia, not a country known for imprisoning journalists, reporters and whistleblowers who reveal information could go to jail under a new national security law introduced in 2014, even if public disclosure is in the public interest (*The Guardian*, 2014).

### **Box 5.2 Journalist jailed after filming water protest in Mexico**

A journalist in Mexico spent ten months in jail after being arrested while filming a demonstration outside the State Water Commission.

Pedro Canché, an independent journalist and activist for Mayan causes, was detained by state security forces and charged with sabotage after a criminal complaint had been brought against him by the local manager of the State Water Commission, in the municipality of Felipe Carrillo Puerto, in August 2014. The demonstration was part of a series of protests against increased water bills in the state of Quintana Roo.

The complaint alleged that Canché had encouraged protestors to close off the site, breaking a new law about blockading public roads. His arrest led to international protests from Article 19, a campaign group whose name derives from article 19 of the Universal Declaration of Human Rights, upholding freedom of expression. Canché, who had written posts about the protests and posted videos on YouTube, was finally cleared by a judge in June 2015 and released (Article 19, 2015; Committee to Protect Journalists, 2014).

Integrity campaigners and water sector specialists can support independent journalists with information and access, enabling visits to water resources and infrastructure sites. Presenting evidence to journalists helps them to produce effective stories, although care should be taken not to dictate a story line; the independence of journalism is itself an integrity issue.

The implementation of sector monitoring, in combination with independent monitoring activities by the media and governmental and non-governmental institutions, provides some protection from illicit practices and unethical decisions, because they then stand a high chance of being publicly unveiled.

### **Box 5.3 Journalists making a difference in water and sanitation in Africa**

*Fredrick Mugira coordinates a network of journalists in Africa who report on water and sanitation. He is editor of the WaterSan Perspective, an online platform for the Water Journalists Africa network.*

‘My stories subject processes and developments in the water sector to scrutiny and expose any malpractice. Journalists are watchdogs for the society. As WASH reporters, we keep a watchful eye on what is going on. My stories concentrate on empowering local people, especially water users, with knowledge to demand services. Through the stories we publish in WaterSan Perspective, we provide a civic forum for public debate and dialogue on different issues in the water sector. This provides citizens an opportunity to understand such issues and to hear alternative views.’

‘In my experience, corrupt officials in the water sector refuse to share information with journalists because they fear acting in an open manner... Some give bribes to journalists so that they keep off stories and do not hold them accountable for their wrong actions.’

‘Working as a network, Water Journalists Africa has helped us African journalists to give maximum coverage to WASH issues such as open defecation, clean water shortage and garbage management in urban centres. For example, our intensive coverage of lack of access to safe water in rural communities in Uganda has helped to awaken local leaders and government to take action. Our rigorous coverage of how marine litter is threatening aquatic life and human health along the sea and beaches of Cameroon is bringing attention to bad waste disposal habits.’

### **Box 5.4 The media in California exposes the cost of a water meter plan**

Sacramento City Council in California introduced a comprehensive 20-year plan to install water meters in sidewalks in front of people’s homes so they could be read without having to enter the property. This would also involve much higher costs through replacing mains pipes at the back of houses. However, the city’s Department of Utilities (DoU) estimated that the price of installing more than 100,000 meters and replacing pipes and water mains would be US\$ 474 million. Water rates rose 10 per cent per annum over the three years 2011 to 2014 and the bill for a family of four was expected to double by 2025.

In 2004 a consulting firm working with focus groups discovered that residents liked the plan for sidewalk meters but, when confronted with the cost, preferred a cheaper scheme. However, the City Council was not told about their concern over costs. In 2008 one of the officials who helped to persuade the City Council to install the meters in sidewalks was convicted of taking bribes and selling off used water meters. In 2011 the city auditor called the sidewalk scheme costly and unnecessary and told the council to stop it. The DoU refused. In November 2014 the *Sacramento News & Review* laid out the history of the project together with what they had discovered (*Sacramento News & Review*, 2014). It cited experts, who estimated that fitting meters to existing pipes would save about US\$ 600 per home, and a study suggesting that existing concrete pipes could last another 250 years. On 23 February 2015 another news outlet reported the DoU had changed track and was asking the City Council to save time and money by delaying the relocation of 12,400 water mains from backyards to the streets (*The Sacramento Bee*, 2015).

## 2.1 Whistleblowers: a job for the brave

Standing up for integrity is not easy, and can even be dangerous, as a 2015 UN report by David Kaye, the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression, makes clear. Quoted elsewhere, Kaye notes: 'Countless sources and whistleblowers around the world are intimidated by officials, co-workers, and others, depriving everyone of information that may be critical to public debate and accountability' (SixDegrees, 2015b; UN General Assembly, 2015a).

Whistleblowers who reveal corrupt or unethical practices from within an organization need special protection. TI encourages individuals to expose unethical behaviour and wrongdoing, and also advocates for the legal protection of whistleblowers through ALACs in around 50 countries in order to ensure that disclosure is appropriately addressed by the authorities responsible.

In the Czech Republic, a public contracting body invited tenders to connect two municipalities with wastewater and sewerage connections. A whistleblower sought advice from the ALAC, which found that the public contracting body had set technical qualifications too strictly, allowing only a very few companies to bid. With legal assistance, the procurement documents were adapted, and the cost of the project went down from €2.5 million to €1.3 million.

There are other, more formal ways of protecting whistleblowers: in England and Wales the economic regulator of the water and sewerage industry (Ofwat) offers a practical guide for those who feel they need to blow the whistle on water and sewerage companies. The OECD has also published a study of best practices and guiding principles for whistleblower protection (OECD, 2011d).

### 3 ADVOCACY: HELPING TO BRING ABOUT CHANGE

Advocacy aims to bring about social and/or policy change at local, national and international levels (Gutierrez, 2010; Reisman et al., 2007). It sensitizes and educates the public to recognize corruption when it occurs (Sööt and Rootalu, 2012). It creates awareness, promotes understanding and inspires action to bring about positive change in local, national and international communities. In the water sector it is an essential component in developing more integrity, because it influences attitudes and behaviour as well as the policy framework.

Advocacy and campaigning are crucial to building integrity in the water sector. Advocacy leads to societal change, by raising awareness about corruption and its negative impacts, building coalitions to prevent corrupt practices and empowering citizens to request access to information about budget spending and hold authorities accountable.

#### Box 5.5 The importance of the right to information

The importance of accessible data and information for both policy and practice is highlighted time and again in the literature on water integrity (González de Asís et al., 2009; Jacobson et al., 2013; WIN et al., 2013; Winkler et al., 2014). The right to information is crucial in preventing the misuse of power and is an essential tool for citizens in their campaigns for water and water integrity.

The number of countries with a freedom of information act has risen from 13 in 1990 to more than 85 today (Simi et al., 2010). An act usually includes the appointment of an ombudsman, who represents the public by investigating and addressing complaints concerning problems with public administration and/or violations of rights.

In India, the Right to Information (RTI) Act came into force in 2005 (Ministry of Law and Justice, 2011). The Act gives citizens the right to receive requested information from public authorities, unless it is deemed secret.

The Act has been extensively used by water consumers in rural and urban communities to demand information from the authorities. Village water and sanitation committees have been using the RTI to access information on project plans and making recommendations to modify them, which has resulted in many improvements. In Andhra Pradesh, social audits were undertaken on the basis of information received under the RTI. These revealed a mismatch between the numbers of installed pipes quoted in official records and the actual situation, in which half the pipes were missing (Baillat, 2013).

This Act is helping India in moving towards a transparent governance system. However, there are major concerns about protecting activists and campaigners, who still run a high risk of being intimidated, or even face death, when they request information that other parties would like to keep hidden (Simi et al., 2010).

The concept of advocacy for integrity in the water sector gained momentum after the publication of the *Global Corruption Report on Water* in 2008. Anti-corruption advocacy by organizations such as TI, U4, the Basel Institute on Governance and the United Nations Office on Drugs and Crime (UNODC) has evolved over subsequent years, as WIN and its partners have intensified their efforts. However, much remains to be done to institutionalize concepts in the sector.

### Box 5.6 Good practices for advocacy campaigns

Practitioners of advocacy agree on general good practices for advocacy campaigns, which include (Gaventa and Rootes, 2007; McGee and Gaventa, 2010; McAuliffe and Cekan, 2009) the following guidelines that are applicable for water integrity advocacy.

- + Define clear objectives with actionable indicators, based on a coherent theory of change.
- + Differentiate audiences: target specific audiences and ensure that messages and interventions are appropriate for them.
- + Give an initiative time to mature and gain momentum.
- + Base the initiative on continuously updated, in-depth analysis of the context and players, backed with triangulated evidence.
- + Build multi-level cooperation or partnerships with many players, including the government, the media, NGOs, the private sector and artists.
- + Document and measure the impact as much as possible.
- + Integrate with ongoing political or social processes – or, in other words, find the nexus with other disciplines and activities.
- + Convey accurate and realistic messages based on solid research, evidence and stories; this increases the credibility and leverage of advocates.
- + Aim for internal organizational transparency and ethics, as these help to build the credibility and trust of the advocating organization or coalition.
- + Ensure that results are published and publicly available.

### 3.1 The importance of bottom-up approaches

The local context is key for advocacy work. Bottom-up approaches add checks and balances and build a sustainable base of support for change. For example, grass-roots actors can help monitor flows of money (for example, social audits), benchmark performance (for example, report cards) and disclose failure (for example, water pollution mapping). Many integrity approaches and tools aim to strengthen the voices and powers of users who suffer from a lack of access to services, poor services, mismanaged resources or the consequences of poor decision-making by those in charge. Tailoring approaches to fit the interests of these actors is crucial to mobilizing buy-in and sustaining engagement (O’Meally, 2013; DFID, 2015).

### Box 5.7 The marches against corruption in the water sector in Brazil

Every year people walk from town to town in the dry region of Piauí, in the north-east of Brazil, to raise awareness about water rights and corruption in the sector, check the delivery of promised water infrastructure and advocate for greater accountability. The march is supported by Amarribo Brasil, TI's partner in Brazil.

This practice started in March 2008, when the organizing NGO Força Tarefa Popular gained access to the accountability reports of the city of Castelo in Piauí. It built a partnership with local organizations and community leaders (trade unions, religious bodies, teachers and human rights associations) to empower communities to demand more transparency and accountability. Together they organized a march to one of the villages that had received funds for the construction of a water supply system, and found that no work had been undertaken. This was reported to the public prosecutor. A few months later the work was completed. Today this community has access to water in their homes, but the march continues to the next community (TI, 2013).

### Box 5.8 Public protest leads to institutional change in Ecuador

The Federation of Water Users of the Province of Chimborazo (Interjuntas-Chimborazo) in Ecuador used an escalating series of protests to remove the local director of the Water Agency, who was accused of corruption and discrimination. The first strategy was to talk to the director. When this did not bring about change, Interjuntas, through its legal advice office, researched the cases and filed a formal complaint with the national water authority with a request to dismiss the director, who refused to leave. Interjuntas then called for the occupation of the Water Agency offices, mobilizing allies through radio reports throughout the province. After 18 days of occupation the national water secretary was forced to take action, and the director was replaced. A new selection procedure, monitored by Interjuntas, appointed another director (Dávila and Olazával, 2006; Hoogesteger, 2012).

In another region of Ecuador, the Federation of Water Users of the Province of Cotopaxi (FEDURICC) ousted the local director of the Irrigation Agency, who was also accused of corruption and misuse of public funds. FEDURICC did this by means of a social audit and popular protest. A new director was appointed after an open selection procedure, carefully monitored by FEDURICC. He became a close ally of the water users. Together with FEDURICC, he established transparent and participative procedures for the allocation and expenditures of public funds for irrigation (Hoogesteger, 2013).

### 3.2 How institutional reform is linked to advocacy

Ultimately, advocacy on water integrity is effective only if it creates the momentum and legitimacy to drive institutional reforms. The targets for advocacy efforts are usually decision-makers (sectoral, political, societal and/or religious leaders) and organizations with the authority to make a stand for integrity and to bring about change.

Institutional change to improve water integrity poses many challenges. It may be obstructed by political and organizational costs that relate to previous decisions. Changes aimed at increasing levels of transparency and integrity may be hard to achieve when they disrupt well-established benefits within institutions and therefore meet strong resistance (Christoplos et al., 2014).

A non-confrontational approach has proved more successful than finger-pointing or naming and shaming. This approach focuses on prevention through risk identification and mitigation, builds trust between implementing partners and beneficiary institutions and is more likely to address the underlying causes of integrity risks.

Advocacy can help to convince leaders within an organization that change is needed. As one report notes: 'Our research has shown how crucial the role of top management and other change agents is in pursuing a number of crucial changes to create beneficial conditions for the use of existing knowledge and experience' (Mvulirwenande et al., 2014).

The following example shows how a lack of accountability and transparency drove citizens to campaign to reclaim management of their water utility.

#### Box 5.9 Berlin's tryst with transparency

In 1999, 49 per cent of Berlin's water utility (BWB) was sold to a private Franco-German consortium with the objective to enhance the utility's efficiency and bring in much needed investment. This deal contributed € 1,690 million to Berlin's treasury. Details of the 30-year contract were available to the senate members under terms of legal confidentiality but not open to the public. A number of CSOs criticized the deal as guaranteeing high profits for shareholders while allowing consumer water prices to rise. They launched a campaign to return management of the water utility to public hands. In 2011 the citizen's alliance Berliner Wassertisch collected the required number of signatures to initiate a referendum on full disclosure of contracts. More than 666,000 citizens voted, achieving the 25 per cent turnout required, with a 98.2 per cent majority in favour.

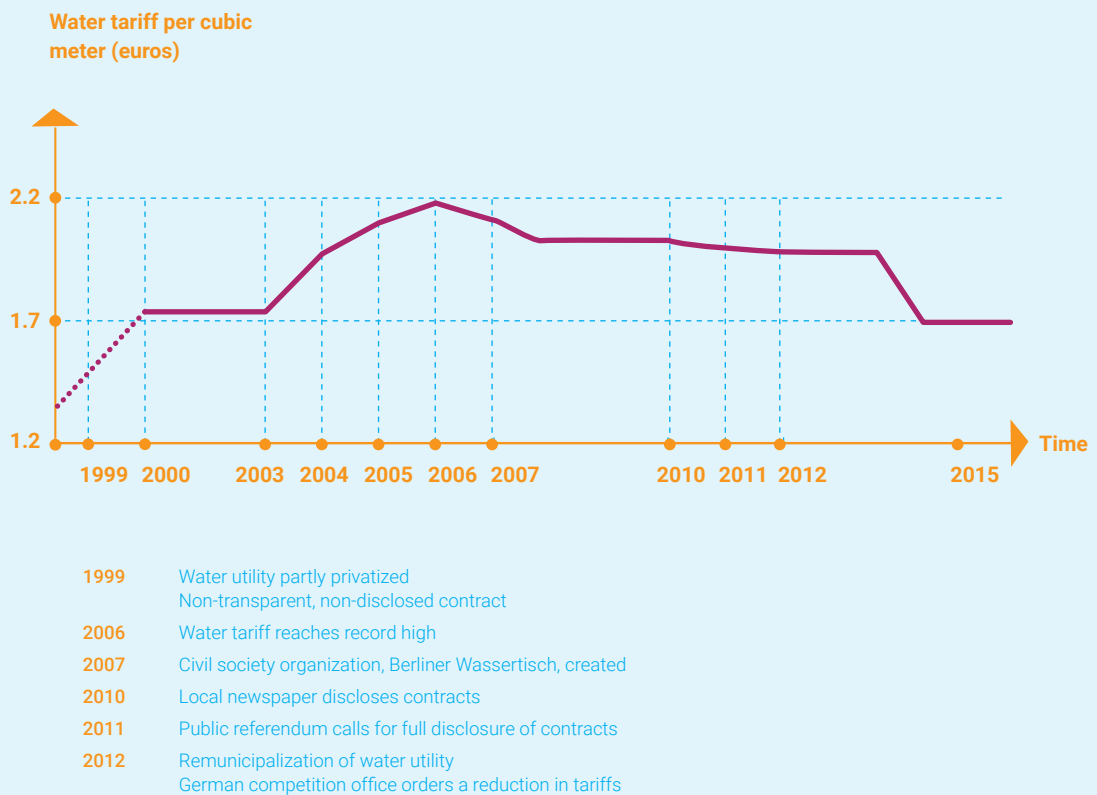
As a result, contracts and documents about the purchase negotiations dating back 12 years were made public. The following year the German competition office declared that this showed abusive price inflation and demanded price cuts. Figure 5.2 reflects the changes in the tariff since 2000, which had increased more than a third above inflation by 2011. It is important to observe that the price had been steadily increasing even before 1999. The confidentiality of the documents and the guaranteed profits for the private shareholders also led to discontent among CSOs and the public. In 2013 a parliamentary Special Committee on Water Contracts agreed to take back the utility via an expensive



buy-back, costing the state €618 million in 2012 and a further €590 million in 2013. After termination of the contract in 2014, the German competition office again forced the BWB to lower prices.

Berliner Wassertisch continues to campaign to democratize BWB and water policy as a whole. Measures have been put in place to encourage transparency, accountability and public participation. A new version of the Berlin Water Charter was publicly launched on World Water Day 2015, as a commitment to transparent and socially and environmentally sustainable water management (Werle, 2004; PSIRU, 2012; Schizophonix, 2014; Transnational Institute, 2014).

**Figure 5.2 Development of water tariff at the Berlin water utility**



(developed by WIN, based on BWB's tariff chart)

## 4 BUILDING CAPACITY ON WATER INTEGRITY

### 4.1 The importance of capacity building

Capacity building is a key strategy to help bring about the changes that promote integrity, supporting people in the water sector with the skills and knowledge to understand and implement measures to address corruption. Capacity development activities on water integrity have been initiated in many parts of the world, targeting a range of water stakeholders and using a variety of approaches.

The international donor community is becoming more aware of the need to address corruption at the sector level (UNDP, 2014), and there are a number of capacity development programmes led by sectoral organizations such as the UNDP Water Governance Facility at SIWI (WGF), Cap-Net UNDP, GIZ, and WIN and affiliated networks. The UNCAC (see Chapter 2) calls for ‘education and training programmes to enable (civil servants and where appropriate, other non-elected public officials) to meet the requirements for the correct, honourable and proper performance of public functions and that provide them with specialized and appropriate training to enhance their awareness of the risks of corruption inherent in the performance of their function’ (UNODC, 2004b).

#### Box 5.10 What is capacity development in relation to water integrity?

WIN understands capacity development as a long-term, continuing process, in which the capacities of all stakeholders are developed to engage in the fight against corruption. These include ministries, local authorities, NGOs and water user groups, professional associations, academics and others with interests in the water sector.

The OECD notes that capacity development ‘involves much more than enhancing the knowledge and skills of individuals. It depends crucially on the quality of the organizations in which they work. In turn, the operations of particular organizations are influenced by the enabling environment – the structures of power and influence and the institutions – in which they are embedded. Capacity is not only about skills and procedures; it is also about incentives and governance’ (OECD, 2006).

### 4.2 Building an enabling environment

Institutional changes, although harder to achieve, can lead to long-term sustainable impacts, since they create a climate in which individuals are more likely to comply with rules and regulations. Institutions are made up of individuals who collectively contribute to institutional change; capacity development needs to focus on both. In practice, capacity development often misses out on the enabling environment and becomes almost exclusively about training individuals. Steps to address the culture, structures and resources of the institutions themselves are often missing.

This is why time and resources need to be invested early in the capacity development cycle to analyse the institutional and political context and to trigger demand from decision-makers, who can act as agents of change for water integrity and support capacity development from within the institution. Working at the institutional level requires customized integrity tools tailored to the needs of specific institutions, or even specific positions, needing to apply water integrity tools 'on the job'. One example is the training of staff from water utilities and small and medium-sized enterprises (SMEs) in Bangladesh, Kenya and Zambia with the Integrity Management Toolbox (see Box 5.21).

The culture in an organization must also allow staff to act on their own initiative commensurately with their duties, so that those responsible for consultation with the public, and for planning, contracting and monitoring, can do their jobs effectively. Information should be shared with the right people at the right time. An institution must have sufficient people, transport and other resources to visit and to inspect. All staff need to feel empowered to challenge bad practice and supported when they call time on corruption; whistleblowers in particular need protection. Establishing a 'can do' and proactive culture and a flatter organizational structure in which people have the authority to fulfil their tasks involves major institutional change: this is a vital part of capacity development.

#### **Box 5.11 The Training Manual on Water Integrity**

The *Training Manual on Water Integrity* was developed in 2009 (Cap-Net et al., 2009) in the belief that it is important to:

- + focus on sustainable prevention measures and be proactive;
- + emphasize the impacts of corruptions on the poor;
- + realize that there are different cultural interpretations of corruption; and
- + stress the need for action and the application of particular tools and methodologies to promote accountability and transparency.

The Manual's foreword notes the need to 'strengthen capacities at both policy and operational levels in governments, private sector and civil society to work with water integrity'. The overall goal is to develop institutional capacities and prepare for change through increased knowledge and action on integrity, accountability and an anti-corruption approach in any country or region. The primary objectives of the training are to provide:

- + an understanding of concepts on integrity and anti-corruption in the water sector, and its implications on water management and sustainable development;
- + an overview of tools and methodologies to promote water integrity, transparency and accountability and their applicability in various contexts; and
- + examples of good practices relating to the promotion of integrity, transparency, accountability and an anti-corruption stance in water.

In 2013 a water integrity training manual was also developed for Latin America and the Caribbean (Boehm, 2013).



Assessing the institutional and political context is also an opportunity to identify change agents and potential allies and to trigger demand to engage with integrity issues (Christoplos et al., 2014). Getting staff support for a zero-tolerance approach to corruption is itself an important part of capacity development. Water integrity capacity development cannot succeed in one institution if the enabling political climate is not supportive. In Kenya, for example, an Annotated Water Integrity Scan, AWIS,<sup>2</sup> in 2011 found little information available about anti-corruption legislation and its implementation and that filing corruption cases is seen as complex and not receiving support (WIN and TI Kenya, 2011). Despite the fact that the AWIS exercise was endorsed by the Ministry of Water and Irrigation, a new Water Act has been awaiting approval for almost three years, and in this policy void no commitments can be made and keeping the momentum for a water integrity initiative is difficult.<sup>3</sup> Currently the draft is with the legislators, is under review and has undergone some amendment.

One successful approach, which has been implemented in several countries, is to conduct assessments of both integrity risks and capacity development needs together. These typically highlight integrity risks in a given context and thus provide useful entry points and a comprehensive understanding of objectives and impacts related to the interventions.

#### **Box 5.12 Capacity needs assessment in Latin America**

In 2013 the WGF and Cap-Net (Indij and Domas, 2013) carried out a needs assessment in Latin American countries in support of a capacity development programme for water integrity and transparency. The assessment aimed to identify entry points to promote integrity and transparency in water management, as well as to identify available skills or capacity needs among specific target groups.

Contrary to expectations, they found the lowest levels of perceived corruption in countries in which the water sector was not prominent in the fight against corruption – i.e. raising awareness of corruption actually meant that people perceived higher levels of corruption than previously.

The report stressed the importance of linking capacity development with advocacy, to raise awareness of the need to fight corruption in the water sector at all levels. It identified as key targets decision-makers (public policy agencies and regulatory agencies), private and public companies, consumer groups and multilateral organizations (such as the development banks) involved in the water sector.

The report noted that ‘if these agencies can adopt uniform integrity promotion and corruption prevention mechanisms, it will mean that an additional regulatory and political framework, besides the corruption control strategy, is in place’. It added: ‘The awareness-raising process should end in the adoption of public commitments in management instruments, such as the acknowledgment of guiding principles in national water policies, integrity pacts, etc.’

<sup>2</sup> AWIS is a diagnostic tool used to quickly assess integrity levels in the water sector.

<sup>3</sup> Interview with the WGF and Cap-Net, 2014.

Similar approaches have been used to inform capacity development programmes on water integrity in other regions, notably in the MENA region and southern Africa (Earle et al., 2008).

### **Box 5.13 Building capacity on water integrity in the MENA region**

Two initiatives in the MENA region aim to build integrity in the water sector through capacity building.

A regional Capacity Building Programme on Water Integrity for MENA is being implemented by the WGF in collaboration with regional and local partners, and financing from Sida. The programme covers Jordan, Palestine, Lebanon, Morocco and Tunisia through an interplay of national and regional activities, targeting civil society, operational staff and public officials.

Activities have included National Water Integrity Assessments, adapted training materials and a training of trainers on water integrity, as well as a set of national water integrity trainings targeting the different stakeholders involved in WRM. The next steps are to build national processes, with bottom-up approaches meshing with top-down ones. The programme has gained political support from the ministries responsible for water in the five project countries.

In July 2013 GIZ launched the Water TAP, a two-year pilot regional project in Tunisia, Morocco, Egypt and Jordan. It aimed to support water utilities to enhance integrity in their daily work. The Arab Countries Water Utilities Association (ACWUA) is managing a pool of water integrity trainers and experts from the region who provide guidance, coaching and awareness-raising workshops for top management. ACWUA plans to coordinate a water integrity benchmarking system so that companies can compare their processes against the regional best. The utilities applied the same approach to mainstream TAP, starting with top management commitment, building staff ownership and ending with the implementation of a water integrity action plan.

At the national level, the focus is on creating an enabling environment to enhance water integrity. In Tunisia, the national water provider, SONEDE, established a Department of Good Governance with an anti-corruption focus and appointed a water integrity coordinator to report mismanagement directly to the national Ministry of Good Governance. SONEDE is improving meter reading and billing systems and using IT and remote meter reading for big customers.

## **4.3 From national to local to regional: building capacity development**

When designing sectoral approaches to capacity development, it is important to take account of the country context at national and local levels. Anti-corruption efforts in the water sector at national government level need to be linked to similar efforts at the district/local/consumer level to ensure maximum impact. Otherwise, there is likely to be a duplication of efforts and a lack of coordinated practice, aggravated by the fact that the WASH sector itself is fragmented.

A supranational or regional approach to capacity development can also bring water stakeholders together outside the national context, to share experiences on water integrity (or lack of integrity) with regional peers. Corruption encountered in the water sector tends to be sector-specific but not necessarily unique to a single country.

#### **Box 5.14 Building capacities across sub-Saharan Africa**

A regional capacity development programme for water integrity was developed in sub-Saharan Africa in partnership with regional and intergovernmental bodies. Around 500 water professionals were trained between 2011 and 2014 with support from WaterNet, SIWI and WIN. The development of action plans during training stimulated parallel processes at the national level. Action plans were endorsed by the relevant water ministries in Côte d'Ivoire, Burkina Faso, Mali and Benin.

At the first regional Water Integrity Learning Summit, held in Zambia in April 2014, the African Ministers' Council on Water (AMCOW) called for water integrity to be included in all future AMCOW events, and on other global agendas (SIWI, 2014).

While it is still too early to assess the long-term impact of these interventions on the enforcement of policies, the moves are a step along the way to reform. More advocacy and capacity development are required for integrity to be recognized and practised on a day-to-day basis in water governance. As one of the participants in the regional programme said: '[Integrity] training is the key. Training and more training. We need to train as many people as possible to reach the critical mass necessary for bringing about change' (SIWI et al., 2014).

The final evaluation of the first phase of the programme showed that it had made good progress on advocacy and awareness building. It recommended that the focus for a second phase should turn to implementing tools and approaches, and that these approaches should not be stand-alone but be integrated into sector reforms. The second phase of the programme is currently under development.

Regional institutions and networks can serve as leverage points for political harmonization, joint anti-corruption programmes, joint guidelines, etc. as well as powerful platforms for exchanges of good practices and experiences related to tackling corruption. Similar regional capacity development programmes have been implemented or are ongoing in several regions, including sub-Saharan Africa, MENA and Latin America. The lessons from sub-Saharan Africa are that the regional approach is a very useful platform for networking and learning and that regional institutions have an important role to play in terms of showing political leadership. To achieve impacts on the ground, it is therefore important that regional initiatives are linked to similar initiatives at the national and local levels.

**Figure 5.3 Building synergies in capacity development training**

#### 4.4 Capacity development as part of anti-corruption training

The water sector is governed by institutions responsible for allocating funds, auditing, tax regulations, the procurement of goods and services, and human resources management. In a country with pervasive corruption levels, it is important to look outside the 'water box' to understand the roots of the integrity risks in the sector and identify the key players in building integrity in a particular context.

Water integrity training should build on the synergies between other water sector training and anti-corruption training. People from the water sector and anti-corruption specialists should attend such training to ensure that both perspectives are included (see Figure 5.3).

Anti-corruption training at the sectoral level typically aims to support public officials to develop skills to (a) identify and understand problems of corruption and corruption risks in a specific sector, (b) design anti-corruption strategies and tools to address these risks and (c) respond to personal exposure to corruption issues, such as how to react if an official suspects that a colleague or contact is involved in corruption or if he or she is offered a bribe (Luijken, 2014). Capacity development activities need to be underpinned with an understanding of the underlying integrity principles and mechanisms. A safe climate must be created in which participants can share some of the dilemmas, pressures and integrity challenges they face in working on water-related issues.

Another approach has been to provide more generic training on water integrity concepts and tools. This is useful with heterogeneous groups that are new to the topic, when the objective is to raise awareness and create demand for water integrity. Once a basic understanding has been developed, more thorough, context-specific and targeted capacity development interventions can be introduced.

A combined approach at different levels can improve the effectiveness of integrity initiatives. It is important to link local actors to policy-makers at the regional or national level to ensure that successful initiatives are institutionalized, and that efforts at the grass roots find support at the policy and senior management levels. Linking like-minded actors from different spheres of the sector or society can also strengthen informal collaboration: corruption cannot be halted at local level if it is condoned at the national or policy level.

#### 4.5 Putting capacity development into practice

Water integrity inevitably means challenging powerful actors who have a vested interest in maintaining the status quo. Many capacity development programmes fall short when participants try to put their newly acquired skills and knowledge into practice. This is especially true when one or two individuals are sent to be trained, become inspired and then return to their workplaces, where they have little authority or time to put changes into practice. They are soon sucked back into the status quo.

In order not to lose momentum and to actually effect change, capacity development activities need to take a number of other strategies into account, including management support, working with networks, knowledge management, mentoring, online training and gender awareness.

##### **Support from managers**

For pro-integrity changes to take root as a result of capacity development, support from the highest levels of management is paramount. Managers need to be involved in identifying change agents. They also need to lead a process – ideally with outside facilitation – of identifying which areas of the organization need to be strengthened and what cultural norms are colluding with or encouraging unethical or corrupt practices.

##### **Working with networks**

Networks of sector practitioners are important for delivering capacity development, since they:

- + assemble skills and knowledge from and across many different disciplines;
- + build a critical mass of skills and understanding, enabling people to take action; and
- + develop, adapt and transfer knowledge.

Networks operate as learning alliances, embracing and combining actors and knowledge (global, regional, local). Through the work of capacity development networks, knowledge is made available and adapted to local needs, anchored in local institutions and transferred to target groups (Indij, 2005). Networks also play a key role in sustaining capacity development as sources of social capital, which is an important shaper of power and influence (Indij et al., 2013).



A main principle of such networks is that they are driven by local ownership. Activities are planned on demand, based on needs assessments and the active involvement (including co-funding) of local members.

A common and relatively cheap option for post-training support is the creation of alumni networks made up of former course participants. Such networks can build strong communities, especially when used as platforms to present and discuss good practices or action plans that were developed in training courses to be implemented in the respective local context. To function effectively, these networks require facilitation as well as resources to build trust, sustain and share content, keep members involved, moderate discussions and develop the learning process (Sette, 2008).

### **Knowledge management**

Knowledge management involves integrating new knowledge and capacity into a social system, institution or the arena(s), and seeks to ensure that people share what they know and what they have learned so that it becomes part of the institutional capital. Cap-Net, the international network for capacity development in sustainable water management, and one of the partners that produced the *Training Manual on Water Integrity* (see Box 5.11) (Cap-Net et al., 2009), has instituted a knowledge management cycle for networks. This generates a mechanism for linking people and to support effective changes in water management as water integrity is created within a framework of interactions (Indij, 2005).

### **Mentoring**

An effective way of delivering post-training support is through mentorship or coaching programmes. Mentors or coaches can follow up on the implementation of action plans, tools and approaches, and provide technical backstopping to concrete project implementation. Adding a component of mentorship to capacity development activities is becoming more and more common as a means to close the loop. For example, in the pilot implementation of the Integrity Management Toolbox (see Box 5.21) the coaching process was instrumental in keeping up the momentum for change at institutional level, but pointed to the need for some kind of regular follow-up and support after training interventions to generate real ownership for the promotion of water integrity. Despite the benefits, investing in mentorship is highly resource-intensive and requires a continuity of input from those responsible for capacity development; this is rarely seen.

### **Online training**

The widespread availability of information and communication technology (ICT) tools offers many opportunities for capacity development, such as online training sessions, which can reach a wider audience. Today's platforms for online learning provide a variety of tools, including video, facilities for group conferences, at which speech and documents can be shared and worked on together, and online forums and libraries. Online platforms are increasingly used to support face-to-face training sessions. Participants, facilitators and partners interact digitally before, during and after the training through e-mails, shared folders, documents posted on websites and live messaging or voice call softwares. Participants can prepare exercises and then moderate and comment on each other's contributions. This process can be facilitated and improved if the course is supported by means of a specific 'virtual classroom' that offers a variety of supporting tools. In this way online and face-to-face training complement each other.

## Gender

Despite their important role in water management, women are often under-represented in decision-making processes. This imbalance has also been reflected in capacity development initiatives. Training course content should therefore include input on the gendered nature of water use and responsibilities and a discussion of gender roles in relation to power disparities. Facilitators and course leaders must be sensitive to gender issues and skilled at drawing out contributions from all participants, and prevent discussions being dominated by a few dominant voices, mostly male. This is strengthened if women are also course leaders. During trainings, people in senior positions tend to dominate, while those in junior positions may be reluctant to challenge or speak up – a problem often exacerbated by gender roles. In some cases it may be necessary to develop some women-only courses, or have breakout groups of women to encourage broader participation.

### Box 5.15 More than gender balance

SIWI co-organized together with the Lake Victoria Basin Commission, as part of the Regional Water Integrity Capacity Building Programme in sub-Saharan Africa, two training events on gender and water integrity in Burundi and Kenya. The training in Burundi had a majority of female participants, who participated very actively. In the Kenyan training the gender balance was more equal, but it became clear that the men were uncomfortable discussing gender issues, and the training suffered as a result. This suggests that simply inviting women for training is not sufficient. Facilitation has to focus on ensuring that women participate equally with men.

## 4.6 Assessing the impact of capacity development

One of the most critical challenges in capacity development lies in attributing impact – showing that your intervention was responsible (in part) for the outcomes. Although there is not much written on assessing the impact of water integrity capacity development in particular, there are general capacity development lessons that can be applied.

A common perspective for measuring impact is what is known as the ‘positivist model’ for knowledge and capacity development, in which specific inputs are delivered (for example, training) with the expectation that they will be transformed into outputs, leading to change and development impact. This is reflected in the logical framework analysis. This has been criticized for simplifying a complex set of processes (Bakewell and Garbutt, 2005; World Bank, 2005a).

Seen from the perspective of this model, capacity development activities result in a number of outputs, such as the quantity of training events, the number of participants, the countries represented and the content. These are expected to lead to a series of outcomes, such as the use of the knowledge acquired, the scaling up of actions and the use of materials. Finally, the outcomes should lead to on-the-ground impact, such as revised and updated water policies, targeted infrastructure development or greater protection of water sources.

This does not always happen. The monitoring and evaluation of capacity development has generally been weak, largely due to the design of the interventions. Some of the challenges can be explained by '(a) lack of realistic theories of change, and (b) the gap that exists between the activity focus on "tangible" indicators and the grand outcomes and impacts expected from modest inputs' (Christoplos et al., 2014).

To establish which interventions actually work, there is a need for more and better monitoring that goes beyond counting what has been done and looks at actual outcomes and impacts at various levels, in order to examine the changes in individual and institutional water governance practices. Before interventions are introduced, a realistic theory of change needs to be developed to identify the inputs and the outcomes that are expected to result (and why). Baseline data needs to be collected on existing capacity and robust monitoring and evaluation systems are needed to demonstrate change. Effective monitoring involves a clear agreement about what would be reasonable end points and how they would be measured.

### Box 5.16 The impact of water integrity capacity development courses

A survey to 565 alumni from 21 water integrity capacity development courses held between 2010 and 2014 in Africa and Latin America resulted in 142 responses (25 per cent). The questionnaire was also completed by nine water integrity specialists from various regions. Respondents were asked four questions based on Cap-Net UNDP's Monitoring, Evaluation and Learning Plan.

Responses showed that participants felt the courses improved their performance at work in various ways. More than 60 per cent of respondents had shared material or experiences from the course with colleagues; one in seven had implemented capacity development activities or research in his or her own settings; most participants could identify improvements in integrity in their own situation as a result of the course, including better citizen understanding, better regulations and a strengthened academic sector. Participants volunteered the following comments following the courses.

- + 'We have introduced an audit process where an independent examination of books is carried out to ensure prudent financial management' (South Africa).
- + 'I used the training manual to train women groups, neighbours and youth on water integrity' (Burundi).
- + 'Including an anti-corruption clause in the organization's contracts has enhanced the integrity of its dealings and continues to send a message to all stakeholders' (South Africa).
- + 'People in my local community now see and understand corruption in its different dimensions as a disincentive to human development' (online course).
- + 'There is proactive community participation towards the proper management of water facilities' (Liberia).
- + 'We now speak to water board staff and enlighten them on issues of importance to improving performance in water services to the public' (online course).

## 5 TOOLS TO BUILD INTEGRITY: AN INSPIRATION, NOT A BLUEPRINT

In recent years numerous tools to assess and enhance integrity in the water sector and beyond have been developed, constituting a pool of knowledge that can be tapped by those in the sector (Vos, 2011; Hermann-Friede, Kropac, Achermann et al., 2014; Jacobson et al., 2013; Feuerstein et al., 2013).

Most tools from the water sector focus on the level of the integrity or quality of governance, without explicitly addressing corruption risks. Talking about corruption is difficult, or even dangerous, in many contexts. Addressing 'integrity risks' allows for softer language, and includes issues of mismanagement, without necessarily having to flag them as corruption.

### Box 5.17 Defining an integrity tool

An integrity tool helps to assess, raise awareness about or address integrity issues by strengthening transparency, accountability, participation and ethics, using a replicable methodology.

Tools are best used as a starting point for considering a problem from different angles and getting some inspiration on how to tackle it. However, they need to be adapted to the context according to what will work best with local actors and institutions. A tool cannot solve any problem on its own, only assist people in doing so. When promoting tools, attention needs to be paid to whether the tools are suitable for use with the target group, and what support the group needs to apply the tools effectively (Global Integrity, 2014). Using the same tool in every setting is likely to miss the nuances of local context and needs (O'Meally, 2013).

In some cases it might be better to introduce capacity development and tools as part of wider reforms in the sector, such as improving efficiency or consumer orientation through regulation, or as part of a human-rights-based approach. This would make it possible to tackle integrity issues without having to openly allege leadership management failures or to address the illicit practices of colleagues too bluntly. It is important to build alliances and create a momentum for change. If anti-corruption measures or explicit enforcement mechanisms are introduced without adequate political back-up and institutional capacities, they may undermine the ability of integrity actors to win the support of sector staff.

In the water sector, two types of integrity tools are relevant: *assessment tools*, geared to detect integrity risks such as mismanagement or corruption and to measure levels of governance or integrity; and *actionable tools*, which aim to manage integrity, improve governance and fight corruption in the sector.

The following aspects have been identified as key factors to be considered while using integrity tools:

- + the political will among local and national actors;
- + the capacities and attitudes of civil society;
- + the character and mechanisms of relations between state and civil society;
- + power relations and interests among elites;
- + social relations and inequalities;
- + state relations and dynamics with the international community (O’Meally, 2013); and
- + socio-cultural practices or value concerning integrity and corruption (DFID, 2015).

Impact in terms of better service delivery is more likely if a tool combines various social accountability approaches (Westthorp et al., 2014). For example, a strong information base can increase the impact of user participation (see Box 5.18), and citizen monitoring is more likely to promote policy adjustments and corrective measures by decision-makers if combined with advocacy (Overy, 2013; Claasen, 2008). Reviews of social accountability initiatives find that approaches that combine changes on the demand and supply sides are more effective (O’Meally, 2013) – for example, combining social accountability with top-down oversight such as regulation (DFID, 2015). Moreover, anti-corruption monitoring or control mechanisms have greater effect if they are combined with new behaviour incentives (Hanna et al., 2011). Besides the combination of tools, a multi-pronged approach in terms of actors and levels can also improve the effectiveness of integrity initiatives (O’Meally, 2013).

#### **Box 5.18 Information sharing in Uganda increases impact**

From 2004 to 2008 the World Bank carried out an experimental study in 75 public primary health facilities in rural Uganda, measuring the impact of an intervention aiming at enhancing beneficiary involvement and control on the quality of health services. It compared two different strategies. The first was a rather typical community participation approach involving facilitated meetings among community members and health workers, aimed at reaching a common understanding on the status of services and agreement as to how this could be monitored and improved, enshrined in a joint action plan or community contract. The second intervention was a combinatory approach that complemented these meetings with the provision of report cards on the performance of health facilities from a field survey. The study found that the participation approach alone did not achieve relevant service improvements, whereas the approach combining participation with performance information had a substantial positive impact on the quality and use of health services, as well as improved behaviour by health facility staff.

Looking at possible reasons, the study underlined remarkable differences in the joint action plans that the involved health staff and community members developed: the communities that had only the facilitated discussions focused their plans on issues that required third-party actions, such as more financial and in-kind support from upper-level authorities and NGOs. Meanwhile, the communities that received the additional performance information focused almost 90 per cent on such issues that could be resolved by themselves, including absenteeism, opening hours, waiting times and patient–clinician interaction (Nyqvist et al., 2014).

In India, AWIS is an assessment tool that helped to build a common understanding around WASH in schools.

#### Box 5.19 A tool for assessing WASH in schools in India

An assessment of integrity in school WASH in Andhra Pradesh used an adapted version of AWIS, identified priority steps for improvement and increased awareness about water integrity by stimulating informed debate. The joint project by Freshwater Action Network South Asia (FANSA), WIN and Arghyam found that toilets in 75 per cent of the schools assessed in a survey were not in a usable condition and were not compliant with legal standards. There were no toilet facilities at all in 10 per cent of schools, which has a particularly negative effect on girls. Overall, accountability was seen as the most problematic aspect. Poorly defined responsibilities, a lack of awareness and engagement, a lack of coordination and poor planning were found to be overarching concerns that make the school WASH subsector vulnerable to corruption.

In a number of countries in Africa, including Ghana, Kenya, Uganda and Zambia, WIN and partners have helped to initiate water integrity studies.

#### Box 5.20 What are water integrity studies and why are they useful?

Water integrity studies can directly help national governments to develop evidence-based strategies to address corruption risks in the water sector. From these, time-bound anti-corruption action plans can be created, which can be monitored using concrete indicators. A water integrity study has two interrelated components.

- + **A risk/opportunity mapping study**, which identifies weaknesses in national and regional institutions, and opportunities for corruption, then develops a set of anti-corruption recommendations.
- + **A national baseline survey**, which covers all the components, actors, practices and institutions that make up the water sector. It is used to verify major corruption risks and to confirm the efficacy of the action plan identified under the risk/opportunity mapping study.

Critical to the success of a water integrity study is oversight by a steering committee, consisting of leading water sector stakeholders and representatives of key accountability organizations from the sector. The steering committee should be charged with overseeing the implementation of the anti-corruption action plan, including its modification as necessary (Jacobson et al., 2010).

There are two ways in which tools can be used: preventatively, in order to mitigate the risks of corruption and mismanagement; or as enforcement, to impose sanctions once integrity breaches have occurred. While a broad range of water sector actors can take preventative measures, enforcement is mainly the task of a few specialized institutions (such as an anti-corruption commission, the public prosecutor and, to a limited extent, the water sector regulator), complemented by civil society sanctioning mechanisms (such as investigative journalism and reporting and complaint mechanisms), as well as sanctions within an organization (disciplinary measures). Given the characteristic of water services as a natural monopoly, users are often deprived of one major means of social sanctioning: they cannot vote with their feet and switch service providers.

### **Box 5.21 The Integrity Management Toolbox**

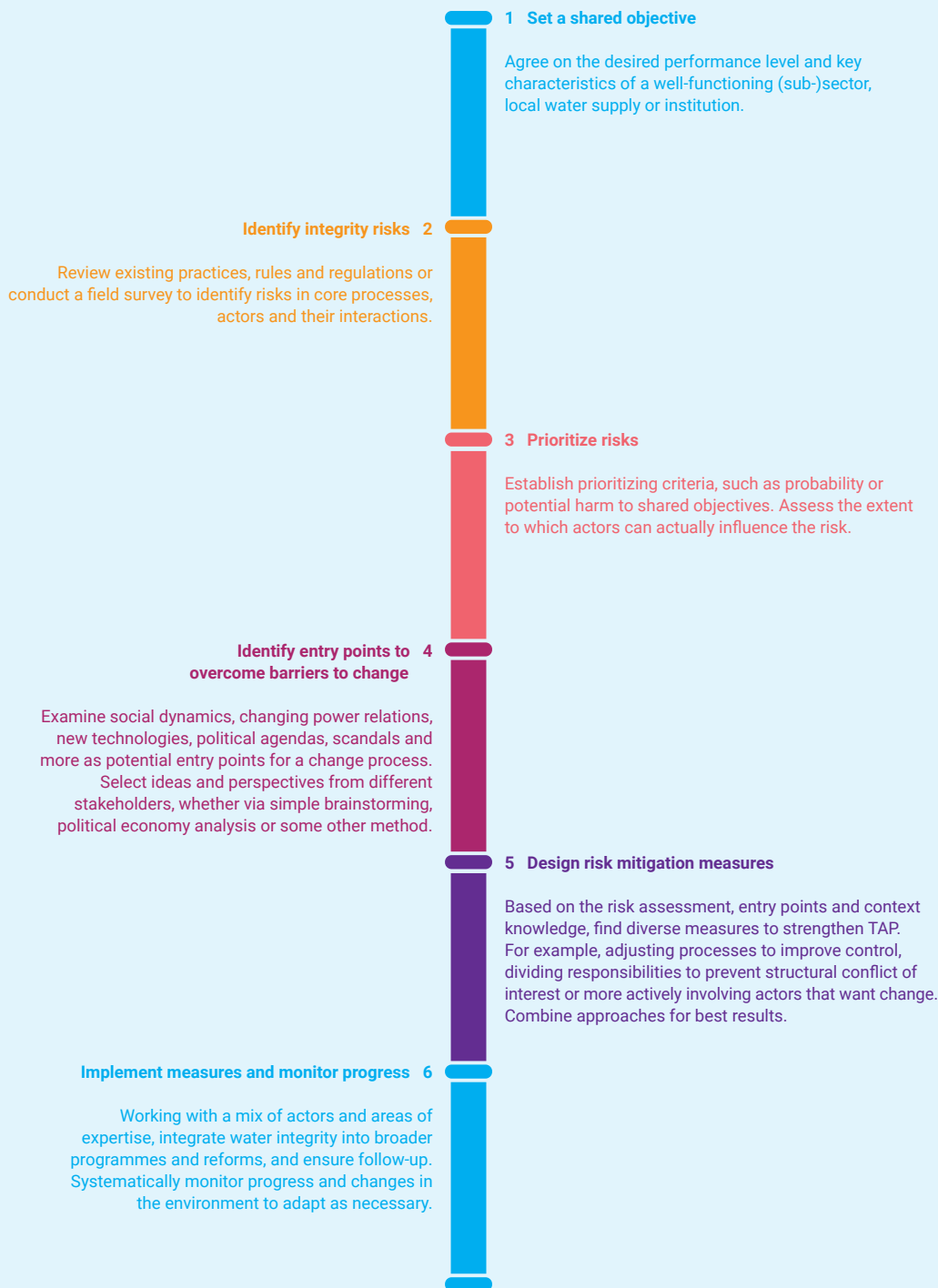
The Integrity Management Toolbox (Hermann-Friede, Kropac, Achermann et al., 2014) is an actionable tool that supports organizations in making integrity a part of their strategic plans and business models to reduce risks and improve performance. It provides a step-by-step methodology for initiating and facilitating an integrity change process, as well as comprehensive information on integrity risks and relevant mitigation tools. The Toolbox was developed by the International Centre for Water Management Services (cewas), WIN and GIZ in cooperation with local partners in Kenya, with the support of BMZ. Since the pilot implementation with eight Kenyan water service providers, it has been adapted to the context of SMEs in the Zambian water sector, utilities in Bangladesh and public water authorities in Costa Rica. Modified versions for community-managed water supply systems and NGO project management are under development by Caritas Switzerland with SDC support.

A year after the workshops almost all the participating organizations have begun to implement integrity instruments. For example, an SME from Zambia has introduced internal audits and the physical inspection of construction sites to deal with ‘ghost workers’, who were directly affecting their bottom line. In Bangladesh, the water utility in Khulna intends to implement the recommendations from the usage of the tool.

### **Box 5.22 How to embed tools in an integrity risk management process**

An integrity risk management approach (Boehm and Teggemann, 2011; UNDP, 2013) can guide users from understanding risks to designing possible solutions. It can be used to develop specific water integrity initiatives, as well as to mainstream integrity into general water sector projects and programmes during the planning phase. The approach usually comprises the steps shown in Figure 5.4 (Hermann-Friede, Kropac, Achermann et al., 2014; GIZ, 2012).

**Figure 5.4 Steps of an integrity risk management process**



(developed by WIN)



## 6 CONCLUSIONS AND WAY FORWARD

What are the practical ways to build integrity into the water sector? This chapter has examined four – collaboration with media professionals and organizations, advocacy initiatives, capacity building and the use of a range of tools – all of which aim to make the water sector more transparent, accountable and participative by catalysing a change in power relations and accountability mechanisms.

Ideally, different strategies need to be combined to create a comprehensive intervention and ensure that integrity is firmly anchored in how the water sector works.

This chapter has shown many examples of successful practical initiatives to combat corruption and increase integrity throughout the water sector. Much more needs to be done. This *Global Outlook* calls for stakeholders to build the relevant capacity and knowledge that will allow integrity to flourish throughout the sector.

This leads to the following recommendations.

- + **Develop targeted water integrity advocacy at multiple levels.** Advocacy on water integrity has to target political leadership as well as involve the grass roots in order to create the momentum and legitimacy to drive institutional reforms and to build a sustainable base of support for change. The media can also provide substantial support to integrity in the water sector.
- + **Develop capacity-building initiatives within comprehensive frameworks for action.** Water governance and management capacity-building programmes must include water integrity tools and build synergies between water sector and anti-corruption bodies. Capacity building should be part of an overall programme of reform, with established targets and goals.
- + **Adapt tools to local contexts and combine them in broader strategies.** Tools are most effective when they focus on what matters locally, when they have political and institutional support and when they link the local level to the national level. Above all, they need to be embedded in a broader strategy with clear objectives.

**Table 5.2 Integrity strategies and tools for the water sector**

Actors: ministry in charge of water and sanitation (M), regulatory body (R), local government (LG), government body in general (GB), service provider (SP), multi-stakeholder platform (MSP), civil society (CS), development partner (DP).

	<b>Strategies and tools</b>	<b>Key features</b>	<b>Users</b>	<b>Further information/ examples</b>
<b>Policy</b>	Water sector anti-corruption strategies	Formal commitments and umbrella for initiatives can build momentum.	M	Potter and Butterworth (2014);  U4 paper on sector AC strategies (forthcoming)
	Sectoral legislation; regulation on access to information	CSOs and users can question government and service providers.	M, R	<a href="http://www.right2info.org/access-to-information-laws">www.right2info.org/access-to-information-laws</a>
	A set of sector integrity principles	Builds momentum and commitment.	M, R, CS, DP	OECD (2015b)
<b>Regulation and oversight</b>	Benchmarking, standards for service delivery and corporate governance	Provide transparency on performance; may include specific indicators on integrity or governance.	M, R	WASREB (2009)
	Transparent regulatory processes	Disclosure of information and decision criteria – e.g. of water allocations, licensing, tariff setting. Possible participation of user representatives.	M, R, LG	Nordmann (2013);  WSP (2010)
	Database and e-platform for sector transparency	Platforms can present information (e.g. water points, procurement, service delivery) and enable user feedback or verification.	M, R	<a href="http://www.majidata.go.ke">www.majidata.go.ke</a> ;  <a href="https://apps.contraloria.gob.pe/ciudadano">https://apps.contraloria.gob.pe/ciudadano</a>
	Quantitative service delivery surveys	Examination of the efficacy of spending, incentive oversight and the relationship between providers and users.	M, R, LG,	<a href="http://go.worldbank.org/MB54FMT3E0">http://go.worldbank.org/MB54FMT3E0</a>

	Strategies and tools	Key features	Users	Further information/ examples
Human resources	Recruitment standards for key positions in the sector	Standards for all service providers or formalized user groups – e.g. in appointing board of directors. Create transparency and community participation.	M, R	www.icac.nsw.gov.au/preventing-corruption/knowing-your-risks/recruitment-and-selection/4303;  WASREB (2009)
	Code of conduct for the sector institutions/ organizations	Sets values and rules, usually voluntarily. Needs to be combined with monitoring and/or complaints mechanism.	M, R, MSP,	Water Regulatory Authority of Albania (2012);  WASREB (2010b);  <a href="http://ceowatermandate.org/integrity/">http://ceowatermandate.org/integrity/</a>
User feedback and social accountability <sup>1</sup>	User complaint mechanism	Enables individuals and user groups to raise complaints; should be combined with redress mechanism.	M, R, LG, SP, CS	Agrawal and Shukla (2008)
	Establishment and empowerment of water user groups	User groups with a legal role and status can raise demands to the service provider or regulator.	R, DP, CS	WASREB (2012a);  NWASCO (2008)
	Social audit	Participatory examination of the impact or performance of a programme or service provider.	CS, GB, DP	Berthin (2011)
	Community scorecards	Systematic feedback on a service between mobilized citizens and water service providers or local governments.	Jointly: CS, GB, DP	CARE Malawi (2013)
	Citizen report cards	Household surveys for user feedback. Can be combined with public debates or advocacy campaigns on findings.	M, R, LG, SP, CS, DP	<a href="http://www.citizenreportcard.com">http://www.citizenreportcard.com</a>
	Public hearing	Dialogue between government bodies or service providers and citizens.	GB, SP	World Bank (2005b)

<sup>1</sup> For a good overview of accountability tools in WASH, see Jiménez and Le Deunff (2015) and, more generally, World Bank (2005b).

	<b>Strategies and tools</b>	<b>Key features</b>	<b>Users</b>	<b>Further information/ examples</b>
<b>Budgeting/procurement</b>	Participatory budgeting	Citizens participate in local budget decisions, either deciding over an earmarked portion of the budget or giving recommendations.	LG with CS	<a href="https://gizanticorruptiontoolbox.org/img_auth.php/3/31/Participatory_Budgeting.pdf">https://gizanticorruptiontoolbox.org/img_auth.php/3/31/Participatory_Budgeting.pdf</a>
	Transparency in sector budget allocation and impact	Disclosure of detailed budgets in an understandable format.	M, LG	<a href="https://gizanticorruptiontoolbox.org/img_auth.php/6/65/Transparency_in_Budget_Allocation.pdf">https://gizanticorruptiontoolbox.org/img_auth.php/6/65/Transparency_in_Budget_Allocation.pdf</a>
	Budget monitoring	Monitoring budget allocation and execution. Often combined with advocacy.	CS	Ramkumar (2008)
	Public expenditure tracking survey (PETS)	Quantitative exercise tracing the flow of resources from origin to destination.	M, LG, DP, CS	<a href="http://go.worldbank.org/SHZWCL1YI0">http://go.worldbank.org/SHZWCL1YI0</a>
	E-procurement	Online systems to place tenders, bundle procurement and enable participation across geographic boundaries.	M	<a href="https://gizanticorruptiontoolbox.org/img_auth.php/c/c5/E-Procurement.pdf">https://gizanticorruptiontoolbox.org/img_auth.php/c/c5/E-Procurement.pdf</a>
	Disclosure of contracts and other procurement documents	Government entities publishing or giving access to tender documents and contracts; to be combined with civil society monitoring.	GB, DP	<a href="http://www.open-contracting.org/open_contracting_guide">www.open-contracting.org/open_contracting_guide</a>
	Integrity pact	Formal agreement to refrain from giving or accepting bribes in procurement; compliance monitoring.	Jointly: GB, CS, private sector	TI (2015b)
	Community monitoring of procurement and infrastructure development	Civil society following procurement process and raising red flags, physically checking infrastructure development	CS	<a href="http://monitoring.transparency-usa.org/">http://monitoring.transparency-usa.org/</a> Open Contracting Partnership (2013)

	<b>Strategies and tools</b>	<b>Key features</b>	<b>Users</b>	<b>Further information/ examples</b>
Awareness raising	Investigative journalism	Journalists covering corruption cases and governance failures in water	Media, CS	<a href="http://gijn.org/resources/investigative-journalism-manuals/">http://gijn.org/resources/investigative-journalism-manuals/</a> ;  <a href="https://washjournalists.wordpress.com">https://washjournalists.wordpress.com</a>
	Citizen or service charter	Information on tariffs, service standards, fees, user rights, complaints etc. provided on boards and/or online	R, GB, SP,	Post and Agarwal (2011)
	Integrity awards	Provides recognition and possibly some prize for strong performers	M, R, CS	<a href="https://gizanticorruptiontoolbox.org/img_auth.php/5/50/Integrity_Awards.pdf">https://gizanticorruptiontoolbox.org/img_auth.php/5/50/Integrity_Awards.pdf</a>

# INFORMATION AND COMMUNICATION TECHNOLOGY: BOOSTING INTEGRITY?

*'We are not even at the tip of understanding the full potential of technology.'*

Jaehyang So, ex-manager of the World Bank's WSP (Schouten, 2013)

In sub-Saharan Africa, more people have access to mobile phones than to improved water sources, which still do not reach 319 million people (UNICEF and WHO, 2015). It is not hard to see, therefore, why information and communication technologies are increasingly being used as a tool to support water governance (Schouten, 2013). In relation to the water sector in particular, it is mobile phones that are the fastest-growing and most useful technology that improves the flow of data (Schouten, 2013).

Used and introduced properly, ICTs can increase transparency, accountability and civil participation and reduce corruption. They can also hold decision-makers to account, as well as enabling governments to communicate with their citizens.

Methods include real-time data reporting; open data portals (Davies and Fumega, 2014); using technology to eliminate the agents or the need for cash and to make customer feedback participatory; and e-procurements and mobile technologies (Grönlund et al., 2010).

In Africa at least, corruption in the administration of payment systems is a major source of corruption (Plummer and Cross, 2006). Too often, payment for services is informal, and this makes it possible to fake meter readings, give preferential treatment in

return for a bribe and engage in other activities that constitute water theft and lead to financial losses (Davis, 2003).

ICTs can contribute to the ability of water sector institutions and regulators to monitor both performance and potential areas for corruption, including making payments more efficient and corruption-proof, thus enhancing both service quality and provision. They can be used in various contexts, as the following examples show.

- + The city of Metro Manila in the Philippines uses a map-based information system to monitor service performance and customer complaints, leading to more coordinated repairs of pipe breaks and better tracking by the regulator (Cook and Stevens, 2002).
- + In Timor Leste a Water and Sanitation Information System monitors rural water and sanitation services at national, district and sub-district levels. Information collection is facilitated via SMS mobile technology to enable WASH facilitators to collect data, fill digital forms, store information and transmit the information by SMS to a central national database, which is regularly updated and the information made openly available to all (Pearce et al., 2015).
- + Akvo FLOW is an ICT tool for collecting, evaluating and displaying any quantity of geographically referenced data using smartphones and an online dashboard. It is used in the water sector in different countries (Akvo, 2012). In Liberia, for instance, it was used to complete surveys that monitored water points in urban and rural areas. Data was submitted directly to the web-based dashboard for data management and analysis. In Malawi, it enabled the collection of data from over 2,000 water points (Nhlema and Harawa, 2015).
- + In 2009 in Dar es Salaam, Tanzania, the Water and Sewerage Corporation (DAWASCO) introduced mobile communication technologies for the billing and payment of water. This meant that, instead of manually

entering transaction data into the billing system, an automatic update is generated. This has led to a reduction in the incidence of petty corruption and promoted improved financial management by making transaction data more transparent (Krolikowski, 2014).

- + The Open Government Partnership was launched in 2011 to provide an international platform for domestic reformers committed to making their governments more open, accountable and responsive to citizens. To date 66 countries have signed up to create, together with their citizens, National Action Plans, which include technological innovation.<sup>1</sup> In addition, a range of initiatives to enhance transparency in fiscal spending have become a key tool to track budget allocations and expenditure, such as Open UN-Habitat and the Open Budgets Portal from the World Bank, to name but two. Specific water-related web interfaces on the fiscal spending of national governments, donors and organizations in the water sector are still rare. One example is the International Aid Transparency Initiative, which enables signatories to publicize planned financial spending in a specific country, sector or region. The Kenya Open Data Portal enables such fiscal tracking of expenditure in the water sector.<sup>2</sup>

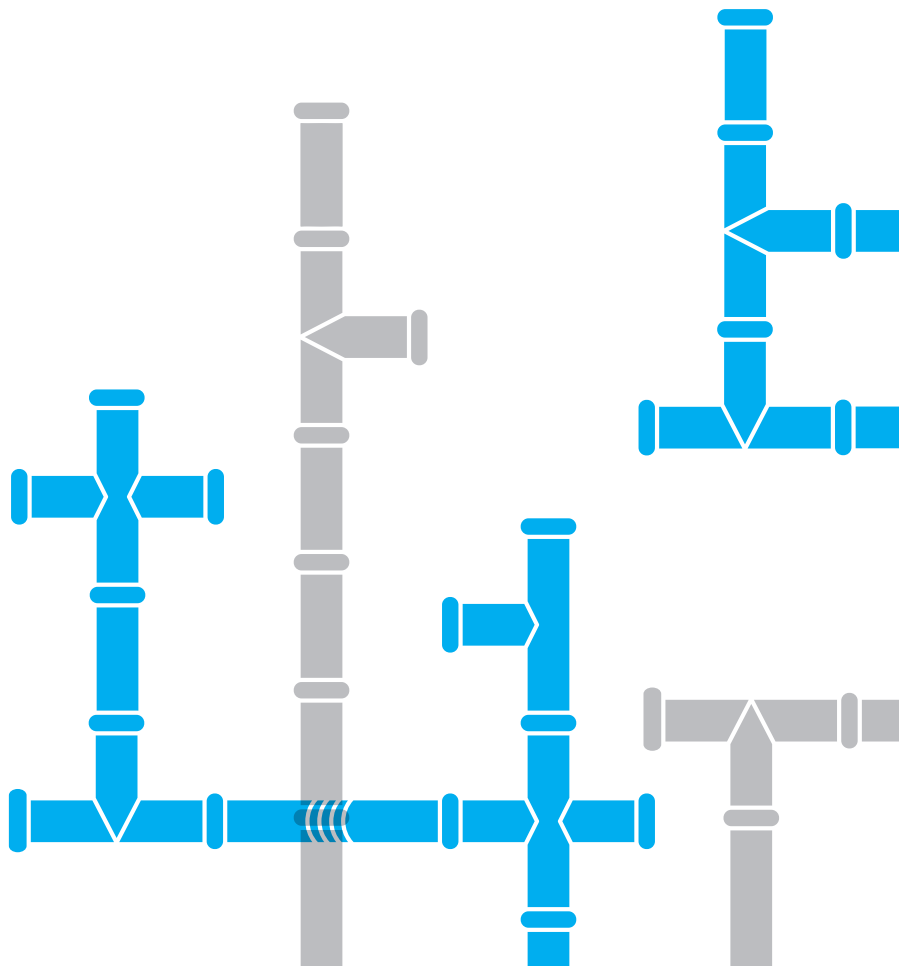
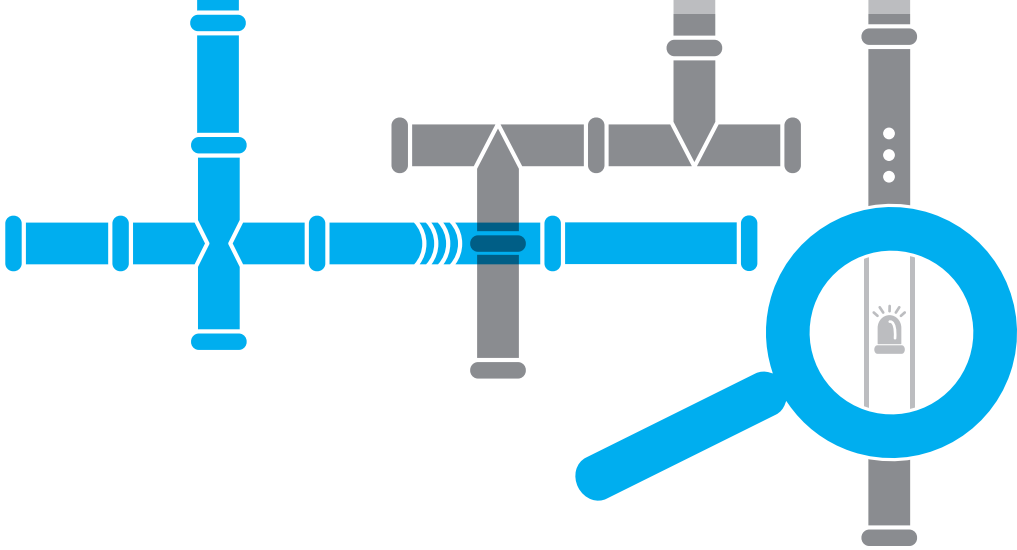
## THE CHALLENGES OF USING ICTS TO COMBAT CORRUPTION

However, in practice there are a number of challenges in the use of ICTs to improve governance. They are a tool for rather than the solution to fighting corruption. In addition, making use of ICTs in this way is not always easy. For example, information is often not detailed enough for misconduct to be easily spotted, which makes it difficult for citizens and the media to recognize when something is corrupt (Davies and Fumega, 2014). Moreover, with many of the online platforms it is impossible to design data visualizations. To make the information easy to compare they require constant maintenance, and often they are not linked to other databases and sources. Additionally, information can be manipulated to influence decision-making, and data collection still relies on the accountability and transparency of the people who manage the information systems. One of the key challenges, says Muthi Nhlema from Water for People, is not the lack of appropriate technology but, rather, people's lack of capacity to read the story behind the data (Nhlema and Harawa, 2015). If ICTs are truly to help address integrity in the water sector and elsewhere, they must be used as part of broader policy and governance frameworks and go hand in hand with changes in people, processes and institutions (Pearce et al., 2015).

---

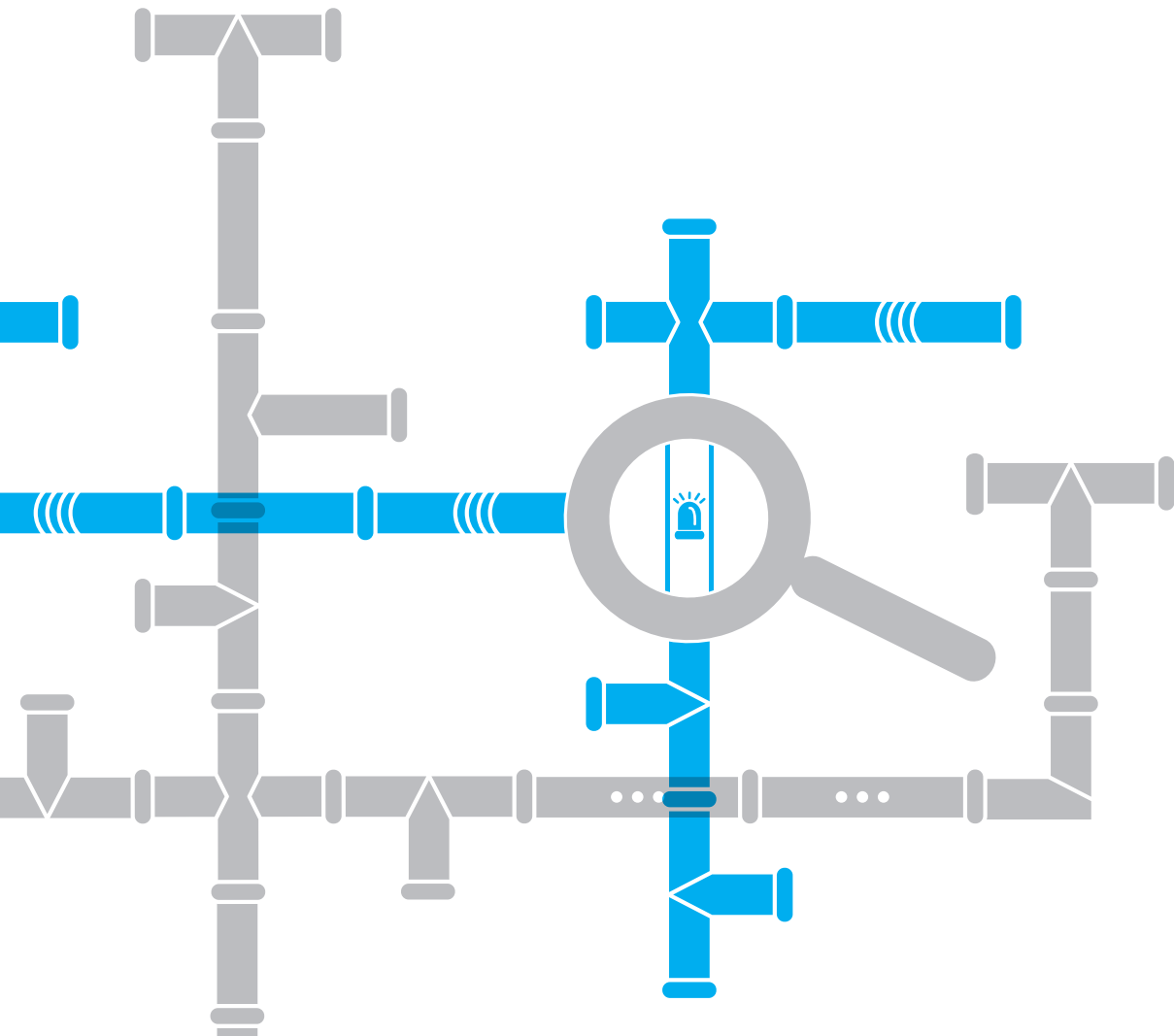
<sup>1</sup> Open Government Partnership: [www.opengovpartnership.org](http://www.opengovpartnership.org).

<sup>2</sup> Kenya Open Data Portal: <https://opendata.go.ke>.





# WHAT COUNTS? MONITORING AND EVALUATION



6

‘ *The first step in addressing corruption is a diagnosis of the scale and nature of the problem.* ’

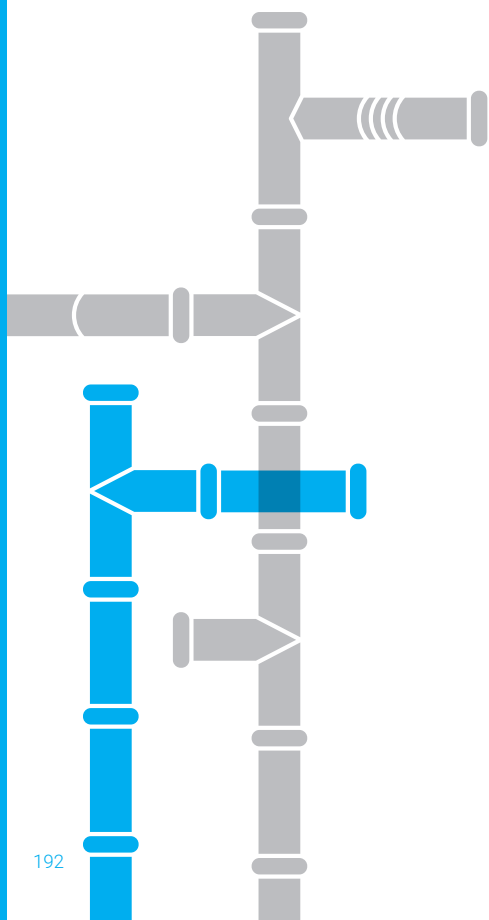
González de Asís et al., 2009

#### KEY MESSAGES

+ Monitoring aspects of the water sector such as access to sanitation, the allocation of budgets and the quality of water resources is of vital importance to achieving targets such as the SDGs, as well as for building integrity.

+ Monitoring and evaluation in the water sector can reveal areas that relate to integrity issues at all stages along the water chain.

+ Any monitoring and evaluation framework should have independent checks and quality control measures in place – including the active involvement of communities.



# What Counts?

## Monitoring and Evaluation

---

This chapter considers how monitoring and evaluation can enhance integrity in the water sector. It examines various approaches for measuring performance and integrity. It highlights the importance of communities taking an active role in monitoring, and feeling that they have ownership of decision-making processes. It notes that it is also important to ask: who monitors the monitors? Finally, it examines some of the challenges of using evaluation to build integrity.

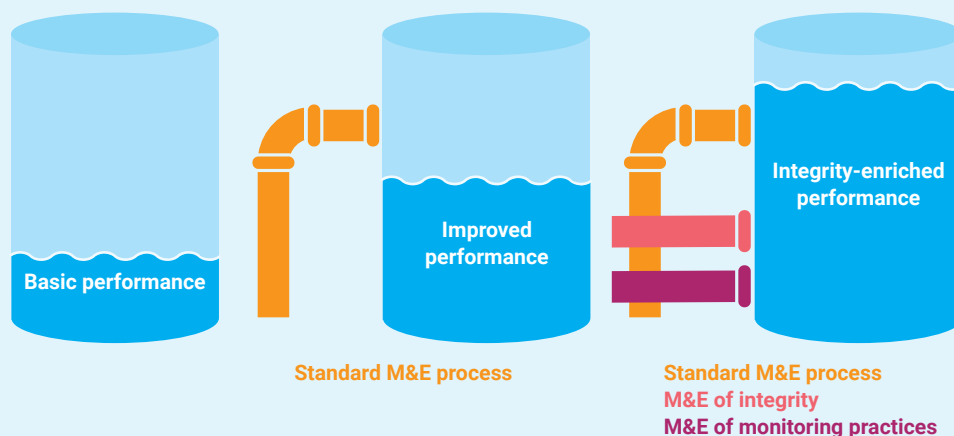
### **1 INTRODUCTION: THE IMPORTANCE OF MONITORING FOR WATER INTEGRITY**

Monitoring is a means to an end. Different organizations and people have different goals and adopt different monitoring systems, using a variety of indicators and methods to collect and analyse data. Being able to monitor and measure how many people have clean drinking water, how much money is being allocated for sanitation or which the most effective irrigation schemes are is central to achieving targets such as the SDGs. It is also key to combating corruption and building integrity in the water sector (OECD, 2014c).

The quality and quantity of water and their impact on, for example, availability for its multiple uses, human health or ecological integrity are very connected to the process of what is monitored, who is monitoring (and their credentials) and how findings are reported (ideally, within an advanced IWRM framework). They are also related to the exertion of direct and indirect political influence.

Accurate monitoring therefore has an impact at all levels of the water integrity chain, from decision-making to regulation and enforcement. It can promote transparency and thus help to prevent corruption by communicating successes and limitations to all stakeholders, incorporating lessons learned into procedures at different levels and setting the basis for incentives and sanctions. It can be a powerful tool to influence decision-making and to hold decision-makers accountable.

Figure 6.1 provides an overview of different aspects of monitoring and evaluation and how they are related to the integrity and performance of the water sector.

**Figure 6.1 Monitoring and the relationship with integrity**

(developed by WIN)

Overview of different aspects of monitoring and evaluation (M&E) and how they are related to integrity. The first tank represents the basic performance and integrity of a given water sector. The second tank shows how the performance improves following a classical monitoring and evaluation process. The third tank indicates an even further improvement due to additional M&E steps linked to the integrity of the system (M&E of integrity, and M&E of monitoring practices).

## 1.1 Indicators for monitoring water integrity

The accountability of the monitoring process has to be assured through a sound framework and adequate control and verification mechanisms. The OECD suggests adopting a legal framework that defines across institutions who does what monitoring, when, where and how and ensures that monitoring is properly and efficiently discharged and aligned with policy objectives (OECD, 2014b). It has also recently published a compilation of initiatives and measurement frameworks (OECD, 2015a), including: water governance indicators; water indicators with governance variables; and environmental/governance indicators with water variables.

Some specific parameters that these and similar initiatives aim to measure include the following (examples of tools in brackets).

- + Perceived corruption levels (TI's Corruption Perception Index)
- + Transparency in corporate reporting (tool by TI)
- + Transparency in water management agencies (Water Management Transparency Index)
- + Service quality provided by utilities (citizens' score cards)
- + Integrity in procurement (Methodology for Assessing Procurement Systems: MAPS)

- + Budget transparency (IBP's open budget index)
- + Sectoral integrity (AWIS)
- + Sectoral financial integrity (audits by SAIs)
- + Integrity in rural water supplies (budget tracking and value-for-money audits)
- + Integrity in hydropower planning, implementation and operation (Hydropower Sustainability Assessment Protocol: HSAP).

Local, national and international monitoring efforts can focus on the internal or external monitoring of the performance of institutions and interventions, and can also monitor the status of the water sector, using indicators such as the coverage, availability or existence of supportive policies.

In Peru, the regulator annually monitors the governance performance of 30 water and sanitation utilities, using a composite indicator made up of 23 different indicators covering seven categories, including transparency in municipal service management, social and institutional management, consumer care, financial sustainability, project management office performance (Index of Global Compliance), institutional strengthening and the labour climate (Dirección Nacional de Saneamiento, 2014).

TI Spain, the Water Observatory and other Spanish agencies have developed the Water Management Transparency Index (WMTI). The index has 80 indicators that assess the transparency of river basin agencies (RBAs) by analysing their web pages to see if they meet the requisite level of transparency according to the indicators. This approach was applied in Spain, where each RBA has a webpage that aims to inform citizens about water resources in the basin and their management (Das, 2012). A number of water agencies have shown a keen interest in this initiative and made efforts to share information on their websites based on the indicators and their performance on the WMTI.

UN-Water divides indicators for the water sector into four categories: context, function, performance and, finally, governance, which is the most relevant for integrity. It notes that 'a set of governance indicators is needed to furnish possible explanations behind varying levels of performance between a given territory and different benchmarked territories. To provide an insightful diagnosis as to the possible weak spots requiring investigation and possible improvement or reform, governance indicators must encompass the territorial management of water resources and water use.'<sup>1</sup>

## 1.2 Who should be involved in monitoring?

Independent government agencies are key to ensuring implementation and enhancing oversight. Increased inspection, monitoring and sanctioning are intended to curb bribery, embezzlement and collusion. However, these agencies themselves may be the target of lobbying by vested interests, such as business groups. There are powerful reasons why monitoring by governments and international institutions alone is insufficient. Governments have incentives to conceal or 'spin' the result of their monitoring if it exposes practices and decisions that reflect poorly on their stewardship (Holloway, 2006).

<sup>1</sup> UN-Water: [www.unwater.org/activities/task-forces/indicators/developing-indicators/en](http://www.unwater.org/activities/task-forces/indicators/developing-indicators/en).

This is why in all countries there is some form of auditor general (for example, the comptroller and auditor general in India and the National Auditing Office in China) in charge of monitoring the expenditures of different government organizations (see Chapter 3). Often there is a prosecutor general with an independent mandate to prosecute corrupt officials and government representatives. Other government agencies, such as anti-corruption agencies, a special parliamentary commission and an ombudsman, etc., may have related oversight functions and responsibilities (Vos, 2011).

Donor agencies frequently assess fiduciary risks and are therefore often in a position to exert pressure to enhance integrity. It is possible that international development programmes or organizations decide not to expose certain problems, because they may jeopardize relationships with local partners or the government. And local communities, as we will see, are also key, though they may be subject to their own pressures.

Any monitoring framework should therefore have independent checks and balances in place to reduce the risk that sensitive information is kept from public view.

### Box 6.1 Definitions in assessing water governance

**Monitoring:** the process of measuring the progress being made towards achieving goals and objectives. It focuses on tracking projects and the use of funds, but also on tracking strategies and actions being taken, and establishing what new strategies and actions need to be taken (UNDP, 2009).

**Indicator:** a quantitative or qualitative factor or variable that provides a simple and reliable means to measure achievement, to reflect the changes connected to an intervention or to help assess the performance of a development actor (OECD-DAC, 2002). There are two basic criteria for indicators: validity and efficiency. Validity refers to the quality of the indicator in measuring the current conditions and in measuring progress; efficiency refers to the effects of the indicator in relation to the cost and effort required to collect information.<sup>2</sup>

**Evaluation:** the process of determining the relevance, efficiency, effectiveness and impact of activities in the light of their objectives in a systematic and objective manner. It encompasses the gathering of information, including but not only that obtained through monitoring, and the use of such information to make judgements and take informed decisions about a given process. While monitoring is a continuous process, evaluation is a task that takes place at critical times in a given process (Faures, 2006).

<sup>2</sup> Ibid.

## 2 INDICATORS AND APPROACHES FOR MONITORING INTEGRITY IN THE WATER SECTOR

Monitoring systems focused on collecting and analysing information on the quality and sustainability of water services help to assess the real impact of a project and enhance service-oriented accountability. Indicators are essential tools for tracking water sector progress, supporting policy evaluation and informing the public. Traditional indicators for monitoring the water sector focus on the coverage, reliability and quality of the water supply, sanitation systems and water resources management (Sharma, 2006). Accountability and performance indicators can reveal local, national and regional issues related to the availability/use of water resources and the quality of service provision. In developing countries, national monitoring systems mostly focus on outputs and outcomes; in the case of water supply and sanitation these include, for example, access to improved drinking water sources or sanitation facilities and distance to water sources, or, for WRM, the percentage of wastewater safely treated or the extent of a wetland.

In the water sector there are huge gaps in data. What is largely missing is any consideration of the quality, reliability, frequency or other level of service being received by users, or of the sustainability of services of, say, a water point (Schouten et al., 2011). Indeed, water infrastructure is often built with a very short-term perspective and with no service support. Once it breaks down, new infrastructure is constructed. There is a clear link here to high levels of corruption, especially during tendering and procurement processes for new projects, but also during the implementation process (see Chapter 4) (Brookings Institution, 2015).

### 2.1 Monitoring perceptions

Monitoring can be fact- or perception-based. The former looks at actual events and data and is the most common form of monitoring. The latter asks what people perceive about an issue. This is especially useful when monitoring corruption levels, as people may be reluctant to talk about acts of dishonesty to which they have been party or failed to prevent but willing to give an opinion of general levels of corruption in a particular area of work.

The best-known example of this is the Corruption Perceptions Index (see Figure 1.2 in Chapter 1).<sup>3</sup> Perception monitoring has also been used in the water sector in countries. For example, WIN, TI and WSP conducted a baseline survey of integrity in the Uganda water supply and sanitation sector in 2009 that collated the results of a survey on the experiences and perceptions of levels of integrity in the water sector by seven key stakeholders in eight districts. It identified perceived levels of corruption in the management of water supply and sanitation systems and levels of transparency in decision-making related to the allocation of water resources (Jacobson et al., 2010).

However, it is important to be cautious about perception-based data, since it is very dependent on the context and it opens up many opportunities for distortion.

<sup>3</sup> TI: [www.transparency.org/cpi2014](http://www.transparency.org/cpi2014).

## 2.2 Monitoring across the chain

Monitoring should cover the whole water sector chain, from preparation to design, contracting, construction, operation and maintenance, etc. (see Respective chapters). This includes the monitoring of:

- + the elaboration and implementation of policies and laws;
- + the planning and allocation of budgets and the management of finances;
- + the design;
- + the construction;
- + the operation and maintenance;
- + the consumer interface; and
- + the compliance with regulations.

Choosing the right combination of indicators, including measurements of performance and integrity, is key to developing an effective approach to monitoring.

## 2.3 Linking monitoring to integrity

While water sector monitoring may not have an explicit anti-corruption agenda, several indicators and approaches have an implicit link to integrity and corruption.

- + **Financial indicators:** some of the main indicators for water supply utilities are budget allocations, the real costs of water and sanitation services (McIntyre et al., 2014), the maintenance of functioning meters (Hope et al., 2011), regular tariff reviews (UN-HABITAT, 2006), the public disclosure of finances (OECD, 2002) and the expenditures of boards of directors (WASREB, 2012b) (see Chapter 3).
- + **Unaccounted-for water** is one of the most visible red flags for corruption and inefficiency in a water supply system. A significant proportion of the big losses in the distribution system (in some countries above 50 per cent) can be directly related to corrupt behaviour, such as illegal connections or the theft of money that has been collected but is never accounted for (González de Asís et al., 2009; World Bank, 2012b).
- + **Value-for-money studies** assess whether or not an organization has made optimal use of the funds and resources to achieve the intended outcomes. These approaches monitor the flow of resources, identify bottlenecks during implementation and aim at making recommendations to ensure that funds are allocated properly and contracts awarded fairly and in line with sectoral experience (Thomson et al., 2005).
- + **Public expenditure tracking (PET)** is an approach for checking corruption in public expenditures in the sector. Even when total financing is adequate, local service providers may be underfunded if payments from the state are delayed, reallocated or even stolen as funds pass from one level of administration to the next (GLONEHDO, 2012).
- + **User engagement:** end-users are increasingly being integrated into the water sector framework to provide bottom-up monitoring. These approaches activate public debate and trigger participation – a key pillar of integrity (WASREB, 2010a). Particularly interesting in this regard are initiatives around social accountability monitoring, which are based on the expectation that greater transparency and public scrutiny of how the water sector operates will prevent and



redress many of its problems. The Water Accountability Monitoring approach developed by Water Witness International is a good example (Water Witness International, 2014).

- + **Information technologies:** the use of automated meter reading has led to a reduction in the number of bypassed meters and related bribes paid by customers (Hope et al., 2011). Map-based information systems on service delivery and customer complaints can help to track the responsiveness of utilities to customer complaints (Rafter, 2007). AQUASTAT, the global water online information system of the Food and Agriculture Organization (FAO) of the United Nations, collects, analyses and disseminates information on water resources, water uses and agricultural water management, allowing users to find comprehensive and regularly updated information (see Spread on ICTs) (*The New York Times*, 2014; Dickinson and Bostoen, 2013).<sup>4</sup>
- + **Participation:** effective monitoring also needs to take account of the different needs of diverse groups and communities, especially the vulnerable ones: the poorest, children, women, etc. Attention should be given in the water sector in order to prevent the unfair distribution of services. A first step here may be to disaggregate data by groups in order to assess the positive or negative impacts of a project or programme and to make informed decisions about the next steps (see Box 6.2).

### Box 6.2 Monitoring gender in the water sector

In Ethiopia a monitoring and evaluation programme for WASH provides gender-disaggregated indicators, including the percentage of women trained in scheme management (inputs); the percentage of women beneficiaries from improvements in water and sanitation services; the number of male and female toilet units in schools (outputs); and the percentage of women participating in scheme management (WSP, 2010). In practice, the story is often somewhat different. A WASH evidence gap map, based on the International Initiative for Impact Evaluation (3ie) systematic reviews database,<sup>5</sup> shows that very few evaluations examine gendered impacts (3ie, 2015).

A specific contract, for example with a private sector company, often implies a requirement for performance reporting and key performance indicators which provide monitoring information that may be lacking in public operations.

The information generated through such approaches and indicators helps to develop a better understanding of how the water sector works and to identify effective measures to enhance sector performance through higher levels of integrity.

The 2014 GLAAS report on Africa found that in fewer than one in four countries do sanitation service providers report the results of internal monitoring to regulatory authorities in such a way as to trigger corrective action (UN-Water and WHO, 2015). The report notes: 'There is a need to develop mechanisms and strategies to address, rather urgently, issues of capacity which continue to undermine the implementation of policies at various levels. There is also need to ensure that adequate resources are allocated towards monitoring of policies and programmes while also ensuring that decisions undertaken at various levels are evidence-based.'

<sup>4</sup> FAO: [www.fao.org/nr/water/aquastat/main/index.stm](http://www.fao.org/nr/water/aquastat/main/index.stm).

<sup>5</sup> 3ie: <http://gapmaps.3ieimpact.org/evidence-maps/water-sanitation-and-hygiene-evidence-gap-map>.

### 3 HOW CAN MONITORING ENHANCE INTEGRITY AT NATIONAL AND LOCAL LEVELS?

#### 3.1 The 'black box': monitoring and water sector governance

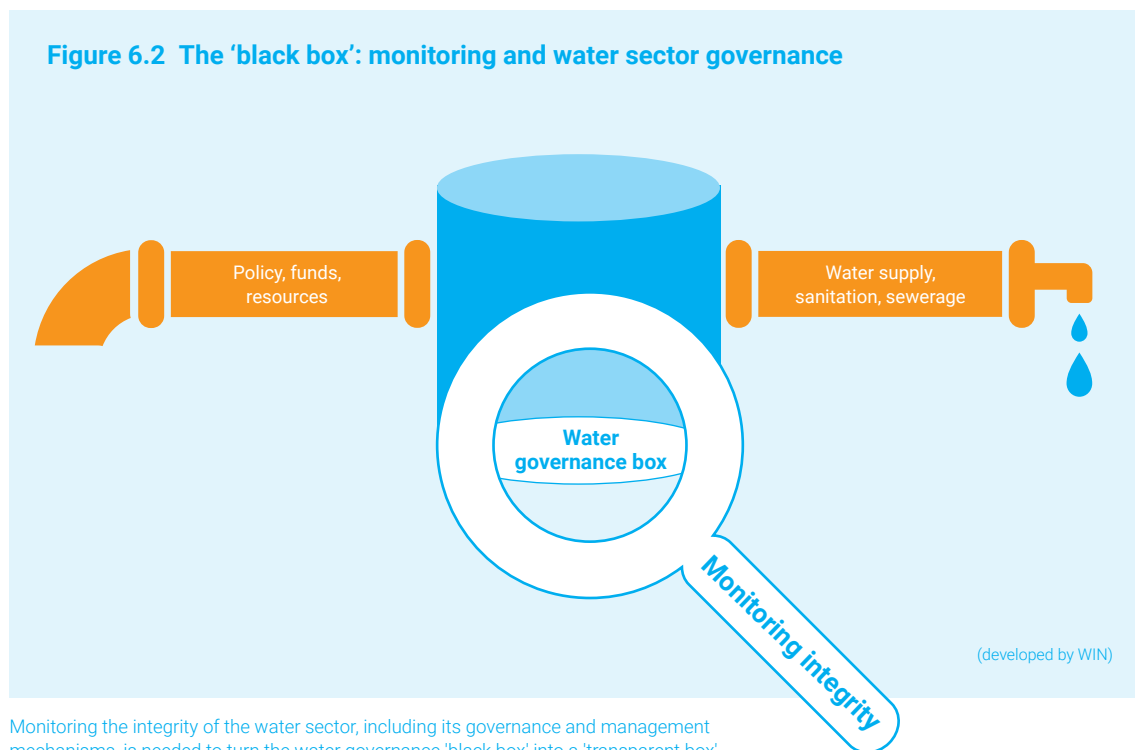
The governance of a country's water sector often forms a 'black box', which receives inputs in the form of policy measures, funds and other resources and generates environmental protection, infrastructure, irrigation systems, allocation and licensing systems, institutions, water supply, sanitation and sewerage services. Water governance includes all phases (policies, managing finances, implementation, consumer relationships, etc.) and players (officials, water resources institutions, river basin organizations, utilities, CSOs, contractors, providers, users, etc.).

Monitoring efforts in the water sector focus on collecting information on what comes out of the 'black box' – be it at the output, outcome or impact level. More recently there has been increasing attention to inputs into the sector, such as budgets, finance flows, policies and legislation (Smits et al., 2013). Monitoring both what goes into the governance 'box' and what comes out can allow for an evaluation of whether the sector functions well or not.

One of the roles of monitoring is to turn the water governance 'black box' into a transparent one. For a sector budget, for example, it is important to know if an increased allocation of funds does the following.

- + Meets the needs to improve coverage: is the money the bottleneck or is it skilled labour, the supply of equipment or something else?

**Figure 6.2 The 'black box': monitoring and water sector governance**



Monitoring the integrity of the water sector, including its governance and management mechanisms, is needed to turn the water governance 'black box' into a 'transparent box'.

- + Can be absorbed effectively: does the region have the capacities to convert the funds into services or do the funds simply increase the pressure to spend money?
- + Reaches the region in a timely manner: do those responsible for water distribution have the funds at their disposal or are they siphoned off beforehand, or is disbursement delayed?

Qualitative information to understand water governance is needed to allow decision-makers to use monitoring information effectively. Monitoring systems focused on collecting and analysing information on quality and sustainability can also help to assess the real impact of a given project and to enhance service-oriented accountability (Skinner, 2009).

### Box 6.3 Taking action on non-compliance in Zambia

In Zambia the National Water Supply and Sanitation Council (NWASCO) monitors commercial utility companies and takes action if persistent performance problems are encountered (Visscher et al., 2013). In 2013 NWASCO suspended the operating licence for Chambeshi Water and Sewerage Company, the provider for Northern and Muchinga provinces. The company had been under close supervision for a year. Issues of non-compliance included: a failure to provide sustainable water supply and sanitation services as provided for in the licence conditions; non-adherence to service-level guarantees and water quality guidelines; and breaching procurement rules and regulations. The management team stepped aside and the Ministry of Local Government and Housing appointed a statutory manager until acceptable levels of service were attained. By February 2015 these changes had led to the suspension of the operating licence being lifted (*Times of Zambia*, 2015).

## 3.2 Building a national framework for monitoring

A sound framework for water sector monitoring at the national level should capture information from all relevant initiatives from the local and regional levels in a country's water sector. This can be very useful in promoting integrity with regard to the following.

- + **Competition:** the benchmarking of comparable water sector institutions can show whether one institution performs better (or worse) than another. Using monitoring information for benchmarking provides incentives for competition, which prioritizes performance over vested interests and private gain. This may lead management to analyse potential integrity issues and to try to resolve them in order to achieve better results (BDEW, 2012).
- + **Accountability** for sector investments and decisions: decision-makers set targets for the water sector at national level, and policy priorities are implemented. Monitoring information provides the basis for the public to hold decision-makers accountable for the effectiveness of their work in creating an enabling framework for progress (Jacobson et al., 2010).
- + **Compliance:** monitoring helps to verify the compliance of sector actors with regulations and agreements. From an integrity perspective, this is important for regulating risk areas

linked to environmental crime and breaches of regulations, including limits for pollutants,<sup>6</sup> critical ground water levels (Nanni et al., 2003), the quality of river basins (Delaware River Basin Commission, 2013), wastewater treatment obligations (Council of the European Union, 1991) and priorities in water use. The questions of who keeps track of compliance with these standards, who reports on them, to whom, how often and whether such reports are systematically made public can be seen as a defining characteristic of the maturity and integrity of water sector governance.

#### Box 6.4 INFObras, Peru

The information system for public works in Peru, INFObras, is an initiative of the country's comptroller general in collaboration with the GIZ (Mayaute, 2013). It started in 2012 with the aim of aligning information systems and increasing the transparency of public works.

Until that point, national information systems for project investments, contracts and payments did not communicate with each other, with consequences at several levels:

- + no overview of the sector was available and no system was in place to measure the physical progress of the works;
- + citizens had no access to organized and transparent information;
- + the implementing agencies could not monitor their management systems; and
- + the government had difficulty in effectively supervising public works.

The new INFObras system combines information from the three national information systems on public works with information from implementing agencies about their physical progress. The database is publicly available online and citizens are encouraged to participate with their comments, suggestions and photographs. The system has been assigned a budget and resources by the Government.<sup>7</sup>

#### Box 6.5 Monitoring the impact of climate change

There is also a need to monitor integrity in the overall management of water resources in a country in order to adjust policies as competition for water increases in times of scarcity.

The Great Ruaha River is of national importance in Tanzania, providing water for rice and maize production, maintaining a wetland site of international importance, meeting the ecological needs of Ruaha National Park, generating hydroelectricity and supplying 1.2 million people in the catchment with domestic water (Lankford and van Koppen, 2002).

There are concerns about sustainable WRM given that a drop in dry-season river flow has been observed over recent decades.

<sup>6</sup> EPA: [www2.epa.gov/dwstandardsregulations](http://www2.epa.gov/dwstandardsregulations).

<sup>7</sup> INFObras: <https://apps.contraloria.gob.pe/ciudadano>.

Researchers from CLIVET (a research collaboration between Tanzania, South Africa and Denmark) found promising strategies in place at the national level to address climate change, along with communication, monitoring and evaluation frameworks. However, the assignment of mandates for delivery on the ground was still in a very early phase, and there appear to be some integrity issues about translating policy into practice (Liwenga et al., 2015).

Targeted climate change adaptation funding was lacking and no prominent climate change impact narratives existed at the district-level governments, although dry areas, food shortages, river water use and crop pests were on the local agenda. District officers identified the need to support livelihood diversification in the area and for the construction of rainwater-harvesting dams and irrigation infrastructure. Following through on these is essential to promote confidence in the process.

The OECD Principles on Water Governance (see Box 1.5) are clear about the importance of monitoring and evaluation and the need to share the results with the public. Specifically, principle 12 calls on countries to 'promote regular *monitoring and evaluation* of water policy and governance where appropriate, share the results with the public and make adjustments when needed' (OECD, 2015).

### 3.3 Monitoring at local level: successes and challenges

Monitoring the water sector at local level involves local planners, service providers and the people who ultimately use the water. One of the advantages of working at this level is that the monitoring process can access data by means of direct and reciprocal communication with local stakeholders. It can contribute to tackling low levels of integrity in a variety of ways.

- + **Performance levels:** monitoring information should trigger reflection on progress in achieving stated objectives. Information revealing low or no progress provides a basis on which to analyse the reasons for underperformance, which may be caused by low levels of integrity.
- + **Exposing and preventing corrupt practices:** monitoring information can reveal illicit practices or make corruption a more complicated and risky choice. This not only relates to practices that are classified as 'corrupt' but includes those that lack acceptable standards of honesty or show a loss of accountability.
- + **Confronting vested interests:** participatory monitoring can engage local communities and ensure that their voices are heard. Confronting vested interests with public interests helps to strengthen the role of civil society in holding powerful actors to account.

An important but frequently neglected issue is communities taking an active role in monitoring, and feeling ownership of, decision-making processes. One of the key demands of civil society from the SDGs is community and civil society monitoring (Higgins and Cornforth, 2015).

Institutions such as WUAs,<sup>8</sup> water watch groups (WWGs) (see Box 6.6), communities that set their own water tariffs (UNICEF et al., 2012) and participatory assessments can help make citizens' voices heard in holding water utilities and local government to account. Other low-cost solutions, particularly in rural areas, involve the community being encouraged to use mobile phones to report problems to district water staff via a toll-free number (Visscher et al., 2013). The use of SMS messages from customers in Bombo, Uganda, led to quicker response times to service breaks and more awareness in local government of service issues and utility responses.<sup>9</sup> Examples from Zambia and the Philippines show how local monitoring can make a real difference.

### Box 6.6 Water Watch Groups in Zambia

In Zambia, NWASCO is mandated to regulate the provision of water and sanitation services for urban and peri-urban water supply. It is often seen as a model in other African countries (Visscher et al., 2013). In 2002 it established 15 community-based voluntary WWGs in different service areas to assist in monitoring service delivery. WWGs were recruited through a newspaper advert. There was a list of requirements for those who applied, including integrity checks, such as not having been convicted for crimes related to corruption. Members were given a short training session during which they received an explanation of their rights and responsibilities, and practical information on water supply provision, the role of the water utility and the role of NWASCO, the water meter and the bill. They have a small budget for expenses and they are given airtime. WWGs serve as a channel to voice complaints, which they report to the area manager of the water utility and to NWASCO. They also provide a quarterly report and plans that are approved by NWASCO. WWGs are close to the community, and as a result may easily be approached by community members.

### Box 6.7 I-Watch in the Philippines

I-Watch is a water anti-corruption group in the municipality of Sibagat in the Philippines, a country in which plenty of water should be available but one in five citizens has no formal access to water. I-Watch was created as a monitoring movement for WASH services after local residents had had enough of seeing water projects fail due to corruption. A local NGO carried out a survey, which found that some 20 per cent of the money for water projects was lost to corruption. Trained volunteers use participatory financial management processes and keep track of purchases and procurements by the water utility; they also develop corruption hotspot mapping and launch corruption vulnerability surveys (UNDP-Philippines, 2013). They want to extend the system to other municipalities. They have added a punchline to their name: 'I-Watch – now it's your turn.'

<sup>8</sup> International Fund for Agricultural Development: [www.ifad.org/english/water/innowat/topic/groups.htm](http://www.ifad.org/english/water/innowat/topic/groups.htm).

<sup>9</sup> Case study reported to WIN in 2014.

However, it is also at local level that vested interests and conflicting interests between those with more power and those with less can come to the fore, and monitoring efforts need to take account of these power plays. The quality of monitoring information will always depend on the work ethic, accountability mechanisms and pressures exerted on those who collect and report the data. A combination of quality control measures and incentives are therefore needed to safeguard professionalism and honesty in monitoring processes within the water sector. Transparency is also critical to monitoring with integrity, particularly at the local level. What is being done should be known about, observable and reported to local community groups.

## 4 CAN INTERNATIONAL OR REGIONAL MONITORING RAISE LEVELS OF ACCOUNTABILITY?

### 4.1 International monitoring initiatives

There are a number of examples of initiatives that attempt to track water supply, sanitation coverage and governance-related information at the global level. The WHO/UNICEF Joint Monitoring Programme (JMP) and UN-Water's GLAAS (UN-Water and WHO, 2014a) compare countries, providing a quasi-benchmarking system for water management worldwide (UNICEF and WHO, 2012).

The OECD highlights the importance of monitoring and evaluation, sharing the results with the public and making adjustments when needed as major principles of water governance (OECD, 2015b).

The World Bank has developed a toolkit for monitoring and evaluating agricultural water management projects, in which objectives and related performance indicators for interventions to establish and support WUAs are also emphasized (World Bank, 2008).

The new UN-Water initiative 'Integrated monitoring of water- and sanitation-related SDG targets' (GEMI; formerly Global Expanded Water Monitoring Initiative) is an inter-agency initiative cooperating under the umbrella of UN-Water and it proposes a set of indicators to monitor progress towards the water- and sanitation-related targets (SDG 6). These address critical issues in wastewater, water quality, water efficiency, WRM and water-related ecosystems to complement existing drinking water and sanitation monitoring (UN-Water, 2015a, b).<sup>10</sup> These indicators will be central to the successful implementation of the goals. At the time of publication of this report the Inter-Agency and Expert Group on Sustainable Development Goal Indicators (IAEG-SDGs) was discussing how to reach the final indicator framework, to produce a final proposal in March 2016. This proposal will also include indicators for Goal 16 related to 'Effective, accountable and inclusive institutions at all levels'. The 2014 *World Water Development Report* (UN-Water, 2014) complements these efforts with the aim of providing a global strategic outlook on the state of freshwater resources and its implications for decision-making. Such a global monitoring system in principle provides a reference point for watchdogs and citizens to flag shortfalls with regard to governmental commitments to enhance water management.

<sup>10</sup> UN-Water: [www.unwater.org/sdgs/indicators-and-monitoring/en](http://www.unwater.org/sdgs/indicators-and-monitoring/en).

## 4.2 The challenges of international monitoring

When approaching the question of how water integrity should be monitored at international level, it is important to analyse who is responsible for the WRM challenges in different parts of the world. While the effectiveness of water management is closely linked to sound governance structures, it is equally linked to consumer demand and the integrity challenges related to water allocation and use (Warner et al., 2009).

With the increasing impact of agriculture, industry and related trade on WRM, the analysis of virtual water flows can be a means to trigger a discussion on who is responsible for the key water challenges. Such monitoring may not hold anybody legally accountable, but it does provide a basis for reflecting on the ethics of the current water consumption patterns and the public policy priorities they lead to.

The 2015 *World Water Development Report* (UN-Water, 2015c) notes that ‘there are often too few reliable metrics on which to track the outcomes of water productivity improvement measures’, and adds: ‘Monitoring water availability, use and the related impacts, represents a massive and persistent challenge. Reliable and objective information about the state of water resources, their use and management is often poor, lacking or otherwise unavailable. Worldwide, water observation networks provide incomplete and incompatible data on surface and groundwater quality and quantity, and no comprehensive information exists on wastewater generation and treatment.’

Identifying the precise areas and causes for failure is another key element of these international monitoring initiatives. However, too often large amounts of data are aggregated<sup>11</sup> at international level, but there is no standardization of data sets, which means that information is linked to international targets rather than to national policy objectives. This makes it challenging to use monitoring information to pinpoint who should be held to account for underperformance or breach of commitments.

Furthermore, available information and approaches can be used to identify which measures in national water sectors actually enhance water governance and integrity. Such efforts can contribute to raising awareness about the need for higher levels of water integrity – both in the legal and ethical dimension of its definition.

### Box 6.8 Governance, integrity and the functionality of water points

Improve International,<sup>12</sup> an NGO working on water issues, has compiled statistics on water point failure across different countries and continents. It has found that the failure rate of water points has been oscillating around 40 per cent for more than a decade. Other research suggests that one-third of all water points in sub-Saharan Africa are non-functional (RWSN, 2014).

To investigate what factors most strongly influence the sustainability of a water point, CARE USA conducted a preliminary governance study across Ethiopia, Uganda and

<sup>11</sup> TAC Economics: [www.mdgtrack.org](http://www.mdgtrack.org).

<sup>12</sup> Improve International: <https://improveinternational.wordpress.com>.



Mozambique, addressing questions of accountability, inclusivity, participation and transparency (CARE USA, 2011). Across all three countries it found that strong governance is directly related to the functionality of water points. While the study did not focus explicitly on corruption, some of the governance factors that were most strongly associated with having highly functioning water points could equally be considered as indicators for integrity in the management of water points. These included the following.

<b>Results of governance study in Ethiopia, Uganda and Mozambique</b>	<b>Link to integrity</b>
<p>The existence of committees and operations of which the community is aware increased the probability of having a functioning water point by between 30 and 120 per cent.</p>	<p>Committees are responsible for the financial management of water points and report to communities. Without a committee nobody can be held accountable for non-functioning water points, which makes it easier to divert funds and collect fees.</p>
<p>The participation of women in Ethiopia in the decision-making process was linked to a 22 per cent increase in the probability of functioning water points. In Mozambique it was linked to a 46 per cent increase.</p>	<p>Including women in decision-making processes around water points increases transparency and efficiency.</p>
<p>In Mozambique, water committees that encompassed a wide realm of diversity and represented various groups in the community were 71 per cent more likely to have functioning water schemes. In the other two countries this did not have a direct impact.</p>	<p>Engaging different stakeholders increases checks and balances in decision-making and with regard to the management and use of water points. Beyond building the impact through increased ownership, a diversity of committee members may also contribute to balancing interests.</p>
<p>In Uganda the existence and functionality of by-laws, guidelines, etc. resulted in a more than 60 per cent higher probability of functioning water points, whereas in Mozambique and Ethiopia this had less impact.</p>	<p>Transparency is directly related to integrity, because a lack of clear roles may open loopholes for illicit practices. At the level of rural water points, transparency seems to be relevant for water point functionality, though not in every case.</p>

### 4.3 Holding the international community accountable

International monitoring initiatives can play an important role in unravelling complex and/or obscure global dynamics of water flows and in fostering political support to enhance integrity. With integrity at the core of water governance challenges, it is important to comprehend which conditions foster successful water sector interventions that can then inform global sector institutions. Global initiatives such as UN-Water's GLAAS have started analysing the governance factors that affect water management across countries. Information about these factors is essential to contextualize the data collected at local and national levels, to determine the progress towards universal water-related targets and to hold the international community accountable to their commitments.

At international level, aggregated monitoring information has to fulfil the following requirements.

- + **It has to be valid.** Global initiatives cannot collect comprehensive context-specific data on the development of the world's national water sectors. A UN-Water GLAAS evaluation meeting (WHO, 2012) noted that, to improve data credibility and transparency, sources of data should be explicit and there should be a validation system. This would provide the basis to ensure that false data is not accumulated in global progress reports.
- + **It has to be relevant.** Monitoring information should be a combination of information on infrastructure and outcomes as well as on the conditions for success.

### 4.4 Beyond borders: initiatives at regional level

International initiatives to enhance water integrity are always going to be less focused than those at national and local levels. Their greatest potential lies in adopting a wider perspective and analysing the major water management challenges that go beyond national borders. This can also be supported by initiatives at regional level, such as the East African Bribery Index.

#### Box 6.9 The East African Bribery Index

The East African Bribery Index, produced by TI in 2012, sampled 9,303 respondents at household level across Burundi, Kenya, Rwanda, Tanzania and Uganda. The lowest experiences of bribery across the region were found in relation to water utilities, in comparison with four other sectors. This sounds like good news, but it may simply be a reflection of the limited reach of state-run water services. In informal service provision, illicit practices are common. In Kenya, for example, so-called water mafias have been reported colluding with officials and exploiting the poor with high prices and low-quality services (Birongo and Le, 2005; UNESCO-IHP, 2012).

The indicator assesses only the occurrence of bribery at the interface between users and water utilities, not corruption in the water sector at different levels. This is therefore an indicator with limited informative value. Nevertheless, it helps to evaluate the vulnerability of the water sector to this specific type of corruption, and the comparative rating in neighbouring countries can serve as a useful advocacy instrument.

Indicators for bribery, transparency, etc. can be used to map hotspots in the water sector that are prone to deeper and more complex water integrity issues (TI Kenya, 2012).

## 5 THE IMPORTANCE OF INFORMATION AND DATA IN THE MONITORING PROCESS

Information and data are the cornerstones of a monitoring process – and the misuse of information and data lies at the heart of high-level corruption. Integrity challenges may, for example, stem from the falsification of government data or the obstruction of citizens' access to public information.

Government officials may try to steer discussions via misleading information. Technical reports may be used to create a false sense of certainty, or lay members of commissions may be 'buried' in floods of studies. Governments may invest significant resources in solutions for the symptoms of a water problem, but avoid tabling harsh facts about the reforms needed to resolve the root of

**Table 6.1 Regulatory risks in the water sector<sup>13</sup>**

Risk area/process	Stakeholder involved	Type of corruption
Performance agreement, compliance monitoring and benchmarking	Staff of regulator	Coercion of water utility by employees of regulator
Reporting on performance and governance indicators	Utility's staff	Bribery of inspectors; submission of manipulated data to regulator
Oversight/supervision	Utility's board of directors	Nepotism in nomination processes; capture; abuse of office for undue interference in management decisions (tariffs, staffing, etc.)
Consumer feedback and complaints (through representative bodies, consumer groups)	Consumer representative bodies/groups	Misuse of funding or mandate at cost of regulator
Oversight/supervision	Regulator's board of directors	Capture by political decision-makers; undue interference in regulatory decisions (tariffs, etc.)

<sup>13</sup> Source: Nordmann (2013).

the problem (Allan, 2002). Data should be made available in formats that can be downloaded and scrutinized. Otherwise agencies can claim that everything is published and transparent, while in fact providing data that is almost impossible to scrutinize.

When mishandled, monitoring may measure only what people are intending to do, rather than what is actually happening in practice. The example of a flawed monitoring system in India in Box 6.10 shows how estimates based on information collected from the desk without collecting data in the community can lead to a loss of accountability and compromise integrity.

### **Box 6.10 Monitoring the Total Sanitation Campaign in India**

The Total Sanitation Campaign (TSC) is a community-led sanitation programme initiated by the Indian government in 1999 that aims to eradicate open defecation by 2017. However, the programme's flawed monitoring system has been one of its main problems. The TSC reported an increase in sanitation from 22 to 68 per cent in 2011, which was proportional to the funds released by the government (Hueso González, 2013). However, the results of the 2011 census indicated sanitation coverage of only 31 per cent. Analysis indicates that the programme's monitoring system monitors reported execution regardless of what actually had happened on the ground, and was thus not successful in matching reports to reality, damaging the integrity of the monitoring and the programme (Hueso González and Bell, 2013).

However, there is also a danger, if only 'hard' quantitative information (such as numbers) counts as data for monitoring, of the implication that any aspect of a programme that cannot be expressed in numbers is overlooked and not valued, as expressed in the trope that only 'what gets measured gets managed'. Especially when it comes to complex areas such as environmental conservation, defining the kind of data that is 'good enough' to inform 'good' decisions has itself been identified as a risk area for distorted decision-making (Haddaway and Pullin, 2013; Sandbrook and Adams, 2013; Adams and Sandbrook, 2013; Dewulf et al., 2005).

## **6 EVALUATION AND INTEGRITY IN THE WATER SECTOR**

Monitoring and evaluation are often presented as part of the same package, but they are different processes. As shown in the definitions at the start of this chapter, monitoring is a continuous or iterative process to assess progress, while evaluation is a process of taking stock at critical times to come to an overall judgement about processes, performances, outcomes and impacts, either at set intervals or, for example, at the midpoint or end of a programme. There are many different ways of evaluating, ranging from qualitative evaluations of development projects to rigorous financial or technical auditing. Evaluations can be formative (while a programme or project is in progress) or summative (at the end of a programme or project). Evaluation should be against a baseline and make use of information that has come from monitoring processes (along with a range of other information from secondary and primary sources, surveys, focus groups, interviews

and observations) in order to gain a deeper understanding of the relationships between results and effects and assess the overall impact of a given project or programme. Results should feed into practice, in order to improve it, and be made public to stakeholders to ensure that it is both transparent and accountable. Engagement with citizens and other external stakeholders during an evaluation can help hold governments and providers to account for the management of water resources and public money and for performance against stated objectives.

## 6.1 The challenges of evaluation in relation to integrity

Defining the role of evaluation in the water sector in relationship to integrity is challenging, but there is a need for rigorous evaluation of integrity and governance in order to foster transparency and accountability (Independent Evaluation Group and KfW Entwicklungsbank, 2011). Evidence gathered through evaluations is of paramount importance to anti-corruption campaigners, who require evidence on how to transform principles, such as sanctions, control and transparency, into reforms that can effectively reduce corruption in the provision of water services.

However, while there are many examples of evaluation in the water sector, there are almost none that focus mainly on the integrity of projects and programmes. In dam construction, for example, an area of outstanding risk of corruption, evaluations look at the integrity of the structure and whether the reservoir is effective in retaining water, but there are few publicly available documents evaluating the integrity of the process of deciding on dam construction or the degree of corruption involved in the construction itself.

Although environmental and SIAs may be undertaken at various stages in projects, there is little appetite for evaluations that identify the strengths and weaknesses of processes in terms of their integrity so as to learn lessons for decision-making.

Involving stakeholders in a participatory manner in an evaluation is useful in fostering transparency and accountability, but can be difficult and slow because of both political and bureaucratic resistance (Effective Institutions Platform, 2014). Indeed, there are many issues relating to the integrity of the evaluation process itself, including ensuring that there is transparency when selecting evaluators, especially when large grants are at stake, and that results are disclosed in a transparent manner.

A number of organizations have identified principles to raise the standard and integrity of the evaluation process and outcomes. For example, the UNDP's norms for evaluation state that evaluation should be independent, intentional (clear from the outset), transparent, ethical, impartial, of high quality, timely and used (UNDP, 2011). The American Evaluation Association has published (American Evaluation Association, 2004) five guiding principles.

- + Evaluators conduct systematic, data-based inquiries about whatever is being evaluated.
- + Evaluators provide competent performance to stakeholders.
- + Evaluators ensure the honesty and integrity of the entire evaluation process.
- + Evaluators respect the security, dignity and self-worth of the respondents, clients and other stakeholders.
- + Evaluators articulate and take into account the diversity of interests and values related to general and public welfare.

There may be perverse incentives for authorities to make evaluation results unavailable if they expose poor performance or unpopular decisions regarding the reallocation of funds, such as granting privileged tariffs to agriculture companies, with consequent higher tariffs for water used for human consumption.

NGOs too may not want to reveal the results of evaluations that reflect badly on their work. Engineers Without Borders notes:

*'The development sector is plagued by NGOs' chronic unwillingness to own up to their mistakes for the (legitimate) fear that donors will stop supporting them. As a result, failures are repeated, poor practices are pervasive and ultimately it is the local...people...that suffer.'*

(Sirolli, 2014)

The paradox is that failure is the best teacher, and the honesty to talk openly about failures is essential in order to learn. Acknowledging failure may become a catalyst for improvement.

### Box 6.11 Monitoring, evaluating and adapting to failure in Malawi

The Malawi Water and Sanitation Venture developed a new approach to capturing the successes and failures of its initiatives after a programme evaluation in March 2014 showed that it had failed to achieve five out of eleven strategic objectives. This was at least partly because the monitoring and evaluation system had not managed to help the organization adapt to failures as they emerged, or to capture indicators of progress in line with strategic objectives.

One strategic objective was to improve learning channels between district water offices. By the time the mid-year review was completed there was not enough time to meet the objective. Had this been recognized earlier, it could have been dealt with.

Organizations working on complex problems need to build monitoring and evaluation systems that allow approaches to be adapted while keeping strategic objectives constant. This can be done by:

- + ongoing short-term, or formative, evaluations that encourage proactive shifts in approaches to avoid failure; and
- + keeping one set of indicators fixed at the strategic objective level, while introducing other indicators that can be modified to track the success of specific, changeable approaches.

In the next iteration, the Malawi Water and Sanitation Venture plans to build in both these changes in order to proactively explore new approaches, and replace or complement those that fail to deliver in the time frame. This will help to measure progress against overall strategic objectives while adapting approaches to attain them (Malawi Water and Sanitation Venture, 2014).

## 6.2 How can evaluations build integrity in the water sector?

Setting standards can be one way of fostering transparent evaluations. For example, AquaRating is a qualification agency created by the Inter-American Development Bank (IADB) and the International Water Association (IWA), and it has established an international standard for the evaluation of public and private utilities for drinking water and wastewater.<sup>14</sup> While corruption measures and building integrity are not its main objectives, it does have a focus on transparency, and one of its criteria is that the utility has to have 'a written code of ethics approved by the "board of directors" that includes measures to prevent and detect corruption and is signed by all members of the board of directors and by all staff' (Krause et al., 2015).

The OECD's Development Assistance Committee (DAC) has published five criteria that are widely used in the water sector for evaluating development assistance: relevance, effectiveness, efficiency, impact and sustainability (OECD-DAC, 1991). These are addressed using questions that are clearly of relevance to integrity, such as the following. Are the activities and outputs of the programme consistent with the intended impacts and effects? To what extent did the benefits of a programme or project continue after donor funding ceased? What real difference has the activity made to the beneficiaries? All of these raise issues about the overall integrity of the project or programme.

Internal and external audits are a critical component of accountability systems (for details on SAIs, see Chapter 3). They are generally used to assess financial systems but can also be used to assess security and environmental risks and other systems performance. They need to become a credible source of independent and objective insight and guidance so as to support beneficial change in the organizations they audit.

Ultimately, the biggest challenge of an evaluation process is to foster behaviour change. The feedback loop needs to be completed and results communicated to relevant stakeholders, so that they can take action. In order to increase their influence, evaluations need to:

- + be rigorous and with a strong evidence base;
  - + contain clear messages relevant to each specific target group;
  - + avoid language that is confrontational or condescending;
  - + contain actionable recommendations;
  - + be timely – relevant to current activities; and
  - + communicate findings effectively
- (Independent Evaluation Group and KfW Entwicklungsbank, 2011).

## 7 CONCLUSIONS AND WAY FORWARD

To strengthen the position of those who are demanding accountability in the water sector at local, national and global levels, reliable and relevant monitoring and evaluation systems are needed so that institutions and individuals can be held accountable for their decisions and actions regarding water services and resources and take appropriate corrective action. Sectoral institutions can play a key role in transparency enhancement and anti-corruption activities. This will help not only to meet the water elements of the SDGs but also to build integrity in the sector. Integrity is highly

<sup>14</sup> AquaRating: [www.aquarating.org/en](http://www.aquarating.org/en).

connected to the process of what is monitored, who is doing the monitoring (and their credentials) and how the monitoring is carried out, evaluated and reported. At the local level, participation is key, as examples in this chapter have shown. If integrity is to be protected and those in charge of water provision are to be held accountable, then local people need to support and give feedback on the monitoring process and during evaluations in order to promote transparency.

This chapter has also identified the data gaps that exist in the sector, and the need for primary studies: data and information from monitoring studies can help to fill this gap and ensure that decisions are based on accurate information. It has also identified a large gap in methodology and practice for undertaking evaluations, which look in whole or in the main at the integrity of processes, projects and programmes.

The implementation of a sound monitoring and evaluation system for the water sector, in combination with independent activities by the media and governmental and non-governmental institutions, provides a mechanism that incentivizes sector actors to refrain from illicit practices and unethical decisions, as under an effective system these stand a high chance of being unveiled. Monitoring and evaluation are two of the cornerstones for building sound and ethical practice, and are vital for the construction of integrity in the water sector as a whole.

This leads to the following recommendations.

- + **Monitor and evaluate the quality and sustainability of water services in order to assess the impact of projects and enhance service accountability.** All projects and services should have an assessment of how far they meet their aims. In addition to standard information on the quality of performance, information on water governance mechanisms and the behaviour of those responsible for water services provision should be included. Stakeholders should diagnose the sector not only for technical issues but also by including the managerial and integrity indicators that lie at the core of its performance challenges.
- + **Enable and encourage independent monitoring of activities by the media, non-governmental institutions and civil society.** Independent monitoring efforts will expose or prevent the provision of biased, blurred or censored information. They will help sector actors reduce illicit practices and unethical decisions by increasing the chances of these being unveiled. Monitoring activities should involve stakeholders at the most appropriate and relevant levels (local, national, basin, regional, etc.). It is in the dialogue and contestation between different organizations and their data sets that corruption can be tackled and high-quality water services delivered with the highest integrity.





# References

---

- 3ie. 2015. 'Making WASH Behaviour Stick'.  
<http://blogs.3ieimpact.org/making-wash-behaviour-stick/-comment-492>
- 2030 Water Resources Group. 2009. *Charting Our Water Future*. New York: McKinsey & Company.  
[www.mckinsey.com/client\\_service/sustainability/latest\\_thinking/charting\\_our\\_water\\_future](http://www.mckinsey.com/client_service/sustainability/latest_thinking/charting_our_water_future)
- Aarnoudse, E., and Belalia, S. 2012. 'Why Water Integrity Matters for Food Security'. Berlin: WIN.  
[www.waterintegritynetwork.net/wp-content/uploads/2015/03/WIN\\_Brief\\_WaterForFood\\_EN\\_2012.pdf](http://www.waterintegritynetwork.net/wp-content/uploads/2015/03/WIN_Brief_WaterForFood_EN_2012.pdf)
- Achobang, C. F., Nguiffo, S., and Schwartz, B. 2013. 'SG Sustainable Oils Cameroon PLC (SGSOC) in South West Cameroon'. In *Conflict or Consent? The Oil Palm Sector at a Crossroads*, edited by M. Colchester and S. Chao. Moreton-in-Marsh, UK: FPP, Sawit Watch and TUK Indonesia.  
[www.forestpeoples.org/es/node/5020](http://www.forestpeoples.org/es/node/5020)
- Adams, W. M., and Sandbrook, C. 2013. 'Conservation, Evidence and Policy'. *Oryx* no. 47 (3).  
<http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=8956427&fulltextType=RA&fileId=S0030605312001470>
- ADB. 2012. 'Participatory Irrigation Management'. Manila, Philippines: ADB.  
[www.adb.org/sites/default/files/evaluation-document/35983/files/II-irrigation.pdf](http://www.adb.org/sites/default/files/evaluation-document/35983/files/II-irrigation.pdf)
- ADB. 2013. *Risk Assessment and Risk Management Plan: Water Supply and Other Municipal Infrastructure Service – Nepal*. Manila, Philippines: ADB.  
[www.adb.org/sites/default/files/linked-documents/cps-nep-2013-2017-ra-04.pdf](http://www.adb.org/sites/default/files/linked-documents/cps-nep-2013-2017-ra-04.pdf)
- ADB. 2015. *Office of Anticorruption and Integrity: Annual Report 2014*. Manila, Philippines: ADB.  
[www.adb.org/sites/default/files/institutional-document/154952/oai-annual-report-2014.pdf](http://www.adb.org/sites/default/files/institutional-document/154952/oai-annual-report-2014.pdf)
- African Union. 2003. *African Union Convention on Preventing and Combating Corruption*. Maputo, Mozambique: African Union.  
[www.au.int/en/sites/default/files/treaties/7786-file-african\\_union\\_convention\\_preventing\\_combating\\_corruption.pdf](http://www.au.int/en/sites/default/files/treaties/7786-file-african_union_convention_preventing_combating_corruption.pdf)
- Agrawal, P. C. 2009. 'Enhancing Water Services through Performance Agreements'. New Delhi: WSP.  
[www.wsp.org/sites/wsp.org/files/publications/PIP5\\_Press.pdf](http://www.wsp.org/sites/wsp.org/files/publications/PIP5_Press.pdf)
- Agrawal, P. C., and Shukla, S. 2008. 'Performance Improvement Planning: Implementing Robust Consumer Voice Mechanisms'. New Delhi: WSP.  
[www.wsp.org/sites/wsp.org/files/publications/PIP\\_4%2c\\_final%2c\\_Oct\\_6.pdf](http://www.wsp.org/sites/wsp.org/files/publications/PIP_4%2c_final%2c_Oct_6.pdf)

- Ahmed, H. A. 2013. *Assessment of Procuring Entity Capacity to Disclose Project Information in Ethiopia*. Addis Ababa, Ethiopia: CoST.  
[www.constructiontransparency.org/documentdownload.axd?documentresourceid=113](http://www.constructiontransparency.org/documentdownload.axd?documentresourceid=113)
- Akvo. 2012. 'Using Akvo FLOW in Liberia'.  
<http://akvo.org/blog/using-akvo-flow-in-liberia>
- AllAfrica. 2014. 'Malawi: ACB Calls On the Media to Report Corruption Cases Effectively'.  
<http://allafrica.com/stories/201402260029.html>
- Allan, J. A. 2002. 'Hydro-Peace in the Middle East: Why No Water Wars? A Case Study of the Jordan River Basin'. *SAIS Review* no. 22 (2).  
[www.soas.ac.uk/water/publications/papers/file38388.pdf](http://www.soas.ac.uk/water/publications/papers/file38388.pdf)
- Allan, T. 2003. 'IWRM/IWRAM: A New Sanctioned Discourse?'. London: School of Oriental and African Studies.  
[www.soas.ac.uk/water/publications/papers/file38393.pdf](http://www.soas.ac.uk/water/publications/papers/file38393.pdf)
- American Evaluation Association. 2004. 'American Evaluation Association Guiding Principles For Evaluators'. Washington, DC: American Evaluation Association.  
[www.eval.org/p/cm/ld/fid=51](http://www.eval.org/p/cm/ld/fid=51)
- Anas, A. A. 2009. 'Ghana: Bribe as You Go'. In *The Corruption Notebooks 2009*, edited by H. Feigenblatt and Global Integrity. Washington, DC: Global Integrity.  
[www.lulu.com/shop/hazel-feigenblatt-and-global-integrity/the-corruption-notebooks-2009/ebook/product-17465755.html](http://www.lulu.com/shop/hazel-feigenblatt-and-global-integrity/the-corruption-notebooks-2009/ebook/product-17465755.html)
- Andvig, J. C., Fjeldstad, O.-H., Amundsen, I., Sissener, T., and Søreide, T. 2000. *Research on Corruption: A Policy Oriented Survey*. Bergen: Chr. Michelsen Institute and Norwegian Institute of International Affairs.  
[www.icgg.org/downloads/contribution07\\_andvig.pdf](http://www.icgg.org/downloads/contribution07_andvig.pdf)
- Ansar, A., Flyvbjerg, B., Budzier, A., and Lunn, D. 2014. 'Should We Build More Large Dams? The Actual Costs of Hydropower Megaproject Development'. *Energy Policy* no. 78.  
[www.synchronicityearth.org/assets/uploads/Hydropower\\_-\\_Ansar\\_Paper.pdf](http://www.synchronicityearth.org/assets/uploads/Hydropower_-_Ansar_Paper.pdf)
- AQUASTAT. 2007. *Dams and Agriculture in Africa*. Rome: FAO.  
[ftp://ftp.fao.org/agl/aglw/docs/Aquastat\\_Dams\\_Africa\\_070524.pdf](ftp://ftp.fao.org/agl/aglw/docs/Aquastat_Dams_Africa_070524.pdf)
- Ardigó, I. A. 2014. 'Local-Level Complaint Mechanisms in Developing Countries'. Bergen: Chr. Michelsen Institute.  
[www.transparency.org/files/content/corruptionqas/2014-17.pdf](http://www.transparency.org/files/content/corruptionqas/2014-17.pdf)
- Arnold, A.-K., and Lal, S. 2013. 'Using Media to Fight Corruption'. Paper read at 'Engaging Citizens against Corruption in Asia: Approaches, Results, and Lessons', Asia Regional Workshop 2011, at Jaipur, India.  
<http://ptfund.org/wp-content/uploads/2013/12/Jaipur-Workshop-Report.pdf>

Article 19. 2015. 'Mexico: Pedro Canché Freed'.

[www.article19.org/resources.php/resource/37985/en/mexico:-pedro-canch%C3%A9-freed](http://www.article19.org/resources.php/resource/37985/en/mexico:-pedro-canch%C3%A9-freed)

ASCE. 2015. 'The Pitfalls of the "Revolving Door"'.  
[www.asce.org/question-of-ethics-articles/feb-2015](http://www.asce.org/question-of-ethics-articles/feb-2015)

Asthana, A. N. 2004. 'Corruption and Decentralisation: Evidence from India's Water Sector'. Paper read at 30th WEDC International Conference, 'People-Centred Approaches to Water and Environmental Sanitation', at Vientiane, Laos.

[www.ircwash.org/sites/default/files/Asthana-2004-Corruption.pdf](http://www.ircwash.org/sites/default/files/Asthana-2004-Corruption.pdf)

Baillat, A. 2013. *Corruption and the Human Right to Water and Sanitation: Human Right-Based Approach to Tackling Corruption in the Water Sector*. Geneva: WaterLex.

[www.waterlex.org/new/wp-content/uploads/2013/12/2013-WaterLex-WIN\\_Corruption-and-the-HRWS-.pdf](http://www.waterlex.org/new/wp-content/uploads/2013/12/2013-WaterLex-WIN_Corruption-and-the-HRWS-.pdf)

Bakewell, O., and Garbutt, A. 2005. *The Use and Abuse of the Logical Framework Approach*. Stockholm: Sida.

[www.intrac.org/data/files/resources/518/The-Use-and-Abuse-of-the-Logical-Framework-Approach.pdf](http://www.intrac.org/data/files/resources/518/The-Use-and-Abuse-of-the-Logical-Framework-Approach.pdf)

BDEW. 2012. *Benchmarking: 'Learning From the Best': Comparison of Performance Indicators in the German Water Sector*. Berlin: BDEW.

[www.bdew.de/internet.nsf/id/86735E87EB0C1177C12579EB004E1B9F/\\$file/120301\\_BDEW\\_Wasser\\_Benchmarking\\_Broschuere\\_engl.pdf](http://www.bdew.de/internet.nsf/id/86735E87EB0C1177C12579EB004E1B9F/$file/120301_BDEW_Wasser_Benchmarking_Broschuere_engl.pdf)

Berthin, G. 2011. *A Practical Guide to Social Audit as a Participatory Tool to Strengthen Democratic Governance, Transparency, and Accountability*. Panama City: UNDP.

[www.pogar.org/publications/ac/books/practicalguide-socialaudit-e.pdf](http://www.pogar.org/publications/ac/books/practicalguide-socialaudit-e.pdf)

Bigas, H., Morris, T., Sandford, B., and Adeel, Z. 2012. *The Global Water Crisis: Addressing an Urgent Security Issue: Papers for the InterAction Council, 2011–2012*.

Hamilton, Canada: UNU-INWEH.

[http://inweh.unu.edu/wp-content/uploads/2013/05/WaterSecurity\\_The-Global-Water-Crisis.pdf](http://inweh.unu.edu/wp-content/uploads/2013/05/WaterSecurity_The-Global-Water-Crisis.pdf)

Birongo, J. M., and Le, N. Q. 2005. 'An Analysis of Water Governance in Kibera, Kenya'. Denmark: Roskilde University.

[www.environmental-expert.com/Files%5C0%5Carticles%5C20194%5Cwaterproject.pdf](http://www.environmental-expert.com/Files%5C0%5Carticles%5C20194%5Cwaterproject.pdf)

Biswas, A. K., Braga, B. P. F., Tortajada, C., and Palermo, M. 2013. *Integrated Water Resources Management in Latin America*. Abingdon, UK: Routledge.

[www.tandf.net/books/details/9780415487887](http://www.tandf.net/books/details/9780415487887)

Blyberg, A., and Hofbauer, H. 2014. *Article 2 and Governments' Budgets*.

Washington, DC: International Budget Partnership.

<http://internationalbudget.org/wp-content/uploads/Article-2-and-Governments-Budgets.pdf>

- BMZ. 2012. *Anti-Corruption and Integrity in German Development Policy: A Strategy*. Bonn: BMZ.  
[www.bmz.de/en/publications/archiv/type\\_of\\_publication/strategies/Strategiepapier323\\_04\\_2012.pdf](http://www.bmz.de/en/publications/archiv/type_of_publication/strategies/Strategiepapier323_04_2012.pdf)
- Boas, T. C., Hidalgo, F. D., and Richardson, N. P. 2014. 'The Spoils of Victory: Campaign Donations and Government Contracts in Brazil'. *Journal of Politics* no. 76 (2).  
[www.mit.edu/~dhidalgo/papers/political\\_investment\\_2014.pdf](http://www.mit.edu/~dhidalgo/papers/political_investment_2014.pdf)
- Boehm, F. 2011. 'Is There an Anti-Corruption Agenda in Regulation? Lessons from Colombian and Zambian Water Regulations'. In *International Handbook on the Economics of Corruption*, vol. II, edited by S. Rose-Ackerman and T. Søreide. Cheltenham, UK: Edward Elgar.  
[www.ircwash.org/sites/default/files/Boehm-2010-Regulatory.pdf](http://www.ircwash.org/sites/default/files/Boehm-2010-Regulatory.pdf)
- Boehm, F. 2013. *Training Module: Water Integrity in Latin America and the Caribbean*. Stockholm: WGF, Cap-Net and LA-WETnet.  
[www.cap-net.org/documents/2014/08/wi-water-integrity-in-latin-america-and-the-caribbean.pdf](http://www.cap-net.org/documents/2014/08/wi-water-integrity-in-latin-america-and-the-caribbean.pdf)
- Boehm, F., and Teggemann, S. 2011. 'Anti-Corruption in Practice: Why and How to Address Corruption in Sectors'. Eschborn, Germany: GIZ.  
[www.u4.no/recommended-reading/anticorruption-in-practice-why-and-how-to-address-corruption-in-sectors](http://www.u4.no/recommended-reading/anticorruption-in-practice-why-and-how-to-address-corruption-in-sectors)
- Bohórquez Forero, D. 2012. 'Empresa de Acueducto y Alcantarillado de Bogotá y Otros'. Geneva: WaterLex and WASH United.  
[www.waterlex.org/waterlex-legal-database/index.php?r=legalDocument/customView&id=342](http://www.waterlex.org/waterlex-legal-database/index.php?r=legalDocument/customView&id=342)
- Brasil Wire. 2015. 'Cantareira: A New Word for When Politics Is Put Ahead of Public Interest'.  
[www.brasilwire.com/cantareira](http://www.brasilwire.com/cantareira)
- Brookings Institution. 2015. 'Transparency of Aid Agencies: Are Those High Grades Deserved?'.  
[www.brookings.edu/blogs/future-development/posts/2015/07/20-transparency-aid-agencies-gutman](http://www.brookings.edu/blogs/future-development/posts/2015/07/20-transparency-aid-agencies-gutman)
- Butterworth, J. 2008. 'Can Integrated Water Resources Management Prevent Corruption?'. In *Global Corruption Report 2008: Corruption in the Water Sector*, edited by TI. Cambridge: Cambridge University Press.  
[www.transparency.org/whatwedo/publication/global\\_corruption\\_report\\_2008\\_corruption\\_in\\_the\\_water\\_sector](http://www.transparency.org/whatwedo/publication/global_corruption_report_2008_corruption_in_the_water_sector)
- Butterworth, J., Ducrot, R. I., Faysse, N., and Janakarajan, S. 2007. *Peri-Urban Water Conflicts: Supporting Dialogue and Negotiation*. Delft: IRC.  
<http://negowat.cirad.fr/Docs4Web/negowat-book-final-eng/negowat-book-final.pdf>
- Calow, R., Ludi, E., and Tucker, J. 2013. *Achieving Water Security: Lessons from Research in Water Supply, Sanitation and Hygiene in Ethiopia*. Rugby, UK: Practical Action.  
[www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/8606.pdf](http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/8606.pdf)

Cap-Net, Waternet, WGF and WIN. 2009. *Training Manual on Water Integrity*. Stockholm: SIWI.  
[www.waterintegritynetwork.net/wp-content/uploads/2015/03/WI-TrainingManual\\_EN.pdf](http://www.waterintegritynetwork.net/wp-content/uploads/2015/03/WI-TrainingManual_EN.pdf)

Cap-Net and GWA. 2014. *Why Gender Matters in IWRM: A Tutorial for Water Managers*. Rio de Janeiro: Cap-Net.  
[www.thewaterchannel.tv/gender/content/img/frd-full-resource-document-web-version.pdf](http://www.thewaterchannel.tv/gender/content/img/frd-full-resource-document-web-version.pdf)

CARE Malawi. 2013. *The Community Score Card (CSC): A Generic Guide for Implementing CARE's CSC Process to Improve Quality of Services: Toolkit*. Lilongwe, Malawi: Cooperative for Assistance and Relief Everywhere.  
[www.care.org/sites/default/files/documents/FP-2013-CARE\\_CommunityScoreCardToolkit.pdf](http://www.care.org/sites/default/files/documents/FP-2013-CARE_CommunityScoreCardToolkit.pdf)

CARE USA. 2011. 'Assessing Water Point Sustainability through Community Governance in Ethiopia, Uganda and Mozambique'. Atlanta, GA: CARE USA.  
[www.care.org/sites/default/files/documents/Sustainability-Report-Eth-Moz-Uganda.pdf](http://www.care.org/sites/default/files/documents/Sustainability-Report-Eth-Moz-Uganda.pdf)

CEO Water Mandate. 2014. *Corporate Water Disclosure Guidelines: Toward a Common Approach to Reporting Water Issues*. Oakland, CA: Pacific Institute.  
<http://ceowatermandate.org/files/Disclosure2014.pdf>

CEO Water Mandate. 2015. *Guide for Managing Integrity in Water Stewardship Initiatives: A Framework for Improving Effectiveness and Transparency*. Oakland, CA: Pacific Institute.  
<http://ceowatermandate.org/files/integrity.pdf>

CESCR. 2003. 'General Comment no.15 (2002): The Right to Water (Arts. 11 and 12 of the International Covenant on Economic, Social and Cultural Rights)'.  
[www2.ohchr.org/english/issues/water/docs/CESCR\\_GC\\_15.pdf](http://www2.ohchr.org/english/issues/water/docs/CESCR_GC_15.pdf)

Chan, E. S., Vermersch, M., and Vaughan, P. 2012. 'Water Supply in Phnom Penh: From Devastation to Sector Leadership'. *Water Utility Management International* no. 7 (3).  
[www.leakssuite.com/wp-content/uploads/2015/06/2012-Phnom-Penh-Water-Supply-From-Devastation-to-Leadership-Ek-Sonnchan-Vermersch-M-Vaughan-P-WUMI-Sept-2012.pdf](http://www.leakssuite.com/wp-content/uploads/2015/06/2012-Phnom-Penh-Water-Supply-From-Devastation-to-Leadership-Ek-Sonnchan-Vermersch-M-Vaughan-P-WUMI-Sept-2012.pdf)

Christoplos, I., Engstrand, K., Hedqvist, A. L., and Indevalop AB. 2014. *Capacity Development Literature Review: Final Report*. Stockholm: Sida.  
[www.sida.se/contentassets/a91ee363c301497ea206f48500a93203/literature-review-cd\\_2014.pdf](http://www.sida.se/contentassets/a91ee363c301497ea206f48500a93203/literature-review-cd_2014.pdf)

Citiscopes. 2015. 'Mexico City's Miguel Angel Mancera Cracks Down on Corruption'.  
<http://citiscopes.org/story/2015/mexico-citys-miguel-angel-mancera-cracks-down-corruption>

Claasen, M. 2008. *Making the Budget Work for Education: Experiences, Achievements and Lessons from Civil Society Budget Work*. London: Save the Children International.  
<http://resourcecentre.savethechildren.se/library/making-budget-work-education-experiences-achievements-and-lessons-civil-society-budget-work>

- CMS. 2015. *CMS-India Corruption Study 2015. Perception and Experience with Public Services in Delhi*. New Delhi: CMS.  
[http://cmsindia.org/sites/default/files/ICS\\_Report-2015.pdf](http://cmsindia.org/sites/default/files/ICS_Report-2015.pdf)
- Coca-Cola Company and the Nature Conservancy. 2010. *Product Water Footprint Assessments: Practical Application in Corporate Water Stewardship*. Atlanta, GA: Coca-Cola Company.  
[http://assets.coca-colacompany.com/6f/61/43df76c8466d97c073675d1c5f65/TCCC\\_TNC\\_WaterFootprintAssessments.pdf](http://assets.coca-colacompany.com/6f/61/43df76c8466d97c073675d1c5f65/TCCC_TNC_WaterFootprintAssessments.pdf)
- Committee to Protect Journalists. 2014. '2014 Prison Census: 221 Journalists Jailed Worldwide'.  
<https://cpj.org/imprisoned/2014.php>
- Cook, P. D., and Stevens, J. 2002. 'Using GIS to Improve Privatized Water Service Accountability: Metro Manila Case'. Paper read at Urban and Regional Information Systems Association conference 'IT/GIS in Public Works', at Pittsburgh.  
<http://downloads2.esri.com/campus/uploads/library/pdfs/60904.pdf>
- Cooley, H., Ajami, N., Ha, M.-L., Srinivasan, V., Morrison, J., Donnelly, K., and Christian-Smith, J. 2013. *Global Water Governance in the 21st Century*. Oakland, CA: Pacific Institute.  
[www.pacinst.org/wp-content/uploads/2013/07/pacinst-global-water-governance-in-the-21st-century.pdf](http://www.pacinst.org/wp-content/uploads/2013/07/pacinst-global-water-governance-in-the-21st-century.pdf)
- CoST. 2014. 'CoST Ethiopia Attributes \$ 13.3m Cost Increase to Incomplete Design'.  
[www.constructiontransparency.org/costethiopiaattributes133mcostincreasetoincompletedesign?forumboardid=74&forumtopicid=74](http://www.constructiontransparency.org/costethiopiaattributes133mcostincreasetoincompletedesign?forumboardid=74&forumtopicid=74)
- CoST. 2015. 'Financing for Development and Infrastructure Investment'. London: CoST.  
[www.constructiontransparency.org/documentdownload.axd?documentresourceid=146](http://www.constructiontransparency.org/documentdownload.axd?documentresourceid=146)
- Council of the European Union. 1991. 'Council Directive of 21 May 1991 concerning Urban Waste Water Treatment'. *Official Journal of the European Communities* no. L 135/40.  
<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31991L0271&from=EN>
- Craig, D., and Gachenga, E. 2010. 'The Recognition of Indigenous Customary Law in Water Resource Management'. *Water Law* no. 20 (5/6).  
[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1675996](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1675996)
- Daily Monitor*. 2013. 'Uganda Must Get Serious on Corruption'.  
[www.monitor.co.ug/OpEd/Letters/Uganda-must-get-serious-on-corruption/-/806314/2041588/-/ldsvd9/-/index.html](http://www.monitor.co.ug/OpEd/Letters/Uganda-must-get-serious-on-corruption/-/806314/2041588/-/ldsvd9/-/index.html)
- Danert, K. 2010. *Code of Practice for Cost-Effective Boreholes: Synthesis Report*. St. Gallen, Switzerland: RWSN and skat.  
<http://aquadoc.typepad.com/files/synthesis-report-final.pdf>

Danert, K., Armstrong, T., Adekile, D., Duffau, B., Ouedraogo, I., and Kwei, C. 2010. *Code of Practice for Cost Effective Boreholes*. St. Gallen, Switzerland: RWSN.

[www.rural-water-supply.net/\\_ressources/documents/default/1-128-2-1344514867.pdf](http://www.rural-water-supply.net/_ressources/documents/default/1-128-2-1344514867.pdf)

Danert, K., Carter, R. C., Adekile, D., MacDonald, A., and Baumann, E. 2009. 'Cost-Effective Boreholes in Sub-Saharan Africa'. Paper read at 34th WEDC International Conference, 'Water, Sanitation and Hygiene: Sustainable Development and Multisectoral Approaches', at Addis Ababa, Ethiopia.

[http://wedc.lboro.ac.uk/resources/conference/34/Danert\\_K\\_-\\_87.pdf](http://wedc.lboro.ac.uk/resources/conference/34/Danert_K_-_87.pdf)

Das, B. 2012. 'Enhancing Integrity to Reduce Corruption in Managing Rivers'. Berlin: WIN.

[www.waterintegritynetwork.net/wp-content/uploads/2015/03/WIN\\_Brief\\_RiverBasin\\_EN\\_2012.pdf](http://www.waterintegritynetwork.net/wp-content/uploads/2015/03/WIN_Brief_RiverBasin_EN_2012.pdf)

Das, B., Chan, E. S., Visoth, C., Pangare, G., and Simpson, R. 2010. *Sharing the Reform Process: Learning from the Phnom Penh Water Supply Authority*. Gland, Switzerland: IUCN.

[https://cmsdata.iucn.org/downloads/phnom\\_penh\\_waterfinal.pdf](https://cmsdata.iucn.org/downloads/phnom_penh_waterfinal.pdf)

Das, B., Hermann-Friede, J., Curasse, F., and Pant, Y. 2014. 'Integrity in WASH: Fulfilling the Human Rights Mandate'. *Waterlines* no. 33 (4).

[www.developmentbookshelf.com/doi/abs/10.3362/2046-1887.2014.036](http://www.developmentbookshelf.com/doi/abs/10.3362/2046-1887.2014.036)

Davies, T., and Fumega, S. 2014. *Mixed Incentives: Adopting ICT Innovations for Transparency, Accountability, and Anti-Corruption*. Bergen: Chr. Michelsen Institute.

[www.u4.no/publications/mixed-incentives-adopting-ict-innovations-for-transparency-accountability-and-anti-corruption](http://www.u4.no/publications/mixed-incentives-adopting-ict-innovations-for-transparency-accountability-and-anti-corruption)

Dávila, G., and Olazával, H. 2006. *De la Mediación a la Movilización Social: Análisis de Algunos Conflictos por el Agua en Chimborazo*. Quito, Ecuador: Abya-Yala.

<https://repository.unm.edu/bitstream/handle/1928/10791/De%20la%20mediación%20a%20la%20movilización.pdf?sequence=1>

Davis, J. 2003. 'Corruption in Public Service Delivery: Experience from South Asia's Water and Sanitation Sector'. *World Development* no. 32 (1).

<http://web.stanford.edu/group/jennadavis/cgi-bin/drupal/sites/default/files/DavisWD2003Corruption.pdf>

Dawn. 2011. 'Water Woes in Karachi'.

[www.dawn.com/news/615047/water-woes-in-karachi](http://www.dawn.com/news/615047/water-woes-in-karachi)

Dawson, G., and Farber, S. 2013. *Forcible Displacement throughout the Ages: Towards an International Convention for the Prevention and Punishment of the Crime of Forcible Displacement*. Vol. 36, *International Humanitarian Law Series*. Leiden, Netherlands: Martinus Nijhoff.

De Albuquerque, C. 2011. 'Report of the Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation'. New York: UN General Assembly.

[www2.ohchr.org/english/bodies/hrcouncil/docs/18session/A-HRC-18-33\\_en.pdf](http://www2.ohchr.org/english/bodies/hrcouncil/docs/18session/A-HRC-18-33_en.pdf)



- De Albuquerque, C. 2014. 'Report of the Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation'. New York: UN General Assembly.  
[www.ohchr.org/EN/HRBodies/HRC/RegularSessions/Session27/Documents/A\\_HRC\\_27\\_55\\_ENG.doc](http://www.ohchr.org/EN/HRBodies/HRC/RegularSessions/Session27/Documents/A_HRC_27_55_ENG.doc)
- De Albuquerque, C., and Roaf, V. 2012. *On the Right Track: Good Practices in Realising the Rights to Water and Sanitation*. Geneva: OHCHR.  
[www.ohchr.org/Documents/Issues/Water/BookonGoodPractices\\_en.pdf](http://www.ohchr.org/Documents/Issues/Water/BookonGoodPractices_en.pdf)
- Defere, E. 2015. *Private Sector Landscape for WASH in Ethiopia: Bottlenecks and Opportunitites*. The Hague: IRC.  
[www.ircwash.org/sites/default/files/private\\_sector\\_landscape\\_wash\\_ethiopia\\_final\\_23062015.pdf](http://www.ircwash.org/sites/default/files/private_sector_landscape_wash_ethiopia_final_23062015.pdf)
- Deininger, K., Byerlee, D., Lindsay, J., Norton, A., Selod, H., and Stickler, M. 2011. *Rising Global Interest in Farmland: Can It Yield Sustainable and Equitable Benefits?* Washington, DC: World Bank.  
<http://siteresources.worldbank.org/DEC/Resources/Rising-Global-Interest-in-Farmland.pdf>
- Delaware River Basin Commission. 2013. *Administrative Manual, part III, Water Quality Regulations*. West Trenton, NJ: Delaware River Basin Commission.  
[www.state.nj.us/drbc/library/documents/WQregs.pdf](http://www.state.nj.us/drbc/library/documents/WQregs.pdf)
- Dell, G. 2006. *Anti-Corruption Conventions in Africa: What Civil Society Can Do to Make Them Work*. Berlin: TI.  
[www.transparency.org/whatwedo/publication/anti\\_corruption\\_conventions\\_in\\_africa\\_what\\_civil\\_society\\_can\\_do\\_to\\_make\\_the](http://www.transparency.org/whatwedo/publication/anti_corruption_conventions_in_africa_what_civil_society_can_do_to_make_the)
- Demircug-Kunt, A., and Klapper, L. 2012. *Measuring Financial Inclusion: The Global Index Database*. Washington, DC: World Bank.  
[www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2012/04/19/000158349\\_20120419083611/Rendered/PDF/WPS6025.pdf](http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2012/04/19/000158349_20120419083611/Rendered/PDF/WPS6025.pdf)
- Dewulf, A., Craps, M., Bouwen, R., Taillieu, T., and Pahl-Wostl, C. 2005. 'Integrated Management of Natural Resources: Dealing with Ambiguous Issues, Multiple Actors and Diverging Frames'. *Water Science and Technology* no. 52 (6).  
<https://ppw.kuleuven.be/home/english/research/wopp/marccraps/publ/dewulf-craps-et-al-2005-ambiguous-issues-and.pdf>
- DFID. 2015. *Why Corruption Matters: Understanding Causes, Effects and How to Address Them: Evidence Paper on Corruption*. London: DFID.  
[www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/406346/corruption-evidence-paper-why-corruption-matters.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/406346/corruption-evidence-paper-why-corruption-matters.pdf)
- Dickinson, N., and Bostoen, K. 2013. *Using ICT for Monitoring Rural Water Services: From Data to Action*. The Hague: IRC.  
[www.ircwash.org/sites/default/files/wp4\\_ict\\_monitoring.pdf](http://www.ircwash.org/sites/default/files/wp4_ict_monitoring.pdf)

Dirección Nacional de Saneamiento. 2014. *Informe 2014: Resultados de Gobernabilidad y Gobernanza (GYG) en 40 EPS*. Lima: Ministerio de Vivienda, Construcción y Saneamiento.  
[www.otass.gob.pe/pdf/volumen-1-Informe-2014.pdf](http://www.otass.gob.pe/pdf/volumen-1-Informe-2014.pdf)

Dong, B., Dulleck, U., and Torgler, B. 2011. 'Conditional Corruption'. *Journal of Economic Psychology* no. 33 (3).  
[www.researchgate.net/publication/264240783\\_Conditional\\_Corruption](http://www.researchgate.net/publication/264240783_Conditional_Corruption)

Earle, A., Lungu, G., and Malzbender, D. 2008. *Mapping of Integrity and Accountability in Water Activities and Relevant Capacities in the SADC-Region*. Stockholm: WGF.  
<http://watergovernance.org/resources/mapping-of-integrity-and-accountability-in-water-activities-and-relevant-capacities-in-the-sadc-region>

Edmundson, W. A. 2002. 'Social Meaning, Compliance Conditions, and Law's Claim to Authority'. *Canadian Journal of Law and Jurisprudence* no. 15 (1).

Effective Institutions Platform. 2014. *Supreme Audit Institutions and Stakeholder Engagement Practices: A Stocktaking Report*. Paris: OECD.  
[www.effectiveinstitutions.org/media/Stocktake\\_Report\\_on\\_Supreme\\_Audit\\_Institutions\\_and\\_Citizen\\_Engagement\\_.pdf](http://www.effectiveinstitutions.org/media/Stocktake_Report_on_Supreme_Audit_Institutions_and_Citizen_Engagement_.pdf)

EIU. 2015. *Urban Infrastructure Insights 2015*. London: EIU.  
[www.economistinsights.com/sites/default/files/Urban Infrastructure Insights.pdf](http://www.economistinsights.com/sites/default/files/Urban%20Infrastructure%20Insights.pdf)

EPA. 2002. *Federal Water Pollution Control Act*. Washington, DC: US Congress.  
[www.epw.senate.gov/water.pdf](http://www.epw.senate.gov/water.pdf)

Estache, A. 2006. 'Infrastructure: A Survey of Recent and Upcoming Issues'. Washington, DC: World Bank.  
[http://siteresources.worldbank.org/INTDECABCTOK2006/Resources/Antonio\\_Estache\\_Infrastructure\\_for\\_Growth.pdf](http://siteresources.worldbank.org/INTDECABCTOK2006/Resources/Antonio_Estache_Infrastructure_for_Growth.pdf)

eThekwini Municipality. 2015. '2013/2014 Annual Report'. Durban, South Africa: eThekwini Municipality.  
[www.slideshare.net/durbanchamber/ethekwini-municipality-2013-2014-annual-report](http://www.slideshare.net/durbanchamber/ethekwini-municipality-2013-2014-annual-report)

Ethisphere. 2013. 'Corruption in a Concrete Jungle: Common Bribery Risks in São Paulo'.  
<http://web.ethisphere.com/anti-corruption/corruption-in-a-concrete-jungle-common-bribery-risks-in-sao-paulo>

EBRD. 2012. 'Standard Prequalification Documents: Guidance Notes on the Prequalification of Tenderers' London: EBRD.  
[www.ebrd.com/downloads/procurement/project/PQ\\_Guidance\\_Notes\\_FINAL.pdf](http://www.ebrd.com/downloads/procurement/project/PQ_Guidance_Notes_FINAL.pdf)

European Court of Human Rights. 1993. 'Case of Zander v. Sweden'. Strasbourg: European Court of Human Rights.  
<http://hudoc.echr.coe.int/eng?i=001-57862>

European Parliament. 2000. 'Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 Establishing a Framework for Community Action in the Field of Water Policy'. Strasbourg: European Parliament.

<http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32000L0060&from=EN>

Evans, B., Bartram, J., Hunter, P., Williams, A. R., Geere, J.-A., Majuru, B., Bates, L., Fisher, M., Overbo, A., and Schmidt, W.-P. 2013. *Public Health and Social Benefits of At-House Water Supplies: Final Report*. Leeds, UK: University of Leeds.

[http://r4d.dfid.gov.uk/pdf/outputs/water/61005-DFID\\_HH\\_water\\_supplies\\_final\\_report.pdf](http://r4d.dfid.gov.uk/pdf/outputs/water/61005-DFID_HH_water_supplies_final_report.pdf)

Famiglietti, J. S. 2014. 'The Global Groundwater Crisis'. *Nature Climate Change* no. 4 (11).

<http://web.mit.edu/12.000/www/m2018/pdfs/groundwatercrisis.pdf>

Faures, J. M. 2006. *Water Monitoring: Mapping Existing Global Systems and Initiatives*. Rome: FAO.

[www.fao.org/nr/water/docs/UNW\\_MONITORING\\_REPORT.pdf](http://www.fao.org/nr/water/docs/UNW_MONITORING_REPORT.pdf)

Feuerstein, L., Gronemeier, K., Müller, S., Nordmann, D., Rumohr, J., and Schnabel, S. 2013.

*Stopping the Drain on Resources: Fighting Corruption in the Water Sector*. Eschborn, Germany: GIZ.

[www.giz.de/fachexpertise/downloads/giz2013-en-stopping-the-drain-resources.pdf](http://www.giz.de/fachexpertise/downloads/giz2013-en-stopping-the-drain-resources.pdf)

Fisher, D. 2009. *The Law and Governance of Water Resources: The Challenge of Sustainability*.

Cheltenham, UK: Edward Elgar.

Flyvbjerg, B. 2005. 'Design by Deception: The Politics of Megaproject Approval'.

*Harvard Design Magazine* no. 22.

<http://flyvbjerg.plan.aau.dk/HARVARDDDESIGN63PRINT.pdf>

Fonseca, C. 2015. 'Making the Invisible Visible: Monitoring the Costs and Finance Needed for Sustainable WASH Service Delivery'. In *From Infrastructure to Services: Trends in Monitoring Sustainable Water, Sanitation and Hygiene Services*, edited by T. Schouten and S. Smits.

Rugby, UK: Practical Action.

Food & Water Europe. 2015. 'Water Privatization, Corruption and Elections in Spain'.

[www.foodandwatereurope.org/blogs/water-privatization-corruption-and-elections-in-spain/-more-39478](http://www.foodandwatereurope.org/blogs/water-privatization-corruption-and-elections-in-spain/-more-39478)

ForestEthics Advocacy Association. 2015. 'Alberta Government Chooses Oil over Water: New Rules Bow to Corporate Interests'.

<http://ecocidealert.com/?p=10903>

*Fort McMurray Today*. 2010. 'First Nations Say Water Withdrawal Rules Violate Interests'.

[www.fortmcmurraytoday.com/2010/07/22/first-nations-say-water-withdrawal-rules-violate-interests](http://www.fortmcmurraytoday.com/2010/07/22/first-nations-say-water-withdrawal-rules-violate-interests)

Frazer, T., and Davies, G. 2014. 'Competition for Public Contracts: The New EU Public Procurement Regime'.

[www.inhouselawyer.co.uk/index.php/eu-a-competition/10443-competition-for-public-contracts-the-new-eu-public-procurement-regime](http://www.inhouselawyer.co.uk/index.php/eu-a-competition/10443-competition-for-public-contracts-the-new-eu-public-procurement-regime)

Gaventa, J., and Rootes, C. 2007. 'Mapping the Public Policy Landscape: From Local to Global'. Swindon, UK: Economic and Social Research Council.

[www.powercube.net/wp-content/uploads/2009/11/ESRC\\_from\\_global\\_to\\_local.pdf](http://www.powercube.net/wp-content/uploads/2009/11/ESRC_from_global_to_local.pdf)

Geere, J.-A., Hunter, P., and Jagals, P. 2010. 'Domestic Water Carrying and Its Implications for Health in Limpopo Province, South Africa: A Mixed Methods Pilot Study'. *Environmental Health* no. 9.

[www.ewisa.co.za/literature/files/157\\_109\\_Geere.pdf](http://www.ewisa.co.za/literature/files/157_109_Geere.pdf)

George, B. C., Lacey, K. A., and Birmele, J. 2000. 'The 1998 OECD Convention: An Impetus for Worldwide Changes in Attitudes toward Corruption in Business Transactions'. *American Business Law Journal* no. 37 (3).

GII and TI. 2011. *Ghana's National Water Supply Integrity Study: Mapping Transparency, Accountability and Participation in Service Delivery: An Analysis of the Water Supply Sector in Ghana*. Accra, Ghana: GII.

GIZ. 2011. 'Managing Water Efficiently: Yemen's Supreme Audit Institution Audits the Water Sector'. Eschborn, Germany: GIZ.

[www.researchgate.net/publication/265421712\\_Managing\\_water\\_efficiently\\_Yemens\\_supreme\\_audit\\_institution\\_audits\\_the\\_water\\_sector](http://www.researchgate.net/publication/265421712_Managing_water_efficiently_Yemens_supreme_audit_institution_audits_the_water_sector)

GIZ. 2012. 'Anticorruption WORKS: A Participatory Advisory Tool for Corruption-Sensitive Programme Planning'. Eschborn, Germany: GIZ.

GIZ. 2014a. 'Field Mission.' (unpublished)

GIZ. 2014b. *Good Financial Governance in Sector Ministries: Guidance Note and Tool*. Eschborn, Germany: GIZ.

Global Integrity. 2014. 'A Toolbox of Toolboxes: Has "Knowledge Sharing" Gone Too Far?'

[www.globalintegrity.org/2014/08/a-toolbox-of-toolboxes-has-knowledge-sharing-gone-too-far](http://www.globalintegrity.org/2014/08/a-toolbox-of-toolboxes-has-knowledge-sharing-gone-too-far)

GlobalData. 2013. 'Global Hydropower Market Continuing to Grow, with Asia-Pacific Keeping the Lead'.

<http://energy.globaldata.com/media-center/press-releases/power-and-resources/global-hydropower-market-continuing-to-grow-with-asiapacific-keeping-the-lead>

GLONEHDO. 2012. *Status Report on Budget Tracking on AMA*. Accra, Ghana: GLONEHDO.

[www.google.de/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCIQFjAAahUK EwiZm7md0unHAhVD7XIKHcCUC5g&url=https%3A%2F%2Fconiwis.files.wordpress.com%2F2011%2F12%2Freport-on-ama-budget-tracking.docx&usg=AFQjCNHyyfCFpluF7Zo44DIsP Pyy9-TlvQ&sig2=de-PhB1uuUuNY7Bn8oT\\_OA](http://www.google.de/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCIQFjAAahUK EwiZm7md0unHAhVD7XIKHcCUC5g&url=https%3A%2F%2Fconiwis.files.wordpress.com%2F2011%2F12%2Freport-on-ama-budget-tracking.docx&usg=AFQjCNHyyfCFpluF7Zo44DIsP Pyy9-TlvQ&sig2=de-PhB1uuUuNY7Bn8oT_OA)

- González de Asís, M., O'Leary, D., Ljung, P., and Butterworth, J. 2009. *Improving Transparency, Integrity, and Accountability in Water Supply and Sanitation: Action, Learning, Experiences*. Washington, DC: World Bank.  
[www.oecd.org/env/outreach/44475062.pdf](http://www.oecd.org/env/outreach/44475062.pdf)
- Government of the Netherlands. 2015. 'The Netherlands Halts Aid to Benin'.  
[www.government.nl/latest/news/2015/05/06/the-netherlands-halts-aid-to-benin](http://www.government.nl/latest/news/2015/05/06/the-netherlands-halts-aid-to-benin)
- Grigoli, F., and Mills, Z. 2011. *Do High and Volatile Levels of Public Investment Suggest Misconduct? The Role of Institutional Quality*. Washington, DC: World Bank.  
<https://openknowledge.worldbank.org/bitstream/handle/10986/3584/WPS5735.pdf?sequence=1&isAllowed=y>
- Grönlund, Å. k., Heacock, R., Sasaki, D., Hellström, J., and Al-Saqaf, W. 2010. *Increasing Transparency and Fighting Corruption through ICT: Empowering People and Communities*. Stockholm: Swedish Program for ICT in Developing Regions.  
[http://spidercenter.org/polopoly\\_fs/1.163640.1390315885!/menu/standard/file/Spider ICT4D series 3 Increasing transparency and fighting corruption through ICT.pdf](http://spidercenter.org/polopoly_fs/1.163640.1390315885!/menu/standard/file/Spider ICT4D series 3 Increasing transparency and fighting corruption through ICT.pdf)
- Gurría, A. 2014. 'OECD Forum on Financing Democracy and Averting Policy Capture: Remarks by the OECD Secretary-General'.  
[www.oecd.org/about/secretary-general/forum-financing-democracy.htm](http://www.oecd.org/about/secretary-general/forum-financing-democracy.htm)
- Gutierrez, E. 2010. *Advocacy Guide: A Toolbox for Water Integrity Action*. Berlin: WIN.  
[www.waterintegritynetwork.net/wp-content/uploads/2015/02/WIN\\_AdvocacyGuide\\_EN\\_2010.pdf](http://www.waterintegritynetwork.net/wp-content/uploads/2015/02/WIN_AdvocacyGuide_EN_2010.pdf)
- GWP. 2011. 'Towards Integrated Urban Water Management'. Stockholm: GWP.  
[www.gwp.org/Global/ToolBox/Publications/Perspective Papers/01 Towards Integrated Urban Water Management %282011%29 English.pdf](http://www.gwp.org/Global/ToolBox/Publications/Perspective Papers/01 Towards Integrated Urban Water Management %282011%29 English.pdf)
- GWP and INBO. 2009. *A Handbook for Integrated Water Resources Management in Basins*. Stockholm: GWP and INBO.  
[www.unwater.org/downloads/gwp\\_inbo\\_handbook\\_for\\_iwrm\\_in\\_basins\\_eng.pdf](http://www.unwater.org/downloads/gwp_inbo_handbook_for_iwrm_in_basins_eng.pdf)
- Haddaway, N., and Pullin, A. S. 2013. 'Evidence-Based Conservation and Evidence-Informed Policy: A Response to Adams and Sandbrook'. *Oryx* no. 47 (3).  
<http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=8956472&fileId=S0030605313000811>
- Hall, D., and Lobina, E. 2012. 'Conflicts, Companies, Human Rights and Water – A Critical Review of Local Corporate Practices and Global Corporate Initiatives'. Paper read at 6th World Water Forum, at Marseille.  
[www.world-psi.org/sites/default/files/documents/research/psiru\\_conflicts\\_human\\_rights\\_and\\_water.pdf](http://www.world-psi.org/sites/default/files/documents/research/psiru_conflicts_human_rights_and_water.pdf)

Hanna, P. R., Bishop, S., Nadel, S., Scheffler, G., and Durlacher, K. 2011. *The Effectiveness of Anti-Corruption Policy: What Has Worked, What Hasn't, and What We Don't Know*. London: Evidence for Policy and Practice Information and Co-ordinating Centre.

<https://eppi.ioe.ac.uk/cms/LinkClick.aspx?fileticket=9T7IIZ7LFW8%3D&tabid=3106&mid=5783>

Haque, M., Rouf, M., and Khan, M. Z. H. 2012. *Challenges in Climate Finance Governance in Bangladesh and Way Out*. Dhaka: TI Bangladesh.

[www.ti-bangladesh.org/beta3/images/max\\_file/wp\\_cfg\\_cfgp\\_12\\_en.pdf](http://www.ti-bangladesh.org/beta3/images/max_file/wp_cfg_cfgp_12_en.pdf)

Hardoon, D., and Heinrich, F. 2011. *Bribe Payers Index 2011*. Berlin: TI.

[www.transparency.org/bpi2011/results](http://www.transparency.org/bpi2011/results)

Hart, L., and Taxell, N. 2013. 'Donor Anti-Corruption Strategies: Learning from Implementation'. Bergen: Chr. Michelsen Institute.

[www.cmi.no/publications/file/5002-donor-anti-corruption-strategies.pdf](http://www.cmi.no/publications/file/5002-donor-anti-corruption-strategies.pdf)

Havekes, H., Hofstra, M., van der Kerk, A., and Teeuwen, B. 2013. *Building Blocks for Good Water Governance*. The Hague: WGC.

[http://watergovernance.s3.amazonaws.com/files/WGC\\_building\\_blocks\\_for\\_good\\_governance\\_def.pdf](http://watergovernance.s3.amazonaws.com/files/WGC_building_blocks_for_good_governance_def.pdf)

Helvetas, and WIN. 2015. 'Annual Report 2014: Water Integrity Programme – Nepal.' (unpublished)

Hepworth, N., and Orr, S. 2013. 'Corporate Water Stewardship: Exploring Private Sector Engagement in Water Security'. In *Water Security: Principles, Perspectives and Practices*, edited by B. A. Lankford, K. Bakker, M. Zeitoun and D. Conway. Abingdon, UK: Routledge.

Hermann-Friede, J., Heeb, J., and Kropac, M. 2012. 'Water Integrity: An Opportunity for the Private Sector?'. Berlin: WIN and cewas.

[www.waterintegritynetwork.net/wp-content/uploads/2015/03/WIN\\_Brief\\_PrivateSector\\_EN\\_2012.pdf](http://www.waterintegritynetwork.net/wp-content/uploads/2015/03/WIN_Brief_PrivateSector_EN_2012.pdf)

Hermann-Friede, J., Kropac, M., Achermann, S., Heeb, J., and Feuerstein, L. 2014. *Integrity Management Toolbox for Water Service Providers: Manual for Facilitators*. Berlin: cewas and WIN.

<http://staging.win.lat.webfactional.com/2015/02/26/integrity-management-in-water-sector-organizations>

Hermann-Friede, J., Kropac, M., and Erlmann, T. 2014. 'Integrity Management Toolbox for Small and Medium Sized Enterprises'. In *Case Studies: 1st African Water Integrity Summit, 'Accelerating towards a Water Secure World', April 29–30, Lusaka, Zambia*. Stockholm: SIWI.

[www.waterintegritynetwork.net/wp-content/uploads/2015/03/Cases\\_WaterIntegrity\\_LusakaSummit\\_2014.pdf](http://www.waterintegritynetwork.net/wp-content/uploads/2015/03/Cases_WaterIntegrity_LusakaSummit_2014.pdf)

Higgins, K., and Cornforth, J. 2015. 'Civil Society and SDG Monitoring: Harnessing Civil Society and Citizen-Generated Data'. Johannesburg: CIVICUS.

<http://civicus.org/thedatashift/wp-content/uploads/2015/08/SDG-Monitoring-DataShift-Background-Note-Final-Version.pdf>

- HM Revenue & Customs. 2014. 'Money Laundering Regulations: Risk Assessments'. London: HM Revenue & Customs.  
[www.gov.uk/guidance/money-laundering-regulations-risk-assessments](http://www.gov.uk/guidance/money-laundering-regulations-risk-assessments)
- HM Treasury. 2015. 'Guidance: Early Financial Cost Estimates of Infrastructure Programmes and Projects and the Treatment of Uncertainty and Risk'. London: HM Treasury.  
[www.gov.uk/government/publications/green-book-supplementary-guidance-valuing-infrastructure-spend/early-financial-cost-estimates-of-infrastructure-programmes-and-projects-and-the-treatment-of-uncertainty-and-risk](http://www.gov.uk/government/publications/green-book-supplementary-guidance-valuing-infrastructure-spend/early-financial-cost-estimates-of-infrastructure-programmes-and-projects-and-the-treatment-of-uncertainty-and-risk)
- Holloway, R. 2006. *NGO Corruption Fighters' Resource Book: How NGOs Can Use Monitoring and Advocacy to Fight Corruption*. Washington, DC: National Democratic Institute.  
[www.ndi.org/files/NGO-Corruption-Fighters-Resource-Book-ENG.pdf](http://www.ndi.org/files/NGO-Corruption-Fighters-Resource-Book-ENG.pdf)
- Home Office. 2014. *Water Act 2014*. London: The Stationery Office.  
[www.legislation.gov.uk/ukpga/2014/21/pdfs/ukpga\\_20140021\\_en.pdf](http://www.legislation.gov.uk/ukpga/2014/21/pdfs/ukpga_20140021_en.pdf)
- Hoogesteger, J. 2012. 'Democratizing Water Governance from the Grassroots: The Development of Interjuntas-Chimborazo in the Ecuadorian Andes'. *Human Organization* no. 71 (1).  
<http://library.wur.nl/WebQuery/wurpubs/422596>
- Hoogesteger, J. 2013. 'Movements against the Current: Scale and Social Capital in Peasants' Struggles for Water in the Ecuadorian Highlands'. Wageningen, Netherlands: Wageningen University and Research Centre.  
<http://library.wur.nl/WebQuery/wurpubs/441944>
- Hope, R., Foster, T., Money, A., Rouse, M., Money, N., and Thomas, M. 2011. 'Smart Water Systems: Final Technical Report to UK Department for International Development'. Oxford: University of Oxford.  
[http://r4d.dfid.gov.uk/PDF/Outputs/Water/SmartWaterSystems\\_FinalReport-Main\(Reduced\)\\_April2011.pdf](http://r4d.dfid.gov.uk/PDF/Outputs/Water/SmartWaterSystems_FinalReport-Main(Reduced)_April2011.pdf)
- Hueso González, A. 2013. 'Pathways to Sustainability in Community-Led Total Sanitation: Experiences from Madhya Pradesh and Himachal Pradesh'. Valencia: Polytechnic University of Valencia.  
[https://riunet.upv.es/bitstream/handle/10251/31520/Pathways%20to%20sustainability%20in%20community\\_5653.pdf?sequence=16](https://riunet.upv.es/bitstream/handle/10251/31520/Pathways%20to%20sustainability%20in%20community_5653.pdf?sequence=16)
- Hueso González, A., and Bell, B. 2013. 'An Untold Story of Policy Failure: The Total Sanitation Campaign in India'. *Water Policy* no. 15 (6).  
[www.researchgate.net/publication/277419703\\_An\\_untold\\_story\\_of\\_policy\\_failure\\_The\\_Total\\_Sanitation\\_Campaign\\_in\\_India](http://www.researchgate.net/publication/277419703_An_untold_story_of_policy_failure_The_Total_Sanitation_Campaign_in_India)
- Hulme, D., and Maitrot, M. 2014. 'Has Microfinance Lost Its Moral Compass?'. Manchester: Brooks World Poverty Institute, University of Manchester.  
[www.bwpi.manchester.ac.uk/medialibrary/publications/working\\_papers/bwpi-wp-20514.pdf](http://www.bwpi.manchester.ac.uk/medialibrary/publications/working_papers/bwpi-wp-20514.pdf)

Hurwitz, Z. 2014. *Dam Standards: A Rights-Based Approach: A Guidebook for Civil Society*. Berkeley, CA: International Rivers.

[www.internationalrivers.org/files/attached-files/intlivers\\_dam\\_standards\\_final.pdf](http://www.internationalrivers.org/files/attached-files/intlivers_dam_standards_final.pdf)

Husnain, M. 2013. 'Reviewing the Devastated Ecosystem Services of Chotiari Reservoir to Formulate a Restoration Scheme'. Paper read at 33rd annual meeting of the International Association for Impact Assessment, at Calgary, Canada.

[www.iaia.org/conferences/iaia13/proceedings/Final\\_papers\\_review\\_process\\_13/Reviewing\\_the\\_Devastated\\_Ecosystem\\_Services\\_of\\_Chotiari\\_Reservoir\\_to\\_Formulate\\_a\\_Restoration\\_Scheme.pdf?AspxAutoDetectCookieSupport=1](http://www.iaia.org/conferences/iaia13/proceedings/Final_papers_review_process_13/Reviewing_the_Devastated_Ecosystem_Services_of_Chotiari_Reservoir_to_Formulate_a_Restoration_Scheme.pdf?AspxAutoDetectCookieSupport=1)

Hutton, G. 2012. *Global Costs and Benefits of Drinking-Water Supply and Sanitation Interventions to Reach the MDG Target and Universal Coverage*. Geneva: WHO.

[http://apps.who.int/iris/bitstream/10665/75140/1/WHO\\_HSE\\_WSH\\_12.01\\_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/75140/1/WHO_HSE_WSH_12.01_eng.pdf?ua=1)

Hutton, G. 2015. *Benefits and Costs of the Water and Sanitation Targets for the Post-2015 Development Agenda*. Copenhagen: Copenhagen Consensus Center.

[www.copenhagenconsensus.com/sites/default/files/water\\_sanitation\\_assessment\\_-\\_hutton.pdf](http://www.copenhagenconsensus.com/sites/default/files/water_sanitation_assessment_-_hutton.pdf)

Hutton, G., and Varughese, M. 2016. *The Cost of Meeting the 2030 Sustainable Development Goal Targets on Drinking Water, Sanitation, and Hygiene*. Washington, DC: World Bank.

[www.openknowledge.worldbank.org/handle/10986/23681](http://www.openknowledge.worldbank.org/handle/10986/23681)

IFC. 2013. 'Access to Credit among Micro, Small, and Medium Enterprises'. Washington, DC: IFC.

[www.ifc.org/wps/wcm/connect/1f2c968041689903950bb79e78015671/AccessCreditMSME-Brochure-Final.pdf?MOD=AJPERES](http://www.ifc.org/wps/wcm/connect/1f2c968041689903950bb79e78015671/AccessCreditMSME-Brochure-Final.pdf?MOD=AJPERES)

IHA. 2014. 'Do the Benefits of Sustainable Hydropower Outweigh the Costs?'

[www.hydropower.org/blog/do-the-benefits-of-sustainable-hydropower-outweigh-the-costs](http://www.hydropower.org/blog/do-the-benefits-of-sustainable-hydropower-outweigh-the-costs)

Independent Evaluation Group and KfW Entwicklungsbank. 2011. *Water and Development: Taking Lessons from Evaluation: Summary of Discussions at the Berlin Conference*.

Frankfurt: KfW Entwicklungsbank.

[www.kfw-entwicklungsbank.de/migration/Entwicklungsbank-Startseite/Entwicklungsfinanzierung/%C3%9Cber-uns/News/PDF-Dateien/Wirksamkeit-von-Wasservorhaben.pdf](http://www.kfw-entwicklungsbank.de/migration/Entwicklungsbank-Startseite/Entwicklungsfinanzierung/%C3%9Cber-uns/News/PDF-Dateien/Wirksamkeit-von-Wasservorhaben.pdf)

Indij, D. 2005. 'Knowledge Management: Active and Collaborative Alliances for Effective Development'. Paper read at symposium 'Learning Alliances for Scaling Up Innovative Approaches in the Water and Sanitation Sector', at Delft.

[www.cap-net.org/resources/download-document/?doc=5744&id=Knowledge Management: Active and Collaborative Alliances for Effective Development](http://www.cap-net.org/resources/download-document/?doc=5744&id=Knowledge Management: Active and Collaborative Alliances for Effective Development)

Indij, D., and Domas, M. H. 2013. *Mapping of Integrity and Accountability in Water Resources Management and Relevant Capacities in Latin America*. Stockholm: WGF.

<http://watergovernance.org/wp-content/uploads/2015/06/Water-Integrity-Mapping-of-Latin-America-ENG-Final.pdf>



- Indij, D., Gumbo, B., and Leendertse, K. 2013. 'Capacity Development Networks: A Source of Social Capital for Change'. Paper read at 5th Delft symposium on 'Water Sector Capacity Development', at Delft.  
[www.cap-net.org/resources/download-document/?doc=4011&id=Capacity Development Networks: A Source of Social Capital for Change](http://www.cap-net.org/resources/download-document/?doc=4011&id=Capacity+Development+Networks:+A+Source+of+Social+Capital+for+Change)
- InfoChange India. 2005. '30 Litres for Some, 1,600 for Others: Inequities in Delhi's Water Supply'.  
<http://infochangeindia.org/agenda/the-politics-of-water/30-litres-for-some-1600-for-others-inequities-in-delhis-water-supply.html>
- International Rivers. 2015. *Benchmarking the Policies and Practices of International Hydropower Companies: Stage I: Environmental and Social Policies and Practices of Chinese Overseas Hydropower Companies, part A, Methodology and Analysis*. Berkeley, CA: International Rivers.  
[www.internationalrivers.org/resources/9065](http://www.internationalrivers.org/resources/9065)
- IPCC. 2014. *Climate Change 2014: Synthesis Report*. Geneva: IPCC.  
[www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR\\_AR5\\_FINAL\\_full.pdf](http://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full.pdf)
- IPS Tierramérica. 2015. 'Indigenous People in Brazil's Amazon: Crushed by the Belo Monte Dam?'.  
[www.ipsnews.net/2015/07/indigenous-people-in-brazils-amazon-crushed-by-the-belo-monte-dam](http://www.ipsnews.net/2015/07/indigenous-people-in-brazils-amazon-crushed-by-the-belo-monte-dam)
- IRC. 2015. 'Financing Universal Access: The Role of Water Financing Facilities'.  
[www.ircwash.org/blog/financing-universal-access-role-water-financing-facilities?utm\\_source=E-Source&utm\\_campaign=a175105c39-](http://www.ircwash.org/blog/financing-universal-access-role-water-financing-facilities?utm_source=E-Source&utm_campaign=a175105c39-)
- Isabekova, G., Ormushev, K., Omokeev, T., Williams, A., and Zakharchenko, N. 2013. 'Leaking Projects: Corruption and Local Water Management in Kyrgyzstan'. Bergen: Chr. Michelsen Institute.  
[www.u4.no/publications/leaking-projects-corruption-and-local-water-management-in-kyrgyzstan](http://www.u4.no/publications/leaking-projects-corruption-and-local-water-management-in-kyrgyzstan)
- Jacobson, M., Meyer, F., Oia, I., Reddy, P., and Tropp, H. 2013. *User's Guide on Assessing Water Governance*. Oslo: UNDP.  
[www.undp.org/content/dam/undp/library/Democratic Governance/OGC/Users Guide on Assessing Water Governance1.pdf](http://www.undp.org/content/dam/undp/library/Democratic+Governance/OGC/Users+Guide+on+Assessing+Water+Governance1.pdf)
- Jacobson, M., Mutono, S., Nielsen, E., O'Leary, D., and Rop, R. 2010. *Promoting Transparency, Integrity and Accountability in the Water and Sanitation Sector in Uganda*. Berlin: WIN and WSP.  
[www.wsp.org/sites/wsp.org/files/publications/WIN\\_WSP\\_Uganda\\_report.pdf](http://www.wsp.org/sites/wsp.org/files/publications/WIN_WSP_Uganda_report.pdf)
- Jalsrot Vikas Sanstha. 2012. *Assessment of Nepal Water Supply Corporation – Biratnagar Branch: Functionality of Water Supply Services*. Berlin: WIN.  
[www.waterintegritynetwork.net/wp-content/uploads/2015/03/JVS\\_WIN\\_Assessment\\_NepalWaterSupplyCorporation.pdf](http://www.waterintegritynetwork.net/wp-content/uploads/2015/03/JVS_WIN_Assessment_NepalWaterSupplyCorporation.pdf)
- Jiménez, A., and Le Deunff, H. 2015. *Accountability in WASH: A Reference Guide for Programming*. Stockholm: WGF.  
<http://watergovernance.org/wp-content/uploads/2015/09/2015-UNICEF-Reference-Guide-ENG-digital-2.pdf>

Juillard, H., and Opu, M. I. 2014. *Scoping Study: Emergency Cash Transfer Programming in the WaSH and Shelter Sectors*. Oxford: Cash Learning Partnership.

[www.cashlearning.org/resources/library/536-scoping-study--emergency-cash-transfer-programming-in-the-wash-and-shelter-sectors](http://www.cashlearning.org/resources/library/536-scoping-study--emergency-cash-transfer-programming-in-the-wash-and-shelter-sectors)

Kenny, C. 2007. *Construction, Corruption, and Developing Countries*. Washington, DC: World Bank.

[www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2007/06/26/00001640620070626142601/Rendered/PDF/wps4271.pdf](http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2007/06/26/00001640620070626142601/Rendered/PDF/wps4271.pdf)

Kenny, C., Klein, M., and Sztajerowska, M. 2011. *A Trio of Perspectives on Corruption: Bias, Speed Money and "Grand Theft Infrastructure."* Washington, DC: World Bank.

[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1965920](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1965920)

Khan, M. Z. H., Haque, M., and Rouf, M. 2013. *An Assessment of Climate Finance Governance: Bangladesh*. Dhaka: TI Bangladesh.

[www.ti-bangladesh.org/beta3/images/max\\_file/cfg\\_pub\\_Assesment\\_CFG\\_11-13.pdf](http://www.ti-bangladesh.org/beta3/images/max_file/cfg_pub_Assesment_CFG_11-13.pdf)

Klein, C. A. 2005. 'On Integrity: Some Considerations for Water Law'. *Alabama Law Review* no. 56 (4).

<http://scholarship.law.ufl.edu/cgi/viewcontent.cgi?article=1015&context=facultypub>

*Korea JoongAng Daily*. 2015. 'Water Pricing Is a Work in Progress, Says Braga'.

<http://koreajoongangdaily.joins.com/news/article/article.aspx?aid=3003274>

Kpenge, M. S. 2014. 'Going against the Cabal at Guma Valley'. Paper read at 1st African Water Integrity Summit, at Lusaka, Zambia.

[www.waterintegritynetwork.net/wp-content/uploads/2015/03/Cases\\_WaterIntegrity\\_LusakaSummit\\_2014.pdf](http://www.waterintegritynetwork.net/wp-content/uploads/2015/03/Cases_WaterIntegrity_LusakaSummit_2014.pdf)

KPMG. 2008. *Delivering Water Infrastructure Using Private Finance*. New York: KPMG.

[www.kpmg.com/NZ/en/IssuesAndInsights/ArticlesPublications/SmarterProcurement/Documents/Delivering-water-infrastructure-using-private-finance.pdf](http://www.kpmg.com/NZ/en/IssuesAndInsights/ArticlesPublications/SmarterProcurement/Documents/Delivering-water-infrastructure-using-private-finance.pdf)

Kraljevic, A., Meng, J.-h., and Schelle, P. 2013. *Seven Sins of Dam Building*.

Gland, Switzerland: WWF International.

[http://awsassets.panda.org/downloads/wwf\\_seven\\_sins\\_of\\_dam\\_building.pdf](http://awsassets.panda.org/downloads/wwf_seven_sins_of_dam_building.pdf)

Krause, K., Cabrera, E., Cubillo, F., Diaz, C., and Ducci, J. 2015. *AquaRating: An International Standard for Assessing Water and Wastewater Services*. London: IWA Publishing.

[www.iwapublishing.com/books/9781780407395/aquarating-international-standard-assessing-water-and-wastewater-services](http://www.iwapublishing.com/books/9781780407395/aquarating-international-standard-assessing-water-and-wastewater-services)

Krolikowski, A. 2014. 'Can Mobile-Enabled Payment Methods Reduce Petty Corruption in Urban Water Provision?'. *Water Alternatives* no. 7 (1).

[www.water-alternatives.org/index.php/alldoc/articles/vol7/v7issue1/243-a7-1-14/file](http://www.water-alternatives.org/index.php/alldoc/articles/vol7/v7issue1/243-a7-1-14/file)

- Lankford, B. A. 2008. 'Integrated, Adaptive and Domanial Water Resources Management'. In *Adaptive and Integrated Water Management: Coping with Complexity and Uncertainty*, edited by C. Pahl-Wostl, P. Kabat and J. Möltgen. Berlin: Springer-Verlag.  
[www.springer.com/us/book/9783540759409](http://www.springer.com/us/book/9783540759409)
- Lankford, B. A., and van Koppen, B. 2002. 'Tanzania: Critical Analysis of River Basin Management in the Great Ruaha'. Stockholm: GWP.  
[www.gwp.org/en/ToolBox/CASE-STUDIES/Africa/Tanzania-Critical-analysis-of-river-basin-management-in-the-Great-Ruaha-121](http://www.gwp.org/en/ToolBox/CASE-STUDIES/Africa/Tanzania-Critical-analysis-of-river-basin-management-in-the-Great-Ruaha-121)
- Lessmann, C., and Markwardt, G. 2010. 'One Size Fits All? Decentralisation, Corruption, and the Monitoring of Bureaucrats'. *World Development* no. 38 (4).  
[www.gsdrc.org/document-library/one-size-fits-all-decentralisation-corruption-and-the-monitoring-of-bureaucrats](http://www.gsdrc.org/document-library/one-size-fits-all-decentralisation-corruption-and-the-monitoring-of-bureaucrats)
- Levenzon, F., Okioga, K., Grimes, H., Conteh, S., Khalfan, A., and Mendes, R. 2008. *Case Studies on Efforts to Implement the Right to Water and Sanitation in Urban Areas: Brazil, Kenya, Sri Lanka and South Africa*. Geneva: Centre on Housing Rights and Evictions.  
[www.righttowater.info/wp-content/uploads/Case-Studies-on-Efforts-to-Implement-the-Right-to-Water-and-Sanitation-in-Urban-Areas-Brazil-Kenya-Sri-Lanka-and-South-Africa.pdf](http://www.righttowater.info/wp-content/uploads/Case-Studies-on-Efforts-to-Implement-the-Right-to-Water-and-Sanitation-in-Urban-Areas-Brazil-Kenya-Sri-Lanka-and-South-Africa.pdf)
- Liden, R., and Lyon, K. 2014. *The Hydropower Sustainability Assessment Protocol for Use by World Bank Clients: Lessons Learned and Recommendations*. Washington, DC: World Bank.  
[www-wds.worldbank.org/external/default/WDSCContentServer/WDSP/IB/2014/08/14/000442464\\_20140814105226/Rendered/PDF/891470REVISED00Box0385238B00PUBLIC0.pdf](http://www-wds.worldbank.org/external/default/WDSCContentServer/WDSP/IB/2014/08/14/000442464_20140814105226/Rendered/PDF/891470REVISED00Box0385238B00PUBLIC0.pdf)
- Lister, S. 2010. *Fostering Social Accountability: From Principle to Practice*. Oslo: UNDP.  
[www.undp.org/content/dam/undp/library/Democratic Governance/OGC/dg-ogc-Fostering Social Accountability-Guidance Note.pdf](http://www.undp.org/content/dam/undp/library/Democratic%20Governance/OGC/dg-ogc-Fostering%20Social%20Accountability-Guidance%20Note.pdf)
- Liwenga, E., Pauline, N., Tumbo, M., Osima, S., Mpeti, E., Norbert, J., Stendel, M., Stisen, S., Villholth, K., Birch-Thomsen, T., and D'haen, S. 2015. 'Climate Related Projections on Future Water Resources and Human Adaptation in the Great Ruaha River Basin in Tanzania'. Copenhagen: University of Copenhagen.  
[www.geus.dk/DK/int\\_devel\\_projects/Documents/Policy\\_Brief\\_CLIVET.pdf](http://www.geus.dk/DK/int_devel_projects/Documents/Policy_Brief_CLIVET.pdf)
- Lobina, E., Kishimoto, S., and Petitjean, O. 2014. *Here to Stay: Water Remunicipalisation as a Global Trend*. London: PSIRU.  
[www.tni.org/sites/www.tni.org/files/download/heretostay-en.pdf](http://www.tni.org/sites/www.tni.org/files/download/heretostay-en.pdf)
- Luijken, T. 2014. 'Anti-Corruption Training in Sectors: Current Approaches, Experience, and Evidence about Effectiveness'. Bergen: Chr. Michelsen Institute.  
[www.transparency.org/files/content/corruptionqas/Anti-corruption\\_training\\_in\\_sectors\\_-\\_current\\_approaches\\_experience\\_and\\_evidence\\_about\\_success\\_2014.pdf](http://www.transparency.org/files/content/corruptionqas/Anti-corruption_training_in_sectors_-_current_approaches_experience_and_evidence_about_success_2014.pdf)

Malawi Water and Sanitation Venture. 2014. 'Monitoring, Evaluating, and Adapting to Failure in a Complex System'. In *2014 Failure Report: Monitoring, Evaluation, and Adapting to Failure*. Toronto: Engineers Without Borders Canada.

[www.ewb.ca/sites/default/files/EWB\\_FAILURE\\_REPORT.pdf](http://www.ewb.ca/sites/default/files/EWB_FAILURE_REPORT.pdf)

Malik, R., Prathapar, S., and Marwah, M. 2014. *Revitalizing Canal Irrigation: Towards Improving Cost Recovery*. Colombo, Sri Lanka: IWMI.

[www.iwmi.cgiar.org/Publications/Working\\_Papers/working/wor160.pdf](http://www.iwmi.cgiar.org/Publications/Working_Papers/working/wor160.pdf)

Mayaute, F. 2013. *Public Works Information System INFobras*. Lima, Peru: GIZ.

[www.unodc.org/documents/treaties/UNCAC/COSP/session5/SpecialEvents/2013\\_11\\_28\\_FiorellaMayauteGIZ.pdf](http://www.unodc.org/documents/treaties/UNCAC/COSP/session5/SpecialEvents/2013_11_28_FiorellaMayauteGIZ.pdf)

Mbengue, M. M., and Waltman, S. 2015. *Farmland Investments and Water Rights: The Legal Regimes at Stake*. Winnipeg: IISD.

[www.iisd.org/sites/default/files/publications/farmland-investments-water-rights-legal-regimes-at-stake.pdf](http://www.iisd.org/sites/default/files/publications/farmland-investments-water-rights-legal-regimes-at-stake.pdf)

McAuliffe, G., and Cekan, J. 2009. *Sanitation Advocacy Research Project*.

Alexandria, VA: Data Harvest.

McCarthy Tétrault. 2014. 'A Practical Approach to Navigating Debarment by the Canadian Government'.

[www.mccarthy.ca/article\\_detail.aspx?id=6839](http://www.mccarthy.ca/article_detail.aspx?id=6839)

McGarry, M., Mugisha, S., Hoang-Gia, L., Unheim, P., and Myles, M. 2010. *Water Sector Governance in Africa*, vol. I, *Theory and Practice*. Tunis, Tunisia: AfDB.

[www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/Vol\\_1\\_WATER\\_SECTOR\\_GOVERNANCE.pdf](http://www.afdb.org/fileadmin/uploads/afdb/Documents/Project-and-Operations/Vol_1_WATER_SECTOR_GOVERNANCE.pdf)

McGee, R., and Gaventa, J. 2010. *Review of Impact and Effectiveness of Transparency and Accountability Initiatives: Synthesis Report*. Brighton, UK: Institute of Development Studies.

[www.ids.ac.uk/files/dmfile/IETASynthesisReportMcGeeGaventaFinal28Oct2010.pdf](http://www.ids.ac.uk/files/dmfile/IETASynthesisReportMcGeeGaventaFinal28Oct2010.pdf)

McIntyre, P., Casella, D., Fonseca, C., and Burr, P. 2014. *Priceless! Uncovering the Real Costs of Water and Sanitation*. The Hague: IRC.

McIntyre, P., and Kinghan, S. 2010. *Water, Corruption and Climate Change: WIN Expert Consultation 2010*. Berlin: WIN.

[www.waterintegritynetwork.net/wp-content/uploads/2015/03/water-corruption-and-climate-change-report.pdf](http://www.waterintegritynetwork.net/wp-content/uploads/2015/03/water-corruption-and-climate-change-report.pdf)

MDG Advocacy Group. 2014. 'Launching New Report, MDG Advocates Outline Challenges and Opportunities for Achieving the Millennium Development Goals by End of 2015'.

New York: MDG Advocacy Group.

[www.un.org/millenniumgoals/advocates/pdf/MDG\\_Leader\\_Press\\_Release\\_-\\_final.pdf](http://www.un.org/millenniumgoals/advocates/pdf/MDG_Leader_Press_Release_-_final.pdf)

- Mehta, L., Veldwisch, G. J., and Franco, J. 2012. 'Introduction to the Special Issue: Water Grabbing? Focus on the (Re)appropriation of Finite Water Resources'. *Water Alternatives* no. 5 (2).  
[www.water-alternatives.org/index.php/alldoc/articles/vol5/v5issue2/165-a5-2-1/file](http://www.water-alternatives.org/index.php/alldoc/articles/vol5/v5issue2/165-a5-2-1/file)
- Meinzen-Dick, R. 2014. 'Property Rights and Sustainable Irrigation: A Developing Country Perspective'. *Agricultural Water Management* no. 145.  
[www.sciencedirect.com/science/article/pii/S0378377414000894](http://www.sciencedirect.com/science/article/pii/S0378377414000894)
- Ministry of Justice. 1881. *Criminal Code*. The Hague: Ministry of Justice.  
[www.ejtn.eu/PageFiles/6533/2014\\_seminars/Omsenie/WetboekvanStrafrecht\\_ENG\\_PV.pdf](http://www.ejtn.eu/PageFiles/6533/2014_seminars/Omsenie/WetboekvanStrafrecht_ENG_PV.pdf)
- Ministry of Justice and Ministry of Home Affairs. 1994. *General Administrative Law Act*. The Hague: Ministry of Justice and Ministry of Home Affairs.  
[www.juradmin.eu/colloquia/1998/netherlands\\_annex.pdf](http://www.juradmin.eu/colloquia/1998/netherlands_annex.pdf)
- Ministry of Law and Justice. 2011. *Right to Information Act, 2005*. New Delhi: Ministry of Law and Justice.  
<http://righttoinformation.gov.in/rti-act.pdf>
- Moon, S., and Williamson, T. 2010. *Greater Aid Transparency: Crucial for Aid Effectiveness*. London: ODI.  
[www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/5722.pdf](http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/5722.pdf)
- Morrison, J., and Schulte, P. 2010. 'The Human Right to Water: Emerging Corporate Practice and Stakeholder Expectations'. New York: UN Global Compact and Pacific Institute.  
[www.pacinst.org/wp-content/uploads/sites/21/2013/02/ceo\\_water\\_mandate\\_human\\_right\\_to\\_water7.pdf](http://www.pacinst.org/wp-content/uploads/sites/21/2013/02/ceo_water_mandate_human_right_to_water7.pdf)
- Muylwijk, J. 2013. 'Gender, Water and Integrity Rural WASH'. Presentation at 1st International Water Integrity Forum, Delft. (unpublished)
- Mvulirwenande, S., Wehn, U., and Alaerts, G. 2014. 'Closing the Knowing–Applying Gap in Water Utilities: Experience from Uganda's NWSC'. Paper read at 37th WEDC International Conference, 'Sustainable Water and Sanitation Services in a Fast Changing World', at Hanoi, Vietnam.  
<http://wedc.lboro.ac.uk/resources/conference/37/Mvulirwenande-2031.pdf>
- Nanni, M., Foster, S., Dumars, C., Garduno, H., Kemper, K., and Tuinhof, A. 2003. 'Groundwater Legislation and Regulatory Provision: From Customary Rules to Integrated Catchment Planning'. Washington, DC: World Bank.  
[http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2004/10/05/000012009\\_20041005130854/Rendered/PDF/300920PAPER0BN4.pdf](http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2004/10/05/000012009_20041005130854/Rendered/PDF/300920PAPER0BN4.pdf)
- National Audit Office of Finland. 2011. *International Humanitarian Aid 2007–2010: An Evaluation Synthesis*. Helsinki: National Audit Office of Finland.  
[www.vtv.fi/files/2459/International\\_Humanitarian\\_Aid\\_netti.PDF](http://www.vtv.fi/files/2459/International_Humanitarian_Aid_netti.PDF)

Naumen, M. 2003. 'Ravaged Ecology, Cruel Displacement, Impoverished Livelihoods'. *Water Nepal* no. 9/10 (1/2).

[www.nepjol.info/index.php/WN/article/view/108](http://www.nepjol.info/index.php/WN/article/view/108)

News Security Beat. 2015. 'What Can Be Done to Strengthen India's Natural Resource Management? (part 2)'.

[www.newsecuritybeat.org/2015/03/strengthen-indias-natural-resource-management-part-2-2/](http://www.newsecuritybeat.org/2015/03/strengthen-indias-natural-resource-management-part-2-2/)

Nguyen, K.-T., Do, Q.-A., and Tran, A. 2012. *One Mandarin Benefits the Whole Clan: Hometown Infrastructure and Nepotism in an Autocracy*. Singapore: Singapore Management University.

[http://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=2382&context=soe\\_research](http://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=2382&context=soe_research)

Nhlema, M., and Harawa, K. 2015. 'Assessing the Effectiveness of Malawi's Water Policy Using Mobile Technology'. Paper read at Stockholm World Water Week, at Stockholm.

[http://programme.worldwaterweek.org/sites/default/files/abstract\\_volume\\_2015\\_-\\_workshop\\_7\\_2.pdf](http://programme.worldwaterweek.org/sites/default/files/abstract_volume_2015_-_workshop_7_2.pdf)

Nordmann, D. 2013. 'Regulation: Catalyst for Better Governance and Enhanced Integrity in Water Utilities?'. Berlin: WIN.

[www.waterintegritynetwork.net/wp-content/uploads/2015/03/wi\\_brief\\_regulation.pdf](http://www.waterintegritynetwork.net/wp-content/uploads/2015/03/wi_brief_regulation.pdf)

Nordmann, D., Peters, P., and Wechota, R. 2012. *Good Governance in the Kenyan Water Sector: Policies, Pipes and the Participation of the People: Water Governance Practices on the Ground*. Eschborn, Germany: GIZ.

[www.giz.de/fachexpertise/downloads/giz2012-en-watergovernance-kenya.pdf](http://www.giz.de/fachexpertise/downloads/giz2012-en-watergovernance-kenya.pdf)

NWASCO. 2008. 'Water Watch Groups: Involving Consumers in Monitoring Water Supply and Sanitation Services in Zambia'. Lusaka, Zambia.

[www.nwasco.org.zm/downloads/Publications/Booklets/water\\_watch\\_groups.pdf](http://www.nwasco.org.zm/downloads/Publications/Booklets/water_watch_groups.pdf)

Nyqvist, M. B., de Walque, D., and Svensson, J. 2014. *Information Is Power: Experimental Evidence on the Long-Run Impact of Community Based Monitoring*. Washington, DC: World Bank.

<http://documents.worldbank.org/curated/en/2014/08/20144947/information-power-experimental-evidence-long-run-impact-community-based-monitoring>

O'Meally, S. C. 2013. *Mapping Context for Social Accountability*. Washington, DC: World Bank.

[http://siteresources.worldbank.org/EXTSOCIALDEVELOPMENT/Resources/244362-1193949504055/Context\\_and\\_SAcc\\_RESOURCE\\_PAPER.pdf](http://siteresources.worldbank.org/EXTSOCIALDEVELOPMENT/Resources/244362-1193949504055/Context_and_SAcc_RESOURCE_PAPER.pdf)

OECD. 1998. *Principles for Managing Ethics in the Public Service*. Paris: OECD.

[www.oecd.org/gov/oecdprinciplesformanagingethicsinthepublicservice.htm](http://www.oecd.org/gov/oecdprinciplesformanagingethicsinthepublicservice.htm)

OECD. 2002. *OECD Best Practices for Budget Transparency*. Paris: OECD.

[www.oecd.org/gov/budgeting/Best Practices Budget Transparency - complete with cover page.pdf](http://www.oecd.org/gov/budgeting/Best Practices Budget Transparency - complete with cover page.pdf)

OECD. 2003. *OECD Guidelines for Managing Conflict of Interest in the Public Service*. Paris: OECD.

[www.oecd.org/gov/ethics/oecdguidelinesformanagingconflictinterestinthepublicservice.htm](http://www.oecd.org/gov/ethics/oecdguidelinesformanagingconflictinterestinthepublicservice.htm)

- OECD. 2006. *The Challenge of Capacity Development: Working towards Good Practice*. Paris: OECD.  
[www.fao.org/fileadmin/templates/capacitybuilding/pdf/DAC\\_paper\\_final.pdf](http://www.fao.org/fileadmin/templates/capacitybuilding/pdf/DAC_paper_final.pdf)
- OECD. 2007. *Integrity in Public Procurement. Good Practice from A to Z*. Paris: OECD.  
[www.oecd.org/development/effectiveness/38588964.pdf](http://www.oecd.org/development/effectiveness/38588964.pdf)
- OECD. 2008. *Environmental Performance of Agriculture in OECD Countries since 1990*. Paris: OECD.  
[www.oecd.org/tad/sustainable-agriculture/44254899.pdf](http://www.oecd.org/tad/sustainable-agriculture/44254899.pdf)
- OECD. 2009a. *OECD Principles for Integrity in Public Procurement*. Paris: OECD.  
[www.oecd.org/gov/ethics/48994520.pdf](http://www.oecd.org/gov/ethics/48994520.pdf)
- OECD. 2009b. *Private Sector Participation in Water Infrastructure: OECD Checklist for Public Action*. Paris: OECD.  
[www.oecd.org/investment/investmentfordevelopment/privatesectorparticipationinwaterinfrastructureoecdchecklistforpublicaction.htm](http://www.oecd.org/investment/investmentfordevelopment/privatesectorparticipationinwaterinfrastructureoecdchecklistforpublicaction.htm)
- OECD. 2010. *Innovative Financing Mechanisms for the Water Sector*. Paris: OECD.  
[www.oecd-ilibrary.org/environment/innovative-financing-mechanisms-for-the-water-sector\\_9789264083660-en](http://www.oecd-ilibrary.org/environment/innovative-financing-mechanisms-for-the-water-sector_9789264083660-en)
- OECD. 2011a. *Convention on Combating Bribery of Foreign Public Officials in International Business Transactions and Related Documents*. Paris: OECD.
- OECD. 2011b. *Good Practices in Supporting Supreme Audit Institutions*. Paris: OECD.  
[www.oecd.org/dac/effectiveness/Final\\_SAI\\_Good\\_Practice\\_Note.pdf](http://www.oecd.org/dac/effectiveness/Final_SAI_Good_Practice_Note.pdf)
- OECD. 2011c. *Meeting the Challenge of Financing Water and Sanitation: Tools and Approaches*. Paris: OECD.  
[www.oecd-ilibrary.org/environment/meeting-the-challenge-of-financing-water-and-sanitation\\_9789264120525-en](http://www.oecd-ilibrary.org/environment/meeting-the-challenge-of-financing-water-and-sanitation_9789264120525-en)
- OECD. 2011d. *Protection of Whistle-Blowers: Study on Whistle-Blower Protection Frameworks, Compendium of Best Practices and Guiding Principles for Legislation*. Paris: OECD.  
[www.oecd.org/daf/anti-bribery/48972967.pdf](http://www.oecd.org/daf/anti-bribery/48972967.pdf)
- OECD. 2014a. *OECD Foreign Bribery Report: An Analysis of the Crime of Bribery of Foreign Public Officials*. Paris: OECD.  
[www.oecd.org/corruption/oecd-foreign-bribery-report-9789264226616-en.htm](http://www.oecd.org/corruption/oecd-foreign-bribery-report-9789264226616-en.htm)
- OECD. 2014b. *Toolkit for Integrity*. Paris: OECD.  
[www.oecd.org/cleangovbiz/cgb-toolkit-2014.pdf](http://www.oecd.org/cleangovbiz/cgb-toolkit-2014.pdf)
- OECD. 2014c. 'Water Integrity: Promoting Accountability, Transparency and Participation'. In *Toolkit for Integrity*. Paris: OECD.  
[www.oecd.org/cleangovbiz/cgb-toolkit-2014.pdf](http://www.oecd.org/cleangovbiz/cgb-toolkit-2014.pdf)

OECD. 2015a. *OECD Inventory: Water Governance Indicators and Measurement Frameworks*. Paris: OECD.

OECD. 2015b. 'OECD Principles on Water Governance'. Paris: OECD.  
[www.oecd.org/gov/regional-policy/OECD-Principles-on-Water-Governance-brochure.pdf](http://www.oecd.org/gov/regional-policy/OECD-Principles-on-Water-Governance-brochure.pdf)

OECD. 2015c. *Recommendation of the Council on Public Procurement*. Paris: OECD.  
[www.oecd.org/gov/ethics/OECD-Recommendation-on-Public-Procurement.pdf](http://www.oecd.org/gov/ethics/OECD-Recommendation-on-Public-Procurement.pdf)

OECD. 2015d. *Supreme Audit Institutions and Good Governance: Oversight, Insight and Foresight*. Paris: OECD.  
[www.oecd.org/gov/ethics/supreme-audit-institutions-and-good-governance.htm](http://www.oecd.org/gov/ethics/supreme-audit-institutions-and-good-governance.htm)

OECD. 2016. *Water Governance in Cities*. Paris: OECD.

OECD and IEA. 2012. 'Water for Energy: Is Energy Becoming a Thirstier Resource?'. In *World Energy Outlook 2012*. Paris: IEA.  
[www.worldenergyoutlook.org/media/weowebiste/2012/WEO\\_2012\\_Water\\_Excerpt.pdf](http://www.worldenergyoutlook.org/media/weowebiste/2012/WEO_2012_Water_Excerpt.pdf)

OECD-DAC. 1991. 'Principles for Evaluation of Development Assistance'. Paris: OECD.  
[www.oecd.org/dac/evaluation/50584880.pdf](http://www.oecd.org/dac/evaluation/50584880.pdf)

OECD-DAC. 2002. 'Glossary of Key Terms in Evaluation and Results Based Management'. Paris: OECD.  
[www.oecd.org/dac/2754804.pdf](http://www.oecd.org/dac/2754804.pdf)

OHCHR. 2000. 'The Role of Good Governance in the Promotion of Human Rights'. Geneva: OHCHR.  
[http://ap.ohchr.org/documents/E/CHR/resolutions/E-CN\\_4-RES-2000-64.doc](http://ap.ohchr.org/documents/E/CHR/resolutions/E-CN_4-RES-2000-64.doc)

OHCHR. 2013. 'The Human Rights Case against Corruption'.  
[www.ohchr.org/EN/NewsEvents/Pages/HRCASEAGAINSTCORRUPTION.aspx](http://www.ohchr.org/EN/NewsEvents/Pages/HRCASEAGAINSTCORRUPTION.aspx)

Olaniyan, K. 2004. 'The African Union Convention on Preventing and Combating Corruption: A Critical Appraisal'. *African Human Rights Law Journal* no. 4 (1).  
[www.ahrlj.up.ac.za/olaniyan-k](http://www.ahrlj.up.ac.za/olaniyan-k)

Open Contracting Partnership. 2013. 'Getting to the Heart of the Community: Local Procurement Monitoring in Mongolia'.  
[www.open-contracting.org/getting\\_to\\_the\\_heart\\_of\\_the\\_community](http://www.open-contracting.org/getting_to_the_heart_of_the_community)

Ostrom, E., Dietz, T., Dolsak, N., Stern, P. C., Stonich, S., and Weber, E. U. 2002. *The Drama of the Commons*. Washington, DC: National Academies Press.  
[www.nap.edu/read/10287/chapter/1-ii](http://www.nap.edu/read/10287/chapter/1-ii)



- Ostrovskaya, E., and Leentvaar, J. 2011. 'Enhancing Compliance with Environmental Laws in Developing Countries: Can Better Enforcement Strategies Help?'. Paper read at 9th International Conference on Environmental Compliance and Enforcement at Whistler, Canada.  
[http://inece.org/conference/9/proceedings/45\\_OstrovskayaLeentvaar.pdf](http://inece.org/conference/9/proceedings/45_OstrovskayaLeentvaar.pdf)
- Overy, N. 2013. *The Social Justice Coalition and Access to Basic Sanitation in Informal Settlements in Cape Town, South Africa*. Washington, DC: International Budget Partnership.  
<http://internationalbudget.org/wp-content/uploads/LP-case-study-SJC1.pdf>
- Pacific Institute. 2011. 'Notes from the Field: A Success Story in Participatory Irrigation Management in India: The Waghad Farmer Managed Irrigation System'.  
<http://pacinst.org/notes-from-the-field-participatory-irrigation-management-in-indi>
- Pahl-Wostl, C., and Kranz, N. 2010. 'Special Issue: Water Governance in Times of Change'. *Environmental Science and Policy* no. 13 (7).  
[www.sciencedirect.com/science/journal/14629011/13/7](http://www.sciencedirect.com/science/journal/14629011/13/7)
- Pangare, G., Das, B., Arriens, W. L., and Makin, I. 2012. *Waterwealth? Investing in Basin Management in Asia and the Pacific*. New Delhi: Academic Foundation.  
[www.adb.org/sites/default/files/publication/30187/water-wealth.pdf](http://www.adb.org/sites/default/files/publication/30187/water-wealth.pdf)
- Pangare, G., Pangare, V., and Das, B. 2006. *Springs of Life: India's Water Resources*. Kolkata: Academic Foundation.
- Pannatier, S., and Ducrey, O. 2005. 'Water Concessions and Protection of Foreign Investments under International Law'. In *Fresh Water and International Economic Law*, edited by E. Brown Weiss, L. Boisson de Chazournes and N. Bernasconi-Osterwalder. Oxford: Oxford University Press.
- Pant, Y. 2015. 'Capacity Building for Investigative Journalism and Water Integrity in Nepal'. Stockholm: SIWI.  
[www.youtube.com/watch?v=PacZWZNowu8](http://www.youtube.com/watch?v=PacZWZNowu8)
- Pearce, F. 2012. *The Land Grabbers: The New Fight over Who Owns the Earth*. UK: Eden Project Books.
- Pearce, J., Dickinson, N., and Welle, K. 2015. 'Technology, Data, and People: Opportunities and Pitfalls of Using ICT to Monitor Sustainable WASH Service Delivery'. In *From Infrastructure to Services: Trends in Monitoring Sustainable Water, Sanitation and Hygiene Services*, edited by T. Schouten and S. Smits. Rugby, UK: Practical Action.
- Pereira, K., and Ratnayake, R. 2013. *Water Integrity in Action: Curbing Illegal Sand Mining in Sri Lanka*. Berlin: WIN.  
[www.waterintegritynetwork.net/wp-content/uploads/2015/04/Case\\_SriLanka\\_SandMining\\_EN\\_2013.pdf](http://www.waterintegritynetwork.net/wp-content/uploads/2015/04/Case_SriLanka_SandMining_EN_2013.pdf)

Persson, A., Rothstein, B., and Teorell, J. 2012. 'Why Anticorruption Reforms Fail: Systemic Corruption as a Collective Action Problem'. *Governance* no. 26 (3).

<http://onlinelibrary.wiley.com/doi/10.1111/j.1468-0491.2012.01604.x/abstract>

Petrie, M., de Renzio, P., and Moon, S. 2014. *The Hidden Corners of Public Finance: A Synthesis of Country Case Studies that Look beyond the Core Budget*. Washington, DC: International Budget Partnership.

<http://internationalbudget.org/wp-content/uploads/The-Hidden-Corners-of-Public-Finance-Synthesis-Paper.pdf>

Philipponnat, T. 2014. 'Regulatory Capture in the Context of EU Lawmaking'. In *42nd Economics Conference 2014: Towards a European Banking Union: Taking Stock*. Vienna: Oesterreichische Nationalbank.

[www.oenb.at/en/Publications/Economics/Economics-Conference/2014/Economics-Conference-2014.html](http://www.oenb.at/en/Publications/Economics/Economics-Conference/2014/Economics-Conference-2014.html)

Plummer, J. 2008. 'Water and Corruption: A Destructive Partnership'. In *Global Corruption Report 2008: Corruption in the Water Sector*, edited by TI. Cambridge: Cambridge University Press.

[www.wasser-in-buergerhand.de/untersuchungen/Transpar\\_Int\\_2008\\_1\\_Introducing\\_water\\_and\\_corruption.pdf](http://www.wasser-in-buergerhand.de/untersuchungen/Transpar_Int_2008_1_Introducing_water_and_corruption.pdf)

Plummer, J., and Cross, P. 2006. *Tackling Corruption in the Water and Sanitation Sector in Africa: Starting the Dialogue*. Nairobi: WSP.

[www.ircwash.org/sites/default/files/Plummer-2006-Tackling.pdf](http://www.ircwash.org/sites/default/files/Plummer-2006-Tackling.pdf)

Poore, S. 2013. 'On Stewardship'. *Green Futures* no. 93.

[www.forumforthefuture.org/sites/default/files/files/GF\\_93\\_SPREADS.pdf](http://www.forumforthefuture.org/sites/default/files/files/GF_93_SPREADS.pdf)

Post, D., and Agarwal, S. 2011. 'Citizen Charters: Enhancing Service Delivery through Accountability'. Washington, DC: World Bank.

<http://www-esd.worldbank.org/sdvpubs/index.cfm?Page=Search&DocID=577>

Potter, A., and Butterworth, J. 2014. 'Mainstreaming Anti-Corruption Initiatives: Development of a Water Sector Strategy in Mozambique'. Bergen: Chr. Michelsen Institute.

[www.u4.no/publications/mainstreaming-anti-corruption-initiatives-development-of-a-water-sector-strategy-in-mozambique](http://www.u4.no/publications/mainstreaming-anti-corruption-initiatives-development-of-a-water-sector-strategy-in-mozambique)

Practical Law. 2015. 'Evaluation of Tenders'.

<http://uk.practicallaw.com/2-386-8761?service=publicsector - a406015>

PSIRU. 2012. 'Why Water Is a Public Service: Exposing the Myths of Privatization'. London: PSIRU.

[www.right2water.eu/sites/water/files/u/u4/20022012-epsuwater.pdf](http://www.right2water.eu/sites/water/files/u/u4/20022012-epsuwater.pdf)

Public Radio International. 2015. 'South America's Largest City Is Almost Out of Water'.

[www.pri.org/stories/2015-03-12/south-americas-largest-city-almost-out-water](http://www.pri.org/stories/2015-03-12/south-americas-largest-city-almost-out-water)

- Rafter, D. 2007. 'The World of GIS Technology'. *Water Efficiency*.  
<http://72.3.251.71/WE/Articles/580.aspx>
- Rahman, S. H., and Islam, S. T. 2014. 'Water Sector Integrity in Bangladesh.' (unpublished)
- Ramkumar, V. 2008. *Our Money, Our Responsibility: A Citizens' Guide to Monitoring Government Expenditures*. Washington, DC: International Budget Project.  
<http://internationalbudget.org/wp-content/uploads/Our-Money-Our-Responsibility-A-Citizens-Guide-to-Monitoring-Government-Expenditures-English.pdf>
- Reddy, N. L. N., and Murali, R. 2015. *Conducting Integrity Assessments of WASH in Schools: Pilot Project Using the AWIS Methodology in Andhra Pradesh, India*. Berlin: WIN.  
[www.waterintegritynetwork.net/wp-content/uploads/2013/07/Case\\_IndiaSchoolWASH\\_AWIS\\_EN\\_2014\\_Ir.pdf](http://www.waterintegritynetwork.net/wp-content/uploads/2013/07/Case_IndiaSchoolWASH_AWIS_EN_2014_Ir.pdf)
- Redhouse, D. 2004. 'No Water, No School'. *Oasis*, no. Spring/Summer.
- Reis, N. 2014. 'Coyotes, Concessions and Construction Companies: Illegal Water Markets and Legally Constructed Water Scarcity in Central Mexico'. *Water Alternatives* no. 7 (3).  
[www.water-alternatives.org/index.php/alldoc/articles/vol7/v7issue2/263-a7-3-6/file](http://www.water-alternatives.org/index.php/alldoc/articles/vol7/v7issue2/263-a7-3-6/file)
- Reisman, J., Gienapp, A., and Stachowiak, S. 2007. *A Guide to Measuring Advocacy and Policy*. Seattle, WA: Organizational Research Services.  
[www.organizationalresearch.com/publicationsandresources/a\\_guide\\_to\\_measuring\\_advocacy\\_and\\_policy.pdf](http://www.organizationalresearch.com/publicationsandresources/a_guide_to_measuring_advocacy_and_policy.pdf)
- Repetto, R. 1986. *Skimming the Water: Rent-Seeking and the Performance of Public Irrigation Systems*. Washington, DC: World Resources Institute.  
[http://pdf.usaid.gov/pdf\\_docs/PNAAW837.pdf](http://pdf.usaid.gov/pdf_docs/PNAAW837.pdf)
- Republic of Cameroon and SG Sustainable Oils Cameroon PLC. 2009. 'Establishment Convention Dated as of 17 Sept 2009, by and between The Republic of Cameroon and SG Sustainable Oils Cameroon PLC'. Yaoundé, Cameroon: Republic of Cameroon.  
[www.oaklandinstitute.org/sites/oaklandinstitute.org/files/SGSOC\\_Convention\\_with\\_the\\_Government\\_of\\_Cameroon.pdf](http://www.oaklandinstitute.org/sites/oaklandinstitute.org/files/SGSOC_Convention_with_the_Government_of_Cameroon.pdf)
- Republic of Namibia. 2013. 'Water Resources Management Act, 2013'. In *Government Gazette of the Republic of Namibia*, no. 5367. Windhoek: Republic of Namibia.  
[www.lac.org.na/laws/2013/5367.pdf](http://www.lac.org.na/laws/2013/5367.pdf)
- Reuters. 2014. 'Feature: Kenyan Women Pay the Price for Slum Water "Mafias"'.  
<http://in.reuters.com/article/2014/11/26/women-cities-kenya-water-idINKCN0JA0P620141126>
- Richey, A. S., Thomas, B. F., Lo, M., Reager, J. T., Famiglietti, J. S., Voss, K., Swenson, S., and Rodell, M. 2015. 'Quantifying renewable groundwater stress with GRACE'. *Water Resources Research* no. 51 (7).  
<http://onlinelibrary.wiley.com/doi/10.1002/2015WR017349/abstract>

Right2INFO. 2012. 'Access to Information Laws: Overview and Statutory Goals'.

[www.right2info.org/access-to-information-laws](http://www.right2info.org/access-to-information-laws)

Rodriguez, D. J., van den Berg, C., and McMahon, A. 2012. *Investing in Water Infrastructure: Capital, Operations and Maintenance*. Washington, DC: World Bank.

<http://water.worldbank.org/sites/water.worldbank.org/files/publication/water-investing-water-infrastructure-capital-operations-maintenance.pdf>

Rogers, P., and Hall, A. W. 2003. *Effective Water Governance*. Stockholm: GWP.

[www.gwp.org/Global/ToolBox/Publications/Background papers/07 Effective Water Governance \(2003\) English.pdf](http://www.gwp.org/Global/ToolBox/Publications/Background%20papers/07%20Effective%20Water%20Governance%20(2003)%20English.pdf)

Romero, M. J. 2015. *What Lies Beneath? A Critical Assessment of PPPs and Their Impact on Sustainable Development*. Brussels: Eurodad.

[www.eurodad.org/files/pdf/559da257b02ed.pdf](http://www.eurodad.org/files/pdf/559da257b02ed.pdf)

Rose-Ackerman, S. 1997. 'The Political Economy of Corruption'. In *Corruption and the Global Economy*, edited by K. A. Elliott. Washington, DC: Institute for International Economics.

[www.adelinotorres.com/economia/a economia politica da corrup%C3%A7%C3%A3o.pdf](http://www.adelinotorres.com/economia/a%20economia%20politica%20da%20corrup%C3%A7%C3%A3o.pdf)

RSPO. 2012. 'Summary Report of Planning and Management SG Sustainable Oils Cameroon'. Kuala Lumpur, Malaysia: RSPO.

[www.rspo.org/sites/default/files/SGSOC- Summary Report of Planning Management SG Sustainable Oils Cameroon.pdf](http://www.rspo.org/sites/default/files/SGSOC-Summary%20Report%20of%20Planning%20Management%20SG%20Sustainable%20Oils%20Cameroon.pdf)

Rubin, N. M. 1998. 'A Convergence of 1996 and 1997 Global Efforts to Curb Corruption and Bribery in International Business Transactions: The Legal Implications of the OECD Recommendations and Convention for the United States, Germany, and Switzerland'. *American University International Law Review* no. 14 (1).

<http://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?article=1315&context=auilr>

RWSN. 2010. 'Myths of the Rural Water Supply Sector'. St. Gallen, Switzerland.

[www.rural-water-supply.net/\\_ressources/documents/default/226.pdf](http://www.rural-water-supply.net/_ressources/documents/default/226.pdf)

RWSN. 2014. 'Water Point Mapping: Indicators, Pump Functionality, Accuracy of GPS, Using and Sharing Data'. St. Gallen, Switzerland.

[www.rural-water-supply.net/\\_ressources/documents/default/1-588-2-1406117553.pdf](http://www.rural-water-supply.net/_ressources/documents/default/1-588-2-1406117553.pdf)

*Sacramento News & Review*. 2014. 'Is Sacramento's Costly Water-Meter Install Wasting Millions?'

[www.newsreview.com/sacramento/is-sacramentos-costly-water-meter-install/content?oid=15466771](http://www.newsreview.com/sacramento/is-sacramentos-costly-water-meter-install/content?oid=15466771)

Sahoo, T., Prakash, U., and Sahoo, M. M. 2014. 'Sardar Sarovar Dam Controversy: A Case Study'. *Global Journal of Finance and Management* no. 6 (9).

[www.ripublication.com/gjfm-spl/gjfmv6n9\\_12.pdf](http://www.ripublication.com/gjfm-spl/gjfmv6n9_12.pdf)

- Sanchez, J. C., and Roberts, J. 2014. *Transboundary Water Governance: Adaptation to Climate Change*. Gland, Switzerland: IUCN.  
<http://portals.iucn.org/library/sites/library/files/documents/IUCN-EPLP-no.075.pdf>
- Sandbrook, C., and Adams, W. M. 2013. 'Towards Evidence-Informed Conservation: A Reply to Haddaway and Pullin'. *Oryx* no. 47 (3).  
<http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=8956469&fileId=S003060531300080X>
- Schizophonix. 2014. 'Berlin Water Table: The Most Important Steps'.  
[www.scribd.com/doc/215326222/Berlin-Water-Table-The-Most-Important-Steps-11-4-2014](http://www.scribd.com/doc/215326222/Berlin-Water-Table-The-Most-Important-Steps-11-4-2014)
- Schouten, T. 2013. 'Changing Relationships: ICT to Improve Water Governance'. Paper read at Stockholm World Water Week, at Stockholm.  
[www.wateraid.org/~media/Publications/ICT-to-improve-water-governance.pdf](http://www.wateraid.org/~media/Publications/ICT-to-improve-water-governance.pdf)
- Schouten, T., Fonseca, C., Lockwood, H., and Moriarty, P. 2011. 'Taking a Service Delivery Approach to Monitoring Water Supply in Low Income Areas and Implications for the Joint Monitoring Programme'. Paper read at 1st consultation for 'Post-2015 Indicators for Monitoring Drinking-Water and Sanitation', at Berlin.  
[www.waterservicesthatlast.org/content/download/407/2519/version/1/file/Monitoring\\_sustainability\\_JMP\\_Berlin.pdf](http://www.waterservicesthatlast.org/content/download/407/2519/version/1/file/Monitoring_sustainability_JMP_Berlin.pdf)
- Schulte, P., Morrison, J., Orr, S., and Power, G. 2014. 'Shared Water Challenges and Interests: The Case for Private Sector Engagement in Water Policy and Management'. Oakland, CA: Pacific Institute and WWF.  
<http://pacinst.org/wp-content/uploads/sites/21/2014/06/private-sector-water-policy-engagement.pdf>
- Schuster-Wallace, C. J., and Sandford, R. 2015. *Water in the World We Want: Catalysing National Water-Related Sustainable Development*. Hamilton, Canada: UNU-INWEH.  
<http://inweh.unu.edu/wp-content/uploads/2015/02/Water-in-the-World-We-Want.pdf>
- SDSN. 2015. *Indicators and a Monitoring Framework for the Sustainable Development Goals: Launching a Data Revolution for the SDGs*. New York: SDSN.  
<http://unsdsn.org/wp-content/uploads/2015/03/150320-SDSN-Indicator-Report.pdf>
- Sette, C. 2008. 'Chapter 14 Learning Alliances'. In *Institutional Learning and Change Initiative Sourcebook*. Montpellier, France: Consultative Group on International Agricultural Research.
- Sharma, A. 2006. 'Urban Water Sector in South Asia: Benchmarking Performance'. New Delhi: WSP.  
[www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2006/09/20/000090341\\_20060920161652/Rendered/PDF/373630SAR0urbanwater01PUBLIC1.pdf](http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2006/09/20/000090341_20060920161652/Rendered/PDF/373630SAR0urbanwater01PUBLIC1.pdf)
- Sida. 2013. 'Rule on Anti-Corruption'.  
[www.sida.se/globalassets/global/about-sida/sa-arbetar-vi/anti-korruption/sidas-anti-korruption-regulation-2013\\_eng\\_master\\_rev130701.pdf](http://www.sida.se/globalassets/global/about-sida/sa-arbetar-vi/anti-korruption/sidas-anti-korruption-regulation-2013_eng_master_rev130701.pdf)

Simi, T. B., Sharma, M. S., and Cheriya, G. 2010. 'Analysing the Right to Information Act in India'. Jaipur, India: CUTS International.

[www.cuts-international.org/cart/pdf/Analysing\\_the\\_Right\\_to\\_Information\\_Act\\_in\\_India.pdf](http://www.cuts-international.org/cart/pdf/Analysing_the_Right_to_Information_Act_in_India.pdf)

Sirilli, E. 2014. 'Introduction: Failure as Medicine'. In *2014 Failure Report: Monitoring Evaluation, and Adapting to Failure*. Toronto: Engineers Without Borders Canada.

[www.ewb.ca/sites/default/files/EWB\\_FAILURE\\_REPORT.pdf](http://www.ewb.ca/sites/default/files/EWB_FAILURE_REPORT.pdf)

SIWI. 2014. 'Case Studies'. Paper read at 1st African Water Integrity Summit, 'Accelerating towards a Water Secure World', at Lusaka, Zambia.

<http://watergovernance.org/wp-content/uploads/2015/06/Case-Studies-Web1.pdf>

SIWI, WIN, WaterNet and UNDP. 2014. *2011–2014 Regional Capacity Building Programme Promoting and Developing Water Integrity in Sub-Saharan Africa: Stock Taking Programme Report*. Stockholm: SIWI.

<http://watergovernance.org/wp-content/uploads/2015/06/2014-WI-Stock-Taking-Programme-Report-web.pdf>

SixDegrees. 2015a. 'Jakarta Court Cancels World's Biggest Water Privatisation Contract'.

[www.sixdegreesnews.org/jakarta-court-cancels-worlds-biggest-water-privatisation-contract](http://www.sixdegreesnews.org/jakarta-court-cancels-worlds-biggest-water-privatisation-contract)

SixDegrees. 2015b. "'Silence Is Too Often the Only Safe Option Left": UN Report on Sources and Whistleblowers'.

[www.sixdegreesnews.org/Silence-Is-Too-Often-The-Only-Safe-Option-Left-UN-Report-On-Sources-and-Whistleblowers](http://www.sixdegreesnews.org/Silence-Is-Too-Often-The-Only-Safe-Option-Left-UN-Report-On-Sources-and-Whistleblowers)

Skinner, J. 2009. 'Where Every Drop Counts: Tackling Rural Africa's Water Crisis'.

London: International Institute for Environment and Development.

<http://pubs.iied.org/pdfs/17055IIED.pdf>

Skinner, J., and Haas, L. J. 2014. *Watered Down? A Review of Social and Environmental Safeguards for Large Dam Projects*. London: International Institute for Environment and Development.

<http://pubs.iied.org/pdfs/17517IIED.pdf>

Smits, S., Schouten, T., Lockwood, H., and Fonseca, C. 2013. *Background Paper for 'Monitoring Sustainable WASH Service Delivery Symposium': 9 to 11 April 2013 – Addis Ababa, Ethiopia*.

The Hague: IRC.

[www.ircwash.org/sites/default/files/smits-2013-background.pdf](http://www.ircwash.org/sites/default/files/smits-2013-background.pdf)

Sojamo, S. 2015. 'Unlocking the "Prisoner's Dilemma" of Corporate Water Stewardship in South Africa: Exploring Corporate Power and Legitimacy of Engagement in Water Management and Governance'. *Sustainability* no. 7 (6).

[www.mdpi.com/2071-1050/7/6/6893](http://www.mdpi.com/2071-1050/7/6/6893)

Sööt, M.-L., and Rootalu, K. 2012. 'Institutional Trust and Opinions of Corruption'.

*Public Administration and Development* no. 32 (1).

<http://onlinelibrary.wiley.com/doi/10.1002/pad.616/abstract>

- Stålgren, P. 2006. *Corruption in the Water Sector: Causes, Consequences and Potential Reform*. Stockholm: Swedish Water House.  
[www.swedishwaterhouse.se/wp-content/uploads/20060906171639CorruptionPB\\_low.pdf](http://www.swedishwaterhouse.se/wp-content/uploads/20060906171639CorruptionPB_low.pdf)
- Suez emag. 2011. 'Lyonnais des Eaux: Seeking New Ideas on Water'.  
[www.emag.suez-environnement.com/en/lyonnaise-des-eaux-new-ideas-on-water-1157](http://www.emag.suez-environnement.com/en/lyonnaise-des-eaux-new-ideas-on-water-1157)
- Sunday Tribune*. 2015. 'eThekweni Loses 237 Million Litres Daily'.  
<http://beta.iol.co.za/news/south-africa/kwazulu-natal/ethekweni-loses-237-million-litres-daily-1814726>
- Tang, Z. 2015. 'Comprehensive Reform of Agricultural Water Price in China.' Beijing: Development Research Center of the Ministry of Water Resources. (unpublished)
- TASU. 2013. *Analysis of the Auditor General's Annual Report 2011/12*. Kampala, Uganda: TASU.
- Teisman, G. J., van Buuren, A., Edelenbos, J., and Warner, J. F. 2013. 'Water Governance: Facing the Limits of Managerialism, Determinism, Water-Centricity, and Technocratic Problem-Solving'. *International Journal of Water Governance* no. 1 (1).  
[www.internationalwatergovernance.com/images/stories/gratis/internationalwatergovernance/IJWG4.pdf](http://www.internationalwatergovernance.com/images/stories/gratis/internationalwatergovernance/IJWG4.pdf)
- The Daily Star*. 2015. 'Survey Finds Officials, Brokers, Political Activists Control Water Supply in Dhaka'.  
[www.thedailystar.net/backpage/water-supply-controlled-111610](http://www.thedailystar.net/backpage/water-supply-controlled-111610)
- The Economist*. 'The Trouble with Miracles'.  
[www.economist.com/news/americas/21603432-transformation-colombias-second-city-will-be-hard-copy-trouble-miracles](http://www.economist.com/news/americas/21603432-transformation-colombias-second-city-will-be-hard-copy-trouble-miracles)
- The Guardian*. 2010. 'IPCC Officials Admit Mistake over Melting Himalayan Glaciers'.  
[www.theguardian.com/environment/2010/jan/20/ipcc-himalayan-glaciers-mistake](http://www.theguardian.com/environment/2010/jan/20/ipcc-himalayan-glaciers-mistake)
- The Guardian*. 2012a. 'Land Grabbers: Africa's Hidden Revolution'.  
[www.theguardian.com/world/2012/may/20/land-grab-ethiopia-saudi-agribusiness](http://www.theguardian.com/world/2012/may/20/land-grab-ethiopia-saudi-agribusiness)
- The Guardian*. 2012b. 'Why Partnering with NGOs for Water Stewardship Makes Business Sense'.  
[www.theguardian.com/sustainable-business/partnering-ngo-water-stewardship-business](http://www.theguardian.com/sustainable-business/partnering-ngo-water-stewardship-business)
- The Guardian*. 2014. 'Journalists and Whistleblowers Will Go to Jail under New National Security Laws'.  
[www.theguardian.com/commentisfree/2014/sep/26/journalists-and-whistleblowers-will-go-to-jail-under-new-national-security-laws](http://www.theguardian.com/commentisfree/2014/sep/26/journalists-and-whistleblowers-will-go-to-jail-under-new-national-security-laws)

*The Guardian*. 2015a. 'Brazil Threatens to Withhold Licence for Belo Monte Dam over Mitigation Worries'.

[www.theguardian.com/world/2015/sep/23/brazil-belo-monte-dam-operating-licence-withheld?CMP=new\\_1194&CMP](http://www.theguardian.com/world/2015/sep/23/brazil-belo-monte-dam-operating-licence-withheld?CMP=new_1194&CMP)

*The Guardian*. 2015b. 'Brazil's Belo Monte Dam Puts Livelihood of 2,000 Families at Risk, Prosecutors Say'.

[www.theguardian.com/world/2015/jun/16/brazil-belo-monte-dam-indigenous-groups-at-risk](http://www.theguardian.com/world/2015/jun/16/brazil-belo-monte-dam-indigenous-groups-at-risk)

*The Guardian*. 2015c. 'Money from Malawi "Cashgate" Scandal Allegedly Funded Electoral Campaigns'.

[www.theguardian.com/global-development/2015/feb/13/malawi-cashgate-scandal-money-funded-electoral-campaigns](http://www.theguardian.com/global-development/2015/feb/13/malawi-cashgate-scandal-money-funded-electoral-campaigns)

*The Guardian*. 2015d. 'Private Landowners Denounce New Clean Water Rules as Government Overreach'.

[www.theguardian.com/environment/2015/may/27/private-landowners-denounce-new-clean-water-rules-as-government-overreach](http://www.theguardian.com/environment/2015/may/27/private-landowners-denounce-new-clean-water-rules-as-government-overreach)

*The Guardian*. 2015e. 'Water Privatisation: A Worldwide Failure?'.

[www.theguardian.com/global-development/2015/jan/30/water-privatisation-worldwide-failure-lagos-world-bank](http://www.theguardian.com/global-development/2015/jan/30/water-privatisation-worldwide-failure-lagos-world-bank)

*The Guardian*. 2016. 'Belo Monte Dam Operations Delayed by Brazil Court Ruling on Indigenous People'.

[www.theguardian.com/world/2016/jan/15/brazil-belos-monte-dam-delay-court-indigenous-people](http://www.theguardian.com/world/2016/jan/15/brazil-belos-monte-dam-delay-court-indigenous-people)

*The Hindu*. 2015. 'Seawater Intrusion Plagues Minjur'.

[www.thehindu.com/news/cities/chennai/seawater-intrusion-plagues-minjur/article7362918.ece](http://www.thehindu.com/news/cities/chennai/seawater-intrusion-plagues-minjur/article7362918.ece)

*The Huffington Post*. 2015. 'EPA Announces New Rule To Clarify Protections For US Waters'.

[www.huffingtonpost.com/2015/05/27/epa-clean-water-rule\\_n\\_7451742.html](http://www.huffingtonpost.com/2015/05/27/epa-clean-water-rule_n_7451742.html)

*The Jakarta Post*. 2015. 'Court Decision Ends Privatization of Water in Jakarta'.

[www.thejakartapost.com/news/2015/03/24/court-decision-ends-privatization-water-jakarta.html](http://www.thejakartapost.com/news/2015/03/24/court-decision-ends-privatization-water-jakarta.html)

*The New York Times*. 2014. 'Transit Cards to Replace Cash on Kenyan Minibuses Are a Hard Sell'.

[www.nytimes.com/2014/07/16/world/africa/transit-cards-to-replace-cash-on-kenyan-minibuses-a-hard-sell.html?\\_r=1](http://www.nytimes.com/2014/07/16/world/africa/transit-cards-to-replace-cash-on-kenyan-minibuses-a-hard-sell.html?_r=1)

*The News Pakistan*. 2009. 'Chotiari Threatened by Water Reservoir'.

[www.thenews.com.pk/TodaysPrintDetail.aspx?ID=208120&Cat=5&dt=11/21/2](http://www.thenews.com.pk/TodaysPrintDetail.aspx?ID=208120&Cat=5&dt=11/21/2)

*The Sacramento Bee*. 2015. 'Sacramento to Speed Up Water Meter Installations'.

[www.sacbee.com/news/local/news-columns-blogs/city-beat/article11040677.html](http://www.sacbee.com/news/local/news-columns-blogs/city-beat/article11040677.html)



- The Times of India*. 2014. 'Gujarat Hails Decision to Raise Narmada Dam Height, Activists Protest'. <http://timesofindia.indiatimes.com/india/Gujarat-hails-decision-to-raise-Narmada-dam-height-activists-protest/articleshow/36450419.cms>
- Thomson, M., Okuni, P. A., and Sansom, K. 2005. 'Sector Performance Reporting in Uganda: From Measurement to Monitoring and Management'. Paper read at 31st WEDC International Conference: 'Maximizing the Benefits from Water and Environmental Sanitation', at Kampala, Uganda. [www.ircwash.org/sites/default/files/Thomson-2005-Sector.pdf](http://www.ircwash.org/sites/default/files/Thomson-2005-Sector.pdf)
- TI. 2008. *Global Corruption Report 2008: Corruption in the Water Sector*. Cambridge: Cambridge University Press. [www.transparency.org/whatwedo/publication/global\\_corruption\\_report\\_2008\\_corruption\\_in\\_the\\_water\\_sector](http://www.transparency.org/whatwedo/publication/global_corruption_report_2008_corruption_in_the_water_sector)
- TI. 2009. *The Anti-Corruption Plain Language Guide*. Berlin: TI. [www.transparency.org/whatwedo/publication/the\\_anti\\_corruption\\_plain\\_language\\_guide](http://www.transparency.org/whatwedo/publication/the_anti_corruption_plain_language_guide)
- TI. 2010. 'UK: Questions Raised over Effectiveness of the International Cricket Council Anti-Corruption Code'. [www.transparency.org/news/pressrelease/20100831\\_uk\\_questions\\_raised\\_over\\_effectiveness\\_of\\_the\\_international\\_cricke](http://www.transparency.org/news/pressrelease/20100831_uk_questions_raised_over_effectiveness_of_the_international_cricke)
- TI. 2013. 'Marching against Corruption in Brazil's Water Sector'. [www.transparency.org/news/feature/marching\\_against\\_corruption\\_in\\_brazils\\_water\\_sector](http://www.transparency.org/news/feature/marching_against_corruption_in_brazils_water_sector)
- TI. 2015a. 'Corruption Perceptions Index'. [www.transparency.org/cpi2014](http://www.transparency.org/cpi2014)
- TI. 2015b. *Practitioners' Advice on Implementing Integrity Pacts*. Berlin: TI.
- TI. 2015c. 'World Bank Adopts Key Transparency International Goals in New Procurement Policies'. <http://blog.transparency.org/2015/07/31/world-bank-adopts-key-transparency-international-goals-in-new-procurement-policies>
- TI Kenya. 2012. *The East African Bribery Index 2012*. Nairobi: TI Kenya. [www.tikenya.org/index.php/the-east-african-bribery-index](http://www.tikenya.org/index.php/the-east-african-bribery-index)
- TI Pakistan and Karachi Water and Sewerage Board. 2003. *Integrity Pact: A Pakistan Success Story*. Karachi: TI Pakistan. [www.transparency.org.pk/documents/KW&SB.pdf](http://www.transparency.org.pk/documents/KW&SB.pdf)
- Tilman, D., Balzer, C., Hill, J., and Befort, B. L. 2011. 'Global Food Demand and the Sustainable Intensification of Agriculture'. *Proceedings of the National Academy of Sciences* no. 108 (50). [www.pnas.org/content/108/50/20260.full.pdf](http://www.pnas.org/content/108/50/20260.full.pdf)
- Times of Zambia*. 2015. 'Zambia: Nwasco Lifts Chambeshi Ban'. <http://allafrica.com/stories/201502110704.html>

Transnational Institute. 2014. 'Remunicipalisation in Berlin after the Buy-Back'.

[www.tni.org/en/article/remunicipalisation-in-berlin-after-the-buy-back?context=599](http://www.tni.org/en/article/remunicipalisation-in-berlin-after-the-buy-back?context=599)

UN General Assembly. 2010a. 'Human Rights Council Resolution on Human Rights and Access to Safe Drinking Water and Sanitation'. New York: UN General Assembly.

[www.internationalwaterlaw.org/documents/intldocs/UNGA-HRC\\_Resolution-HR\\_to\\_Water\\_and\\_Sanitation.pdf](http://www.internationalwaterlaw.org/documents/intldocs/UNGA-HRC_Resolution-HR_to_Water_and_Sanitation.pdf)

UN General Assembly. 2010b. 'Resolution Adopted by the General Assembly: 64/292:

The Human Right to Water and Sanitation'. New York: UN General Assembly.

[www.onwa.ca/upload/documents/un-water-as-a-human-right.pdf](http://www.onwa.ca/upload/documents/un-water-as-a-human-right.pdf)

UN General Assembly. 2013. 'Open Working Group of the General Assembly on Sustainable Development Goals'.

[www.un.org/ga/search/view\\_doc.asp?symbol=A/67/L.48/Rev.1&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=A/67/L.48/Rev.1&Lang=E)

UN General Assembly. 2015a. *Promotion and Protection of the Right to Freedom of Opinion and Expression*. New York: UN General Assembly.

[www.un.org/en/ga/search/view\\_doc.asp?symbol=A/70/361](http://www.un.org/en/ga/search/view_doc.asp?symbol=A/70/361)

UN General Assembly. 2015b. *Report of the Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation*. New York: UN General Assembly.

<http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G15/172/77/PDF/G1517277.pdf?OpenElement>

UN General Assembly. 2015c. 'Transforming Our World: The 2030 Agenda for Sustainable Development'. New York: UN General Assembly.

[www.un.org/ga/search/view\\_doc.asp?symbol=A/70/L.1&Lang=E](http://www.un.org/ga/search/view_doc.asp?symbol=A/70/L.1&Lang=E)

UN-HABITAT. 2006. *Community Managed System for Operation, Billing and Collection of Water Charges*. New Delhi: UN-HABITAT.

[http://mirror.unhabitat.org/downloads/docs/4178\\_60066\\_Policy Paper-1.pdf](http://mirror.unhabitat.org/downloads/docs/4178_60066_Policy Paper-1.pdf)

UN-HABITAT, and GWA. 2013. *Cuando el Agua Fluye hacia las Mujeres: Enseñanzas y Aprendizajes de la Transversalización de Género en el Sector Hídrico*. Rio de Janeiro: UN-HABITAT.

<http://genderandwater.org/es/productos-gwa/conocimiento-sobre-genero-y-agua/cuando-el-agua-fluye-hacia-las-mujeres-ensenanzas-y-aprendizajes-de-la-transversalizacion-de-genero-en-el-sector-hidrico>

UN-Water. 2013. *Water Security and the Global Water Agenda: A UN-Water Analytical Brief*.

Hamilton, Canada: UNU-INWEH.

[www.unwater.org/downloads/watersecurity\\_analyticalbrief.pdf](http://www.unwater.org/downloads/watersecurity_analyticalbrief.pdf)

UN-Water. 2014. *The United Nations World Water Development Report 2014*, vol. I, *Water and Energy*. Paris: UNESCO.

<http://unesdoc.unesco.org/images/0022/002257/225741e.pdf>

UN-Water. 2015a. 'GEMI: Integrated Monitoring of Water and Sanitation Related SDG Targets'. New York: UN.

[www.unwater.org/fileadmin/user\\_upload/unwater\\_new/docs/GEMI\\_v2\\_April\\_2015.pdf](http://www.unwater.org/fileadmin/user_upload/unwater_new/docs/GEMI_v2_April_2015.pdf)

UN-Water. 2015b. *Monitoring Waste Water, Water Quality and Water Resources Management: Options for Indicators and Monitoring Mechanisms for the Post-2015 Period*. New York: UN.

[www.unwater.org/fileadmin/user\\_upload/unwater\\_new/docs/Other/Discussion\\_Paper\\_GEMI\\_Meeting\\_Geneva\\_29-30Jan15\\_220115\\_FINAL.pdf](http://www.unwater.org/fileadmin/user_upload/unwater_new/docs/Other/Discussion_Paper_GEMI_Meeting_Geneva_29-30Jan15_220115_FINAL.pdf)

UN-Water. 2015c. *The United Nations World Water Development Report 2015: Water for a Sustainable World*. Paris: UNESCO.

<http://unesdoc.unesco.org/images/0023/002318/231823E.pdf>

UN-Water and WHO. 2014a. *Investing in Water and Sanitation: Increasing Access, Reducing Inequalities: UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) 2014 Main Findings*. Geneva: WHO.

[http://d23ya87silh7sb.cloudfront.net/pdf/000/000/512/609\\_272925378.pdf](http://d23ya87silh7sb.cloudfront.net/pdf/000/000/512/609_272925378.pdf)

UN-Water and WHO. 2014b. *Investing in Water and Sanitation: Increasing Access, Reducing Inequalities: UN-Water Global Analysis and Assessment of Sanitation and Drinking-Water (GLAAS) 2014 Report*. Geneva: WHO.

[www.who.int/water\\_sanitation\\_health/publications/glaas\\_report\\_2014/en](http://www.who.int/water_sanitation_health/publications/glaas_report_2014/en)

UN-Water and WHO. 2015. *Investing in Water and Sanitation: Increasing Access, Reducing Inequalities: GLAAS 2014 Findings – Special Report for Africa*. Geneva: WHO.

[www.who.int/water\\_sanitation\\_health/glaas/glaas2014-africa-region.pdf](http://www.who.int/water_sanitation_health/glaas/glaas2014-africa-region.pdf)

UNCTAD. 2015. *Trade and Development Report, 2015: Making the International Financial Architecture Work for Development*. Geneva: UNCTAD.

[http://unctad.org/en/PublicationsLibrary/tdr2015\\_en.pdf](http://unctad.org/en/PublicationsLibrary/tdr2015_en.pdf)

UNDP. 2009. *Handbook on Planning, Monitoring and Evaluating for Development Results*. New York: UNDP.

<http://web.undp.org/evaluation/handbook/documents/english/pme-handbook.pdf>

UNDP. 2011. 'The Evaluation Policy of UNDP'. New York: UNDP.

<http://web.undp.org/evaluation/policy.shtml>

UNDP. 2012. *Seeing beyond the State: Grassroots Women's Perspectives on Corruption and Anti-Corruption*. New York: UNDP.

[www.undp.org/content/dam/undp/library/Democratic\\_Governance/Anti-corruption/Grassroots\\_women\\_and\\_anti-corruption.pdf](http://www.undp.org/content/dam/undp/library/Democratic_Governance/Anti-corruption/Grassroots_women_and_anti-corruption.pdf)

UNDP. 2013. *Learning from the Past: Directions for the Future: 2012 Annual Report*. New York: UNDP.

[www.undp.org/content/undp/en/home/librarypage/democratic-governance/anti-corruption/PACDE2012.html](http://www.undp.org/content/undp/en/home/librarypage/democratic-governance/anti-corruption/PACDE2012.html)

UNDP. 2014. *UNDP Global Anti-corruption Initiative (Gain) 2014–2017*. New York: UNDP.  
[www.undp.org/content/dam/undp/library/Democratic Governance/Anti-corruption/globalanticorruption\\_final\\_web2.pdf](http://www.undp.org/content/dam/undp/library/Democratic%20Governance/Anti-corruption/globalanticorruption_final_web2.pdf)

UNDP-Philippines. 2013. 'Instilling Water Integrity in Sibagat, Philippines'.  
 Sibagat, Philippines: UNDP-Philippines.  
[www.thewaterchannel.tv/media-gallery/5829-instilling-water-integrity-in-sibagat-philippines](http://www.thewaterchannel.tv/media-gallery/5829-instilling-water-integrity-in-sibagat-philippines)

UNEP. 2015. *Aligning the Financial System with Sustainable Development: Pathways to Scale*.  
 Geneva: UNEP.  
[http://apps.unep.org/publications/pmtdocuments/-Aligning\\_the\\_financial\\_system.pdf](http://apps.unep.org/publications/pmtdocuments/-Aligning_the_financial_system.pdf)

UNESCO. 2006. *Water: A Shared Responsibility: The United Nations World Water Development Report 2*. Paris: UNESCO and Berghahn Books.  
<http://unesdoc.unesco.org/images/0014/001454/145405E.pdf>

UNESCO. 2009. *IWRM Guidelines at River Basin Level*. Paris: UNESCO.  
[www.unesco.org/water/news/pdf/Part\\_1\\_Principles.pdf](http://www.unesco.org/water/news/pdf/Part_1_Principles.pdf)

UNESCO-IHP. 2012. *Urban Water Conflicts, Urban Water Series*. Paris: UNESCO-IHP.  
[http://publishing.unesco.org/details.aspx?Code\\_Livre=4889](http://publishing.unesco.org/details.aspx?Code_Livre=4889)

UNICEF. 2011. 'Improving Cost Effectiveness of Drilling Programmes in Mozambique and Zambia'.  
 New York: UNICEF.  
[www.sswm.info/sites/default/files/reference\\_attachments/UNICEF\\_2011\\_Improving\\_Cost\\_Effectiveness\\_of\\_Drilling\\_Programmes\\_in\\_Mozambique\\_and\\_Zambia.pdf](http://www.sswm.info/sites/default/files/reference_attachments/UNICEF_2011_Improving_Cost_Effectiveness_of_Drilling_Programmes_in_Mozambique_and_Zambia.pdf)

UNICEF. 2013. 'Children Dying Daily because of Unsafe Water Supplies and Poor Sanitation and Hygiene, UNICEF Says'. New York: UNICEF.  
[www.unicef.org/media/media\\_68359.html](http://www.unicef.org/media/media_68359.html)

UNICEF, FAO and Oxfam. 2012. *Trainer's Manual for Community Managed Water Supplies in Kenya*.  
 Nairobi: UNICEF.  
[www.syrialearning.org/resource/7612](http://www.syrialearning.org/resource/7612)

UNICEF and WHO. 2012. *Progress on Drinking Water and Sanitation: 2012 Update*. Geneva: WHO.  
[www.unicef.org/media/files/JMPPreport2012.pdf](http://www.unicef.org/media/files/JMPPreport2012.pdf)

UNICEF and WHO. 2015. *Progress on Sanitation and Drinking Water: 2015 Update and MDG Assessment*. Geneva: WHO.  
[www.wssinfo.org/fileadmin/user\\_upload/resources/JMP-Update-report-2015\\_English.pdf](http://www.wssinfo.org/fileadmin/user_upload/resources/JMP-Update-report-2015_English.pdf)

University of Dundee. 2014. 'United Nations Watercourses Convention Enters Into Force'.  
[www.dundee.ac.uk/water/news/2014/article/united-nations-watercourses-convention-enters-into-force.php](http://www.dundee.ac.uk/water/news/2014/article/united-nations-watercourses-convention-enters-into-force.php)

- UNODC. 2004a. *The Global Programme against Corruption: UN Anti-Corruption Toolkit*. Vienna: UNODC.  
[www.unodc.org/documents/afghanistan/Anti-Corruption/corruption\\_un\\_anti\\_corruption\\_toolkit\\_sep04.pdf](http://www.unodc.org/documents/afghanistan/Anti-Corruption/corruption_un_anti_corruption_toolkit_sep04.pdf)
- UNODC. 2004b. *United Nations Convention against Corruption*. Vienna: UNODC.  
[www.unodc.org/documents/brussels/UN\\_Convention\\_Against\\_Corruption.pdf](http://www.unodc.org/documents/brussels/UN_Convention_Against_Corruption.pdf)
- UNODC. 2015. 'Regional Conference: Anti-Corruption in West Africa: Final Conclusions'.  
[www.unodc.org/documents/westandcentralafrica//Regional\\_Conference\\_on\\_Anti-Corruption\\_in\\_West\\_Africa\\_-\\_FINAL\\_CONCLUSIONS.pdf](http://www.unodc.org/documents/westandcentralafrica//Regional_Conference_on_Anti-Corruption_in_West_Africa_-_FINAL_CONCLUSIONS.pdf)
- Unsworth, S. 2007. 'Rethinking Governance to Fight Corruption'. Bergen: Chr. Michelsen Institute.  
[www.u4.no/publications/rethinking-governance-to-fight-corruption](http://www.u4.no/publications/rethinking-governance-to-fight-corruption)
- UNU-INWEH, UNOSD and SEI. 2013. *Catalyzing Water for Sustainable Development and Growth: Framing Water within the Post 2015 Development Agenda: Options and Considerations*. Hamilton, Canada: UNU-INWEH.  
[www.zaragoza.es/contenidos/medioambiente/onu/1093-eng\\_Catalyzing\\_water\\_for\\_sustainable\\_development\\_and\\_growth.pdf](http://www.zaragoza.es/contenidos/medioambiente/onu/1093-eng_Catalyzing_water_for_sustainable_development_and_growth.pdf)
- US House of Representatives. 2015. 'House Votes to Stop Flawed Waters of the United States Rule'. Washington, DC.  
<http://transportation.house.gov/news/documentsingle.aspx?DocumentID=398884>
- US Securities and Exchange Commission. 2014. 'SEC Charges Texas-Based Layne Christensen Company with FCPA Violations'.  
[www.sec.gov/News/PressRelease/Detail/PressRelease/1370543291857](http://www.sec.gov/News/PressRelease/Detail/PressRelease/1370543291857)
- USAID. 2013. 'USAID Water and Development Strategy: 2013–2018'.  
[www.usaid.gov/sites/default/files/documents/1865/Water\\_Development\\_Strategy\\_Highlights.pdf](http://www.usaid.gov/sites/default/files/documents/1865/Water_Development_Strategy_Highlights.pdf)
- Vallerien, D. 2013. 'Improving Balkan Water and Wastewater Utility Performance through Incentives'. *Water Utility Management International* no. 8 (3).
- Van der Gaag, N. 2010. *Because I Am a Girl: The State of the World's Girls 2010: Digital and Urban Frontiers: Girls in a Changing Landscape*. Woking, UK: Plan International.  
<http://plan-international.org/state-worlds-girls-2010-digital-and-urban-frontiers>
- Van Koppen, B., Giordano, M., and Butterworth, J. 2007. *Community-Based Water Law and Water Resource Management Reform in Developing Countries*. Wallingford, UK: CAB International.  
<https://freegeobook.files.wordpress.com/2009/01/1845933265.pdf>
- Van Koppen, B., van der Zaag, P., Manzungu, E., and Tapela, B. 2014. 'Roman Water Law in Rural Africa: The Unfinished Business of Colonial Dispossession'. *Water International* no. 39 (1).  
[www.tandfonline.com/doi/pdf/10.1080/02508060.2013.863636](http://www.tandfonline.com/doi/pdf/10.1080/02508060.2013.863636)

- Venot, J.-P., Andreini, M., and Pinkstaff, C. B. 2011. 'Planning and Corrupting Water Resources Development: The Case of Small Reservoirs in Ghana'. *Water Alternatives* no. 4 (3).  
[www.water-alternatives.org/index.php/alldoc/articles/Vol4/v4issue3/149-a4-3-8/file](http://www.water-alternatives.org/index.php/alldoc/articles/Vol4/v4issue3/149-a4-3-8/file)
- Verougstraete, M., and Enders, I. 2014. 'Efficiency Gains: The Case of Water Services in Manila'. Bangkok: UN ESCAP.  
[www.unescap.org/sites/default/files/Case 2 - Efficiency Gains - Manila Water.pdf](http://www.unescap.org/sites/default/files/Case 2 - Efficiency Gains - Manila Water.pdf)
- Visscher, J. T., van der Kerk, A., and Lungu, G. 2013. 'Water Integrity Risk and Opportunity: Mapping Study Zambia.' (unpublished)
- Vos, J. 2011. *Fighting Corruption in the Water Sector: Methods, Tools and Good Practices*. New York: UNDP.  
[www.undp.org/content/dam/undp/library/Democratic Governance/IP/Anticorruption Methods and Tools in Water Lo Res.pdf](http://www.undp.org/content/dam/undp/library/Democratic%20Governance/IP/Anticorruption%20Methods%20and%20Tools%20in%20Water%20Lo%20Res.pdf)
- Wade, R. 1982. 'The System of Administrative and Political Corruption: Canal Irrigation in South India'. *Journal of Development Studies* no. 18 (3).  
[www.tandfonline.com/doi/abs/10.1080/00220388208421833](http://www.tandfonline.com/doi/abs/10.1080/00220388208421833)
- Warner, J., Butterworth, J., Wegerich, K., Mora Vallejo, A., Martinez, G., Gouet, C., and Visscher, J. T. 2009. *Corruption Risks in Water Licensing with Case Studies from Chile and Kazakhstan*. Stockholm: SIWI.  
[www.siwi.org/wp-content/uploads/2015/10/Corruption\\_Risks\\_in\\_Water\\_Licensing.pdf](http://www.siwi.org/wp-content/uploads/2015/10/Corruption_Risks_in_Water_Licensing.pdf)
- WASREB. 2009. *Corporate Governance Guidelines for the Water Service Sector*. Nairobi: WASREB.  
[www.wasreb.go.ke/images/Downloads/Corporate Governance Guideline.pdf](http://www.wasreb.go.ke/images/Downloads/Corporate_Governance_Guideline.pdf)
- WASREB. 2010a. *Enhancing Consumer Participation in Water Service Delivery through Water Action Groups*. Nairobi: WASREB.  
[www.wsp.org/sites/wsp.org/files/publications/consumerparticipat\\_water\\_service\\_delivery.pdf](http://www.wsp.org/sites/wsp.org/files/publications/consumerparticipat_water_service_delivery.pdf)
- WASREB. 2010b. 'Model Code of Ethics for the Board of Directors'. Nairobi: WASREB.  
[www.wasreb.go.ke/regulatory-tools/model-code-of-ethics-for-directors](http://www.wasreb.go.ke/regulatory-tools/model-code-of-ethics-for-directors)
- WASREB. 2012a. *Consumer Engagement Guideline: Guaranteeing the Rights of Consumers in Water Supply and Sanitation Services*. Nairobi: WASREB.  
[www.wasreb.go.ke/regulatory-tools/consumer-engagements](http://www.wasreb.go.ke/regulatory-tools/consumer-engagements)
- WASREB. 2012b. *A Performance Review of Kenya's Water Services Sector – 2010/11*. Nairobi: WASREB.  
[http://waterfund.go.ke/toolkit/Downloads/1.WASREB Impact Report 5.pdf](http://waterfund.go.ke/toolkit/Downloads/1.WASREB_Impact_Report_5.pdf)
- Water Regulatory Authority of Albania. 2012. *Integrity Code*. Tiranë: Water Regulatory Authority of Albania.  
[www.ERRU.al/doc/WRA\\_Integrity\\_Code.pdf](http://www.ERRU.al/doc/WRA_Integrity_Code.pdf)

- Water Services That Last. 2013a. 'Hand Pump Mechanics Get Organised to Keep Water Flowing'. [www.waterservicesthatlast.org/countries/uganda\\_triple\\_s\\_initiative/news\\_events/hand\\_pump\\_mechanics\\_get\\_organised\\_to\\_keep\\_water\\_flowing](http://www.waterservicesthatlast.org/countries/uganda_triple_s_initiative/news_events/hand_pump_mechanics_get_organised_to_keep_water_flowing)
- Water Services That Last. 2013b. 'SMS System Enables Rapid Pump Repairs'. [www.waterservicesthatlast.org/countries/uganda\\_triple\\_s\\_initiative/news\\_events/sms\\_system\\_enables\\_rapid\\_pump\\_repairs](http://www.waterservicesthatlast.org/countries/uganda_triple_s_initiative/news_events/sms_system_enables_rapid_pump_repairs)
- Water Witness International. 2014. *Fair Water Futures – Uhakika wa Maji: Progress Report*. Edinburgh: Water Witness International. <http://waterwitness.org/www/wp-content/uploads/2014/07/Uhakika-wa-Maji-July-2014.pdf>
- WaterAid. 2015. *Essential Element: Why International Aid for Water, Sanitation and Hygiene Is Still a Critical Source of Finance for Many Countries*. London: WaterAid. [www.wateraid.org/what-we-do/our-approach/research-and-publications/view-publication?id=0cad195c-1701-4466-959c-7cc7907732d1](http://www.wateraid.org/what-we-do/our-approach/research-and-publications/view-publication?id=0cad195c-1701-4466-959c-7cc7907732d1)
- WaterLex and WASH United. 2008. 'Romania: Butan and Dragomir v Romania (2008)'. Geneva: WaterLex. [www.waterlex.org/waterlex-legal-database/index.php?r=legalDocument/customView&id=283](http://www.waterlex.org/waterlex-legal-database/index.php?r=legalDocument/customView&id=283)
- WCD. 2000. *Dams and Development: A New Framework for Decision-Making*. London: Earthscan. [www.unep.org/dams/WCD/report/WCD\\_DAMS\\_report.pdf](http://www.unep.org/dams/WCD/report/WCD_DAMS_report.pdf)
- Werle, H. 2004. *Zwischen Gemeinwohl und Profitinteresse: Erfahrungen bei der Teilprivatisierung der Wasserwirtschaft in Berlin*. Stuttgart: Brot für die Welt. [www.webcitation.org/5wjuESzP8](http://www.webcitation.org/5wjuESzP8)
- Westhorp, G., Walker, B., Rogers, P., Overbeeke, N., Ball, D., and Brice, G. 2014. *Enhancing Community Accountability, Empowerment and Education Outcomes in Low and Middle-Income Countries: A Realist Review*. London: Evidence for Policy and Practice Information and Co-ordinating Centre. <http://r4d.dfid.gov.uk/pdf/outputs/SystematicReviews/Community-accountability-2014-Westhorp-report.pdf>
- WHO. 2012. *UN-Water GLAAS 2012 Evaluation Meeting, 2–3 October 2012, Bern, Switzerland: Final Report*. Geneva: WHO. [www.who.int/water\\_sanitation\\_health/publications/evaluation2012.pdf](http://www.who.int/water_sanitation_health/publications/evaluation2012.pdf)
- Williamson, T., and Dom, C. 2010. *Sector Budget Support in Practice*. London: ODI. [www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/5802.pdf](http://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/5802.pdf)
- WIN. 2010a. 'Clean Water: Addressing Corruption in Vietnam's Water Sector.' (unpublished)
- WIN. 2010b. 'Monitoring the Process of Transparency, Access to Information and Accountability of the Municipal Water Company Quilalí, EMAQ.' (unpublished)

WIN. 2014. 'Lusaka Statement on Water Integrity'.

[www.waterintegritynetwork.net/wp-content/uploads/2015/03/LusakaStatement\\_April2014.pdf](http://www.waterintegritynetwork.net/wp-content/uploads/2015/03/LusakaStatement_April2014.pdf)

WIN and cewas. 2015. 'Final Report: Integrity Management Toolbox for the Zambian Water Sector.' (unpublished)

WIN and Helvetas. 2013a. 'Local Water Integrity Programme Mozambique.' (unpublished)

WIN and Helvetas. 2013b. 'Report of the Initial Phase Nepal.' (unpublished)

WIN and TI Kenya. 2011. *Annotated Water Integrity Scan Kenya 2011*.

Mombasa, Kenya: WIN and TI Kenya.

[www.waterintegritynetwork.net/wp-content/uploads/2015/03/Case\\_Kenya\\_AWIS\\_EN\\_2011.pdf](http://www.waterintegritynetwork.net/wp-content/uploads/2015/03/Case_Kenya_AWIS_EN_2011.pdf)

WIN, UNESCO-IHE and WGC. 2013. *Water Integrity Forum Report 2013*. Berlin: WIN.

[www.waterintegritynetwork.net/wp-content/uploads/2015/03/WIN\\_Forum\\_report.pdf](http://www.waterintegritynetwork.net/wp-content/uploads/2015/03/WIN_Forum_report.pdf)

Winkler, I. T., Satterthwaite, M. L., and de Albuquerque, C. 2014. *Measuring What We Treasure and Treasuring What We Measure: Post-2015 Monitoring for the Promotion of Equality in the Water, Sanitation, and Hygiene Sector*. New York: New York University, School of Law.

[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2498064](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2498064)

World Bank. 2005a. *The LogFrame Handbook: A Logical Framework Approach to Project Cycle Management*. Washington, DC: World Bank.

[www.afdb.org/fileadmin/uploads/afdb/Documents/Evaluation-Reports-Shared-With-OPEV\\_/00158077-EN-WB-LOGICALFRAMEWORK-HANDBOOK.PDF](http://www.afdb.org/fileadmin/uploads/afdb/Documents/Evaluation-Reports-Shared-With-OPEV_/00158077-EN-WB-LOGICALFRAMEWORK-HANDBOOK.PDF)

World Bank. 2005b. *Social Accountability Sourcebook*, chap. 3, *Methods and Tools*.

Washington, DC: World Bank.

[www.worldbank.org/socialaccountability\\_sourcebook/PrintVersions/Methods\\_and\\_Tools\\_06.22.07.pdf](http://www.worldbank.org/socialaccountability_sourcebook/PrintVersions/Methods_and_Tools_06.22.07.pdf)

World Bank. 2008. *Toolkit for Monitoring and Evaluation of Agricultural Water Management Projects*. Washington, DC: World Bank.

<http://documents.worldbank.org/curated/en/2008/01/9697755/toolkit-monitoring-evaluation-agricultural-water-management-projects>

World Bank. 2010. *Economics of Adaptation to Climate Change: Synthesis Report*.

Washington, DC: World Bank.

<https://openknowledge.worldbank.org/bitstream/handle/10986/12750/702670ESW0P10800EACCSynthesisReport.pdf?sequence=1>

World Bank. 2011a. *Public Financial Management Reforms in Post-Conflict Countries: Synthesis Report*. Washington, DC: World Bank.

[www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2012/06/15/000356161\\_20120615033527/Rendered/PDF/699640WP0P1206070023B0PFM0Web0Final.pdf](http://www-wds.worldbank.org/external/default/WDSPContentServer/WDSP/IB/2012/06/15/000356161_20120615033527/Rendered/PDF/699640WP0P1206070023B0PFM0Web0Final.pdf)



World Bank. 2011b. *Strategie Nationale d'Assainissement Liquide au Cameroun: Rapport diagnostic*. Washington, DC: World Bank.

[http://water.worldbank.org/sites/water.worldbank.org/files/publication/Rapport diagnostic FINAL.pdf](http://water.worldbank.org/sites/water.worldbank.org/files/publication/Rapport%20diagnostic_FINAL.pdf)

World Bank. 2012a. *Project Appraisal Document on a Proposed Loan in the Amount of US\$ 400 Million and Proposed Credit in the Amount of 283.7 Million SDRs (US\$ 440 Million Equivalent) to the Islamic Republic of Pakistan for the Tarbela Fourth Extension Hydropower Project (T4HP)*. Washington, DC: World Bank.

[www.worldbank.org/projects/P115893/tarbela-fourth-extension-hydropower-project?lang=en](http://www.worldbank.org/projects/P115893/tarbela-fourth-extension-hydropower-project?lang=en)

World Bank. 2012b. *World Development Report 2012: Gender Equality and Development*. Washington, DC: World Bank.

<http://go.worldbank.org/6R2KGVEXP0>

World Bank. 2014a. '2014 Global PPI Update'.

[http://ppi.worldbank.org/~/\\_media/GIAWB/PPI/Documents/Global-Notes/Global2014-PPI-Update.pdf](http://ppi.worldbank.org/~/_media/GIAWB/PPI/Documents/Global-Notes/Global2014-PPI-Update.pdf)

World Bank. 2014b. 'World Bank Group Energy Lending Focuses on Poorest Regions: Boost in Renewable Energy Financing'.

[www.worldbank.org/en/news/feature/2014/09/05/boost-in-world-bank-renewable-energy-lending](http://www.worldbank.org/en/news/feature/2014/09/05/boost-in-world-bank-renewable-energy-lending)

World Bank. 2015a. 'New World Bank Procurement Framework Approved'.

[www.worldbank.org/en/news/press-release/2015/07/21/world-bank-procurement-framework](http://www.worldbank.org/en/news/press-release/2015/07/21/world-bank-procurement-framework)

World Bank. 2015b. *Procurement in World Bank Investment Project Financing: Phase II: The New Procurement Framework*. Washington, DC: World Bank.

[https://consultations.worldbank.org/Data/hub/files/consultation-template/procurement-policy-review-consultationsopenconsultationtemplate/phases/phase\\_ii\\_the\\_new\\_procurement\\_framework\\_-\\_board\\_paper.pdf](https://consultations.worldbank.org/Data/hub/files/consultation-template/procurement-policy-review-consultationsopenconsultationtemplate/phases/phase_ii_the_new_procurement_framework_-_board_paper.pdf)

WSP. 2010. *Gender in Water and Sanitation*. Nairobi: WSP.

[www.wsp.org/sites/wsp.org/files/publications/WSP-gender-water-sanitation.pdf](http://www.wsp.org/sites/wsp.org/files/publications/WSP-gender-water-sanitation.pdf)

## GLOSSARY

**Accountability:** the concept that individuals, agencies and organizations (public, private and civil society) are held responsible for the proper execution of their powers (TI, 2009).

**Audit:** an official inspection of an organization's accounts, usually by an independent body; by extension, an assessment of the adequacy of management controls to ensure the economical and efficient use of resources; the safeguarding of assets; establishing the reliability of financial and other information, compliance with regulations, rules and established policies and the effectiveness of risk management; and determining the adequacy of organizational structures, systems and processes (UNDP, 2009). Internal auditing provides an assessment of the internal controls undertaken by a unit reporting to management while external auditing is conducted by an independent organization (OECD-DAC, 2002).

**Benchmarking:** the process whereby a company compares and improves its performance by learning from the best in a selected group. The process involves the identification of, familiarization with and adoption of successful methods and processes used by benchmarking partners. This helps to improve a company's performance, as well as cutting costs (BDEW, 2012).

**Bond finance:** a debt investment in which an investor lends money to an entity (typically corporate or governmental) that borrows the funds for a defined period of time at a variable or fixed interest rate. Owners of bonds are debt holders, or creditors, of the issuer.<sup>1</sup>

**Bribery:** the act of offering someone money, services or other valuables in order to persuade him or her to do something in return. Bribes are also called kickbacks, baksheesh, payola, hush money, sweeteners, protection money, boodle, gratuities, etc. Bribery is widely criminalized through international and national laws.<sup>2</sup>

**Compliance:** the procedures, systems or departments within public agencies of companies that ensure that all legal, operational and financial activities are in conformity with current laws, rules, norms, regulations and standards (TI, 2009).

**Conventions:** international and regional agreements, signed or formally adopted through ratification by multiple states, that establish rules, laws and standards on issues that are typically cross-border in nature and therefore require a common approach for effective, multilateral cooperation.<sup>3</sup>

**Credit rating:** an assessment of the creditworthiness of a borrower, either in general terms or with respect to a particular debt or financial obligation. A credit rating can be assigned to any entity that seeks to borrow money – an individual, corporation, state or provincial authority or sovereign government.<sup>4</sup>

---

<sup>1</sup> [www.investopedia.com/terms/b/bond.asp](http://www.investopedia.com/terms/b/bond.asp).

<sup>2</sup> [www.u4.no/glossary](http://www.u4.no/glossary).

<sup>3</sup> [www.transparency.org/glossary/term/conventions](http://www.transparency.org/glossary/term/conventions).

<sup>4</sup> [www.investopedia.com/terms/c/creditrating.asp](http://www.investopedia.com/terms/c/creditrating.asp).

**Customary law:** sets of rules, established through the process of socialization, that enable members of a community to distinguish acceptable from unacceptable behaviour, including conventions and usages adhered to and followed by people through generations (Craig and Gachenga, 2010).

**Debt finance:** when a public institution or a firm raises money by selling bonds, bills or notes to individual and/or institutional investors. In return for lending the money, the individuals or institutions become creditors and receive a promise that the principal and interest on the debt will be repaid.<sup>5</sup>

**Due diligence:** the care a reasonable and prudent party should take before entering into an agreement or transaction with another party – whether it is an NGO, government or private company. It involves a systematic collection and analysis of information on how a particular organization is managed or conducts its business.<sup>6</sup>

**Entry into force:** the date and process by which a law or contract goes into effect.<sup>7</sup>

**Equity:** the value of the property in an organization greater than the total debt held on it. Equity investments typically take the form of an owner's share in the business, and often a share in the return, or profits. Equity investments carry greater risk than debt, but the potential for greater return should balance the risk.<sup>8</sup>

**Evaluation:** the process of determining the relevance, efficiency, effectiveness and impact of activities in the light of their objectives in a systematic and objective manner. It encompasses the gathering of information, including – but not only – that obtained through monitoring, and the use of such information to make judgements and make informed decisions about a given process. While monitoring is a continuous process, evaluation is a task that takes place at critical times in a given process (Faures, 2006).

**Ghost projects:** non-existent projects that are financed by the government or a donor while non-existent personnel or pensioners are being paid salaries and allowances.<sup>9</sup>

**Governance:** a concept that goes beyond the traditional notion of government to focus on the relationships between leaders, public institutions and citizens, including the processes by which they make and implement decisions. The term can also be applied to companies and NGOs (TI, 2009).

**Grand corruption:** corruption that involves large sums and tends to involve those at high levels of government or companies who distort the policies or the functioning of the state, enabling leaders to benefit at the expense of the public good (González de Asís et al., 2009).<sup>10</sup>

<sup>5</sup> [www.investopedia.com/terms/d/debtfinancing.asp](http://www.investopedia.com/terms/d/debtfinancing.asp).

<sup>6</sup> <http://ceowatermandate.org/integrity/supporting-tools/tool-4>.

<sup>7</sup> [www.translegal.com/legal-english-dictionary/enter-into-force](http://www.translegal.com/legal-english-dictionary/enter-into-force).

<sup>8</sup> [www.gdrc.org/icm/loan-glossary.html](http://www.gdrc.org/icm/loan-glossary.html).

<sup>9</sup> [www.pctc.gov.ph/papers/graft.htm](http://www.pctc.gov.ph/papers/graft.htm).

<sup>10</sup> [www.transparency.org/what-is-corruption/#define](http://www.transparency.org/what-is-corruption/#define).

**Improved sanitation:** sanitation facilities that hygienically separate human excreta from human contact.<sup>11</sup>

**Indicator:** a quantitative or qualitative factor or variable that provides a simple and reliable means to measure achievement, to reflect the changes connected to an intervention or to help assess the performance of a development actor (OECD-DAC, 2002).

**Information and communications technologies (ICTs):** traditional systems include radio and television, while new ICTs relate specifically to mobile phones and the internet. Within WASH and development, they often represent the mobile network, the mobile tools used for data collection and analysis, and the technology (hardware, software and services) expediting the data flow and the use of that data (Schouten, 2013).

**Integrity:** behaviours and actions consistent with a set of moral or ethical principles and standards, embraced by individuals as well as institutions, that create a barrier to corruption (TI, 2009).

**Integrity risk management:** a fundamental element of corporate governance that provides instruments to detect and manage risks, as well as to prevent and sanction violations of rules (Hermann-Friede et al., 2014).

**Law:** a body of rules of conduct of binding legal force and effect that is prescribed, recognized and enforced by the controlling authority.<sup>12</sup>

**Licence:** a permission granted by the competent authority to exercise a certain privilege that, without such authorization, would constitute an illegal act (e.g. abstract water from a certain source); the certificate or the document itself that confers permission to engage in otherwise proscribed conduct.<sup>13</sup>

**Market-based repayable finance:** financial flows provided by private actors that require repayment at a future date plus remuneration for the use of capital, in the form of interest or dividends. This may include loans, bonds and equity and can only bridge the financing gap – i.e. help finance upfront investments (OECD, 2010).

**Microfinance:** a type of banking service that is provided to unemployed or low-income individuals or groups who would otherwise have no means of gaining financial services. Ultimately, the goal of microfinance is to give low-income people an opportunity to become self-sufficient by providing a means of saving money, borrowing money and buying insurance.<sup>14</sup>

**Monitoring:** the process of measuring the progress being made towards achieving goals and objectives. It focuses not just on tracking projects and the use of funds but also on tracking the strategies and actions being taken, and establishing what new strategies and actions need to be adopted (UNDP, 2009).

<sup>11</sup> [www.wssinfo.org/definitions-methods](http://www.wssinfo.org/definitions-methods).

<sup>12</sup> <http://legal-dictionary.thefreedictionary.com/law>.

<sup>13</sup> <http://legal-dictionary.thefreedictionary.com/license>.

<sup>14</sup> [www.investopedia.com/terms/m/microfinance.asp](http://www.investopedia.com/terms/m/microfinance.asp).

**Nepotism:** a form of favouritism that involves family relationships; it describes situations in which a person exploits his or her power and authority to procure jobs or other favours for relatives.<sup>15</sup>

**Outcome:** the likely or achieved short- and medium-term effects of an intervention's outputs (OECD-DAC, 2002).

**Output:** the products, capital goods and services that result from a development intervention; it may also include changes resulting from the intervention that are relevant to the achievement of outcomes (OECD-DAC, 2002).

**Participation:** the meaningful involvement of all stakeholders, including marginalized and resource-poor groups, in deciding how water is used, protected, managed or allocated.

**Performance agreement:** a method of establishing expectations and accountability for meeting set standards of execution excellence – and the consequences for not meeting them. Two or more parties agree on the actions the performer will execute and agree on the expected results from executing those actions.<sup>16</sup>

**Permit:** a document given by an authorized public official or agency (e.g. building inspector, department of motor vehicles) to allow a person or business to perform certain acts. The purpose of permits is primarily to guarantee that laws and regulations have been obeyed, but they also are a source of public revenue.<sup>17</sup>

**Petty corruption:** the everyday abuse of entrusted power, typically involving smaller payments made to secure or expedite the performance of routine, legal or necessary actions, such as getting a water connection or having a repair attended to expeditiously (González de Asís et al., 2009).<sup>18</sup>

**Policy:** the declared objectives that a government or party seeks to achieve and preserve in the interest of the national community (public policy). It is also the set of basic principles and associated guidelines, formulated and enforced by the governing body of an organization, to direct and limit its actions in pursuit of its long-term goals (corporate policy).<sup>19</sup>

**Pooled funds:** funds from many individual investors that are aggregated for the purposes of investment. Investors in pooled-fund investments benefit from economies of scale, which allow for lower trading costs per dollar of investment, diversification and professional money management.<sup>20</sup>

**Pre-qualification:** a preliminary stage in a bidding process, when it is determined if an applicant has the requisite resources and experience to complete the job as required.<sup>21</sup>

<sup>15</sup> [www.u4.no/glossary](http://www.u4.no/glossary).

<sup>16</sup> [www.ehow.com/about\\_6523444\\_definition-performance-agreement.html](http://www.ehow.com/about_6523444_definition-performance-agreement.html).

<sup>17</sup> <http://legal-dictionary.thefreedictionary.com/permit>.

<sup>18</sup> [www.transparency.org/what-is-corruption/#define](http://www.transparency.org/what-is-corruption/#define).

<sup>19</sup> [www.businessdictionary.com/definition/policy.html](http://www.businessdictionary.com/definition/policy.html).

<sup>20</sup> [www.investopedia.com/terms/p/pooledfunds.asp](http://www.investopedia.com/terms/p/pooledfunds.asp).

<sup>21</sup> [www.businessdictionary.com/definition/prequalification.html](http://www.businessdictionary.com/definition/prequalification.html).

**Procurement:** the multi-step process of established procedures to acquire goods and services by any individual, company or organization – from the initial needs assessment to the contract’s award and service delivery (TI, 2009).

**Public procurement:** the purchase of goods and services by governments and state-owned enterprises. It encompasses a sequence of related activities starting with the assessment of needs through awards to contract management and final payment (OECD, 2007).

**Public financial management:** the legal and organizational framework for supervising all phases of the budget cycle, including the preparation of the budget, internal controls and auditing, procurement, monitoring and reporting arrangements, and external auditing. The broad objectives are to achieve overall fiscal discipline, the allocation of resources to priority needs and the efficient and effective allocation of public services.<sup>22</sup>

**Public–private partnership (PPP):** a long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance.<sup>23</sup>

**Recurrent expenditure:** the money spent on sustaining an existing service, including, e.g., routine maintenance, production and salary costs, but also supporting processes such as annual planning, administration and monitoring.

**Regulatory capture:** a situation in which a regulator acts in a biased or non-transparent manner and makes the rules work only for the benefit of a few (Plummer, 2008).

**Rent-seeking:** a term from economics indicating a situation in which actors attempt to derive economic rents by manipulating the social and political environment in which economic activities occur, rather than by adding value. Not all rent-seeking behaviour can be equated with corruption. However, rent-seeking may involve corruption when officials solicit or extract bribes for applying their discretionary authority for awarding legitimate or illegitimate benefits to clients.<sup>24</sup>

**‘Revolving door’ employment:** the practice of an individual who moves back and forth between public office and private companies, exploiting his or her period of government service for the benefit of the companies he or she used to regulate (TI, 2009).

**Social impact assessment (SIA):** a process that provides a framework for prioritizing, gathering and incorporating social information and participation into the design and delivery of developmental interventions.<sup>25</sup>

**Supreme audit institution (SAI):** the lead public sector audit organization in a country; its principal task is to examine whether public funds are being spent economically, efficiently and effectively in compliance with existing rules and regulations (OECD, 2011b).

<sup>22</sup> [www.u4.no/glossary](http://www.u4.no/glossary).

<sup>23</sup> <https://pppknowledgelab.org/ppp-cycle/what-ppp>.

<sup>24</sup> [www.u4.no/glossary](http://www.u4.no/glossary).

<sup>25</sup> <http://toolkit.pppinindia.com/ports/module2-fgost-oosiaassr.php?links=fgost4>.

**Tariffs:** user charges collected from private households and institutions for services. Since basic services such as drinking water carry a right that it is the duty of government to fulfil, this money requires the same public accountability standards as public finances.

**Taxes:** public funding allocated to the sector through national or local government budgets mainly from national or local tax revenues (but in many countries also including other revenues, such as royalties from natural resource exploitation).

**Transfers:** funds provided through bilateral and multilateral development aid (from donors), concessionary loans from, e.g., development banks, as well as aid from charitable foundations or NGOs. Transfers are largely public money from foreign countries but also include private donations.

**Transparency:** a characteristic of governments, companies, organizations and individuals of being open in the clear disclosure of information, rules, plans, processes and actions. As a principle, public officials, civil servants, the managers and directors of companies and organizations, and board trustees have a duty to act visibly, predictably and understandably to promote participation and accountability.

**Water governance:** the set of rules, practices, and processes through which decisions for the management of water resources and services are taken and implemented, and decision-makers are held accountable.<sup>26</sup> Water governance therefore covers policy development, legislation, regulation, planning, monitoring, enforcement and sanctioning. It references not only the legal, policy and institutional context in which decisions are made but also the day-to-day practice in terms of who has input into decisions, how decisions are made and how they are carried out.

**Whistleblowing:** the sounding of an alarm by an employee, director or external person, in an attempt to reveal neglect or abuses within the activities of an organization, government body or company (or one of its business partners) that threaten the public interest, its integrity and reputation.

---

<sup>26</sup> [www.oecd.org/env/watergovernanceprogramme.htm](http://www.oecd.org/env/watergovernanceprogramme.htm).

**The Water Integrity Network (WIN)** promotes integrity to eliminate corruption and increase performance in the water sector worldwide. To achieve this mission, WIN connects, enables and promotes the work of organizations and individuals who recognize the impact of corruption (especially on poor and disenfranchised communities), work to assess risk and promote practical responses. Formerly hosted by Transparency International, the WIN global network is formally led by the WIN Association and supported by the WIN Secretariat in Berlin. For more information, visit [www.waterintegritynetwork.net](http://www.waterintegritynetwork.net).





Initiatives to enhance water integrity are being implemented at multiple levels worldwide. Advocacy work and media attention have continued to bring water integrity to the fore in the international public debate. Projects to assess and reduce integrity risks have been undertaken in several countries with new tools and techniques that were developed for diagnostics and remedial measures. Understanding of the dynamics of corruption in the water sector is being improved thanks to more research and knowledge sharing among water sector stakeholders. More importantly, water integrity is now a priority work area for several organizations, and efforts are intensifying to build capacity for further action worldwide. This growing attention to water integrity is a driver of success and better performance in the sector. The *Water Integrity Global Outlook 2016* (WIGO) was developed to capture these developments; the publication takes stock of recent case studies and assesses new opportunities for action.

*'Good governance at national and local levels is vital to ensure everyone gets access to water and sanitation and to ensure no one is left behind. The new global goals agreed by 193 member states in September 2015 are a paradigm shift – with the overall aim to end extreme poverty by 2030. These global goals are interlinked and interdependent, and the delivery of Goal 6 – which aims for universal access to water and sanitation – requires strong, accountable institutions. When we talk to families living without water and sanitation we hear a clear message that good leadership and management and an end to corruption are critical. When communities understand their rights and responsibilities they can raise their voices and call for their right to water and sanitation to be realized. And they will look for information, transparency and accountability. WaterAid fully supports the work that WIN is carrying out to improve governance and transparency.'* Barbara Frost, Chief Executive, WaterAid

