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## Chapter 13

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# Governance: A ‘whole-of-society’ approach

**UNDP**

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‘Governance’ – beyond ‘government’ – involves not only relevant government departments and agencies, but also the private sector and civil society. This chapter explains how a ‘whole-of-society’ approach – involving civil society as well as the public and private sectors in the joint pursuit of common solutions to complex problems – contributes to building effective partnerships and cooperation. A whole-of-society approach embraces both formal and informal institutions in seeking a generalized agreement across society about policy goals and the means to achieve them. This chapter explores four key elements of this approach, each essential in building a solid path towards achieving the sixth Sustainable Development Goal (SDG 6) and the broader pursuits of water, food and climate security.

**Trust and hope** are fundamental building blocks for social cohesion and security. Trust is the ‘lubricant’ needed to ‘grease the wheels’ of the economy, and hope can be the mortar that holds societies together.

**Meaningful participation** and inclusive stakeholder engagement take time but stand to generate trust and hope. Policy and project processes need to adapt to the concerns and potential contribution of different groups. Yet, openness, time and resources invested in the co-creation of a project, a policy or a whole-of-society agreement on an issue will greatly accelerate the desired behaviour change and cross-societal adherence to agreed pursuits.

**Strategic integration** of cross-sectoral and stakeholder concerns involves developing norms, standards and allocation methods that affect water use efficiency and the protection of resources across sectors. Individuals and organizations take decisions affecting the use and protection of water all the time. Strategic decision-making about policies and regulation sets framework conditions that give direction to these every-day decisions. Strategic integration and policy cohesion stand to make integrated water resources management (IWRM) more effective.

**Good governance**, where the ‘good’ includes qualities like transparency, accountability, professionalism and the capacity of public institutions, along with values of fairness, justice and the respect for human rights; and where ‘governance’ implies a recognition that it is not only governments but society as a whole that makes development happen.

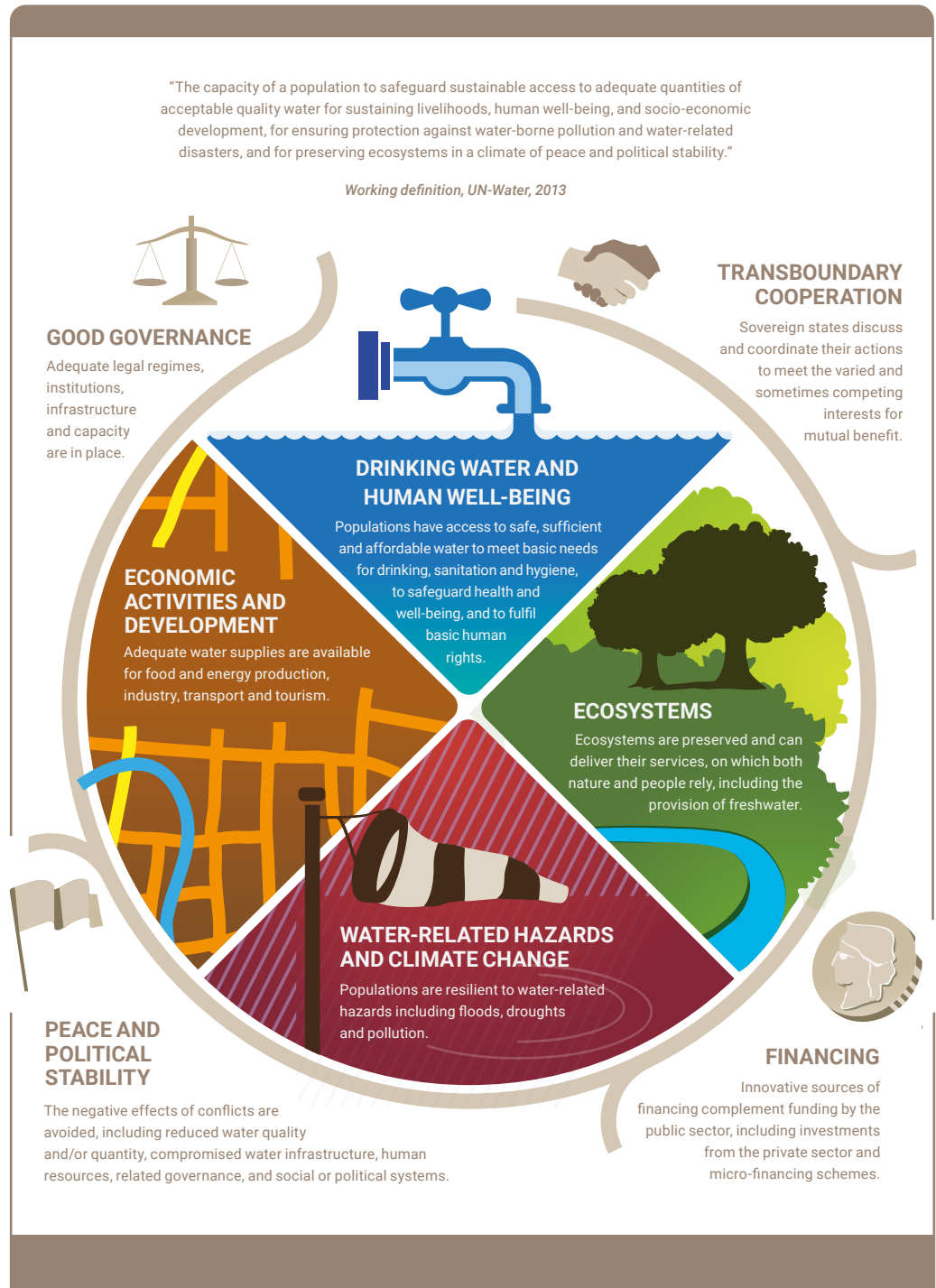
## 13.1 Enhanced cooperation over water, food and climate security

Cooperation and partnerships can manifest as loosely formed networks or people simply working together to address a joint need or goal. These are the motions through which societies build water security, food security, and more recently also climate security, for its populations to thrive. Governments build legitimacy by ensuring conditions that are conducive for people to meet their basic needs like food and water security (Boccaletti, 2021) and broader aspirations in life. Inversely, interfering with people’s livelihood strategies undermines government legitimacy (Tripp, 1989). Over the past few years, uncertainty has unsettled people’s lives and eroded trust in unprecedented ways: people who feel insecure trust others less and are more prone to politically extreme positions (UNDP, 2022).

The provisioning systems that cater for our daily needs are vulnerable to the destructive forces of conflict, distrust and hopelessness. This section highlights the cooperation required to meet the daily needs of humans.

Water security can be understood as *“the capacity of a population to safeguard sustainable access to adequate quantities of acceptable quality water for sustaining livelihoods, human well-being, and socio-economic development, for ensuring protection against water-borne pollution and water-related disasters, and for preserving ecosystems in a climate of peace and political stability”* (UN-Water, 2013a, p. 1). As suggested in Figure 13.1, water security also involves good governance, financing and transboundary cooperation.

**Figure 13.1**  
What is water security?



Source: UN-Water (2013b).

Food security, as defined by the 1996 World Food Summit, exists “...when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences...” (FAO, 2006, p. 1). It relates to food availability, access, utilization, and stability. War, inequality and discrimination obstruct people’s livelihoods and erode their just ‘entitlement’ to food. Where people are destitute, market forces may be involved in pulling food and other necessities out of people’s reach, even to the point of starvation (Sen, 1981).

On top of pre-existing risks to water and food security, the climate crisis is having cascading effects on the stability and functioning of the natural environment, the economy and society. Climate change can act as a risk multiplier, exacerbating underlying vulnerabilities and compounding existing grievances (DPPA, n.d.).

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**A whole-of-society approach embraces both formal and informal institutions in seeking a generalized agreement across society about policy goals and the means to achieve them**

Climate change has already had adverse impacts on water and food provisioning, and roughly half of the world's population experience severe water scarcity for at least some part of the year, due to both climatic and non-climatic drivers (IPCC, 2022). The report *States of Fragility* by the Organisation for the Economic Co-operation and Development (OECD, 2022) finds the world to be grappling with a series of crises. A quarter of the world's population – three quarters of people living in extreme poverty – encounter themselves in fragile contexts.

Peaceful cooperation safeguards water, food and climate security. Water cooperation and diplomacy involve contacts and cooperation between water users and other groups of society (e.g. journalists) as well as multilateral treaty-making and institution-building (Yeganeh and Bakhshandeh, 2022; Klimes et al., 2019). Beyond fortifying integrity and trust, water cooperation also involves the sharing of benefits from water allocation, use and protection.

In water resources management, explicit benefit-sharing to enhance the productivity of shared water resources has been advocated as an alternative to water allocation by water volume (Sadoff and Grey, 2002). Cooperatively exploring options among a variety of benefit streams from the shared use of water resources is also a key strategy for water security (IUCN, 2020). Goods and services (benefits) include electricity from hydropower, disaster risk reduction from flood regulation, increased land productivity from irrigated agriculture, as well as improved access to markets, goods transport and human interaction from navigation across rivers and lakes. Strosser et al. (2017) also point to non-economic benefits like improved environmental stewardship, regional integration and political gains.

Broadly, benefit-sharing can help optimize resource use across economic sectors, stakeholders and countries (UNECE, 2015). Even without formal partnership agreements, humans have traded goods and services during millennia. Trading goods for which water is used in its production is referred to as 'virtual water' trade (Hoekstra, 2003).

Early applications of benefit-sharing frameworks were to resolve the rising competition for water between urban and rural, domestic, industrial, and agricultural uses (Garrick et al., 2019). Moreover, rather than between different sectors or user groups, one may also delve into benefit-sharing within communities. The sharing of benefits would at this level closely relate to the division of labour and control over resources between genders and different social groups. Analysing such practices from a benefit-sharing perspective could help devise alternative divisions of control and labour with potentially more equitable outcomes.

Benefit-sharing, by design (where planned as part of water resources management) or by default (where trade moves virtual water across basins and continents) stands to greatly enhance allocation efficiency. A broader discussion across society can also engage in a meaningful discussion regarding the fairness of the outcomes of benefit-sharing and other development policies.

## 13.2 Who's at the table? On meaningful participation

Who participates (or not), and how, makes all the difference to the outcomes of any partnership or cooperative arrangement (United Nations, 2021). This section highlights efforts to broaden stakeholder participation and the methodologies for meaningful inclusion, mostly at the level of the United Nations, but also at the more critical regional or local level.

The United Nations has recognized – explicitly since the first United Nations Conference on Environment and Development (UNCED), the Earth Summit, in 1992 – that achieving sustainable development requires active participation of all sectors of society. Nine 'Major Groups'<sup>73</sup>

<sup>73</sup> The nine 'Major Groups' comprise: Women, children & youth; indigenous peoples; non-governmental organizations; local authorities; workers and trade unions; business & industry; scientific & technological community; and farmers (Sustainable Development Goals Knowledge Platform, n.d.).



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***With recognition of the roles that women fulfil as leaders and change-makers in water governance, women and men can foster more sustainable resource management partnerships***

of stakeholders were formalized in the Agenda 21, and subsequently expanded to other stakeholders in the deliberations of the High-Level Political Forum (Sustainable Development Goals Knowledge Platform, n.d.).

Bodies like the United Nations Permanent Forum on Indigenous Issues (UNPFII) provide high-level expert advice to the Economic and Social Council related to the economic and social development, culture, environment, education, health and human rights of indigenous communities (UNDESA, n.d.). The Special Rapporteur on the human rights to safe drinking water and sanitation has also strongly endorsed compliance with the recommendations of the UNPFII, in particular regarding indigenous peoples' human rights to safe drinking water and sanitation (Arrojo Agudo, 2022).

Seeing accountability as a cornerstone of the human rights framework and essential for the implementation of the 2030 Agenda, the Sanitation and Water for All partnership has created a Mutual Accountability Mechanism. This tool encourages partners to register commitments that are grounded in global and national plans and to hold each other accountable on their specific, measurable and time-bound actions on achieving SDG 6. The platform also provides an opportunity to collaborate, discuss, learn, reflect and share experiences. In mid-2022, there were 197 government commitments, supported by 89 commitments from civil society organizations, 33 from research and learning, 18 from the private sector, and 59 from external support agencies (SWA, n.d.).

At the local level, on-the-ground research by the International Water Management Institute (IWMI) in the Saptari district of Nepal illustrates the effects of (the lack of) participation and inclusion on the distribution of resources. In this case, the deployment of government-subsidized solar-powered irrigation pumps ignored marginalized and women farmers, who consequently had lower access to subsidies (Shrestha and Uprety, 2021). All partnerships importantly need to recognize and manage gender dynamics in order for outcomes to be effective and equitable.

Despite the acknowledged essential role of women in peacebuilding, conflict management and security (see e.g. landmark resolution 1325 by Security Council in 2000, and subsequent resolutions; UN Women, n.d.),<sup>74</sup> women's role of women in water diplomacy is still underestimated (GWP-Med/GWH, 2020). With recognition of the roles that women fulfil as leaders and change-makers in water governance, women and men can foster more sustainable resource management partnerships (Aguilar Rojas and Iza, 2011; Fauconnier et al., 2018). Initiated by the Stockholm International Water Institute (SIWI) in 2017, 'Women in Water Diplomacy' networks are getting increased visibility (see e.g. the Global Network Forum held in conjunction with the World Water Week, 2022<sup>75</sup>).

The cruciality of cultural sensitivity and local knowledge (Chambers, 1997; Crewe and Harrison, 1998; Banerjee and Duflo, 2011) is recognized in mainstream development work, but where participatory processes go wrong, they can also lead to an unjust and illegitimate exercise of power (Cooke and Kothari, 2001). Whereas multi-stakeholder engagement is lauded as promoting effective governance – enhancing transparency and accountability (Bäckstrand, 2006; Munyua, 2016) – critics suggest that it may produce multiple and sometimes contradicting agendas, resulting in unnecessary confusion and complexity (Nunan et al., 2016).

In sum, the challenge of participation resides in the 'how'. Meaningful participation contributes greatly to partnerships around the joint pursuit of sustainable development. Ill-conceived participatory exercises, however, may at best be a waste of people's time. Development partners need to be serious, honest and careful about participation.

<sup>74</sup> For example, see the landmark resolution 1325 by Security Council in 2000, and subsequent resolutions 1820 (2008), 1888 (2009), 1889 (2009), 1960 (2010), 2106 (2013), 2122 (2013), 2242 (2015), 2467 (2019), and 2493 (2019) (UN Women, n.d.).

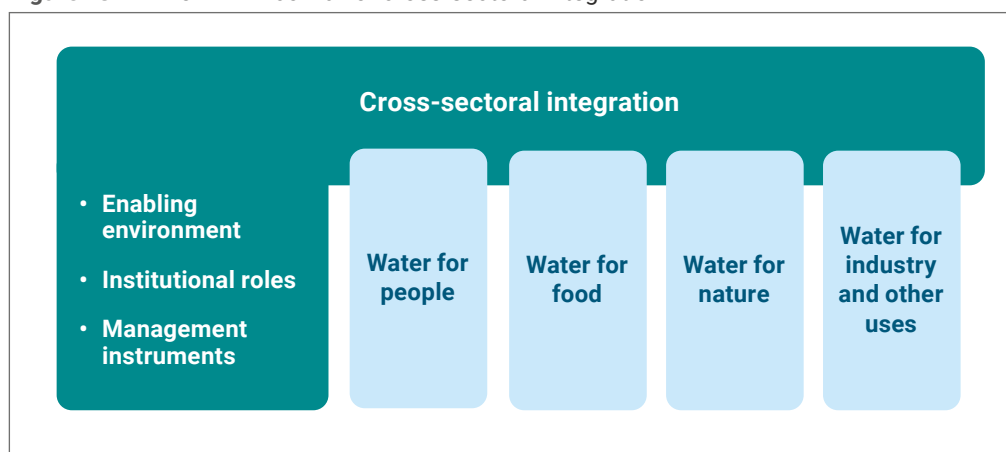
<sup>75</sup> For more information about this event, please see: <https://worldwaterweek.org/event/10314-a-rising-tide-shared-vision-for-women-in-water-diplomacy>.

## 13.3 Strategic integration, cross-sectoral coordination and multi-use water systems

This section delves into the need for strengthened horizontal coordination to avoid that a well-intended measure to address one issue becomes detrimental to (or creates) another, as for example in the case of climate change ‘maladaptation’ (Schipper, 2020). In this respect, UN-Water (2016) has examined how approaching different SDG targets may lead to synergies, but also to counterproductive outcomes.

As agreed to by all countries in the 2030 Sustainable Development Agenda (United Nations, 2015), IWRM remains a primary framework for cross-sectoral coordination to be applied at all levels (SDG Target 6.5). IWRM is as a process that promotes the coordinated development and management of water, land and related resources. Graphically, IWRM can be represented as a ‘comb’ (Figure 13.2), pointing to the importance of the enabling environment, the institutional framework and management instruments *across* the different uses in water-dependent sectors.

**Figure 13.2** The IWRM ‘comb’ for cross-sectoral integration



Source: GWP (2000, fig. 3, p. 29).

Whereas the global call for IWRM implementation was formalized in 1992 (UNCED, 1992), nearly half of the world’s countries still report ‘low’ or ‘medium-low’ levels of IWRM implementation almost 30 years later (UNEP, 2021). Overcoming the institutional fragmentation around the different uses of water remains elusive – though the urgency of the climate crisis may potentially be stimulating progress (UNDP/SIWI/UNICEF, forthcoming).

One way in which cross-sectoral considerations get incorporated in practice is through multi-purpose or multi-use infrastructure. Traditional systems have fared well in this regard (see Section 9.3). For example, the *wewa-ellangava* or tank cascade system was an ancient water harvesting technique traditionally used in dry zones of Sri Lanka to provide water for both agricultural and domestic use. Abandoned during the colonial period, these multi-purpose systems have since been put to use again, some two millennia after their construction (Abeywardana et al., 2018). Local partnerships are important in this context, and household infrastructure investments for self-supply are often in need of greater recognition and support from governments (Sutton and Butterworth, 2021).

Community-level partnerships have been found to better respond to people’s domestic and productive water needs (Chapter 4). Such multiple-use water services have been observed in Africa, Asia and Latin America (Van Koppen et al., 2014), noting that every woman or man, smallholder or pastoralist, is also a domestic water user. Also, where farmers autonomously develop irrigation and have an entrepreneurial mindset to invest their own resources, they can innovate to improve productivity and reach new markets (Izzi et al., 2021). Moving from a single use to a multi-purpose system may only require low incremental costs but stands to generate high incremental benefits (Winrock International, 2007). For example, increasing service levels beyond domestic uses enables productive uses near people’s homes and promotes nutrition and food security (Vinca et al., 2021; Willaarts et al., 2021).

## 13.4 Regulation and public–private partnerships

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In relation to water and sanitation services provision, the role of regulation has become more prominent with the separation of roles induced by the privatization and remunicipalization of services (Gerlach and Franceys, 2010; Kjellén, 2006). Mandates and roles relating to services provision and to infrastructure asset ownership and regulation are increasingly separated and carried out by different actors (PPP-LRC, 2020; CPI, 2022). The partner constellations vary, but if the formal private sector plays a key role they are often referred to as public–private partnerships (PPPs).

Public authorities, acting on behalf of the state, in principle determine whether and how to bring private operators in to deliver water and sanitation services. The authorities retain their sovereign duties for ensuring the progressive fulfilment of the human rights to safe drinking water and sanitation. Financiers may also induce governments to commercialize or delegate water supply services to the private sector (Kjellén, 2006). *“Simultaneously, the private sector at large has a responsibility in the fulfilment of the rights, and can also violate the rights through impacts from industrial activities”* (Heller et al., 2020, p. 13). In the report of the Special Rapporteur on the topic of human rights and the privatization of water and sanitation services (UNGA, 2020), many recommendations were given to states, relating to transparency, accountability and enforcement mechanisms, as well as the normative contents of legislation and contract obligations.

To be successful, PPPs need to build upon cooperation that is beneficial to all stakeholders; they need to serve the public interest while providing a decent return to the service provider. Both private sector and public sector operations are more effective in countries with clear, predictable and stable legislative frameworks, as these allow long-term investment to be supported with confidence and receive a reasonable return (BEIS, 2022). Conducive regulatory arrangements are, however, not always in place. In the case of the New Cairo Wastewater Treatment Plant (Box 13.1), a central PPP unit was created to support project delivery (Salvador et al., 2016).

Further, there is an important difference between situations where private services providers are involved ‘by design’ and situation where involvement happens informally ‘by default’ as a community response to the lack of formal services provision (Kjellén, 2006; Kjellén and McGranahan, 2006). Research suggests that pro-poor regulatory outcomes have been constrained by a limited understanding of alternative providers (Gerlach and Franceys, 2010). The different prices charged by informal water vendors (by necessity charging the full cost of the service) and public providers (at times even delivering services below the cost of water production, typically to the wealthier segments of the population) explain why the poor pay more for water (Collignon and Vézina, 2000; UNDP, 2006). Furthermore, poorly designed subsidies can generate perverse incentives for service providers (Andres et al., 2019). Addressing such inequalities and perverse subsidies would require a whole-of-society approach to challenge the business models and interests vested in maintaining the status quo.

A World Bank review of utility reforms in Africa (Heymans et al., 2016) found several cases with good water services delivered across the population in large, poor and rapidly growing cities in arid climates, like Ouagadougou and Niamey, as well as in countries with low governance effectiveness. Exploring what *“allowed or enabled”* (p. xiii) the turnaround of underperforming utilities, it was found in all five cases studied that progress *“started with improvements in the political economy of the sector and utility serving the city”* (p. xiii). Both local and international partnerships are of importance for enabling these game changers: whereas the political and economic conditions and commitments setting these cities on the path to reform cannot be created by outsiders, external support agencies have a critical role to play with financing and technical assistance.



## 13.5 Good governance: a whole-of-society partnership approach

### Box 13.1 Public–private partnership on New Cairo Wastewater Treatment Plant

Establishing good governance arrangements was essential to the public–private partnership (PPP) that created the award-winning New Cairo Wastewater Treatment Plant in Egypt. This plant has the capacity to serve over one million residents and reuses wastewater to increase drinking water supply, reduce costs and improve environmental quality.

When the project was initiated, Egypt did not have a specific law to regulate PPPs, so the Ministry of Finance decided to establish the PPP Central Unit to promote the involvement of private companies (Salvador et al., 2016). This Unit oversees the study, application, implementation and coordination with Ministries to ensure that project proposals are supported by sound analysis and necessary budget approvals, and that partners are selected through fair competition (PPP-LRC, 2021).

*Contributed by Aquafed.*

Good governance embraces a range of principles, like transparency, the rule of law, respect for human rights, and commitment to equality, peace and security. It involves a range of institutions, management instruments and approaches for their implementation (WWAP, 2019; United Nations, 2021; OECD, 2015). The governance framework relates to the full chain of principles and instruments through to the actual policy implementation (Pretorius, 2003; Ménard et al., 2018). Indeed, the elements of a governance framework are all interrelated, and are ideally formed ‘in partnership’ with the whole population.

The whole-of-society approach has been proposed to foster meaningful participation for the 2030 Agenda (Cázarez-Grageda, 2018), and the *OECD Public Integrity Handbook* (OECD, 2020) asserts that a whole-of-society approach enables individuals, civil society and companies to interact with public officials, play a critical role in setting the public agenda and influence public decisions.

In a similar manner, water pollution may be more effectively addressed by way of a common understanding of the need for improved water quality. The global review of Environmental Rule of Law (UNEP, 2019) noted that, too often, implementation of environment laws falls far short of what is required to address environmental challenges. To address this shortcoming, participatory monitoring and public disclosure of information can help actors across society and the economy to understand their own role in avoiding pollution and environmental degradation. With a whole-of-society agreement, an industry may become more motivated to invest in clean technology. A broad-based understanding and motivation across society, underpinned by the necessary regulation and a credible threat of enforcement, can help further progress towards cleaner and more sustainable modes of production and consumption.

In 2017, the United Nations Environment Assembly decided to address water pollution to protect and restore water-related ecosystems. This spurred the formation of the World Water Quality Alliance (UNEP, n.d.) as an open community of practice with several workstreams currently under implementation. Among the workstreams, the Social Engagement Platform<sup>76</sup> seeks to promote transparent, multi-stakeholder processes for water management to bridge the gap between national-level policy, and governance and implementation on the ground.

Developing policy goals in a participatory manner – even if the process takes time – accelerates implementation. This is because an inclusive policy process helps galvanize the necessary whole-of-society agreement and support for the inclusively formulated goals, which then greatly aids the policy implementation and realization of development objectives.

***If you want to go fast, go alone.***

***If you want to go far, go together.***

<sup>76</sup> For more information, please see: [www.unep.org/explore-topics/water/what-we-do/world-water-quality-alliance-wwqa-partnership-effort/social](http://www.unep.org/explore-topics/water/what-we-do/world-water-quality-alliance-wwqa-partnership-effort/social).

## References

- Abyewardana, N., Bebermeier, W. and Schütt, B. 2018. Ancient water management and governance in the dry zone of Sri Lanka until abandonment, and the influence of colonial politics during reclamation. *Water*, Vol. 10, No. 12, Article 1746. doi.org/10.3390/w10121746.
- Aguilar Rojas, G. and Iza, A. 2011. *Governance of Shared Waters: Legal and Institutional Issues*. Gland, Switzerland/Bonn, Germany, International Union for Conservation of Nature (IUCN)/IUCN Environmental Law Centre. portals.iucn.org/library/sites/library/files/documents/EPLP-058-rev-En.pdf.
- Andres, L. A., Thibert, M., Lombana Cordoba, C., Danilenko, A. V., Joseph, G. and Borja-Vega, C. 2019. *Doing More with Less: Smarter Subsidies for Water Supply and Sanitation*. Washington, DC, World Bank. openknowledge.worldbank.org/handle/10986/32277.
- Arrojo Agudo, P. 2022. *Human Rights to Safe Drinking Water and Sanitation of Indigenous Peoples: State of Affairs and Lessons from Ancestral Cultures*. Report of the Special Rapporteur on the human rights to safe drinking water and sanitation. A/HRC/51/24. www.ohchr.org/sites/default/files/documents/issues/water/2022-11-04/A-HRC-51-24-Friendly-version-EN.pdf.
- Bäckstrand, K. 2006. Multi-stakeholder partnerships for sustainable development: Rethinking legitimacy, accountability and effectiveness. *European Environment*, Vol. 16, No. 5, pp. 290–306. doi.org/10.1002/eet.425.
- Banerjee, A. V. and Duflo, E. 2011. *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty*. New York, PublicAffairs.
- BEIS (Department for Business, Energy and Industrial Strategy). 2022. *Economic Regulation Policy Paper*. Government of the United Kingdom, Department for Business, Energy and Industrial Strategy. assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/1051261/economic-regulation-policy-paper.pdf.
- Boccaletti, G. 2021. *Water: A Biography*. New York, Pantheon Books.
- Cáez-Grageda, K. 2018. *The Whole of Society Approach: Levels of Engagement and Meaningful Participation of Different Stakeholders in the Review Process of the 2030 Agenda*. Bonn, Germany, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). www.partners-for-review.de/wp-content/uploads/2018/11/Whole-of-Society-P4R-Discussion-Paper-Oct.-2018.pdf.
- Chambers, R. 1997. *Whose Reality Counts? Putting the First Last*. London, Intermediate Technology Publications.
- Collignon, B. and Vézina, M. 2000. *Independent Water and Sanitation Providers in African Cities: Full Report of a Ten-Country Study*. Washington, DC, World Bank. documents1.worldbank.org/curated/en/327341468280743783/pdf/multi0page.pdf.
- Cooke, B. and Kothari, U. (eds.). 2001. *Participation. The New Tyranny?* London, Zed Books.
- CPI (Centre for Public Impact). 2022. *Unlocking Public Service Improvement through more Collaborative Regulatory Practice*. Insight paper. www.centreforpublicimpact.org/assets/documents/GMCA\_Insight\_Paper\_Regulation.pdf.
- Crewe, E. and Harrison, E. 1998. *Whose Development? An Ethnography of Aid*. London, Zed Books.
- DPPA (Department of Political and Peacebuilding Affairs). n.d. *Addressing the Impact of Climate Change on Peace and Security*. DPPA website. dppa.un.org/en/climate-peace-security.
- FAO (Food and Agriculture Organization of the United Nations). 2006. *Food Security*. Policy Brief. www.fao.org/fileadmin/templates/faotaly/documents/pdf/pdf\_Food\_Security\_Cocept\_Note.pdf.
- Fauconnier, I., Jenniskens, A., Perry, P., Fanaian, S., Sen, S., Sinha, V. and Witmer, L. 2018. *Women as Change-Makers in the Governance of Shared Waters*. Gland, Switzerland, International Union for Conservation of Nature (IUCN). portals.iucn.org/library/sites/library/files/documents/2018-036-En.pdf.
- FuturENVIRO. n.d. Two Spanish case studies ranked in the UN Top 20 for public-private partnerships and post-COVID reconstruction. FuturENVIRO website.
- Garrick, D., De Stefano, L., Turley, L., Jorgensen, I., Aguilar-Barajas, I., Schreiner, B., De Souza Leão, R., O'Donnell, E. and Horne, A. 2019. *Dividing the Water, Sharing the Benefits: Lessons from Rural-to-Urban Water Reallocation*. Washington, DC, World Bank Group. documents1.worldbank.org/curated/en/383181561530825618/pdf/Dividing-the-Water-Sharing-the-Benefits-Lessons-from-Rural-to-Urban-Water-Reallocation.pdf.
- Gerlach, E. and Franceys, R. 2010. Regulating water services for all in developing economies. *World Development*, Vol. 38, No. 9, pp. 1229–1240. doi.org/10.1016/j.worlddev.2010.02.006.
- GWP (Global Water Partnership). 2000. *Integrated Water Resources Management*. TAC Background Papers No. 4. Stockholm, GWP. www.gwp.org/globalassets/global/toolbox/publications/background-papers/04-integrated-water-resources-management-2000-english.pdf.
- GWP-Med/GWH (Global Water Partnership-Mediterranean/Geneva Water Hub). 2020. *Empowering Women in Water Diplomacy in the Middle East and North Africa: A Comparative Study of Egypt, Jordan, Lebanon, Morocco and Palestine*. www.gwp.org/globalassets/global/gwp-med-files/list-of-programmes/women-in-water-diplomacy/www-comparative-study.pdf.
- Heller, L., De Albuquerque, C., Roaf, V. and Jiménez, A. 2020. Overview of 12 years of Special Rapporteurs on the human rights to water and sanitation: Looking forward to future challenges. *Water*, Vol 12, No. 9, Article 2598. doi.org/10.3390/w12092598.
- Heymans, C., Eberhard, R., Ehrhardt, D. and Riley, S. 2016. *Providing Water to Poor People in African Cities Effectively: Lessons from Utility Reforms*. Washington, DC, World Bank. openknowledge.worldbank.org/handle/10986/25115?locale-attribute=en.
- Hoekstra, A. Y. 2003. *Virtual Water Trade: Proceedings of the International Expert Meeting on Virtual Water Trade*. Research Report Series No. 12. Delft, The Netherlands, Institute for Water Education (IHE DELFT). www.waterfootprint.org/media/downloads/Report12.pdf.
- IPCC (Intergovernmental Panel on Climate Change). 2022. *Climate Change 2022: Impacts, Adaptation and Vulnerability*. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Summary for Policymakers. Cambridge, UK/New York, Cambridge University Press. www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC\_AR6\_WGII\_SummaryForPolicymakers.pdf.
- IUCN (International Union for Conservation of Nature and Natural Resources). 2020. *Sharing the Benefits from River Basin Management: From Theory to Practice*. Gland, Switzerland, IUCN. www.iucn.org/sites/default/files/content/documents/2021/iucn\_benefit\_sharing\_river\_basin\_management\_final\_march2021\_vs2.pdf.
- Izzi, G., Denison, J. and Veldwisch, G. J. (eds.). 2021. *The Farmer-Led Irrigation Development Guide: A What, Why and How-To for Intervention Design*. Washington, DC, World Bank. pubdocs.worldbank.org/en/751751616427201865/FLID-Guide-March-2021-Final.pdf.

- Kjellén, M. 2006. *From Public Pipes to Private Hands: Water Access and Distribution in Dar es Salaam, Tanzania*. PhD Thesis. Stockholm, Stockholm University, Department of Human Geography.
- Kjellén, M. and McGranahan, G. 2006. *Informal Water Vendors and the Urban Poor*. Human Settlements Discussion Paper Series. London, International Institute for Environment and Development (IIED). [www.iied.org/sites/default/files/pdfs/migrate/10529IIED.pdf](http://www.iied.org/sites/default/files/pdfs/migrate/10529IIED.pdf).
- Klimes, M., Michel, D., Yaari, E. and Restiani, P. 2019. Water diplomacy: The intersect of science, policy and practice. *Journal of Hydrology*, Vol. 575, pp. 1362–1370. doi.org/10.1016/j.jhydrol.2019.02.049.
- Ménard, C., Jimenez, A. & Tropp, H. 2018. Addressing the policy-implementation gaps in water services: The key role of meso-institutions. *Water International*, Vol. 43, pp. 13–33. doi.org/10.1080/02508060.2017.1405696.
- Munyua, A. W. 2016. Exploring the multi-stakeholder experience in Kenya. *Journal of Cyber Policy*, Vol. 1, No. 2, pp. 206–221. doi.org/10.1080/23738871.2016.1249898.
- Nunan, F., Kairu, A., Kairo, J. G. and Wanjiru, C. 2016. *Achieving Multi-Level, Integrated Governance of Coastal Ecosystems in Kenya*. Coastal Ecosystem Services in East Africa (CESEA) Research Brief 1. Birmingham, UK, University of Birmingham, International Development Department. [assets.publishing.service.gov.uk/media/5ad76b5a40f0b617dca7160c/MLG\\_coastal\\_brief\\_Kenya\\_Nov\\_2016\\_final\\_0\\_0.pdf](https://assets.publishing.service.gov.uk/media/5ad76b5a40f0b617dca7160c/MLG_coastal_brief_Kenya_Nov_2016_final_0_0.pdf).
- OECD (Organisation for Economic Co-operation and Development). 2015. *OECD Principles on Water Governance*. [www.oecd.org/cfe/regionaldevelopment/OECD-Principles-on-Water-Governance-en.pdf](http://www.oecd.org/cfe/regionaldevelopment/OECD-Principles-on-Water-Governance-en.pdf).
- \_\_\_\_\_. 2020. *OECD Public Integrity Handbook*. Paris, OECD Publishing. doi.org/10.1787/ac8ed8e8-en.
- \_\_\_\_\_. 2022. *States of Fragility 2022*. Paris, OECD Publishing. doi.org/10.1787/c7fedf5e-en.
- PPP-LRC (Public-Private Partnership Legal Resource Center). 2020. *Water Regulation: Separate Regulatory Body with Licensing Regime*. PPP-LRC website.
- \_\_\_\_\_. 2021. *PPP Unit Egypt*. PPP-LRC website. [ppp.worldbank.org/public-private-partnership/library/ppp-unit-egypt](http://ppp.worldbank.org/public-private-partnership/library/ppp-unit-egypt).
- Pretorius, L. 2003. Six contributions to understanding ‘gaps between policy and implementation’: An overview and comments. *Politeia*, Vol. 22, No. 1, pp. 6–21. [journals.co.za/doi/pdf/10.10520/EJC88083](https://journals.co.za/doi/pdf/10.10520/EJC88083).
- Sadoff, C. W. and Grey, D. 2002. Beyond the river: The benefits of cooperation on international rivers. *Water Policy*, Vol. 4, No. 5, pp. 389–403. doi.org/10.1016/S1366-7017(02)00035-1.
- Salvador, J., Trillas, F., Ricart, J. E. & Rodríguez Planas, M. 2016. *New Cairo Wastewater Treatment Plant (Egypt)*. IESE Business School of Navarra/PPP for Cities. [unece.org/fileadmin/DAM/ceci/documents/2016/PPP/PPP\\_for\\_Cities-Barcelona/Case\\_study\\_AQUALIA\\_WW\\_Egypt.pdf](http://unece.org/fileadmin/DAM/ceci/documents/2016/PPP/PPP_for_Cities-Barcelona/Case_study_AQUALIA_WW_Egypt.pdf).
- Schipper, E. L. F. 2020. Maladaptation: When adaptation to climate change goes very wrong. *One Earth*, Vol. 3, No. 4, pp. 409–414. doi.org/10.1016/j.oneear.2020.09.014.
- Sen, A. 1981. *Poverty and Famines: An Essay on Entitlement and Deprivation*. Oxford, UK, Clarendon Press.
- Shrestha, S. and Uprety, L. 2021. *Solar Irrigation in Nepal: A Situation Analysis Report*. Colombo, International Water Management Institute (IWMI). [iwmi.org/wp-content/uploads/sites/43/2021/08/NEPAL-SITUATION-ANALYSIS-REPORT.pdf](http://iwmi.org/wp-content/uploads/sites/43/2021/08/NEPAL-SITUATION-ANALYSIS-REPORT.pdf).
- Strosser, P., De Paoli, G. and Efimova, T. 2017. *The Potential Benefits of Transboundary Co-operation in Georgia and Azerbaijan: Kura River Basin*. OECD Environment Working Paper No 114. Paris, OECD Publishing. doi.org/10.1787/a14da8ec-en.
- Sustainable Development Goals Knowledge Platform. n.d. *Major Groups and Other Stakeholders (mGoS)*. Sustainable Development Goals Knowledge Platform website. [sustainabledevelopment.un.org/mgos](http://sustainabledevelopment.un.org/mgos).
- Sutton, S. and Butterworth, J. 2021. *Self-Supply: Filling the Gaps in Public Water Supply Provision*. Rugby, UK, Practical Action Publishing.
- SWA (Sanitation and Water for All). n.d. *Mutual Accountability Mechanism*. Sanitation and Water for All website. [www.sanitationandwaterforall.org/about/our-work/mutual-accountability-mechanism](http://www.sanitationandwaterforall.org/about/our-work/mutual-accountability-mechanism).
- Tripp, A. M. 1989. *Defending the Right to Subsist: The State vs. the Urban Informal Economy in Tanzania*. Wider Working Papers. Helsinki, World Institute for Development Economics Research (UNU-WIDER). [www.wider.unu.edu/sites/default/files/WP59.pdf](http://www.wider.unu.edu/sites/default/files/WP59.pdf).
- UN-Water. 2013a. *Water Security & the Global Water Agenda*. UN-Water Analytical Brief. Hamilton, Ont., Institute for Water, Environment and Health (UNU-INWEH). [www.unwater.org/sites/default/files/app/uploads/2017/05/analytical\\_brief\\_oct2013\\_web.pdf](http://www.unwater.org/sites/default/files/app/uploads/2017/05/analytical_brief_oct2013_web.pdf).
- \_\_\_\_\_. 2013b. *What is Water Security? Infographic*. UN-WATER website. [www.unwater.org/publications/what-water-security-infographic](http://www.unwater.org/publications/what-water-security-infographic).
- \_\_\_\_\_. 2016. *Water and Sanitation Interlinkages across the 2030 Agenda for Sustainable Development*. Geneva, UN-Water. [www.unwater.org/sites/default/files/app/uploads/2016/08/Water-and-Sanitation-Interlinkages.pdf](http://www.unwater.org/sites/default/files/app/uploads/2016/08/Water-and-Sanitation-Interlinkages.pdf).
- UN Women. n.d. *Global Norms and Standards: Peace and Security*. UN Women webpage. [www.unwomen.org/en/what-we-do/peace-and-security/global-norms-and-standards#\\_WPS\\_resolutions](http://www.unwomen.org/en/what-we-do/peace-and-security/global-norms-and-standards#_WPS_resolutions).
- UNCED (United Nations Conference on Environment and Development). 1992. *Report of the United Nations Conference on Environment and Development*. Rio de Janeiro, Brazil, 3–14 June 1992. [www.un.org/esa/dsd/agenda21/Agenda%2021.pdf](http://www.un.org/esa/dsd/agenda21/Agenda%2021.pdf).
- UNDESA (United Nations Department of Economic and Social Affairs). n.d. *Indigenous Peoples – Permanent Forum*. UNDESA website. [www.un.org/development/desa/indigenouspeoples/unpfii-sessions-2.html](http://www.un.org/development/desa/indigenouspeoples/unpfii-sessions-2.html).
- UNDP (United Nations Development Programme). 2006. *Human Development Report 2006 – Beyond Scarcity: Power, Poverty and the Global Water Crisis*. New York, UNDP. <https://hdr.undp.org/content/human-development-report-2006>.
- \_\_\_\_\_. 2022. *Human Development Report 2021/2022 – Uncertain Times, Unsettled Lives: Shaping our Future in a Transforming World*. New York, UNDP. [www.undp.org/egypt/publications/human-development-report-2021-22-uncertain-times-unsettled-lives-shaping-our-future-transforming-world](http://www.undp.org/egypt/publications/human-development-report-2021-22-uncertain-times-unsettled-lives-shaping-our-future-transforming-world).
- UNDP/SIWI/UNICEF (United Nations Development Programme/Stockholm International Water Institute/United Nations Children’s Fund). Forthcoming. *Cooperation Opportunities for Improved Integration Across SDG6*.
- UNECE (United Nations Economic Commission for Europe). 2015. *Policy Guidance Note on the Benefits of Transboundary Water Cooperation: Identification, Assessment and Communication*. Geneva, UNECE. [unece.org/fileadmin/DAM/env/water/publications/WAT\\_Benefits\\_of\\_Transboundary\\_Cooperation/ECE\\_MP.WAT\\_47\\_PolicyGuidanceNote\\_BenefitsCooperation\\_1522750\\_E\\_pdf\\_web.pdf](http://unece.org/fileadmin/DAM/env/water/publications/WAT_Benefits_of_Transboundary_Cooperation/ECE_MP.WAT_47_PolicyGuidanceNote_BenefitsCooperation_1522750_E_pdf_web.pdf).
- UNEP (United Nations Environmental Programme). 2019. *Environmental Rule of Law: First Global Report*. Nairobi, UNEP. [www.unep.org/resources/assessment/environmental-rule-law-first-global-report](http://www.unep.org/resources/assessment/environmental-rule-law-first-global-report).
- \_\_\_\_\_. 2021. *Progress on Integrated Water Resources Management: Tracking SDG 6 Series – Global Indicator 6.5.1 Updates and Acceleration Needs*. Nairobi, UNEP. [www.unwater.org/publications/progress-on-integrated-water-resources-management-651-2021-update/](http://www.unwater.org/publications/progress-on-integrated-water-resources-management-651-2021-update/).

- \_\_\_\_\_. n.d. *World Water Quality Alliance (WWQA) – A Partnership Effort*. UNEP website. [www.unep.org/explore-topics/water/what-we-do/improving-and-assessing-world-water-quality-partnership-effort](http://www.unep.org/explore-topics/water/what-we-do/improving-and-assessing-world-water-quality-partnership-effort).
- UNGA (General Assembly of the United Nations). 2020. *Human Rights and the Privatization of Water and Sanitation Service: Note by the Secretary-General*. Seventy-fifth session. A/75/208. [documents-dds-ny.un.org/doc/UNDOC/GEN/N20/189/97/PDF/N2018997.pdf?OpenElement](https://documents-dds-ny.un.org/doc/UNDOC/GEN/N20/189/97/PDF/N2018997.pdf?OpenElement).
- United Nations. 2015. *Transforming Our World: the 2030 Agenda for Sustainable Development*. Resolution adopted by the General Assembly on 25 September 2015. A/RES/70/1. New York, United Nations. [documents-dds-ny.un.org/doc/UNDOC/GEN/N15/291/89/PDF/N1529189.pdf?OpenElement](https://documents-dds-ny.un.org/doc/UNDOC/GEN/N15/291/89/PDF/N1529189.pdf?OpenElement).
- \_\_\_\_\_. 2021. *The United Nations World Water Development Report 2021: Valuing Water*. Paris, UNESCO. [unesdoc.unesco.org/ark:/48223/pf0000375724](https://unesdoc.unesco.org/ark:/48223/pf0000375724).
- Van Koppen, B., Smits, S., Rumbaitis del Rio, C. and Thomas, J. B. 2014. *Scaling up Multiple Use Water Services: Accountability in the Water Sector*. Rugby, UK, Practical Action Publishing. [www.iwmi.cgiar.org/Publications/Books/PDF/scaling\\_upmus\\_accountability\\_in\\_water\\_sector.pdf](http://www.iwmi.cgiar.org/Publications/Books/PDF/scaling_upmus_accountability_in_water_sector.pdf).
- Vinca, A., Parkinson, S., Riahi, K., Byers, E., Siddiqi, A., Muhammad, A., Ilyas, A., Yogeswaran, N., Willaarts, B., Magnuszewski, P., Awais, M., Rowe, A. and Djilali, N. 2021. Transboundary cooperation a potential route to sustainable development in the Indus basin. *Nature Sustainability*, Vol. 4, pp. 331–339. [doi.org/10.1038/s41893-020-00654-7](https://doi.org/10.1038/s41893-020-00654-7).
- Willaarts, B., Vinca, A., Parkinson, S., Riahi, K., Byers, E. and Heyl, A. 2021. *Cooperation and Joint Investments are Key to Sustainable Development in the Indus Basin*. IIASA Policy Brief No. 28. Laxenburg, Austria, International Institute for Applied Systems Analysis (IIASA). [iiasa.ac.at/sites/default/files/2021-09/IIASA%20POLICY%20BRIEF%20%2328.pdf](https://iiasa.ac.at/sites/default/files/2021-09/IIASA%20POLICY%20BRIEF%20%2328.pdf).
- Winrock International. 2007. *Multiple Use Water Services for the Poor: Assessing the State of Knowledge*. Arlington, Va., Winrock International. [winrock.org/wp-content/uploads/2016/02/Multiple-Use-Water-Services-for-the-Poor-Assessing-the-State-of-Knowledge.pdf](http://winrock.org/wp-content/uploads/2016/02/Multiple-Use-Water-Services-for-the-Poor-Assessing-the-State-of-Knowledge.pdf).
- WWAP (UNESCO World Water Assessment Programme). 2019. *The United Nations World Water Development Report 2019: Leaving No One Behind*. Paris, UNESCO. [unesdoc.unesco.org/ark:/48223/pf0000367306](https://unesdoc.unesco.org/ark:/48223/pf0000367306).
- WWW (World Water Week). 2022. *A Rising Tide: Shared Vision for Women in Water Diplomacy*. Online & On-site session, 30 August 2022. [worldwaterweek.org/event/10314-a-rising-tide-shared-vision-for-women-in-water-diplomacy](https://worldwaterweek.org/event/10314-a-rising-tide-shared-vision-for-women-in-water-diplomacy).
- Yeganeh, Y. and Bakhshandeh, E. 2022. Iran's model of water diplomacy to promote cooperation and prevent conflict over transboundary rivers in Southwest Asia. *World Affairs*, Vol. 185, No. 2. [doi.org/10.1177/00438200221081210](https://doi.org/10.1177/00438200221081210).