



6. Partnerships, property rights and contracts for more water justice

Key takeaways

Partnerships between government and business should be more symbiotic. Short-termism and financialisation plague some water and non-water markets, leading to the inequitable allocation of water between users. A new approach to partnerships, especially between the public and private sectors, must be based on a new approach to risk: where risks are shared between actors, the rewards should be shared as well.

Governments can embed conditionality in (new or renewed) water permits, contracts, and property rights – while addressing the challenge of dealing with permanent property rights and permits that cover twenty years or more and affect adaptive governance – to enable equitable and affordable access, and deliver a more water-secure world. Conditionalities can be used to, among other things: improve water conservation, the efficiency of water use, and how much water should be returned to ecosystems and the hydrological cycle and

in what quality; direct investment for water-intensive agriculture and industries towards regions that are less water stressed; reinvest profits in productive business activities, such as R&D and innovation around water; or reinvest profits into watershed and water-basin conservation programs so the source is governed sustainably.

Water is being overallocated and misallocated, which means it must be re-allocated. In most countries and regions, the Earth system boundary for surface water has been breached, while minimum needs (water, food, energy) have not yet been met. To get back within safe and just water boundaries, the challenge is to reduce or make more efficient net water consumption and reallocate water more equitably between uses and users, from those who use too much to those who do not have enough. Rethinking the terms and conditions of partnerships is a key leverage point.

A common good framing pays attention to the ‘how’ as much as the ‘what’, especially to how different actors in the system partner and collaborate to achieve shared missions. Innovating to achieve the five mission areas is a collective process and requires the right kinds of partnerships. Mobilising the finance to drive the mission areas also requires the right kinds of partnerships. This chapter investigates how to design partnerships between government, business, utilities, and other economic actors to deliver on the five mission areas.

Every day, thousands of new partnerships and projects are designed worldwide that directly or indirectly require water. Food, energy, industry and mining need large volumes of water. Many contracts that define the terms of the partnerships do not mention water or take for granted that they will receive the water necessary for conducting these projects.

National and international projects involving large sums of money are concretised in and protected by contracts between different actors (private-private, public-private, public-public, investor-state). Importantly, states have sovereignty over the blue water that flows through their borders, the land from which green water evaporates, and the green water that falls within their territory. This means that governments can play a vital role in re-allocating water between actors in the public interest.

However, two legal issues constrain states’ ability to control, allocate, and reallocate water. First, companies have protection against state interference through bilateral, multilateral, and plurilateral investment treaties that protect foreign investors. Second, water rights were historically accessed through land ownership, purchase, and water rights granted by the state.

Despite these challenges, there are ways to re-allocate water from those who use too much to those who need it. To do so, governments need to change how they shape markets and how they partner with other economic actors. There must be a redefinition of the relationship and partnership between government, business, utilities, labour organisations, Indigenous groups, and other rights-holders and stakeholders in water-related issues. There must be a shift from partnerships that lead to inequitable, inefficient, and unsustainable water use to symbiotic partnerships that have equity, efficiency, and

environmental sustainability baked in from the start.

Designing these partnerships to become more symbiotic is of particular importance today because the struggle to govern water in the public interest is intensifying, with increasing water demand and decreasing availability exacerbated by trends such as climate change, demographic shifts, and increasing and changing patterns of consumption (Boretti & Rosa, 2019; UN Water, 2021). Already, water-use boundaries have been crossed at local to global levels, indicating that water resources have been over-allocated.

To get back within safe and just water boundaries, the challenge is not only to reduce or make more-efficient water consumption, but also to reallocate water more equitably between users, from those who use too much to those who do not have enough.

This chapter examines what it means to design more symbiotic water partnerships based on a new set of principles. It also makes the case for governments to shape water permits, contracts, and property rights, so that we transform sectors and industries to align with water missions and other public policy objectives.

Problems with water partnerships today

Many water partnerships set a course towards a water-scarce future rather than delivering public value by contributing to the sustainable and just use of water.

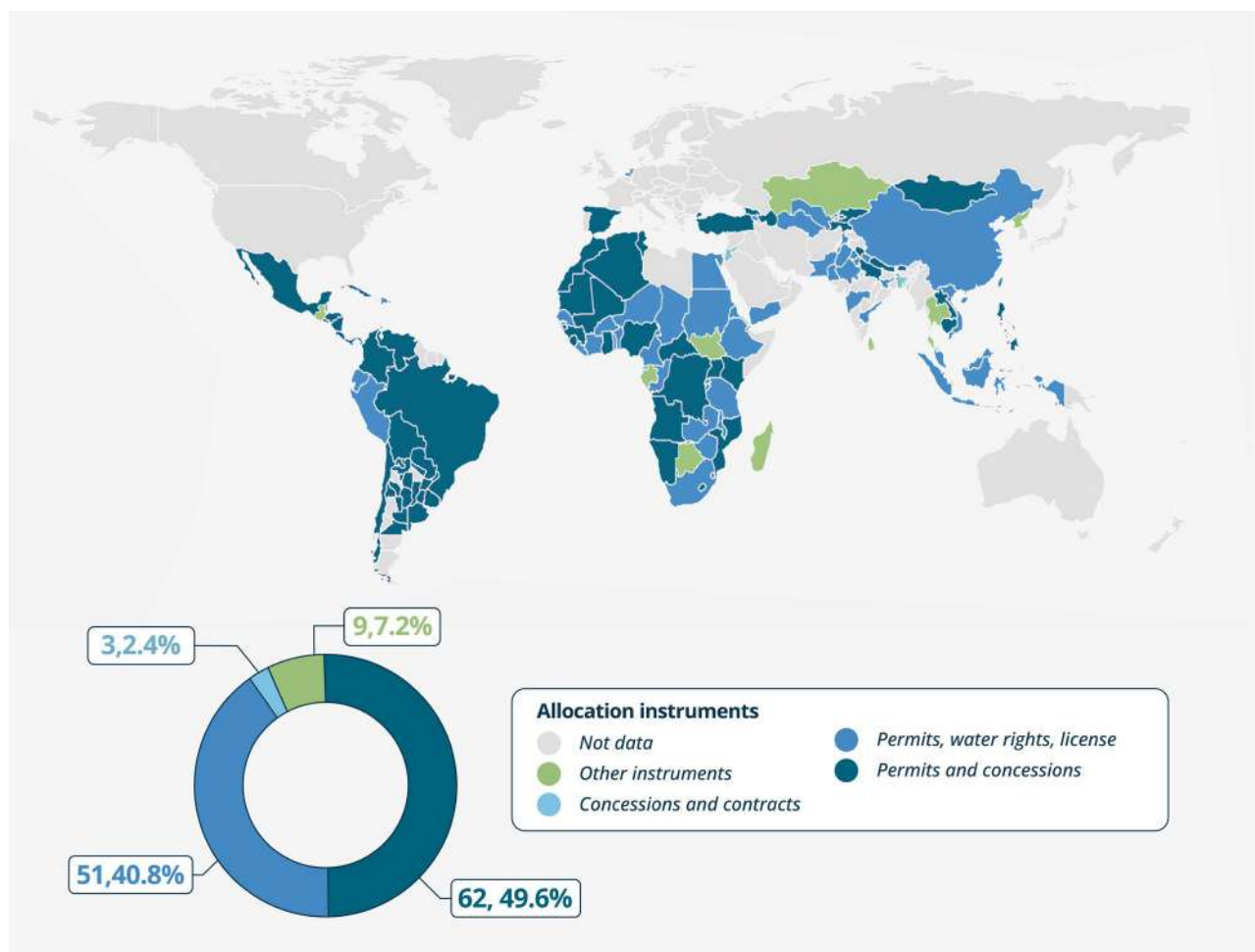
Broadly, there are five ways that states allocate water:

- 1. Existing water use:** Many countries recognise historical water use, which continues under new and/or postcolonial legislation (Bosch et al., 2021). However, many Indigenous Peoples lost rights to water during colonial/post-colonial periods and are fighting to reinstate them (Wilson et al., 2021). Historical water use can resemble property rights (quasi-property rights) when these have been institutionalised over long periods, even at the expense of Indigenous People’s historical rights (Bosch and Gupta, 2023).

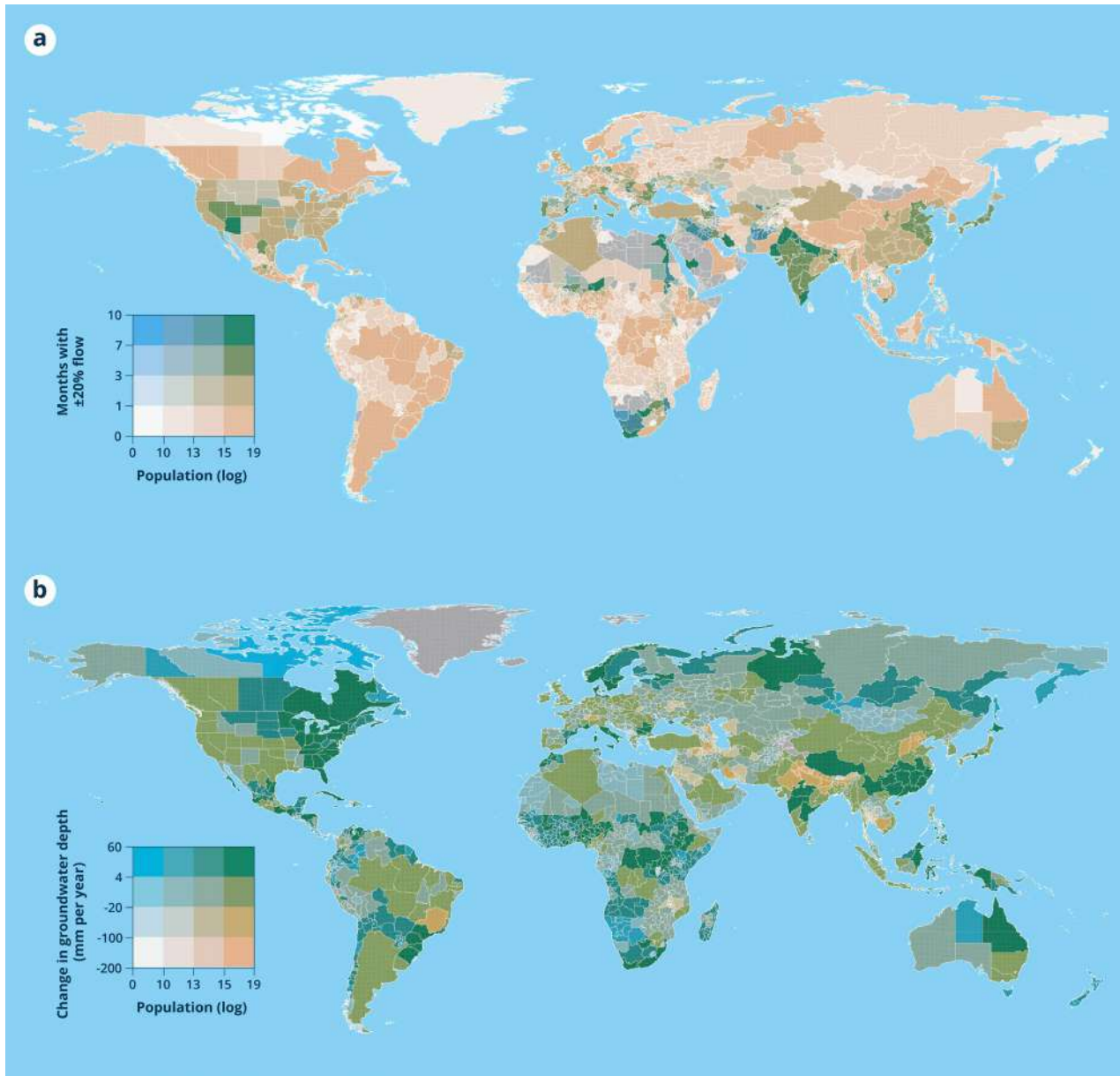
2. **Exempt water use.** In some countries, permit exemption allows for uses of water above domestic use without a permit.
3. **Water-use permits.** For some actors, including farmers and industry, water-use permits tend to be the main water allocation instrument (see figure 6.1, Water allocation through permits, a global overview) (Bosch et al., 2021). Water-use permits can resemble property rights as permits can grant the right to use water, transfer it, protect it legally, and claim compensation in some cases, making these rights like property rights.
4. **Contracts, leases, and concessions:** For actors such as water utilities and power plants, contracts, leases, and concessions are the main water-allocation instrument, which can grant private actors quasi-property rights to water.
5. **Investor-state contracts.** These contracts often include water rights as part of broader agreements for mineral, petroleum, and land contracts. Under such contracts, water rights are treated like property rights, such as the right to use water or develop water infrastructure, and bypass a state's water law that would typically govern these uses, especially when protected by international investment agreements that limit state interference or require such a degree of compensation that states cannot withdraw permits easily (Bosch and Gupta, 2022).

This section examines two main problems with how water partnerships have been designed – over-allocation and inequitable allocation – focusing on water-use permits, contracts, leases and concessions, and investor-state contracts.

FIGURE 6.1: Water allocation through permits, a global overview



Source: Müller et al, 2024.

FIGURE 6.2: Water fluctuation and groundwater trends compared to population

Notes: (a) Population exposed to conditions outside the safe Earth system boundary for surface water, by sub-national region. (b) Population exposed to different trends in groundwater depths, by subnational region. Living in conditions outside the safe Earth system boundary for blue water can impact the health, livelihoods, and well-being. Each colour represents the intersection of distributions using quartiles. Source: Gupta et al, 2024.

Water is overallocated

In most countries and regions, the Earth system boundary for surface water has been breached (Rockström et al., 2023: 107) (Figure 6.2).⁴³ Groundwater levels are declining in 47% of areas, while 34% of surface-water bodies experience fluctuations greater than 20%, indicating they are outside the Earth system boundary and implying they are overallocated (Rockström et al., 2023, 107).

While some regions still have water available for allocation, in others, basins are “closed”, meaning little to no water is left to be allocated (Gleick & Palaniappan, 2010; Maxmen, 2018; Molle et al., 2010; Venot & Courcier, 2008). In South Africa, numerous water management areas are facing over-allocation, with some exceeding their water resources by up to 120% (Turton and Botha, 2014). This leaves limited space to pre-empt property rights to water granted through permits and investor-state contracts.

⁴³ The Earth system boundary for surface water is defined as a 20% alteration (increase or decrease) of monthly surface water flows compared with the prevailing natural flow regime.

Where water remains available, governments can use permits and contracts allowing allocation in the public interest and preventing the development of property rights to water, and design principles for pre-allocation with justice at their core (Bosch, 2023). However, there is limited space for water pre-allocation in many regions, as much of the water has already been allocated. In such situations, governments might consider more-radical measures, such as the renegotiation of permit and contract conditions. For new projects, there must be an understanding of where needed water should come from and what the trade-offs are between its different uses.

Water is inequitably allocated

The definition of a water right as a property right is determined by legislation and case law (Dellapenna, J. W. 2021). While most states avoid referring to water as property (Dellapenna & Gupta, 2021), various legal water-use entitlements can imply quasi-property rights, achieving the same ends through different means. States often end up privatising water de facto by allocating property-like rights through water-use permits, licenses, or contracts (Bosch et al., 2021: 12; Bosch and Gupta, 2022). These rights include, for example, the right to use water for a specified period, the right to alienate or transfer the permit, the right of legal action, the right to compensation, and the right to have their interest protected by the state.

It will be difficult for states to take water back, as some countries allow permits for 75 years. This reduces the ability and flexibility of the state to reallocate water if necessary. Some countries allow for compensation and litigation if permit conditions are changed, which also reduces states' flexibility and could lead to "policy freezing" (Bosch et al., 2021: 12).

Some jurisdictions have explicitly (e.g., Chile, the United States [US] state of California) or implicitly (e.g., South Africa) introduced a tradable permit system, meaning that water is not returned to the state. Problems arise if the original allocation was unequal, including cases where water rights were initially taken from Indigenous Peoples in the transition from a riparian-rights system to the adoption of a market for trading water licenses.

Some countries have taken a different course. New Zealand granted the Whanganui River the legal rights of a person, recognising the Indigenous

Māori Whanganui Iwi's relationship with the river, and their historical rights to the land and waters. This legal framework ensures the river's protection and sustainable management, representing a pioneering approach to water justice that acknowledges both ecological and cultural values (Talbot-Jones and Bennett, 2022).

The issue of de facto privatisation of water resources can be particularly marked in the case of investor-state contracts, where overarching investment regimes can trump water regulations. Foreign investors specifically enjoy protection against state interference through thousands of bilateral, multilateral, and plurilateral investment treaties designed to safeguard the investor. Research on energy, mining, land, and water investor-state contracts reveals that water rights are explicitly included in most mineral, petroleum, and land contracts, protected by investment treaties against actions of the state (Bosch and Gupta, 2022). Taking back the right to use water infringes on the operation, which can be seen as indirect expropriation and can lead to compensation claims. This reveals that contracts and investment treaties to protect investors from state actions make it difficult for governments to redistribute water in the public interest.

Redesigning water contracts using a justice-based allocation framework

Redesigning water contracts represents a high-leverage opportunity to rethink the relationship between public, private, and other non-state actors.

To reflect the different hydrological contexts governments face, principles need to distinguish between allocation where water is over-allocated and where it is not.

Allocation principles where water is over-allocated include:

- **Evidence-based decision making.** There must be clarity about how much water any new project requires and how much it will pollute – hence the kind of user permit and pollution permit it requires. An environmental impact assessment including blue and green water impacts must be conducted.

Box 6.1: Water allocation through the lens of water system justice (Gupta et al., 2024)

Governments can be guided by allocation principles using in a justice framework (Chapter 4) when designing water permits, contracts, and land-based property rights, to embed justice at their core and ensure outcomes are efficient, equitable, and environmentally sustainable.

Recognition justice

The origins of water law and governance can be traced back 5,000 years (Gupta & Dellapenna, 2009; Dellapenna & Gupta (eds) 2021). Water allocation systems have governed water for centuries; however, conventional water allocation systems – often imposed by colonial and post-colonial legal frameworks – have historically excluded Indigenous and local water-governance practices. Permits and contracts based on the principles of recognition justice respect, protect, and cause no harm to these systems. Recognition justice calls for legal and institutional frameworks that incorporate ‘other’ knowledge systems, such as those of marginalised local communities and Indigenous Peoples, and their governance practices, ensuring that water allocation respects the sovereignty and self-determination of these communities.

Epistemic justice

Epistemic justice requires understanding other ways of knowing and other knowledges with respect to water. This can often conflict with state allocation of water, which when applied, is largely a calculation, modelling, and forecasting exercise. In this pragmatic and rational approach, measurement and data aim to achieve efficiency in water use and optimal water allocation. However, this process largely ignores other forms of knowledge. While it is difficult to imagine a state-led system without a government department organising water allocation, the knowledge used in the process can be improved, in part by connecting other water knowledge systems with contemporary scientific understanding.

Interspecies justice and Earth system stability

Allocating water based on a water budget considers human needs, ecosystems, and biodiversity as the basis and priority according to which water resources are allocated. Permits and contracts are therefore subject to the needs of nature, which means leaving enough green and blue water for other species and ecosystems to flourish.

Intergenerational justice

Permits and contracts should accommodate change, ensuring that the present generation preserves the hydrological cycle for future generations. This means groundwater tables should not decline, and surface-water bodies should be maintained. Hence, permits should be adaptable to enable maintaining water bodies and flows for future generations. It cannot be that rivers runs dry because permit holders continue to use their allocated volume of water without considering sustainability.

Intragenerational justice

Permits and contracts are subject to the current water budget. With a changing hydrological cycle, persistent inequality and changing socio-economic conditions, permits should ensure equitable access and allocation of resources. In considering the 3I's of relational justice – Interspecies, Intergenerational, and Intragenerational – determining which uses and users get priority over others is key and should be made explicit in the permit conditions. Within institutions, this should be clearly specified and fully operationalised.

Procedural justice

Procedural justice is about including multiple actors in decision-making about water allocation. Including local communities, Indigenous Peoples, and nature representatives (to name a few) in the process of water allocation is crucial to ensuring a more collaborative and broad-based approach. Procedural is also about allowing people who are dissatisfied to object publicly and to go to court if necessary.

- **Resource sustainability.** There should first be a moratorium on additional water allocation. Before use permits are given, the state needs to consider from which existing permit, concession, or property right water can be withdrawn.
- **Fairness.** This might require the new users to compensate existing users for the economic losses, subject to state approval.

Allocation principles where water is not yet over-allocated include:

- **Priority of use and users.** This determines which use or user gets priority over other use or users in a society.
- **Risk and reward.** This ensures that both risks and rewards are shared between economic actors, and that governments and other actors are recognised for the risks they take in shaping water-related and other markets.
- **Public interest use.** This considers the efficient and beneficial use of water in the public interest, considering its socio-economic impact. This can include the likely effect on the water resource and on other water users. Water-use permits are subject to return to the state on grounds of public interest in situations of water scarcity, and changing environmental and economic conditions. Unused water permits are the first category of water permits that should be reclaimed. Actors should be able to claim compensation (which can be zero).
- **Pollution.** This ensures that the right to use is accompanied by the responsibility to limit pollution based on the polluter pays principle. Use permits are accompanied by pollution permits. Pollution permits set allowable limits on the thermal, chemical, and physical pollution of water based on best available technology standards and ambient water quality standards. Where pollution has been caused, polluters must be held accountable or liable.

Shaping water allocation and access through conditionalities

Taking inspiration from the allocation principles, governments can use conditionalities as a concrete policy tool to shape partnerships. Conditionality involves creating agreements between the public and private sectors, where specific financial tools such as grants, loans or subsidies, or other deals such as permits, contracts or types of rights are contingent upon the private sector meeting requirements that contribute to public goals. For example, 80% of industrial wastewater is released into the environment without adequate treatment, despite it being a valuable resource from which clean water, energy, nutrients, and other resources can be recovered (Rodriguez et al., 2020). This is one low-hanging fruit where governments could embed clear, targeted, and monitorable conditionalities for companies to improve wastewater recycling in exchange for access to public land or government support.

Indeed, governments can use conditionalities to transform sectors and industries to align with their policy objectives or missions. In the case of water, industries such as mining, energy, and semiconductor manufacturing are highly water intensive. These industries, and agriculture and infrastructure (e.g., transport, urban development) can also affect evapotranspiration. Conditionalities can be used to improve their water efficiency and mitigate impacts on green water stocks and flows, or establish a reciprocal risk- and reward-sharing relationship, ensuring that public policy leads to broader economic or societal benefits.

Mazzucato & Rodrik (2023) identify four dimensions of conditionalities in new contracts between the public and private sectors:

- **The firm behaviour targeted.** For example, ensuring equitable and affordable access to products or services, directing firms' activities towards societally desirable goals, requiring profitable firms to share returns, or requiring reinvestment of profits into productive activities.
- **The nature of the conditions,** whether fixed or negotiable.
- **The mechanisms for sharing risks** and rewards.

- **The criteria for measurable performance** and monitoring.

Conditionalities for new or renegotiated water permits, contracts, and property rights

Governments can embed conditionality in water permits, contracts, and property rights to maximise public value and deliver a more water-secure world. For example, conditionalities could require:

- Improving water and land conservation, the efficiency of water use, and how much water should be returned into the system, and in what quality.
- Directing investment for water-intensive industries towards regions that are less water stressed.
- Reinvesting profits in productive business activities, such as research and development (R&D) and innovation around water.
- Reinvesting profits into watershed and water-basin conservation programs so the source is governed in a sustainable way (Mazzucato & Rodrik, 2023; Mazzucato & Zaqout, 2024).

Conditionalities can protect priority users and uses from the rent-seeking behaviour of investors, with focus on the poorest and most vulnerable. Conditions for risk- and reward-sharing offer flexibility to accommodate heterogeneous water consumption for water rights-holders. Applying conditionalities to water property rights can address embedded norms of private property rights such as “history of use” or the “use it or lose it” approach that lead to excessive water use (Dellapenna, 2023). The conditionalities can include procedures to reclaim unused water permits, which might include compensation.

Conditionalities in water permits, contracts, and property rights should be explicit and enforceable, and provide detailed standards and clear goals for all parties to promote and comply with

(Gupta, J., Mazzucato, M., Bosch, H.J. (2024). These include setting requirements for adapting water-saving technologies and practices, and meeting environmental protection standards. They also include protecting the ecosystem and biodiversity from water withdrawal and wastewater disposal.

Conditionalities in water investments

Investment contracts are important to shaping water-related partnerships. In some cases, when the government partners with the private sector, the state “socialises the risks” but “privatises the rewards” of investment, leading to unbalanced partnerships that prioritise private interests over public value (Laplane and Mazzucato, 2020). There can be a strong intergenerational dimension to this: given the long-term nature of many investment contracts, such partnerships can result in future generations suffering the consequences. Conditionalities can shape investments and markets within the private sector when they take over basic services and industries such as water.

A role for private finance in the water sector requires regulatory and contractual solutions to prevent opportunistic behaviour and resource capture, such as acquiring crucial infrastructure through contracts and partnerships. Risks are often blamed for financiers’ and investors’ short-termism, financialisation, and high-cost debt, which push water utilities away from public value creation. Embedding conditionalities into contracts can allow private and public actors to share and thus reduce the risks of major investments – and spread the rewards, like lower operational costs for businesses and greater public value provision by governments, facilitating innovation in the private sector while directing benefits to the public (Mazzucato & Rodrik, 2023; Laplane & Mazzucato, 2020).

Just Water Partnerships

Partnerships done right have the potential to shape a more water-secure future. Arrangements like Just Water Partnerships could bring public, private, and philanthropic sectors together to make ambitious investments in water with clear conditionalities attached. Governments can bring



in financing partners by pooling smaller investment opportunities for increased bankability, utilising well-designed guarantees and co-investment setups, and enforcing the agreements facilitating these investments (GCEW, 2023a).

Just Water Partnerships allow governments to facilitate new water management paradigms that serve vulnerable communities and ecosystems. By mobilising water investments that embed justice principles, prioritise sustainable and equitable allocation, and align with the new science and economics of water – considering both blue and green water flows – governments can ensure critical water projects are designed and financed to promote socially and ecologically healthy outcomes.

On a country-by-country basis, policymakers can weave together the financial tools and institutional arrangements that best fit their specific context. In this way, countries can design Just Water Partnerships to meet their needs, addressing financing gaps to promote public value and positive water outcomes for all. Chapter 8 describes how Just Water Partnerships can deliver a safe and just water future.

Transparency, monitoring, and accountability

Embedding conditionalities requires accountability measures to ensure compliance by all actors. This includes clear legal frameworks to manage relationships with water rights holders. This also includes strengthening data collection and increasing self-reporting of the water rights holder's performance. The fragmented data landscape around water is a big hurdle. Global water data is incomplete, lacking interoperability, consistent standards and comprehensive scope. Gaps exist at various hydrological and administrative scales, and much of the data remains private or behind a paywall. This holds true for both blue and green water. Data on green water especially is frequently overlooked in data regimes and management, effectively missing half the story of the hydrological cycle. However, there are opportunities to increase water-data collection (Chapter 9), including through new technologies that expand the frequency and

accuracy of monitoring, such as satellite imagery, remote sensing and AI.

A second hurdle is underreporting on corporate water footprints. The utilisation of natural resources for production is often under-reported, and mandated reporting is limited, frequently failing to cover the value chain and full life cycle of products and services. Comprehensive data on the impact of business activities on blue and green water is key to ensuring adherence to conditionalities intended to steer business activity towards sustainable and just practices, and for motivating corporate efforts to

mitigate water and climate risks in their operations and supply chains. Despite these challenges, governance arrangements can be improved to strengthen the transparency of water use and accountability of water users. Momentum must be generated for disclosure of corporate water footprint, inspired by practices such as the European Commission (EC)'s mandatory Corporate Sustainability Reporting Directive (CSRD).

Explicit water-use reporting requirements should be developed and incorporated into similar directives. Disclosure mechanisms can also be considered, especially by mobilising coalitions of private sector and civil society organisations such as CDP, a not-for-profit that runs a global disclosure system for investors, companies, cities, states, and regions to manage their environmental impacts. CDP's water security programme has been particularly effective, and since 2009, CDP operates the only global corporate water disclosure mechanism. In 2022, nearly 4,000 companies disclosed water security data through CDP. Looking ahead, CDP aims to collect relevant water-related data from 90% of the world's highest-impact companies by 2025.⁴⁴ CDP has a similar programme on forests, which might provide the foundation for disclosure mechanisms that cover blue and green water.

Without effective transparency, monitoring, and accountability mechanisms around water and land use, it will be difficult for public regulators to ensure businesses comply with conditionalities stipulated in water contracts.

44 [Link: Catalysing water action amongst thousands of the world's largest companies and closing the data gap. | Department of Economic and Social Affairs \(un.org\)](#)