

## SDG 16 and water (re)allocation: Promoting the rule of law for water justice

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### Abstract

This brief reframes Sustainable Development Goal (SDG) 16, aligning it with national water allocation and reallocation efforts to tackle increasing water scarcity and conflict crises projected to impact five billion people by 2050. Emphasizing the link between the rule of law, justice, and dispute resolution with water allocation and reallocation, it addresses the increase in water-related conflicts. Given that over 93% of them involve issues within the national context, with 42% related to water (re)allocation, the focus of SDG 16 is critical. Highlighting the historical centrality of the rule of law in water allocation, the brief reveals the unintended 'privatisation' impact of permit systems, creating quasi-property rights. It uncovers challenges in reallocating water due to long-duration permits, leading to cancellation difficulties, perceived expropriation, and market failures. Proposing a way forward, the brief advocates clear permit regulation rules, acknowledging resource-intensive implementation challenges despite advanced technology. Shedding light on dispute resolution mechanisms, it notes that 48% of the water laws of states in selected Global South states do not mention such procedures. Emphasizing transparent guidelines for de-escalating violence, the brief underscores the importance of technology in creating public databases for understanding water conflicts. Finally, it calls for addressing the unintended consequences of water property rights, emphasizing the synergy between SDGs 6 and 16. The recommendations advocate for technology in transparent water (re)allocation and dispute resolution, acknowledging the inevitability of political decisions for just outcomes.

### SDG 16 and water (re)allocation

SDG target 16.3 advocates for promoting the rule of law and equal access to justice, while target 16.6 emphasizes accountable and transparent institutions. This policy brief reframes SDG 16 to address national water governance, connecting the rule of law, justice, and dispute resolution to specifically the (re) allocation of water resources.

Limited and variable water availability leads to competition and conflicts, especially when scarcity arises<sup>1</sup>. Projections estimate five billion people will face inadequate water access by 2050, a nearly 40% increase from 2021<sup>2</sup>. This escalation foretells a surge in conflicts, emphasizing the need for adaptive and flexible water management systems in response to changing trends.

Water, as a trigger of increased stress, of reducing the ability for productive life and violence, often pertains to conflicts over control and access to water resources, fundamentally revolving around issues of water allocation<sup>3</sup>. Data from the Pacific Institute shows an almost fourfold increase in water-related conflicts since 2009<sup>3</sup>. Over 93% of those conflicts occur within countries, out of which the largest share (over 42%) refers to water allocation issues (e.g., competition for water resources, use rights, water ownership). As SDG 16 efforts focus on "promoting peaceful and inclusive

societies", analysing national water allocation systems and dispute resolution mechanisms becomes crucial to mitigate escalating conflicts linked to water scarcity.

### Rule of law and water allocation: Property rights in water

Historically, the rule of law has been central to water allocation, especially in the conflict over ownership and rights<sup>4</sup>. Deciding who gets how much water, when, and under what conditions is a complex exercise. This complexity extends to reallocation, or how to redistribute water once allocated. Thus, understanding how the rule of law organises (national) water use rights and its impact on water users is crucial. Historically, property rights in water were with people who owned the lands above groundwater or next to flowing water. (Indigenous people had relations with water which they did not define as property rights. This policy brief does not focus on the rights of Indigenous people, which requires separate attention).

In order to cope, countries worldwide generally place water ownership in the public domain (i.e., under the control of the State or Government). This has replaced the existing property rights systems in some countries, but elsewhere the property rights system is still strong. However, all states use permits (state-granted entitlements, sometimes called concessions and

sometimes included within contracts) as an allocation instrument. Permits grant their holders 'property rights' over a specified volume of water resources from a designated source for a defined purpose and time (one year to perpetuity).

### Design intention

The permits system aims to formally and legitimately organise water (re)allocation. Defining the abstraction point and permitted volume allows quantifying water availability for evidence-based allocation. Set durations ensure water provision for intended purposes, encouraging long-term planning and investments. Permit holders can also transfer or sell unused water volumes, facilitating flexibility and (re)allocation when needed.

Permit systems benefit from technology measuring water availability and monitoring use, because it enhances transparency. However, technology cannot fully address (re)allocation, a political matter reflecting the public interest in prioritizing water use.

### Unintended consequences

The main disadvantage of permit systems is the unintended consequence of de facto privatisation. While permits do not grant property rights in water, under specific settings, they encapsulate various 'property-like' traits<sup>5</sup>. For example, when holders have rights to use water for indefinite periods or in perpetuity, can freely transfer them, or may seek compensation if the rights are taken away from them. In such cases these rights bestow significant control over water use, resembling actual property rights, i.e., quasi property rights<sup>5,6</sup>.

The features aimed at providing security to the holder (long-duration permits and legal protection) and short-term flexibility (permit transferability) have unintentionally complicated water reallocation. First, long-term permits mean they must be cancelled to enable reallocation. Second, cancellation, given the legal protection of the holder, is perceived as expropriation; thus, requiring States to compensate. This is unfavourable for States that need to reallocate water but cannot afford compensation. Third, a free transferability model – without State authorization – offers short-term flexibility but has allowed the development of markets that are subject to failures. These failures often manifest as inequalities fostering high-value uses over other uses (e.g., agriculture over drinking water).

### Moving forward

The way forward is to address the unintended 'privatisation' consequence of permit systems for an effective (re)allocation of water resources. This calls for clear rules for permit regulation that include but are not limited to: (a) the adoption of the priority of use principle reflecting social interests; (b) community approval and/or environmental assessments (as done in Kazakhstan, Paraguay, Uruguay); (c) periodic revisions (as included in the South African system); (d) "non-use" or "use-it-or-lose-it" clauses that enable reallocation if the granted water resources are not used; and (e) the possibility of reallocating water resources without compensation in cases of emergency. However, the implementation of these measures can be resource intensive. Despite improved measuring and monitoring technology, many States do not have the capacity to conduct the required monitoring and enforcement.

### Dispute resolution mechanisms

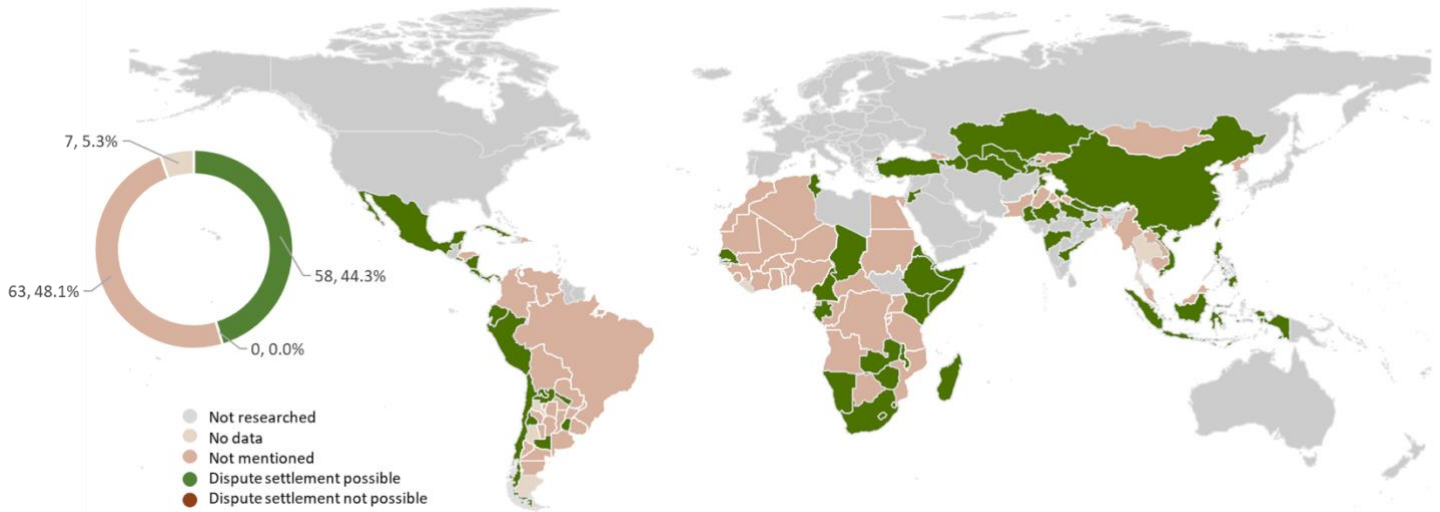
Based on the Pacific Institute's database, 45% of water-triggered conflicts involve accessibility problems (primarily inadequate drinking water supply), approximately 30% result from water scarcity, droughts, and disputes over rights, and the remainder can be attributed to quality issues. These conflicts often occur amongst civilians and within entire communities, leading to heightened violence, such as blocked access to water sources, attacks, and sabotage of water infrastructure.

Indicator SDG 16.3.3 assesses the access to formal (or informal) dispute resolution mechanisms. Regarding water (re)allocation, countries have integrated dispute settlement procedures into their water laws. An analysis of 128 states of the Global South shows that 44.3% outline procedures involving water authorities, external moderators, other conflict resolution entities, or local/national courts (Figure 1). However, the majority (48.1%) fail to mention dispute settlement procedures in their laws.

Clear guidelines for dispute resolution could contribute to de-escalating the violence associated with water-related conflicts. Transparent communication of these procedures raises water users' awareness, making it easier for people to use them. Furthermore, current information technologies not only facilitate the creation of public databases like the Pacific Institute's Water Conflict Chronology or the Environmental Justice Atlas<sup>7</sup> but also enhance accessibility. These tools provide valuable insights into the influence of water allocation on both existing and potential water

conflicts, thereby contributing to efforts for “peaceful and inclusive societies”.

**Figure 1.** Overview of the possibilities for dispute settlement mentioned in the national water laws of highlighted countries in the Global South. Source: Own elaboration based on the countries’ general water laws



## Implications for justice and policy recommendations

Aiming for justice and inclusivity in water (re)allocation requires understanding the existing context. Water permits, while legally shielding holders, affect social and ecological inclusivity. Their quasi property nature fosters disparities among users, hindering reallocation and impacting the goal of inclusive water management. Additionally, the drivers behind water-related conflicts place (re)allocation as a central issue in these disputes. Therefore, it is important to:

- Promote the equitable distribution of water. The rule of law target should encompass the just allocation of natural resources, including water.
- Address the unintended consequences of water property rights, which often result in injustices.
- Pay increased attention to water conflicts. The rule of law target should address resource scarcity amidst climate change and rising demand, ensuring sustainable management and resilience.
- Employ technology for transparent, accountable, and efficient water (re)allocation and dispute resolution mechanisms, facilitated by technology.
- Employ (re)allocation innovation to achieve just outcomes. Despite technological improvements, there is no easy techno-fix. Technology can support informed decision-making, but water

(re)allocation is a matter of principles or political interest that technology alone cannot resolve.

- Build on the synergy between SDGs 6 and 16. Enhance the achievement of SDG 6 by integrating SDG 16 targets into water resources management strategies.

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