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Economic growth (SDG 8.1 and 8.4) and Investor-State contracts (SDG 17.5) impacting water (SDG 6)

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Abstract

Water is a vital resource and drives economic growth (SDG 8.1). However, meeting growing water demands is increasingly challenging, calling for resource efficiency in production (SDG 8.4) and across sectors (SDG 6.4). As globalisation, socio-economic growth, and the promotion of foreign direct investment regimes (SDG 17.5) continue to accelerate, the need for integrated and adaptive water governance is critical (SDG 6.5). However, foreign direct investment, formalised through Investor-State contracts (i.e., agreements between a host State and a foreign investor), often result in the water diverted to these agreements for long periods of time, raising concerns about equitable allocation, sustainability, and long-term water security (SDG 6). This policy brief addresses this 'Investor-State problem' by analysing 80 mineral, petroleum and land Investor-State contracts made by foreign governments in Africa and Asia. It explores what bundle-of-rights are granted, their implications to adaptive water governance, and proposed pathways for reform. Findings indicate that Investor-State contracts –backed by bi- and multilateral investment treaties– often grant strong water use rights to foreign companies that bypass national water laws, hindering the States' ability to govern water to enhance growth in the public interest. Withdrawing such rights is expensive. These findings highlight systemic issues that may also arise in other contracts, such as those in the energy, construction and IT (e.g., data centres and server infrastructure) sectors. Hence, this policy brief recommends enhancing contract transparency, ensuring that water rights are governed by national laws (not by contracts), limiting contract durations, restricting water transfers, strengthening the role of domestic legal authorities in disputes, and future-proofing contracts to account for climate change. This is essential to secure long-term sustainable water use for sustainable development.

Connecting SDGs 8 and 17 with SDG 6

Water is vital and drives economic growth (SDG 8.1). SDG 8 "promote[s] sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all"[1]. To facilitate this economic growth, SDG 17 aims to "[s]trengthen the means of implementation and revitalize the global partnership for sustainable development", including implementing "investment promotion regimes" to attract and facilitate foreign direct investment (SDG 17.5)[1]. However, foreign direct investment –mostly established under Investor-State agreements– often requires access to large volumes of water for production processes, stressing limited local water availabilities. As water demand grows, addressing this challenge not only needs resource efficiency in production (SDG 8.4) and across sectors (SDG 6.4), but also requires States to adaptively (re)allocate water to ensure growth and equitable distribution in the public interest (SDG 6).

While water for national productive purposes is commonly (re)allocated via State-issued permits under national water laws[4–6], international companies can access water through Investor-State contracts that do not necessarily reference national laws, especially in the global South. Thus, water (re)allocation is implicitly governed by contracts and international investment treaties. Hence, this policy brief addresses the 'Investor-State problem' by analysing 80 mineral, petroleum and land Investor-State contracts across Africa and Asia. It explores the granted bundle-of-rights, their implications for adaptive water governance, and possible solutions (Bosch and Gupta[7]).

We focus on the mineral, petroleum, and agricultural industries, as they are among the top 20 largest water-

consuming industries, including power generation (1.9 km^3/yr), mining (1.7 km^3/yr), oil, gas and petrochemicals (1.1 km^3/yr), food and beverages (0.8 km^3/yr), and pulp and paper (0.2 km^3/yr).[8] Meanwhile, the global water gap –between demand and supply– exceeds 450 km^3/yr and is expected to increase 5.8–14.7% due to climate change (1.5 and 3°C temperature increase, respectively).[9] This means that discussing water allocation for inclusive growth –including through Investor-State contracts– is necessary and unavoidable.

The mining, petroleum, and agricultural sectors also promote growth. The mining industry generates around 792 billion USD (2024)[10] across estimated 25,000 companies in over 140 countries,[11] employing 4.7 million workers in coal and lignite mining alone.[12] The oil industry represents the largest labour force of the fuel sector, employing around 8 million people,[15] and contributes to ~3% of the global GDP, being one of the most traded commodities.[16] Finally, agriculture is the largest employer of the three sectors, with 874 million workers,[19] and along with forestry and fishing accounts for ~4% of global GDP.[20]

However, these industries pose a significant risks to water quality and quantity.[13] For instance, lithium extraction in Chile consumes 65% of local water resources, severely impacting communities and livestock.[14] 16% of critical mineral mines are in highly water-stressed areas, including Australia, Chile, China, India, Mongolia, Namibia, Russia, South Africa, and the USA.[13] While the oil industry accounts for only ~0.5% of global water consumption,[17] its local impact on water sources is significant.[16] Latest SDG reports indicate that fossil fuel subsidies intensively increase,[18] driving sectoral expansion, translated to increased water demand. Agriculture, covering ~37% of the global land,[20] is the largest water consumer, accounting for 72% of freshwater withdrawals.[18] Approximately 12.5% of the harvested land is irrigated and involves unsustainable practices.[21,22] Given these sectoral pressures on water, ensuring responsible water governance in Investor-State contracts is essential for sustainability.

Investor-State contracts and water (quasi)property

Although water resources are mostly owned by the State[23], companies and investors can obtain rights to use them through Investor-State contracts. However, these rights may lead to *quasi-property* rights over water. Although the State retains legal ownership over water, it has *de facto* privatised it by granting a bundle-of-rights that closely resembles *de jure* water property rights.[4,6,24]

Investor-State contracts often grant water use rights to facilitate operations and support productive activities.[5,7] While these contracts typically outline reciprocal obligations over production, they protect investors and emphasise their rights.[3] 3,000 bilateral investment treaties (BITs) (see Figure 1)[25] regulate these foreign investments.

Investor-State contracts in many sectors, include the right to operate and use water in a defined –possibly renewable– period; transfer the granted rights; settle disputes with the State; claim protection against State infringement; and compensation for expropriation.[7] However, these rights can limit State control over their water resources. When a State wants to reallocate water used by investors, or change policy or laws that affects their operations, this may be seen as direct or indirect expropriation of their rights allowing investors to claim compensation which makes poorer governments even more vulnerable[3,7] and unable to manage water for inclusive and sustainable growth.

Figure 1 Global network of BITs by 2022, based on UNCTAD's 'International Investment Agreements Navigator'. Source: Bosch and Gupta (2022)[7].

Implications of Investor-State contracts on water

Although Investor-State contracts are often confidential, we analysed 80 publicly available contracts from 34 African and 19 Asian countries[5] to evaluate their content and implications for water governance.

Operation, duration and alienation

Results show that **water rights are included** in most mineral and petroleum contracts, and half of the land use for agriculture contracts[7] (Figure 2), as water is essential for economic activities. Since water rights are tied to land and operational rights, restricting water use affects the investor's operations and could lead to calls for compensation for indirect expropriation under international law.

Most analysed mining, petroleum, and agricultural contracts specify their duration, providing investors with operational security to recover their initial investment and make a profit. **Mining contracts** typically last between **14 and 40 years**, with some remaining indefinite or tied to the operation duration. **Petroleum contracts** commonly range from **20 to 30 years**, often with extension options of **5 to 10 years**, although some allow indefinite renewal based on production feasibility. In contrast, **land contracts** show greater variability, spanning from **25 to 99 years**, with extensions ranging from **10 to 50 years** or subject to renegotiation. Some contracts grant land for a fixed period but do not specify renewal terms, highlighting the diverse approaches across different sectors and jurisdictions. A well-defined investment horizon reduces uncertainty, making resource-based ventures more attractive to private actors. However, extended contract periods may limit State flexibility in water governance as renegotiation or termination could incur compensation claims or legal disputes.[7]

Most mining, petroleum, and land contracts grant investors the **right to alienate**, i.e., **transfer, sell, or otherwise reassign** the contract, including the right to use water, to third parties. This increases the economic value of water rights, enabling their use as financial assets in markets or corporate transactions. However, it also raises governance concerns as the transfers can limit State oversight on water for sustainable development. Moreover, as investors hold the right to alienate, water rights do not return back to the public domain when transferred. Water can only be reallocated when the contract ends or is breached, which undermines adaptive water governance.

Dispute settlement and protection of investors (stability)

The **right to dispute settlement and litigation** protects investors, allowing them to defend their interests if conflicts arise with the host State. Most mineral, petroleum, and land contracts rely on **international arbitration**, which often favours investors. When a **BIT** applies, the **State is bound** by its terms, granting investors rights and obligations to the State. Arbitration is costly, final, and **bypasses national courts**, weakening State control over natural resources –including water– by placing disputes under international, rather than domestic law.

Most mining, petroleum, and land contracts include **stabilisation clauses**, shielding investors from sudden legal or regulatory changes that could harm their interests. This can limit the State's ability to adapt to unforeseen circumstance or implementing global commitments for sustainable development (e.g., Agenda 2030, Paris Agreement), as raising environmental or social standards may trigger **compensation claims** leading to policy freezing, i.e., policies are not applied to these companies.

Compensation

The **right to compensation** ensures that investors are financially protected in cases where their rights are expropriated or otherwise compromised by State actions. 30% of the analysed contracts include **expropriation clauses**, allowing investors to claim **compensation** if their rights are affected. With around **3,000 BITs** in place, many contracts may fall under their provisions, and **97% of BITs** recognise **indirect expropriation**, increasing the risk of claims[7]. If a State restricts **water use**, investors could argue a **BIT breach**, limiting State control over resources. Past cases, like **Vivendi Universal v. Argentina** (**$105M awarded**) and **SAUR International v. Argentina** (**$39.9M awarded**), highlight how BITs can lead to **costly compensation** for host States.

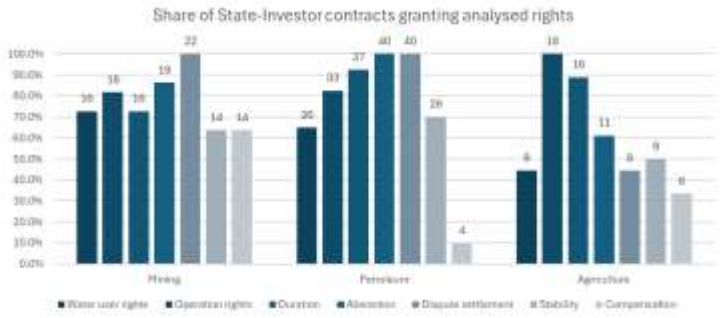

Figure 2 Overview of rights granted in 80 Investor-State contracts in Africa and Asia. Analysed contracts: 22 on mining, 40 on petroleum, and 18 on land-agriculture. Data from Bosch and Gupta (2022)[7]

Implications for water resources and policy recommendations

Investor-State contracts are key to formalising foreign investments (SDG 17) for economic growth (SDG 8). While protecting investors is important, it often leads to the *de facto* 'privatisation' of significant water resources, raising concerns over equity, sustainability, and long-term water security (SDG 6). This policy brief addressed the 'Investor-State problem' by analysing 80 mineral, petroleum, and land Investor-State contracts across Africa and Asia, highlighting the implications on water governance. Based on our analysis, we recommend:

1) **Enhancing transparency and accessibility to Investor-State contracts**: Mandatory disclosure

of contracts or contract sections related to water use for accountability and alignment with national water governance through e.g. digital open access platforms. *But transparency is not enough if stakeholders cannot influence the contract design.*

2) **Requiring investors to adhere to domestic water laws and regulations**: Water laws should take precedence over contract terms, thus, contracts should align with or reflect laws through standardised clauses such as allowing water use only via national allocation instruments. These rights are then subject to national water allocation and sustainability priorities. *However, this does not mean respecting the highest standards of water pollution.*
3) **Ensuring that water rights are granted through permits, separate from operational rights**: Strengthen legal provisions that define water as a separate, revocable right to prevent indirect expropriation.
4) **Limiting contract durations**: Contract durations should be based on returns on investment but subject to socio-economic development and climate change.
5) **Restricting transfer of water rights**: States should restrict water rights transfer as part of the contracts to avoid misalignment of water reallocation with national priorities.
6) **Reinforcing domestic legal authority in dispute resolution**: Negotiate to include domestic courts as the initial instance for water-related disputes and exhaust all (domestic) mediation possibilities, rather than relying only on international arbitration.
7) **Investing in dispute prevention**: Establish 'early warning systems' to detect disputes and resolve them before they escalate to costly arbitration. This could involve training national experts in investment arbitration and alternative dispute settlement mechanisms.
8) **Future-proofing contracts to account for climate change and water scarcity**: Include in contracts climate resilience clauses that allow water reallocation in response to changing availability; and adopt legal mechanisms to review and amend water-intensive investment contracts as socio-economic and environmental conditions evolve.

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