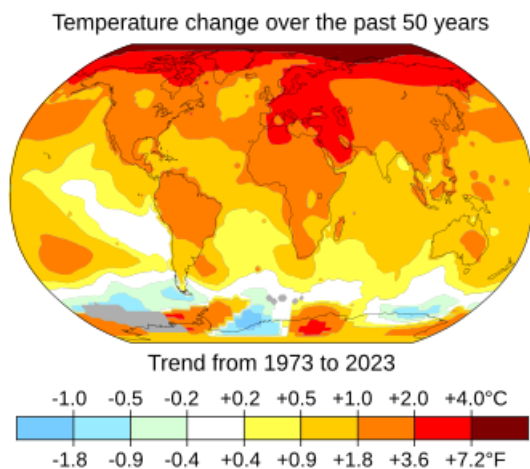




Climate Change and Hydropolitics



Climate change is acting as a hydropolitical risk multiplier. Rising temperatures, shifting precipitation regimes, and more frequent extremes are reducing water availability and increasing uncertainty in shared river basins. Existing water governance frameworks—largely designed for a stable climate—are increasingly misaligned with today’s realities.

Hydrological variability is rising; historical flow records no longer provide reliable planning baselines. Upstream–downstream asymmetries are intensifying as storage and control infrastructure gain strategic value. Competition across the Water–Energy–Food Nexus sectors amplifies political sensitivity. We need to shift from control to risk management. Conflicts often emerge when water is treated as a zero-sum asset.



Climate change makes this approach untenable. Therefore, moving from fixed allocations to risk-sharing frameworks is necessary. We need to manage variability rather than historical averages and frame water as a shared climate risk, not a sovereign commodity

In a changing climate, hydropolitics is no longer about controlling water flows—it is about collectively managing uncertainty. Countries and basins that embed flexibility, cooperation, and climate intelligence into water governance will be more resilient, stable, and secure.

Climate change transforms water from a development resource into a strategic variable. Hydropolitics in the 21st century will be less about “who controls the river” and more about who manages uncertainty better. Cooperation, flexibility, and climate-informed governance are no longer optional—they are essential for regional stability.

Dursun Yıldız -Director

World Enters “Era of Global Water Bankruptcy”

Flagship report calls for fundamental reset of global water agenda as irreversible damage pushes many basins beyond recovery

20 Jan 2026

Amid chronic groundwater depletion, water overallocation, land and soil degradation, deforestation, and pollution, all compounded by global heating, a UN [report](#) today declared the dawn of an era of global water bankruptcy, inviting world leaders to facilitate “honest, science-based adaptation to a new reality.”

“[Global Water Bankruptcy: Living Beyond Our Hydrological Means in the Post-Crisis Era](#),” argues that the familiar terms “water stressed” and “water crisis” fail to reflect today’s reality

in many places: a post-crisis condition marked by irreversible losses of natural water capital and an inability to bounce back to historic baselines.

“This [report](#) tells an uncomfortable truth: many regions are living beyond their hydrological means, and many critical water systems are already bankrupt,”

says lead author [Kaveh Madani](#), Director of the UN University’s Institute for Water, Environment and Health ([UNU-INWEH](#)), known as ‘The UN’s Think Tank on Water.’

While not every basin and country is water-bankrupt, Madani says, “enough critical systems around the world have crossed these thresholds. These systems are interconnected through trade, migration, climate feedbacks, and geopolitical dependencies, so the global risk landscape is now fundamentally altered.”



Madani underlines the following four essential points:

- Water cannot be protected if we allow the hydrological cycle, the climate, and the underlying natural capital that produces water to be interrupted or damaged. The world has an important and still largely untapped strategic opportunity to act.
- Water is an issue that crosses traditional political boundaries. It belongs to north and south, and to left and right. For that reason, it can serve as a bridge to create trust and unity between and within nations. In the fragmented world we live in, water can become a powerful focus for cooperation and for aligning national security with international priorities.
- Investment in water is also investment in mitigating climate change, biodiversity loss, and desertification. Water should not be treated only as a downstream sector affected by other environmental crises. On the contrary, targeted investment in water can address the immediate concerns of communities and nations while also advancing the objectives of the Rio Conventions (climate, biodiversity, desertification).
- A renewed global emphasis on water could help reaccelerate stalled negotiations and potentially reenergize halted international processes. A practical and cooperative focus on water offers a way to connect urgent local needs with long-term global goals.

Hotspots

In the Middle East and North Africa region, high water stress, climate vulnerability, low agricultural productivity, energy-intensive desalination, and sand and dust storms intersect with complex political economies;

In parts of South Asia, groundwater-dependent agriculture and urbanization have produced chronic declines in water tables and local subsidence; and

In the American Southwest, the Colorado River and its reservoirs have become symbols of over-promised water.

Global Water Bankruptcy: Living Beyond Our Hydrological Means in the Post-Crisis Era, United Nations University Institute for Water, Environment and Health (UNU-INWEH), Richmond Hill, Ontario, Canada, doi: 10.53328/INR26KAM001

Kazakhstan and Uzbekistan to Install Hydro Posts on Syr Darya River

20 January 2026



Kazakhstan and Uzbekistan are moving forward with the installation of ten automated hydro posts along the Syr Darya River, five in each country, as part of a joint initiative to enhance transparency and accuracy in transboundary water accounting and distribution for irrigation. The project is supported by the German Agency for International Cooperation (GIZ).

The initiative was a key item on the agenda during a January 19 meeting between Kazakhstan's Minister of Water Resources and Irrigation, Nurzhan Nurzhigitov, and Uzbekistan's Minister of Water Resources, Shavkat Khamrayev, held in the Kazakh city of Turkestan.

The Syr Darya River is critical for agricultural irrigation across Central Asia, particularly in Kazakhstan's southern regions, Turkistan, Kyzylorda, and Zhambyl, which depend heavily on its waters. The river originates in Kyrgyzstan and flows through Uzbekistan before entering Kazakhstan.



Nurzhigitov highlighted that Kazakhstan and Uzbekistan signed an intergovernmental agreement last year on the joint management and rational use of transboundary water resources. "The agreement is a significant contribution to the development of water diplomacy in Central Asia and clearly defines key areas for further mutually beneficial cooperation. We intend to continue developing our bilateral partnership in the spirit of good neighborliness, mutual respect, and constructive dialogue," Nurzhigitov stated.

The ministers also reviewed progress on the maintenance and repair of the interstate Dostyk (Friendship) Canal, which channels irrigation water from Uzbekistan into Kazakhstan. Last year, Kazakhstan undertook mechanized cleaning of the canal's bed, slopes, and collectors, and carried out repairs on gates and barrier structures. These efforts will continue in 2026.



Given the Syr Darya's importance to regional agriculture, Kazakhstan and Uzbekistan have also launched a joint project to revise irrigation regimes within the basin. The goal is to optimize agricultural water use and improve environmental sustainability.

According to the Kazakh Ministry of Water Resources and Irrigation, the Aral-Syr Darya basin supplies water to more than 35% of Kazakhstan's irrigated land, with agriculture accounting for 98% of water withdrawals.



Kazakh officials recently presented water inflow forecasts for 2026 and emphasized the urgency of boosting water-use efficiency amid continued low-flow conditions. Declining inflows into the Naryn-Syr Darya system pose a threat to irrigation supplies for the upcoming growing season.

Sergey Kwan

Source: <https://timesca.com/kazakhstan-and-uzbekistan-to-install-hydro-posts-on-syr-darya-river/>

The Climate Crisis is a Global, Yet Unequal Problem

Hydropolitics Academy-Türkiye



The climate crisis is a shared problem, but it is also highly unequal. Figure 1 shows that the poorest half of the global population accounts for only 3% of carbon emissions associated with capital ownership, while the wealthiest 10% account for 77% of emissions. The richest 1% alone account for 41% of emissions attributable to capital ownership, nearly twice the total emissions of the bottom 90%. This inequality is closely related to the vulnerability of some groups to the climate crisis.

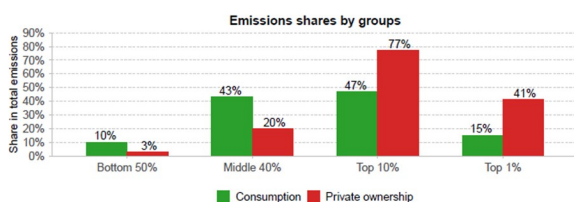


The populations in low-income countries produce the lowest emissions but are most exposed. On

the other hand, those who produce the most emissions are better protected because they have the resources necessary to adapt to or avoid the consequences of climate change. This unequal distribution of responsibility for the climate crisis entails an unequal distribution of the associated risks.

Climate inequality is both an environmental and a social crisis. Within countries, the impacts of climate change also risk worsening inequality. Climate risks disproportionately affect the poorest countries and people, who are more exposed and more vulnerable to their impacts.

Figure 1. The wealthiest account for a disproportionate share of global emissions

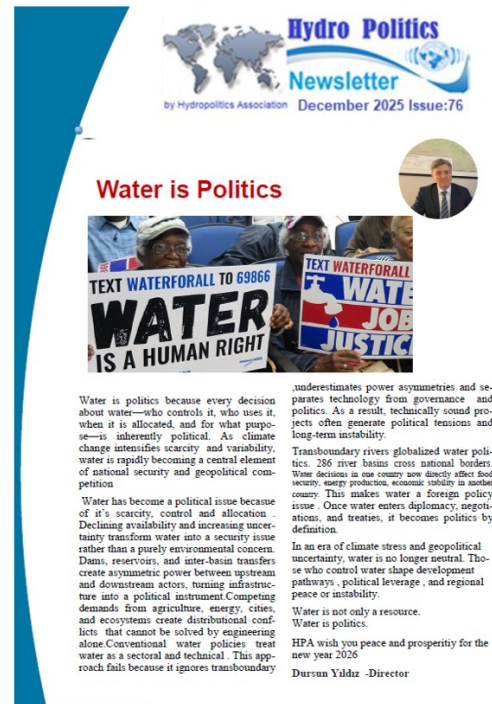


Interpretation. The figure shows the share of global GHG emissions attributable to the bottom 50% and the top 1% of the world population. Emissions are separated into consumption-based (emissions from production attributed to final consumers) and ownership-based (scope 1 emissions from firms and assets owned by individuals). Private ownership-based emissions (representing around 60% of total emissions) do not include government-owned or direct household emissions. The total volume of emissions covered by the ownership-based approach is relatively close to that explicitly accounted for in the consumption-based approach presented here. The latter assumes that emissions associated with government activities and investments, typically representing 30%–40% of total emissions are distribution-neutral (Bruckner et al. (2022)). Groups are defined by consumption-based emissions and wealth respectively, but both distributions are highly correlated. Sources and series: Bruckner et al. (2022) and Chancel and Rehm (2025b).

News from HPA

Hydropolitics Academy Center

NEWS



HPA's monthly newsletter, Hydro Politics, has reached its 77th issue. In this newsletter, we have tried to bring you the latest developments in water policies, water diplomacy, and related topics worldwide. We aimed to provide the most up-to-date news and short commentaries. **Starting with this issue, we have decided to publish our newsletter every two months in order to offer you a more commentary-focused format.** We also want to include the views of guest writers and commentators in our newsletter.

We hope you will embrace our newsletter in its new format. Respectfully,

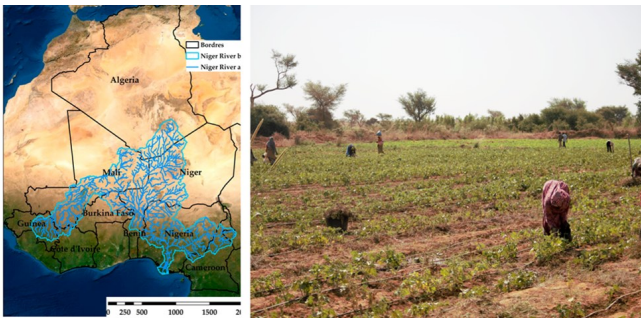
HPA

Hydropolitical Dimensions of Land Grabbing in Africa

Dursun Yıldız

Director

Hydropolites Academy-Türkiye



Large-scale land acquisitions (LSLAs), commonly referred to as land grabbing, have become a defining feature of agricultural investment in Africa since the mid-2000s. Although framed as land-based development initiatives, most of these deals are fundamentally about control over water resources. In regions characterized by water scarcity, climate variability, and weak governance, land acquisition has emerged as a powerful indirect mechanism for reallocating water away from smallholders and pastoralists toward commercial and export-oriented agriculture.

Land grabbing in Africa is inseparable from water grabbing. The transfer of land rights typically confers de facto water rights, enabling investors to appropriate surface water and groundwater with limited oversight. The result is growing inequality in water access, localized conflict, ecosystem degradation, and increased hydropolitical risk—particularly in transboundary basins.

Hydropolitical and Transboundary Dimensions

Many land deals are located in the transboundary river basins of the Nile, Niger, Zambezi, and Senegal. Uncoordinated abstraction can undermine basin-level agreements, shift power asymmetrically and trigger interstate tensions. Land deals thus create quiet hydropolitical externalities.

Land grabbing in Africa cannot be understood or governed without placing water rights at the center. As climate stress intensifies and competition grows, failure to regulate the land–water nexus risks deepening inequality, undermining food security, and destabilizing river basins. Effective policy must move beyond hectares and focus on hydrological power and the principle of allocation justice.

From a hydropolitics perspective, land grabbing alters control over water, its allocation, and decision-making power regarding water use.

Unlike dams or inter-basin transfers, land-based water appropriation creates a **structural asymmetry** where private or foreign actors influence basin-scale water balances without being parties to transboundary agreements.

From land to water

Over the past two decades, Africa has become a focal point for large-scale agricultural land investments driven by global food security concerns, water scarcity in investor countries, rising demand for biofuels and export-oriented crops, and weak land and water governance regimes in host states.

Although contracts are negotiated over land, the primary strategic asset is often reliable and low-cost water access—both surface water and groundwater. In practice, acquiring land near major rivers or aquifers grants long-term control over water flows, often exceeding the regulatory capacity of host governments.

Conclusions

In Africa, land grabbing is rarely just about hectares—it is about hydrological power. It should be noted that land governance without water governance is incomplete. Water scarcity transforms land investments into zero-sum games. Climate change demands anticipatory regulation, not reactive conflict management. Therefore, basin-scale coordination is essential.

In many river basins, land grabbing functions as de facto water grabbing, reshaping power relations between upstream and downstream states, intensifying water security risks, and weakening existing transboundary water governance frameworks.

Land grabbing in Africa is not merely a land governance issue but a silent mechanism of transboundary water redistribution, accelerated by climate change, food security anxieties, and global investment dynamics.

Land grabbing in Africa is best understood as a hydropolitical process with transboundary consequences, not merely a land-use phenomenon. By reallocating water quietly through agricultural investments, it reshapes power relations, exacerbates climate vulnerability, and undermines existing water governance frameworks. Addressing this challenge requires reframing land deals as water-security decisions—subject to basin-wide oversight, transparency, and cooperative governance.



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News Coordinator: Dr. Nuran YILDIZ
Dr. Doğan YILDIZ
Content : HPA Technical Unit – www.hidropolitikakademi.org
Editor: Dursun Yıldız
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We need to build a future,
Where people live in harmony with nature

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Think Forward .Lead Forward