

CONTINENTAL DRYING

A Threat to Our Common Future

This report addresses the escalating **global water crisis characterized by continental drying**—the long-term decline in freshwater availability across large landmasses—highlighting trends, causes, and impacts on jobs, the economy, and the planet. It presents a **comprehensive strategy and policy action** road map focused on demand management, supply augmentation, and improved water allocation to address the water crisis.

Trends and causes of continental drying

New data show the planet is losing 324 billion cubic meters of freshwater every year. That's enough to meet the needs of 280 million people annually.

Global freshwater reserves have significantly declined over the past two decades, leading to the emergence of mega-drying regions. The planet's freshwater reserves have fallen by **3%** of the total freshwater supply each year. In already arid

regions, the drop has been even steeper—reaching as much as **10%** annually.

Global warming, worsening droughts, and unsustainable land and water use are major contributors to this trend.

Impacts on jobs, the economy, and the planet

Continental drying severely affects agricultural productivity, leading to job losses, income declines, and environmental damages.



Jobs

In Sub-Saharan Africa, droughts have rendered 600,000–900,000 people jobless annually. The negative effect of water scarcity on jobs is most pronounced in rural farming communities and among women, older individuals, landless farmers, and low-skilled workers.



Income

Local water shortages can have global economic repercussions because of interconnected trade networks. For example, a 100-mm drop in annual rainfall in India could reduce global real income by US\$68 billion.*



Wildfires and biodiversity

Continental drying increases the frequency and severity of wildfires, posing a threat to biodiversity. A 1-standard-deviation increase in the rate of freshwater depletion raises the likelihood of wildfires by 27%; in biodiversity hot spots, it raises the likelihood by 50%.

** It should be noted that this finding is based on a modeled scenario and reflects the potential global cost of water scarcity in India, rather than a direct measurement of current annual losses.*

MAPPING WATER VULNERABILITY AND SAVINGS POTENTIAL

Global water use increased by 25% from 2000 to 2019, with around a third of this increase in regions already drying out. Regions facing the dual crisis of increasing water demand and decreasing supply are identified, with a significant share of water consumption in these drying regions linked to low water use efficiency in the cultivation of water-intensive crops.

Five cross-cutting levers are essential for effective policy implementation:



Strengthen institutions



Adopt water accounting



Value water in trade



Optimize pricing and subsidies



Leverage data and technological innovations

Enhancing water use efficiency in agriculture could save substantial amounts of water when paired with effective monitoring and regulations to protect the savings. Globally, aligning the production of key crops with medium levels of global water use efficiency could reduce consumption of freshwater from rivers, lakes, and aquifers by 137 billion cubic meters—**equivalent to the annual water needs of 118 million people.**

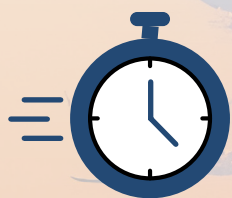
Adjusting cropland distribution to better match water availability within national borders, and **reallocating water use from less efficient to more efficient producers** and from **water-scarce to water-abundant areas across countries** through virtual water trade can further increase water savings in drying regions.

Policy Recommendations

The report recommends a three-pronged approach:

- 1. Managing demand**
- 2. Augmenting water supply**
- 3. Improving water allocation**

to tackle the continental drying crisis.



The time to act is now

Continental drying is a global economic and security threat. National responses and global cooperation are urgently needed to address the crisis. By preserving water we are securing the future of life.