

THE 0.01% SOLUTIONS

A Transcontinental Movement to Restore Land, Water, and Hope

Introduction

The world is running out of water. Not in the sense that water is disappearing from the planet—the total volume of water on Earth remains essentially constant—but in the sense that the water we depend on is no longer where we need it, when we need it, or in the condition we need it to be. The glaciers are retreating. The rivers are drying. The groundwater is being depleted. The soils are losing their moisture. The dust is rising. And the communities that depend on these systems—the pastoralists, the herders, the farmers, the Indigenous Peoples—are being pushed to the edge of survival.

This is not a distant future. It is happening now. Across 18 countries along the North 43°–44° Latitude Belt—from the Atlantic coast of France to the Pacific coast of the United States, through the Mediterranean, the Caucasus, Central Asia, and East Asia—a transcontinental crisis is unfolding. The Gobi Desert is expanding. The steppes are degrading. The glaciers of the Altai, the Tien Shan, the Himalayas, and the Tibetan Plateau are retreating. The permafrost is thawing. The dust is traveling thousands of kilometers, settling on ice and accelerating melt, affecting air quality and public health across continents. And the pastoralists who have lived on these landscapes for millennia are losing their livelihoods.

The crisis is not a collection of isolated problems. It is a single, interconnected system of degradation. Land degradation produces dust. Dust darkens ice. Dark ice melts faster. Melting ice changes the timing and availability of water. Changing water availability dries the land. Dried land degrades further. The cycle continues. It is a feedback loop that accelerates the destruction of both the drylands and the cryosphere—the two systems that together regulate water availability for billions of people.

And yet, the international governance architecture is fragmented. The UNFCCC addresses climate but not the cryosphere specifically. The CBD addresses biodiversity but not cryosphere ecosystems. The UNCCD addresses land degradation but lacks a water and cryosphere framework. The UN Water Convention addresses transboundary water but not the cryosphere. The Ramsar Convention addresses wetlands but not cryosphere sources. There is no single convention that addresses the hydrological cycle as a unified system—solid, liquid, and gaseous water—and the cryosphere as a critical component of that system. This is the governance gap that the 0.01% Solutions is designed to fill.

The Opportunity

The 0.01% Solutions is a proposed flagship programme for consideration under the United Nations Convention to Combat Desertification. At its core is a simple but ambitious proposition: to strategically capture and retain 0.01% of annual global precipitation—approximately 52 billion cubic metres of water—through a distributed network of water-retention systems across participating UNCCD countries.

The principle is simple. Each year, approximately 520,000 cubic kilometres of rain falls on Earth. Of that, about 120,000 cubic kilometres falls on land. The 0.01% Solutions aims to

capture just 0.01% of total global rainfall—52 billion cubic metres annually—through distributed pond systems, artificial lakes, wetlands, recharge areas, and Green Ring ecosystems. This is a tiny fraction of the total water available, yet it is sufficient to restore degraded landscapes, recharge groundwater, suppress dust, sequester carbon, and build resilience for the 500 million pastoralists who depend on these landscapes for their livelihoods.

The implementation mechanism is equally simple: distributed pond systems. Each pond captures rain where it falls, slows runoff, allows water to soak into the ground, recharges aquifers and springs, and nourishes a green ring of vegetation. Each pond is a tiny cryosphere; each green ring is a lung. Together, they form a living fabric that spans continents—a transcontinental ecological infrastructure designed to restore the balance of the hydrological cycle at the scale of a hemisphere.

The Global Scale

The 0.01% Solutions is designed for implementation across all 197 UNCCD Parties, particularly in three key areas: drylands, pasturelands, and the North 43°–44° Latitude Belt Corridor under Distributed Pond Systems.

1. Drylands

Drylands cover approximately 40% of the world's land surface and are home to over two billion people. They are areas that face great water scarcity and are highly adapted to climatic variability. The UNCCD recognizes drylands as globally important areas that are home to many of the world's poorest populations.

The 0.01% Solutions will be implemented across drylands through distributed pond systems that capture rainfall where it falls, recharge groundwater, restore vegetation, and reduce transboundary dust emissions. These interventions are designed to address the root cause of desertification—hydrological instability—by restoring the water cycle at the landscape scale.

2. Pasturelands (Rangelands and Grasslands)

Rangelands cover approximately 54% of the world's land surface and directly support more than 500 million pastoralists. More than 2 billion people depend on rangelands for food, livestock, and livelihoods. These vast grazing ecosystems provide nearly 70% of the world's livestock feed.

Yet up to 50% of rangelands are degraded or at risk, threatening food systems, livelihoods, biodiversity, and ecosystem functions. In several regions, rangelands are deteriorating faster than rainforests, with serious implications for food security, climate resilience, and rural livelihoods. Restoring rangelands delivers benefits reaching up to USD 35 for every dollar invested.

The 0.01% Solutions will be implemented across pasturelands by establishing distributed ponds that create "Green Ring" ecosystems—wetland, shrub, and grass zones around each pond—restoring vegetation cover, improving water retention, and strengthening resilience for pastoralist communities.

3. The North 43°–44° Latitude Belt Corridor

The 43°–44° North Latitude Belt provides the geographical starting point and conceptual demonstration area for the programme. Extending across Eurasia and North America, this belt connects cold arid lands, steppes, deserts, rangelands, mountain systems, permafrost margins, and densely populated regions across 18 countries.

This corridor is a continuous transcontinental belt of drylands and steppe ecosystems, linking grasslands, deserts, cold-climate regions, permafrost margins, and densely populated settlements. It is the world's major dust-generation belt, with dust from the Gobi, Central Asia, and the Great Plains affecting downwind countries across the corridor. From this regional foundation, the Green Web concept seeks to demonstrate how distributed ecological restoration can be connected across national boundaries and eventually adapted to other dryland and cold-climate regions.

The Vision

The 0.01% Solutions is ultimately founded on the belief that the restoration of land and the restoration of water cannot be separated. Healthy land retains and cycles water; healthy water systems sustain ecosystems; healthy ecosystems support communities; and resilient communities are essential to the long-term stewardship of land and water. The programme therefore seeks to move beyond fragmented interventions toward an integrated approach in which hydrology, land restoration, biodiversity, climate resilience, pastoral livelihoods, and ecological governance reinforce one another.

At the heart of the programme is the concept of the Two 0.01% Realities. The first 0.01% represents an opportunity—the approximate fraction of annual global precipitation that could be strategically captured and retained at the scale proposed. The second represents a responsibility—the very small fraction of Earth's total water that exists as accessible freshwater upon which terrestrial life and human societies depend. Together, these realities express the central philosophy of the programme: capture what can be retained, protect what must be preserved, and restore what has been degraded.

The 0.01% Solutions is not simply a programme for building ponds. It is a long-term contribution to a larger global objective: restoring land by restoring water. Its ambition is to demonstrate that a small proportion of the Earth's annual rainfall, if wisely retained and connected to ecological restoration, can become part of a much larger effort to strengthen water security, restore degraded landscapes, protect vulnerable ecosystems, support pastoral and local communities, and build resilience for generations to come.

The Invitation

The 0.01% Solutions is extended as an open invitation to all 197 Parties to the United Nations Convention to Combat Desertification—a global community of nations united by the shared challenge of land degradation, desertification, and drought. This invitation is not a directive. It is not a demand. It is a proposal for partnership—a call to join a transcontinental movement to restore land, restore water, and restore hope.

The programme does not claim that distributed ponds alone can solve desertification, climate change, or water insecurity. Rather, it proposes that strategic water retention and landscape restoration can serve as a practical component of a much broader international response. The

objective is not to replace existing UNCCD programmes, national policies, scientific institutions, or established restoration approaches. Instead, the objective is to connect them through a common implementation logic: retain water where it falls, restore the land that depends upon it, protect the ecosystems that regulate it, and strengthen the communities that steward it.

This invitation is extended to all nations—large and small, developed and developing, dryland and wet—because water does not respect borders. Dust does not respect borders. Glaciers do not respect borders. Rivers do not respect borders. Climate does not respect borders. And neither can our response. The challenges we face are transcontinental. The solutions must be equally transcontinental.

The 0.01% Solutions is designed to complement—not replace—existing international commitments and institutions. It is a practical implementation mechanism that can be adapted to the unique ecological, economic, and social conditions of each participating country. Whether your nation lies in the drylands of Africa, the rangelands of Central Asia, the pasturelands of the Americas, or the steppes of Eurasia, the 0.01% Solutions offers a framework for action that is grounded in science, proven in practice, and scalable to the needs of your people and landscapes.

We invite you to consider this proposal through an open and evidence-based process involving governments, the UNCCD, scientific institutions, international organizations, financial institutions, local communities, pastoralist and indigenous organizations, and other stakeholders. Its technical, financial, environmental, and institutional components would be subject to appropriate feasibility assessments, safeguards, consultations, monitoring, and independent verification as the programme develops.

We invite you to join this historic undertaking—a transcontinental movement that will be remembered for generations as the moment when nations chose cooperation over division, action over delay, and hope over despair. We invite you to be part of a legacy that secures the future for children yet unborn. We invite you to restore land, restore water, restore hope, and build peace.

The drylands, the rangelands and the North 43°–44° Latitude Belt Corridor connects our nations through shared ecological challenges. Let us now connect our nations through shared solutions.

Restoring LAND. Restoring HOPE. Restoring WATER. Building PEACE.

The 0.01% Solutions—Green Web—Cryosphere Convention Initiative Team

An independent, civil society initiative

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