



# ECOBUZZ

A BUZZ TO THE GREEN FUTURE!!

RIO SUMMIT 1992  
21 KEY AGENDAS

SEPTEMBER'2025  
EDITION

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*Greetings from Faculty of Law, GLS University!*

After a successful series on Sustainable Development Goals, I am very happy to learn that for the next EcoBuzz series we explore the five basic elements of nature –the *panchamahabhutas* – which inhere the properties of earth (prithvi), water (jala), fire (tejas), wind (vayu) and space (akasha).

Reconnecting to the nature outside of us can help us reconnect to our true, inner nature. When we spend more time outside in the elements, we start to rebalance ourselves physically, mentally and energetically.

The current edition of EcoBuzz shall focus on the element “Prithvi” – the Earth. It’s surprising just how easily we can lose connection to the earth. Spending long periods indoors, driving cars and fixating on screens all creates a disconnection between ourselves and the earth. The longer we’re disconnected from the earth and the outside world, the more we forget our interconnected role within nature. Thus, the more we tend to focus on ‘I, me, my’ – the ego.

Our Mother Earth is currently dealing with a wide range of issues, despite efforts in recent decades to address environmental challenges. Due to the terrifying pace at which the Environment is being exploited the legal framework for addressing environmental issues at the global and domestic levels seems inadequate without the collective effort of the human-kind.

I feel happy that the students have decided the ‘MOTHER EARTH’ as the theme for this month's EcoBuzz and our constant efforts towards a green and clean Earth, will continue to raise awareness on the alarming issues that the mother Earth is facing.

Let’s come together for organised actions with the sole objective of saving mother earth while thriving to keep it alive, green, and clean.

Regards,  
Dr. Mayuri H. Pandya  
Dean, Faculty of Law, GLS University

## ECOBUZZ TEAM

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# National Updates

## National Policy and International Commitments

India is a Party to the UN Convention to Combat Desertification (UNCCD), with the Ministry of Environment, Forest and Climate Change (MoEFCC) as the national focal agency for desertification and drought issues. The Government of India has pledged to achieve land degradation neutrality and restore 26 million hectares of degraded land by 2030 under UNCCD and the Bonn Challenge.

## National Action Programme (NAP) to Combat Desertification

The updated National Action Programme to Combat Desertification and Land Degradation (2023) provides a national framework focusing on forestry interventions, sustainable land management and convergence of central schemes in dryland regions. It emphasizes landscape-level planning, community participation, and integration of soil-water conservation, vegetation improvement and livelihood support, specifically in arid and semi-arid ecosystems.

## Monitoring, Research and Institutional Mechanisms

ISRO and MoEFCC have prepared the Desertification and Land Degradation Atlas of India, which maps the extent and types of land degradation to prioritize restoration in arid and semi-arid zones. A dedicated Desertification Cell in MoEFCC and a Centre of Excellence on Sustainable Land Management coordinate research, technology dissemination and capacity-building for combating desertification and improving drought resilience nationwide.

## Policy and Climate Action Framework

Gujarat State Action Plan on Climate Change (SAPCC) prioritises water, agriculture, forests and arid regions like Kachchh and North Gujarat for drought and land-degradation management. State policies integrate drought risk reduction, climate adaptation and land-restoration goals in line with India's National Action Plan to Combat Desertification.

## Scientific Monitoring and Capacity

Building Collaboration with ISRO and state agencies for geospatial desertification/land degradation mapping identifies hotspots, tracks vegetation shifts and prioritizes interventions in Gujarat's 20+ dry districts, feeding data into SAPCC monitoring dashboards. Establishment of research centres, Krishi Vigyan Kendras and extension networks disseminates drip irrigation tech, soil testing, water auditing and participatory resource management training to panchayats, enabling scalable adoption of sustainable arid land practices.

## Disaster Preparedness and Livelihood

Resilience Gujarat State Disaster Management Authority (GSDMA) integrates drought as a priority hazard in its action plans, combining real-time early warning systems, crop contingency planning, fodder banks, drinking water tankers and employment guarantees with long-term mitigation like micro-irrigation and crop diversification. Promotion of climate-smart agriculture includes drought-tolerant varieties (millets, pulses), silvipasture systems, community micro-enterprises and farmer producer organisations to diversify incomes, reduce vulnerability and foster self-reliance among arid zone pastoralists and smallholders.

# State Updates

मणिर्नगच्छेत्प्रवृद्धं शनं वायुः पतञ्जलिः।  
प्रतिवासोमा पिशाचं ग्रामवृद्धं पुनः शंछि।

One should not pollute nature, its sources, and keep them undisturbed for the well-being of all beings, as nature's power is boundless. Living in harmony with nature brings peace and avoids harm to all beings.

# GREEN JUSTICE

## **Municipal Corporation of Greater Mumbai v. Ankita Sinha**

The Supreme Court recognised the importance of specialised environmental adjudication and strengthened the role of the National Green Tribunal (NGT). The Court held that environmental protection is directly linked to the right to life under Article 21. It emphasised that degradation of land, water bodies and ecosystems affects vulnerable communities the most. The judgment supports Green Justice by ensuring speedy remedies for environmental harm, including land degradation and water mismanagement that can worsen drought conditions.

## **State of Karnataka v. State of Andhra Pradesh**

This case dealt with inter-state river water disputes and equitable water distribution. The Supreme Court highlighted that water is a scarce natural resource essential for human survival, agriculture, and ecological stability. The Court stressed judicious and equitable use of water resources to prevent drought impacts in dependent regions. The judgment reflects Green Justice principles by recognizing fair access to water as essential for sustainable land management and social equity.

## **Narmada Bachao Andolan v. Union of India**

The Court addressed the balance between development and environmental protection in large water projects. While allowing the dam construction, it stressed sustainable development, environmental safeguards, and rehabilitation of displaced communities. The judgment recognised water security as vital for drought-prone regions but insisted that ecological concerns and human rights cannot be ignored. This case highlights the need for responsible land and water governance to ensure long-term sustainability and social justice.

## **M.C. Mehta v. Kamal Nath**

The Supreme Court applied the Public Trust Doctrine, holding that natural resources such as land, rivers and forests are held by the State in trust for the public. Leasing riverbank land for private commercial use was struck down as unconstitutional. The Court ruled that ecological balance cannot be sacrificed for private profit. This judgment forms the backbone of Green Justice by mandating sustainable use of natural resources and preventing land degradation that can worsen desertification and drought.

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युक्तस्वप्नावबोधस्य योगो भवति दुःखहा ||

One who practices moderation in diet, rest, actions, and sleep, whose activities are balanced, experiences less suffering and lives a life aligned with sustainability and well-being.

# GREEN LAWS

## 1. National Action Plan to Combat Desertification (NAP 2022/2023):

India, as a party to the UN Convention to Combat Desertification (UNCCD), has prepared the National Action Plan to Combat Desertification, 2023 in line with its international commitments. The Plan aims to restore 26 million hectares of degraded land by 2030, enhance South-South Cooperation by sharing Sustainable Land Management (SLM) practices, and create an additional carbon sink of 2.5–3 billion tonnes of CO<sub>2</sub> equivalent through increased forest and tree cover. It proposes remedial and preventive models to address land degradation and emphasizes convergence of existing afforestation and restoration schemes for effective eco-restoration. The Plan focuses on efficient planning and implementation without providing any separate financial assistance.

## 2. United Nations Convention to Combat Desertification

The United Nations Convention to Combat Desertification (UNCCD) is an international, legally binding agreement aimed at combating desertification and reducing the impacts of drought through long-term national action programmes supported by international cooperation. Originating from the 1992 Rio Conference's Agenda 21, it was adopted in Paris on 17 June 1994 and came into force in December 1996. The Convention emphasizes key principles such as participation, partnership, and decentralization, which are essential for good governance and sustainable development. With 197 parties, the UNCCD has near-universal global reach. To raise awareness, 2006 was declared the International Year of Deserts and Desertification, although its practical effectiveness has been debated.

## 3. ENVIRONMENT (PROTECTION) ACT, 1986

The Environment (Protection) Act, 1986 plays an important role in combating desertification and drought by providing a broad legal framework for the protection and improvement of the environment. Although it does not specifically mention desertification, the Act empowers the Central Government to regulate activities that cause land degradation, soil erosion, and environmental pollution, especially in arid and semi-arid regions. Through its rule-making powers, Environmental Impact Assessment (EIA) notifications, and control over industrial and mining activities, the Act promotes sustainable land use, wasteland reclamation, and conservation of fragile ecosystems, thereby supporting the sustainable management of arid lands and drought-prone areas.

## 4. AGENDA 21

Agenda 21, adopted at the Rio Earth Summit (1992), is a comprehensive global action plan aimed at achieving sustainable development in the 21st century. It emphasizes the integration of environmental protection with economic and social development. Chapter 12 of Agenda 21 specifically addresses combating desertification and drought, calling for sustainable land-use planning, soil conservation, water management, afforestation, and community participation in arid and semi-arid regions. It encourages international cooperation, capacity building, and the use of traditional knowledge to prevent land degradation and ensure the sustainable management of natural resources.

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देवाभाग्यथापूर्वसंजानानाउपासते॥

Move together, speak together, let your minds be in harmony — just as the ancient gods shared their portion in harmony.

# The Arid Frontier: Engineering a Green Recovery for the World's Drylands

-Heer Joshi

Desertification and drought have evolved from regional environmental threats into systemic risks for global food security, human migration, and atmospheric stability. As of 2025, nearly 46% of the Earth's land surface is classified as drylands—ecosystems characterized by a chronic imbalance between moisture supply and demand. Unlike temporary drought, which is a periodic weather event, desertification is a structural shift: the "death" of the soil's biological capacity. In healthy arid ecosystems, vegetation acts as a biological "shield" against the sun's radiation and the kinetic energy of wind. When this shield is removed—often through overgrazing, deforestation for fuel, or unsustainable "monoculture" farming—the soil is exposed to extreme temperatures. This leads to the oxidation of organic matter, reducing the soil to a sterile, dusty state that cannot absorb water. When rain does occur in these degraded zones, it cannot penetrate the "baked" surface, leading to flash floods and further erosion rather than groundwater recharge. Furthermore, improper irrigation techniques in many arid zones have led to salinization, where evaporated water leaves behind toxic levels of salt, effectively "poisoning" the land for future agriculture.

## Strategic Restoration: The "Sponge" Effect

The 2025 paradigm for combating desertification focuses on restoring the "sponge effect"—the ability of the landscape to capture, store, and recycle every drop of moisture. This is achieved through a multi-tiered technical framework: Successful restoration projects, such as the Great Green Wall initiatives across Africa and Asia, have moved away from simple "tree-planting" toward "ecosystem engineering." One of the most effective techniques is Farmer-Managed Natural Regeneration (FMNR). Instead of planting new, vulnerable saplings that require massive irrigation, FMNR identifies and protects the "underground forest"—the dormant stumps and root systems of native trees that are already adapted to local conditions. High-technology is now a critical ally in dryland management. Precision Arid Agriculture utilizes satellite-based remote sensing and IoT (Internet of Things) soil sensors to provide real-time data on soil moisture and vegetative health. This allows for "pulse irrigation," where water is delivered in micro-doses only when a plant's stomata (pores) are open for gas exchange, minimizing evaporation loss. By incentivizing Regenerative Grazing, where livestock are moved frequently to mimic natural herd migrations, land managers can use animal manure to fertilize the soil without overgrazing. This turns the livestock from a driver of desertification into a tool for restoration. Additionally, the development of Solar-Powered Desalination hubs provides communities with a drought-proof water source, reducing the pressure to over-extract from dwindling groundwater reserves. The recovery of the "Arid Frontier" requires a departure from the industrial-era mindset of conquering nature. Instead, the focus is now on a circular dryland economy that respects the limits of the ecosystem while maximizing its unique potential. By combining the precision of 21st-century digital tools with the time-tested resilience of indigenous practices, we are proving that the desert can be not only contained but transformed into a productive, carbon-absorbing landscape. The health of our planet's "living skin" depends on this global commitment to restoring the land, thereby unlocking opportunities for food security and climate stability for generations to come.

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## UPCOMING EVENTS

### NATIONAL EVENTS

- **Indian Himalayan Region Climate Change Conclave (October 16-17, 2025):**

Held in Imphal, the conclave focused on the theme "Perspectives of Research, Practice, Policy, and Communication," bringing together experts to discuss climate change challenges and sustainable development in the Himalayan states.

- **ICC Sustainability Conclave 2025 (October 30-31, 2025):**

Organized in New Delhi, this conclave focused on "Sustainable Chemical Manufacturing: Innovations, Integration and Incentives," with support from the Ministry of Environment, Forest and Climate Change and UNEP.

- **Udyamita Suvidha Kendras Launch (October 2025):**

Two women-led Entrepreneurship Facilitation Centers were launched in Mirzapur, Uttar Pradesh, to strengthen the rural entrepreneurial ecosystem with a focus on sustainable development.

### INTERNATIONAL EVENTS

- **Global Symposium on Soil Sealing and Urban Soils (October 6, 2025):**

Co-organized by the UN Food and Agriculture Organization (FAO) and its Global Soil Partnership, this symposium explored sustainable urban soil management strategies and best practices for revitalizing sealed soil.

- **IUCN World Conservation Congress (Ongoing activities, including an introductory session on UNCCD COP17 on October 13, 2025):**

The Congress included a session in Mongolia to discuss the vision for a land-resilient future and preparations for the upcoming UNCCD COP17, which will be held in Mongolia in August 2026.

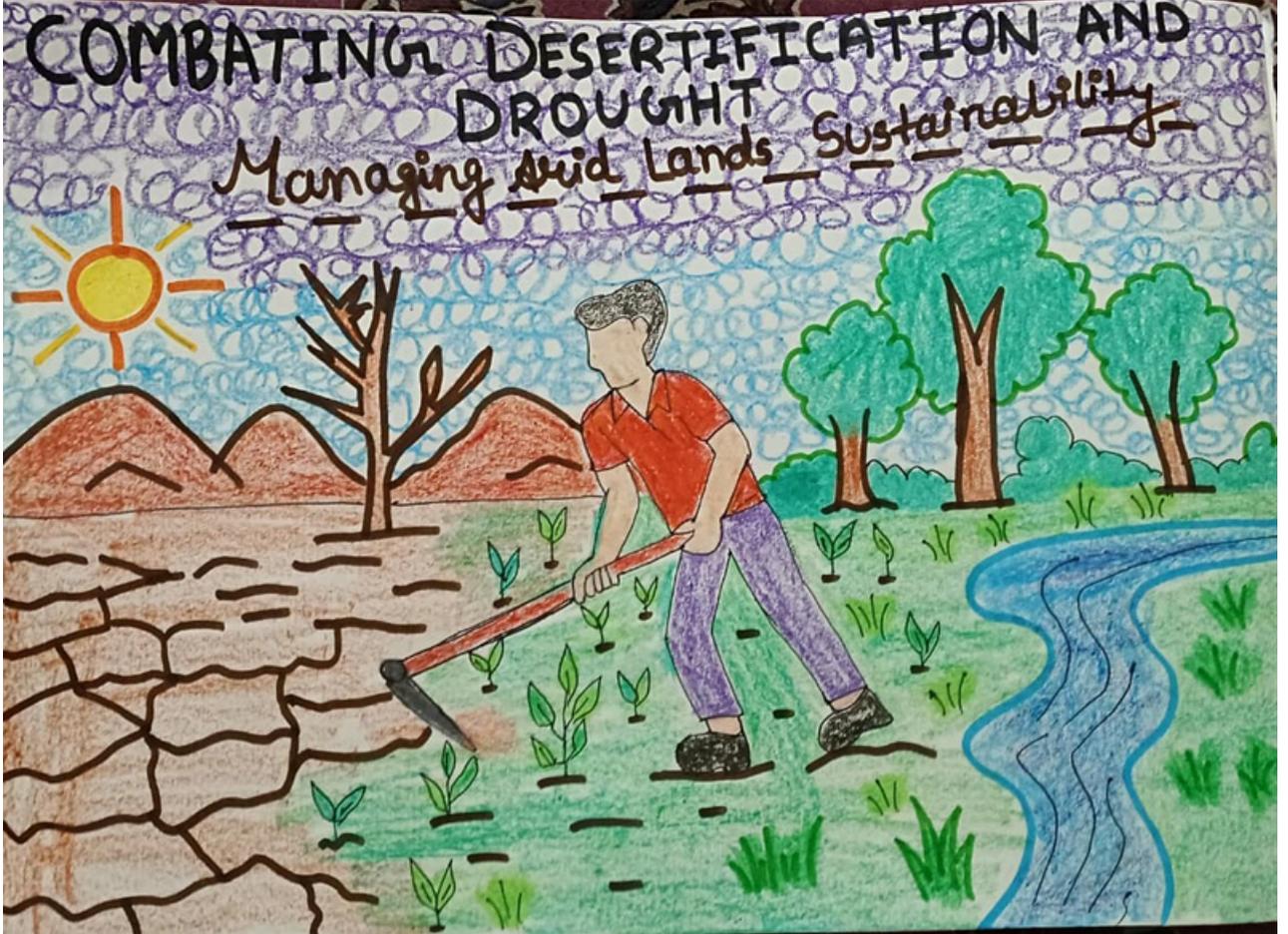
- **Extraordinary Session of the World Meteorological Congress (Cg Ext(2025)) (October 20-24, 2025):**

Held in Geneva, this session focused on progress with the "Early Warnings for All" initiative, which is highly relevant to drought preparedness and climate resilience.

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## CREATIVE CORNER



**THIS PICTURE SHOWS THE PROBLEM OF DESERTIFICATION AND HOW IT CAN BE REDUCED THROUGH SUSTAINABLE LAND MANAGEMENT. THE DRY, CRACKED LAND AND HOT SUN REPRESENT DROUGHT AND LAND DEGRADATION, WHILE THE SMALL GREEN PLANT SHOWS HOPE AND RECOVERY. THE MAN, NOW COLOURED, REPRESENTS HUMAN EFFORT IN CARING FOR THE LAND BY PLANTING AND PROTECTING VEGETATION. OVERALL, THE IMAGE EXPLAINS THAT WITH PROPER CARE, WATER CONSERVATION, AND PLANTATION, ARID LANDS CAN BE RESTORED AND MADE PRODUCTIVE AGAIN.**

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