



ANNUAL REPORT 2024-2025

INDIA WATER FOUNDATION



Table of Contents

FOREWORD	7
OVERVIEW	11
FROM DISINFORMATION TO DISASTERS: THE GLOBAL RISKS REPORT 2025 ..	14
FROM COHESION TO FRACTURE: LESSONS FROM THE G7 SUMMIT 2024	18
MULTILATERALISM UNDER STRAIN: INSIGHTS FROM THE G20 IN BRAZIL	22
GLACIER PRESERVATION FOR WATER SECURITY: LESSONS FROM WORLD WATER DAY 2025.....	27
PRESERVING GLACIERS TO SECURE HUMANITY’S FUTURE: WORLD WATER DEVELOPMENT REPORT 2025.....	29
THE HAZY PICTURE: EVALUATING INDIA’S NATIONAL CLEAN AIR PROGRAMME, 2025.....	33
INDIA’S FORESTS AT A CROSSROADS: ISFR 2023 FINDINGS	38
EMISSION TRENDS, RENEWABLE ENERGY GROWTH, AND CLIMATE COMMITMENTS: INDIA’S BUR-4 TO UNFCCC.....	41
STAGNATION, INEQUALITY, AND PATHWAYS FOR GLOBAL SDG PROGRESS: SUSTAINABLE DEVELOPMENT REPORT 2024.....	46
THE ROADBLOCKS TO CLIMATE FINANCE AND AMBITION: COP 29	49
WATER IN TRANSITION: INDIA’S INTEGRATED APPROACH IN 2024	52
REPORT	54
'Accelerating Progress of SDG6 (Clean Water and Sanitation) in the South and South West Asia sub-region	54

Water Transversality Global Awards and Conclave 2024 - Proceedings of the International Conference on Deciphering Transversality of Water-Energy-Environment Nexus.....	55
BOOK	57
Dr. Arvind Kumar’s, “Friday Musings.....	57
ANNOUNCEMENT	58
ACTIVITIES OF INDIA WATER FOUNDATION.....	61
GLOBAL INPERSON	61
India Water Foundation Highlights India’s Agricultural Achievements at UNHRC Side Event in Geneva ...	61
India Water Foundation Advocates Holistic Approach to Gender Equity at UNHRC Side Event in Geneva	62
Exhibition at the Broken Chair Square, Palais des Nations	62
India Water Foundation Showcases India’s Governance Model at UNHRC Side Event in Geneva	63
India Water Foundation Highlights India’s Commitment to Minority Empowerment at UNHRC in Geneva	63
India Water Foundation Reaffirms India’s Constitutional Protections for Religious Freedom at UNHRC in Geneva	64
India Water Foundation Advocates Strong Data Privacy Measures at UNHRC in Geneva	65
International Conference on Deciphering Transversality of Water-Energy-Environment Nexus during the Water Transversality Global Awards and Conclave on 5th-6th December 2024.....	66
Turning Promises into Progress on Climate Action at COP29.....	69
Annual half-day panel discussion on the rights of Indigenous Peoples at the 57thsession of the UNHRC	80
Official side event on 'Safeguarding Human Right of Water, Sanitation and Health amidst Climate Emergency' during the 57th session of the UN Human Rights Council On 3rd October 2024.....	80
Annual Discussion on Integration of a Gender Perspective at the 57th session of UN Human Rights Council at Geneva, Switzerland.....	81
Exhibition at the Broken Chair Square in front of the Palais des Nations, Geneva showcasing the positive indices of the Government of India	82
SANS Policy dialogue on Climate change and carbon regulations - A way forward for South and South-West Asia during the 8th SSWA Regional Forum on Sustainable Development	82

Cross Cutting session on Climate-Water-Energy-Food-Ecology System of Systems, Bali Indonesia	83
Exhibition at 56th session of UNHRC, Geneva	84
GLOBAL ONLINE.....	86
Side Event on Upholding the Human Right to a Clean, Healthy and Sustainable Ocean	86
High-Level Policy Dialogue on Fostering Collaborative Efforts to Protect Receding Glaciers	87
High Level Policy Dialogue on Deciphering the Interlinkage of Climate Change, Hunger and Poverty on 17th July 2024 (Global Online)	88
High Level Policy Dialogue on "Multi-Stakeholder Actions For Combating Desertification and Droughts Through Water Transversality' organized by India Water Foundation on 14th June 2024	89
56th Meeting of the UN Human Rights Council	91
SANS Meeting	92
High level policy dialogue on Integrating Multi-stakeholder Actions for Building back Biodiversity	93
NATIONAL INPERSON	95
Global Business Summit 2025 – New Delhi.....	95
8th India Water Week (17-20 September 2024).....	96
Session on Synergizing Cooperation across Boundaries at 8th India Water Week.....	97
Water Leaders Forum on Partnerships and Cooperation on Integrated Water Resources Management at 8th India Water Week on 19th September 2024	98
Eighth South and South-West Asia Sub Regional Forum on Sustainable Development on 12-14th November 2024.....	99
Dr. Arvind Kumar as Chief Guest at Dr. B R Ambedkar Law University, Sonipat	100
Expert talk panel discussion organized by National Institute of Food Technology Entrepreneurship and Management (NIFTEM)	101
NATIONAL ONLINE.....	102
Buland Bharat TV – Ammonia Contamination in Yamuna River	102
MEETINGS.....	103

VIDEO MESSAGES.....	111
MEDIA COVERAGES.....	114
MEDIA COVERAGE LINKS.....	117
GALLERY	120

Foreword

The past year has seen our planet buffeted by interlocking storms from geopolitical upheavals and trade wars to raging climate extremes – all of which threaten lives, livelihoods and ecosystems. Global leaders at Davos warned that armed conflict topped their immediate concerns, while the next decade’s greatest fear was the accelerating climate emergency. Indeed, 2024 surged to record warmth (reaching 1.54 °C above pre industrial levels, unleashing unprecedented floods, droughts, wildfires and heatwaves “hammering health, widening inequalities and rocking the foundations of peace”. In this crucible of crises, the vulnerable pay the highest price: by the end of 2024 an estimated 123.2 million people were forcibly displaced by conflict and disasters, a staggering one-in-sixty-seven persons worldwide. These global shocks conflating pandemic aftershocks, regional wars (from Ukraine to Gaza), spiralling food and energy costs, and historic climate disasters form the tempest at our doorstep.



Trade Tempests and Geopolitical Faultlines

In the economic arena, new trade storms are reshaping old alliances. A “raw reassertion” of US economic power via steep tariffs (up to 50% on exports from India, Brazil, South Africa and others) has plunged markets into turmoil. Supply-chain models are creaking under these policies: even the end of a modest US tariff exemption on small-package imports sent costs soaring for e-commerce, hurting small businesses and consumers. Currencies in the Global South feel the strain too – for example the Indian rupee hit historic lows amid fears that punitive U.S. tariffs will dent growth. These pressures are already forging a countermovement: leaders like Lula da Silva and Narendra Modi, once content as buyers of U.S. goods, now speak of diversifying away

from America. China's President Xi Jinping has urged emerging economies to “take a clear stand against unilateralism and protectionism”. In short, trade wars have ignited a new realignment of the global south, complicating forecasts of growth and cooperation.

Climatic Reckonings and Nature's Fury

Climate change continues to inscribe itself violently on the world stage. With every month of record warmth, weather has gone rogue: monsoon deluges, tropical cyclones, flash floods and megafires are piling up, often in quick succession. The UN World Meteorological Organization warns that these catastrophes are “our new reality”. In the high Himalayas and Andes, entire glaciers are melting so rapidly that traditional water supplies and farming calendars are being upended. The United Nations World Water Development Report 2025 paints a vivid picture: as the world warms, the “water towers” of the mountains are shrinking, making runoff more erratic and intensifying floods, droughts, landslides and sea-level rise with “devastating consequences for people and nature”. In valleys and plains, water scarcity too has become a tinderbox: UN experts remind us that when “water is scarce, food security can be undermined, livelihoods lost, and conflict can follow”. In short, climate change is turning once-rare disasters into the norm, and each disaster brutally widens inequalities. As WEF leaders noted, climate risks such as biodiversity loss and collapsing ecosystems are among the decade's top perils.

Amid these storms, water – the lifeblood of agriculture, health and energy emerges as both hope and hazard. Even before the latest heatwaves, one in seven of the world's population lacked safe drinking water or sanitation; now climate chaos threatens to make clean water the planet's scarcest commodity. The UN World Water Report warns that ensuring universal access to water and sanitation is “essential for global prosperity and peace”. Yet the financing to back this up remains scant: some of the world's hungriest, most climate-vulnerable nations get almost nothing. For example, Somalia, still recovering from a catastrophic 2021–23 drought, has received under 0.1% of global climate finance despite its desperate need. Such lopsided funding helps explain why fragile states bear a staggering humanitarian burden: one analysis found that just 11% of the world's population now accounts for roughly 82% of those needing aid. In short, the Global South is feeling the brunt of both geopolitical and environmental shocks

Digital Frontiers and Collective Hope

Despite these dark clouds, 2024–25 also saw bold efforts to turn the tide. Nations and institutions quietly mobilized record resources for climate action. At COP29 in Baku, a coalition of multilateral development banks pledged to roughly triple their climate financing, targeting some US\$120 billion per year for developing countries by 2030 (including \$42 billion for adaptation). This kind of money, long promised but only now materializing, is vital to build resilient dams, irrigation systems and digital early-warning networks that can save lives. On the technology frontier, breakthroughs in AI, satellite monitoring and “digital twins” are beginning to transform everything from farming to flood forecasting. While these innovations bring new risks (and must be managed carefully), they offer a route out of gridlock: smart sensors can detect leaks, optimize irrigation and warn communities of approaching storms. In the very industry where water once flowed invisibly, the future increasingly depends on bytes and algorithms.

A Fork in the Tide

The world today is a tapestry of immense challenges: trade and political strife, economic uncertainty, pandemic legacies, deep social divides and an intensifying climate crisis. No nation is untouched, but the richest countries wield the most influence for better or worse over these tides. Decisions made in Washington, Brussels or Beijing send ripples that can flood fields from Africa to Asia, or leave islands thirsty. The forward arc is not preordained. If last year’s crises taught us anything, it’s that solidarity and science must steer our ship. International forums now pulse with talk of adaptation funds, debt relief, and “just transitions” for those left behind by a carbon economy. For those in the Global South – who often cry the loudest for justice while contributing least to the problem – these are not mere words. As the UN Secretary-General bluntly warned, climate change today is a “catastrophe” that “widens inequalities” and must be fought by dramatically reducing emissions and scaling up aid.

For the India Water Foundation, these global currents matter deeply. Our mission – ensuring a safe environment, sustainability and resilient development is inextricably linked to geopolitics and global markets. We see daily how weak policies and international discord compound local water crises. Yet we also see glimmers of hope: partnerships sprouting between south-south

neighbours, young activists pushing for sustainable development, and old engineering made new with data. In this annual report, we will highlight some of these efforts, confident that even amid storms, a commitment to science, fairness and solidarity can keep us on course.

A handwritten signature in blue ink, appearing to read "Arvind Kumar", with a horizontal line underneath.

(Dr Arvind Kumar)

President

India Water Foundation

Overview

The past year has reminded us that the past can no longer be relied upon as a predictor of the future. We are living through an era of profound uncertainty where the certainties of yesterday's stable geopolitics, predictable economic growth, and gradual technological diffusion are being replaced by unprecedented disruption. Geopolitical tensions have escalated into tariff wars and fragmented supply chains, reshaping trade and investment flows. Technological advances, particularly in artificial intelligence and emerging digital ecosystems, are accelerating at a pace faster than governance can adapt. At the same time, the world has crossed critical planetary tipping points: rising sea levels, glacier retreat, desertification, and biodiversity loss have become realities for millions. In this fragile equilibrium, one fact stands immutable: the Global South, home to six billion people, must have its proportionate voice in shaping the trajectory of the global future.

This belief underpins our call for urgent institution-building in the Global South. For far too long, external actors have dominated the narrative about our region, defining it in terms of deficit, what we lack, what we need, what must be given to us rather than acknowledging our potential, innovations, and contributions. This narrative must be reversed. Our region is not simply a consumer of global ideas but a crucible of solutions born of lived experience, resourcefulness, and resilience. At The IWF, we remain committed to advancing this reframing. Our approach is grounded in the conviction that sustainable development must be rooted in the realities of people's lives, where data, experience, and innovation combine to deliver impact at scale. Collaboration across borders, sectors, and communities is not a choice but a necessity in this pursuit.

The year 2024-25 marked a significant stride in this journey. Our working paper for the United Nations ESCAP South and South-West Asia Office on accelerating progress on SDG6 (Clean Water and Sanitation) was a milestone contribution to the global development discourse, offering a detailed assessment of achievements and persistent gaps in ensuring safe water access across

the sub-region. In December, we convened the Water Transversality Global Awards and Conclave 2024 in New Delhi, bringing together government leaders, multilateral organisations, academia, civil society, and industry. The conclave was not only a forum for dialogue but also a recognition of over sixty transformative initiatives across rainwater harvesting, groundwater management, industrial water efficiency, and climate-resilient agriculture celebrating innovation and human ingenuity. At COP29 in Baku, our official side event on Water Transversality for Climate Adaptation and Resilience reinforced the global recognition that water is not a sectoral issue but a transversal accelerator of climate action, finance, and resilience-building.

Our engagements extended beyond climate and water governance into pressing dimensions of rights, justice, and equity. At the UN Human Rights Council in Geneva, we highlighted India's progress in safeguarding the human right to water, sanitation, and health amidst the climate emergency. We participated in dialogues on indigenous peoples' rights, gender equity, and digital rights, underscoring the importance of inclusive and integrated approaches to sustainability. We also advanced critical policy discussions at the High-Level Political Forum 2024, where our interventions linked climate change to hunger and poverty, advocating for climate-resilient agriculture, livelihood diversification, and disaster risk reduction as levers for breaking cycles of vulnerability. These interventions signal our continued effort to amplify the voice of the Global South in global governance platforms, not as a passive recipient but as a proactive contributor of ideas, policies, and innovations.

These institutional milestones unfolded against the backdrop of major global developments. At COP29, nations agreed on a landmark New Collective Quantified Goal on Climate Finance, tripling annual support to developing countries to USD 300 billion by 2035 and setting a broader ambition of mobilizing USD 1.3 trillion annually through public and private channels. Yet this breakthrough was tempered by renewed tensions between North and South on equity, adequacy, and responsibility. Simultaneously, India Energy Week 2025 reinforced the centrality of the Global South in the world's energy transition, with India showcasing its leadership on green hydrogen, renewable energy, and innovation ecosystems. Trade tensions, particularly tariff escalations by major economies, have disrupted growth prospects for developing nations, reminding us that sustainability and equity cannot be divorced from the larger currents of global

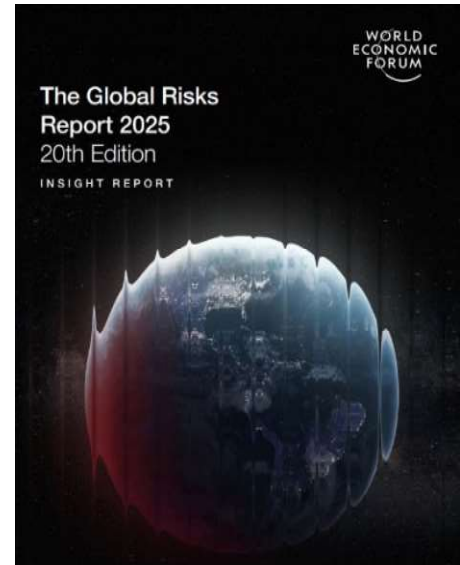
geopolitics and economics. These cross-cutting realities underscore why transversality addressing interconnected challenges of water, energy, climate, food, and rights is indispensable.

As we look ahead, the message is clear. The Global South cannot be relegated to the periphery of global decision-making. Its institutions must be strengthened to speak with coherence, conviction, and collective wisdom. Our commitment is to advance resilience through transversality, to mainstream gender and social equity, to safeguard indigenous voices, to champion innovation in agriculture, water, and energy, and to ensure that development is both sustainable and just. The road ahead will be complex, marked by geopolitical contestation and climate urgency, but it is also rich with possibility. By drawing on the lived realities of billions, by investing in collaboration, and by advancing solutions that are data-driven, inclusive, and scalable, we can reimagine the future not as a fragmented world of competing silos, but as a shared endeavour anchored in justice, sustainability, and hope.

Shweta Tyagi
Chief Functionary
India Water Foundation

From Disinformation to Disasters: The Global Risks Report 2025

It is the 20th year of the Global Risk Report and it brings together insights on the global risks landscape from more than 900 experts across academia, business, government, international organisations and civil society. The Report also draws on the WEF’s Executive Opinion Survey (EOS) to identify risks that pose the most severe threat to each country over the next two years, as identified by more than 11,000 business leaders in 121 economies. This year’s report cites a broad range of risks – combining misinformation and disinformation, extreme weather, state-based armed conflict, societal polarisation and cyber warfare – among the top five over the next two years.



It is striking though that the ten-year outlook is once again dominated by environmental concerns – four of the top five biggest risks (and five of the top ten) relate to climate and environmental breakdown.

Another curious finding is that economic factors, still so prevalent in the day-to-day concerns of people, have vanished from the top ten risks in both the next two and ten years. One final observation, which warrants further discussion, is that fears over the potential malign influence of Artificial Intelligence (AI) – a subject with hours of TV news discussion and countless newspaper and magazine column inches devoted to it last year – does not even appear in the top ten risks in the two year period, ranking 31 out of 33, and takes the 6th spot over the ten year period. Have respondents downplayed or overlooked the potential problems of AI in the short term?

The Risk Report is a serious piece of work that may be a useful tool that company directors and risk committees may want to contrast and compare with their own internal list of potential ‘trip hazards’. However, the Report is not infallible – state-based armed conflict, the current top risk for 2025, rated by 23% of respondents, was overlooked as a leading two-year risk in 2023.

Short Term Risks

The top risk for 2027 according to survey respondents is misinformation and disinformation – for the second year in a row. It was a bumper year for elections in 2024, with close to 3 billion people going to the polls to elect new governments across several countries, including the UK and US. Consequently, it was of little surprise that concerns about social media’s ability to influence, manipulate, divide and polarise the electorate were riding high last year.

However, respondent concern has remained high in the 2025 Report, with this risk a top concern across a majority of age categories and stakeholder groups. It is also becoming more difficult to differentiate between AI- and human-generated misinformation and disinformation. The report said: “AI tools are enabling a proliferation in such information in the form of video, images, voice or text. Leading creators of false or misleading content include state actors in some countries.”

With fears about misinformation at the top of the rankings, it is perhaps surprising to note that concerns about adverse outcomes of AI technologies, which play an increasingly large role in the production and distribution of twisted and malign narratives, is so low in the risk ranking. In fact, it has fallen in the two-year outlook, now ranking at 31st compared with 29th in last year’s report.

“Complacency around the risks of such technologies should be avoided given the fast-paced change in the field of AI and its increasing ubiquity,” the report added. Respondents also expressed unease over cyber espionage and warfare, which is 5th in the two-year ranking, echoing concerns outlined in the WEF’s 2024 Chief Risk Officers Outlook, where 71% of Chief

Risk Officers expressed concern about the impact of cyber risk and criminal activity, such as money laundering and cybercrime, severely impacting their organisations.

Elevated state sponsored cyber risk perceptions also feed into an environment of heightened geopolitical and geoeconomic tensions. This is reflected in the two-year ranking of state-based armed conflict moving up from 5th in last year's report to 3rd this year. Wars in Ukraine, the Middle East, and Sudan have clearly amplified respondents' concerns. The uncertainty over how a second Donald Trump presidency would deal with multilateralism generally, and particularly agencies like the United Nations and NATO, may also have been an influence.

Notably absent from this year's top 10 in the short term are economic risks. Last year, two economic risks – inflation and economic downturn (recession, stagnation) – were firmly ensconced in the top 10. Concerns around both have since subsided – inflation, which was 7th last year, has plummeted to 29th, with a similar fall for economic downturn, which was 9th last year and is now 19th.

Long Term Risks

Environmental factors again dominate the risk outlook over a 10-year horizon. The impacts of environmental risks have worsened in intensity and frequency since the Global Risks Report was launched in 2006. If the rear-view mirror looks bad, the view over the horizon is also pretty alarming. All 33 risks in the Report are expected to worsen in severity from the two-year to the 10-year time horizon. But environmental risks present the most significant deterioration. Extreme weather events are anticipated to become even more of a concern than they already are, with this risk coming top in the 10-year risk list for the second year running. Biodiversity loss and ecosystem collapse ranks 2nd, with a significant deterioration compared with its two-year ranking.

The Report shows there is generational divergence when it comes to risk perceptions of environmental issues. Younger survey respondents are more concerned about this over the next 10 years than older age groups. For example, pollution is ranked 3rd most severe risk in 2035 by

the under 30s – the highest of any age group surveyed. There is also divergence in how pollution is ranked by stakeholder, with the public sector placing it as a top 10 risk in the 10-year ranking, but not the private sector. Saadia Zahidi, managing director of the WEF, said: “Looking back over the last two decades, environmental risks have steadily consolidated their position as the greatest source of long-term concern. This year’s Global Risks Perception Survey shows that a sense of alarm is also mounting in the shorter term: Environmental problems, from extreme weather to pollution, are here now and the need to implement solutions is urgent.”

Conclusion

Optimism appears to be in short supply. The 2025 Report shows that the global outlook is increasingly fractured across geopolitical, environmental, societal, economic and technological domains.

A majority of respondents (52%) anticipate an unsettled global outlook over the short term (next two years). The landscape deteriorates over the 10-year timeframe, with 62% of respondents expecting stormy or turbulent times.

Extreme weather events at home in the UK and around the world (the Los Angeles wildfires), conflict escalation and political polarisation have contributed to a sense of uncertainty in key areas of our lives. There is also a deepening distrust that current societal mechanisms and governing institutions are capable of turning back that tide.

From Cohesion to Fracture: Lessons from the G7 Summit 2024

The G7 summit of 2024 in Italy concluded with an official statement that underscored key takeaways and ongoing challenges. While the summit aimed to address pressing global issues, it was evident that underlying political dynamics and strategic objectives, particularly regarding China and Russia, played a significant role. This analysis highlights the successes and shortcomings of the summit, as well as the broader geopolitical implications.



Key Takeaways from the G7 Summit

- **Focus on AI and Technology Regulation:** Italy, under Prime Minister Giorgia Meloni, prioritized the regulation of artificial intelligence (AI). Pope Francis, a former chemist, made an unprecedented appearance to advocate for AI regulation, emphasizing its potential harms. Italy's temporary ban on ChatGPT in March 2024 showcased its proactive stance on AI scrutiny.
- **Outreach to Non-Western Nations:** The G7 attempted to broaden its engagement beyond Western democracies by inviting leaders from India, Brazil, South Africa, Turkey, Saudi Arabia, Argentina, Algeria, Kenya, and Mauritania. This move aimed to bridge the “West vs. the Rest” gap, especially concerning the Ukraine crisis. It was an attempt to expand blocks beyond West and take some other emerging powers on board.
- **Financial Sanctions on Russia:** A core issue was the proposal to use dividends from frozen Russian assets to support Ukraine. This proposal, initiated by Washington, faced

opposition from European members and Japan. The debate highlighted the complexities of international financial sanctions and the geopolitical tug-of-war over their implementation. Some of the US allies were of opposite views and President Joe Biden failed to convince them.

Failures and Criticisms

- **Geopolitical Motives and US Hegemony:** The summit's agenda appeared heavily influenced by the US's strategic objectives to counter China and Russia, raising concerns about the G7 being used as a tool for US geopolitical dominance. The exclusion of Russia since the 2014 G8 shrinkage to G7 and the recent focus on isolating China reflect a shift from economic cooperation to big-power rivalry.

Out of 7, six leaders were having domestic issue at home and were not strong enough to make a solid contribution at the Summit. President Biden, who is going to have a tough election by the end of this year, was losing his popularity within American voters. He might face very tough competition from former President Trump. He is equally unpopular globally for his irrational support to Israel and genocide in Gaza. Furthermore, during his tenure, Afghan debacle, Ukraine War, Gaza Genocide, and de-dollarization happened, making his presidency a weak and failure. French President is also going for election soon. Canadian Prime Minister, who is very much popular globally, but, may face very tough completion at home from opposition. Japanese Prime Minister is one of the weakest prime Minister in the history of Japan. German Chancellor is also facing domestic issues. I think only Italian Prime Minister was strong and enjoying full support of his people. Under this scenario, the six leaders were not in a strong position to contribute something solid at the G-7 summit.

- **Divisions Among G7 Members:** The inability to reach a consensus on using Russian assets for Ukraine highlighted fractures within the G7. European and Japanese resistance to US pressure revealed underlying tensions and differing priorities among member states.

The lack of agreement on this financial issue demonstrated the limits of G7's cohesion and effectiveness in addressing complex global challenges. Some of the US allies were of opposite views and President Joe Biden failed to convince them.

- **Perception of Selective Human Rights Advocacy:** The summit's approach to Russia's financial assets raised questions about the selective application of human rights and international law. Critics argue that such actions undermine the credibility of Western institutions and set a dangerous precedent for future geopolitical conflicts.

The G7's stance risks alienating non-Western countries, especially those involved in BRICS, by demonstrating a willingness to violate international norms for strategic gains.

Emerging Counterbalance: The Rise of BRICS

- **Expansion and Single Currency:** The BRICS bloc is gaining momentum as a counterbalance to the G7. The upcoming BRICS summit in Kazan, chaired by Russian President Vladimir Putin, aims to expand membership and create a single currency to facilitate economic relations amidst Western sanctions. The development of an independent payment system for BRICS countries reflects a strategic move to reduce reliance on Western financial systems and mitigate the impact of sanctions.
- **Diverse and Open Partnership:** BRICS emphasizes an inclusive and non-bloc partnership, contrasting with the G7's perceived elitism. This approach is attracting numerous countries, with around 30 seeking BRICS membership, indicating a shift towards a more multipolar global order.
- **Challenge to Western Hegemony:** The BRICS initiative to create a viable structure for economic cooperation and resilience against Western pressure signifies a growing challenge to US and Western hegemony. The group's focus on mutual interests and equal dialogue contrasts sharply with the G7's current trajectory.

- Navigating Uncharted Waters: The G7 summit in Italy highlighted the group’s attempts to address global issues while navigating complex geopolitical landscapes. However, the summit also exposed the inherent contradictions and challenges within the G7, particularly its alignment with US strategic interests and the resulting divisions among members. The movement for European Sovereignty is gaining momentum too. As BRICS continues to emerge as a formidable counterbalance, the international community faces a shifting dynamic where traditional Western-led institutions must adapt to a more multipolar world order. There are almost 100 countries interested to join BRICS in the near future. The future of global cooperation will depend on the ability of these blocs to reconcile their differences and work towards inclusive, sustainable solutions.

Multilateralism Under Strain: Insights from the G20 in Brazil

The G-20 Summit 2024, held in Rio de Janeiro on November 18-19 focused on "Building a Just World and a Sustainable Planet." Key discussions included economic equity through reforming banks to aid developing nations, a 2% wealth tax on billionaires to fund climate initiatives and global decarbonization. The summit also addressed geopolitical tensions, notably the Russia-Ukraine conflict, while emphasizing the need for global cooperation to tackle climate change and economic disparities.



The Group of 20 (G-20), a forum of the world’s biggest economies, was called together this year in Rio de Janeiro, Brazil, on 18-19 November 2024. Representing almost 80% of global GDP, the group is key in influencing international economic policies and addressing pressing global challenges. The 2024 summit, themed “Building a Just World and a Sustainable Planet,” focused on making strong, inclusive, and sustainable growth while tackling critical issues such as economic disparities, climate change, and geopolitical tensions.

Expectations peaked as leaders gathered, with many hoping the summit would be a significant turning point for global cooperation. The stakes were immense, with many wondering, “Could the G-20 overcome differences and deliver meaningful solutions,” or “Would it fall into familiar patterns of lofty promises and limited action?”

Key Themes and Discussions of the G-20 Summit 2024

The 2024 G-20 Summit was held in Rio de Janeiro under Brazilian President Luiz Inácio Lula da Silva’s leadership, with 19 member countries: Argentina, Australia, Brazil, Canada, China, Germany, France, India, Indonesia, Italy, Japan, the Republic of Korea, Mexico, the Russian

Federation, Saudi Arabia, South Africa, Türkiye, the UK, and the US, including the African Union (AU) and the EU. Brazil's leadership was pivotal in encouraging the following priorities: leveraging its robust clean energy and environmental preservation track record.

Economic Equity and Development

Reforming Multilateral Development Banks (MDBs) was one of the most central debates at the summit. President Lula advocated for making MDBs more accessible to developing nations, especially urging them to have affordable and need-based loans to empower their economies that are in transition. This reform agenda aimed to train countries with the financial tools needed to fight poverty, such as implementing policies that prioritize rural populations' needs and ensuring they have access to basic resources and education.

In addition to this, the agenda was to address food insecurity by adopting resilient agricultural methods that increase productivity while preserving the environment. This includes capitalizing on food production systems that can withstand severe climate impacts and support local food security by 2030. Lastly, implementing sustainable development projects by creating comprehensive strategies that align with local need-based resources or practice capacity building and training among local communities would be beneficial. Such measures emphasize the G-20's vast role in narrowing economic inequalities worldwide.

The summit also addressed the groundbreaking initiative “international taxation,” proposing a 2% wealth tax on billionaires—Elon Musk, Jeff Bezos, and many more, mainly to reduce capital disparities and aim to fund climate initiatives in developing countries. This was considered a bold step that sparked debates among member countries about its feasibility and fairness.

Global Decarbonization

A strong emphasis was placed on climate action during the summit. Brazil is known for its leadership skills in renewable energy and hard work to curb deforestation in its famously recognized Amazon forest, positioning itself as a global example of ecological progress. Many discussions revolved around authorizing developing nations to shift from resource exporters like agricultural commodities and minerals to manufacturers of green technologies like solar panels and electric vehicle (EV) batteries. This strategy was not only targeted to reduce greenhouse gas

emissions but also addressed systemic inequalities in global value chains (GVCs), promoting fair labor practices and equal distribution of goods and benefits among all the stakeholders in this organization.

Furthermore, wealthier nations in this summit were urged to honor climate finance commitments made at previous summits, highlighting the role of public and private investment in financing climate resilience. This was a critical step for talking about the climate vulnerabilities of the Global South. The vulnerabilities include intense flooding due to seasonal monsoons such as the recent one in India, Kerala Floods, extreme weather events such as cyclones, and food insecurities despite being the lowest contributors to global gas emissions.

Geopolitical Tensions and Global Cooperation

The ongoing Russia-Ukraine war, escalating US-China trade disputes, and Israel's war on Gaza these geopolitical contentions were the backdrop of the G-20 summit. Russia's involvement, supported cautiously by neighbouring China, was met with criticism from Western nations led by Joe Biden, outgoing president of the United States. The summit's declaration refrained from naming Russia, focusing instead on the war's humanitarian and economic fallout, including food and energy security crises. Leaders broadly welcomed efforts for a durable peace but avoided confrontation. While Russian Foreign Minister Sergey Lavrov represented his country, President Putin was absent, and Ukraine's President Volodymyr Zelensky was not invited. The conflict was contentious as G-20 nations struggled to balance the focus on economic cooperation with geopolitical realities.

In addition to the intensifying Middle East crisis, G-20 leaders voiced their deep concern over the worsening humanitarian situation in Gaza and mounting tensions in Lebanon. They called for a complete ceasefire in Gaza and reaffirmed their support for a two-state solution, stressing the Palestinian right to self-determination. However, the declaration avoided condemning Hamas, the terrorist organization, or directly inscribing the release of hostages, portraying a vigilant method to combat geopolitical sensitivities.

Meanwhile, the addition of the African Union (AU) as a permanent member was a landmark decision, showcasing that the organization is slowly moving towards the representation of

developing regions in big platforms. This move was celebrated as a step toward a more comprehensive global governance framework, although questions raised about resource distribution and political alignment persisted.

Hunger Eradication

A milestone of the 2024 G-20 Summit was the unveiling of the Global Alliance Against Hunger and Poverty, an ambitious initiative targeting hunger eradication by the year 2030. It was supported by 148 founding members, including 82 countries, the African Union, the EU, and vital international organizations. The Alliance is there to assist 500 million vulnerable people through cash transfer programs in low- and lower-middle-income nations. This will be done through government partnerships, multilateral development banks, and UN agencies.

Brazilian President Lula da Silva spoke about hunger, saying that it is a political failure rather than a resource issue; he was in favour of more equitable food distribution and access to countries in the Global South. He drew on successful models initiated by himself, like Brazil's Bolsa Família, which is a social program launched in 2003 by his government aiming to provide financial aid to families on a condition that they ensure their children attend school. The Alliance also is to replicate localized strategies globally. With governance based in Rome and Brasilia, the program highlights a collaborative effort between governments, civil society, and international financial institutions, addressing systemic inequality and setting a standard for future multilateral cooperation.

Conclusion

The 2024 G-20 Summit in Brazil marked significant strides in addressing pressing global issues, notably the inauguration of the Global Alliance Against Hunger and Poverty and renewed commitments to sustainable development and climate action. Leaders who came to the forum also spoke about current geopolitical tensions, including the Russia-Ukraine war and the escalating Middle East crisis, simultaneously emphasizing the need for durable peace and multidimensional cooperation. The potential of global unity, even amid divisions, was the major achievement underlined.

However, the summit's results were tempered by notable errors, such as the dearth of direct condemnation of Russia or clear resolutions of peace in the Middle East. Additionally, future encounters loom with President-elect Donald Trump, who is set to assume office by January 2025. His policies, including potential tariff hikes and reduced US support for Ukraine, could disrupt global economic stability and agreements reached during the G-20 Rio de Janeiro summit.

The G-20's efforts reflect progress but accentuate the fragility of multilateralism in a polarized world, raising questions about its resilience in the facade of ever-changing geopolitical dynamics.

Glacier Preservation for Water Security: Lessons from World Water Day 2025

World Water Day 2025 emerged as a profoundly urgent and globally resonant observance, centering on the critical theme of “Glacier Preservation.” This year’s initiative, steered by the United Nations, crystallized the alarm among scientists, policymakers, and communities over the unprecedented rate at which glaciers are retreating a development that strikes at the heart of global freshwater security. Glaciers, which store nearly seventy percent of the planet’s fresh water, are melting faster than ever before, with 2023 seeing the highest rate of glacial ice loss in half a century. This relentless melt puts at risk the stability of rivers, the supply of clean water, agricultural productivity, hydropower, and the delicate balance of diverse natural ecosystems. Billions of people, especially in Asia, South America, and Europe, depend on glacier-fed systems, and the threat is both immediate and far-reaching, as declining glacial volume not only endangers human health and food security but also increases the danger from floods, droughts, and ecosystem collapse.



The international commemoration of World Water Day brought with it a flurry of high-profile activities and intense global engagement. Central to the day was the launch of the United Nations’ flagship report, “World Water Development Report 2025: Water Towers—Mountains and Glaciers.” The findings were both sobering and galvanizing. The report’s data confirmed that glacier loss is occurring at an even more alarming pace than previously projected and warned of worsening risks of drought, rising sea levels, and inter-community water conflict. Attention was also drawn to the role of advanced science, satellite monitoring, and open data in sharpening our understanding of glacial movements and providing vital insights for policy and local adaptations. Scientific evidence now empowers planners and governments to forecast crisis points and tailor responses, but the report warned that such knowledge is meaningless without urgent and robust action.

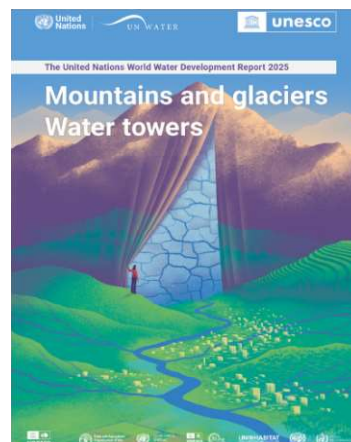
World Water Day 2025 was marked by vibrant events across continents from major global forums to local school workshops. Countries like India played a pivotal role through ambitious efforts such as the “Jal Shakti Abhiyan: Catch the Rain” campaign, an initiative that mobilized public participation in conserving rainwater, recharging groundwater, and restoring rivers across 148 districts. Meanwhile, scientists, NGOs, and community leaders hosted seminars and public discussions, framed exhibitions, shared documentaries, and conducted water-saving drives, amplifying the universality and the human dimension of the crisis. On social media, hashtags like #EveryDropCounts became rallying cries, helping the message of conservation and urgency to reach millions.

Throughout these events and discussions, a recurring theme was the intricate link between the fate of glaciers and the health of societies—especially vulnerable communities, including indigenous people, women, and children, who already face acute water insecurity. Voices from such communities underscored how climate change, unchecked consumption, and pollution converge to worsen water scarcity and inequality, making water justice a core issue for human rights, public health, and peace. The discussions called for protecting glacial watersheds by expanding protected areas, restoring degraded landscapes, and rapidly reducing carbon emissions through renewable energy and improved efficiency. Additionally, the need to scale up infrastructure for rainwater collection, to promote climate-resilient farming, and to foster regional and cross-border cooperation emerged as vital priorities. All stakeholders, from governments to citizens, were urged to share knowledge, embrace innovation, and act collaboratively.

World Water Day 2025 closed with a resounding acknowledgment that glacier preservation is not merely an environmental goal but a driver for survival, resilience, and equity. The world was left with a powerful call to action: collective, science-based, and courageous commitments are needed to ensure the water future of humanity, advance the United Nations’ Sustainable Development Goal 6, and secure a livable planet for generations to come. The day’s discussions and findings made it clear that the window for meaningful intervention is narrow, but the tools, knowledge, and spirit for transformative action are available if embraced with urgency and solidarity.

Preserving Glaciers to Secure Humanity's Future: World Water Development Report 2025

The World Water Development Report 2025, entitled "Mountains and Glaciers: Water Towers," represents the most comprehensive and urgent assessment of global freshwater resources yet produced by the United Nations system. Published by UNESCO on behalf of UN-Water in March 2025, this flagship annual report coincided with both the inaugural World Water Day focused on glacier preservation and the first-ever World Day for Glaciers, marking the beginning of the International Year of Glaciers' Preservation. The timing was deliberate and critical, as the report warns of unprecedented threats to the world's mountain water systems often called "water towers" that store nearly seventy percent of Earth's freshwater and supply water to billions of people downstream.



The report's central thesis is profoundly alarming: glaciers and mountain water systems are disappearing at rates faster than ever recorded in human history, fundamentally disrupting the global water cycle and threatening the survival of communities, ecosystems, and economies worldwide. Since 1975, glaciers have lost more than nine thousand billion tonnes of mass, equivalent to a block of ice the size of Germany standing twenty-five meters high. The acceleration has been particularly dramatic in recent years, with 2023 marking the highest single-year ice loss in five decades, and the period from 2020 onwards seeing annual glacier loss equivalent to thirty years of global water consumption. This unprecedented melting is driven not only by rising temperatures but also by increased deposition of black carbon from wildfires and dust storms on glacier surfaces, which reduces their ability to reflect sunlight and accelerates the absorption of solar radiation.

The report meticulously documents how climate change is reshaping mountain environments across all ranges globally, with evidence of warming trends visible since the early twentieth century. As global temperatures rise, more mountain precipitation falls as rain rather than snow, causing snow packs to thin and melt earlier in the year. This shift has profound implications for water availability patterns, as the natural storage and gradual release function of snow and ice is disrupted. Many glacier-fed river systems have already crossed a critical "peak water" threshold, beyond which river flows begin to decline permanently. Strong evidence indicates this tipping point has been reached in the tropical Andes, western Canada, and the Swiss Alps, with devastating consequences for downstream communities that depend on predictable seasonal water flows for agriculture, drinking water, and hydropower generation.

The scope of human impact is staggering. According to the report, more than one billion people live directly in mountainous regions, while over two billion depend on water originating from mountains for their drinking water, sanitation, and livelihoods. The Hindu Kush Himalayas, known as the "Water Tower of Asia," exemplify the crisis: glacier retreat in this region accelerated by sixty-five percent between 2011 and 2020, and projections suggest these glaciers may lose thirty to fifty percent of their volume by 2100 if global temperatures rise by 1.5 to 2 degrees Celsius. Beyond direct water supply, mountain regions are vital to sectors including pastoralism, forestry, tourism, and energy production, with eighty-five percent of hydropower in Andean countries generated from mountain areas. The economic implications extend far beyond these regions, as two-thirds of global irrigated agriculture depends on runoff contributions from mountains.

Environmental degradation compounds these climate pressures. The report reveals that fifty-seven percent of global mountain area was under intense ecosystem pressure as of 2020, with degradation concentrated at lower elevations where human activities are most intensive. Mountain systems host twenty-five of the world's thirty-four biodiversity hotspots, containing high levels of endemic species and preserving vital agricultural and medicinal plant gene pools. As these ecosystems face unprecedented stress from warming temperatures, changing precipitation patterns, and human encroachment, their capacity to provide essential services including carbon storage, water regulation, and biodiversity conservation is being compromised. Mountain soils with permafrost contain approximately sixty-six petagrams of soil organic

carbon, representing 4.5 percent of the global pool, but rising temperatures are causing rapid permafrost thaw that releases this stored carbon into the atmosphere and destabilizes slopes, increasing landslide risks.

The report emphasizes the disproportionate vulnerability of certain populations to these changes. Indigenous peoples, small-scale farmers, women, and children are at the frontlines of water insecurity, often lacking the resources and political power to adapt to rapidly changing conditions. The document highlights how glacier retreat and changing precipitation patterns exacerbate existing inequalities, as wealthy communities and nations have greater capacity to develop alternative water sources and implement adaptation measures. This disparity underscores the report's emphasis on water justice as both a human rights imperative and a prerequisite for sustainable development.

Beyond documenting the crisis, the World Water Development Report 2025 provides detailed policy recommendations and technical solutions for addressing these challenges. The document calls for urgent global action to reduce greenhouse gas emissions, emphasizing that preserving glaciers requires limiting global warming through rapid decarbonization of energy systems and improved efficiency across all sectors. Simultaneously, the report advocates for massive investments in adaptation infrastructure, including improved water storage systems, efficient irrigation technologies, early warning systems for glacial lake outburst floods, and climate-resilient agricultural practices. The recommendations emphasize the critical importance of integrated river basin management that crosses political boundaries and coordinates between upstream and downstream users.

The report strongly advocates for enhanced scientific monitoring and data sharing to improve understanding of glacial dynamics and support evidence-based decision-making. Advanced satellite monitoring and open data systems are highlighted as game-changing tools for tracking glacial changes in real-time and providing policymakers with the information needed to plan for water scarcity, disaster management, and ecosystem protection. The document calls for strengthening international cooperation in research, technology transfer, and capacity building, particularly for developing countries that face the greatest challenges but have the least resources to respond effectively.

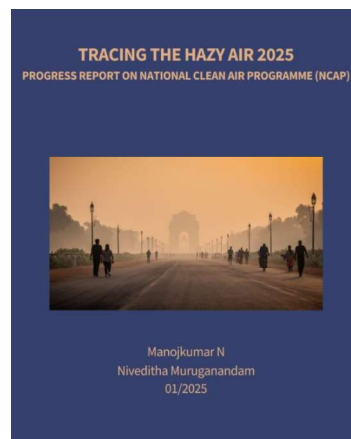
Governance reforms feature prominently in the report's recommendations. The document calls for strengthening water governance through integrated approaches that bring together multiple sectors and stakeholders, including governments, scientific institutions, private sector actors, and local communities. The report emphasizes the need for policies that recognize water as a shared resource requiring careful management to balance human needs with environmental protection. It advocates for improved coordination between national and local levels of government, as well as enhanced cooperation on transboundary water management where rivers and aquifers cross international borders.

The report concludes with a stark warning that the window for meaningful intervention is rapidly closing, but emphasizes that the tools, knowledge, and technologies needed for transformative action are available if embraced with sufficient urgency and commitment. The document frames glacier preservation not merely as an environmental goal but as a fundamental survival strategy for humanity. It links these challenges directly to the achievement of Sustainable Development Goal 6, which calls for ensuring universal access to water and sanitation by 2030, and emphasizes that protecting mountain water systems is essential for broader progress on climate action, poverty reduction, food security, and peace.

The World Water Development Report 2025 stands as both a comprehensive scientific assessment and an urgent call to action, providing policymakers, scientists, and global citizens with the evidence and recommendations needed to address one of the most pressing challenges of our time. The document's release during the International Year of Glaciers' Preservation reflects the global recognition that protecting these "water towers" is fundamental to securing a sustainable and equitable future for all humanity. The report's clear message is that collective, science-based, and immediate action is essential to prevent catastrophic disruption of global water systems and to ensure that the essential services provided by mountains and glaciers continue to support billions of people and countless ecosystems for generations to come.

The Hazy Picture: Evaluating India's National Clean Air Programme, 2025

The National Clean Air Programme (NCAP) was launched in 2019 to improve air quality in India by reducing particulate matter (PM) concentrations by 20-30% by 2024. It was later extended to 2026 with a revised target of a 40% reduction in PM₁₀ levels compared to 2017 (NCAP, 2019). The programme has faced challenges and shortcomings, as highlighted in the preceding 'Tracing the Hazy Air 2022, 2023 and 2024' reviews by the Centre for Research on Energy and Clean Air (CREA). This latest report assesses the progress made under NCAP and analyses ambient air quality trends for 2024. It is crucial to examine how the current progress aligns with the initial goals, which serve as interim milestones toward achieving the 40% reduction target by 2026. The report highlights various NCAP actions across the categories listed below:



Air quality progress in NCAP cities:

- Out of 130 cities, 28 still do not have continuous ambient air quality monitoring stations (CAAQMS). Among the 102 cities that do have monitoring stations, only 97 cities reported 80% or more PM₁₀ data coverage.
- Of these 97 NCAP cities, 29 recorded an increase in PM₁₀ concentrations. Only 41 cities out of the 97 achieved the initial NCAP target of a 20-30% reduction in PM₁₀ levels.
- Also, 61 of the 68 cities that reported a reduction still had PM₁₀ concentrations exceeding the National Ambient Air Quality Standards (NAAQS).

Air quality across India

PM10 concentration:

- In 2024, out of 253 cities in India with 80% or more PM10 data, 206 cities exceeded the NAAQS for PM10, while 47 cities met the standard.
- Sri Ganganagar, Rajasthan, was the most polluted city in India, with an annual average PM10 concentration of 236 $\mu\text{g}/\text{m}^3$, followed by Greater Noida, Uttar Pradesh (226 $\mu\text{g}/\text{m}^3$), and Delhi (211 $\mu\text{g}/\text{m}^3$).
- Out of the 76 cities in the Indo-Gangetic Plain (IGP) with CAAQMS, 74 exceed the NAAQS. Similarly, in the National Capital Region (NCR), all 28 cities exceed the NAAQS.
- Rajasthan, Maharashtra, Bihar, Haryana, Odisha, Punjab, West Bengal, Gujarat and Uttarakhand states had all the monitored cities exceeding PM10 NAAQS.

PM2.5 concentration:

- Out of 256 cities with 80% or more PM2.5 data, 150 cities exceeded the NAAQS for PM2.5, while 106 cities met the standard.
- Byrnihat (Assam), Delhi, and Gurgaon (Haryana) ranked as the top three most polluted cities in India, with annual PM2.5 concentrations of 126 $\mu\text{g}/\text{m}^3$, 105 $\mu\text{g}/\text{m}^3$, and 91 $\mu\text{g}/\text{m}^3$, respectively.
- Out of 78 cities in the IGP, 64 exceed the NAAQS, while 14 comply with the standard. In the NCR, 27 out of 29 cities exceed the NAAQS, with only 2 meeting the standard.
- State level analysis showed that all 8 monitored cities in Punjab exceeded PM2.5 NAAQS. Also, the exceedance was high in Haryana (22 cities exceed NAAQS out of 24 monitored cities), Bihar (20 out of 23), Odisha (14 out of 16), Rajasthan (26 out of 36), Maharashtra (18 out of 31), Uttar Pradesh (13 out of 20), Madhya Pradesh (8 out of 14), West Bengal (5 out of 7), and Assam (4 out of 6).

Monitoring network:

- In 2024, India had 1,524 air quality monitoring stations, including 558 CAAQMS and 966 manual stations, covering 550 cities across 28 states and 7 UTs. This marks an increase of 62 stations compared to 2023.
- However, the NCAP target of 1,500 manual stations by 2024 remains unmet, with a shortfall of 534 stations.
- Despite the increased installation of CAAQMS, data quality remains a concern due to poor maintenance and non-compliance with CPCB siting guidelines.
- The integration of CAAQMS and NAMP data for NCAP reports raises concerns about data integrity, as the continuous, high-quality CAAQMS data may be compromised by the sporadic and less reliable NAMP data, necessitating a comparison to evaluate its influence.

Source apportionment:

- According to the NCAP implementation committee's minutes of meeting, only 6 cities completed source apportionment studies in 2024, bringing the total to 50 out of 130 cities compared to 44 last year.
- However, the Portal for Regulation of Air-pollution in Non-Attainment cities (PRANA) indicates that only 40 cities have reported completion of their studies, with the rest yet to update their databases. Among these, only 17 cities have published detailed reports, while the others have not uploaded their results.

Awareness and capacity building:

- Between 2019 and 2024, 1,400 public awareness programs were conducted, but media sensitisation and consistent outreach faced challenges. On capacity building, only 62 programs were implemented during this period, reflecting gaps in institutional readiness. In the current financial year, the pace of such efforts has further slowed, highlighting the need for more robust initiatives.

Air information centre:

- No progress was observed in 2024, with the situation remaining unchanged from the previous year. The only centralized air information system is the CPCB's PRANA portal.

Certification scheme:

The National Physics Laboratory - India Certification Scheme emphasises cost-effective testing and certification for air pollution monitoring systems. However, even after six years of NCAP, certified laboratories are established in only 43 out of 130 cities.

Forecasting Systems:

- Despite plans for city-level and hotspot-based forecasting systems, no progress has been made in 2024. Currently, System of Air Quality and Weather Forecasting And Research (SAFAR) provides forecasts for only four cities viz., Delhi, Mumbai, Pune, and Ahmedabad.

Funding:

Despite ₹11,211 crore (approximately USD \$1.3 million) being released under NCAP and Fifteenth Finance Commission (XV-FC) funds during 2019-2025, only 68% (₹7,594 crore) has been utilised.

The NCAP funds have a utilisation rate of just 63% (₹1,011 crore of ₹1,615 crore), while XV-FC grants show a marginally better, yet suboptimal, 69% rate (₹6,582 crore of ₹9,595 crore).

A disproportionate 67% of funds have been allocated to road dust management, while industries, domestic fuel, and public outreach each received just 1%. Capacity building and monitoring, crucial for long-term solutions, accounted for only 4%. This skewed prioritization highlights the

lack of a holistic strategy, with key contributors like industries and biomass burning remaining underfunded.

Conclusion

Despite six years of implementation, the NCAP has delivered only partial progress. While some cities have achieved reductions in PM levels, most still exceed national standards, especially in the Indo-Gangetic Plain and NCR. Gaps in monitoring, source apportionment, forecasting, and capacity building, along with underutilised funds and skewed priorities, have weakened its impact.

To meet the 2026 target, NCAP must urgently recalibrate expanding reliable monitoring, ensuring transparent data, prioritising key pollution sources like industry and biomass burning, and strengthening institutional capacity. Without a shift from fragmented measures to a comprehensive, science-driven strategy, the programme risks falling short of its promise to deliver cleaner air and safeguard public health.

India's Forests at a Crossroads: ISFR 2023 Findings

The Minister for Environment, Forest and Climate Change, Bhupender Yadav, released the India State of Forest Report (ISFR) 2023, which highlights the status and trends of forest and tree cover across the country. According to the report, India's total forest and tree cover increased by 1,445 square kilometres since 2021, taking the total to 25.17 per cent of the nation's geographical area in 2023. Within this, forest cover registered a modest increase of 156 square kilometres,



while tree cover expanded more significantly, by 1,289 square kilometres. Notably, most of the gain in forest cover occurred outside the Recorded Forest Area (RFA) the legally designated forest areas in government records reflecting the growing role of plantations, urban greening, and agroforestry practices in contributing to India's green cover.

The preparation of the ISFR follows the vision outlined in the National Forest Policy of 1988, which sets a long-term target of achieving at least one-third of the country's total land area under forest or tree cover. In hilly and mountainous regions, the policy recommends two-thirds coverage in order to protect fragile ecosystems from erosion. In the assessment framework, forest cover is defined as all land spanning over one hectare with a tree canopy density of more than 10 per cent, irrespective of ownership or legal status. This category includes natural forests, plantations, orchards, and patches of trees in both urban and rural landscapes. Tree cover, on the other hand, encompasses patches of trees less than one hectare in extent, including scattered trees not captured under forest cover, particularly in agricultural, urban, and institutional settings.

The Forest Survey of India (FSI), an organisation under the Ministry of Environment, Forest and Climate Change, has been conducting these assessments since 1987 using satellite-based remote

sensing supported by ground-level information. The ISFR 2023 represents the 18th cycle of Forest Cover Mapping, while tree cover assessments have been carried out since 2001, making this the 11th such evaluation. For the latest assessment, the government expanded the coverage from 636 districts in 2021 to 751 districts, and also included bamboo and trees with a smaller girth of 5–10 centimetres at breast height within the tree cover estimates. These reports are widely regarded as an authoritative reference for forestry experts and policymakers, providing long-term trends and a comprehensive overview of the state of India's forests.

The ISFR 2023 records that the total forest and tree cover of India now stands at 8,27,356.95 square kilometres, which amounts to 25.17 per cent of the country's geographical area. Of this, forest cover accounts for 7,15,342.61 square kilometres, or 21.76 per cent, while tree cover accounts for 1,12,014.34 square kilometres, or 3.41 per cent. Importantly, the country has also achieved an additional carbon sink of 2.29 billion tonnes compared to 2005 levels, which contributes towards India's Nationally Determined Contributions (NDCs) under the Paris Agreement. India has pledged to create an additional carbon sink of 2.5 to 3 billion tonnes through expanded forest and tree cover by 2030.

Despite these positive developments, the report also points to challenges, particularly forest degradation. Between 2011 and 2021, India experienced degradation across nearly 93,000 square kilometres of forests. It is estimated that through density upgradation in these degraded areas, around 636.5 million tonnes of carbon can be sequestered, underscoring the significance of ecological restoration measures.

In terms of state-level performance, Chhattisgarh recorded the highest increase in forest and tree cover with a gain of 683.62 square kilometres, followed by Uttar Pradesh, Odisha, and Rajasthan. On the other hand, Madhya Pradesh witnessed the largest decline of 612.41 square kilometres, along with notable losses in Karnataka, Ladakh, and Nagaland. Within Recorded Forest Areas, Mizoram showed the highest gains, while Tripura, Telangana, and Assam reported significant declines. Outside the RFA, Gujarat led the gains with 241.29 square kilometres, whereas Madhya Pradesh and Rajasthan recorded the steepest losses.

The report also pays special attention to ecologically fragile regions such as the Western Ghats. Over the past decade, this biodiversity-rich landscape has suffered a net loss of 58.22 square

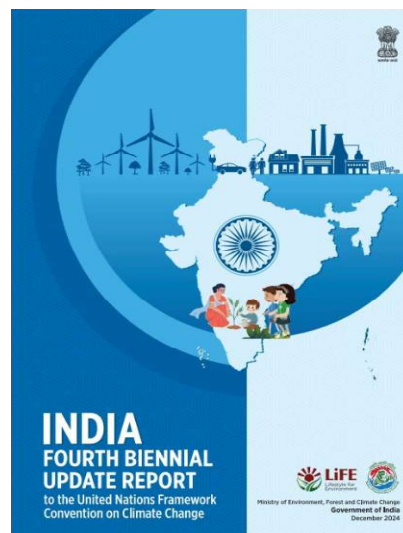
kilometres of forest cover, with the Nilgiris district alone showing a sharp decline of 123 square kilometres. While the latest assessment indicates an overall increase of 234.14 square kilometres in forest cover across hill districts, the north-eastern region experienced a decline of 327.30 square kilometres, a concerning trend given the ecological sensitivity of the area.

India's bamboo-bearing area has also expanded to an estimated 1.54 lakh square kilometres, an increase of 5,227 square kilometres since 2021. In contrast, mangrove cover showed a slight net decline of 7.43 square kilometres, bringing the country's total to 4,991.68 square kilometres. Over the last decade, the categories of moderately dense forest and open forest recorded declines of 1,043.23 square kilometres and 2,480.11 square kilometres, respectively, even as very dense forest areas grew. Alarming, more than 40,709 square kilometres of dense forest within RFA degraded to open forest between 2011 and 2021. Additionally, 5,573 square kilometres of forest degraded further to scrub, while 46,707 square kilometres transitioned entirely from forested to non-forest land use.

The ISFR 2023 thus presents a mixed picture. On one hand, the steady increase in overall forest and tree cover and the gains in carbon sequestration reflect India's commitment to climate mitigation and biodiversity conservation. On the other hand, the trends of degradation, loss in ecologically fragile zones, and decline in mangroves and open forests highlight the urgent need for enhanced restoration, density improvement, and conservation efforts. The findings underscore the importance of community participation, sustainable forest management, and policy innovation in meeting the targets of the National Forest Policy and fulfilling India's international climate commitments.

Emission Trends, Renewable Energy Growth, and Climate Commitments: India's BUR-4 to UNFCCC

India submitted its Fourth Biennial Update Report to the United Nations Framework Convention on Climate Change on December 30, 2024, marking a significant milestone in the country's climate reporting obligations under international agreements. This comprehensive document, prepared by the Ministry of Environment, Forest and Climate Change, serves as an update to the Third National Communication and provides detailed insights into India's greenhouse gas emissions inventory for 2020, alongside comprehensive information about the nation's climate mitigation actions, national circumstances, and the financial, technological, and capacity-building support required to advance climate goals.



The institutional framework supporting this report reflects India's systematic approach to climate governance, with the Ministry of Environment, Forest and Climate Change functioning as the nodal agency coordinating across multiple ministries and departments. The preparation involved a National Steering Committee chaired by the Secretary of MoEFCC and a Technical Advisory Committee comprising members from government, academia, and civil society. This multi-institutional network has expanded significantly since the first Biennial Update Report, demonstrating India's growing capacity and commitment to transparent climate reporting. The report builds upon India's previous submissions, including three National Communications and three earlier Biennial Update Reports, establishing continuity in the country's climate documentation efforts.

Greenhouse Gas Emissions Profile and Trends

The report reveals encouraging trends in India's greenhouse gas emissions trajectory, with total emissions in 2020 standing at 2,959 million tonnes of CO₂ equivalent excluding Land Use,

Land-Use Change, and Forestry activities. When including the carbon sequestration benefits from forests and land use changes, India's net emissions were significantly lower at 2,437 million tonnes of CO₂ equivalent, demonstrating the crucial role of natural carbon sinks in the country's climate strategy. Most notably, the report documents a remarkable 7.93 percent reduction in total greenhouse gas emissions in 2020 compared to 2019, representing a significant achievement in decoupling economic growth from emissions growth.

The sectoral breakdown of emissions provides important insights into India's emission sources and priorities for mitigation action. The energy sector dominates the emissions profile, contributing 75.66 percent of total emissions, with electricity production alone accounting for 39 percent of national emissions. Agriculture follows as the second-largest sector at 13.72 percent, reflecting India's agricultural economy and the emissions associated with livestock and rice cultivation. Industrial processes and product use contribute 8.06 percent, while the waste sector accounts for 2.56 percent. By greenhouse gas type, carbon dioxide dominates at 80.53 percent of emissions, followed by methane at 13.32 percent and nitrous oxide at 5.13 percent, with other gases comprising the remaining 1.02 percent.

Progress Toward Nationally Determined Contributions

India's performance against its Nationally Determined Contributions under the Paris Agreement demonstrates substantial progress across multiple dimensions. The most significant achievement highlighted in BUR-4 is the reduction of GDP emission intensity by 36 percent between 2005 and 2020, representing considerable progress toward the NDC target of 45 percent reduction by 2030. This metric, which measures greenhouse gas emissions per unit of economic output, demonstrates India's success in pursuing low-carbon economic development and improving energy efficiency across sectors. The achievement reflects the effectiveness of various policy initiatives, technological improvements, and structural changes in the economy.

The renewable energy sector has witnessed transformational growth, with non-fossil fuel sources comprising 46.52 percent of India's installed electricity generation capacity as of October 2024. This represents substantial progress toward the NDC target of achieving 50 percent cumulative electric power installed capacity from non-fossil fuel resources by 2030. Solar energy has been particularly successful, with installed capacity reaching 92.12 GW by October 2024, representing

a thirty-five-fold increase from 2.63 GW in March 2014. Wind energy capacity has more than doubled to 47.72 GW from 21.04 GW in March 2014. The total renewable energy capacity, including large hydropower, reached 203.22 GW, with non-hydro renewable capacity increasing more than fourfold between 2014 and 2024.

Forest Cover and Carbon Sequestration Achievements

India's forest and land use sector represents a remarkable success story in carbon sequestration and climate mitigation. The report documents that India's forest and tree cover currently stands at 25.17 percent of the country's total geographical area and has consistently increased over time. In 2020 alone, forests and tree cover sequestered approximately 522 million tonnes of CO₂, equivalent to reducing 22 percent of the country's total carbon dioxide emissions. This substantial carbon sink demonstrates the critical importance of forest conservation and afforestation efforts in India's overall climate strategy.

Between 2005 and 2021, India created an additional carbon sink of 2.29 billion tonnes of CO₂ equivalent through enhanced forest and tree cover, representing significant progress toward the NDC commitment of creating an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent by 2030. This achievement reflects the success of various forestry programs, afforestation initiatives, and sustainable land management practices implemented across the country. The consistent expansion of forest cover also contributes to biodiversity conservation, ecosystem services, and adaptation benefits for local communities.

Energy Efficiency and Industrial Mitigation Actions

The report highlights significant achievements in energy efficiency across industrial sectors through various policy instruments and programs. The Perform, Achieve and Trade scheme, launched in 2011 to enhance energy efficiency in energy-intensive industries, has demonstrated substantial results across five implementation cycles between 2012 and 2022. The scheme achieved cumulative energy savings of 3.35 million tonnes of oil equivalent in the cement industry, 6.14 million tonnes in iron and steel, 2.13 million tonnes in aluminum, 0.33 million tonnes in textiles, and 0.63 million tonnes in paper and pulp industries. In the thermal power

sector, the scheme resulted in energy savings of 7.72 million tonnes of oil equivalent and prevented emissions of 28.74 million tonnes of CO₂ equivalent through 2021-2022.

These achievements demonstrate India's comprehensive approach to improving energy efficiency across multiple sectors simultaneously, contributing to both emission reductions and enhanced competitiveness of Indian industries. The success of market-based mechanisms like the PAT scheme provides valuable lessons for scaling up energy efficiency efforts and achieving deeper emission reductions while maintaining economic growth and industrial productivity.

Climate Finance and Technology Needs

The BUR-4 report acknowledges the significant challenges India faces in scaling up climate action, particularly regarding financial constraints, technology transfer barriers, and capacity-building requirements. The report emphasizes that India relies heavily on domestic resources for climate action while facing obstacles such as slow technology transfer processes and intellectual property rights issues that hinder adoption of advanced clean technologies. Addressing these gaps requires enhanced international cooperation, particularly in the areas of climate finance, technology transfer, and capacity building to support India's transition to a low-carbon economy.

The report identifies technology needs across various sectors, emphasizing the importance of accessing cutting-edge technologies for both mitigation and adaptation. As India pursues ambitious climate targets while managing the development needs of its large population, international support becomes crucial for accelerating the deployment of clean technologies, improving energy efficiency, and building resilience to climate impacts. The emphasis on equity and common but differentiated responsibilities reflects India's position that developed countries should provide enhanced support to developing nations pursuing climate action.

National Circumstances and Development Context

India's climate action occurs within the context of significant development challenges and national circumstances that shape both mitigation and adaptation priorities. Despite having 17 percent of the world's population, India's historical contribution to global greenhouse gas emissions from 1850 to 2019 represents only 4 percent of the total, highlighting the country's minimal responsibility for historical emissions while emphasizing its vulnerability to climate

impacts. India's annual per capita primary energy consumption in 2019 was 28.7 gigajoules, significantly lower than both developed and developing country averages, underscoring the need for energy access and economic development alongside climate action.

The report emphasizes India's commitment to sustainable development principles and the pursuit of low-carbon growth pathways that ensure energy access for households, energy security, and continued economic development. India's diverse geography makes it highly vulnerable to climate change impacts, making adaptation strategies essential for protecting development progress and ensuring sustainable future growth. This context shapes India's approach to climate action, emphasizing the importance of balancing emission reductions with development imperatives and the need for international support to achieve ambitious climate goals.

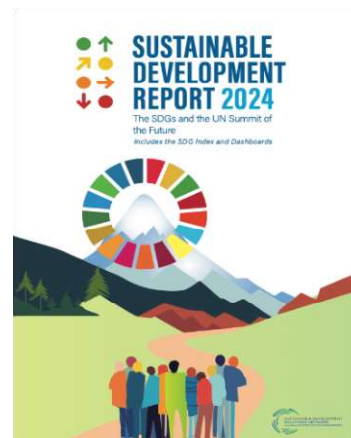
Future Outlook and Commitment to Enhanced Action

BUR-4 reinforces India's commitment to continued climate leadership and enhanced action toward achieving its long-term climate goals, including the pledge to reach net-zero emissions by 2070. The report demonstrates that India is well-positioned to meet and potentially exceed several of its 2030 NDC targets, particularly in renewable energy deployment and emission intensity reduction. The consistent progress across multiple indicators suggests that India's integrated approach to climate policy, combining regulatory measures, market mechanisms, and investment incentives, is delivering measurable results.

Looking ahead, the report indicates India's readiness to consider enhanced ambition in climate action while maintaining focus on equity principles and the need for international support. The success in decoupling economic growth from emission growth, combined with rapid renewable energy deployment and expanding forest cover, positions India as a significant contributor to global climate solutions. The comprehensive nature of BUR-4, covering emissions inventory, mitigation actions, adaptation measures, and support needs, reflects India's commitment to transparent reporting and accountability in climate action, providing a solid foundation for continued progress toward a sustainable, low-carbon future that serves both national development objectives and global climate goals.

Stagnation, Inequality, and Pathways for Global SDG Progress: Sustainable Development Report 2024

Since 2016, the global edition of the Sustainable Development Report (SDR) has provided the most up-to-date data to track and rank the performance of all UN member states on the SDGs. This year's edition was written by a group of independent experts at the SDG Transformation Center, an initiative of the SDSN. It focuses on the UN Summit of the Future, with an opening chapter endorsed by 100+ global scientists and practitioners. The report also includes two thematic chapters, related to SDG 17 (Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development) and SDG 2 (End hunger, achieve food security and improved nutrition and promote sustainable agriculture).



This year's SDR highlights five key findings:

1. On average, only 16 percent of the SDG targets are on track to be met globally by 2030, with the remaining 84 percent showing limited progress or a reversal of progress. At the global level, SDG progress has been stagnant since 2020, with SDG 2 (Zero Hunger), SDG 11 (Sustainable Cities and Communities), SDG 14 (Life Below Water), SDG 15 (Life on Land) and SDG 16 (Peace, Justice and Strong Institutions) particularly off track. The five SDG targets on which the highest proportion of countries show a reversal of progress since 2015 are: obesity rate (under SDG 2), press freedom (under SDG 16), the Red List Index (under SDG 15), sustainable nitrogen management (under SDG 2), and – due in large part to the COVID-19 pandemic, along with other factors that vary across countries – life expectancy at birth (under SDG 3). Goals and targets related to basic access to infrastructure and services, including SDG 9 (Industry, Innovation and

Infrastructure), show slightly more positive trends, although progress remains too slow and uneven across countries.

2. The pace of SDG progress varies significantly across country groups. Nordic countries continue to lead on SDG achievement, with the BRICS countries making significant progress while poor and vulnerable nations lag far behind. As in previous years, European countries – notably the Nordic countries – top the 2024 SDG Index. Finland is ranked first, followed by Sweden (#2), Denmark (#3), Germany (#4), and France (#5). Yet even these countries face significant challenges in meeting several SDGs. Since 2015, average SDG progress in the BRICS (Brazil, the Russian Federation, India, China, and South Africa) and BRICS+ countries (Egypt, Ethiopia, Iran, Saudi Arabia, and the United Arab Emirates) has outpaced the world average, while East and South Asia has emerged as the region that has made the greatest progress toward the SDGs. In contrast, the gap between the world’s average SDG performance and the performance of the poorest and most vulnerable countries, including the Small Island Developing States (SIDS), has widened since 2015.
3. Sustainable development remains a long-term investment challenge. Reforming the global financial architecture is more urgent than ever. The world requires many essential public goods that far transcend the nation-state. Low-income countries (LICs) and lower-middle-income countries (LMICs) urgently need to gain access to affordable long-term capital so that they can invest at scale to achieve their sustainable development objectives. Mobilizing the necessary levels of finance will require new institutions, new forms of global financing (including global taxation), and new priorities for global financing (such as investing in quality education for all). The report outlines five complementary strategies to reform the global financial architecture.
4. Global challenges require global cooperation. Barbados ranks the highest in its commitment to UN-based multilateralism; the United States ranks last. As with meeting the challenge of the SDGs, strengthening multilateralism requires metrics and monitoring. The report’s new Index of support to UN-based multilateralism (UN-Mi)

ranks countries based on their engagement with the UN system – including treaty ratification, votes at the UN General Assembly, membership in UN organizations, participation in conflicts and militarization, use of unilateral sanctions, and financial contributions to the United Nations. The five countries most committed to UN-based multilateralism are: Barbados (#1), Antigua and Barbuda (#2), Uruguay (#3), Mauritius (#4), and the Maldives (#5). By contrast, the United States (#193), Somalia (#192), South Sudan (#191), Israel (#190), and the Democratic Republic of Korea (#189) rank the lowest on the UN-Mi.

5. The SDG targets related to food and land systems are particularly off-track. The SDR evaluates three possible pathways towards achieving sustainable food and land systems. Globally, 600 million people will still suffer from hunger by 2030; obesity is increasing; and greenhouse gas emissions from agriculture, forestry, and other land use (AFOLU) account for almost a quarter of total annual global GHG emissions. The Food, Agriculture, Biodiversity, Land-Use, and Energy (FABLE) Consortium brought together more than 80 researchers from 22 countries to evaluate combinations of scenarios at the national level to assess how 16 targets related to food security, climate mitigation, biodiversity conservation and water quality could be achieved by 2030 and 2050. They found that the continuation of current trends would widen the gap between countries on targets related to climate mitigation, biodiversity, and water quality. While pursuing existing national commitments would improve the situation to some extent, these remain largely insufficient. FABLE’s “global sustainability” pathway, however, showed that significant progress is possible, but will require several dramatic changes: 1) Avoid overconsumption and limit animal-based protein consumption through dietary shifts that are compatible with cultural preferences; 2) Invest to foster productivity, particularly for products and areas with high demand growth; and 3) Implement inclusive, robust, and transparent monitoring systems to halt deforestation. This pathway would avoid up to 100 million hectares of deforestation by 2030 and 100 gigatons of CO₂ emissions by 2050. Additional measures would be needed to avoid trade-offs with on-farm employment and water pollution caused by excessive fertilizer application, and to ensure that no one is left behind, particularly in the fight to end hunger.

The Roadblocks to Climate Finance and Ambition: COP 29



COP 29, held in Baku, was expected to deliver on one of the most critical issues for global climate action a new, fair climate finance goal along with progress on adaptation, mitigation, and the operationalization of key mechanisms under the Paris Agreement. However, the conference instead exposed deep divisions among Parties, procedural irregularities, and a lack of decisive leadership. Despite high expectations, the negotiations ended with weak and ambiguous outcomes, undermining trust in the UNFCCC process and leaving much of the responsibility to COP 30 in Belém, Brazil, to restore credibility.

The most significant focus of COP 29 was the New Collective Quantified Climate Finance Goal (NCQG). After long and contentious discussions, Parties adopted a decision that set a global target of mobilizing USD 1.3 trillion annually by 2035. While this headline number appeared ambitious, the language of the decision diluted accountability. Developed countries were tasked with providing USD 300 billion annually until 2035, but this contribution could include a wide range of financial flows, including loans and private finance, which many developing countries argued undermined the principle of responsibility. Provisions for specific allocations to public finance were excluded, and references to human rights, fossil fuel exclusion, and stronger

safeguards were omitted. Moreover, the decision was adopted under highly controversial circumstances, with India, Bolivia, Nigeria, and the Least Developed Countries Group objecting to the Presidency's decision to gavel the outcome without following the standard consensus procedure. These actions further eroded confidence in the process.

On adaptation, the negotiations were also fraught with difficulties. While discussions on the Adaptation Committee and National Adaptation Plans stalled due to resistance from developed countries to commit finance, Parties focused heavily on advancing the Global Goal on Adaptation. Some progress was achieved through the mapping of indicators, to be finalized in Belém, and through recognition of the importance of traditional knowledge, gender balance, and social inclusion. The Baku Adaptation Roadmap was also launched to guide further work. Yet, references to means of implementation such as finance, technology, and capacity-building were weak, leaving adaptation underfunded and under-supported.

In contrast, Article 6 saw more concrete progress. Parties agreed on rules for the Paris Agreement Credit Mechanism under Article 6.4, including requirements for removals and development of a registry, and advanced discussions on cooperative approaches under Article 6.2, streamlining a lengthy draft into a more workable decision. Article 6.8 on non-market approaches also moved forward, with recognition of synergies between climate action, biodiversity conservation, and sustainable development. These steps now allow the operationalization of carbon market mechanisms that had been stalled since COP 28.

Mitigation discussions, however, remained polarized. The Mitigation Work Programme faced deadlock, with developing countries resisting efforts to link it to the outcomes of the Global Stocktake, arguing that this would undermine the nationally determined nature of commitments. After initial deferral under Rule 16, negotiations resumed, and Brazil's proposal for a digital platform to link mitigation initiatives with finance was retained as a possible way forward. This was one of the few constructive ideas to emerge and will be discussed further at the Bonn session in 2025. Meanwhile, the broader follow-up on the Global Stocktake proved contentious, with little progress on ensuring that the next round of NDCs reflects the need for a transition away from fossil fuels. The issue was ultimately deferred to COP 30.

Loss and Damage negotiations were less politically charged than at COP 28, but still uneven. Parties agreed to recognize the Philippines as the host of the Loss and Damage Fund’s Board and acknowledged new pledges from several developed countries, while also noting the World Bank’s continuing role. However, discussions on the Warsaw International Mechanism and its governance were deferred to the next COP, showing that critical aspects remain unresolved.

The Just Transition Work Programme failed to deliver substantive progress. Draft decisions presented by the Presidency contained vague acknowledgments of human rights and gender but offered no clear operational plan. The text did not reflect the diverse needs of workers and communities, and Brazil’s proposal for a dedicated committee was ignored. The draft was rejected in plenary, and the matter was postponed to COP 30. Technology transfer discussions followed a similar trajectory. The Poznan Strategic Programme on Technology Transfer was phased out, with a review scheduled for 2026, but negotiations on the new Technology Implementation Programme stalled over issues of structure, intellectual property, and equitable access.

Finally, transparency emerged as an important issue since COP 29 was the last meeting before the submission of Biennial Transparency Reports under the Paris Agreement. While the transition from existing reporting mechanisms was confirmed, developing countries raised concerns about finance and capacity to meet requirements. The decision recognized these challenges and called for workshops with the Global Environment Facility to facilitate support, but broader questions—such as how countries that might withdraw from the Paris Agreement would continue reporting were left unresolved.

In conclusion, COP 29 in Baku was marked by weak outcomes, procedural irregularities, and limited progress across most negotiating tracks. Apart from advancements in Article 6 and some incremental movement on adaptation indicators and the Loss and Damage Fund, the conference failed to deliver on climate finance, just transition, mitigation ambition, and Global Stocktake follow-up. The presidency’s lack of transparency further undermined the legitimacy of the outcomes. COP 29 will likely be remembered as a missed opportunity, placing enormous responsibility on Brazil at COP 30 in Belém to restore trust, strengthen accountability, and realign global commitments with the Paris Agreement’s 1.5°C target.

Water in Transition: India's Integrated Approach in 2024

India's water management and quality initiatives in 2024 demonstrated substantial progress, underpinned by the Ministry of Jal Shakti and allied agencies through a range of policy measures, infrastructure projects, and technological innovations. The Year End Review 2024 and deliberations at India Water Week 2024 highlighted significant achievements aimed at securing water resources, strengthening groundwater management, expanding sewage treatment infrastructure, and enhancing flood control and irrigation systems.

The National Mission for Clean Ganga (NMCG) recorded major milestones, with 25 new projects completed during the year, bringing the cumulative total to 303 completed and 488 sanctioned projects worth ₹39,730 crore. Sewerage infrastructure witnessed significant expansion, with 203 projects enabling the creation of 6,255 MLD sewage treatment capacity and 5,249 km of sewer networks in the Ganga Basin. In 2024 alone, 305 MLD capacity was sanctioned and 750 MLD commissioned, while ecological restoration efforts, such as turtle breeding and freshwater fish ranching, underlined a holistic approach to river health.

Groundwater resource management advanced under the National Aquifer Mapping and Management Programme (NAQUIM), which now covers 2.5 million sq km, with an additional 40,000 sq km mapped in 2024. Infrastructure development included 1,796 piezometers for groundwater monitoring and 319 exploratory/observation wells in critical states. The National Compilation of Dynamic Ground Water Resources of India 2024, released on December 31, revealed a total annual groundwater recharge of 446.90 BCM, of which 406.19 BCM is extractable. Actual use stood at 245.64 BCM, with 73% of assessed blocks classified as "Safe," though 11.1% remain "Over-exploited."

Despite these advances, India continues to grapple with acute water stress, ranking 120th out of 122 countries on the Global Water Quality Index. Approximately 70% of water sources remain contaminated, affecting 163 million people without safe drinking water, while 600 million citizens experience high-to-extreme water stress. Groundwater depletion remains particularly

critical in regions such as Punjab, with climate change further compounding drought and flood risks. Demand projections suggest that supply gaps may intensify by 2030 without accelerated interventions.

On the irrigation front, the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) continues to deliver results, with a total outlay of ₹93,068 crore for 2021–26, designed to benefit 22 lakh farmers through irrigation expansion and water-use efficiency improvements. By 2024, 25.8 lakh hectares of irrigation potential had been created against a target of 34.6 lakh hectares, while 62 projects were completed since 2016–17.

Flood control measures have also been significantly enhanced. The Central Water Commission (CWC) issued around 10,000 flood forecasts per season across 340 stations, achieving high accuracy levels. The integration of advanced mathematical models and remote-sensing technologies has enabled more precise flood predictions and real-time sedimentation monitoring for reservoirs.

Technology and innovation remain central to India's water governance framework. Collaborative initiatives with IITs, international partners, and research institutes have facilitated the development of cutting-edge tools, including the Ganga River Atlas and software applications under the "Atmanirbhar Bharat" initiative, designed to automate groundwater analysis and make monitoring systems more accessible and robust.

The India Water Week 2024 provided a vital international platform for cooperation, drawing participation from 40 countries. Discussions focused on water conservation, multi-stakeholder partnerships, and climate-resilient infrastructure, signalling a shift towards holistic, inclusive, and technology-driven water management practices.

In conclusion, 2024 marked a year of considerable strides in water quality monitoring, sewage and irrigation infrastructure, groundwater management, flood forecasting, and global knowledge exchange. While significant challenges remain in addressing contamination, groundwater depletion, and climate vulnerability, India's integrated and technology-enabled approach positions it as a global example of water stewardship and sustainable governance.

REPORT

'Accelerating Progress of SDG6 (Clean Water and Sanitation) in the South and South West Asia sub-region

We are pleased to share that a working paper titled “Accelerating Progress of SDG 6 (Clean Water and Sanitation) in the South and South-West Asia Sub-region”, prepared by Dr. Arvind Kumar, President, India Water Foundation, has been published by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) – South and South-West Asia Office (SSWA).

Dr. Kumar extends his gratitude to Ms. Mikiko Tanaka, Director, ESCAP-SSWA, for this opportunity, and conveys special thanks to Dr. Rajan Sudesh Ratna, Deputy Head and Senior Economic Affairs Officer, ESCAP-SSWA, and Ms. Leila Salarpour Goodarzi, Associate Economic Affairs Officer, ESCAP-SSWA, for their continuous guidance and support.

The paper highlights that while South and South-West Asia has made significant progress in expanding access to safe water, the sub-region still faces critical challenges in water availability and quality. It provides a comprehensive analysis of both achievements and persistent gaps, offering a roadmap to accelerate progress on SDG 6.

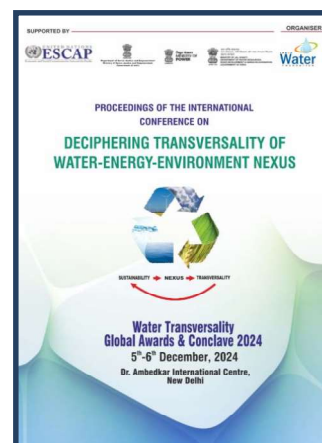
To read the complete report please visit

https://www.unescap.org/kp/2024/accelerating-progress-sdg-6-clean-water-and-sanitation-south-and-south-west-asia-subregion?fbclid=IwZXh0bgNhZW0CMTAAAR3TggKrax47FAdNXm23QexKtopIjcXqvMRi9RMAIP1JC_dGQv-vVzFs35U_aem_bytTGUd7Q0xk_Djq_p9Edw



Water Transversality Global Awards and Conclave 2024 - Proceedings of the International Conference on Deciphering Transversality of Water-Energy-Environment Nexus

The **Water-Energy-Environment Nexus** is an intricate and interdependent system that calls for an innovative approach to achieving sustainability and resilience. At the heart of this complexity lies *transversality*, a concept that emphasizes the interconnectedness of various sectors—water, energy, and the environment—and the need to break down traditional silos in policymaking and implementation. Transversality, in its essence, is the practice of viewing challenges from a holistic perspective, recognizing that addressing issues in one domain often requires solutions and strategies that span multiple sectors.



The **Water Transversality Global Awards and Conclave 2024** explored this critical theme by bringing together global leaders, experts, and stakeholders to share knowledge and foster collaborations aimed at tackling the pressing challenges of the water-energy-environment nexus. This report serves as a testament to the innovative discussions, strategic partnerships, and forward-thinking recommendations that emerged from this event. By embracing transversality, the conclave has paved the way for a more integrated, multidisciplinary approach to solving the world's most complex environmental challenges.

Through diverse sessions, policy dialogues, and technical workshops, the event captured the importance of aligning efforts across sectors to ensure long-term sustainability. The outcomes of the conclave highlight the importance of a collaborative mind-set and innovative solutions, from renewable energy technologies to adaptive water management strategies, which are essential for mitigating climate crises and fostering resilience.

This report outlines how transversality was not just a theme of discussion, but a guiding principle in the solutions and strategies shared at the conclave. The findings emphasize the urgency of

collaborative governance, the role of technological innovation, and the need for cross-sectoral integration in addressing global sustainability challenges. Through these conversations, the Water Transversality Global Awards and Conclave 2024 has provided a roadmap to a more sustainable, equitable, and resilient future, where water, energy, and the environment coexist harmoniously for the benefit of all.

To read the complete report please visit

<https://indiawaterfoundation.org/wp-content/uploads/2025/02/REPORT-BOOK-PRINTED-W-1-compressed.pdf>

BOOK

Dr. Arvind Kumar's, "Friday Musings"

Sh. Hash Malhotra, Minister of state, Ministry of Corporate Affairs and Ministry of Highways and Transport of the Government of India, Dr. Arvind Kumar, President, India Water Foundation, Ms. Mikiko Tanaka, Director of the SSWA office of UN ESCAP and Col. Akhilesh Kumar Pandey, Chief Post master General of the Delhi Circle released a book by Dr. Arvind Kumar, "Friday Musings", a compilation of his Friday Blogs. Through this collection of musings, Dr. Kumar has attempted to highlight contemporary global challenges and concerns, though many of them resonate to India as well. The articles are written with a distinctive style to discuss various social, economic and environmental concerns which fall under the umbrella of Sustainability, Transversality and Nexus which are the pillars for tinging the broader canvas of Sustainable Development Goals. These articles are his reflections for the past couple of years, are inspired by his experiences shared every FRIDAY and are purposefully crafted to engage and inform. His Friday blogs garnered a positive response from experts and influencers and likewise from colleagues, friends and followers. On their insistence and encouragement, he has curated a selection of 101 best articles for this book and decided to publish this compilation.



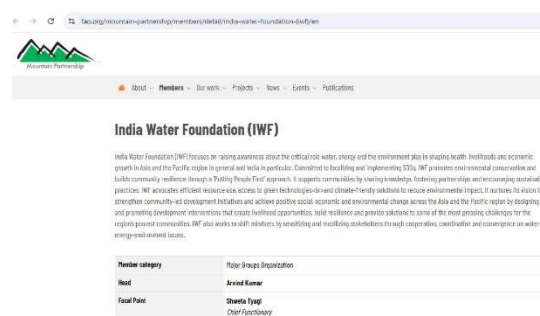
ANNOUNCEMENT

2nd Water Transversality Global Awards & Conclave on 6-7 March, 2026

Theme: ESG Transversality for Sustainable Water, Energy, Health and Environment Nexus. We are delighted to invite you to this two-day landmark conference, bringing together policy makers, industry leaders, innovators, and sustainability experts from across the globe.



This high-impact event will explore: **ESG integration** into water, energy, health, and environmental systems; Advancing the **Water-Energy-Health & Environment Nexus**; **Global collaboration** for sustainable development; **Innovations** accelerating the path to **carbon neutrality**. Join us for inspiring discussions, strategic partnerships, and ground-breaking ideas shaping a sustainable future.



India Water Foundation Joins the UN Mountain Partnership

Another proud milestone for **India Water Foundation**, we are now an official member of the **Mountain Partnership**, a United Nations alliance dedicated to improving the lives of mountain

communities and safeguarding mountain environments worldwide. This collaboration places us alongside esteemed institutions such as ADB, FAO, WMO, ICIMOD, and IUCN, all working together for a transformative global impact. Becoming part of this alliance reinforces our

commitment to: Sustainable development, Climate resilience, and integrated ecosystem approaches.

We look forward to engaging with like-minded organizations, sharing knowledge, and fostering partnerships that strengthen the **mountain agenda** both regionally and globally.

Let's work together to ensure **Mountains Matter** and contribute meaningfully to the **2030 Agenda** and the **SDGs**.

Become a Direct Member!

At the India Water Foundation (IWF), we're more than just a network—we're a movement for sustainability and resilience. By becoming a member, you become part of a community of individuals, organizations, and institutions committed to environmental conservation, policy advocacy, and transformative change.

Why Join Us?

As a member, you'll gain opportunities to:

- Shape Policies with us – Participate in advocacy initiatives that influence sustainable development strategies.
- Learn and Grow Together – Access exclusive workshops, training programs, and thought-leadership events.
- Connect with Change-makers – Collaborate with a global network of experts, innovators, and leaders.
- Make a Grassroots Impact – Support and engage in community-driven projects that enhance resource efficiency and resilience.

- Be Recognized for Your Efforts – Get featured, awarded, and celebrated for your contributions at IWF events.

Who Can Join?

Membership is open to:

- **Organizations** – Companies, institutions, NGOs, government bodies, and intergovernmental organizations.
- **Individuals** – From young professionals to experienced leaders and retirees—anyone passionate about sustainability.

Whether you're a policymaker, innovator, or community advocate, there's a place for you here at IWF. Together, let's shape a sustainable and inclusive future.

Apply Now - <https://indiawaterfoundation.org/direct-membership/>

ACTIVITIES OF INDIA WATER FOUNDATION

GLOBAL INPERSON

India Water Foundation Highlights India’s Agricultural Achievements at UNHRC Side Event in Geneva

On 27 March 2025, Dr. Arvind Kumar, President, India Water Foundation, delivered the keynote address at a side event organised by **Rajasthan Samgrah Kalyan Sansthan (RSKS) INDIA** during the 58th Session of the **UN Human Rights Council** in Geneva. The event spotlighted India’s remarkable progress in diverse sectors including agriculture, education, health, and environmental awareness.



In his address, Dr. Kumar noted that **India has made significant strides in agriculture and allied sectors** in recent years achieving self-sufficiency in food production and excelling in horticulture, dairying, milk production, fisheries, post-harvest management, and the development of cold chain infrastructure. He emphasized that **agriculture remains the mainstay of the Indian economy**, contributing **13.7% to the national GDP** and providing employment to **22% of the country’s population**.

The session underscored India’s integrated approach towards rural prosperity and sustainable development, while also highlighting the nation’s commitment to meeting global sustainability goals through innovation, investment in infrastructure, and community empowerment.

<https://www.facebook.com/indiawaterfoundation/videos/676647368274867>

India Water Foundation Advocates Holistic Approach to Gender Equity at UNHRC Side Event in Geneva

On 27 March 2025, **Ms. Shweta Tyagi**, Chief Functionary, India Water Foundation, addressed a side event organised by **Rajasthan Samgrah Kalyan Sansthan (RSKS) INDIA** during the 58th Session of the **UN Human Rights Council** in Geneva. The event showcased India's progress in key areas including gender equity, agriculture, education, health, and environmental awareness. In her remarks, Ms. Tyagi stressed that **gender equity requires legislative change, complemented by shifts in gender and social norms**. She underscored the need for a **holistic programme** to address the multifaceted challenges faced by women—from developing strategies and policies to recognising individual agency and understanding structural constraints.



“Overcoming these challenges,” she noted, “requires a nuanced understanding and dedicated efforts at all levels.” Her intervention highlighted the importance of comprehensive, multi-level action to ensure that legislative measures translate into lasting, equitable change in society.

<https://www.facebook.com/indiawaterfoundation/videos/551625097952513>

Exhibition at the Broken Chair Square, Palais des Nations

India Water Foundation organized a photo exhibition at the Broken Chair Square in front of the Palais des Nations, showcasing India's positive indices regarding a commitment to Religious Freedom, Secularism, and Protection against Discrimination. etc



<https://www.facebook.com/indiawaterfoundation/posts/pfbid073APfPA4YH5PBcYZQUcmPCwDmmzKWfaXNfXSS5vVzeAeSXTNZs8pWrTNZgGyVkT6l>

India Water Foundation Showcases India's Governance Model at UNHRC Side Event in Geneva



On 24 March 2025, **Dr. Arvind Kumar**, President, India Water Foundation, delivered the keynote address at a side event organised by **Eco Fawn** during the 58th Session of the **UN Human Rights Council** in Geneva. The event highlighted the positive indices of India's development across various domains.

In his address, Dr. Kumar stated that **India's governance model is a blend of top-down and bottom-up approaches**, ensuring a holistic and inclusive development strategy. He explained that the **top-down approach** focuses on strong policy frameworks,

large-scale infrastructure projects, and nationwide economic reforms spearheaded by the central government, while grassroots initiatives complement these efforts by fostering local participation and community-led solutions.

The discussion underscored how this dual approach has enabled India to achieve balanced growth, address diverse socio-economic needs, and build a resilient framework for sustainable development.

India Water Foundation Highlights India's Commitment to Minority Empowerment at UNHRC in Geneva

On 20 March 2025, **Dr. Arvind Kumar**, President, India Water Foundation, delivered a statement during **General Debate 4 on Minority Issues in India** at the 58th Session of the **UN Human Rights Council** in Geneva.



Dr. Kumar emphasised that **India demonstrates strong commitment to minority empowerment, serving 19.3% of the population** through comprehensive initiatives targeting

six officially recognised minority groups **Muslims, Christians, Sikhs, Buddhists, Jains, and Zoroastrians**. He highlighted that India's commitment to diversity is reflected in the vibrant cultures, religions, and languages that coexist harmoniously across the nation.

He further stressed that these inclusive policies and programmes are essential to safeguarding minority rights, fostering equal opportunities, and strengthening India's social fabric.

India Water Foundation Reaffirms India's Constitutional Protections for Religious Freedom at UNHRC in Geneva

On 20 March 2025, **Ms. Shweta Tyagi**, Chief Functionary, India Water Foundation, delivered a statement during **General Debate 5** at the 58th Session of the **UN Human Rights Council** in Geneva.



Ms. Tyagi underscored that **India safeguards religious freedom through constitutional provisions under Articles 25–28**, which guarantee the right to freely practice, profess, and propagate religion. She further highlighted that laws such as the **Places of Worship Act, 1991** help preserve the religious character of worship sites, while **Article 30** provides special protections to minority educational institutions.

Her remarks reinforced India's commitment to ensuring that constitutional guarantees and legislative measures work hand-in-hand to maintain harmony, protect diversity, and uphold the rights of all communities.

India Water Foundation Advocates Strong Data Privacy Measures at UNHRC in Geneva

On 20 March 2025, **Dr. Arvind Kumar**, President, India Water Foundation, addressed the 58th Session of the **UN Human Rights Council** in Geneva. He expressed strong support for the Special Rapporteur’s report on the Right to Privacy, emphasising that **data privacy is fundamental to achieving the Sustainable Development Goals (SDGs)** particularly in protecting vulnerable populations and ensuring inclusive development under the SDG principle of “leaving no one behind.”



He noted that **India Water Foundation has recognised the importance of data privacy since its inception**, aligning with the UN’s privacy framework. Highlighting India’s proactive stance, Dr. Kumar cited the **Digital Personal Data Protection Act, 2023**, and the **Rules of 2025** as landmark measures that:

- Strengthen individual rights regarding data collection, access, correction, and deletion.
- Mandate transparency from data fiduciaries on data use, consent withdrawal, and complaint mechanisms.
- Safeguard children’s data through verifiable parental consent using identity and age verification.

Dr. Kumar also **advocated for smart card adoption** to minimise risks associated with biometric database misuse by criminals, terrorists, or foreign entities. He further pointed out that the **Union Budget 2025’s** prioritisation of **AI, data security, and privacy** reflects India’s commitment to advancing global digital rights and cybersecurity.

International Conference on Deciphering Transversality of Water-Energy-Environment Nexus during the Water Transversality Global Awards and Conclave on 5th-6th December 2024

“The Water Transversality Global Awards and Conclave opened on 5th December 2024 in New Delhi by Sh. Harsh Malhotra Minister of state, Ministry of Corporate Affairs and Ministry of Road Transport and Highways, Government of India Government of India, Dr. Arvind Kumar, President, India Water Foundation, Ms. Mikiko



Tanaka Director of the SSWA office of UNESCAP and Col. Akhilesh Kumar Pandey, Chief Post master General of the Delhi Circle. A special cover was also released by the India Post to commemorate this event. The honorable guests also released a book by Dr. Arvind Kumar, Friday Musings, a compilation of his Friday Blog and they also presented a report on SDG 6 by Dr. Arvind Kumar of the ten countries of South and South West Asia region for the UN ESCAP. The Hon'ble minister congratulated Dr. Arvind Kumar for this initiative of bringing 23 organizations on board to collaborate for this event. The event was organised by India Water Foundation with support from the Ministry of Power, Government of India, Ministry of Jal Shakti, Department of Water Resources, RD & GR Ministry of Social Justice and Empowerment, Government of India and United Nations ESCAP South and South-West Asia Office. The inaugural plenary was opened by Mr. Shombi Sharp, UN Resident Coordinator of United Nations in India, Sh. Amit Ghosh, Additional Secretary, Ministry of Social Justice and

Empowerment, Government of India, Dr. Sachin Chaturvedi, Director General, RIS and Ms. Mikiko Tanaka, Director of the SSWA office of UN ESCAP. All the dignitaries showed their concerns on the degradation of environment and water resources due to human interventions. They showed appreciation for India Water Foundation and its



team for organising this crucial event especially during these critical times. Sh. Gosh highlighted the challenge of inequity and inclusivity, Mr. Shombi Sharp spoke about how UN organisations in India are complementing the government in various sectors. Mr. Chaturvedi stressed on integration of policies as these issues are deeply intertwined. Ms. Tanaka said UN ESCAP has always

advocated for cooperation and collaborations between countries of the sub region. There were plenaries, sessions and side events organised by the knowledge partners like IHE Delft Institute for Water Education on Day 1. There were delegates from government, civil society, industry,



private sector, academia, media etc. Embassies like Israel, Hungary, Malawi, Seychelles, Morocco, had wholesome participation. Dignitaries like Prof. Eddy Moors, Rector, IHE Delft Institute of Water Education travelled all the way from the Netherlands to attend the event and this is a testament to his commitment to sustainable conservation of resources of this planet. Together, let us build a future where resources are not a source of conflict but a wellspring of

prosperity, equity, and sustainability. The day 2 of Water Transversality Global Awards and Conclave started with the Energy Plenary followed by a session organised by the United Nations ESCAP South and South-West Asia Office. In total Eighteen sessions were organised throughout the two days including parallel side events by knowledge partners like UNOPS, GIZ, German

International Cooperation, IUCN, ISID. Sh. Raj Bhushan Chaudhary, honourable Minister of state for Ministry of Jal Shakti, Department of Water Resources, RD & GR Government of India was the Chief Guest for the Valedictory and Awards Ceremony. More than 60 Water Transversality Global awards in various categories like rainwater harvesting Water use efficiency in industrial sector, groundwater management, climate



resilient agriculture practices, and water reuse and treatment were given away to organisations, districts, states, individuals, youth, schools etc. by the honourable Minister in presence of Dr. Arvind Kumar and Ms. MIKIKO Tanaka . Leadership awards in water, energy, environment sector were given to organisations like WAPCOS Limited, DFCCIL, GAIL (India) Limited etc. Lifetime achievement Awards were bestowed on dignitaries like Loic Fauchon, President World Water Council Prof. Eddy Moors, Rector, IHE Delft Institute for Water Education, Dr. Satya Tripathi, Secretary General, Global Alliance for a Sustainable Planet, leadership awards were given to Dr. Nagesh Kumar, Director ISID, Sh. Parveen Kumar, CMD, DFCCIL, Sh. Navneet Sehgal, Chairman, Prasar Bharti and few others. These awards are recognition for those who have made extraordinary contributions to water management and sustainability and are a celebration of human ingenuity. We look forward to carry the momentum of this year’s conclave to the next edition of Water Transversality Global Awards and Conclave.



Turning Promises into Progress on Climate Action at COP29

The 29th Conference of the Parties (COP29) to the United Nations Framework Convention on Climate Change, held in Baku, Azerbaijan, from November 11 to 22, 2024, marked a pivotal moment in global climate negotiations. This year's conference was characterized by a strong emphasis on climate finance, adaptation strategies, and the operationalization of the Loss and Damage Fund. One of the most significant developments was the discussion surrounding the New Collective Quantified Goal (NCQG), aimed at establishing a financial target to support



Picture Credit/Courtesy/Source: COP29

developing countries in their climate efforts post-2025. A more generous cash settlement at COP29 would undoubtedly have had a positive knock-on effect on those efforts. And at a time of geopolitical uncertainty and distraction, keeping countries united on climate should be critical. The big fight over money re-opened old divisions between rich and poor, with an anger and bitterness I have not seen in years.

Shepherding 200 nations to an intricate deal on climate finance was always going to be a tough task, but for hosts Azerbaijan a country with no real history of involvement in the COP process, it proved to be almost beyond them. COP29 attracted over 55,000 participants, including representatives from nearly 200 countries, civil society members, businesses, Indigenous Peoples, youth, and international organizations. Notably, dedicated spaces were created for youth engagement, allowing children as young as 10 to participate actively in discussions. The conference took place at the Baku Stadium, which served as the main hub for negotiations and discussions. It encompassed multiple sessions, including the 29th session of the Conference of the Parties (COP), the 19th meeting of the COP serving as the Meeting of the Parties to the Kyoto Protocol (CMP), and the sixth meeting of the COP serving as the Meeting of the Parties to the Paris Agreement (CMA).

The opening session, led by COP28 President Sultan Al Jaber, emphasized the urgent need for unity and action among nations. He called for contributions to the Loss and Damage Fund and highlighted the importance of establishing a robust New Collective Quantified Goal (NCQG) for climate finance. COP29 President Mukhtar Babayev echoed this sentiment, describing COP29 as an “unmissable moment” for delivering a fair and ambitious NCQG that would signal to financial markets the seriousness of climate commitments. He stressed that the upcoming round of Nationally Determined Contributions (NDCs) should be informed by the outcomes of the first Global Stocktake (GST), particularly regarding a just transition away from fossil fuels.

With a central focus on climate finance, COP29 reached a breakthrough agreement that will:

- Triple finance to developing countries, from the previous goal of USD 100 billion annually, to USD 300 billion annually by 2035.
- Secure efforts of all actors to work together to scale up finance to developing countries, from public and private sources, to the amount of USD 1.3 trillion per year by 2035.

Known formally as the New Collective Quantified Goal on Climate Finance (NCQG), it was agreed after two weeks of intensive negotiations and several years of preparatory work, in a process that requires all nations to unanimously agree on every word of the agreement.

“This new finance goal is an insurance policy for humanity, amid worsening climate impacts hitting every country,” said Simon Stiell, Executive Secretary of UN Climate Change. “But like any insurance policy – it only works – if premiums are paid in full, and on time. Promises must be kept, to protect billions of lives.”



Picture Credit/Courtesy/Source: COP29

The International Energy Agency expects global clean energy investment to exceed USD 2 trillion for the first time in 2024. Steering towards the same, COP29 also reached agreement on carbon markets – which several previous COPs had not been able to achieve. These agreements

will help countries deliver their climate plans more quickly and cheaply, and make faster progress in halving global emissions this decade, as required by science.

Article 6 of the Paris Agreement

A notable achievement in recent weeks has been the progress made in the realm of carbon markets. After nearly a decade of discussions, countries have reached an agreement on the fundamental elements that will regulate the functioning of carbon markets under the Paris Agreement, thus enabling effective trading between nations and the establishment of a carbon crediting mechanism.

Concerning the trading of carbon credits between countries (Article 6.2), the resolution from COP29 elucidates the procedures through which nations will authorize the exchange of these credits and the operation of registries that oversee these transactions. Additionally, there is now a commitment to maintain environmental integrity through upfront technical reviews conducted transparently.

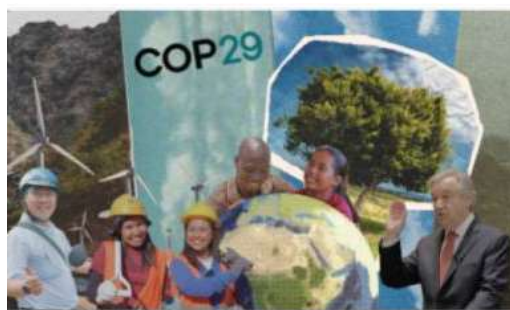
On the first day of COP29, nations set forth standards for a centralized carbon market under the UN (Article 6.4 mechanism). This development is particularly beneficial for developing countries, as it will encourage new financial investments. It is especially advantageous for the least developed nations, which will receive essential capacity-building support to help them engage in the market.

This mechanism, known as the Paris Agreement Crediting Mechanism, is based on mandatory assessments for projects that comply with rigorous environmental and human rights standards, including safeguards that ensure a project cannot proceed without the explicit and informed consent of Indigenous Peoples. Furthermore, it establishes a framework for individuals impacted by a project to appeal decisions or file complaints.

The text ratified for Article 6.4 includes a clear mandate for the UN carbon market to adhere to scientific principles. It requires that the body responsible for implementing this market must take into account the best available scientific evidence in all future activities.

Transparency

Significant progress in transparent climate reporting was made in Baku, which has contributed to a stronger evidence base that will improve climate policies over time and aid in identifying financing needs and opportunities. To date, 13 Parties have submitted their first Biennial Transparency Reports (BTR), a requirement for all Parties by the end of the year. Andorra, Azerbaijan, the European Union, Germany, Guyana, Japan, Kazakhstan, Maldives, Netherlands, Panama, Singapore, Spain, and Türkiye have taken the initiative in transparent climate reporting, establishing a standard for others to follow. The compilation of submitted BTRs is being continuously updated.



Picture Credit/Source/Courtesy: UNDP

Moreover, all transparency negotiation items were successfully resolved at COP29, with Parties expressing appreciation for the timely completion of the Enhanced Transparency Framework (ETF) reporting tools, the technical training sessions, and the support provided to developing countries for ETF reporting that took place in 2024.

A total of 42 events were organized under the #Together4Transparency initiative, a collaborative effort by UNFCCC aimed at enhancing climate transparency among Parties and non-Party stakeholders. These events emphasized the critical role of transparency in developing Nationally Determined Contributions (NDCs) and net-zero strategies, as well as in recognizing climate actions from non-Party stakeholders. The events included high-level discussions, mandated meetings, and training sessions designed to prepare countries for their BTRs and to equip technical experts for the upcoming review process.

The significance of REDD+ was highlighted by a £3 million commitment from the UK International Forest Unit to support UN Climate Change initiatives over the next four years. This funding will bolster REDD+ activities in various countries, enabling the secretariat to create dedicated forums for REDD+ experts to engage in technical discussions. These initiatives are expected to enhance transparency and implementation.

Adaptation

COP29 marked a pivotal moment for adaptation, yielding several important results. The Adaptation Fund reported contributions totaling only \$61 million, falling short of the annual target of \$300 million, which underscores a considerable adaptation finance shortfall, estimated to reach as high as \$359 billion. A decision made at COP concerning the least developed countries (LDCs) includes a provision for establishing a support program designed to assist in the implementation of National Adaptation Plans (NAPs) for these nations. Extensive discussions took place among parties regarding the second five-year assessment of progress in developing and executing NAPs, with intentions to continue this dialogue in June 2025. A High-Level Dialogue on National Adaptation Plans convened ministers from LDCs and small island developing states, alongside financial experts and international donors, to address the urgent need for climate adaptation. Their discussions focused on innovative financing, technical assistance, and the acceleration of actions required to meet the 2025 deadline for NAP submissions. The event concluded with a strong call to action aimed at hastening NAPs and transforming plans into tangible outcomes.

The results concerning the global goal on adaptation delineate a clear path leading to COP30, establishing a work program for indicators that enables experts to enhance their technical efforts prior to transferring responsibilities to the Parties. Furthermore, COP29 launched the Baku Adaptation Road Map and the Baku high-level dialogue on adaptation to strengthen the implementation of the UAE Framework. Ultimately, the outcome raises ambition by agreeing to further investigate transformational adaptation in the future.

COP29 also made notable progress in elevating the voices of Indigenous Peoples and local communities in climate action, adopting the Baku Workplan and extending the mandate of the Facilitative Working Group (FWG) of the Local Communities and Indigenous Peoples Platform (LCIPP). The decision acknowledges the FWG's achievements in promoting collaboration among Parties, Indigenous Peoples, and local communities, while emphasizing the leadership role of these groups in tackling the climate crisis.

Gender and Climate Change

Countries reached a consensus on the issue of gender and climate change, extending the enhanced Lima Work Programme on Gender and Climate Change for an additional decade. This decision underscores the significance of gender equality and promotes the integration of gender considerations across the convention.

Furthermore, they committed to formulating a new gender action plan to be adopted at COP30, which will outline the framework for effective implementation.

Civil society participation, children and youth

World leaders at COP29 were accompanied by representatives from civil society, sub-national entities, businesses, Indigenous Peoples, youth, philanthropic organizations, and international bodies. The event attracted over 55,000 attendees who came together to exchange ideas, propose solutions, and forge partnerships and coalitions.

The resolutions made at COP29 underscored the vital need to empower all stakeholders in climate action, particularly through Action for Climate Empowerment (ACE). Participants acknowledged the significance of incorporating ACE components into national climate change policies, plans, strategies, and actions, and referenced the secretariat's compilation of best practices for integrating ACE elements into Nationally Determined Contributions (NDCs).

A notable achievement of COP29 was the establishment of dedicated spaces to facilitate the meaningful involvement of children in the Youth-led Climate Forum for the first time. Four children, including the youngest participant at merely 10 years old, served as moderators and speakers, directly engaging with Parties and observer organizations. Their involvement underscored the importance of inclusivity and intergenerational collaboration in advancing climate action.

Alongside the formal negotiations, the Global Climate Action space at COP29 offered a venue for governments, businesses, and civil society to collaborate and present their practical climate solutions. A summary of these initiatives is available [here](#).

The High-Level Champions, as part of the Marrakech Partnership for Global Climate Action, unveiled their 2024 Yearbook of Global Climate Action at COP29. This publication illustrates how climate initiatives by non-Party stakeholders, including businesses, investors, sub-national actors, and civil society, are propelling progress toward the objectives of the Paris Agreement, emphasizing the increasing importance of their engagement.

In addition to these highlights, Multilateral development banks pledged to increase climate-related lending significantly. For instance, the World Bank and European Investment Bank committed to \$120 billion annually for low- and middle-income countries, while the Asian Development Bank announced \$7.2 billion in additional investments.

India Water Foundation at COP-29

The High-Level Policy Dialogue on Water Transversality for Climate Adaptation and Resilience



Figure 1PC: IWF

On Monday, November 18, 2024, a High-Level Policy Dialogue on Water Transversality for Climate Adaptation and Resilience an official side event organized by India Water Foundation in collaboration with Earth savers movement, Gorakhpur Environmental Action Group, Nigerian Conservation foundation, Startup Nation central and Womenvai was convened in Baku, Azerbaijan. The event, scheduled from 16:45 to 18:15 Baku time, brought together esteemed experts and stakeholders to discuss the pressing issue of global water security.

The dialogue was introduced and moderated by Shweta Tyagi, Chief Functionary of the India Water Foundation, who welcomed the participants and highlighted the benefits and co-benefits of water and water ecosystem management and how it allows for more targeted climate finance and raise awareness for the role of water for both climate mitigation and adaptation as well as resilience building. Dr. Arvind Kumar, President of the India Water Foundation, delivered the opening remarks, providing an overview of the session and emphasizing the importance of water transversality in addressing climate change. He further said, that optimized financing, improved

data and information; enhanced capacity, innovations and enhanced governance when all of it comes together it is called transversality approach. All these accelerators need to be filled with actions by all actors.

The dialogue featured a distinguished panel of experts, including:

- Meike van Ginneken, Water Envoy, Government of the Netherlands
- Ms. Nivedita Mani, Gorakhpur Environmental Action Group
- Dr. Zahra Khan, Women’s Environmental Network
- Mrs. Cecile Guidote-Alvarez, Earth Savers Movement, UNESCO Artist for Peace
- Dr. Joseph Onoja, Director General, Nigerian Conservation Foundation
- Representative from Start-Up Nation Central
- Representative from Womenvai
- Mr. Barak Graber, Director, Mekorot

Each panelist shared their insights and expertise on water transversality, climate adaptation, and resilience. The discussions highlighted the need for integrated approaches to address the complex challenges facing global water security.

The dialogue emphasized the importance of collaboration and partnerships among diverse stakeholders, including local communities, water agencies, utilities, and policymakers. The experts stressed that a holistic and cross-cutting approach to water management is essential for building resilient water systems and accelerating climate actions.



Figure 2PC: India Water Foundation

This High-Level Policy Dialogue marked a significant step towards fostering global cooperation and knowledge sharing on water transversality and climate resilience. The discussions and recommendations emanating from this event are expected to inform policy decisions and shape the future of water management and climate action.

India's Stance on Climate Finance

India recently expressed strong objections to the new climate finance deal finalized at the COP29 UN Climate Change Conference in Baku, Azerbaijan. India felt that the deal prioritized mitigation over securing adequate climate finance, which is crucial for developing countries. India emphasized the need for a balanced approach to climate action, stressing that mitigation ambitions must be supported by adequate finance and technology.

India's concerns centered around four key areas: the New Collective Quantitative Goal (NCQG), which India felt didn't provide sufficient grant-based concessional climate finance; mitigation, where India protested against changing the scope of the Mitigation Work Programme; just transition, where India declined to accept any renegotiation of the shared understanding; and adaptation, where India highlighted the need for indicators on means of implementation.

India rejected the deal, along with other developing countries like Bolivia, Nigeria, and Cuba, citing concerns that it didn't meet their priorities and demands. Although their rejection doesn't have legal implications, it underscores the need for a more inclusive and equitable approach to climate finance.

Why India opposed the deal?

India's, and many other developing countries', opposition to the final NCQG decision have been majorly on three counts. First, the quantum of the amount is too little, second it comes too late and third the decision dilutes the responsibility of the developed countries under the Paris Agreement.

India also collaborated with various agencies to organize side events on several aspects of climate action during the CoP29 UN Climate Change Conference at Baku, Azerbaijan, from 11th-22nd November, 2024. India participated in these side events and shared experiences/initiatives to deal with the climate challenges.

Several key side events were held during the UNFCCC-CoP29, focusing on crucial aspects of climate action. One such event, "Integrating Disaster Resilient Infrastructure into Adaptation Strategies," emphasized the importance of incorporating disaster risk reduction into national

adaptation strategies. The discussion highlighted the need for holistic approaches to resilient infrastructure development, which can play a critical role in strengthening the global climate adaptation agenda.

Another significant event was the LeadIT Summit 2024, which marked the fifth year of the Leadership Group for Industry Transition (LeadIT). The summit brought together governments, industries, and stakeholders to discuss industrial low-carbon transition, innovation, and public-private partnerships. The event underscored the shared commitment of LeadIT's members to aligning industry with the Paris Agreement.

The India-Sweden Industry Transition Partnership (ITP) was also showcased, highlighting progress made under this partnership and its links to the Brazil-UK Industry Decarbonisation and Hydrogen Hubs. The discussion emphasized the importance of swift transition to renewable energy resources to confront climate change threats and ensure a stable energy future.

Other notable events included “Unlocking Investments for Climate Resilient and Sustainable Infrastructure in Small Island Developing States (SIDS)” and “Solarizing Communities through Women-led Climate Action.” These events focused on enhancing energy security, mitigating emissions, and fostering equitable development in the Global South, as well as promoting women-led clean energy solutions and gender-balanced approaches to climate action.

Way Forward:

Developed countries must fulfill their commitment to mobilize \$300 billion annually by 2035, with a balanced allocation between mitigation and adaptation. Countries should prioritize adaptation planning, implementation, and finance, with a focus on vulnerable communities and ecosystems. The fund should be fully operationalized, with clear guidelines and procedures for accessing and utilizing funds. Countries should continue to develop and refine carbon markets and non-market approaches, ensuring environmental integrity and transparency. Countries should enhance transparency in their climate actions, progress, and support, with robust accountability mechanisms to ensure compliance. Climate policies and actions should prioritize the needs and rights of vulnerable groups, including Indigenous Peoples, women, and children. Countries should foster global cooperation, partnerships, and knowledge sharing to accelerate

climate action and achieve the goals of the Paris Agreement. Climate policies and actions should be guided by principles of climate justice, human rights, and sustainable development.

Overall, COP29 served as a critical platform for addressing ongoing challenges in global climate governance. While significant pledges were made towards climate finance and adaptation efforts, persistent disagreements over funding amounts and responsibilities between developed and developing nations remain a barrier to achieving collective climate goals. The outcomes from this conference will undoubtedly influence future negotiations leading up to COP30, reinforcing the urgent need for collaborative action in combating climate change.

Annual half-day panel discussion on the rights of Indigenous Peoples at the 57th session of the UNHRC

At the 57th session of the United Nations Human Rights Council (UNHRC) in Geneva, Dr. Arvind Kumar, President, India Water Foundation, delivered a statement during the annual half-day panel discussion on the rights of Indigenous Peoples.

He emphasized that the election of Smt. Droupadi Murmu, belonging to the Santhal tribe, as the first woman tribal President of India is a historic milestone and a testimony to India's commitment to mainstreaming its indigenous tribal population. Dr. Kumar highlighted the efforts of the India Water Foundation in extensively engaging with indigenous communities in the northeastern states of India. The Foundation's interventions focus on empowering these communities as active partners rather than passive beneficiaries by addressing critical challenges such as unemployment, insurgency, unsustainable mining, migration, poverty, and gender inequality. These initiatives aim to bring marginalized groups from the periphery into the mainstream of development.



Official side event on 'Safeguarding Human Right of Water, Sanitation and Health amidst Climate Emergency' during the 57th session of the UN Human Rights Council On 3rd October 2024

On 3 October 2024, the India Water Foundation organized an official side event on “Safeguarding Human Right of Water, Sanitation and Health amidst Climate Emergency” during the 57th session of the United Nations Human Rights Council in Geneva.

In his intervention, Dr. Arvind Kumar, President, India Water Foundation, underscored India's achievements in the water and sanitation sector, noting that on 2 October 2024, while the nation

commemorated Mahatma Gandhi’s birth anniversary through nationwide cleanliness drives and pledges, India also celebrated its attainment of ODF status and the milestone of the Jal Jeevan Mission, which has successfully provided tap water connections to over 77.98% of rural households. He attributed this progress to strong leadership at the highest levels.

The event featured distinguished speakers, including Dr. Satya Tripathi, Secretary General, Global Alliance for a Sustainable Planet (GASP); Ms. Danielle Picher, International Policy Advisor, Swedish Water House, Stockholm International Water Institute (SIWI); Mr. Vinod Mishra, India Country Manager, UNOPS; and Dr. Sophie Boisson, Technical Officer, World Health Organization (WHO). The session was moderated by Ms. Shweta



Tyagi, Chief Functionary, India Water Foundation, who emphasized that safeguarding the human right to water, sanitation, and health amidst the climate emergency requires a multifaceted and integrated approach to ensure that these essential services remain accessible and resilient in the face of climate challenges.

Annual Discussion on Integration of a Gender Perspective at the 57th session of UN Human Rights Council at Geneva, Switzerland.

At the 57th session of the United Nations Human Rights Council in Geneva, the Annual Discussion on the Integration of a Gender Perspective highlighted the importance of embedding gender equity into global development agendas. Speaking on the occasion, Ms. Shweta Tyagi, Chief



Functionary, India Water Foundation and Associate Editor, Focus Global Reporter, emphasized India’s strong commitment to gender-inclusive development. She noted that India has designed policies, programmes, and budgets with a gender perspective at their core, ensuring that women are not only primary beneficiaries but also central drivers of progress. Stressing that India’s development is “women-led and for women,” she urged that India’s model should be showcased

on every global platform as an example of not only talking the talk but also delivering tangible outcomes

Exhibition at the Broken Chair Square in front of the Palais des Nations, Geneva showcasing the positive indices of the Government of India

On the sidelines of the 57th Session of the UN Human Rights Council in Geneva, India Water Foundation organized a Photo Exhibition at the iconic Broken Chair Square, in front of the Palais des Nations, highlighting the positive indices of the Government of India in diverse sectors such as Digital India, gender empowerment, water and sanitation, and the application of IoT in agriculture.



During the session’s Annual Half-Day Panel Discussion on the Rights of Indigenous Peoples, Dr. Arvind Kumar, President, India Water Foundation, underlined India’s commitment to its 705 recognized ethnic groups (Scheduled Tribes/indigenous communities). He emphasized that IWF has been working extensively with these communities in the northeastern states, empowering them as active partners rather than passive beneficiaries. By creating alternative livelihoods not dependent on unsustainable natural resource use, IWF has successfully addressed unemployment, insurgency, unsustainable mining, migration, poverty, and women’s empowerment, while improving socio-economic and environmental indicators. This approach has been instrumental in bringing indigenous communities from the periphery to the mainstream.

SANS Policy dialogue on Climate change and carbon regulations - A way forward for South and South-West Asia during the 8th SSWA Regional Forum on Sustainable Development

During the SANS Policy Dialogue on Climate Change and Carbon Regulations – A Way Forward for South and South-West Asia, organized by the United Nations ESCAP South and

South-West Asia Office on 14th November 2024 at Bharat Mandapam, New Delhi, Dr. Arvind Kumar, President, India Water Foundation, emphasized the importance of equity and flexibility in global climate mechanisms.

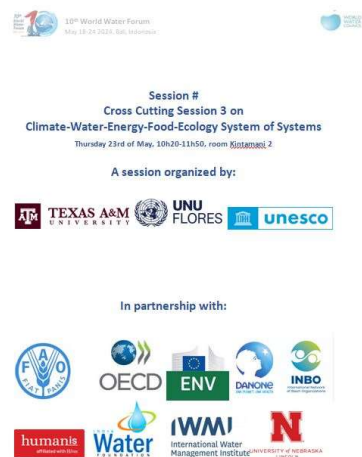


He stated, “For effective alignment, the Carbon Border Adjustment Mechanism (CBAM) should incorporate flexible mechanisms, such as exemptions or phased implementation for developing countries, to ensure it does not hinder their economic growth. Financial and technical support to help these regions adopt cleaner technologies can also make CBAM more equitable.”

This intervention highlighted India Water Foundation’s commitment to advocating for a balanced climate transition that safeguards the developmental priorities of the Global South while advancing sustainable growth..

Cross Cutting session on Climate-Water-Energy-Food-Ecology System of Systems, Bali Indonesia

On 23rd May 2024, during the 10th World Water Forum in Bali, Indonesia, the India Water Foundation, in partnership with UNU-Flores, UNESCO, Texas A&M University, FAO, OECD, INBO, ENV, Danone, IWMI, Humanis, and the University of Nebraska, co-organized a cross-cutting session on “Climate–Water–Energy–Food–Ecology System of Systems.”



Held in Room Kintamani 2, the session focused on how the Water–Energy–Food–Ecology (WEFE) nexus can be leveraged to create synergies across sectors and strengthen policy coherence. It further highlighted successful planning, financial, and governance models, presented through case studies from diverse scales and regions—ranging from basin authorities

and governmental mechanisms of cross-jurisdictional coordination to civil society platforms and transboundary collaborations.

This dialogue reinforced the role of integrated nexus-based approaches in addressing global sustainability challenges and advancing SDGs through multi-stakeholder partnerships.

Exhibition at 56th session of UNHRC, Geneva

At the 56th Session of the UN Human Rights Council (UNHRC), held at the Broken Chair Square outside the Palais des Nations, Geneva, the India Water Foundation organized an exhibition on “Improvement in Living Index from Human Rights Perspective through Emerging Technologies in Jammu and Kashmir.”



The exhibition showcased how emerging technologies such as Artificial Intelligence (AI) and Big Data analytics are helping governments and stakeholders design effective policies by identifying and mitigating pre-existing biases, thereby improving governance and ensuring inclusivity.

During the session, Dr. Asma R. Shora of the India Water Foundation delivered an oral statement in the Interactive Dialogue on the OHCHR report on human rights and new and emerging digital technologies, including AI. She emphasized that while AI has challenges, when used responsibly, it holds the potential to deliver tremendous social good.

She highlighted India’s inclusive AI approach, which aligns with the UN Sustainable Development Goals (SDGs) and focuses on social empowerment. Notable initiatives include: “Bhashini” – a multilingual natural language platform enabling inclusion across 22 Indian regional languages. “Drone Didi” – a transformative program training rural women in India to

become drone pilots, fostering economic empowerment. Dr. Shora underlined that India views emerging technologies like AI as enablers, helping to harness its demographic strengths and accelerate progress toward the SDGs through innovation, efficiency, and inclusivity. She highlighted how like every other technology, AI has a downside. But when used responsibly, it also has the potential to do tremendous good to humanity. India's AI approach is inherently inclusive and focuses on social good and aligns with the UNSDGs. Be it our multilingual natural language platform – “Bhashini”, providing inclusion for about 22 Indian regional languages, or the “Drone Didi” project, training rural women of India to become Drone pilots. She further articulated how India sees emerging technologies like AI as an enabler to harness her demographic strengths, a quicker and efficient way of working towards achieving the UN – SDGs..

Published News Link:

<https://www.smeworld.asia/india-water-foundation-organized-an-exhibition-on-improvement-in-living-index-from-human-rights-perspective-through-emerging-technologies-in-jammu-and-kashmir-at-the-56th-session-of-the-un-human-rights-council-at-the-broken-chair-square-outside-the-palais-de-nations-geneva?>

<https://www.babushahi.com/full-news.php?id=187195>

GLOBAL ONLINE

Side Event on Upholding the Human Right to a Clean, Healthy and Sustainable Ocean

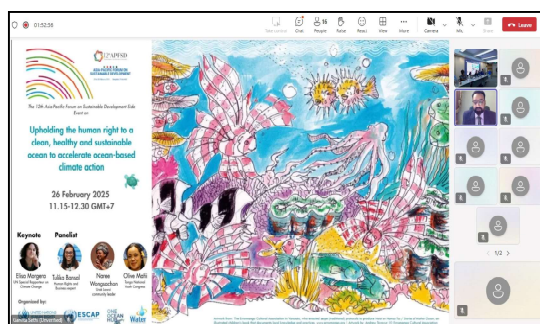
On 26 February 2025, Dr. Arvind Kumar, President, India Water Foundation, participated as a speaker in the side event “Upholding the Human Right to a Clean, Healthy and Sustainable



Ocean, Above and Below Water, to Accelerate Ocean-Based Climate Action”. The event was organised by the Office of the High Commissioner for Human Rights (OHCHR), One Ocean Hub, India Water Foundation, and United Nations ESCAP, under the auspices of the 12th Asia-Pacific Forum on Sustainable Development.

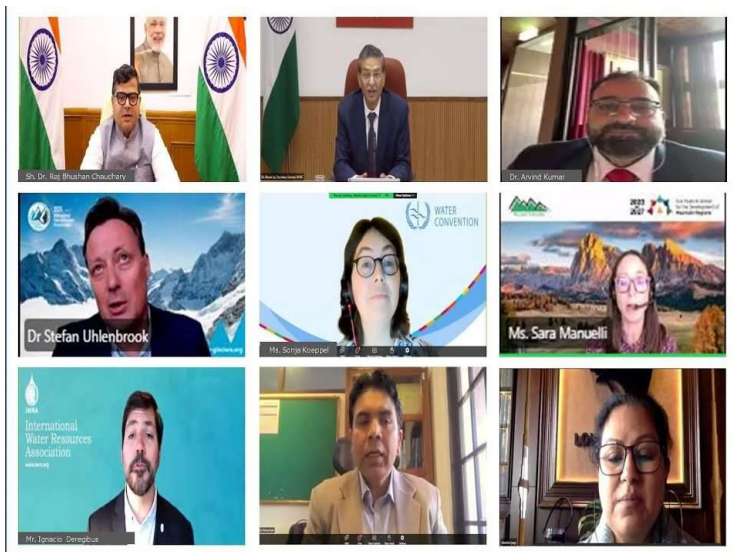
This dialogue examined current trends and the evolving human rights–ocean nexus in the Asia–Pacific region. Dr. Kumar emphasised that Member States can accelerate ocean-based climate action by: Improving access to reliable information, Fostering public engagement, and Ensuring that effective legal recourse is available for affected communities

These measures, he stressed, are critical to reinforcing sustainable management of marine resources and protecting the rights of vulnerable populations in the face of climate change.



High-Level Policy Dialogue on Fostering Collaborative Efforts to Protect Receding Glaciers

On March 25, 2025, India Water Foundation (IWF), in collaboration with the World Meteorological Organization (WMO) and the Mountain Partnership of the United Nations, convened a High-Level Policy Dialogue in Geneva on “Fostering Collaborative Efforts to Protect Receding”. The event addressed the alarming impact of glacial melt on water security, agriculture, and global stability.



Distinguished speakers included:

Dr. Arvind Kumar, President,

India Water Foundation, Shri Dr. Raj Bhushan Chaudhary, Minister of State, Ministry of Jal Shakti, Department of Water Resources, RD & GR, Government of India; Sh. Bharat Lal, Secretary General, National Human Rights Commission of India; Mr. Ignacio Deregibus, Executive Director, International Water Resources Association (IWRA); Ms. Sonja Köppel, Secretary, UNECE Water Convention; Dr. Stefan Uhlenbrook, Director, WMO Hydrology and Cryosphere; Ms. Sara Manuelli, Advocacy Officer, FAO Mountain Partnership; Dr. Mohd. Farooq Azam, Senior Cryosphere Specialist, ICIMOD. The discussion, moderated by Ms. Shweta Tyagi, Chief Functionary, IWF, underscored: Urgent, science-backed interventions to address glacial retreat, Increased funding for glacier monitoring, Gender-inclusive policies for climate resilience, Regional adaptation strategies and transboundary cooperation, Community participation in glacier conservation

The dialogue concluded with a shared call to action for climate-resilient, sustainable water management to safeguard ecosystems and livelihoods dependent on glacier-fed systems.

High Level Policy Dialogue on Deciphering the Interlinkage of Climate Change, Hunger and Poverty on 17th July 2024 (Global Online)

The High-Level Policy Dialogue on Deciphering the Interlinkage of Climate Change, Hunger and Poverty was held on 17th July 2024 as an official side event of the High-Level Political Forum (HLPF) 2024.

The event was organized by India Water Foundation (IWF), with the support of the Ministry of Social Justice and Empowerment, Government of India; Ministry of Jal Shakti, Department of Water Resources, RD & GR, Government of India; Japan International Cooperation Agency (JICA); and the Global Alliance for a Sustainable Planet (GASP).

The Chief Guest, H.E. Dr. Tedros Adhanom Ghebreyesus, Director-General of the World Health Organization (WHO), appreciated the efforts of India Water Foundation and Dr. Arvind Kumar in highlighting the interlinkages between climate change, hunger, and poverty in the context of achieving the Sustainable Development Goals (SDGs).



Other distinguished speakers included: Dr. Amit Kumar Ghosh, Additional Secretary, Ministry of Social Justice and Empowerment, Government of India; Dr. Satya S. Tripathi, Secretary-General, Global Alliance for a Sustainable Planet (GASP); Dr. Nagesh Kumar, Director, Institute for Studies in Industrial Development; Mr. Katsuo Matsumoto, Director-General, Japan International Cooperation Agency (JICA); Dr. Katinka W., Chief, Sustainable Socio-Economic Transformation Section, United Nations ESCAP; Mr. Svante Helms, National Pathways Coordinator, UN Food Systems Coordination Hub; Mr. Ruhiza Jean Boroto, Senior Land and

Water Officer, Land and Water Division, FAO; The session was moderated by Ms. Shweta Tyagi, Chief Functionary, India Water Foundation.

Key Intervention:

In his remarks, Dr. Arvind Kumar, President, India Water Foundation, emphasized the need to:

Support and promote resilient livelihoods and food security through sustainable livelihood diversification; Promote climate-resilient agriculture; Strengthen and expand disaster risk reduction (DRR) frameworks and integrate them with long-term development; Incorporate early warning systems and DRR measures into national development plans To watch the complete recording of the event please go to <https://youtu.be/sLVvSGmJrCQ>

High Level Policy Dialogue on "Multi-Stakeholder Actions For Combating Desertification and Droughts Through Water Transversality" organized by India Water Foundation on 14th June 2024

On 14th June 2024, the India Water Foundation (IWF) organized a High-Level Policy Dialogue on “Multi-Stakeholder Actions for Combating Desertification and Droughts through Water Transversality” to mark the commemoration of World Environment Day 2024. The event brought together eminent global leaders, experts, and practitioners to deliberate on integrated approaches and collaborative actions needed to address the pressing challenges of desertification and droughts.



In his keynote intervention, Dr. Arvind Kumar, President of the India Water Foundation, underscored the urgent need to significantly scale up investments in Nature-Based Solutions (NbS). He emphasized that global financing for NbS must more than double to US\$542 billion by 2030 in order to achieve climate, biodiversity, and ecosystem restoration goals. Dr. Kumar highlighted that efforts in reforestation and land restoration must evolve beyond conventional afforestation and unplanned mass plantation drives. Instead, they should prioritize the conservation and restoration of freshwater, marine, coastal, and other undervalued ecosystems, recognizing the diverse natural landscapes, native species, and the importance of watershed-based management. Crucially, he noted that restoration efforts must also take into account the rights, knowledge, and interests of local communities, making people integral partners in ecological solutions.

The Dialogue witnessed the participation of several distinguished speakers who brought in diverse perspectives. Dr. David Cooper, Acting Executive Secretary of the Convention on Biological Diversity (CBD), provided insights into global biodiversity policy frameworks and the role of multi-actor engagement. Padma Shri Dr. Shailesh Nayak, Director of the National Institute of Advanced Studies, reflected on scientific and policy linkages in addressing land degradation. Prof. Dr. Eddy Moors, Rector of IHE Delft Institute for Water Education, highlighted the critical role of research and education in water-related resilience. Dr. Satya S. Tripathi, Secretary-General of the Global Alliance for a Sustainable Planet (GASP), emphasized the interlinkages between sustainability, equity, and planetary health. Dr. Rabi Mohtar, Professor at Texas A&M University, spoke on the importance of system-based approaches and scientific innovation in combating droughts.

The session was moderated by Ms. Shweta Tyagi, Chief Functionary of the India Water Foundation, who steered the discussion towards actionable strategies and inclusive approaches.

The deliberations converged on the recognition that desertification and drought are not merely environmental issues but are deeply interlinked with livelihoods, food security, and sustainable development. Speakers agreed that addressing these challenges requires holistic and integrated approaches, leveraging the synergies between science, policy, and community action. The Dialogue reinforced that building resilience against desertification and drought demands not only

technological solutions but also the strengthening of community-driven, ecosystem-based, and transversality-oriented strategies. To watch the complete recording of the event please go to <https://youtu.be/wZNaP9nLopw>

56th Meeting of the UN Human Rights Council

At the 56th meeting of the United Nations Human Rights Council (UNHRC) in Geneva, Dr. Arvind Kumar, President of the India Water Foundation, delivered an oral intervention during the Interactive Dialogue on the Report of the Special Rapporteur on Human Rights and Climate Change.



In his remarks, Dr. Kumar strongly asserted that “India is the voice of the Global South for climate justice.” He emphasized India’s leadership role in bridging the climate justice gap and advancing equitable solutions for vulnerable nations and communities. Highlighting India’s remarkable progress in the renewable energy sector, he noted that the country has now become the fourth-largest globally in renewable energy capacity, with 145 GW of installed capacity. He underlined that India remains firmly on course to meet its 2030 target of reducing emissions intensity of GDP by 45 percent, in line with its Nationally Determined Contributions under the Paris Agreement.

Dr. Kumar further drew attention to India’s growing emphasis on the faster adoption of green technologies, such as low-cost green hydrogen, and the promotion of low-carbon development pathways through accessible renewable energy and electric public transport systems. He explained that such measures offer multiple co-benefits—beyond the reduction of greenhouse gas emissions—including lowering air pollution, improving public health, enabling cost savings, promoting resource efficiency, and strengthening resilience.

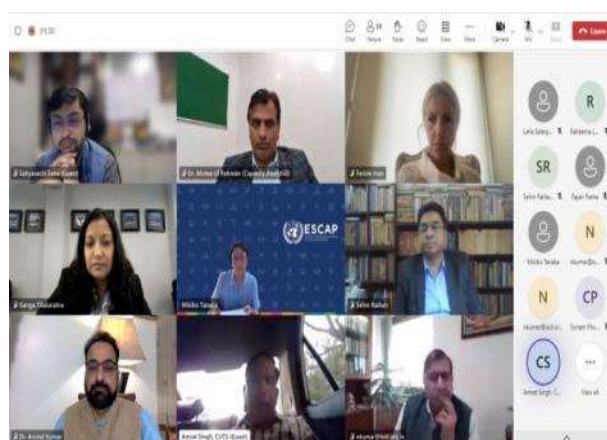
The intervention reflected India’s evolving narrative as not only a responsible global actor in climate action but also as a champion of the Global South, ensuring that sustainability transitions

are inclusive, equitable, and rooted in human rights. Published News Link: Oral statement of Dr. Arvind Kumar, President India Water Foundation on Climate change at the 56th Regular Session of the UN Human Rights Council in Geneva

<https://www.smeworld.asia/oral-statement-of-dr-arvind-kumar-president-india-water-foundation-on-climate-change-at-the-56th-regular-session-of-the-un-human-rights-council-in-geneva?>

SANS Meeting

On 03 April 2024, Dr. Arvind Kumar, President, India Water Foundation, participated in the 2024 Work Plan Brainstorming Session on Collaborative Approaches to SDGs in South and South-West Asia (SSWA), convened by the ESCAP South and South-West Asia Office. The session brought together representatives from the South Asia Network on the SDGs (SANS)



platform, with interventions from member countries including India, Sri Lanka, Bangladesh, Pakistan, Afghanistan, Bhutan, Nepal, Iran, Maldives, and Turkiye.

In his intervention, Dr. Kumar underscored the need for adopting a “whole-of-the-economy” approach to achieve both robust, inclusive growth and ambitious climate goals. He highlighted that this approach must be integrated and interconnected across geographies (local, state, national, and agro-climatic zones), key social and economic sectors, and communities to ensure that climate action translates into sustainable development outcomes.

He further stressed that SANS is uniquely positioned as the only platform capable of fostering political stability in the region, thereby enabling cooperative action on shared challenges such as climate change, resource efficiency, and sustainable growth pathways.

The meeting facilitated a forward-looking discussion on climate change and the way forward for the SSWA region, reaffirming the critical role of regional cooperation, policy convergence, and shared responsibility in advancing the Sustainable Development Goals.

High level policy dialogue on Integrating Multi-stakeholder Actions for Building back Biodiversity

On 20 May 2024, to commemorate International Day of Biodiversity 2024, the India Water Foundation, with the support of the Ministry of Jal Shakti, Department of Water Resources, RD & GR, Government of India, convened a High-Level Policy Dialogue on “Integrating Multi-stakeholder Actions for Building Back Biodiversity.”



Delivering the keynote intervention, Dr. Arvind Kumar, President, India Water Foundation, stressed that restoring degraded ecosystems alone could provide up to one-third of the climate mitigation needed to prevent the Earth from warming dangerously above pre-industrial levels. He underlined that this requires establishing protected areas, curbing extractive capitalism, and restoring the vast tracts of

degraded land across the globe. Dr. Kumar further noted that the Kunming-Montreal Global Biodiversity Framework represents a long-awaited and transformative step toward halting biodiversity loss, reducing extinction rates, and safeguarding endangered species and ecosystems worldwide.

The policy dialogue brought together eminent voices from across the globe, including: Dr. David Cooper, Acting Executive Secretary, Convention on Biological Diversity; Dr. Pema Gyamtsho, Director General, ICIMOD; Dr. Sangmin Nam, Director, Environment and Development

Division, UN ESCAP; Dr. Saravanane Narayanane, Senior Scientist, Centre for Marine Living Resources and Ecology, Ministry of Earth Sciences, Government of India; Dr. Amani Alfarra, Water Resources Officer, Water and Land Division, FAO; Dr. Yash Veer Bhatnagar, Country Representative, IUCN India

The session was moderated by Ms. Shweta Tyagi, Chief Functionary, India Water Foundation, and highlighted multi-actor perspectives on why urgent and coordinated actions are required to reverse biodiversity loss. The dialogue emphasized the importance of integrated and holistic approaches to planning and implementation, ensuring that biodiversity is mainstreamed into development strategies and collective action at local, national, and global levels.

To watch the complete recording of the event please go to <https://youtu.be/APPerIZw-Js>

NATIONAL INPERSON

Global Business Summit 2025 – New Delhi

On 22 February 2025, Dr. Arvind Kumar, President, India Water Foundation, spoke at The Times Group – ET NOW Global Business Summit 2025 held under the theme #Evolve, #Emerge, #Expand. He participated in the session on “Water-Energy-Food Nexus: A Balanced Approach for Sustainable Development”, where he emphasized the importance of a **transversality-based systemic approach** to address the interdependencies between water, energy, and food systems.



Dr. Kumar explained that **transversality** involves **breaking down silos**, integrating governance frameworks, fostering collaboration, and aligning sectoral policies to **optimize synergies and mitigate trade-offs**. He highlighted that misaligned policies such as irrigation measures increasing energy demand or energy policies stressing water resources can create inefficiencies and hinder sustainability.

Drawing from field experience, he shared **examples from Meghalaya, Himachal Pradesh, and Andhra Pradesh**, where integrated planning linked small water reservoirs with small power grids to meet both domestic and irrigation energy demands. He stressed that **circular water**

management including wastewater reuse, rainwater harvesting, and efficient irrigation combined with **decentralized renewable energy solutions** like solar-powered irrigation can significantly enhance resilience.

Addressing governance challenges, Dr. Kumar noted that **fragmentation between ministries** handling water, energy, and food often results in **conflicting policies and wasted resources**. He proposed establishing a **National Water-Energy-Food Nexus Commission** or **inter-ministerial task force** to coordinate decision-making, harmonize policies, and promote data sharing. He further recommended **single-window approval mechanisms** for integrated projects, incentivizing initiatives that deliver multi-sectoral benefits.

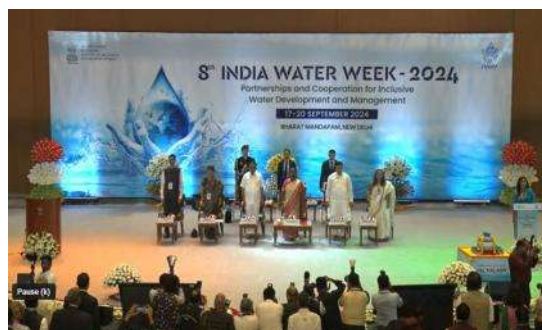
He also pointed out that **global challenges** such as urbanization, population growth, and climate change are intensifying pressures on resources, creating a vicious cycle of scarcity and competition. Without **integrated, inclusive, and systems-based approaches**, achieving sustainability and resilience will remain elusive.

In his closing remarks, Dr. Kumar underscored that **transversality strengthens resilience, equity, and sustainability** by enabling adaptive strategies to address climate variability and socio-economic challenges, while fostering innovation through interdisciplinary research and cooperation.

8th India Water Week (17-20 September 2024)

The 8th edition of India Water Week, held from 17–20 September 2024, opened with great enthusiasm and drew overwhelming participation from across the globe. India Water Foundation, serving as a Knowledge Partner, played a significant role in shaping the deliberations. The event was inaugurated by Her Excellency, the Hon'ble President of India, who applauded the contributions

of organizations working tirelessly to transform water conservation into a mass movement, recognizing their role as true water warriors.



In his keynote address, the Union Minister of Jal Shakti, Sh. C. R. Patil, underscored the urgency of collective action to tackle the global water crisis and reiterated the Government of India’s commitment to inclusive and sustainable water management. The week-long platform witnessed active participation from embassies, partner organizations, and international experts, who shared best practices, innovations, and experiences in the water sector.

With vibrant exchanges of knowledge, policy dialogues, and demonstrations of cutting-edge solutions, the event highlighted the importance of global collaboration in addressing water challenges. The engagement of multiple stakeholders is expected to generate tangible outcomes and contribute to advancing water security and sustainability at both national and international levels.

Session on Synergizing Cooperation across Boundaries at 8th India Water Week

During the 8th India Water Week, Dr. Arvind Kumar, President, India Water Foundation, made a significant intervention in the session on Synergizing Cooperation across Boundaries. In his presentation on “Fostering Cooperation across Shared Waters: A Case Study of the Brahmaputra Basin”, Dr. Kumar emphasized that beyond ecological and economic gains, transboundary water cooperation holds immense potential for achieving global net-zero targets.

He noted that a flexible legal framework, such as transboundary agreements, can support the design and implementation of effective adaptation strategies and measures to address climate change. Dr. Kumar further underscored that adopting a transversality approach across borders—through optimized financing, improved data and information-sharing, enhanced institutional capacity, technological innovations, and good governance—would not only strengthen water security but also foster peace, stability, and shared prosperity among nations.



This session brought together stakeholders, experts, and policymakers from across regions to deliberate on the critical need for cross-border cooperation, particularly in shared river basins, as a pathway to climate resilience and sustainable development.

Water Leaders Forum on Partnerships and Cooperation on Integrated Water Resources Management at 8th India Water Week on 19th September 2024

As Knowledge Partner of the 8th India Water Week 2024, the India Water Foundation organized the Water Leaders Forum (WLF1) on the theme “Partnerships and Cooperation on Integrated Water Resources Management” in collaboration with the Global Water Partnership (GWP).



The session featured a keynote address by Mr. Alan AtKisson, Executive Secretary and CEO of GWP, who highlighted the pivotal role of partnerships in advancing Integrated Water Resources Management (IWRM) to achieve the Sustainable Development Goals (SDG 6.5.1).

The forum was moderated by Mr. A. K. Kharya, Chief Engineer, BPMO, Central Water Commission & Country Focal Point for SDG 6.5.1-IWRM, and co-moderated by Mr. Shawahiq Siddiqui, Governance Expert, Indian Environment Law Organization.

The distinguished panel brought together eminent leaders and practitioners from diverse domains: Dr. A. B. Pandya, Secretary General, International Commission on Irrigation and Drainage (ICID); Dr. P. Shakil Ahammed, Additional Chief Secretary, Government of Meghalaya; Dr. Ritesh Kumar, Director, Wetlands International South Asia; Dr. Veena Khanduri, Country Coordinator, India Water Partnership (IWP); Dr. B. R. K. Pillai, Professor of Practice, IIT Roorkee; Mr. P. S. Rao, Director (Technical), Advanced IWRM Centre for Excellence, Karnataka

The deliberations underscored that inclusive partnerships, cross-sectoral collaboration, and knowledge sharing are vital for accelerating progress towards sustainable and equitable water management. The session successfully fostered dialogue among policymakers, academicians, practitioners, and international organizations, paving the way for scalable cooperation models in IWRM.

Eighth South and South-West Asia Sub Regional Forum on Sustainable Development on 12-14th November 2024

The India Water Foundation actively participated in the Eighth South and South-West Asia Sub-Regional Forum on Sustainable Development, held from 12–14 November 2024 at Bharat Mandapam, New Delhi. The Forum was organized by the United Nations Economic and Social Commission for Asia and the Pacific – South and South-West Asia Office (ESCAP-SSWA) in collaboration with NITI Aayog, Government of India, and the Research and Information System for Developing Countries (RIS).



On 13th November 2024, Dr. Arvind Kumar, President of India Water Foundation, served as the lead presenter on SDG 14 – Life Below Water. In his intervention, Dr. Kumar underscored that tackling marine pollution requires a multipronged approach combining regulatory, economic, technological, and community-based measures. He emphasized the importance of strengthening legislation on single-use plastics, micro-plastics, and other pollutants, with strict enforcement and penalties to ensure compliance. Further, he highlighted the urgent need for countries to strengthen national statistical systems, invest in monitoring infrastructure, and standardize data collection methods to improve data availability for informed policymaking.

Dr. Kumar’s presentation drew attention to the role of integrated efforts and partnerships in addressing marine pollution, while aligning national actions with the global commitments under SDG 14. His intervention was well received and contributed significantly to the broader regional

dialogue on sustainable development, ocean health, and the challenges faced by the South and South-West Asia region..

Dr. Arvind Kumar as Chief Guest at Dr. B R Ambedkar Law University, Sonipat



On the occasion of World Intellectual Property Day, Dr. Arvind Kumar, President, India Water Foundation, was invited as the Chief Guest at Dr.

B. R. Ambedkar Law University, Sonipat, on 26th April 2024. The event was organized by the University's IPR Facilitation Centre under the leadership of Dr. Ashutosh Mishra, Director, and was chaired by Dr. Archana Mishra, Vice Chancellor.

In his keynote address, Dr. Kumar emphasized that intellectual property (IP) is not only a driver of economic growth but also a vital enabler in addressing global challenges linked to the Sustainable Development Goals (SDGs). He highlighted that IP can advance clean energy, healthcare accessibility, and environmental sustainability, provided it is managed with a people-centric approach. He strongly advocated for prioritizing public access to innovations and technologies that safeguard humanity and the planet, while cautioning against the pursuit of ever-higher levels of monopoly protection. He called for a whole-of-society approach to ensure that intellectual property systems serve the broader goals of equity, sustainability, and development.

The programme also featured eminent speakers including Mr. Satish Kumar, Assistant Director, Office of Development Commissioner, Ministry of MSME, Government of India, and Dr. Minakshi Sinha, Senior Faculty, National Institute of Criminology and Forensic Science, Ministry of Home Affairs. The event was marked by an interactive exchange of ideas, with enthusiastic participation from faculty members and students, making it a vibrant platform for dialogue on the role of intellectual property in shaping a sustainable and inclusive future

Expert talk panel discussion organized by National Institute of Food Technology Entrepreneurship and Management (NIFTEM)

The National Institute of Food Technology Entrepreneurship and Management (NIFTEM), supported by the Ministry of Food Processing Industries, Government of India, organized a two-day Expert Talk and Panel Discussion at the NASC Complex, Pusa, New Delhi, on 15–16 May 2024.

Participating as an invited Speaker, Dr. Arvind Kumar, President, India Water Foundation, emphasized the critical importance of developing a robust supply and cold chain infrastructure in the food processing sector. He noted that such systems are essential not only for reducing food waste but also for minimizing the carbon and water footprint while ensuring the quality and safety of perishable goods. Dr. Kumar underlined the need for policy recommendations that prioritize investments in cold storage facilities, promote innovation in transportation, and foster training and education at the implementation level.



The session was moderated by Dr. Harender Singh Oberoi, Director, NIFTEM, and witnessed participation from several dignitaries, senior officials, and subject experts. On this occasion, Dr. Kumar also presented his book *India@75 and Beyond* to Dr. Oberoi, further enriching the academic and policy discourse.

The programme created a vibrant platform for exchanging insights on sustainable practices in food technology and supply chain management, highlighting the intersections of innovation, policy, and sustainability.

NATIONAL ONLINE

Buland Bharat TV – Ammonia Contamination in Yamuna River

On 31 January 2025, Dr. Arvind Kumar, President, India Water Foundation, appeared on Buland Bharat TV to address the recent controversy regarding ammonia contamination in the Yamuna River in Delhi. He outlined the primary causes of the contamination, discussed its adverse impacts on the local population including public health risks and disruption to water supply and proposed practical solutions to mitigate the crisis.



Dr. Kumar emphasized the urgent need for strengthened pollution control measures, upgraded sewage treatment infrastructure, and stricter enforcement of industrial effluent regulations. He also called for enhanced inter-agency coordination and public awareness campaigns to reduce contamination sources and protect Delhi’s water security.

MEETINGS

Prof. Sachin Chaturvedi, DG, RIS



Dr. Arvind Kumar had the opportunity to engage with Prof. Sachin Chaturvedi, Director General, Research and Information System for Developing Countries (RIS). During this meeting, Dr. Kumar presented his latest publication, Friday Musings, and held an in-depth discussion on exploring avenues for future collaborations between RIS and the India Water Foundation.

The interaction was marked by Prof. Chaturvedi's warm gesture and humble demeanour, reflecting a shared commitment to advancing research-driven policies, sustainable development, and impactful partnerships for the Global South.

Dr. Raj Bhushan Chaudhary, Hon'ble Minister of State, Ministry of Jal Shakti

Dr. Arvind Kumar had the pleasure of meeting Dr. Raj Bhushan Chaudhary, Hon'ble Minister of State, Ministry of Jal Shakti, Government of India. During the interaction, Dr. Kumar presented his latest publication Friday Musings, the Final Report of the first edition of the Water Transversality Global Awards and Conclave, and the Special Postal Cover released by the Department of Posts, India to commemorate the event.



The discussion focused on the current water situation in the country and explored the prospective scope for future collaborations, reflecting a mutual commitment to advancing sustainable water management and national resilience.

Shri Bharat Lal, Secretary General, National Human Rights Commission of India

Dr. Arvind Kumar had the pleasure of meeting Shri Bharat Lal, Secretary General of the National Human Rights Commission of India, at Geneva. The two engaged in an in-depth discussion on the critical intersections of water, environment, climate change, and their profound impacts on basic human rights. Dr. Kumar also presented his latest publication Friday Musings along with the Report of the first edition of the Water Transversality Global Awards and Conclave. He was deeply touched by Shri Bharat Lal’s humble demeanour and warm gesture throughout the interaction.



Shri Naveen Gulati, Member (Infrastructure), Railway Board

Dr. Arvind Kumar, President, India Water Foundation (IWF), had the privilege of meeting Shri Naveen Gulati, Member (Infrastructure), Railway Board, along with Shri Shailendra Singh, Executive Director. The discussion centred on the remarkable initiatives of Indian Railways in the field of water management, environmental conservation, and advancing the vision of “Green Railways.”

On this occasion, Dr. Kumar presented his book India at 75 and Beyond to the esteemed dignitaries and also explored prospects for future engagements between IWF and Indian Railways. As the lifeline of the nation and one of the most extensive rail networks in the world, Indian Railways holds a pivotal role in promoting sustainability, innovation, and climate resilience.



Shri Rajeev Kumar Mittal, Director General, NMCG

On 16 January 2025, Dr. Arvind Kumar, President, India Water Foundation, had the privilege of an audience with Shri Rajeev Kumar Mittal, Director General, National Mission for Clean Ganga (NMCG), Government of India.

The meeting was comprehensive and fruitful, covering a wide spectrum of critical issues and challenges, while also identifying potential avenues for collaboration in the domains of water management and sustainability. Dr. Kumar expressed deep appreciation for Shri Mittal's warm and gracious hospitality.



During the interaction, Dr. Kumar presented his latest publication, *Friday Musings* a thoughtful compilation of reflections on contemporary global challenges and shared the report “Accelerating Progress of SDG 6 (Clean Water and Sanitation) in the South and South-West Asia Sub-Region”, prepared for the United Nations ESCAP South and South-West Asia Office.

Ms. Mikiko Tanaka, Head, UN ESCAP South and South-West Asia Office



On 22 January 2025, India Water Foundation had the honour of welcoming Ms. Mikiko Tanaka, Head of the United Nations ESCAP South and South-West Asia Office, at our office. We deeply appreciate her warm gesture of taking time from her busy schedule to engage in discussions on prospective future collaborations and to finalize the report of the recently concluded *International*

Conference on Deciphering Transversality of the Water–Energy–Environment Nexus, held during the Water Transversality Global Awards and Conclave.

The meeting opened with a brief presentation, setting the stage for a productive exchange of ideas. Also present were senior experts from India Water Foundation, including Dr. Ajit Tyagi, Dr. S.K. Sharma, and Mr. Mahendra Pal Singh.

Mr. Shombi Sharp, UN Resident Coordinator to India

Dr. Arvind Kumar, President, India Water Foundation (IWF), had the privilege of meeting Mr. Shombi Sharp, UN Resident Coordinator to India, at the UN House on the occasion of Diwali. Along with exchanging festive greetings, they discussed the forthcoming Water Transversality Global Awards and Conclave, scheduled for 5–6 December 2024 at



Dr. Ambedkar International Centre, New Delhi. On this occasion, Dr. Kumar also presented Mr. Sharp with his publication *India at 75 and Beyond*, as well as a painting created by children from the aspirational districts of Uttar Pradesh. Dr. Kumar expressed his gratitude for Mr. Sharp's valuable time on a busy day and appreciated his warm gesture and words of encouragement.

Shri Vishnu Deo Sai, Hon'ble Chief Minister of Chhattisgarh

Dr. Arvind Kumar, President, India Water Foundation (IWF), had the privilege of meeting Shri Vishnu Deo Sai, Hon'ble Chief Minister of Chhattisgarh, at Chhattisgarh Sadan. The discussion centered on the critical challenges the state faces in the domains of water, environment, and climate change, and the potential pathways for sustainable solutions.

Dr. Kumar was deeply impressed by Shri Sai's vision, dedication, simplicity, and humble demeanour, which distinctly set him apart as a leader committed to the well-being of people and the environment.

Shri Pankaj Agarwal, Secretary, Ministry of Power

Arvind Kumar, President, India Water Foundation (IWF), had the privilege of meeting Shri Pankaj Agarwal, Secretary, Ministry of Power, Government of India, along with his esteemed colleague Shri Pankaj Sharma. On this occasion, Dr. Kumar presented his book *India at 75 and Beyond*.

The meeting featured an extensive discussion on the remarkable achievements of India's power sector and the pathways to greater progress in the years ahead. Dr. Kumar was deeply appreciative of Shri Agarwal's humble approach, in-depth knowledge, and warm gesture, and expressed confidence that under his dynamic leadership, the Ministry will continue to scale new heights of success.



Shri K.C. Tyagi, Advisor and National Spokesperson, Janata Dal (United)

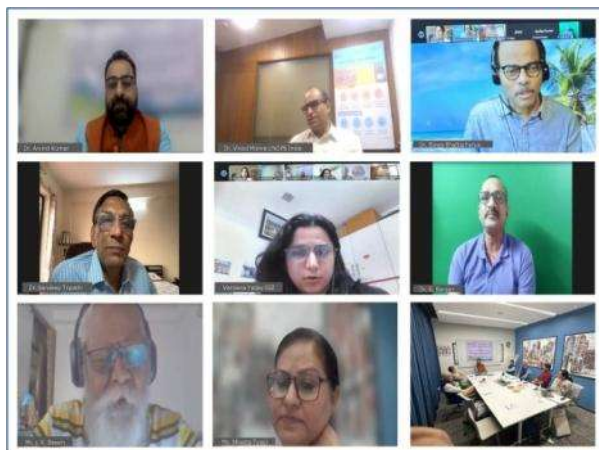


Dr. Arvind Kumar, President, India Water Foundation (IWF), had the pleasure of meeting Shri K.C. Tyagi, Advisor and National Spokesperson of Janata Dal (United). In the fast-paced and often tumultuous world of politics, Shri Tyagi stands out as a steady, articulate, and passionate leader.

They had an insightful discussion on the pressing environmental challenges confronting the nation, during which Shri Tyagi shared his in-depth knowledge and perspectives. Dr. Kumar was deeply touched by his humble demeanour and warm gesture. On this occasion, Dr. Kumar presented him his book *India at 75 and Beyond*, along with a painting from the winning entry of children from aspirational districts and a calendar showcasing those paintings. The interaction was both meaningful and inspiring.

Jury, Advisory Group and Knowledge Partners Meetings on Water Transversality Global Awards & Conclave 2024

We had an advisory council and jury and knowledge partner meeting at our office on 8th November 2024 in hybrid mode. The discussion ranged from speakers, abstracts, side events, logistics, speaking slots, partnerships etc. The suggestions were duly noted for further action. The members who were present during the meeting were Dr. Arvind Kumar, President, India Water



Foundation, Ms. Stuti Kacker, Patron & Chairman of the Committee on Water and Human Development, Dr. Ajeet Tyagi - Patron & Chairman of the Committee on Climate Change-IWF, Mr. Ranjeet K. Pachnanda - Patron & Chairman of the Committee on Water-Energy-Food Nexus- IWF, Dr. S. K. Sharma, Principal Advisor, IWF, Mr. Jaidev Joshi, Programme Officer, Water and Wetlands, IUCN, Shweta Tyagi, Chief Functionary, India Water Foundation.

The members joining online were Dr. Rajan Sudesh Ratna, Deputy Head, United Nations ESCAP South and South-West Asia Office Mr. Dr. Sandeep Tripathi, IFS, Chief Technical



Advisor- ENV. & Forests, IWF, Mr. Jagdish Kumar Bassin, Senior Advisor-IWF, Prof. A K Keshari, Department of civil engineering, IIT Delhi, India Water Foundation, Dr. Vinod Mishra, Country Head, UNOPS, Ms. Tamara Grujic, Policy Officer, IHE Delft Institute for Water Education, Dr. Biswa Bhattacharya , Hydro-informatics and Socio- Technical Innovation Department, IHE

Delft Institute for Water Education, Ms. Vandana Yadav, Advor- India EU Water Partnership, GIZ India, Dr. Rajnish Ranjan, former senior consultant at National Institute of Disaster

Management, Ministry of Home Affairs, Govt. of India, Mr. Hitesh Vaidya, Chief Technical Advisor, Urban Development, Ms. Kavita Prasad, Senior Consultant-IWF.

An advisory council and jury meeting at our office on 8th October 2024 in hybrid mode. The discussion ranged from sub themes, speakers, award applications etc. Many novel ideas and suggestions came out during the discussions and were duly noted for further action.

The members who were present during the meeting were Dr. Arvind Kumar President, India

Water Foundation Prof. A K Keshari, Department of civil engineering, IIT Delhi, Mr. M. P. Singh, former chief of operations, JICA India , Shweta Tyagi, Chief Functionary, India Water Foundation. The members joining online were Dr. Rajan Sudesh Ratna, Deputy Head, United Nations ESCAP South and South-West Asia Office Dr. Rajnish Ranjan, former senior consultant at National Institute of Disaster Management,

Ministry of Home Affairs, Govt. of India, Mr. T. S. Bisht, Chief Technical Advisor IWF - Economic Development, Dr. Niranjana Prasad , Principal Advisor IWF- New and Renewable Energy.

8th August 2024: Had a meeting at our office with our expert advisory group and jury members to discuss the upcoming Water Transversality Global Awards and Conclave in hybrid mode. It was a productive and insightful discussion on various aspects. While the theme of the conclave has been finalized, the sub-themes were open for deliberation. The group provided valuable suggestions and recommendations which have been carefully noted for incorporation. Following discussions with the advisory group, the governing council has decided to extend its advisory council and to

open membership of India Water Foundation starting January 2025 for various stakeholders. We have received expressions of interest from several distinguished individuals, experts, organizations, and institutions to be apart of the India Water Foundation council. We are thankful



to the advisory group and jury members especially Mr. Rajan Ratna from UNESCAP for joining online despite his busy schedule. With 100 days remaining until the event, we are keeping our fingers crossed. There are various opportunities to engage with this event by submitting abstracts to become a speaker, nominating delegates (delegate fees are updated on the website), becoming a partner, or applying/nominating for awards, which are free of cost. For more information, please go to our event website

<https://iwfwatertransversalityawards.com/>

VIDEO MESSAGES

Dr. Tedros Adhanom Ghebreyesus

We at India Water Foundation are extremely grateful to Dr. Tedros Adhanom Ghebreyesus, Director General, World Health Organization for his kind words for India Water Foundation. His acknowledgement has acted as a booster of motivation for us to keep going on the path that we have taken.



Video Link: https://youtu.be/6uX_2zRnK-Y

Interview on Water Security



Watch Dr. Arvind Kumar President India Water Foundation in conversation with Mr. Rajen Kumar editor SME WORLD discussing some key issues on challenges related to water security and how to address them Through people's participation.

Video Link: <https://youtu.be/zPa5J8UynIM>

Inviting global participation at India Water Week

Join us at India Water Week 2024 and hear Dr. Arvind Kumar as he shares insights on Water, its management, protection and conservation. India Water Week is a platform for collaboration and progress on global water challenges. It brings together a range of participants, including: political actors, multilateral institutions, academia, civil society, and the private sector



Dr. Arvind Kumar on COP 29

Dr. Arvind Kumar, President, India Water Foundation as head of delegation travelling to Baku to attend UNFCCC COP29 Azerbaijan highlighted his expectations from this COP especially on The New Collective Quantified Goal (NCQG) which will be the main deliverable this year, setting the future direction of global climate finance. It's a pleasure to inform you that the India Water Foundation's team was in Baku from 17th November to 20th November to attend the UNFCCC COP29. Friends and colleagues who are in Baku during those dates please drop in a message for a bilateral meeting. We are also organising an Official side event on 18th November from 16:45 -18:15 HRS Baku time at Side Event Room 6 in the Blue Zone. The event was in collaboration with Earth Savers Movement, Gorakhpur Environmental Action Group, Nigerian Conservation Foundation, Start-Up Nation Central and WOMENVAI

<https://www.facebook.com/drarvind.kumar.3/posts/pfbid02u9qoZ5HFfhCFgojX2wWbE5gdWpVmaBGFoAf3cM5UTQJ7EH5B93nHd6QwMFRFqr7TI>

Dr. Arvind Kumar speaking on All India Radio

Dr. Arvind Kumar spoke on All India Radio - Akashvani (AIR) on the Impact of Jal Jeevan Mission which are multi pronged like improving the living standards of the rural population, providing them with good health, improved child mortality and also economic benefits by providing employment.



To catch the full audio clip please click on <https://youtu.be/W5BAcPNBCV4>

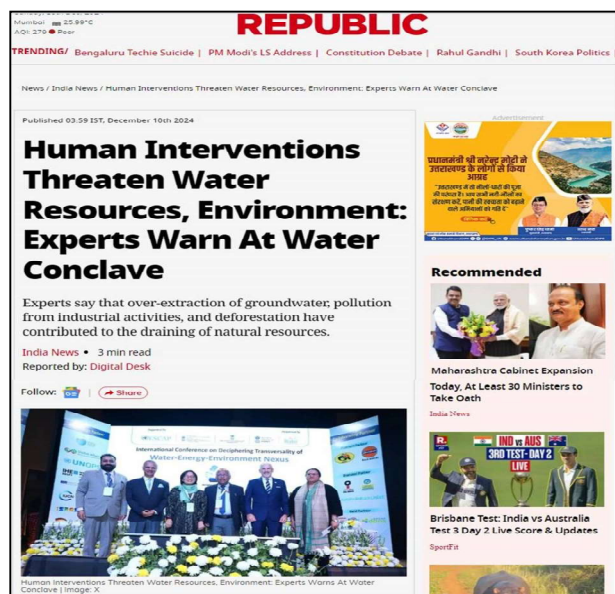
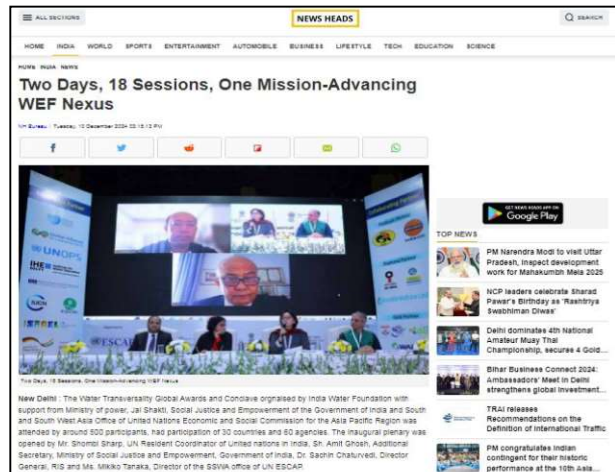
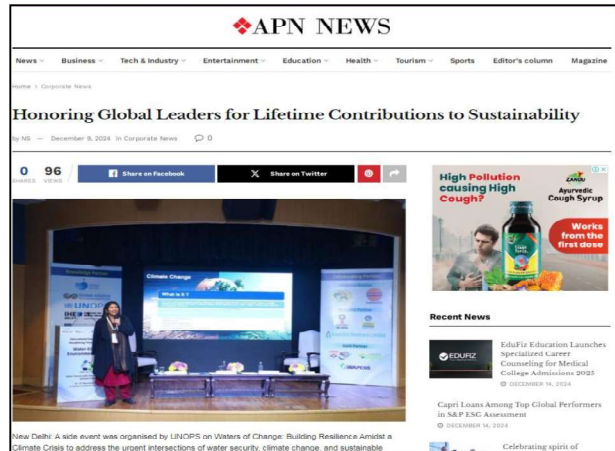
Master Dhananjay Kumar inviting youth and children to the Water Transversality Global Awards and Conclave

Junior Goodwill Ambassador of India Water Foundation Master Dhananjay Kumar of Class 6th E, Amity International School, Pushp Vihar Delhi invited his co-mates, youth, children from Schools to participate in the International Conference on Deciphering Transversality of Water –Energy - Environment Nexus during the Water Transversality Global Awards and Conclave scheduled on 5-6 December at Dr. Ambedkar International Centre, Delhi.



Video Link <https://youtu.be/ufB69pKJCV8>

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New Delhi [India], December 09: 60 awards given away at the Water Transversality Awards and Conclave in various categories like Leadership awards in water, energy, environment sector was given to organisations like WAPOCS, DFCCIL, GAIL India etc. These awards are a recognition for those who have made extraordinary contributions to water management and sustainability. These awards are more than mere recognition. They are a celebration of human ingenuity, of those who have dared to think differently, who have developed innovative solutions that bridge the complex relationships between water, technology, and environmental sustainability.

Parveen Kumar, CMD, Dedicated Freight Corridor Corporation Limited, Prof. Eddy Moors, architect, IHE Delft Institute of Water Education bestowed with lifetime achievement awards along with dignitaries like, Loic Pouchon, President World Water council, Satya Tripathi, Secretary General Global Alliance for a Sustainable Planet, Dr Nagesh Kumar, Director Institute for Studies on Industrial Development, Sh. Navneet Sehgal, Chairman, Prasar Bhatti and few others.

Sh. Raj Bhushan Chaudhary honourable minister of state for Ministry of Jalshakti was the chief guest for the Valedictory and Awards Ceremony. More than 60 Water Transversality Global awards in various categories like Water use efficiency in industrial sector, climate resilient agriculture practices, rain water harvesting and ground water management, water reuse and treatment were given away to organisations, districts, states, individuals, youth, schools etc. by the honourable Minister in presence of Dr Arvind Kumar and Ms. MIKIKO Tanaka.


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Business News | Pioneering Global Call to Action: Transversality Awards and Conclave

Get latest articles and stories on business at LatestLY New Delhi [India], December 7: The Water Transversality Global Awards and Conclave is not merely a conference, but a potential answer to a complex puzzle, where water, energy, environment and health are not just pieces, but the entire framework" said Dr. Arvind Kumar at the inauguration of the Water Transversality Global Awards and Conclave which opened on 5th December 2024 in New Delhi by Harsh Malhotra, Minister of state, Ministry of Corporate Affairs and Ministry of Highways and Transport of the Government of India. Dr. Arvind Kumar, President, India Water Foundation, Mikiko Tanaka, Director of the SSWA office of UN ESCAP and Col. Akhlesh Kumar Pandey, Chief Post Master General of the Delhi Circle.











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Pioneering Global Call to Action: Transversality Awards and Conclave

December 7, 2024


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 December 9, 2024

आचार्य लोकेशजी के ज्येष्ठ-ऊर्जा-पर्यावरण पर आयोजित अंतरराष्ट्रीय सम्मेलन का संक्षेपित विवरण

जल, पर्यावरण व ऊर्जा के संतुलित प्रयोग के प्रति जागरूकता आवश्यक : आचार्य लोकेश

पर्यावरण के संरक्षण व संवर्धन से ही सतत ग्रहियण का निर्माण संभव : नवनीत सहजग

नई दिल्ली के दिवसंग (लोकप्रिय) में। आचार्य विश्व भारती एवं विश्व भारती के संस्थापक आचार्य लोकेशजी ने इससे भारती के चेयरमैन के रूप में। जल, ऊर्जा व पर्यावरण के अन्तर्गत ही ग्रहण योग्य को उपलब्ध है। आचार्य लोकेशजी ने कहा कि ग्रहण योग्य को उपलब्ध है। आचार्य लोकेशजी ने कहा कि ग्रहण योग्य को उपलब्ध है। आचार्य लोकेशजी ने कहा कि ग्रहण योग्य को उपलब्ध है।

पृथ्वी, जल, वायु, अग्नि और प्रकाश ही जीवित प्राणी हैं। जलवायु परिवर्तन का विनाशकारी प्रभाव है। जल, ऊर्जा व पर्यावरण के अन्तर्गत ही ग्रहण योग्य को उपलब्ध है। आचार्य लोकेशजी ने कहा कि ग्रहण योग्य को उपलब्ध है। आचार्य लोकेशजी ने कहा कि ग्रहण योग्य को उपलब्ध है।

[illegible][illegible]

वॉटर ट्रांसवर्सलिटी ग्लोबल अवॉर्ड्स एंड कॉन्क्लेव का आयोजन

नई दिल्ली, कर्नल काश्यप। वॉटर ट्रांसवर्सलिटी ग्लोबल अवॉर्ड्स एंड कॉन्क्लेव केवल एक सम्मेलन नहीं है, बल्कि एक जटिल पहलू का संभावित उत्तर है, जहाँ पानी, ऊर्जा, पर्यावरण और स्वास्थ्य केवल हिस्से नहीं हैं, बल्कि संपूर्ण ढांचा हैं। यह एक परिवर्तनकारी मंच है जो हमारे ग्रह के सबसे महत्वपूर्ण संसाधनों की बुनियादी परस्पर संबंधों को पहचानता है, डॉ. अरविंद कुमार ने 5 दिसंबर 2024 को नई दिल्ली में वॉटर ट्रांसवर्सलिटी ग्लोबल अवॉर्ड्स एंड कॉन्क्लेव के उद्घाटन के अवसर पर कहा। इसका उद्घाटन भारत सरकार के कॉर्पोरेट मामलों, राजमार्ग और परिवहन राज्य मंत्री हर्ष मल्होत्रा, इंडिया वॉटर फाउंडेशन के अध्यक्ष डॉ. अरविंद कुमार, यूएनएससीएपी के एक्जिक्यूटिव डायरेक्टर काजी तानाका और दिल्ली सरकार के मुख्य डाकपाल कर्नल अखिलेश कुमार पांडे



डाकपाल काश्यप।

माननीय अतिथियों ने डॉ. अरविंद कुमार को पुस्तक 'फ्राइडे म्यूजिंग्स' का समर्पण किया, जो उनके फ्राइडे ब्लॉग का संकलन है, और उन्होंने दक्षिण और दक्षिण-पश्चिम एशिया क्षेत्र के दस देशों पर यूएन ईएससीएपी के लिए डॉ. अरविंद कुमार द्वारा तैयार एडीजी 6 पर एक रिपोर्ट भी प्रस्तुत की। माननीय मंत्री ने इस अवसर के लिए 23 संगठनों को एक साथ लाने की पहल के लिए

वॉटर ट्रांसवर्सलिटी ग्लोबल अवॉर्ड्स एंड कॉन्क्लेव का भव्य आयोजन किया

भारत सरकार सेवा
नई दिल्ली। वॉटर ट्रांसवर्सलिटी ग्लोबल अवॉर्ड्स एंड कॉन्क्लेव केवल एक सम्मेलन नहीं है, बल्कि एक जटिल पहलू का संभावित उत्तर है, जहाँ पानी, ऊर्जा, पर्यावरण और स्वास्थ्य केवल हिस्से नहीं हैं, बल्कि संपूर्ण ढांचा हैं। यह एक परिवर्तनकारी मंच है जो हमारे ग्रह के सबसे महत्वपूर्ण संसाधनों की बुनियादी परस्पर संबंधों को पहचानता है, डॉ. अरविंद कुमार ने 5 दिसंबर 2024 को नई दिल्ली में वॉटर ट्रांसवर्सलिटी ग्लोबल अवॉर्ड्स एंड कॉन्क्लेव के उद्घाटन के अवसर पर कहा। इसका उद्घाटन भारत सरकार के कॉर्पोरेट मामलों, राजमार्ग और परिवहन राज्य मंत्री हर्ष मल्होत्रा, इंडिया वॉटर फाउंडेशन के अध्यक्ष डॉ. अरविंद कुमार, यूएन ईएससीएपी के एक्जिक्यूटिव डायरेक्टर काजी तानाका और दिल्ली



डाकपाल काश्यप।

सर्कल के मुख्य डाकपाल कर्नल अखिलेश कुमार पांडे द्वारा किया गया। इस अवसर को चिह्नित करने के लिए इंडिया पोस्ट द्वारा एक विशेष आवरण भी जारी किया गया। माननीय अतिथियों ने डॉ. अरविंद कुमार की पुस्तक 'फ्राइडे म्यूजिंग्स' का विमोचन किया, जो उनके फ्राइडे ब्लॉग का संकलन है, और उन्होंने दक्षिण और दक्षिण-पश्चिम एशिया क्षेत्र के दस देशों पर यूएन ईएससीएपी के लिए डॉ. अरविंद कुमार द्वारा तैयार एडीजी 6 पर एक रिपोर्ट भी प्रस्तुत की। माननीय मंत्री ने इस आयोजन के लिए 23 संगठनों को एक साथ लाने की पहल के लिए डॉ. अरविंद कुमार को बधाई दी।

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Transversality Global Awards and Conclave: A decisive step towards water, energy and environmental sustainability

Transversality Global Awards and Conclave: A decisive step towards water, energy and environmental sustainability

International Conference on Deepening Transversality of Water-Energy-Environment Nexus

6th December 2024

Dr. Arvind Kumar, President, India Water Foundation, Mikiko Tanaka, Director of the SSWA office of UN ESCAP and Col. Akhilesh Kumar Pandey, Chief Postmaster General of the Delhi Circle.

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Pioneering Global Call to Action: Transversality Awards and Conclave

New Delhi (India), December 7: "The Water Transversality Global Awards and Conclave is not merely a conference, but a potential answer to a complex puzzle, where water, energy, environment and health are not just pieces, but the entire framework," said Dr. Arvind Kumar at the inauguration of the Water Transversality Global Awards and Conclave which opened on 5th December 2024 in New Delhi by Harsh Malhotra, Minister of state, Ministry of Corporate Affairs and Ministry of Highways and Transport of the Government of India, Dr. Arvind Kumar, President, India Water Foundation, Mikiko Tanaka, Director of the SSWA office of UN ESCAP and Col. Akhilesh Kumar Pandey, Chief Postmaster General of the Delhi Circle.

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Pioneering Global Call to Action: Transversality Awards and Conclave

ANI | Updated: Dec 07, 2024 16:50 IST

PNN

New Delhi [India], December 7: "The Water Transversality Global Awards and Conclave is not merely a conference, but a potential answer to a complex puzzle, where water, energy, environment and health are not just pieces, but the entire framework," said Dr. Arvind Kumar at the inauguration of the Water Transversality Global Awards and Conclave which opened on 5th December 2024 in New Delhi by Harsh Malhotra, Minister of state, Ministry of Corporate Affairs and Ministry of Highways and Transport of the Government of India, Dr. Arvind Kumar, President, India Water Foundation, Mikiko Tanaka, Director of the SSWA office of UN ESCAP and Col. Akhilesh Kumar Pandey, Chief Postmaster General of the Delhi Circle.

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GLOBAL COOPERATION VIA WATER TRANSVERSALTY GLOBAL AWARDS AND CONCLAVE

Human Seelal December 13, 2024

The Water Transversality Global Awards and Conclave organised by India Water Foundation with support from Ministry of power, Jal Shakti, Social Justice and Empowerment of the Government of India and South West Asia Office of United Nations Economic and Social Commission for the Asia Pacific Region. The inaugural ceremony was opened by Mr. Shombi Sharpe, UN Resident Coordinator of United Nations in India, Sh. Amit Ghosh, Additional Secretary, Ministry of Social Justice and Empowerment, Government of India, Dr. Sachin Chaturvedi, Director General, HSB and Mr. Anand Kumar, Director of the SSWA office of UN ESCAP.

Sh. Harsh Malhotra, Minister of state, Ministry of Corporate Affairs and Ministry of Highways and Transport of the Government of India, inaugurated the Water Transversality Global Awards and Conclave on 5th December 2024 in New Delhi in presence of Dr. Arvind Kumar, President, India Water Foundation, Ms. Mikiko Tanaka, Director of the SSWA office of UN ESCAP and Col. Akhilesh Kumar Pandey, Chief Postmaster General of the Delhi Circle.

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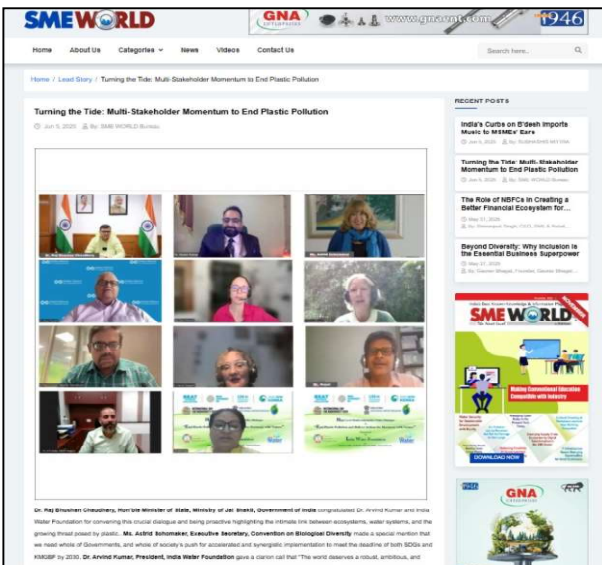
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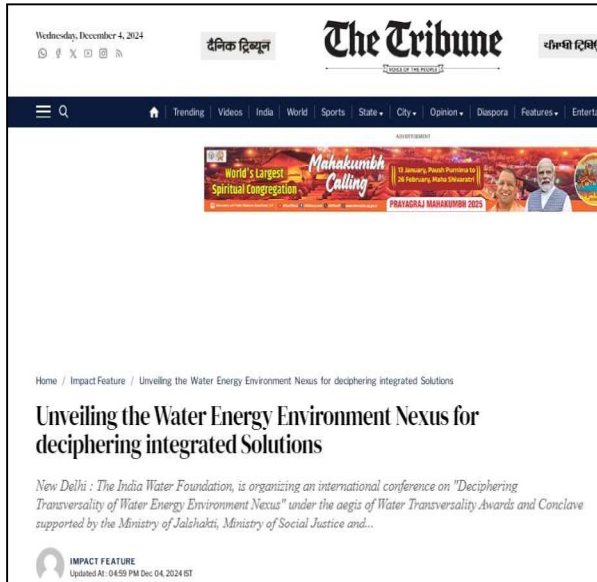
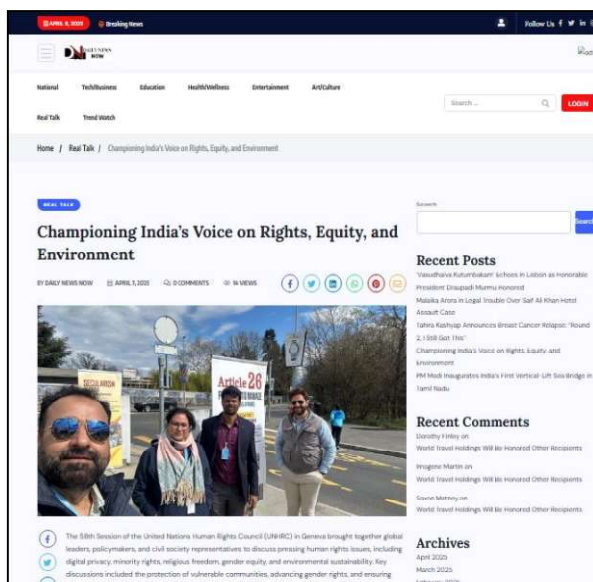
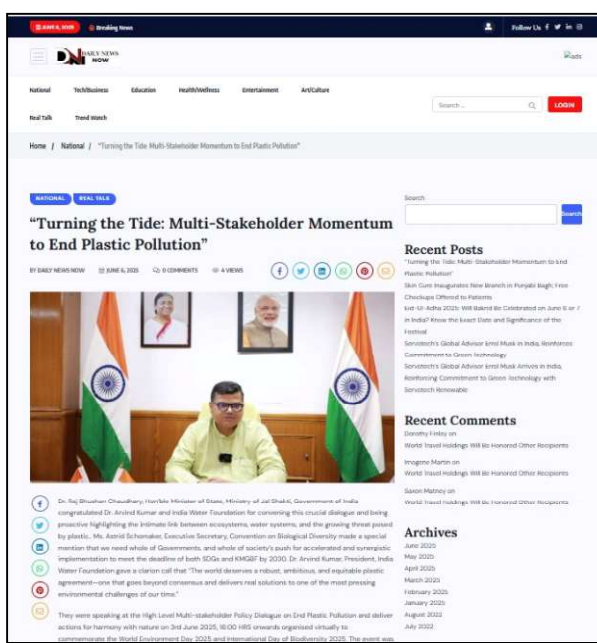
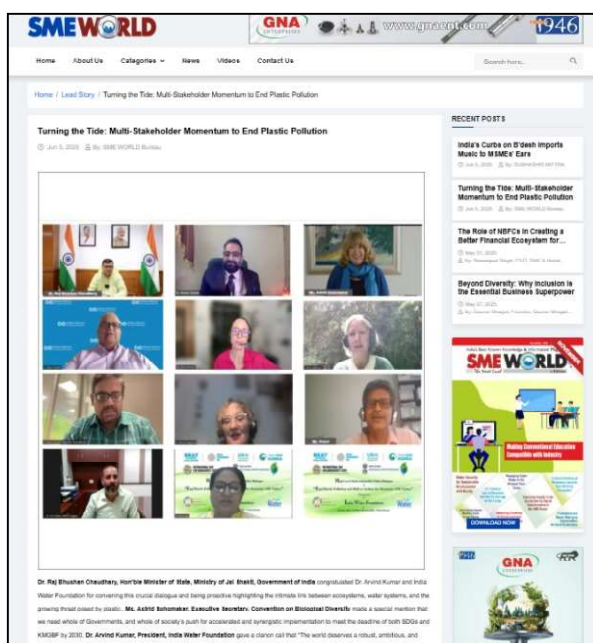
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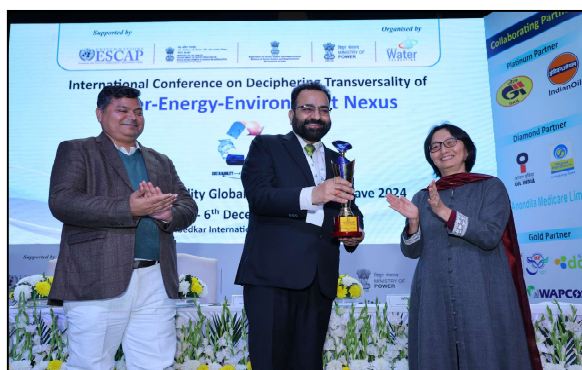
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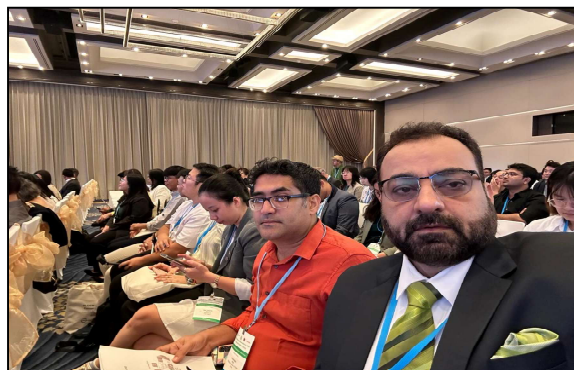




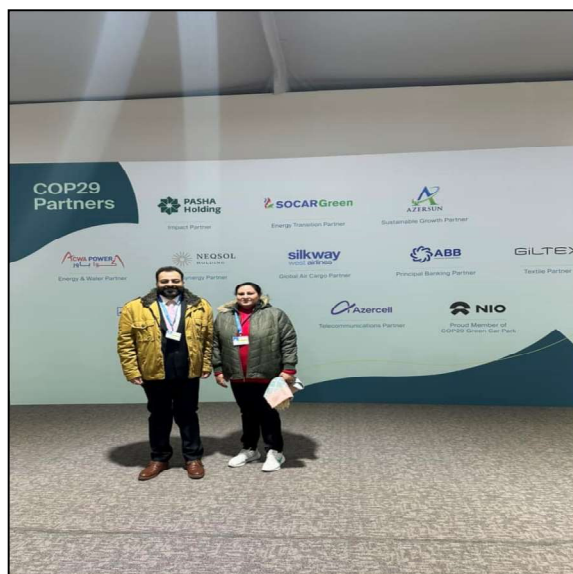
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