



# CHRONICLE - XI

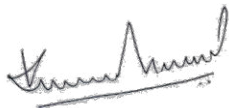
(April 2024 - December 2024)

## *From Editors Desk*

*Dear Jalmitra,*

“It gives me immense pleasure to present India Water Foundation’s chronicle with highlights of our last six months. In November last year countries, world leaders, UN agencies, civil societies, private sector etc.met in Baku to attend the 29<sup>th</sup> Conference of the Parties of the UNFCCC. COP29 was particularly momentous as the conference agreed to triple climate finance for developing countries, from \$100 billion annually to \$300 billion annually by 2035. The conference also called for \$1.3 trillion in total climate finance from public and private sources by 2035.For international trade of mitigation outcomes (Article 6.2), COP29 clarified how countries will authorize carbon credit transactions and manage tracking registries. Under the centralized carbon crediting mechanism (Article 6.4), the Paris Agreement Crediting Mechanism now includes mandatory safeguards to protect the environment and human rights. This progress in Article 6 negotiations, achieved at COP29, will be crucial for creating functional carbon markets, which are essential for meeting the Paris Agreement’s reduction targets and mobilizing much-needed finance.State delegates faced mounting pressure to raise their ambition and establish expectations for the next cycle of national climate plans. With the deadline for submitting updated nationally determined contributions (NDCs) in 2025, nations were encouraged to update their climate commitments to be more ambitious, investable and equitable as part of the five-year update cycle.We are at a pivotal time – for people, societies, economies, and our planet and need all-inclusive sustainable solutions. Let’s find them with cooperation, cohesion and collaboration. I thank my team because I believe teamwork is the ability to work together toward a common vision and is an ability to direct an individual accomplishment toward organizational objectives. It is about finding your unique blueprint and expressing that courageously and confidently.”

Thankyou



**Dr. Arvind Kumar**



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## EDITORIAL

# Forging a Resilient Future: The Power of Multilateralism and Collective Action

Dr. Arvind Kumar\*

**A**s we enter 2025, I extend warm wishes for a year of purpose and progress. While challenges remain, this new year offers potential opportunities to strengthen our relationship with the planet and each other, building a sustainable future. 2024 saw significant strides in global environmental cooperation, including nations uniting at COP29 to triple renewable energy capacity by 2030. Communities worldwide demonstrated resilience and ingenuity in addressing shared challenges, with the UN recognizing seven major initiatives aimed at restoring 40 million hectares of landscapes and creating approximately 500,000 jobs.



Positive momentum continued with a significant agreement on genetic data at the UN Biodiversity Conference, potentially directing billions towards conservation and recognizing the vital role of Indigenous Peoples. Further progress included the launch of the Kunming Biodiversity Fund by China and UNEP to support global conservation efforts, a focus on climate justice by island nations, and World Environment Day showcasing solutions to land degradation. The UN also established a science-policy panel to improve chemical and waste management and prevent pollution, marking a significant step towards a healthier planet. Communities worldwide are reimagining their relationship with the environment, demonstrating remarkable resilience and ingenuity in addressing our shared challenges.

This spirit of innovation extends across sectors, with breakthrough technologies in sustainable agriculture, water conservation, and clean energy reshaping our economic landscape. The discussions at India Water Week 2024 highlighted how traditional wisdom combined with modern technology is revolutionizing water management practices, offering solutions that benefit both urban and rural communities. These developments remind us that environmental stewardship and economic progress are not competing interests but complementary forces in building a sustainable future.

However, this moment of opportunity coincides with pressing challenges that demand our immediate attention. The World Meteorological Organization's latest findings show that 2015-2024 marks our warmest decade on record, with temperatures reaching 1.54°C above pre-industrial levels. This warming isn't just a number – it's intimately connected to our food security, water availability, economic stability, and social equity. The World Economic Forum's Global Risks Report 2024 emphasizes this interconnection, ranking biodiversity loss and

ecosystem collapse among the top global risks. The urgency of the situation demands that we make a resolute commitment this year to environmental sustainability, working together to build a better future for all.

The ripple effects of these changes touch every aspect of human life. From Arctic streams turning orange due to permafrost thaw to coastal communities facing rising seas, from farmers adapting to shifting growing seasons to urban planners redesigning cities for resilience – our challenges are deeply interconnected. The 56th session of the UN Human Rights Council powerfully illustrated how climate change amplifies existing social and economic inequalities, particularly affecting vulnerable communities in the Global South.

The sixth session of the United Nations Environment Assembly (UNEA-6) brought this circular nature of our environmental challenges into sharp focus. Discussions highlighted how plastic pollution, biodiversity loss, and climate change are not isolated issues but parts of a complex web that affects human health, economic stability, and social justice. The assembly's emphasis on strengthening global environmental governance reflects a growing understanding that our solutions must be as interconnected as the challenges we face.

This interconnected perspective offers hope. When we understand that supporting biodiversity also protects water resources, that sustainable agriculture enhances food security while reducing emissions, and that clean energy creates jobs while improving air quality, we see the multiplier effect of positive action. The surge in community-led initiatives, from urban farming to renewable energy cooperatives, demonstrates how local actions ripple outward to create global impact.

As we navigate this crucial period, our success depends on recognizing and nurturing these connections. The path forward requires unprecedented collaboration across borders, sectors, and communities. While current policies may have us trending toward 2.7°C warming by 2100, our collective awareness and capability for change have never been greater. Through understanding the circular nature of our environmental systems and their connection to human wellbeing, we can transform challenges into opportunities for positive change.

The story of 2025 and beyond will be written not just in international agreements or scientific reports, but in the countless ways communities come together to build resilience, protect ecosystems, and create sustainable livelihoods. As we will embrace this inter sectoral approach, we will find that addressing our environmental challenges isn't just about averting crisis – it's about creating a more equitable, prosperous, and harmonious world for all.

*\*Editor, Focus Global Reporter*



## INTERVIEW

### DR. RABI H. MOHTAR

Professor

Biological and Agricultural Engineering and  
Zachry Department of Civil Engineering  
Senior Advisor, Resource Nexus, Texas A&M Energy  
Institute  
Water Energy Food Research Group  
Executive Council, Water Management and  
Hydrological Science Program  
Texas A&M University



**D**r. Rabi Mohtar is the TEES Endowed Professor at Texas AM University, College Station, USA. He is the Founding Director of Qatar Environment and Energy Research Institute (QEERI) a member of Qatar Foundation, Research and Development and the Founding Director Strategic Projects at Qatar Foundation Research and Development. He was also the inaugural Director of the Global Engineering Programs at Purdue University, Indiana USA.

Professor Mohtar focused on conserving natural resources (including land, water, air, and biological resources) that face global challenges such as increasing food and water supplies for a growing population. He developed environmental and natural resources conservation engineering programs that evaluate the environmental impacts of land use and water management; developed innovative soil and groundwater remediation technologies; applied numerical methods to biological engineering systems; characterized the soil water medium at the pedon, field, and watershed scales. He also designed and evaluated international sustainable water management programs that deal with population growth and water shortage conditions in arid climates.

He received numerous international research awards and honors including the Kishida International award for contributions to agricultural research. He served on the World Economic Forum Global Agenda Council on water security since 2009-11 (vice chair 2011), climate change agenda council 2011-present), board of governors of the World Water Council (2012-present), advisory board of the UNFCCC momentum of change initiative (2012-present), advisory board of the President of the University of Alberta Water Initiative (2012-present) among many other global leadership roles. Prof. Mohtar has published over 200 publications including peer-reviewed articles and refereed conference proceedings; and book chapters.

*Dr. Arvind Kumar, Editor, Focus Global Reporter conducted an interview with Dr. Rabi H. Mohtar, Professor Biological and Agricultural Engineering and Zachry Department of Civil Engineering. Excerpts from the Interview are reproduced here.*

**EDITOR:** Given your extensive experience across multiple global institutions, how do you see the interconnection between water, energy, and food security evolving in the context of climate change and population growth?

**DR. MOHTAR:** With climate change, water scarcity in subtropics is expected to become more severe. Temperature rise, will require additional energy to cope and maintain infrastructures. Extreme weather will also impact food production and will negatively impact food security. As such the relationship between WEF and climate will be more tight as climate gets hotter and with more extremes. This requires more and more urgent coherent interventions.

**EDITOR:** You have significant experience in designing sustainable water management programs. What are the most critical challenges facing water resource management in arid and semi-arid regions today?

**DR. MOHTAR:** Most of the population growth worldwide is in arid and semi-arid regions. These are already under water scarcity. Food security is and will be more pressing as the water use efficiency in these areas is low and water footprint for food production is the highest among all economic sectors. So funding solutions to the water for food is pressing in these regions.

**EDITOR:** As a founding director of the Qatar Environment and Energy Research Institute (QEERI), what unique approaches have you developed to address resource conservation in arid climate conditions?

**DR. MOHTAR:**

**Our focus initially was on few areas:**

- A. Developing technologies for renewable and clean energy. This will set Qatar for a clean energy transition.
- B. Clean desalination technologies that uses less energy and less brine to manage. Qatar water supply is primarily reliant on desalination, most of which is connected to power generation (co-generation).
- C. Improved food production and soil regeneration. We had a technology that enables us to assess soil health and impact of soil management on soil health.

**EDITOR:** From your perspective as a board member of the World Water Council, what global policy interventions do you believe are most crucial for addressing water security issues?

**DR. MOHTAR:**The most important issue here is to have a broader adoption of a system view to water management by including all sectors of the economy in developing solutions to bridge the future gap through technological solution adoption outside the water sector and develop coherence in water management across these sectors. This is what we called for in the report that was published in 2023.

**EDITOR:** Your work spans multiple domains - from agricultural research to climate change. How important is an interdisciplinary approach in addressing complex environmental challenges?

**DR. MOHTAR:**We learn everyday that the new discoveries are at the intersection of these disciplines. Yet our institutional structures does not allow for developing and awarding multidisciplinary teams. The current and future environmental challenges are very complex and no one can understand the complexities, teams from various disciplines coming together are the only way forward.

**EDITOR:**As per your expertise what are the most urgent actions required to mitigate climate-related risks to water and energy systems?

**DR. MOHTAR:**Climate financing is most urgent. We know what needs to be done. The equity piece of who is paying is critical. There is little awareness among tax payers in developed nations to support climate financing in developing countries. These nations need to support to mitigate climate-related risk to water and energy systems.

**EDITOR:**How do emerging technologies like artificial intelligence and big data analytics contribute to more effective environmental and resource management?

**DR. MOHTAR:**AI and big data will have an impactful future in environmental and resource management. This is and will be manifested in data management, modeling, optimization, mapping, remote sensing and smart technologies in water, energy, and food. However, this big technological jump will have its own risks in increasing the digital divide and social equity and social justice. The game changer in this regard is moving power from states into the hand of powerful cooperations. For this we have little global governance to manage social justice and equity. This issue needs to be addressed and put at the forefront of the digital transition agenda.

**EDITOR:**Could you discuss some of the most promising international collaborative projects you're currently involved with that address water, energy, and environmental sustainability?

**DR. MOHTAR:** The most recent project we have is funded by the US National Institute of Health. The project is to build a system of systems to integrate health into the resource nexus. The project case study is at Syrian refugee camp in Jordan. The hypothesis we try to prove is preemptive medicine through adequate and clean water, energy and food, have health benefits that exceeds the benefits of providing healthcare in the absence of clean resources.

**EDITOR:** If you could implement one global policy or technological intervention to address resource conservation, what would it be and why?

**DR. MOHTAR:** That would be on global governance that allow to scale up solutions for sustainable development challenges. We know what needs to be done, the challenge is to build incentives for key global players to adopt these solutions. Despite, the short term challenges for these solutions, long term benefits are enormous. So how we can promote these solutions and develop the right framework and context for adopting these solutions?

**EDITOR:** What advice would you give to young researchers and engineers who want to make meaningful contributions to environmental conservation?

**DR. MOHTAR:** Not to be pessimistic about losing control of the future. It may seem that self interest is dominating the decision making process globally. I remind the young people, that you own the future innovations and technologies and development. You need to be engaged and make sure your talents is not used for self interest of the few, but rather for the wellbeing of humanity.



## REPORT

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

Share with you that the working paper that I prepared for the UNESCAPSSWAOffice on 'Accelerating Progress of SDG6 (Clean Water and Sanitation) in the South and South West Asia sub-region' has been published. I thank Ms. Mikiko Tanaka, Director, South and South-West Asia Office (SSWA) Economic and Social Commission for Asia and the Pacific (#ESCAP) for giving me this opportunity and my special thanks to Dr. RajanSudeshRatna, Deputy Head and Senior Economic Affairs Officer, ESCAP-SSWA and Ms. Leila SalarpourGoodarzi, Associate Economic Affairs Officer, ESCAP-SSWA for their continuous guidance and support. This paper highlights that South and South-West Asia has made significant progress, such as improving access to safe water. Nevertheless, considerable challenges still exist regarding water availability and quality. This paper provides readers with a comprehensive analysis of the current progress and ongoing challenges of this goal in the subregion.



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=IwZXh0bgNhZW0CMTEAAAR3TggKrax47FAdNXm23QexKtopljcXqvMRI9RMAIP1JC\\_dGQv-vVzFs35U\\_aem\\_bytTGud7Q0xk\\_Djq\\_p9Edw](https://www.unescap.org/kp/2024/accelerating-progress-sdg-6-clean-water-and-sanitation-south-and-south-west-asia-subregion?fbclid=IwZXh0bgNhZW0CMTEAAAR3TggKrax47FAdNXm23QexKtopljcXqvMRI9RMAIP1JC_dGQv-vVzFs35U_aem_bytTGud7Q0xk_Djq_p9Edw)

## 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

### Dr. Arvind Kumar Member of the Technical Committee of the India Energy Week 2025

I am delighted to be a part of the India Energy Week 2025 Technical Conference as a member of this year's Technical Committee. Scheduled to be held from 11- 14 February 2025, the Technical Conference will cover all of the latest advancements, innovations and solutions for facilitating growth, efficiency, security and sustainability within the world's future energy systems. Additionally the IEW 2025 discussed topics related to Indian and global energy resources, downstream industries, and energy demand management and their implications for the energy sector.



# ACTIVITIES OF INDIA WATER FOUNDATION

## GLOBAL INPERSON

### **International Conference on Deciphering Transversality of Water-Energy-Environment Nexus during the Water Transversality Global Awards and Conclave on 5<sup>th</sup>-6<sup>th</sup>December 2024**

“The Water Transversality Global Awards and Conclave opened on 5<sup>th</sup>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.



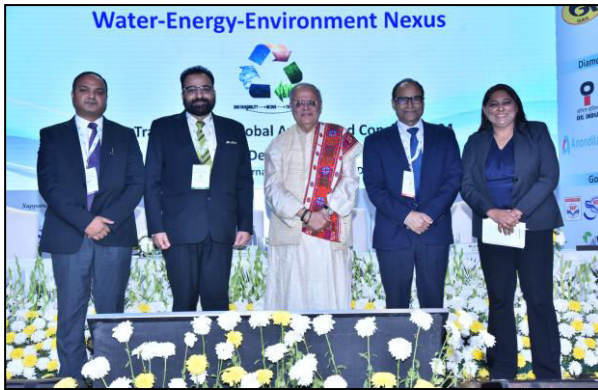
The day 2 of Water Transversality Global Awards and Conclave started with the Energy Plenary followed by a session organised by the United Nations ESCAP South and South-West Asia Office. In total Eighteen sessions were organised throughout the two days including parallel side events by knowledge partners 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 LoicFauchon, President World Water Council Prof. Eddy Moors, Rector, IHE Delft Institute for Water Education, Dr. SatyaTripathi, Secretary General, Global Alliance for a Sustainable Planet, leadership awards were given to Dr. Nagesh Kumar, Director ISID, Sh. Parveen Kumar,





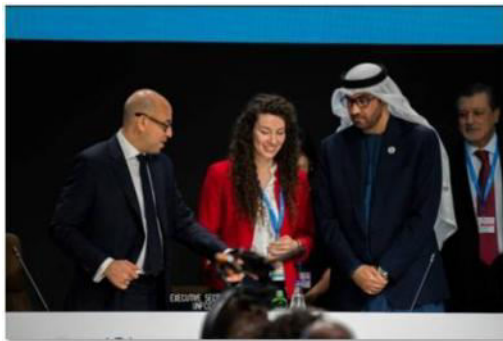
CMD, DFCCIL, Sh. Navneet Sehgal, Chairman, Prasar Bharti and few others. These awards are recognition for those who have made extraordinary contributions to water management and sustainability and are a celebration of human ingenuity. We look forward to carry the momentum of this year's conclave to the next edition of Water Transversality Global Awards and Conclave.



# Turning Promises into Progress on Climate Action at COP29

*Ms. Shweta Tyagi\**

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



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.

Picture Credit/Courtesy/Source: COP29

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.”

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.



Picture Credit/Courtesy/Source: COP29

### ***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.

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



Picture Credit/Source/Courtesy: UNDP

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

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.



**Figure 1** IPC: IWF

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.

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.



Figure 2PC: India Water Foundation

### ***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.

*\*Chief Functionary, India Water Foundation*

# Annual half-day panel discussion on the rights of Indigenous Peoples at the 57<sup>th</sup> session of the UNHRC

Having a President of the country Smt. Draupadi Murmu, belonging to the Santhal tribe, has made history by becoming the first woman tribal President of India and is a testimony of India mainstreaming indigenous tribal population. India Water Foundation is working extensively with these communities in the northeastern states of the country and empowered them as active “partners” and not mere beneficiaries by addressing unemployment, insurgency, unsustainable mining, migration, poverty, women empowerment and bringing them from periphery to mainstream” said Dr. Arvind Kumar President, India Water Foundation in his statement during the Annual half-day panel discussion on the rights of Indigenous Peoples at the 57<sup>th</sup> session of The United Nations Human Rights Council (UN Human Rights Council) in Geneva.



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

"On 2<sup>nd</sup> October 2024, when the country celebrated the birthday of Mahatma Gandhi by organizing cleanliness drives and taking cleanliness oaths throughout the country, India achieved ODF status and Jal Jeevan Mission has provided tap water connections to over 77.98% of all rural households only made possible due to strong leadership at the highest level" said Dr. Arvind Kumar President, India Water Foundation at the official side event on 'Safeguarding Human Right of Water, Sanitation and Health amidst Climate Emergency' during the 57<sup>th</sup> session of the UN Human Rights Council organised by India





Water Foundation on 3<sup>rd</sup> October 2024. Other speakers in the event were Dr. SatyaTripathi 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 Dr. Sophie Boisson, Technical Officer, World Health Organization (WHO). The session was moderated by Ms. Shweta Tyagi, Chief Functionary, India Water Foundation who concluded by saying that safeguarding the human right to water, sanitation, and health amidst climate emergency requires a multifaceted integrated approach ensures that #water, #sanitation, and #health remain accessible and protected despite climate challenges.

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

"India is one such country where development policies and programmes have been made specifically keeping gender equity and inclusion in mind. Policies, programmes and budgets have been drafted considering a gender perspective. In several programmes, the prime beneficiaries are women. The development is women led and for women, we should highlight this at every platform that India just not talk the talk but deliver also." said ShwetaTyagi, Chief Functionary, IndiaWater Foundation and Associate Editor FocusGlobalReporter in her statement during the Annual Discussion on Integration of a Gender Perspective at the 57<sup>th</sup>session of UN Human Rights Council at Geneva, Switzerland.



## **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 57<sup>th</sup>Session of the UN Human Rights Council in Geneva India Water Foundation Organized a Photo Exhibition at the BrokenChairSquare in front of the Palais des Nations, Geneva showcasing the positive indices of the Governmentof India in diverse sectors like digital India, Gender Empowerment, Waterand Sanitation, IoTinAgriculture etc. Dr. Arvind Kumar, President, India Water Foundation made a statement during the Annual half-day panel discussion on the rights



of Indigenous Peoples at the 57th Session highlighting that India has 705 ethnic groups recognized as Scheduled Tribes or indigenous communities. India Water Foundation is working extensively with these communities in the northeastern states of the country and empowered them as active “partners” and not as passive “beneficiaries” by creating alternative livelihoods not dependent on unsustainable natural resource use and was successful in addressing unemployment, insurgency, unsustainable mining, migration, poverty, women empowerment and improving socio-economic-environmental indicators of the states and especially for these communities to bring them from periphery to mainstream.

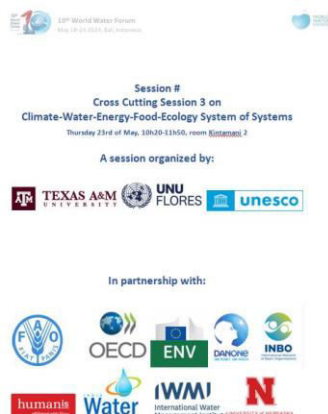
## SANS Policy dialogue on Climate change and carbon regulations - A way forward for South and South-West Asia during the 8<sup>th</sup> SSWA Regional Forum on Sustainable Development

"For effective alignment, Carbon Budget Adjustment Mechanism 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." said Dr. Arvind Kumar during the SANS Policy dialogue on Climate change and carbon regulations-



A way forward for South and South-West Asia organised by United Nations ESCAP South and South-West Asia Office on 14<sup>th</sup> November 2024 at Bharat Mandapam during the 8th SSWA Regional Forum on Sustainable Development.

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



India Water Foundation in partnership with UnuFlores, UNESCO, Texas A&M University, Food and Agriculture Organization of the United Nations (FAO), OECD, International Network of Basin Organizations - INBO, ENV, Danone, International Water Management Institute (IWMI) (IWMI), Humanis and University of Nebraska organised a session on Climate-Water-Energy-Food-

Ecology System of Systems on 23rd May from 10h20 -11h50, room Kintamani 2 at the 10th World Water Forum in Bali, Indonesia. The session delved on how the water-energy-food ecosystem (WEFE) nexus leverages synergies between water and related policies to achieve these objectives. This session will explore successful planning, financial and governance models to be shared through case studies across scales and regions, ranging from, Basin Authorities, Governmental Mechanisms of Cross-jurisdictional Coordination, Civil Society organizations and platforms and Transboundary collaboration.

## Exhibition at 56th session of UNHRC, Geneva

At the 56th session of the UN Human Rights Council at the broken chair square outside the Palais De Nations, Geneva, India Water Foundation organised an exhibition on “Improvement in living index from human rights perspective through emerging technologies in Jammu and Kashmir”. We highlighted how new and emerging technologies like Artificial Intelligence and big data analytics are helping governments and other stakeholders make effective policies and decisions by identifying and mitigating any pre-existing bias. Also Dr. Asma R Shora from India Water Foundation made an in person oral statement during the interactive dialogue on OHCHR report on human rights and new and emerging digital technologies, including artificial intelligence.



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?fbclid=IwZXh0bgNhZWQCMTAAR0ZWLXZD27EB2HYxjxnCPQfPZmDnw9vEI4VWwePQlviCeE6kONwPWwrxnM\\_aem\\_RxZ6Cg3xZjD6rzVJ2zRbKw](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?fbclid=IwZXh0bgNhZWQCMTAAR0ZWLXZD27EB2HYxjxnCPQfPZmDnw9vEI4VWwePQlviCeE6kONwPWwrxnM_aem_RxZ6Cg3xZjD6rzVJ2zRbKw)

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

## GLOBAL ONLINE

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

"Support and promote resilient livelihoods and food security with sustainable livelihood diversification; climate-resilient agriculture, strengthen and expand disaster risk reduction and links with long-term development by incorporating early warning systems and disaster risk reduction into development plans" said Dr. Arvind Kumar, President, India Water Foundation while speaking in the High Level Policy Dialogue on Deciphering The Interlinkage of Climate Change, Hunger and Poverty on 17th July 2024 as an official side event of High Level Political Forum 2024 (HLPF). The event was organised by India Water Foundation and supported by Ministry of Social Justice and Empowerment, Government of India Ministry of Jal Shakti, Department of Water Resources, RD & GR, Govt. of India Japan International Cooperation Agency (JICA) and Global Alliance for a Sustainable Planet - GASP.



The chief guest of the event was H.E. Dr. Tedros Adhanom Ghebreyesus Director General, World Health Organization (WHO) and he appreciated the efforts of India Water Foundation and Dr. Arvind Kumar in interlinking SDGs like hunger, Poverty and climate change. Other speakers in the event were 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 of the 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, Food and Agriculture Organization of the United Nations (FAO). The event was moderated by Ms. Shweta Tyagi, Chief Functionary of India Water Foundation. 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

"Investments in Nature Based Solutions need to more than double to US\$542 billion by 2030 to



meet the world's #climate, #biodiversity and ecosystem restoration goals. #Reforestation and land restoration effort need to graduate from afforestation and unplanned mass tree plantation drives to "conservation and restoration of freshwater, marine, coastal, and other undervalued ecosystems" that take into account the diverse natural landscapes, the native species, varying forest, land, watershed management approaches, and the interests of local communities" said Dr. Arvind Kumar, President, India Water

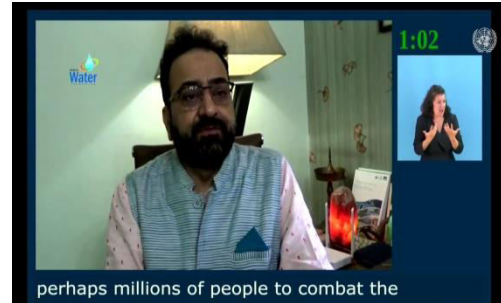
Foundation during the High Level Policy Dialogue on "Multi-Stakeholder Actions For Combating Desertification and Droughts Through Water Transversality" organized by India Water Foundation on 14th June 2024 to commemorate the World Environment Day 2024.

The other speakers in the event were Dr. David Cooper, Acting Executive Secretary Convention for Biological Diversity, Padmashri Dr. Shailesh Nayak, Director National Institute of Advanced Studies, Prof. Dr. Eddy Moors, Rector, IHE Delft Institute for Water Education, Dr. Satya S. Tripathi, Secretary General Global Alliance for a Sustainable Planet - GASP, Dr. Rabi Mohtar Professor Texas A&M University Orchestra. The event was moderated by Ms. Shweta Tyagi, Chief Functionary of India Water Foundation. The event highlighted multi-actor perspectives on why greater efforts are needed including taking integrated and holistic approaches to planning and implementation to address the issue of desertification and droughts.....

To watch the complete recording of the event please go to <https://youtu.be/wZNaP9nLopw>

## 56<sup>th</sup> Meeting of the UN Human Rights Council

"India is the voice of Global South for Climate justice" said Dr. Arvind Kumar in his oral intervention at the 56<sup>th</sup> meeting of the UN Human Rights Council at Geneva. He spoke during the interactive dialogue on the Report of the Special Rapporteur of Human Right on climate change. He further highlighted that globally India now ranks fourth in renewable energy capacity, with 145 GW of installed capacity. The country is on track to achieve its 2030 target to reduce the emissions intensity of its #GDP by 45 per cent. Faster adoption of green technologies, such as low-cost green hydrogen, low carbon policies like accessible renewable energy and electric public transport deliver many benefits above and beyond reducing green house gases, including reduced air pollution, improved health, cost savings, resource efficiency and enhanced resilience.



**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?fbclid=IwZXh0bgNhZW0CMTAAR0zWgHTeDiDTu4Gd2-TkM6Ohs-LGQ7tPQbitfJWDgDImJHhCMvsnjBuk\\_aem\\_KVtEm00Qh4RtAllnPNyEZg](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?fbclid=IwZXh0bgNhZW0CMTAAR0zWgHTeDiDTu4Gd2-TkM6Ohs-LGQ7tPQbitfJWDgDImJHhCMvsnjBuk_aem_KVtEm00Qh4RtAllnPNyEZg)

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



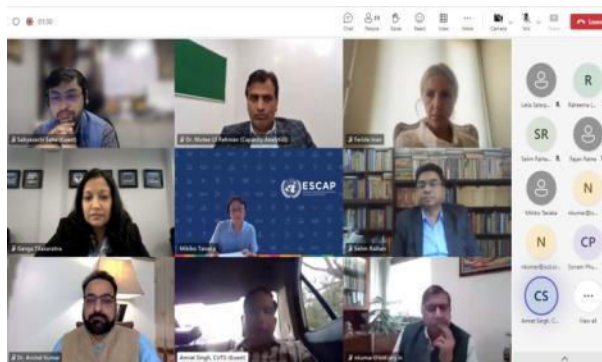
"Restoring degraded ecosystems alone could provide up to one-third of the climate mitigation needed to keep the Earth from warming too far above pre-industrial levels. This means creating protected areas, curbing extractive capitalism, and restoring the planet's enormous amount of degraded land. The Kunming-Montreal Global Biodiversity Framework represents an enormous and long-awaited step toward halting extinction rates, helping restore and protect ecosystems and endangered species worldwide" said

Dr. Arvind Kumar, President India Water Foundation during the high level policy dialogue on Integrating Multi-stakeholder Actions for Building back Biodiversity organized by India Water Foundation and supported by the Ministry of Jal Shakti, Department of Water Resources, RD & GR, Govt. of India. The event was organized on 20th May 2024 to commemorate the International Day of Biodiversity 2024.

The other speakers in the event were Dr. David Cooper, Acting Executive Secretary, Convention for Biological Diversity, Dr. Pema GYAMTSHO, Director General of ICIMOD, Dr. Sangmin Nam, Director, Environment and Development Division of United Nations ESCAP, Dr. Saravanane Narayanane, Senior Scientist, Centre for Marine Living Resources and Ecology, Ministry of Earth Sciences Government of India, Dr. Amani Alfara, water resources officer, Water and land division, Food and Agriculture Organization of the United Nations (FAO), Dr. Yash Veer Bhatnagar, Country Representative IUCN India office. The event was moderated by Ms Shweta Tyagi, Chief Functionary of India Water Foundation. The event highlighted multi-actor perspectives on why greater efforts are needed including taking integrated and holistic approaches to planning and implementation to address the issue of biodiversity loss.....To watch the complete recording of the event please go to <https://youtu.be/APPerIZw-Js>

## SANS Meeting

"Adopting a "whole of the economy" approach to simultaneously achieve robust, inclusive growth and climate goals requires an integrated and interconnected strategy across geographies (local, state, national, agro-climatic zones), key social and economic sectors, and people. He further emphasised that SANS is the only platform that can bring political stability in the region" said by me (Dr. Arvind Kumar) on 03 April 2024 during the 2024 work plan Brainstorming session on Collaborative Approach to #SDGs in South and South-West Asia organised by ESCAP South and Southwest Asia Office. The discussion was on Climate Change and the Way Forward in the SSWA region. The meeting had interventions from all the members of the SANS platform with countries like India, Sri Lanka, Bangladesh, Pakistan, Afghanistan, Bhutan, Nepal, Iran, Maldives and Turkiye.

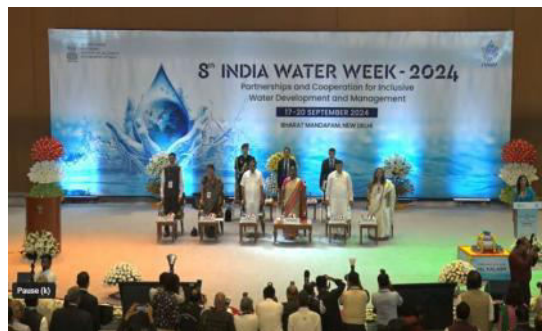




## NATIONAL INPERSON

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

India Water Foundation as a Knowledge Partner of the 8<sup>th</sup> India Water Week opened with great aplomb and overwhelming response from participants across the globe. Her Excellency the Hon'ble President of India applauded the efforts of organizations transforming water conservation into a mass movement and played the role of water-warriors. The union minister of Jalshakti, Government of India Sh. C R Patil emphasized on the need for collective efforts to address the global water crisis and the government's commitment for inclusive water management. Various embassies, many of the partner organizations from across the globe are participating in the five day event and had an opportunity to meet several friends from the sector. I am sure the participation of different countries showcasing their best practices and experiences in water sector will lead to a great learning process and garner tangible outcomes.



### Session on Synergizing Cooperation across Boundaries at 8<sup>th</sup> India Water Week

"Apart from ecological, economic and other benefits transboundary water cooperation shall be beneficial in achieving net-zero targets. A flexible legal framework, such as a transboundary agreement, can support the development and implementation of adaptation strategies and measures." said Dr. Arvind Kumar in his presentation on 'Fostering Cooperation across Shared Waters: A case study of Brahmaputra Basin' in the session Synergizing Cooperation across Boundaries. He highlighted how adopting transversality approach across borders by integrating optimized financing; improved data and information; enhanced capacity; innovations and good governance shall lead to peace, stability and shared prosperity.

## Water Leaders Forum on Partnerships and Cooperation on Integrated Water Resources Management at 8<sup>th</sup> India Water Week on 19<sup>th</sup> September 2024

India Water Foundation as Knowledge Partner of 8th India Water Week 2024 organised a water leaders forum (WLF1) under the aegis of 8th India Water Week today on "Partnerships and Cooperation on Integrated Water Resources Management in collaboration with Global Water Partnership. The keynote address of the session was from Mr. Alan AtKisson, Executive Secretary and CEO of Global Water Partnership. The session was moderated by Mr. A. K. Kharya, Chief Engineer, BPMO, and Central Water Commission & Country Focal Point SDG6.5.1-IWRM and co-Moderated by Mr. Shawahiq Siddiqui, Governance Expert, and Indian Environment Law Organization. The esteemed panel in the session included, Dr. A. B. Pandya, Secretary General, International Commission on Irrigation and Drainage (ICID), Dr. P. Shakil Ahmed, Additional Chief Secretary, Government of Meghalaya, Dr. Ritesh Kumar, Director, Wetlands International South Asia, Dr Veena Khanduri Country Coordinator, IWP, Dr. B. R. K. Pillai, Prof of Practice, IIT Roorkee; P. S. Rao, Director (Technical), Advance IWRM Centre for Excellence, Karnataka.



## Eighth South and South-West Asia Sub Regional Forum on Sustainable Development on 12-14<sup>th</sup> November 2024

Dr. Arvind Kumar highlighted that Countries can tackle marine pollution through a combination of regulatory, economic, technological, and community-based measures. First they have to strengthen legislation on SUPs, micro-plastics and other pollutants, enforcing penalties to help ensure compliance. To ensure data availability countries need to strengthen national statistical systems, invest in monitoring infrastructure, and standardize data collection methods.



It was a pleasure to be the lead presenter on SDG14- Life Below Water on 13th November 2024 at the 8th Eighth South and South-West Asia Sub Regional Forum on Sustainable Development organised by UN Economic and Social Commission for Asia and the Pacific-ESCAP South and South-West Asia Office (ESCAP-SSWA) in collaboration with NitiAayog, Government of India & RIS from 12-14th November 2024 at Bharat Mandapam.

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

“Intellectual property not only fosters economic growth but also addresses critical challenges outlined in the #SDGs, such as clean energy, health care accessibility, and environmental sustainability. Therefore it is high time to prioritize people’s access to and stop pushing for ever-higher levels of monopoly protection of technology and innovations that save humanity and planet with a whole of society approach,” said



Dr. Arvind Kumar as Chief Guest at Dr. B R Ambedkar Law University, Sonipat on the occasion of World Intellectual Property Day on 26th April 2024. Other eminent speakers on the occasion were Mr. Satish Kumar, Assistant Director, Office of Development Commissioner, Ministry of MSME, Government of India, Dr. Minakshi Sinha, Senior Faculty, National Institute of Criminology and Forensic Science, Ministry of Home Affairs, The programme was chaired by Vice Chancellor Dr. Archana Mishra and was organized by Dr. Ashutosh Mishra, Director. IPR facilitation centre of the University. The programme was quite interactive and had a vibrant gathering of faculty members and students.

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



"Implementing a robust supply and cold chain infrastructure which is vital for reducing food waste, reducing #carbon and water footprint and ensuring the #quality and #safety of perishable goods. Policy recommendations should focus on investments in Cold Storage facilities and #innovation in transportation along with an emphasis on training and #education at implementation level" said Dr.

ArvindKumar as speaker during the expert talk panel discussion organized by National Institute of Food Technology Entrepreneurship and Management (NIFTEM) and supported by Ministry of food processing Industries, government of India on 15-16 May 2024, NASC Complex, Pusa, New Delhi. The session was moderated by the Director NIFTEM Dr. Oberoi along with various dignitaries, other experts. Also took the opportunity to present his book India@75 and Beyond to Dr. Harender Singh Oberoi.

## MEETINGS

### **Mr. Shombi Sharp, UN Resident, Coordinator**

On the occasion of Diwali I had the privilege of meeting Mr. Shombi Sharp, UN Resident Coordinator to India at UN House. Besides exchanging Diwali greetings, we also discussed the forthcoming Water Transversality Global Awards and Conclave scheduled for 5th - 6th December 2024 at Dr. Ambedkar International Centre, New Delhi. I also presented him my publication *India at 75 and beyond* and also a painting made by the children of aspirational districts of Uttar Pradesh. I am grateful to sure Mr. Sharp for giving us time on a busy day and appreciating his warm gesture.



### **Sh. Vishnu Deo Sai Chief Minister, Government of Chhattisgarh**

Sh. Vishnu Deo Sai Chief Minister, Government of Chhattisgarh at Chhattisgarh Sadan. We had a comprehensive discussion on various challenges of Water, Environment and Climate Change the state is battling. His vision, dedication, simplicity and humble demeanour stands him apart from his peers.

### **Sh. Pankaj Agarwal, Secretary, Ministry of Power**

It was a privilege and pleasure to have an audience with Sh. Pankaj Agarwal Secretary Ministry of Power, Government of India along with my hon'ble colleague Sh. Pankaj Sharma. I took the opportunity to present him my book *India at 75 and beyond*. We had an extensive discussion regarding the significant achievement of India's power sector. His humble approach, in depth knowledge and warm gesture are much appreciated. I am sure with his dynamic energy and leadership the ministry shall scale new heights.





## **Sh. K C Tyagi, Advisor and National Spokesperson of Janta Dal United (JDU).**

Sh. K C Tyagi Advisor and National Spokesperson of Janta Dal United (JDU). In the fast-paced and often tumultuous world of politics, having a steady, articulate, and passionate person by your side is invaluable. We had a long discussion on the various environmental issues the country is battling for which he possessed in depth knowledge. I was amazed by his humble demeanour and warm gesture. I took the opportunity to present him my book '#Indiaat75andbeyond', a painting of the winning entry of the children from aspirational districts and a calendar of those paintings. It was indeed a pleasure interacting with him.



## **Member (Infra.) of the Railway Board Sh. Naveen Gulati**

I had the privilege to meet the Member (Infra) of the Railway Board Sh. Naveen Gulati along with the Executive Director Sh. Shailendra Singh. We had a comprehensive discussion on the remarkable initiatives of #Railways in the field of water and environment and making railways go green. I took the opportunity to present my book India at 75 and beyond to the hon'ble DG and also explored prospects for the future engagements. Indian Railways is the lifeline of the country and one of the most extensive rail networks in the world therefore has a significant role to play in promoting sustainability.

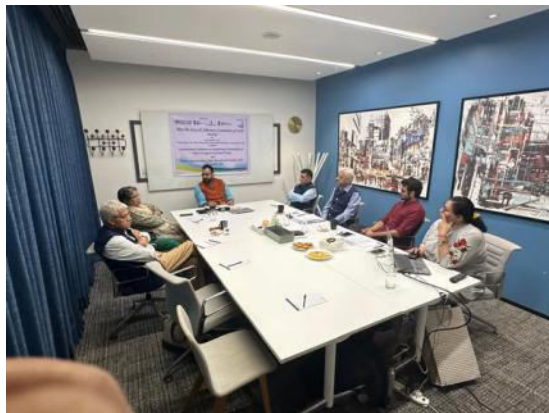


# Jury, Advisory Group and Knowledge Partners Meetings on Water Transversality Global Awards & Conclave 2024

**8<sup>th</sup> November 2024:** Dear colleagues, 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. StutiKacker, Patron & Chairman of the Committee on Water and Human Development, Dr. AjeetTyagi - Patron & Chairman of the Committee on Climate Change-IWF, Mr. RanjeetK. 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. RajanSudeshRatna, 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. RajnishRanjan, 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.



**8<sup>th</sup> October 2024:** 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. ArvindKumar 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. RajanSudeshRatna, Deputy Head, United Nations ESCAP South and South-West Asia Office Dr. RajnishRanjan, 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. Niranjn Prasad , Principal Advisor IWF- New and Renewable Energy.

**8<sup>th</sup> 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. RajanRatna 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. TedrosAdhanomGhebreyesus

We at India Water Foundation are extremely grateful to Dr. TedrosAdhanomGhebreyesus, 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](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 highlights 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 will be 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 is 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>

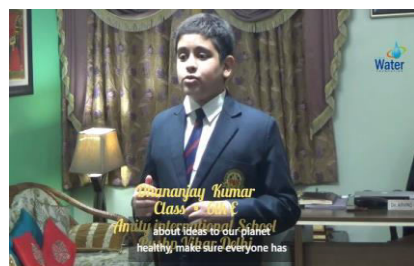
## Dr. Arvind Kumar speaking on All India Radio

Dr. Arvind Kumar speaking 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 invites 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>

## ARTICLES

# Water Auditing & Conservation Management

 **Dr.Arvind Kumar** – President & Founder, India Water Foundation

 **Dr. S.K.Sharma** – Consultant (Top Level Expert (TLE) WAPCOS Limited and Former Member, Central Ground Water Board (CGWB). Ministry of Jal Shakti, Government of India)& Principal Advisor, India Water Foundation

 **Lalit Gupta**- SeniorEngineer, WAPCOS Limited, Gurugram

### Abstract

Water conservation has evolved from traditional resource storage to efficient utilization practices, emphasizing sustainability amidst climate change and water scarcity. This paper explores water auditing and conservation management, detailing methodologies for industries, institutions, and households. Industrial water use, spanning processes like manufacturing, cooling, and wastewater discharge, is a significant focus, with strategies for efficiency gains such as recycling and closed-loop systems. Case studies highlight auditing practices that identify water-saving opportunities, reduce waste, and enhance efficiency. The paper underscores the necessity of water policies for industrial applications, advocating for comprehensive reporting and sustainable groundwater recharge practices. These measures aim to balance economic growth with ecological preservation.

### 1. Introduction

We know that throughout the history the need for providing water supplies has been met by developing additional resources. Water conservation is defined to mean storage of surface flows in reservoirs. Of late, the conservation has come to mean increasing the efficiency of water use. Better and effective water management including its practices is now possible through stretching already developed supplies.

The climate changes and present dry weather stresses the need for water conservation. The indiscriminate usage of surface and ground water determine the need for annual water auditing. Both, however, remind us that our resources are finite and that its wise use is essential.

Therefore as a policy, water resources should be managed strategically to ensure maximum long-term benefits for society.



## 2. Industrial Water Uses

It is rather difficult to imagine any industry in which water is not used. It is used for heating, cooling or as a part of manufacturing and cleaning process. Bulk processing industries need bulk supply of water, while specialized industries such as pharmaceuticals may need smaller but higher quality water. Water and pollution are two outputs of industry, both of which affect lives and ecology of downstream communities.

Commonly water is raw material used in washing, cooling and processing and so on. The water use efficiency refers to practices, products or systems that use less water without sacrificing performance.

Industrial water use encompasses water utilized for manufacturing products, process and production activities, air conditioning, boiler feed, washing, and other related purposes. The sources include withdrawals from ground water and surface water, wastewater treatment and recycling.

One of the primary industrial uses of water is in the manufacturing process and the production of the final product. Water usage can be categorized as either consumptive or non-consumptive. The consumptive use includes water used to manufacture a product for instance in a water bottling plant and then distributed for consumption. It is non-consumptive such as water used in colouring fabrics in textile industry and then discharged to wastewater system. The proportion of water consumption may be 1.25% for sugar sector to as high as 87% for thermal power plants.

The annual wastewater discharge in industrial sector ranges from 150Mm<sup>3</sup> for sugar producing sector to 27,000Mm<sup>3</sup> for thermal power plants. Pulp and paper, steel, textile and engineering sectors are largest industrial wastewater discharge sectors next to thermal power plants.

### (i) Common water uses in Industries

Following are common uses in industry:

- Washing or rinsing of raw material & final products
- Preparation of slurries
- Cleaning of equipments
- Removing of heat
- Irrigation of landscape

Water usage in various segments of an industry are given in table.

**Table 1: Water usages at various industries**



<b>Types of Industries</b>	<b>Segment water use (%)</b>
1. Computer & Electronic Manufacturers	Rinsing takes 40% water
2. Food processes	Washing & sanitation consume 42% of water
3. At offices	Restrooms & domestic use 40%
4. Motels & Hotels	Laundry & guest room together consume 50%

## **(ii) Benefits of improving water use efficiency**

These include:

- Lower water bills
- Reduced waste water charges
- Lower energy cost, and
- Reduced cost for chemicals and water purification

## **3. Water Management in Industries**

Broad Element of Water Management:

Water resources already explored and developed may be used to the maximum extent before new sources are developed. Besides this,

- Alternative sources of supply shall be found.
- Optimum application techniques and processes for water conservation shall be implemented and waste shall be avoided.
- Water quality shall be protected and ecosystem preserved.
- Water Management however, is to be based on existing rules and guidelines and by using new rules where existing one's are inadequate.

## **4. Water Auditing And Conservation**

Briefly the role of water auditing and water conservation is described.

### **(i) Why carry out "Water Auditing"**

- To find out status of water source(s) & its use.
- To yield information on pattern of use
- Social environmental issues affecting access to water
- To identify opportunities for water saving for making equitable use.

- To check accuracy of available status of water and its quality & validity
- To check spatial and temporal scale at which data is utilized.

**(ii) Methodology Steps, Include;**

- Basic Data Collection
  - Analysis of current water use
  - Detection of potential leaks in water system
- Determining opportunities for reducing water use
- Detailed Water Audit
  - Determining detailed water balance
- Outline procedure to maximize water savings
- Follow Rules of 3 R's
  - Reduce
  - Recycle and
  - Reuse
- Install water saving technologies & process
- Undertake continued assessment on annual basis

**(iii) Water Auditing Methods:**

- Water audit kits
- Water meter reading
- Comparing water metering with water bill
- Using water pressure testing devices
- Using water flow rate testing devices

Basically, water auditing is an exercise to locate, analyse and quantify each water demand and supply facilities.

**(iv) Queries for water using processes in Industry:**

A checklist is as follows:

- How much water is entering processes area
- The quality of water at entry point
- Cost of bringing water to process area
- How much water is incorporated in final product and how much rejected with effluent stream.
- What are water losses to soil and air
- What are characteristics of effluent streams

- What is cost of managing effluents.

**(v) A Self Audit Format**

1. Obtain a site plan / water plan & breakdown of sites
2. Mark all water using entities on map.
3. Set up water sub-meters if site is bigger.
4. Review water bills of last one year & plot water use to understand water use trend of the site. Establish a baseline for use in future comparisons (last 12 months water use date)
5. Check for water meters of number of consecutive days, and read meters of atleast two weeks,
  - before work begins in morning
  - again after work is shut down in evening
  - difference between two readings is the daily water use of a site under audit.

Detailed monitoring require installation of data loggersto electronically read water use.

**5. Case Examples And Procedures for Water Auditing**

**(i) Institutional Areas:**

Use walk through procedure;

- a) Create inventory of items that use water
- b) Draw graph of water bill vs annual consumption
- c) Locate water meters for checking data for sufficient period of record at least for 2 weeks and check morning/ evening water meter readings
- d) Study graph results for (ii) & (iii) above
- e) List out enumeration of water using entities
  - Hand wash Basin
  - Cistern/toilets
  - Urinals
  - Showers
  - Bubblers

- Sprinklers
  - Water Pools
- f) Locate above (v) also on a suitable scale map
- g) Determine daily / weekly water use for lawns/ gardens
- h) Examine water consumption by plants types

**(ii) Hospital Case:**

- Hospital in big cities are largest water users
- For example at a Hospital on a given day upto 500 people may be working and 150 patient are treated.
- Using practice of data logging and data processing daily and hourly usage is determined at site of utilities
- It would be seen that water consumption was taking place by night though site activities were not occurring
- Daily water usage equivalent to water losses of 50 KLD water if detected would represent an annual saving of 77500 KLD.
- Total Water Intake (MG/yr.)
- Total water consumption (MG/yr.)
- Annual cost of water (Rs. )
- Use in cooling compressors – (percentage say 65%)
- Cooling of steam condensation before disposal (5%)
- Process usage (X ray developers, kitchen, and labs) (15%)
- Sanitary and general cleanup (15%)
- Adopt conservation measure to reduce / save upon high water usage
  - Control compressor cooling flow
  - Use chilled water for compression
  - Eliminate condensate cooling
  - Add temperature control valves to compression cooling water discharge lines

**(iii) Shopping Mall Case:**

- These Cover Large area
- Major water uses may include
  - Evaporative cooling towers
  - Food preparation

- Public toilet flushing amenities
- Washing
- Water audit to enable possible causes of high water use & high consumption with hydraulic design engineers
- Faulty cooling towers & hot water system are possible feature of high water use
- Repairs to them can reduce water losses

## 6. Industrial water conservation practices

Water users are divisible into two groups, the system users and operators.

The industries belong to System-users group. Industrial users apply a number of conservation and water use efficiency practices. Some of these are described below:

### (a) Water Reuse and Recycling:

- (1) **Water Reuse:** Water reuse is the use of reclaimed water from one application to another such as use of treated industrial waste water for landscape irrigation. Factors that should be considered for industrial water reuse include:
  - (i) Identifying water reuse opportunities
  - (ii) determining minimum water quality need for a given use identified from (i) above
  - (iii) identifying waste water sources that satisfy water quality requirements
  - (iv) Determining how water can be transported to identified new use area.

Reuse of waste water reduces demands on available freshwater from surface and ground water sources.

- (2) **Water Recycling:** It is the reuse of water for same application for which it has originally used but require treatment before its reuse.

### (b) Factors that should be considered in Recycling:

- (i) Evaluation of water quality degradation resulting from use
- (ii) Determining of treatment steps that may be required before preparing the water for recycling.

## 7. Conservation Approaches

- (i) **Cooling water circulation:** The use of water for cooling in industrial application is by far the largest water use in industry. Water is used to cool heat generating applications. The method lowers the temperature of a source and then discharges it. Recirculating cooling system reduces water use by using the same water for several

cooling operations. The cooling water conservation approaches include evaporative cooling, ozonation and air heat exchange.

- (ii) **Rinsing:** A yet another common use of water in industry is application of deionized water for rinsing and cleansing in removing contaminants from products and equipments.
- (iii) **Landscape irrigations:** A yet one more way in which industries can minimize or reduce water use is through effective landscape irrigation with use of drip systems.

**Common Approaches to water efficiency measures in industry:**

These are given in table below:

**Table2: Water Efficiency Measures**

Approaches	Activity	Practices
1. Improved production planning	Minimizing water consumption	<ul style="list-style-type: none"> <li>• Reducing the products and equipments cleaning needs</li> </ul>
2. Good Housekeeping	Introducing resources conservation solutions in operation	<ul style="list-style-type: none"> <li>• avoiding spillage</li> <li>• minimizing transport of pollutants from one process to the next</li> </ul>
3. Process / equipment modification	Making of modification in process / equipments	<ul style="list-style-type: none"> <li>• Installing level-controlled valves to prevent tank overflows; closing open-ended cooling in heating systems.</li> </ul>
4. Replacing equipments / technology	Substituting technology option	<ul style="list-style-type: none"> <li>• Using high pressure cleaning equipment.</li> </ul>

The potential for water conservation in industry is enormous. In our case a ton of steel needs approximately 20 to 65 m<sup>3</sup> of water for its production as against Japan, USA, and Germany, where average is less than 6 m<sup>3</sup>. Similarly a ton of paper production requires 300-500 m<sup>3</sup> of water twice as much as used in European countries.

Given below are likely percent water savings caused with use of various water efficiency measures:

**Table 3: Industry Water Saving**

Efficiency Measures	Potential saving (%)
1. Closed loop reuse	Upto 90%



2. Closed loop recycling water treatment	60%
3. Automatic shut off valves	15%
4. High pressure, low volume upgrades	20%
5. Reuse of waste water	50%

## 8. Risk Management by Industry

Various components of water risk management by industries are:

- Industries to measure their current water use and waste water discharges
- Establish policy for water related issues
- Establish target for water use efficiency, conservation and minimizing water impacts and associated risks
- Implement best technologies for reducing water use and waste water discharges
- Publically report water use and impacts

## 9. Need for Industrial Water Policy

With water resources coming increasingly under stress, there is inescapable necessity and need for a separate water policy for industrial water use. There is none at the moment. Water supply and water prices are emerging as major constraints in the location of industries and growth of industrial units. Therefore, there is need to develop instruments and structure to reallocating water between sectors. We need to give relook to economic and no-economic options that might influence water policy.

## 10. Water Information Reporting by Industries

There has to be some system of reporting water use by industries as part of their water auditing exercise. Such information and data shall be of use for industry business managers, heads of concerned Ministry in the state government as wells as part of compliances by regulatory and advisory bodies.

The following aspects may be worth their consideration in generating periodic water use information by industries:

- The type of business
- The purpose for which water is used
- Water source and quantity withdrawal
- The specific industry processes using water
- The water self-serviced and or serviced by service providers

- waste water discharged
- The extent to which water is recycled i.e. the ratio of consumptive to non-consumptive use

We need to understand and be aware of various aspects of water and energy saving. Large energy is used to extract, treat and deliver water yet more energy is needed to use, collect and dispose it.

Water intensive industries need to report water information and its use as a practice and routine. They need to report on:

- Company water policy
- Company water management objectives
- Actual water use and waste water volume information
- Water related risks
- Water recycling data(rates)
- Waste water quality

### **11. Ground Water Recharge with Recycled Wastewater**

Whereas many countries are practicing ground water recharging schemes with use of recycled wastewater, such ventures are hampered in our case largely because of non-existence of guidelines for implementation of large scale ground water recharging operations. Recharge with recycled waste water have challenges on health considerations. Many questions, some of which are listed below, need to be addressed.

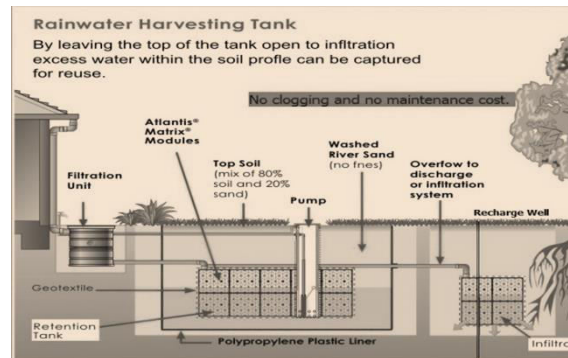
- What treatment processes would produce water suitable and compatible with aquiferwater under recharge?
- What are main health issues?
- How does water quality change during infiltration –percolation in vadose and ground water saturation zones?
- Whether infiltration – percolation as tertiary on a technology treatment would meet WHO's guidelines?
- Whether recharged water with use of treated recycled water could be used for both potable and non-potable uses?

### **12. Ground Water Recharge with use of Modular Rain Water Harvesting System**

The Rain Water Harvesting & recharging are being practiced in the country as per guidelines and designs of CGWB in the country. As against this the Modular tank water harvesting which is

an innovative design free from hazards of clogging and maintenance is now in vogue. This is illustrated in Fig.1 and is now being promoted in the country with technical / material support of Atlantis Australia by Great System Ltd., New Delhi. The system has been demonstrated in Faridabad and in Manesar areas of Haryana.

Fig.1: Ground Water Recharge using Modular Rain Water Harvesting System



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## What Ails Air Pollution in Delhi?

*Dr. Arvind Kumar\**

**D**elhi air pollution has become an increasingly grave, chronic, and recurring phenomenon, especially in winter, and the situation deteriorates with every passing year. As India is now strides ahead into the realm of technology watched by the entire world, the capital is fighting back against extremely hazardous levels of air that severely damage the health and well-being of millions of its people and go on to interfere with life. This pollution is caused due to diverse sources, stubble burning, vehicular emissions, industrial activities and construction dust along with the burning of firecrackers during various festivals.

The consequences of this type of pollution are grave. It can be seen in each category with higher rates of diseases like respiratory and cardiovascular sicknesses and nearly 1.2 million deaths in India each year are due to such bad air quality, as pointed out by the World Health Organization figures. Apart from health impacts, air pollution causes environmental damage, causing harm to biodiversity and ecosystems. The economic burden through healthcare costs and lost productivity is estimated at around \$30 billion annually. Ascertaining the causes of the mounting menace of air pollution in Delhi is equally important to discern the remedial measures to tackle this menace as well as to know the way forward.

## Causes

The major contribution to the air pollution in Delhi comes from neighbouring states like Punjab and Haryana, where stubble burning is common. The amounts of particulate matter and toxic gases emitted are immense. The effort to cut down on this practice, however, does not succeed as many farmers continue the practice because there is no affordable alternative to this practice. It contributes around 30% to the pollution during winter, because the smoke and particulate matter go into the city. Apart from stubble burning, vehicular emissions are also a large source of pollution in Delhi. More than 10 million registered



Figure 3 Image Source/Credit/Courtesy. Indian Express

vehicles are there. The transport sector contributes towards around 30% of city air pollution and emits nitrous oxides and PM. Although emission norms are tightening up and cleaner fuel promotion is underway, the high number of diesel vehicles continues to

degrade the quality of air.

Industrial activities are also one of the significant sources that contribute nearly 25% to the total level of pollution in the National Capital Region. The fast industrialization at the periphery releases harmful substances into the atmosphere. Construction work contributes nearly 30% to the PM (10) levels in Delhi due to high urbanization causing a vast amount of dust from construction sites. The bursting of crackers during Diwali etc., aggravates the problems of air pollution, showing a short-term peak impact, but a long-standing

impact on the health of those people living there, specifically with a history of other diseases such as respiratory complications. Meteorological conditions do not favour this season when the country faces the peak pollution crisis during winter time.

In the case of cold weather, with air that is practically stagnant, pollutants are confined near the ground, raising harmful particle concentrations. It thus produces dense smog with all serious health risks to man such as respiratory illnesses, cardiovascular diseases, and psychological disturbances. Burning solid waste is another source, making up 10 percent of Delhi's air pollution. The unscientific and ill-directed management of wastes and consequently, open burning heighten the issue. Henceforth, Delhi is receiving more and more sources to have an increased pollution degree- including stubble burn, emissions by vehicular medium, industrial operations and firecracker burn by building specks of dust. Therefore, this devastating effect of smog carries a poor quality of life to those whose area is experiencing bad climate conditions.

## **Remedial Measures**

To control air pollution effectively in Delhi, a multi-pronged approach is the need of the hour; that is, the involvement of the government, engagement of civil society, and public participation. For the government, the need is effective and strict enforcement of environmental regulations. It includes tighter emission standards for vehicles and industries, cleaner fuels, and investment in public transportation that reduces the number of vehicles on the road. The government should take up the issue of stubble burning by providing some affordable alternatives to farmers, such as crop residue



management technologies. Expansion of air quality monitoring stations and increasing data transparency can make easier tracking and management of levels of pollution.

Raising public concern is also the job of civil society organizations with awareness and policy advocacy; these organizations can promote awareness with public education on health hazards associated with air pollution; and can help develop advocacy on the development of greener practices and the means of implementation with collaboration efforts from the government and the private sector by proposing alternative community solutions in terms of tree planting or setting green zones. Other than this, civil society is a watchdog so that there are no violations in terms of policies followed and those accountable for lapses. Even the general public has their part to play in containing air pollution.



Figure 4 Image Source/Credit/Courtesy: Business Standard

The simple ways to attain this could be through creating eco-friendly habits like carpooling, public transportation, or reduction in private vehicle use. Proper management of waste and not setting garbage or firecrackers on fire will reduce further levels of pollution. Public participation in community projects, such as tree planting and clean-up campaigns, will improve air quality. In addition, citizens need to interact more with policy-makers, demanding stronger action against pollution.

However, what is needed is different stakeholders working towards an effective overall strategy to curb the growing menace of air pollution in

Delhi. This has to first begin with the government with more stringent emissions control regulations, curbing stubble burning, and an enhancement in public transport infrastructure. Concurrently, civil society has a role in developing this awareness and ensuring accountability among citizens, and there must be public involvement, but this is done on a personal and community basis, where each contributes positively to better air quality, in turn, ensuring their well-being.

### **The Way Forward**


Despite this technological superiority of India, the fight against air pollution in Delhi is very broad. The National Clean Air Program has been planned as a move to usher clean air into more than 100 of India's most polluted cities but stands badly funded and under-devised. Furthermore, issues related to air pollution cannot but spill over from one state to another due to the necessity of co-coordinated and collective responses from all concerned states involved. It is annually growing during winter months, and this is also one of the outcomes to be taken with serious intensive steps in the area. Improving norms will focus on stubble burning, vehicular emissions, industrial activities, and construction dust. These are essential activities to enhance the quality of air and health conditions of the public.

The government, civil society, and the citizens should work in tandem towards control of air pollution in Delhi. A combination of strict laws, public awareness of the problem, and sustainable measures in the long term can also improve air quality. It will, therefore, take the collective efforts of all stakeholders to achieve clean air in Delhi. Every citizen, organization, and governmental body needs to understand that they

have a role in this critical battle for health. Delhi will be working toward becoming a city without air pollution when it can develop a culture of environmental responsibility.

***\*Editor, Focus Global Reporter***

# Brackish Ground Water Desalination in Selected Areas of NCT Region Delhi

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**Abstract:** Brackish Ground Water (BGW) desalination is meant to improve both water quality and water supply. Desalination is a water treatment process measure through which Brackish Ground Water is to be converted into potable water for the benefit of community that have difficult and poor access to fresh water.

BGW can be desalinated using Membrane based technologies such as Reverse Osmosis (RO) & Electro-Dialysis (ED). Paper describes area in NCT Delhi which especially bear Brackish Groundwater at shallow depth immediately below static water level. Pilot feasibility study can be carried at investigation areas of NCT Delhi (4 areas in South District & 6 depression areas in other districts). With use of new technologies Desalinated BGW is considered as alternate source of water supply in NCT Delhi for use in water distressed needs.

## Introduction

Many rural & urban habitations which mainly use ground water as drinking water in India do not bear needed access to pure & drinkable water source. Brackish Ground Water bears TDS level of 1000 mg/l to 10,000 mg/l that underlies many areas in different states including areas of NCT Delhi. The paper proposes to outline the design needs of ground water purification System measures specific to NCT Delhi areas in view of the dwindling fresh groundwater sources & depleting ground water levels. The crucial & pivotal design requirements for Brackish Ground Water Purification System & their benefits are addressed.

Being very energy intensive & cost-prohibitive, BGG desalination processes are not widely used. The brine disposal after desalination is known to cause negative Environmental & Ecological

impacts. In any case, the growing stress and scarcity of fresh ground water resources demands feasibility of developing inland BGWs as Alternative Supplemental source of Water Supply.

**Objective& Scope of BGW Desalination**

BGW is branded as alternative to Fresh water in inland& coastal areas both for human consumption & for agricultural purposes:

- (i) Main objective& purpose is to convert BGW into Improved drinking water quality waters as supplement to Fresh Water by lowering its TDS level.
- (ii) Desalination is to provide fresh water also for agriculture. By and large, the objective of desalination are to improve water quality making it safe as drinking water.

Brackish water is mostly used as cooling water for Power-generation as well as in Mining & Oil & Gas industries.

Broadly, the desalination of BGW is to be done to yield Fresh Water for human use & for use in agricultural activities.

**Approach & Methodology for BGW Desalination**

Broadly, two main processes are to be adopted as given in table 1 below. These include:

- (i) Thermal Techniques
- (ii) Membrane Techniques

Table 1: Major Two-fold Desalination Technology & Process

<b>A. Thermal Techniques</b>	<b>B. Membrane Techniques</b>
To include	To include
<ul style="list-style-type: none"> <li>• Multi-stage Flash Distillation(MSF)</li> <li>• Multi-Effect-Distillation (MED)</li> <li>• Vapour Compression Distillation (VCD)</li> </ul>	<ul style="list-style-type: none"> <li>• Electro Dialysis (ED)</li> <li>• Electro- Dialysis-Reversal (EDR)</li> <li>• Reverse Osmosis (RO) &amp; Nano Filtration (NF)</li> </ul>

Both the above techniques require energy to operate & produce fresh water. Thermal technique uses heat & external energy to remove or lower TDS level of Brackish Ground Water. Membrane technique filter TDS from Ground Water. Of the above two methods, the RO is considered the most effective method for large scale desalination purposes. It can remove impurities from water to the extent of 99%. Various forms of desalination of water are energy-intensive.

Desalination of BGW is universally used process which produces Brackish Water of potable quality. Membrane are applied to Isolate TDS from ground water. Membrane method (RO) is

widely applied technology that uses high pressure to push water through membrane. Fed-water is pumped to Reverse Osmosis (RO) only after it's pre-treatment. Permeated water is made less corrosive with use of chemicals. The Concentration (brine) is discharged to sewers/evaporation ponds.

Investigative Description of Fresh-Saline Ground water Interface in NCT Delhi Areas:

The occurrence of Fresh- Saline interface in various area-sectors of NCT Delhi is outlined below:

Dwarka Area, NCT Delhi: Fresh-Saline Groundwater Interface:

Based on literature review and reconnaissance survey work, the following Fresh-Saline interface occurrence features are outlined as below: Generally, it is found that the quality of ground water deteriorates with depth in the region.

Dwarka Area, NCT Delhi: - Fresh-saline Groundwater Interface: Details are outlined below.

Quality of groundwater generally deteriorates below 35 to 37m depth.

- (i) Around Sewage Treatment Plant in Sector 16D, the possibility of Fresh-marginally saline Ground water interface exist down to 37m depth.
- (ii) Area adjacent to Najafgarh&Palam Drains around Sector 18 & 19 (Goyala&Kakraula ) bear saline water between 30 to 50m depth.
- (iii) In South Pochanpur village, the depth to Fresh-Saline water interface is expected at 33m depth, whereas in North Pochampur area in Sector 23, it is within 5m of land surface.
- (iv) At Subash Institute of Technology in Sector 3, ground water salinity is expected to occur at shallow level of 5m below ground level.
- (v) In Sector 4 area, the Saline ground water is expected to occur right from top of the soil in the area.
- (vi) Overall the depth to Fresh Saline water interface in Dwarka area varies between 30 to 40m (bgl) in Western and Southern part of Najafgarh&Palam Drains in Sectors, 9, 10, 16D, 18& 19 near Goyala&Kakraula villages.

### **Prospects of occurrence of BGW**

Based on Hydro-geophysical Investigation Criteria supported by borehole data, the prospects of occurrence of Saline-ground water below Fresh Ground water in Four Depression areas of South-west Delhi District are brought out and given as follows:-

Prospects of occurrence of Brackish –Saline Ground Water below Fresh water in Bamnoli, Pochanpur, Kakrouli and Gummanhera areas along Najafgarh Drain are given in table 2 below:



Table 2: Occurrence of Brackish Ground water below Fresh Ground water

Location of Area	DTW m(BGL)	Depth Range of Fresh Groundwater	Thickness below Water Table(m)
1. Bamnoli	9	9-50	41
2. Pochanpur	7	7-65	59
3. Kakrola	11	11-32	21
4. Gummanhera	10-50	10.50-31	20

From the table as above, it can be made out that Brackish Ground water in the four depression areas possibly occurs to depth level of 31m to 50m.

#### **Possible Occurrence of BGW in Six Studied Areas in Districts of**

Based on literature review and reconnaissance survey done in NCT Delhi Region, Six-Depression areas other than 4-Depression areas of Dwarka region, described to above, and having prospects of occurrence of BGW are Hydro-geophysically investigated.

Conductivity –model of ground –based geophysical resistivity soundings performed and brief outcome is given in table 3 below.

Depth of occurrence of BGW is investigated to occur within 10-20m depth below land surface.

Possible depth of occurrence of BGW Horizons at Six-studied areas in the districts of Southeast, East, Northwest and West Districts is given in table 3 below.

Table 3: Outcome of BGW Occurrence based on Resistivity data

Location	DTW(m,bgl)	Depth of BGW Horizon(Range in mts)	Thickness (m) B1. below Water table
1. Sonath	5	5-10	5
2. Kanjhawal	6	6-9	3
3. Sonia Vihar	5.50	5.4-9	3.5
4. Sarita Vihar	16	16-20	4
5. Janakpuri	8	8-15	7
6. Sarai-Kalekhan	9	9-12	3

#### **International Review of BGW Desalination:**

Various Countries which view Desalination of Brackish Ground Water as increasable & main element of strategy to enhance supply levels of drinkable quality water are described here under:

- (i) Algeria have recently considered building of desalination plants to treat BGW of small towns & villages.
- (ii) Tunisia has considerable experience in BGW desalination with use of Reverse Osmosis & Electro-dialysis techniques.
- (iii) India which have BGW regions & have also plan to set-up RO-based Brackish Water plants.
- (iv) Uzbekistan is also setting up desalination plants for provisioning of drinkable water supplies to Rural & Municipal areas.
- (v) Brackish Ground Water & Brackish Surface water are desalinated in California. BGW has been desalinated at Death Valley in California. BGW is a source for two-thirds of California's desalinated water.
- (vi) United Arab Emirates, Saudi Arabia & Israel have desalinated facilities. Saudi Arabia has largest desalination facilities in the world, where shoaibea & Al jubail Complex produces around 800 MLD of water.
- (vii) Top Ten countries that produce & use desalinated water are: UAE, USA, Saudi Arabia, China, Australia, Spain, Kuwait, Algeria, Israel, and Egypt.
- (viii) Desalinated Technology for Brackish Water in Western Australia is RO System. Desalination water makes up about 4% of Australia's total water supply.
- (ix) Desalination of Brackish Water is also on the rise in Netherlands & Belgium. Due to drought-stress Agriculture & Drinking Water Companies are switching over to Alternative Fresh Water Sources.
- (x) In South Africa, BGW desalination is prevalent Water Supply, source which is treated through use of RO & ED Technologies.
- (xi) Currently RO-technique is in use in Aegentina as well as in Northeast Region of Brazil to desalinate ground water.
- (xii) In South America, China & Peru adopt desalination technology with use of RO System.

#### **Future Work:**

Access to potable water supply is pre-requisite for Public Health & Communities that depend on use of Safe Water Supply.

In order to make water scarcity issue resilient in NCT Delhi areas, BGW desalination needs to be planned & adopted as Brackish ground water resources belts in various districts of Delhi. Specific BGW Desalination plants are to be located & set-up for BGW treatment purposes & its use as Alternative & Supplemental source of "Future water" in NCT Delhi water stressed areas.

New desalination measures would certainly release pressure on fresh water stressed areas of NCT Delhi. The desalination of BGW in NCT Delhi has become inescapable necessity of time

formaking NCT Delhi as BGW Desalination Leader. Desalination of BGW world become a Buffer to makingdrinking water supply resilient in NCT Delhi regions.

Future lies in preparing BGW Revival Program via Feasibility studies.

### **Conclusions& Recommendations**

Brackish Ground water Desalination is increasingly becoming a major & alternative source of water supply particularly in in-land regions. The investigative study suggests Reverse Osmosis (RO) Method to be relatively most optimal method of water desalination with a view toextracting somewhat high quality water from Brackish Ground Water areas in NCT Delhi regions, where fresh water supply is increasingly coming under stress. RO-method, therefore, should be used as Brackish Water treatment desalination process by which it can be transformed to potable water for urban sub-urban Communities in NCT Delhi which do not have reasonable access to fresh water. RO &Ultero-Filter (UF) are to be regarded as model desalination measures to provide reliable source of fresh water. Municipalities are to plan construction of Treatment plants for the purpose of BGW desalination where such facilities are required to be created.

Brackish Water desalination need energy in the range of 0.5-2.5 KWH/m<sup>3</sup> due to low TDS levels in comparison to sea-water salinity. Being less saline than sea water, BGW require less energy to remove salinity & enabling high order recovery.

Brackish ground water when pumped throughBore-wells is to be forced through RO-Membrane in removing of water salinity. Water is to be then disinfected & pH have to be adjusted to fresh & drinkable quality water.

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## ARTICLE PUBLISHED

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Article on "Will we be ever able to De-Plastify our World?" published in Law Street Journal.

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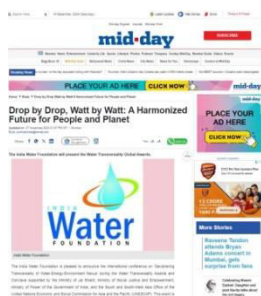


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Article on "Towards Sustainable Agricultural Water Management" published in ICID News 2024 1st and 2nd Quarter Issue

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## Innovations and leadership recognised at Water Transversality Global Awards and Conclave

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The Water Transversality Global Awards and Conclave, organised by the India Water Foundation, was inaugurated on December 5 in New Delhi. Dignitaries included Minister of State for Corporate Affairs, Highways and Transport, Hash Malhotra, President of the India Water Foundation, Arvind Kumar, Director of the SSWA Office of UNESCAP, Mikiko Tanaka, and Chief Postmaster General of the Delhi Circle, Akhlesh Kumar Pandey. The Minister of State for Jal Shakti, Raj Bhushan Chaudhary, was the chief guest at the valedictory and awards ceremony. On the occasion, over 60 Water Transversality Global Awards were presented.

Leadership awards were given to organisations such as WAPCOS, DFCCIL and GAIL. India Lifetime Achievement Awards honoured figures like President of the World Water Council, Loc Fauchon; Rector of IHE Delft Institute for Water Education, Eddy Moors; Director of ISID, Nagesh Kumar; CMD of DFCCIL, Parveen Kumar and Chairman of Prasar Bharati, Navneet Sehgal.

The two-day event included 18 sessions and parallel side events, with knowledge partners like UNOPS, GIZ, IUCN, ISID, IHE Delft, ICID, the World Water Council, the Embassy of Israel and GASP.

Collaborating partners included Gail India, Oil India, Anandita Medicare, Indian Oil, HPCL, BPCL, WAPCOS Limited, and Dedicated Freight Corridor Limited.

The dignitaries released **My Friday Musings** by Dr Arvind Kumar. A report on Accelerating SDG 6 in the SSWA region for UN ESCAP was also released.

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

By Anirudh  
December 10, 2024 3:49 pm Asia/Kolkata/IST, Updated 4 days ago

New Delhi, (09/12/2024) Sh. Navneet Sehgal, Chairman, Prasar Bharti Bestowed with Lifetime achievement awards along with dignitaries like Loc Fauchon, President World Water council, Prof. Eddy Moors, Rector, IHE Delft Institute of Water Education, Satya Tripathi, Secretary General Global Alliance for a Sustainable Planet, Dr Nagesh Kumar, Director Institute for Studies on Industrial Development, Parveen Kumar, CMD, Dedicated Freight Corridor Corporation Limited, and few others.

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Water Transversality Awards and Conclave Celebrates Innovation: presenting over 60 Awards

New Delhi, (09/12/2024) Sh. Hash 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 9th 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. Akhlesh Kumar Pandey, Chief Postmaster 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, My Friday Musings, a compilation of his Friday Blog and they also presented a report on Accelerating SDG 6 in SSWA region by Dr. Arvind Kumar of the ten countries of South and South West Asia region for the UN ESCAP. The honorable minister inaugurated Dr. Arvind Kumar for this...

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### Others Specials

## Honoring Global Leaders For Lifetime Contributions To Sustainability

**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 WAPCOS, DFCCL, 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, Rector, IHE Delft Institute of Water Education bestowed with Lifetime achievement awards along with dignitaries like, Loic Fauchon, 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 Bharti 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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## जल, पर्यावरण व ऊर्जा के संतुलित प्रयोग के प्रति जागरूकता आवश्यक : आचार्य लोकेश

### पर्यावरण के संरक्षण व संवर्धन से ही सतत भविष्य का निर्माण संभव : नवनीत सहगल

नई दिल्ली, 6 दिसंबर (आईएनए/एनए)। अखिल विश्व भारती एवं विश्व शांति के संस्थापक जैन आचार्य लोकेशजी ने प्रसार भारती के चैरमैन श्री नवनीत सहगल जी के अध्यक्षता में आयोजित, जैन भारती संस्थान के उपाध्यक्ष श्री अरविधर कुमार जी की अध्यक्षता में इंडिया वाटर फाउंडेशन द्वारा डॉ अमेजकार इंटरनेशनल सेक्टर में आयोजित जल-ऊर्जा-पर्यावरण पर आयोजित अंतर्राष्ट्रीय सम्मेलन को संबोधित किया। इनके अध्यक्ष प्रमोद कुमार जी की अध्यक्षता में आयोजित सम्मेलन में अंतर्राष्ट्रीय जल, पर्यावरण व ऊर्जा के संरक्षण व संवर्धन के अनेक पहलुओं पर बहुपक्षीय संवाद हुआ। इंडिया वाटर फाउंडेशन के अध्यक्ष डॉ अरविधर कुमार ने आचार्य लोकेश जी की वहीदा में प्रसार भारती का सोलैरी पैनल का उद्घाटन किया। विश्व शांतिवर्ष आचार्य लोकेश ने कहा कि विश्व जनजातों पर्यावरण को संरक्षित से जुटा रहा है। पर्यावरण विचार रहे हैं, लगभग सब रहा है, पर्यावरण प्रदूषण बढ़ रहा है, ओजोन परत में छेद हो गया है, ग्लोबल वार्मिंग की पर्यावरणीय दिशाओं के संदर्भ में अनेक वैज्ञानिक प्रयोगों को गुप्तता प्रेषण रहा है। जैन दर्शन कहता है कि केवल मनुष्य और पशु ही नहीं, बल्कि पृथ्वी, जल, वायु, अग्नि और वनस्पति भी जीवित प्राणी हैं। जलजीवितकण विज्ञान कहता है कि प्राकृतिक को अत्यधिक पर्यावरण नहीं बनाया जाता, ऊर्जा व पर्यावरण का संतुलित प्रयोग करना चाहिए, इसके लिए जागरूकता पैदा करने आवश्यक है। प्रसार भारती के चैरमैन श्री नवनीत सहगल ने कहा कि वनस्पति और अन्य प्राणी पृथ्वी के लिए सबसे महत्वपूर्ण संरक्षण पर्यावरण अवस्थान को है। स्वच्छ जल, वृद्ध पर्यावरण व ऊर्जा के अभाव के अभाव ऊर्जा संकट नहीं हो पा रही है। पर्यावरण में संतुलन बनाए रखने के लिए सतत जागरूकता तथा सतत भविष्य प्रयत्न करने होंगे। इनके अध्यक्ष प्रमोद कुमार जी की अध्यक्षता में आयोजित सम्मेलन में अंतर्राष्ट्रीय जल, पर्यावरण व ऊर्जा के संरक्षण व संवर्धन के अनेक पहलुओं पर बहुपक्षीय संवाद हुआ। इंडिया वाटर फाउंडेशन के अध्यक्ष डॉ अरविधर कुमार ने आचार्य लोकेश जी की वहीदा में प्रसार भारती का सोलैरी पैनल का उद्घाटन किया। विश्व शांतिवर्ष आचार्य लोकेश ने कहा कि विश्व जनजातों पर्यावरण को संरक्षित से जुटा रहा है। पर्यावरण विचार रहे हैं, लगभग सब रहा है, पर्यावरण प्रदूषण बढ़ रहा है, ओजोन परत में छेद हो गया है, ग्लोबल वार्मिंग की पर्यावरणीय दिशाओं के संदर्भ में अनेक वैज्ञानिक प्रयोगों को गुप्तता प्रेषण रहा है। जैन दर्शन कहता है कि केवल मनुष्य और पशु ही नहीं, बल्कि

रविवार

Beach Wear

## ट्रांसवर्सलिटी ग्लोबल अवार्ड्स और कॉन्क्लेव: जल, ऊर्जा और पर्यावरणीय स्थिरता की दिशा में एक निष्पत्तिक कदम

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

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नई दिल्ली, 6 दिसंबर (एनएनए/एनए)। अखिल विश्व भारती एवं विश्व शांति के संस्थापक जैन आचार्य लोकेशजी ने प्रसार भारती के चैरमैन श्री नवनीत सहगल जी के अध्यक्षता में आयोजित, जैन भारती संस्थान के उपाध्यक्ष श्री अरविधर कुमार जी की अध्यक्षता में इंडिया वाटर फाउंडेशन द्वारा डॉ अमेजकार इंटरनेशनल सेक्टर में आयोजित जल-ऊर्जा-पर्यावरण पर आयोजित अंतर्राष्ट्रीय सम्मेलन को संबोधित किया। इनके अध्यक्ष प्रमोद कुमार जी की अध्यक्षता में आयोजित सम्मेलन में अंतर्राष्ट्रीय जल, पर्यावरण व ऊर्जा के संरक्षण व संवर्धन के अनेक पहलुओं पर बहुपक्षीय संवाद हुआ। इंडिया वाटर फाउंडेशन के अध्यक्ष डॉ अरविधर कुमार ने आचार्य लोकेश जी की वहीदा में प्रसार भारती का सोलैरी पैनल का उद्घाटन किया। विश्व शांतिवर्ष आचार्य लोकेश ने कहा कि विश्व जनजातों पर्यावरण को संरक्षित से जुटा रहा है। पर्यावरण विचार रहे हैं, लगभग सब रहा है, पर्यावरण प्रदूषण बढ़ रहा है, ओजोन परत में छेद हो गया है, ग्लोबल वार्मिंग की पर्यावरणीय दिशाओं के संदर्भ में अनेक वैज्ञानिक प्रयोगों को गुप्तता प्रेषण रहा है। जैन दर्शन कहता है कि केवल मनुष्य और पशु ही नहीं, बल्कि

दैनिक

## भास्कर दूत

भारत का सबसे बड़ा दैनिक

भारत का सबसे बड़ा दैनिक

## इंडिया वाटर फाउंडेशन द्वारा अंतर्राष्ट्रीय दो दिवसीय सम्मेलन 5 और 6 दिसंबर को

नई दिल्ली, 6 दिसंबर (एनएनए/एनए)। अखिल विश्व भारती एवं विश्व शांति के संस्थापक जैन आचार्य लोकेशजी ने प्रसार भारती के चैरमैन श्री नवनीत सहगल जी के अध्यक्षता में आयोजित, जैन भारती संस्थान के उपाध्यक्ष श्री अरविधर कुमार जी की अध्यक्षता में इंडिया वाटर फाउंडेशन द्वारा डॉ अमेजकार इंटरनेशनल सेक्टर में आयोजित जल-ऊर्जा-पर्यावरण पर आयोजित अंतर्राष्ट्रीय सम्मेलन को संबोधित किया। इनके अध्यक्ष प्रमोद कुमार जी की अध्यक्षता में आयोजित सम्मेलन में अंतर्राष्ट्रीय जल, पर्यावरण व ऊर्जा के संरक्षण व संवर्धन के अनेक पहलुओं पर बहुपक्षीय संवाद हुआ। इंडिया वाटर फाउंडेशन के अध्यक्ष डॉ अरविधर कुमार ने आचार्य लोकेश जी की वहीदा में प्रसार भारती का सोलैरी पैनल का उद्घाटन किया। विश्व शांतिवर्ष आचार्य लोकेश ने कहा कि विश्व जनजातों पर्यावरण को संरक्षित से जुटा रहा है। पर्यावरण विचार रहे हैं, लगभग सब रहा है, पर्यावरण प्रदूषण बढ़ रहा है, ओजोन परत में छेद हो गया है, ग्लोबल वार्मिंग की पर्यावरणीय दिशाओं के संदर्भ में अनेक वैज्ञानिक प्रयोगों को गुप्तता प्रेषण रहा है। जैन दर्शन कहता है कि केवल मनुष्य और पशु ही नहीं, बल्कि



# वॉटर ट्रांसवर्सलिटी ग्लोबल अवॉर्ड्स एंड कॉन्क्लेव का आयोजन

नई दिल्ली, करंट क्राइम। वॉटर ट्रांसवर्सलिटी ग्लोबल अवॉर्ड्स एंड कॉन्क्लेव का आयोजन नई दिल्ली में, बल्कि एक जटिल पहली का संभावित उत्तर है, जहाँ पानी, ऊर्जा, पर्यावरण और स्वास्थ्य केवल हिस्से नहीं हैं, बल्कि एक पूर्ण ढांचा है। यह एक परिवर्तनकारी संसाधन की बुनियादी परस्पर संबंधता 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 एक्ज्यूटिव डायरेक्टर का निदेशक सूत्री मिचिको तानाका और दिल्ली सरकार के मुख्य डाकपाल कर्नल अखिलेश कुमार पांडे



द्वारा किया गया।

माननीय अतिथियों ने डॉ. अरविंद कुमार की पुस्तक 'इससे बड़ा फ्रेमवर्क' 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। वॉटर ट्रांसवर्सलिटी ग्लोबल अवॉर्ड्स एंड कॉन्क्लेव का आयोजन इंडिया वॉटर फाउंडेशन द्वारा भारत सरकार के निवृत्त, जल शक्ति, सामाजिक न्याय और अधिकारिता मंत्रालय और एशिया-पश्चिम क्षेत्र के लिए संयुक्त राष्ट्र आर्थिक और सामाजिक आयोग के दक्षिण और दक्षिण-पश्चिम एशिया कार्यालय के सहयोग से किया गया।

# वॉटर ट्रांसवर्सलिटी ग्लोबल अवॉर्ड्स एंड कॉन्क्लेव का मध्य आयोजन किया

भारत सरकार द्वारा वॉटर ट्रांसवर्सलिटी ग्लोबल अवॉर्ड्स एंड कॉन्क्लेव का आयोजन नई दिल्ली में, बल्कि एक जटिल पहली का संभावित उत्तर है, जहाँ पानी, ऊर्जा, पर्यावरण और स्वास्थ्य केवल हिस्से नहीं हैं, बल्कि एक पूर्ण ढांचा है। यह एक परिवर्तनकारी संसाधन की बुनियादी परस्पर संबंधता 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 एक्ज्यूटिव डायरेक्टर का निदेशक सूत्री मिचिको तानाका और दिल्ली



द्वारा किया गया।

माननीय अतिथियों ने डॉ. अरविंद कुमार की पुस्तक 'इससे बड़ा फ्रेमवर्क' 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

की पहल के लिए डॉ. अरविंद कुमार को बधाई दी। वॉटर ट्रांसवर्सलिटी ग्लोबल अवॉर्ड्स एंड कॉन्क्लेव का आयोजन इंडिया वॉटर फाउंडेशन द्वारा भारत सरकार के निवृत्त, जल शक्ति, सामाजिक न्याय और अधिकारिता मंत्रालय और एशिया-पश्चिम क्षेत्र के लिए संयुक्त राष्ट्र आर्थिक और सामाजिक आयोग के दक्षिण और दक्षिण-पश्चिम एशिया कार्यालय के सहयोग से किया गया।



## रविवार

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### ट्रांसवर्सलिटी ग्लोबल अवॉर्ड्स और कॉन्क्लेव: जल, ऊर्जा और पर्यावरणीय स्थिरता की दिशा में एक निर्णायक कदम

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

11 December 8, 2024



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



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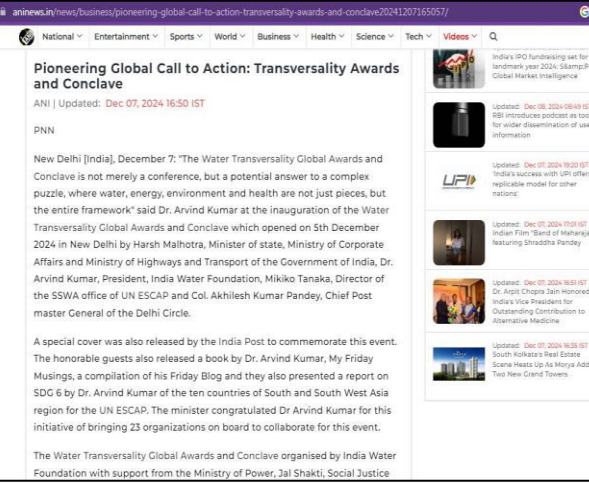
नई दिल्ली में वॉटर ट्रांसवर्सलिटी ग्लोबल अवॉर्ड्स और कॉन्क्लेव के उद्घाटन समारोह में शामिल हुए वॉटर ट्रांसवर्सलिटी ग्लोबल अवॉर्ड्स एंड कॉन्क्लेव के अध्यक्ष डॉ. अरविंद कुमार, यूएन ईएससीएपी के एक्ज्यूटिव डायरेक्टर का निदेशक सूत्री मिचिको तानाका और दिल्ली सरकार के मुख्य डाकपाल कर्नल अखिलेश कुमार पांडे

जल, ऊर्जा और पर्यावरण के बीच संबंधों को पहचानने का निर्णायक कदम। 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 एक्ज्यूटिव डायरेक्टर का निदेशक सूत्री मिचिको तानाका और दिल्ली सरकार के मुख्य डाकपाल कर्नल अखिलेश कुमार पांडे

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anewsline/news/business/pioneering-global-call-to-action-transversality-awards-and-conclave/20241207165057/

### Pioneering Global Call to Action: Transversality Awards and Conclave

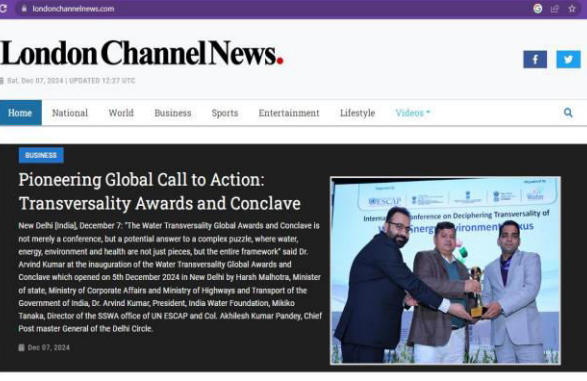
ANI | Updated: Dec 07, 2024 16:50 IST

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 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, My 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 minister congratulated Dr Arvind Kumar for this initiative of bringing 23 organizations on board to collaborate for this event.

The Water Transversality Global Awards and Conclave organised by India Water Foundation with support from the Ministry of Power, Jal Shakti, Social Justice



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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 Post master General of the Delhi Circle.




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### GLOBAL COOPERATION VIA WATER TRANSVERSALITY GLOBAL AWARDS AND CONCLAVE

Naman Bansal | December 19, 2024 | 16:50

The Water Transversality Global Awards and Conclave organised by India Water Foundation with support from Ministry of power, Jal Shakti, Social Justice and Employment of the Government of India and South 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 Shero, UN Resident Coordinator of United Nations in India, Sh. Armit Ghosh, Additional Secretary, Ministry of Social Justice and Employment, Government of India, Dr. Sachin Chaturvedi, Director General, RES and Ms. Mikiko Tanaka, 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 Post master General of the Delhi Circle.

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# IWF's WATER TRANSVERSALITY GLOBAL AWARD GALLERY



















# JURY AWARD



## FRIDAY BLOGS

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The world is at a critical juncture, with global challenges ranging from climate change, health crises, poverty, geopolitical tensions, and growing inequality demanding urgent, coordinated actions. In this context, the Summit of the Future, a key event organized by the United Nations, brought together world leaders, thought .....read more

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India's ambition to become a \$10 trillion economy is both achievable and necessary to raise the standard of living for its massive population. The country has immense potential across sectors like IT, manufacturing, agriculture, and renewable energy. There is a need for massive investments in transport (roads, railways, ports.....Read more

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### **Rethinking Bridging Borders: Water for a Peaceful and Sustainable Future**

The Stockholm World Water Week 2024, held from August 25-29, 2024, brought together global stakeholders to address pressing water-related challenges. Organized by the Stockholm International Water Institute (SIWI), this year's theme- Bridging Borders: Water for a Peaceful and Sustainable Future, emphasized ,.....read more

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## **Enroute to the Viksit Bharat of my Dreams**

Since its independence India has embarked on a remarkable journey of transformation. From being a newly sovereign nation emerging from the shadows of colonial rule to becoming one of the fastest-growing major economies in the world, India's progress over the past .....read more

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The South Asian political landscape has always been volatile and has become increasingly so post recent coup in Bangladesh. These developments have vast geopolitical and geo-economic implications not only for that country.....Read more

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## **Rethinking Systemic Approach for Drainage & Sewerage?**

The first few days of monsoon every year feel like dejavu with submerged cities and water logging on repeat. We are living in unprecedented times of pollution, climate change, disasters but we are living through these crises. However, when disasters occur due to human interventions and which can be averted .....Read more

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## **Allocations for Environment and Water: Towards Viksit Bharat?**

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## **Reappraising the 2030 deadline in Achieving SDGs?**

The world gathers at New York, lamenting the lack of progress on various Sustainable Development Goals (SDGs), including Poverty, hunger and climate change it once again reaffirms its shared commitment to eradicate poverty and end hunger at the High Level Political Forum 2024 which took place from 8-17.....Read more

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## **At the threshold of Disaster: Who's Accountable for Sustainable Habitat?**

Like all developing countries India is urbanizing rapidly. By 2036, its towns and cities will be home to 600 million people, or 40 percent of the population, up from 31 percent in 2011, with urban areas contributing almost 70 percent to GDP. Unplanned urbanization is the new normal for most Indian cities and most Global .....Read more

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## **Free Water- Free Food- Free Electricity: What Next?**

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## **Reweighing Complete Water Security from Source to Tap?**

Currently most countries are placing unprecedented pressure on water resources. Water, air and birds know no boundaries, so we must know no boundaries in our efforts to address this pressure. It's all a web, it's connected, and we have to address it in a comprehensive way. The global population is growing fast, and estimates show that with.....Read more

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## **Food and Water Insecurity: The Domino effect of Climate Change?**

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## **Achieving Complete Water Security: A myth or Reality?**

Climate change makes extreme heat stretches more common, longer, and more severe, scientists warn of impacts that could put more than a billion lives at risk. Since last summer in 2023 which was the warmest year on record globally we never thought the national capital, Delhi will break all the records by touching a scorching temperature of 52.3.....Read more

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When the world is battling the triple planetary crisis of pollution, climate change and biodiversity loss there is another silent crisis marring our land ecosystems that is desertification. While the term may bring to mind the windswept sand dunes of the Sahara or the vast salt pans of the Kalahari, it's an issue that reaches far beyond.....Read more

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## **Water Transversality Systemic Approach: What it Entails?**

We are all running on the road to achieve the 2030 agenda timely, however as of now only 15% of the global targets are on track, and many are regressing. Some experts and policymakers are still ensuring that we can achieve these targets timely and water.....read more

<https://www.focusglobalreporter.org/water-transversality-systemic-approach-what-it-entails/>

## **Food Adulteration: Isn't it the biggest crime against Humanity?**

Healthy and clean environment, clean water and sanitation are basic human rights of all citizens of the world and so is the right to nutritious and healthy food for sustenance. India's Supreme Court ruled that the right to life guaranteed under the country's constitution also.....Read more

<https://www.focusglobalreporter.org/food-adulteration-isnt-it-the-biggest-crime-against-humanity/>

## **Are Intellectual Property Rights are a barrier in achieving SDGs?**

This is the age of information revolution and internet has made the world come to us on a platter, with it comes challenges like idea theft or plagiarism. Plagiarism has become a much greater issue over the last thirty years because the rise of the internet makes it.....read more

<https://www.focusglobalreporter.org/are-intellectual-property-rights-are-a-barrier-in-achieving-sdgs/>

## **Shouldn't we Unfold our Quest towards a Healthy Planet?**

Whether it's the effects of climate change or deforestation, our planet is facing some of the biggest challenges generations has ever known. Many climate-related records have been broken by enormous margins in 2023 and as temperatures are creeping up.....Read more

<https://www.focusglobalreporter.org/shouldnt-we-unfold-our-quest-towards-a-healthy-planet/>

## **The essentiality of the Global Plastic Treaty Negotiations**

The triple planetary crisis of climate change, nature and biodiversity loss and pollution and waste is upon us and bearing down harder every year. If we do not act strongly, this crisis will crush our chances of delivering on the Sustainable Development Goals. We can forget about ending hunger and poverty, delivering peace and equity,.....Read more

<https://www.focusglobalreporter.org/the-essentiality-of-the-global-plastic-treaty-negotiations/>

## **Is People First Approach an enabler for regional harmony and achieving Climate Targets?**

Climate scientists predicted that April 2024 will likely be the hottest April ever recorded globally. This would make it the 9th consecutive monthly temperature record as per data from the US National Oceanic and Atmospheric Administration. The abnormal heat.....Read more

<https://www.focusglobalreporter.org/is-people-first-approach-an-enabler-for-regional-harmony-and-achieving-climate-targets/>

## **Swerving Growing Food Insecurity**

There is no food security without peace, and no peace without food security, it is no coincidence that half of the world's hungry people live in conflict-affected zones. Out of 258 million people facing high levels of acute food insecurity, over two-thirds — 174 million — are there because of climate and conflict. The world cannot afford to.....Click here

<https://www.focusglobalreporter.org/swerving-growing-food-insecurity/>

## **Water Transversality for Peace**

Water is a basic human right of every individual inhabiting the planet, without water life is impossible. Access to safe water is imperative for civilizations to prosper. However, conflicts over water are continuing to pose severe risks to.....Click here

<https://www.focusglobalreporter.org/water-transversality-for-peace/>

## **Preserve and Conserve Rivers to attain their Pristine Glory**

Rivers are the lifeline of every country, similarly for millions of Indians through millennia. It's a country which also derives its modern name India from the river Indus. While some rivers are worshipped as deities, others sustain lives around them. In either .....Click here

<https://www.focusglobalreporter.org/preserve-and-conserve-rivers-to-attain-their-pristine-glory/>

## **How UNEA 6 outcomes are relevant for the 55th UN HRC?**

On the face of the triple planetary crisis of climate change, biodiversity loss and pollution, the world has not just an environment to-do list but an environment must-do list. There is growing recognition that the environment needs to be.....Click here

<https://www.focusglobalreporter.org/how-unea-6-outcomes-are-relevant-for-55th-un-hrc/>

## **The quest for Human Rights in a polarized World**

Human rights reflect shared values and apply to every human being regardless of the specific laws that their country may hold. Such values also apply to human beings of any race, religion or any other identity marker. But is it being upheld .....Click here

<https://www.focusglobalreporter.org/the-quest-for-human-rights-in-a-polarized-world/>

## **Tackling Agrarian Crisis for Viksit Bharat**

Agriculture contributes 16% of the overall GDP and accounts for the employment of approximately 52% of the Indian population. Rapid growth in agriculture is essential not only for self-reliance but also for earning valuable foreign.....Click here

<https://www.focusglobalreporter.org/tackling-agrarian-crisis-for-viksit-bharat/>

## **Accelerating Actions to Address Planetary Crises**

The United Nations Environment Assembly is the world's highest-level decision-making body for matters related to the environment. It sets priorities for global environmental policies and international environmental law. Understanding these challenges and preserving and rehabilitating our environment is at the heart .....Click here

<https://www.focusglobalreporter.org/accelerating-actions-to-address-planetary-crises/>

## **Harnessing the Multidimensionality of Wetlands for Human Wellbeing**

In an era of planetary crises and increasing environmental challenges, finding innovative and sustainable solutions to safeguard the health of our planet and promote human well-being is paramount and wetlands play.....Click here <https://www.focusglobalreporter.org/harnessing-the-multidimensionality-of-wetlands-for-human-wellbeing/>

## **World Economic Forum: Swanky gathering or Actionable Commitments too?**

Our planet is heading for a scorching three-degree increase in global temperatures. Droughts, storms, fires and floods are pummeling countries and communities. Before travelling to the United Nations climate talks at COP28 in Dubai,.....Click here <https://www.focusglobalreporter.org/world-economic-forum-swanky-gathering-or-actionable-commitments-too/>

## **Climate Finance at COP28: Is it old wine in a new bottle?**

In 2023 most of the planet including the oceans experienced above-average or record-breaking heat, with more intense rainfall and catastrophic flooding and damage. Changing rainfall patterns led to massive forest fires scorching millions of hectares.....Click here <https://www.focusglobalreporter.org/climate-finance-at-cop28-is-it-old-wine-in-new-bottle/>

## **IME Corridor: Will change World order or a missed opportunity?**

Economic corridors are infrastructure projects designed to enhance connectivity and facilitate economic development between different regions or countries involving the development of transportation and logistics infrastructure,....Click here

<https://www.focusglobalreporter.org/ime-corridor-will-change-world-order-or-a-missed-opportunity/>

## **Envisioning a paradigm shift in the Agriculture sector!**

Agriculture represents a crucial sector that underpins our population growth and well-being. It has been providing nourishment for generations. According to the United Nations, agricultural development is one of the most powerful tools to combat extreme poverty, boost prosperity, and feed the global population. India, is a predominantly.....Click here

<https://www.focusglobalreporter.org/envisioning-a-paradigm-shift-in-agriculture-sector/>

## **The biggest COP ever concluded without a consensus**

The 28th edition of the Conference of the Parties (COP 28) to the United Nations Framework Convention on Climate Change (UNFCCC) unfolded in the dynamic city of Dubai, UAE, spanning from November 30 to December 12, 2023. Notably.....click here <https://www.focusglobalreporter.org/biggest-cop-ever-concluded-without-consensus/>

## **Loss and Damage Fund an Edifice for Resilience?**

In an agreement on a loss and damage fund to help developing countries cope with the effects of climate change, COP28 began with a historic landmark deal. Developing nations that have contributed the least to the climate crisis .....Click here

<https://www.focusglobalreporter.org/loss-and-damage-fund-an-edifice-for-resilience/>

## **Redefining Climate Actions and Commitments at COP 28**

A landmark deal to help the world's poorest and most vulnerable countries pay for the irreversible impacts of climate disaster was agreed on the first day of the COP28 UN summit. Host countries UAE and Germany both pledged \$100m.....Click here <https://www.focusglobalreporter.org/redefining-climate-actions-and-commitments-at-cop-28/>

## **Human Rights: A Privilege or What Else?**

Human rights are rights we have simply because we exist as human beings – they are not granted by any state. These universal rights are inherent to us all, regardless of nationality, sex, national or ethnic origin, colour, religion, language,.....Click here <https://www.focusglobalreporter.org/ending-conflict-environment-and-human-rights-violations/>

## **G20 Leaders Delhi Declaration: Setting a Precedent for COP 28?**

Summer 2023's record-setting temperatures aren't just a set of numbers – they result in dire real-world consequences. From sweltering temperatures in USA, to wildfires across Canada, and extreme flooding in Europe and Asia, extreme weather.....Click here <https://www.focusglobalreporter.org/climate-negotiations-from-g20-delhi-declaration-to-prospects-at-cop-28/>

## **India US Strategic Partnership: Vision for a Vibrant Indo-Pacific**

Our planet is buckling under the weight of intertwined environmental crises: conflict, climate change, biodiversity loss and pollution. These unfolding catastrophes are getting worse by the day and jeopardizing decades of hard-won development gains.....Click here <https://www.focusglobalreporter.org/india-us-strategic-partnership-vision-for-a-vibrant-indo-pacific/>

## **From Breathing Noxious AIR to Clear Blue Skies ??**

At this time of year like the advent of festival season, the annual ritual of Air Pollution also arrives in Delhi. Its air is increasingly becoming more polluted and unbreathable, harming our health, economies and the planet and is a global scale problem and one of the biggest contributors to climate change.....Click here

<https://www.focusglobalreporter.org/from-breathing-noxious-air-to-clear-blue-skies/>

## **Agrifood Systems Transformation and Climate Action**

Agrifood systems are a major contributor to climate change, but they also have the potential to be part of the solution. Being the complex networks of people, activities, and resources that produce, process, and consume food.....Click here

<https://www.focusglobalreporter.org/agrifood-systems-transformation-and-climate-action/>

## **The 54th Session of the UN Human Rights Council (HRC): An Overview**

The 54th regular session of the UN Human Rights Council (HRC), which was held from September 11 to October 13, 2023, was a meeting of the main intergovernmental body within the United Nations system responsible for.....Click here<https://www.focusglobalreporter.org/the-54th-session-of-the-un-human-rights-council-hrc-an-overview/>

## **Eco-fragile Himalayan Region: A clarion call for disaster Mitigation**

The world is facing increasingly complex climate-related challenges that are reducing our resilience to climate shocks and increasing our vulnerability to natural hazards. The frequency and intensity of climate-related hazards such as cyclones,..... Click here

<https://www.focusglobalreporter.org/eco-fragile-himalayan-region-a-clarion-call-for-disaster-mitigation/>

## **Article 6.4: A tool for just transitioning?**

Europe is experiencing some of the hottest temperatures of summer 2023 so far, as a ‘heat dome’ expands over the southern half of the continent. While flying back from Geneva yesterday I saw all the mountains without ice caps, and then CNN.....Click here

<https://www.focusglobalreporter.org/article-6-4-a-tool-for-just-transitioning/>

## **The SDG Summit 2023: Is it a Path to transformative action?**

Is the Political Declaration at the UN SDG Summit 2023 a transformative action or just old wine in new bottle? A fundamental shift is needed in how the world tackles existing crises – from climate change to conflict,.....Click here <https://www.focusglobalreporter.org/the-sdg-summit-2023-is-it-a-path-to-transformative-action/>



## **New Alliance and Global South the New Mantra of G20 India Presidency**


Under the theme of ‘VasudhaivaKutumbakam’ the G20 leaders met at a defining moment in history where the decisions made will determine the future of people and the planet. It is with the philosophy of living in harmony with the surrounding ecosystem that commitment to concrete actions was taken to address global.....Click here <https://www.focusglobalreporter.org/new-alliance-and-global-south-the-new-mantra-of-g20-india-presidency/>

## **Deciphering interlinkages of Nature and Human Rights at the 54th session of UNHRC**

2023 marks the 75th anniversary of the Universal Declaration on Human Rights (UNDHR). The Human Rights Council is known as the most open and accessible body in the entire UN structure. This is precisely.....Click here <https://www.focusglobalreporter.org/deciphering-interlinkages-of-nature-and-human-rights-at-the-54th-session-of-unhrc/>

# MAJOR EVENTS TWEET'S GALLERY


**SPEAKER**  
**DR. ARVIND KUMAR**  
President,  
India Water Foundation



“We have to support and promote resilient livelihoods and food security with sustainable livelihood diversification; climate-resilient agriculture, strengthen and expand disaster risk reduction and links with long-term development by incorporating early warning systems and disaster risk reduction into development.”

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**SPEAKER**  
**DR. ARVIND KUMAR**  
President,  
India Water Foundation



“Addressing the #climatecrisis requires more than #business as usual in the areas of #foodsecurity, the #environment, and #sustainabledevelopment more broadly. #Poverty and #hunger need to be tackled on a global scale. This would yield ripple benefits that will also manifest as #climateaction.”

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**SPEAKER**  
**H.E. DR. TEDROS A. GHEBREYESUS**  
Director General,  
World Health Organization



“My thanks to Dr. Arvind Kumar and #IndiaWaterFoundation for convening this crucial dialogue and for highlighting the intimate link between #SDGs.”

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**H.E. DR. TEDROS A. GHEBREYESUS**  
Director General,  
World Health Organization



“Around the world #WHO is supporting many countries to make progress on #SDG6 especially in the poorest and most fragile context. We also produce guidance on the #safeseofwastewater to protect #health and support #agricultural productivity.”

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**SPEAKER**  
**DR. AMIT K. GHOSH, IAS**  
Additional Secretary,  
Ministry of Social Justice &  
Empowerment, Govt of India



“I would like to make a special mention of #DrArvindKumarPresident of the India Water Foundation whose #vision, #leadership and untiring efforts have been instrumental in underscoring #globalcommitments to addressing a challenge that knows no borders or demographic boundaries.”

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**SPEAKER**  
**MR. SATYA TRIPATHI**  
Secretary-General,  
Global Alliance for Sustainable Planet



“Rising #temperatures which cross 50 degrees exponentially impact the poor and vulnerable because they have to live and contend with the elements for their survival. We need to think exponentially, we need to think what transformative changes must occur in the next 5-10 years of time frame because there is no hope in pretending or lying that we will achieve all the #SDGs by 2030. That is not going to happen.”

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**SPEAKER**  
**MR. SATYA TRIPATHI**  
Secretary-General,  
Global Alliance for Sustainable Planet



“Positive #energy is what should drive us in changing our immediate #environment because a problem created by 8 billion people is not going to be solved by a few #governments, few #organisations or few #companies. We all have to come together and act as one whole, singularly with a dedicated purpose of dealing with #climateaction and preventing #poverty and #hunger.”

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**SPEAKER**  
**DR. RODERICO H. OFRIN**  
WHO Representative, India  
World Health Organisation



“To #buildbackbetter, more resilient world we must address the key causes of #climatechange by adopting a multifaceted and #integratedapproach and at the same time develop #climateadaptation measures for sectors to cope with the changing climate. We need solutions that are holistic and address the underlying #systemicissues that perpetuate these conditions.”

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**SPEAKER**  
**DR. RODERICO H. OFRIN**  
WHO Representative, India  
World Health Organisation




India has prioritized strengthening universal health coverage, social protection systems and food assistance programmes have helped reduce poverty and hunger. India's commitment on climate action is evident on several fronts, investing in capacity building of communities for climate adaptation, sustainable agriculture and health promotion empowers them to take proactive steps tailored to local needs and context.

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**SPEAKER**  
**DR. NAGESH KUMAR**  
Director,  
Institute for Studies in Industrial  
Development




Investing in Green Industrial Policy pays attention to demand side interventions also and not just supply side. It needs to be adopted by developing countries in their plan to achieve more inclusive and sustainable levels of economic development in achieving its SDGs and in that process creating more inclusive and sustainable prosperity which also decarbonizes the economy.

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**SPEAKER**  
**MS. KATINKA WEINBERGER**  
Chief-Sustainable Socio-Economic  
Transformation Section, UN ESCAP



Integrating climate actions, environmental, economic and social protection policy and initiatives addressing issues around hunger and poverty alleviation offer a really great potential to strengthen peoples resilience and enable transformative changes that we want and also need. Without social protection new and emerging risks are likely to have devastating impacts on the social fabric of the region.

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**SPEAKER**  
**MS. KATINKA WEINBERGER**  
Chief-Sustainable Socio-Economic  
Transformation Section, UN ESCAP



Embedding universal social protection into national development agendas including climate policies and allocating more resources. We need strong political commitment for social protection to be recognised as a multifaceted policy tool to address emerging vulnerabilities in changing climate.

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**SPEAKER**  
**MR. SVANTE HELMS**  
National Pathways Coordinator  
UN Food Systems Coordination Hub




Six key areas for concerted action by all actors and stakeholders include Incorporating food systems transformation into all national policies, Establishing multi-sector and multistakeholder food systems governance, Investing in science, research, data, innovation, and technology, Deepening inclusive design and implementation, Promoting increased engagement of businesses and accountability, Ensuring access to finance

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**SPEAKER**  
**MR. SVANTE HELMS**  
National Pathways Coordinator  
UN Food Systems Coordination Hub




Convergence processes aimed at transforming food systems and addressing climate change will have advanced in the country and will be incorporated into National Adaptation Plans (NAPs) and National Determined Contributions (NDCs), and climate actions in National Food Systems Pathways.

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**SPEAKER**  
**MR. RUHIZA JEAN BOROTO**  
Senior Land and Water Officer  
Land and Water Division, FAO




No action would result in collapse of vital agrifood systems, hunger and poverty hence the value and significance of today's event can not be ignored. Actions are required for conserving soil moisture such as with intercropping methods.

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**SPEAKER**  
**MR. RUHIZA JEAN BOROTO**  
Senior Land and Water Officer  
Land and Water Division, FAO




Safe use of wastewater, drought resilience of crops, hydroponics, multiple use of water systems, indigenous knowledge, all should be people centered. Let us collaborate, no one has the solutions alone, partnerships are essential between intergovernmental organisations, civil societies, governments, academia etc.

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**SPEAKER**  
**MS. SHWETA TYAGI**  
Chief Functionary  
India Water Foundation



“Tailoring investments, including those that are #climatechange-related, to better target poverty, hunger and inequality and well-designed #socialprotectionsystems play a critical role in addressing the interlinked challenges of climate change, #poverty and #hunger by reducing the vulnerability of poor people to climate change.”

High Level Policy Dialogue  
Organised by  
India Water Foundation

14<sup>th</sup> June 2024, 13:00 hrs IST, Virtual (Zoom)

**SPEAKER**  
**MS. SHWETA TYAGI**  
Chief Functionary  
India Water Foundation



“Promoting #inclusivetechnology and innovation to ensure that transformative opportunities and benefits reach poor and #vulnerablepeople, including by facilitating access to #affordabletechnology, promoting knowledge-sharing and #skillscreation and #tailoringsolutions to specific needs and contexts.”

High Level Policy Dialogue  
Organised by  
India Water Foundation

14<sup>th</sup> June 2024, 13:00 hrs IST, Virtual (Zoom)

**SPEAKER**  
**DR. ARVIND KUMAR**  
President,  
India Water Foundation




“Investments in #NatureBasedSolutions need to more than double to US\$542 billion by 2030 to meet the world’s #climate, #biodiversity and ecosystem restoration goals. Reforestation and #landrestoration effort need to graduate from afforestation and unplanned mass #treeplantation drives to “conservation and restoration of #freshwater, #marine, coastal, and other undervalued #ecosystems” that take into account the diverse natural landscapes, the native species, varying forest, land, #watershedmanagement approaches, and the interests of local communities.”

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Organised by  
India Water Foundation

14<sup>th</sup> June 2024, 13:00 hrs IST, Virtual (Zoom)

**SPEAKER**  
**DR. DAVID COOPER**  
Acting Executive Secretary  
Convention on Biological Diversity




“The responsibility of #landrestoration transcends generations. We have to acknowledge the pivotal role of indigenous people and #localcommunities in land stewardship. Their land rights and meaningful participation in decision making must be front and centre.”

High Level Policy Dialogue  
Organised by  
India Water Foundation

14<sup>th</sup> June 2024, 13:00 hrs IST, Virtual (Zoom)

**SPEAKER**  
**DR. EDDY J. MOORS**  
Rector,  
IHE Delft Institute of Water Education




“Fusion of #localknowledge with #newtechniques and insights can offer solutions in #water stressed situations to improve #livelihood and #nature. Local ownership is essential.”

High Level Policy Dialogue  
Organised by  
India Water Foundation

14<sup>th</sup> June 2024, 13:00 hrs IST, Virtual (Zoom)

**SPEAKER**  
**PADMA SHRI DR. SHAILESH NAVAK**  
Director,  
National Institute of Advanced Studies



“The current infrastructure for disseminating the #agrometeorological advisory to #farmers to be strengthened as they facilitate in adaptation of food systems according to climate and contribute in enhancing #foodsecurity in #drylandagriculture. The scientific understanding of #droughts and #floods to be improved through development of regional climatic models and identify the regions that are vulnerable to these extremes and the present and future scenarios of #climatechange.”

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Organised by  
India Water Foundation

14<sup>th</sup> June 2024, 13:00 hrs IST, Virtual (Zoom)

**SPEAKER**  
**MR. RABI MOHTAR**  
Professor  
Texas A&M University



“Water is at the centre of #SustainableDevelopment. We need solutions designed at systems level solutions looking not only from the water centric but inter-sectoral. IWF was co-author of the publication we brought on systems level solutions outside of the #watersector to address the #watercrisis.”

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Organised by  
India Water Foundation

14<sup>th</sup> June 2024, 13:00 hrs IST, Virtual (Zoom)

**SPEAKER**  
**MS. SHWETA TYAGI**  
Chief Functionary  
India Water Foundation




“Protecting and #restoringnature can help drive a #greenrecovery. Investing in nature-based solutions, specifically #landrestoration, will allow us to build forward better, greener, healthier, stronger, and more sustainably. What is needed to make these happen is “political will to drive policy change, creating #robustpartnerships, bringing investments and engaging all stakeholders”

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**SPEAKER**  
**DR. ARVIND KUMAR**  
President,  
India Water Foundation




“Restoring degraded ecosystems alone could provide up to one-third of the climate mitigation needed to keep the Earth from warming too far above pre-industrial levels. This means creating protected areas, curbing extractive capitalism, and restoring the planet’s enormous amount of degraded land. The Kunming-Montreal Global Biodiversity Framework represents an enormous and long-awaited step toward halting extinction rates, helping restore and protect ecosystems and endangered species worldwide.”

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**SPEAKER**  
**DR. ARVIND KUMAR**  
 President,  
 India Water Foundation




“  
 Incorporating a greater diversity of crops and livestock, creating and maintaining well connected habitat for associated biodiversity, practicing sustainable soil management and reducing the use of synthetic inputs can increase biodiversity and ecosystem services without negatively affecting yields. The total economic gains to society, from transforming the food and land systems, have been estimated to have the potential to reach \$5.7 trillion a year by 2030.”

To Commemorate 'International Day for Biodiversity'  
 High Level Policy Dialogue  
 Integrating Multi-stakeholder Actions for Building Back Biodiversity  
 Organised by  
 India Water Foundation  
 IUCN

30<sup>th</sup> May 2024, 14:00 - 16:00 (In: IT), Virtual

**SPEAKER**  
**DR. DAVID COOPER**  
 Acting Executive Secretary  
 Convention on Biological Diversity




“  
 For the Global Biodiversity framework to succeed we need a whole of society approach and integrated participation of women, youth, governments, civil society, and the private sector to all be part of the plan.”

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**SPEAKER**  
**DR. DAVID COOPER**  
 Acting Executive Secretary  
 Convention on Biological Diversity



“  
 The goals and targets of the Global biodiversity framework are indeed ambitious, they are also necessary. Achieving them is the only realistic option to ensure a livable planet. We must all work together today and always, we must all be part of the plan.”

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30<sup>th</sup> May 2024, 14:00 - 16:00 (In: IT), Virtual

**SPEAKER**  
**DR. PEMA GYAMTSHO**  
 Director General  
 ICIMOD



“  
 We at ICIMOD have been actively supporting our regional members to prepare their national biodiversity action plans and preparing for COP16. We need to revitalize the plans on mountainous biodiversity and the goals and targets in the Global biodiversity framework to reflect on them.”

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**SPEAKER**  
**SANGMIN NAM (Mr.) PhD**  
 Director - Environment and  
 Development Division , Economic  
 and Social Commission for Asia and  
 the Pacific



“  
 Integration of nature based solutions in climate actions is imperative if we want to reverse biodiversity loss. In order to accelerate in depth discussion and generate commitments of donor multilateral financial organisations we need to find a way to measure how much is spent on NBS and the Global Biodiversity framework also highlights the same.”

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**SPEAKER**  
**DR. AMANI ALFARRA**  
 Program Manager - Water &  
 Natural Resource Management,  
 FAO Rome




“  
 FAO created a EBS tool that assess intervention progress and impact over time to foster project improvement and optimize resource allocation and identify successful interventions and strategies pinpointing areas needing adjustments.”

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**SPEAKER**  
**DR. VASH VEER BHATNAGAR**  
 Country Representative  
 International Union for Conservation  
 of Nature's (IUCN) India office



“  
 To address the combination of issues which impact biodiversity degradation we need landscape level planning especially in mountainous regions. Institutional and financial structures need to be established in coordination with authority to implement the plans at local level.”

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**SPEAKER**  
**DR. N. SARAVANANE**  
 Senior Scientist at Centre for Marine  
 Living Resources and Ecology  
 Ministry of Earth Sciences, GOI



“  
 There is a need for mutually agreed and inclusive policy, strengthening institutional framework, promoting cross sectoral dialogue, increasing financial and technical support and necessary funding for relevant actions on biodiversity conservation.”

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India Water Foundation  
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