

ANNUAL REPORT

2021-2022



INDIA WATER FOUNDATION



INDIA
Water
FOUNDATION

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Foreword

Human destiny is less vulnerable to natural disruptions relative to anthropogenic disruptions. Human greed manifested in multiple templates, though pioneered by few human beings, defies nature's canons and puts the entire humankind at risk. Outbreak and subsequent spread of the COVID-19 pandemic, hesitation in vaccine equity, half-hearted approach to the pressing issues of climate change, and realizing the objectives of Sustainable Development Goals (SDGs) along with the burgeoning economic recession, had all been the hallmarks of the preceding year that proved instrumental in influencing lives of the commons worldwide.



The world was still struggling to wiggle out of the unprecedented damage caused by COVID-19's Delta variant in 2020, when, irrespective of the fact that the almost miraculous development of efficacious vaccines against COVID-19 in 2020, the new variant Omicron continued to spread and mutate throughout 2021, wreaking havoc with human lives and livelihoods in different parts of the globe, including India. Admittedly, cooperative efforts in dealing with the pandemic through the distribution of vaccines, and making available basic amenities to vulnerable and marginalized communities throughout the globe were welcome steps; nevertheless, hiccups in providing necessary financial assistance to developing countries in meeting the challenges of climate change and fulfilling the targets of the SDGs along with the outbreak of armed hostilities between Russia and Ukraine in the closing days of February 2022 culminated in exacerbating the food and energy crises globally.

The occurrence of significant developments worldwide during the period under review in this report in the realms of climate change and related fields entailed the potential of influencing 'Global-to-Local' developments as well as 'Local-to-Global' developments. With the COVID-19 pandemic reigning supreme, especially during the second and third quarters of 2021, almost all the conferences/seminars/symposia requiring in-person participation had been held virtually online. Significant developments occurring during the period under review inter alia included the observance of World Water Day and simultaneous release of the World Water Development Report, the convening of the fifth session of the United Nations Environment Assembly (UNEA-5), the sixth edition of the India Water Impact Summit, publication of UNEP's Emission Gap Report 2021, convening of the COP 26 at Glasgow, Kunming meeting on biodiversity, the IUCN Congress, the ninth edition of the World Water Forum, the launch of Human Development

Report 2020-2021, and these developments have seemingly proved instrumental in wielding impacts on the performance and outcomes of various activities pertaining to sustainable human development in multiple ways.

It has always been our earnest endeavor at India Water Foundation to imbibe the new leanings and best practices culled from global and local sources and harness them in our strategy and implementation to garner optimum benefits for the society we inhabit. Our reports, projects, and presentations at various fora amply manifest this. In our quest for gaining new insights from the vast array of open sources, emphasis is always focused on updated information and proven outcomes so that our own presumptions and findings along with surmises are compatible with the prevalent tenets and norms.

I deem it a privilege to present this annual report for 2021-2022 to our esteemed patrons, well-wishers, colleagues, and the general public. We, at India Water Foundation, are heartily grateful to all those who have stood with us through thick and thin and their encouragement has been a source of our strength thereby enabling us to accomplish our tasks irrespective of all odds. We hope to continue to enjoy their trust and affection. Availing of this opportune occasion, I would like to reiterate the resolute commitment of IWF in carrying out its mandate of rendering yeoman services in the realms of water, climate change, and sustainable development with added enthusiasm.

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

(Dr Arvind Kumar)

President

India Water Foundation

O *verview*

Humankind's ascendance to the trajectory of growth is confronted with a vast array of odds that are often anthropogenic in nature and human greed to possess more and more in defiance of nature breeds these odds which have come to be manifested through the outbreak of pandemics like COVID-19, different vagaries of climate change exhibited through extreme weather events. Even after having suffered irreparable losses in terms of human lives and livelihoods in recent decades, especially for want of addressing issues pertaining to climate change in accordance with the ways and means suggested by the Intergovernmental Panel on Climate Change (IPCC) in its plethora of reports published from time to time along with sounding off warnings, the dispensations at the helm in advanced economies have often turned a deaf ear to such warnings and displayed reluctance in providing monetary help and technological assistance to most of the developing countries, especially to the most vulnerable and marginalized countries, thereby leaving them at the mercy of nature.

In the wake of the persistence of the COVID-19 pandemic in 2021, especially during the second and third quarters of that year when the Omicron variant inflicted heavy loss of human lives and inequitable distribution of vaccines, the focus on climate change-related issues needed prioritization, which was unfortunately lacking. Issuance of the World Water Development Report for 2022 while focusing on groundwater called upon the countries to make a commitment to creating suitable and efficient groundwater management and governance rules in order to handle the existing and upcoming water challenges around the world. Attention was also focused on significant issues like marine plastic pollution, nature-based solutions, and biodiversity, responsible management of chemicals and minerals, ecosystem restoration, green recovery, and circular economy, etc., by the fifth edition of the United Nations Environment Assembly (UNEA) in its meeting.

Greenhouse gas emissions have been a perennial issue evading satisfactory solutions in consonance with the terms of the 2015 Paris Agreement on Climate change and attention to this aspect was drawn by the 2021 Emission Gap Report of the UNEP reminding that climate change would no more be a faraway problem along with cautioning that new and updated climate commitments fell significantly short of what was actually required to reach the goals of the Paris Agreement setting the world on course for a global temperature rise of at least 2.7°C this century.

A host of new hopes and aspirations along with the renewal of previous pledges to climate change is aroused each year a Conference of Parties (COP) to the UNFCCC is held, and this indeed has been the case with COP 26 held in Glasgow in the UK. It was hailed as the 'last best hope to tackle the climate crisis to avert the looming global disaster. Along with 105 countries

signing the voluntary and non-binding Global Methane Pledge, the countries also pledged to cut their methane emissions by at least 20 percent by 2030 along with more than 40 countries pledging to phase out coal between 2030 and 2040.

The severity and magnitude of the problems emanating from climate change-related issues warrant close cooperation between and among the countries in terms of finance and technical expertise. Whatever commitments/pledges are made ought to be sincerely implemented because the welfare of one is the welfare of all and vice versa. Vagaries of climate change defy geographical boundaries and one wrong move can make entire humankind suffer the brunt.

Momentous Developments

Momentous developments are often characterized by new and innovative ideas and directions that set the tone and tenor of emerging and ensuing events that entail the potential of paving the way for a future course of action that needs to be devoid of the past lacuna. In the backdrop of the ongoing prevalence of the COVID-19 pandemic and its adverse impacts during 2021, humankind's march on the trajectory of growth was, to some extent, guided by the publication of some brilliant reports by UN agencies and outcomes of some conferences that provided guidelines to steer clear the odds and move toward a sustainable future.

Emphasis on the significance, utility, and indispensability of groundwater which accounts for 99 percent of the liquid freshwater available on Earth, in the 2022 World Water Development report makes it a portentous publication wherein the countries are called upon to make a commitment to creating suitable and efficient groundwater management and governance rules in order to handle the existing and upcoming challenges pertaining to water around the globe. While projecting an anticipated increase in water use worldwide in the ensuing decades in the wake of a decrease in the supply of surface water on account of climate change, the report expects a greater degree of overall reliance on groundwater. Concurrently, the report also laments the frequent under appreciation, improper management, and overexploitation of groundwater, and also sounds off a warning that the enormous potential of groundwater and the essentiality for careful management cannot be ignored in the wake of looming water scarcity in many regions of the globe.

Nevertheless, the decisions taken and proposals adopted at the fifth edition of the United Nations Environment Assembly (UNEA) with the avowed objective of strengthening the UNEP for the implementation of the environmental dimensions of the 2030 Agenda for Sustainable Development are construed as significant steps because of their emphasis on tackling marine plastic pollution, adherence to nature-based solutions for climate change and biodiversity conservation, ensuring responsible management of chemicals, minerals, and waste, priority to ecosystem restoration along with green recovery and circular economy, etc.

In the wake of the growing impacts of climate change worldwide, emphasis is focused on envisaging a reduction in greenhouse gas emissions. The Emissions Gap report is a significant annual publication of UNEP that provides an overview of the difference between where greenhouse emissions are predicted to be in 2030 and where they should be to avert the worst impacts of climate change. Noting that the year 2021 served as a persistent reminder that not be a faraway problem, the 2021 Emissions Gap Report reported that new and updated climate commitments fell significantly short of what was required to reach the goal of the Paris Agreement, setting the world on course for a global temperature rise of at least 2.7°C this century. While noting that new climate plans and targets for 2030 adopted by countries demonstrate some progress; nonetheless, they are far from sufficient to bridge the emissions gap, and the ambition implied by the new 2030 pledges would need to be four times higher to get on track to 2°C and about seven times higher to get on track to 1.5°C.

Convening COP 26 in Glasgow (UK) was another momentous development and it was seen as a ‘last best hope’ of tackling the climate crisis to avert a looming global disaster. The Glasgow Leaders’ Declaration on Forest and Land Use was deemed as a historic declaration aiming to halt and reverse forest loss and land degradation by 2030. Furthermore, the voluntary and non-binding Global Methane Pledge signed by 105 countries reflected the pledge of these countries to cut their methane emissions by at least 30 percent by 2030. Besides, more than 40 countries also pledged to phase out coal between 2030 and 2040.

The major highlight of COP 26 was the commitment to achieve net-zero by some countries, including India. Reiterating its commitment to achieving net-zero by 2070, India unveiled a new five-fold strategy to show the world India’s determination to act decisively to mitigate the climate crisis. India’s five-fold strategy, inter alia, includes taking its non-fossil energy to 500 GW by 2030; meeting 50 percent of its energy requirements from renewable energy by 2030; reducing the total projected carbon emissions by one billion tons by 2030, and reducing the carbon intensity of its economy by less than 45 percent by 2030.

Undoubtedly, such momentous developments could be expected to give rise to hope for some progress, albeit incremental, toward tackling climate change, especially with America rejoining the Paris Agreement process and its active participation in COP 26 and its initiative on Methane Pledge; nevertheless, increasing rivalry between Washington and Beijing can be a setback to this process because both are the largest emitters of greenhouse gases, and another unwarranted development is the ongoing exchange of armed hostilities between Russian and Ukraine which have proved instrumental in exacerbating severe crises in energy and food sectors.

World Water Day 2022

“Groundwater - Making the invisible visible”

Is the solution to water crises hiding right under our feet? Groundwater is out of sight but we cannot afford for it to be out of mind. We must make the invisible visible — UN-Water ([March 21, 2022](#)).

World Water Day, held on 22 March every year since 1993, focuses on the importance of freshwater. A core focus of World Water Day is to support the achievement of Sustainable Development Goal 6: water and sanitation for all by 2030. It is also aimed at focusing on the importance of water and raising awareness about more than 2 billion people living without access to safe water.

The hidden water resource that has always been of crucial importance but is only partially acknowledged in sustainable development planning is brought to light by this year's theme, "groundwater." The annual World Water Development Report's focus is determined by the theme likewise.



PC: www.worldwaterday.org

The theme for this year's World Water Day was "Groundwater: Making the Invisible Visible," as agreed by UN-Water Members and Partners at a conference in Rome through an online poll in advance.

International Groundwater Resources Assessment Centre (IGRAC) Director Neno Kukuric called attention to the UN-Water Groundwater Overview that was presented at the World Water Forum in 2021 and emphasized that while 45 UN affiliated organizations are involved in groundwater management, they could gain significantly more from potential synergies and complementarities; following which this year's campaign outlined the pivotal role of groundwater in ecosystems, agriculture, industry, water and sewage systems, and climate change adaptation. The highlight of the campaign was that in order to survive, adapt to climate change, and satisfy the demands of an expanding population, groundwater must be explored, protected, and used responsibly.

India on World Water Day 2022

On World Water Day, let's reaffirm our pledge to save every drop of water. Our nation is undertaking numerous measures like Jal Jeevan Mission to ensure water conservation and access to clean drinking water for our citizens — Narendra Modi ([March 22, 2022](#)).

India extracts more groundwater than the USA and China altogether, making it the largest country in the world. According to a Science.org study, huge portions of northern and southern India would have "critically low groundwater availability" by 2025. By 2050, there will likely be a major water shortage in the nation.

Freshwater has become indispensable. Excessive usage, population growth, and alterations in lifestyle have all increased pressure on water resources. Now that pressure on groundwater has reached an all-time high due to the pollution of most metropolitan surface water bodies and their exclusion as unfit for human consumption, the groundwater table is alarmingly depleting. Therefore, it is now necessary for us to all express greater concern for groundwater and consider more thoroughly how to use all forms of water, but primarily groundwater.

Catch the rain, where it rains, when it falls was the tagline for the "Catch the Rain" campaign under the Jal Shakti Abhiyan, which was introduced in 2021. All districts of the nation—urban and rural—are included in it, and its tenure has been extended from 29 March 2022 to 30 November 2022. The campaign's goal is to persuade the states and all interested parties to design Rain Water Harvesting Structures (RWHS) that are appropriate for the local climate and subsoil strata, with the help of the general public. Working toward achieving water security is the campaign's main goal.

The initiative will aid in increasing the groundwater table and bettering soil moisture. It will limit water flowing onto roads in metropolitan areas, protecting them from damage, and preventing urban flooding. The Campaign is being carried out through the inter-sectoral convergence of various development programmes and plans of the Central and State Governments, MOS Bishweswar Tudu further informed the House. The National Water Mission has so far distributed Rs. 4.94 crore to various states and districts throughout the nation, with 45 districts in Madhya Pradesh receiving the first installment of Rs. 1.00 lakh each.

According to data on the JSA:CTR Portal (jsactr.mowr.gov.in), the state of Madhya Pradesh alone used funding from the Mahatma Gandhi National Rural Employment Guarantee Scheme during the campaign from March 29, 2022, to August 3, 2022, totaling Rs 645.04 crore.

On the occasion of World Water Day, several leaders, in India and abroad, took to social media to highlight the importance of this day. Here are some of their tweets:

In an official statement on the United Nations website, UN Secretary-General António Guterres talked about how groundwater resources are being depleted due to a variety of reasons. He also stated that the world needs to improve the “exploration, monitoring and analysis of groundwater resources” for better and more sustainable management of the natural resource.

Prime Minister Narendra Modi also took to social media on the occasion and reaffirmed the country's pledge to "save every drop of water". Modi also talked about measures like the Jal Jeevan Mission, which aims to provide access to clean drinking water to every person in the country. The Prime Minister also praised all organizations and individuals who are working towards water conservation in India.

Vice President Venkaiah Naidu also took to twitter to create awareness about conserving water resources. He also asserted that the "precious" natural resource is at the core of all sustainable development efforts. Union Minister Kiren Rijiju also took to social media and asked users to join the Jal Jeevan Mission started by PM Modi. The Congress party also took to twitter to encourage the sustainable conservation of freshwater resources in the country.

The global water crisis has also led to groundwater resources, which is the source of half of the total volume of water drawn for domestic use globally, being overexploited. Until global pressure on freshwater resources decreases, more and more people will be left without access to clean drinking water.

UN World Water Development Report 2022

99 percent of the liquid freshwater on Earth is groundwater. However, this natural resource is frequently underappreciated, improperly managed, and even exploited as a result of a lack of knowledge. The immense potential of groundwater and the necessity of managing it sustainably can no longer be ignored.

“Groundwater: Making the invisible visible” is the title for the 2022 edition of the United Nations World Water Development Report (UN WWDR 2022) which has been launched by UNESCO on behalf of UN-Water at the opening ceremony of the 9th World Water Forum in Dakar, Senegal

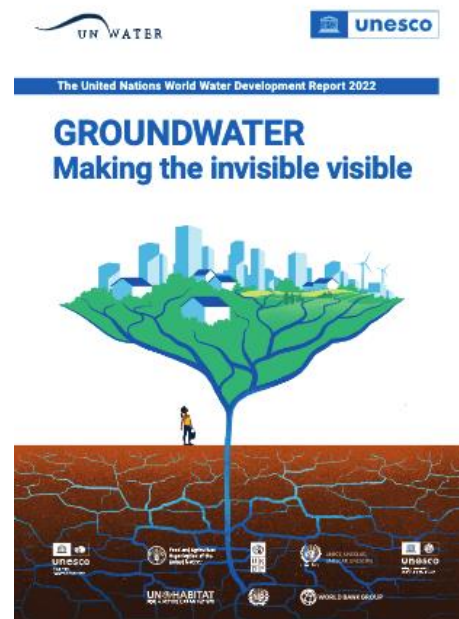
The authors urge States to make a commitment to creating suitable and efficient groundwater management and governance rules in order to handle the existing and upcoming water challenges around the world. The majority of rural residents who do not have access to public or private water delivery systems rely on groundwater for their drinking water, which accounts for about 25% of all water used for irrigation. Groundwater also provides half of the

volume of water currently withdrawn for domestic use by the global population.

Over the next 30 years, the world's water use is anticipated to increase by about 1% year. As the supply of surface water decreases as a result of climate change, we should expect a greater overall reliance on groundwater.

Nevertheless, in spite of its great importance, this natural resource is frequently underappreciated, improperly managed, and even exploited. The enormous potential of groundwater and the necessity for careful management cannot be ignored in the light of the developing water scarcity in many regions of the world.

There are significant non-renewable groundwater reserves in some areas, such as the Middle East and sub-Saharan Africa, which can be tapped to maintain water security as they remain undisturbed. In contrast to North America and South Asia, where groundwater is used in 59% and 57% of agriculture, respectively, just 3% of farmland in the world is prepared for irrigation, and only 5% of that land is irrigated. The reason for this low utilization is not a lack of renewable groundwater, which is rather available, lack of investments in institutions, skilled personnel, infrastructure, and resource expertise. The expansion of irrigated regions and subsequent



Source: UN Water

improvement in agricultural yields and crop diversification could be caused by groundwater development, which could serve as a stimulus for economic growth.

The report highlights the potential of groundwater systems to provide a range of services is based on the characteristics that vary spatially and is dynamically modified by ongoing natural and human processes. Additional opportunities presented by groundwater include strengthening storage for better water security, increasing geothermal energy production, and adjusting to the effects of climate change.

The report also discusses the difficulties and prospects that come with the global development, administration, and regulation of groundwater. Moreover, discharge overtaking recharge results in groundwater storage depletion. Although there may be a connection between climate fluctuation and climate change, extensive abstraction is the primary cause of long-term groundwater storage depletion. The ecosystems that depend on groundwater are also impacted by groundwater pollution, which lowers the quality of groundwater that has been withdrawn for drinking. In order to preserve the long-term sustainability of this abundant yet vulnerable resource, it attempts to create a thorough awareness of the role that groundwater plays in daily life, of its interactions with people, and of the options for maximizing its usage. The Human Rights Council and the General Assembly of the United Nations (UN) both acknowledge that fair access to sanitary facilities and clean, safe drinking water are separate human rights.

The fight against poverty, the security of food and water, the development of fair employment opportunities, socioeconomic growth, and the climate change resilience of society and economies all depend on groundwater. Therefore, it is crucial that nations make a commitment to creating a suitable and efficient framework for groundwater governance. This necessitates that governments take the initiative and take charge of creating and maintaining a fully functional governance structure, including the institutional capacity; the knowledge base; the laws, regulations, and their enforcement; the policy and planning; the stakeholder participation; and appropriate financing. Given the importance of groundwater for the common good, it is essential that governments take on their duty as resource custodians and make sure that access to (and financial benefit from) the resource is distributed fairly as well as that it is preserved for future generations. Strong and consistent efforts will be needed to manage and utilize groundwater sustainably in order to realize its full potential. Making the unseen visible is the first step in the process.

UNEA 5.2

The Fifth session of the United Nations Environment Assembly with the theme “Strengthening Actions for Nature to Achieve the Sustainable Development Goals” was postponed until the second session was resumed, which took place in person and online from February 28 to March 2, 2022.

Following UNEA-5.2, on March 3–4, 2022 UNEP@50, a special session of the UN Environment Assembly honoring the 50th anniversary of UNEP's founding in 1972 took place in Nairobi both online and in person. "Strengthening UNEP for the implementation of the environmental dimension of the 2030 Agenda for Sustainable Development" was the theme of the special session where participating nations were supposed to discuss how to create an inclusive and resilient post-pandemic world and to promote a draft Political Declaration.



A science-policy panel on chemicals, waste, and pollution, the future of the Global Environment Outlook, biodiversity, and health were just a few of the important topics covered in the session's renewed discussion of those important issues that call for in-depth negotiations.

Delegates met throughout the week to consider various draft resolutions that the OECPR had sent to the Assembly. These proposed resolutions were grouped mostly into the following categories:

- Marine/plastic pollution**

Environmental ministers from around the world voted to create an INC (Intergovernmental Negotiating Committee) with the task of creating a global, legally binding agreement to stop plastic pollution. The INC will go to work in 2022 with the goal of finishing a draft international contract by the end of 2024.

- Nature-Based solutions and biodiversity**

It emphasizes nature-based solutions, including steps to save, conserve, restore, sustainably use, and manage ecosystems, in the spirit of the UN Decade for Ecosystem Restoration (2021-2030).

- **Chemicals and minerals**

It advocates for the creation of an extensive and ambitious science policy panel focused on ensuring responsible management of chemicals, waste, and pollution.

- **Ecosystem Restoration**

The protection of biodiversity, resource conservation, sensible patterns of consumption and production, climate mitigation and adaptation, job creation, and poverty alleviation are given top priority in three resolutions.

- **Green recovery and circular economy**

UNEA endorsed four resolutions related to the green recovery and circular economy:

- a) Sustainable and Resilient Infrastructure
- b) Environmental dimension of a sustainable, resilient and inclusive post COVID-19 recovery
- c) Enhancing Circular Economy as a contribution to achieving sustainable consumption and production
- d) Environmental aspects of minerals and metals management

- **Organizational and administrative matters**

Two resolutions and a judgment from this cluster were adopted:

- a) According to paragraph 3 of Article 101 of the Charter of the United Nations, consideration should be given to the principle of equitable geographical distribution.
- b) Future of Global Environment Outlook
- c) Provisional schedule, location, and date for the United Nations Environment Assembly's sixth session

Simultaneously, the Indian draft resolution entitled **Framework for addressing plastic product pollution, including single use plastic product pollution**, was founded on the idea of



immediate collective voluntary action by nations.

However, India has agreed to the formation of an INC for a new, global convention that is legally binding. In order to promote alternatives and hasten the abolition of single-use plastics, the Plastic Waste Management Rules of 2016 have been modified. The Plastic Waste Management (Amendment) Rules, 2022, which were previously declared by India, notified the Extended Producer Responsibility (EPR) for plastic packaging guidelines.

The United Nations Environment Programme (UNEP) favored putting into practice the current international frameworks and bolstering the scientific foundation of policy- and decision-making for controlling chemical and waste pollution. UNEP, as a preeminent global authority, has a huge potential for substantive results because multilateralism is at the heart of how it achieves global participation, inclusivity, and effective outcomes. Moreover, India Water Foundation recognizes the enormous impact and outreach of the assembly and sessions and its importance in achieving a global collaboration for the environment.

Emissions Gap Report 2021

The Heat Is On
A world of climate promises not yet delivered

“Climate change is no longer a future problem. It is a now problem,” said Inger Andersen, Executive Director of UNEP. “To stand a chance of limiting global warming to 1.5°C, we have eight years to almost halve greenhouse gas emissions: eight years to make the plans, put in place the policies, implement them and ultimately deliver the cuts. The clock is ticking loudly.”

This year has served as a persistent reminder that climate change will not be a faraway problem, as evidenced by the publication of the United Nations Environment Programme (UNEP) Emissions Gap Report's 12th edition.

According to the most recent UNEP Emissions Gap Report 2021: The Heat Is On, new and updated climate commitments fall significantly short of what is required to reach the goals of the Paris Agreement, setting the world on course for a global temperature rise of at least 2.7°C this century.

The Emissions Gap Report is organized by UNEP DTU Partnership, and Anne Olhoff, Head of Strategy for Climate Planning and Policy, is one of the report's primary writers in addition to a number of other UNEP DTU Partnership specialists.



Source: UNEP

“Countries new climate plans and targets for 2030 show some progress, but they are far from sufficient to bridge the emissions gap. The ambition implied by the new 2030 pledges would need to be 4 times higher to get on track to 2°C and about 7 times higher to get on track to 1.5°C”, she says of the report’s findings.

The report, which is currently in its 12th year, finds that updated Nationally Determined Contributions (NDCs) from countries and other commitments made for 2030 but not yet included in an updated NDC only reduce predicted annual greenhouse gas emissions in 2030 by an additional 7.5% when compared to the previous round of commitments. To retain on the least costly trajectory, reductions of 30% for 2°C and 55% for 1.5°C are required.

“The clock is ticking loudly”

The Emissions Gap Report 2021, which was published before to COP26, suggests that net-zero pledges might have a significant impact. These commitments, if completely implemented, might reduce the projected global temperature rise to 2.2°C, raising the possibility that additional action could yet stop the most disastrous effects of climate change. Net-zero commitments, however, continue to be hazy, frequently unfulfilled, and out of step with the majority of 2030 NDCs.

120 nations, or little over half of the world's greenhouse gas emitters, had communicated new or modified NDCs as of 30 September 2021. Three other G20 nations have also made further 2030 mitigation commitments.

The world has eight years to reduce annual emissions by an additional 28 Giga tonnes of CO₂ equivalent (GtCO₂e), above what is committed to in the updated NDCs and other 2030 pledges, in order to have any hope of keeping global warming to 1.5°C. In order to put this figure into perspective, consider that in 2021, carbon dioxide emissions alone are predicted to total 33 Giga tons.

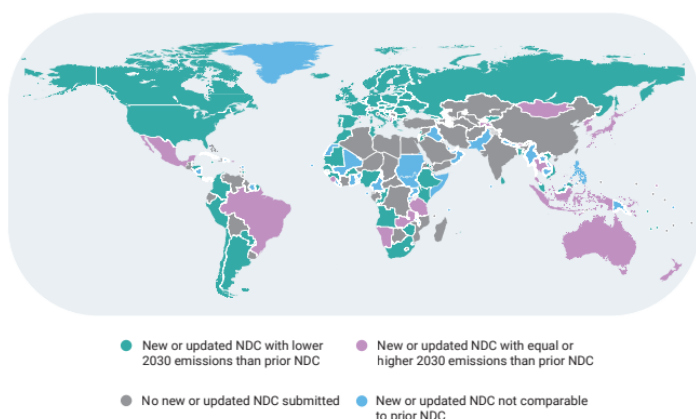
Annual emissions are almost 60 GtCO₂e when all other greenhouse gases are included. Therefore, we must practically half greenhouse gas emissions if we want to have a chance of meeting the 1.5°C objective. The additional requirement is less for the 2°C target: a reduction in annual emissions of 13 GtCO₂e by 2030.

Zeroing in on net-zero

The study found that net-zero promises - and their good execution - may make a significant difference, but the plans in place right now are unclear and do not take NDCs into account. The EU and a total of 49 nations have committed to net-zero ambitions. This covers a third of the world's population and more than half of the GDP. There are eleven legally binding targets that account for 12% of world emissions.

“It is very promising that an increasing number of countries are pledging net-zero emissions by around mid-century. By now, more than 50% of global GHG emissions are covered by such pledges. But these pledges are in many cases not reflected in near-term plans and actions. That has to urgently change to maintain confidence that the net-zero emissions pledges can actually be achieved” Anne Olhoff says.

Net-zero targets have the potential to reduce global warming by an additional 0.5°C, bringing the expected temperature rise to 2.2°C, if made resilient and completely implemented. However, many national climate plans postpone action until after 2030, casting doubt on the viability of net-zero pledges. Although twelve G20 members have committed to net-zero goals, these goals are still rather vague. To align with the 2030 targets, action must also be frontloaded.



Source: UNEP: Effect of new or updated nationally determined contributions on 2030 greenhouse gas emissions relative to previous NDC

“The world has to wake up to the imminent peril we face as a species,” Andersen added. “Nations must establish the policies necessary to fulfil their new obligations and begin implementing so within months. They must make their net-zero commitments clearer, ensuring that these promises are reflected in NDCs and that action is taken. Then, they must swiftly begin adopting the policies that will

support this increased ambition.

Delivering financial and technological support to developing countries is also crucial so that they can prepare for the effects of climate change already occurring and embark on a road toward low-emissions growth.

The potential of methane and market mechanisms

The Emissions Gap Report examines the potential of particular industries each year. Methane and market processes are the top issues this year. Methane emissions reductions from the trash, agricultural, and fossil fuel industries can help close the emissions gap and short-term global warming. The second major cause of global warming is methane emissions. Methane reductions will slow temperature increases more quickly than carbon dioxide reductions since the gas has an 80 times greater global warming potential over a 20-year time frame than carbon dioxide and a shorter lifespan in the atmosphere (12 years vs. hundreds for CO₂).

Currently, accessible free or cost-effective technical solutions might cut anthropogenic methane emissions by about 20% annually. The application of every measure, together with more extensive structural and behavioral changes, may cut anthropogenic methane emissions by about 45%. Carbon markets, on the other hand, have the potential to lower costs and thereby encourage more ambitious reduction pledges, but only if rules are clearly defined, are made to ensure that transactions reflect real emissions reductions, and are backed by plans to track progress and provide transparency.

The profits from these markets might be used to finance domestic adaptation and mitigation programmes as well as projects in countries that are most vulnerable to the effects of climate change.

COVID-19 recovery opportunity largely missed

Finally, the report finds that most nations have lost the chance to deploy COVID-19 economic rescue and recovery spending to stimulate the economy and support climate action. The COVID-19 pandemic caused a 5.4% decrease in worldwide CO₂ emissions in 2020. However, it is anticipated that CO₂ and non-CO₂ emissions would increase once more in 2021 and reach a level that is only marginally below the record high in 2019.

Only about 20% of recovery investments conjured up until May 2021 are projected to result in a reduction in greenhouse gas emissions. Six G20 members and one permanent guest account for about 90% of this spending. Compared to wealthy economies, COVID-19 spending in low-income economies has been much lower (US\$60 per person) (USD 11,800 per person). Finance shortages are probably going to make it worse for vulnerable countries when it comes to climate mitigation and resilience.

As in previous years, the 2021 Emissions Gap Report was developed by an international team of top scientists who evaluated all of the information that was available, including that published in the context of the IPCC reports as well as in other recent scientific literature. The team was led by an experienced steering committee. The evaluation procedure has been open to participation. To allow the governments of the nations particularly listed in the study a chance to comment on the findings, the assessment methodology and preliminary findings were made accessible to them.

We can still break the bounds. The oil and gas, garbage, and agricultural industries all have a significant opportunity to reduce their methane emissions, as this year's Emissions Gap Report demonstrates. Carbon markets could hasten action by lowering the cost of mitigation. Funding for COVID-19 recovery can yet be greened. Additionally, there is an opportunity for nature-based solutions, renewable energy, energy efficiency, and much more, as previous UNEP Emissions Gap Reports demonstrate. We should not despair. The impact of addressing climate change has already been demonstrated. We implemented policies between 2010 and 2021 that will result in a reduction in annual emissions of 11 GtCO₂e by 2030 compared to what would have happened in the absence of these policies.

However, we must create a difference instead of merely making a difference. We cannot proceed on in the same manner and anticipate divergent results. Our species is currently facing an urgent peril that needs to be acknowledged by everyone on earth. We must act decisively. The pace must be quick. The time has come for us to begin.

Kunming COP15: big challenges remain after first session

Sticking points on financing, implementation and benefit sharing need resolving in the second session next spring if negotiations are to succeed

The 15th Conference of the Parties (COP15) to the UN Convention on Biological Diversity (CBD) launched a new stage in talks towards a global deal for nature – known as the post-2020 global biodiversity framework. The first session of the most important global biodiversity meeting in a decade was held in Kunming between 11 and 15 October, 2021 in an in-person and online hybrid format.



PC: CGTN

China, as host nation, was ushering the CBD towards a roadmap for biodiversity conservation for the coming decade and beyond. Delegates to the talks were in agreement: the Aichi targets set in 2010 have been missed, but Kunming cannot be allowed to fail.

The Covid-19 pandemic has hampered progress towards the post-2020 framework, with proceedings delayed or forced online. At meetings of two subsidiary bodies to the CBD in May and June, network issues excluded most African nations from online discussions, leading them to request some matters be renegotiated in January next year.

In Kunming, many developing nation delegates were cut off and unable to speak on time during a two-day high-level segment, again due to technical issues. This was another reminder of the unbalanced outcomes of global development.

In the Kunming Declaration published, signatories summarized their intention to ensure “that biodiversity will be put on a path to recovery by 2030 at the latest”. But it remains unclear whether they will be able to.

The aim of the first session of the meeting was to inject new political ambition, rather than to get into real negotiations. Delegates, therefore, restated their existing positions.

The idea of conserving 30% of the Earth’s land and seas by 2030 – known as the 30×30 target – has been a “star topic” in the COP15 process. It was mentioned frequently during the first session, after appearing in the first draft of the post-2020 global biodiversity framework that was published in July, 2021.

A 2019 assessment by IPBES (the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services) found that only 15% of global land and freshwater and 7% of sea areas are protected. Although some parties feel the 30% target is too radical, given current progress,

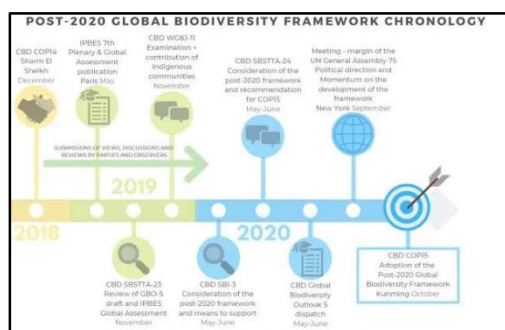
the eye-catching figure still made its appearance in the draft framework – a rare display of ambition. However, not everyone agrees on what that 30% means.

The first question, 30% of what exactly? Of the world’s entire surface? Or must it be both 30% of the land and 30% of the ocean? Or would each country protect 30% of its territory? The draft as it stands is not clear, and the matter will need to be thrashed out over the negotiating table. Particularly controversial is the idea of protecting 30% of the ocean, which would drag in other multilateral processes. If issues surrounding protected areas on the high seas cannot be resolved under the UN Convention on the Law of the Sea (UNCLOS) framework, the goal would not be possible.

The second question is: what kind of 30%? Some countries worry that a focus on quantity over quality will result in the protection of areas of little conservation value, simply to make up the numbers. But how should quality targets be set? The draft framework does not say. Another issue is that, historically, reserves have too often worked by excluding human activity. The 30×30 goal would see the expansion of protected areas, and there are concerns this could harm the rights of indigenous peoples and local communities living in bio-diverse regions. Some signatories and NGOs are therefore ambivalent or even opposed to the goal.

Alongside the 30×30 goal, other emerging ideas mentioned by delegates in their speeches are also proving hard for negotiators to tackle. Two of these are digital sequence information (DSI) and nature-based solutions (NbS). DSI is information that has been obtained from sequencing and analyzing genetic material. When the CBD was adopted back in 1992, Article 15 stated that a nation has sovereign rights over its genetic resources, and the authority to determine other countries’ access to them. Access must be on the basis of a nation’s prior and informed consent, with agreement on how the benefits are to be shared. When talks on this issue began in the 1990s the focus was on biological samples. By 2014, when the Nagoya Protocol on Access and Benefit Sharing of genetic resources came into effect to supplement the CBD, the digitalization of genetic information was accelerating exponentially. But the potential commercial benefits of this digital information were not covered by benefit-sharing mechanisms.

Countries rich in genetic resources but lacking the capacity to utilize them want DSI to be covered by benefit-sharing mechanisms – a move opposed by countries strong in biotech. The two camps have not been able to narrow their differences. Developed nations say that open access should be a principle and that there are already many public databases of DSI. They say benefit-sharing mechanisms would reduce access to those, hampering innovation. Compliance



PC: INSIGHTIAS

with the Nagoya Protocol has reportedly delayed the sharing of influenza samples across national borders, impeding research and development for vaccines. The pandemic provided extra backing to the open access stance. But given their current technological capacities, developing nations argue a benefit-sharing mechanism that doesn't cover DSI would be of little value. During the Kunming talks last week, African delegates repeatedly stressed the importance of sharing benefits arising from use of the continent's genetic resources and their DSI, and called for discussions on the issue to be finalized.

Another emerging concept is NbS, or nature-based solutions to climate and biodiversity challenges. These have received increasing attention since being included on a list of nine tracks of action at the 2019 UN Climate Action Summit. Supporters hope NbS can help tackle both climate change and biodiversity loss, as well as inject climate finance into the relatively underfunded area of biodiversity conservation. One example of NbS would be the restoration of coastal ecosystems such as mangrove swamps, increasing the provision of ecological services, while also absorbing carbon and mitigating the impact of the more frequent and severe storms caused by climate change. NbS are important for both mitigation and adaptation to climate change, and many countries have been including these in their environmental planning for the last decade or more. Of the Nationally Determined Contributions (NDCs) to combating climate change submitted by countries under the Paris Agreement, over 90% include NbS.

However, the position of NbS within the CBD framework is uncertain. Since 2000, the CBD has used the term “ecosystem-based approach” or EbA. An earlier draft (called the “zero draft”) of the post-2020 biodiversity framework published last year included the target to: “By 2030, increase contributions to climate change mitigation adaption and disaster risk reduction from nature-based solutions and ecosystems based approaches.” In the draft released this July, however, “nature-based solutions” had been removed.

The Kunming Declaration, passed by the conference on 13 October, also used the EbA term only, with a footnote explaining that “ecosystem-based approaches may also be referred to as ‘Nature based solutions’”.

So, why this controversy? African nations and NGOs concerned about the rights of indigenous peoples worry there has been an emphasis on the carbon storage functions of NbS, with carbon emitters using tree-planting and other carbon offsets in developing countries to avoid their duties to cut emissions, while expropriating the forest usage rights of indigenous people and local residents. Some describe NbS as “carbon colonialism”.

At the closing ceremony for the COP15 high-level segment, the Third World Network, one of the NGO delegates, said: “Nature-based solutions are not synonymous with the ecosystem approach that complies with the sustainability obligations under the CBD. Accepting this contested term in decisions of the CBD without clear definition is like writing a blank cheque.” For them, it is crucial to explain “whose nature is being asked to solve which problems”.

However, the declaration also emphasizes that “such ecosystem-based approaches do not replace the priority actions needed to urgently reduce greenhouse gas emissions in a way that is consistent with the goals of the Paris Agreement”.

Almost every speaker at Kunming talked of the need for ambition. But ambition comes with a price tag.

The draft framework points out an annual US\$700 billion financing gap. Where will that money come from? Everyone is happy to talk of expanding sources of funding, leveraging non-state players and in particular the private sector, but developing nations are clear they want to see more money coming from the governments of developed nations – as that is the most reliable source of funding.

At the closing ceremony, the African Group again stressed the need for a dedicated biodiversity fund, as well as the importance of technology transfers and capacity building to allow for the use of bio-resources and their DSI. The Latin America and the Caribbean Group warned that two years of the pandemic had resulted in an unprecedented shortage of funds, making it hard to fulfill obligations. Obtaining and making full use of adequate funding has always been a challenge for the CBD and its supplementary agreements in the region. “A real commitment to provide resources is one of the main amendments that need to be made if we want to halt and reverse the current biodiversity crisis,” the group says.

The EU and other developed nations stuck firmly to their existing stance: more private funds need to be mobilized, and aid funds must not flow towards harmful subsidies. Last year, the Paulson Institute and other international organizations published a report on biodiversity financing, finding that redirecting agricultural, forestry, and fishing subsidies which harm biodiversity, in addition to improving supply chain sustainability, would free up nearly \$300 billion. “But that is not acceptable to many developing nations – in particular, the ending of subsidies for small-scale farmers,” said Coraline Goron, assistant professor of environmental policy at Duke Kunshan University, speaking to China Dialogue.

On the second day of the Kunming talks, China’s president, Xi Jinping, announced 1.5 billion yuan (\$230 million) in funding for biodiversity conservation in the developing world, and called for others to contribute. Japan responded with a \$17 million extension to its own biodiversity fund, set up when it hosted COP10 in 2010. At the closing ceremony, the UK pledged £200,000 (\$274,000) of extra funding for the CBD’s special voluntary trust fund. Observers were disappointed no other new funding commitments were made.

French president, Emanuel Macron, committed 30% of the country’s climate funding to biodiversity, and the UK said a large part of its extra climate funding would be spent on biodiversity. But this is simply a reallocation of climate change funds, rather than new money.

Talks on how to implement the CBD were also closely watched. Implementation problems were largely to blame for the failure to reach the Aichi targets, and so delegates to Kunming called for improvements. The EU called for an “effective monitoring framework” to ensure targets are met. Coraline Goron explained that the EU wants national commitments to follow the format of the framework’s global targets and to see a system set up to record those commitments. That would allow the gap between the sum of national targets and the global target to be calculated. “But many signatories aren’t in agreement,” she said.

The speeches made by developing world representatives at the closing ceremony were more concerned with funding, technology transfers, and capacity building than implementation.

But two weeks before the first session, China signaled its support for stronger implementation mechanisms. On 27 September, 2021 China and the EU held their 2nd High-Level Environment and Climate Dialogue, between China’s vice premier, Han Zheng, and Frans Timmermans, executive vice president of the European Commission. The two parties agreed to continue working together towards an ambitious, realistic and balanced post-2020 global biodiversity framework, “with clear and where feasible, measurable goals and targets and appropriate mechanisms for monitoring, reporting and review, as well as strong provisions for implementation and planning, and means to support implementation.”

Unlike the climate convention, the CBD lacks convenient mechanisms to track collective ambitions, or to regularly take stock of progress. “Clear systems of common indicators, monitoring, reporting and review, and global stocktaking of progress and ratcheting of ambitions, are all urgently needed to reverse biodiversity loss.”

High level Political Forum on Sustainable Development

“Building back better from the corona virus disease (COVID-19) while advancing the full implementation of the 2030 Agenda for Sustainable Development”

The High Level Political Forum in 2022, which follows COVID-19, is an ideal time to focus on our shared future and create the sort of society we want to leave to our children throughout this Global Decade of Action. The Sustainable Development Goals (SDGs) have become increasingly apparent in recent years, and this has created an opportunity for a more comprehensive and systemic approach to expediting the SDGs and the implementation of the 2030 Agenda. The Sustainable Development Report 2022 reveals that only 9 EU Member States have a strong commitment to the SDGs, while 6 nations have a poor commitment, according to the Sustainable Development Solutions Network assessment of government initiatives for the SDG and the Six Transformations scorecards. Even among the top-rated countries in Europe, the assessment made by the Climate Action Tracker shows that the **strategies and actions of those governments are insufficient to achieve the objectives set out in the Paris Climate Agreement.**

According to the most recent reports on SDGs development in the EU and globally, environmental and social disparities are continuing to worsen as a result of inconsistent policies that have mainly overlooked the effects of unsustainable economic growth tactics. Thus, coordination between the policy and financial frameworks is essential. If we want to change this trend and hasten the implementation of the SDGs, we must wholeheartedly accept the idea that achieving all other SDG targets depends on the full participation of women at all levels and universal access to high-quality education.

The COVID-19 pandemic and Russia's invasion of Ukraine have caused unfathomable setbacks to the implementation of Agenda 2030, underscoring the necessity for swift and thorough alignment of the SDGs and Agenda 2030 with the Recovery and Resilience Plans for **"Building-Back-Better"** and the ongoing political unrest on Europe's doorstep. The consequent disruption of the world's food and energy systems as well as the interconnectedness of peace, security, food, health, agriculture, and the environment has all become startlingly obvious, highlighting the necessity for self-sufficiency and more durable, resilient systems. The 2030 Agenda must now be realized with a comparable level of urgency, teamwork, coordination, and strong science-policy interface. The EU can play a leading role in the regional and global acceleration of Agenda 2030 by providing the unprecedented collaboration and participatory governance techniques that will be necessary for this level of coordination across sectors and governance institutions.

Key topics & thematic discussions

The ramifications of the COVID-19 pandemic across every SDG as well as the integrated, indivisible, and interconnected nature of the SDGs will be covered in the in-depth analyses of the five major SDGs. A town hall meeting on "building back better and advancing the SDGs" followed the opening session. The impact of COVID-19 on the SDGs and if recovery measures are addressing trade-offs, spillovers, leaving no one behind, and achieving the 2030 Agenda was the subject of discussion.

Thematic discussions covered subjects including "Acting at a local level," which examined local and sub-national elements. Cities and regions have a significant role to play in implementing the SDGs, and participants in the HLP greatly benefitted from sharing experiences on voluntary local evaluations of SDG implementation. As part of achieving a sustainable, inclusive, and resilient recovery from the pandemic, the HLPF provided political leadership, direction, and recommendations on how to promote the full implementation of the 2030 Agenda throughout this Decade of Action and Delivery.

We need to urgently move towards an equitable, nature positive and net-zero emissions economy. This urged for radical transformation: we must moderately value and assess nature's contributions to society, stop investments and subsidies that have a negative impact on the environment, increase funding for protecting and restoring our natural resources, and halve the negative environmental impact of production and consumption.

Support for biodiversity is an effective development strategy that benefits everyone, especially the world's poorest people. We rely on the ecosystem services provided by biodiversity, which is the portion of nature that is alive, to breathe fresh air, consume food, drink water, and support livelihoods in industries like forestry, agriculture, and fisheries. It is crucial to achieving our common climate goals and lowering the threat of upcoming pandemics. Unfortunately, biodiversity is disappearing at speeds that are unheard of in human history. The effects of environmental deterioration are more severe for those who are poor since they have few other options for a living.

Securing a transformative, comprehensive and measurable post-2020 global biodiversity framework under the UN Convention on Biological Diversity (CBD) will help to ensure that we achieve the SDGs, and achieve a nature-positive world by 2030.

Member States must agree on a process for updating the biodiversity-related SDG targets with a 2020 timeline, maintaining adherence with the global biodiversity framework for the years after 2020, once it has been adopted by CBD Parties. This will guarantee that the

environmental component of the 2030 Agenda for Sustainable Development receives the proper attention and that the Agenda stays indivisible.

This halfway point in the political cycle is a pivotal moment for the EU. Gender and education must be mainstreamed through SDGs 14 and 15 in order to fulfill the goals of the 2030 Agenda and the climate goals of the Paris Agreement, as we cannot meet the climate goals without the full participation of women and young people. The liability is now on EU Member States (MS) in the European Council and Members of the European Parliament (MEPS) to launch rapid and audacious action with full engagement and collaboration of civil society to commence these recommendations. The moment has come to fulfill our shared vision for a sustainable future using the entire set of tools at our disposal.

Uncertain Times, Unsettled Lives: Shaping our Future in a Transforming World

The world is lurching from crisis to crisis, trapped in a cycle of firefighting and unable to tackle the roots of the troubles that confront us. Without a sharp change of course, we may be heading towards even more deprivations and injustices, warns the United Nations Development Programme (UNDP)

The Human Development Report (HDR) for 2021/22 presents a picture of a world caught in a loop of unending crisis unable to address the causes of the problems we face and at risk of escalating poverty and injustice. It was released virtually by UNDP on Thursday the 8th of September at 9 am EDT and is written by Pedro Conceição Director, Strategic Policy, Bureau for Policy and Programme Support, UNDP New York.

The report focuses on the uncertainties of the Anthropocene which include digitalization, discrimination, violence, pressure on the planet and economic insecurity. In addition to the ongoing uncertainty that humanity has experienced since the beginning of time, we are currently traversing uncharted waters while being trapped in three dangerous crosscurrents: *the Anthropocene's perilous effects on the environment; the pursuit of profound societal changes comparable to the Industrial Revolution; the whims and vacillations of polarized civilizations.* The report explores and investigates how these three recent sources of global uncertainty combine to form a brand-new uncertainty complex that is upsetting lives and impeding human development.

With the pandemic looming in the background and now entering into its third year, it is described in the report as “a window into new reality” as opposed to a deviation from operations as usual. The development, distribution and attainment of herd immunity in such a short span of time is indeed hailed as a monumental achievement however, the introduction of the vaccines also exposed the enormous economic discrepancies present throughout the world. Women and children have, in particular, borne the brunt of it, ranging from lack of access in many low-income nations, taking on additional domestic and care-giving duties and being subjected to more abuse.

The growing inequalities are also concerning with reference to climate change. The top 10% of the global income distribution is responsible for almost HALF of global annual emissions and the bottom 50%, only 12% of emissions. It also warns us that unmitigated climate change may drive up to 132 million people into poverty in the coming decade.

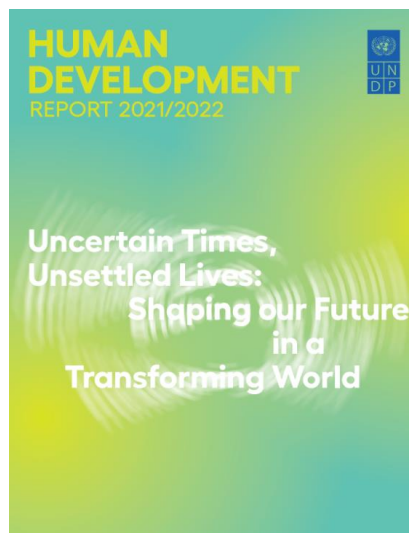


Image Source: UNDP

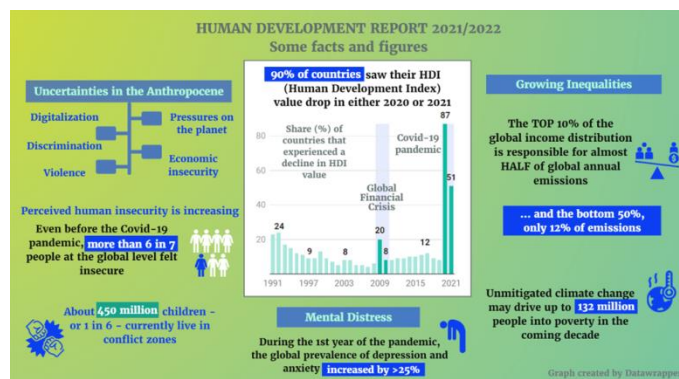


Image Source: UN News

The facts and figures in the report indicate that 90% of the countries saw their Human Development index (HDI) value drop in either 2020 or 2021 and that the global prevalence of anxiety and depression has increased by >25% during the 1st year of the pandemic. The 2030 Agenda, the UN's goal for a more equitable future for people and the earth, has largely reversed much of the progress made towards the Sustainable

Development Goals, which comprise human development that has reverted to its levels from 2016.

India, in particular, has slipped down a notch and ranked 132nd among 191 countries and territories on the 2021 Human Development Index as compared to being ranked 131st among 189 countries and territories in the 2020 report. The decrease in life expectancy from 69.7 to 67.2 years was the cause of the country's performance falling short of its previous level thus decreasing the HDI value of 0.645 to 0.633 this year. India's rating for gender progress increased from 0.845 the year before to 0.849 in 2021. The minor reduction in the gender gap—from 0.105 to 0.101—is blamed for the increase. The female life expectancy decreased from 71 years in the 2020 report to 68.8 years in the 2021 edition, while maintaining its 132nd place in the Gender Development Index. According to the research, a number of movements have improved the status of women in India, as evidenced by their increased representation in politics, improved support for both paid and unpaid domestic work, and improved protection against sexual harassment, among other

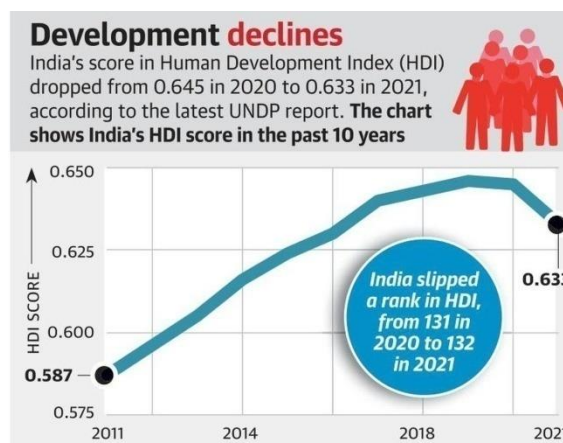


Image Source: The Hindu

things. The country's current ranking of 132, places it behind its South Asian neighbours Bangladesh (129th), Bhutan (127th), Sri Lanka (73rd), and China (79th) but above Nepal (143rd), Pakistan (161st) and Myanmar (149th). The report globally sees the progress in reverse and India is no exception in mirroring this trend which has been influenced by related challenges and but according to Shoko Noda, UNDP Resident Representative in India, the good news is that compared to 2019, the impact of inequality on human development is lower. However, still a lot needs to be done to reach a better spot in terms of Human development in the country.

Whilst change is inevitable, the ways in which we react are not. Although there are many well-founded fears with the dynamic and changing times that we are living in but there is always opportunity in uncertainty that is deeply embedded within these layers of fear and gripping times. The pandemic has opened the doors to new opportunities, especially the advent of technology promising a breakthrough for our response to future pandemics. The past three years have demonstrated what we are capable of when we think outside the box and inspire us to change our institutions to better reflect the needs of the modern world.

According to Mr. Steiner, the development chief, “We have a narrow window to re-boot our systems and secure a future built on decisive climate action and new opportunities for all.” Implementing policies that prioritize investment, from renewable energy to pandemic preparedness, insurance, including social protection, to prepare our societies for the ups and downs of an unsure world, and innovation that enables nations to better respond to whatever challenges come next are all part of this new direction.

In addition to this, we mustn’t forget the environment and give people the resources they require in order to feel safer, recover control over their lives, and have hope for the future.

UNDP, a leading global authority has a crucial role to play with helping countries [eliminate poverty](#) and achieve [sustainable economic growth](#) and [human development](#) and India Water Foundation appreciates the efforts to turn new uncertainties from a threat to an opportunity, by doubling down on human development to unleash our creative and cooperative capacities.

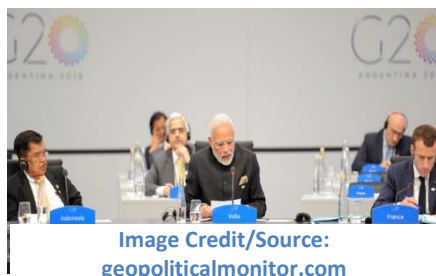
India's G20 Presidency: Challenges and Opportunities

India's assumption of the G20 presidency entails both challenges and opportunities and the present leadership of India is capable of meeting the challenges deftly and unlock opportunities for the benefit of humankind in general and India in particular.

India dons the mantle of G20 presidency at a time when the entire world is grappling with geopolitical tensions along with global economic slowdown. The G20, since its emergence in 1999, has played a crucial role in maneuvering the economy, envisaging a new global financial architecture, and steering clear the roadblocks hindering economic development. Also known as a 'multilateral economic caucus', the G20 has served as a platform for both developed and emerging economies to constructive dialogue.

Challenges

Currently, there are major five challenges confronting the world that the G20 can attempt to fix. Firstly, the elephant in the room is the Russia-Ukraine conflict, wherein India needs to think constructively and sensitively to nudge both, the West and Russia, to de-escalate the tension. The second pressing issue is the phenomenal spike in international prices of oil, natural gas, and food grains along with the high price rise in fertilizers, which has culminated in the resultant plunge into wider inflation across the globe. And many experts opine that this issue entails the likelihood of settling down of its own once the hostilities between Russia and Ukraine cease.



The third challenge is energy, wherein the hot virtue-signaling economics needs to be overhauled and more importantly, the cold politics of discomfort needs to be done away with. The Russia-Ukraine crisis has caused tremendous disruptions in the supply chains of energy supplies on account of Western sanctions on Russia and blockade of supply routes coupled with the Russian ban on the supply of oil and gas to European countries. The UN-brokered agreement recently for allowing the shipment of food grains from Ukraine offers a precedent for arriving at another such agreement to work out some arrangements facilitating the supply of Russian gas to Europe and G20 seems an appropriate forum in this regard.

The fourth challenge is of job creation and environment management, and G20 can act as a forum to exchange experiences on societal benefits and new trends in entrepreneurship, business innovation, growth of startups as unicorns, and gender progress as this collaborative approach would lead to the fresh impetus for innovative thinking. The fifth and major challenge is public health under which the rapidly growing menace of Antimicrobial Resistance (AMR) which needs new antibiotics and R&D collaboration among biotechnology facilities demands reasonable

deliberation. Furthermore, India should seek collaboration on limited focus areas around science and technology as the global agenda has been skewed towards investment, whereas science and technology are the catalysts for economic diversification, sustainably urbanizing the world, heralding the hydrogen economy and climate resilient crop varieties as the answer to both human well-being and global climate change.

The immediate challenge confronting India and coinciding with its assumption of the G20 presidency is the mounting pressure from the Western countries that are members of G20 to exclude Russia from the forum. Deployment of diplomatic, political, economic, and military tactics to isolate Russia by Western countries is also finding support from countries like Australia and Japan. Keeping in view its energy and defense needs, India cannot afford any move to isolate Russia because of its strategic compulsions. India has operated under the framework of its strategic autonomy in foreign policy, and the Indian leadership in its dialogue with the US leadership has conveyed its decision of being not to be pushed back against any potential pressure on its ties with Moscow. Under this scenario, it devolves on India to be prepared for a deftly crafted position as it prepares to lead the G20 meet in the ensuing year from the front.

Opportunities

India has been proactive in the G20 processes in the sherpas and finance track. G20's continuous push for global cooperation, inclusive development, economic stability, and sustainable growth is in consonance with India's domestic goals and principles vouched by other leaders of the G20. During its presidency in 2023, it is essential for India neither to overstress nor underestimate the significance of the G20 work. The G20 represents nearly 90% of the world's GDP, 80% of the global trade, and 67% of the Planet's population due to which it carries enormous political and economic influence. Maintaining its primacy as an effective instrument of global governance, India can be expected to build the agenda around an inclusive and balanced post-pandemic recovery through vaccine aid and diplomacy, as the pandemic has affected many developing countries and severely maimed crucial tourism industries.

According to the World Bank, global growth is estimated to slow down considerably from 5.5 % in 2021 to 4.1 % in 2022 and 3.2% in 2023 as backlogged demand fritters and fiscal and monetary support are phased across the world. Presiding G20 Forum in 2023 is a fitting aspiration and a welcome challenge for India. A major economy and a developing nation with an evolving democracy, holding its head high into the 76th year of its independence, India has the unique opportunity to set 'Agenda 2023' with a focus on equitable green, and resilient recovery. To espouse the troika, India can exhibit the standards, practices, and policies being nurtured to align with 1.5⁰ C degree target, adaptation readiness for building resilience, and strongly underscore the need for industrialized countries of the bloc to do much more. It affords ample

opportunity for India to sculpt and put forward an alternate economic model- one that is built on decentralization

As per the Ministry of External Affairs, India will strengthen international support for priorities of vital importance to developing countries in diverse social and economic sectors, ranging from energy, agriculture, trade, digital economy, health, and environment to employment, tourism, anti-corruption campaign, and women empowerment, including in focus areas that impact the most vulnerable and disadvantaged.

A single-year presidency does not empower the host to change the world but India can provide evidence of its domestic successes, for global adoption. G20 partnership must synthesize divergent interests of all the constituents of the forum and leverage the ability to develop multi-layered governance through access to experts, civil society, politicians, policymakers, and other non-state actors. The platform provides an opportunity for India to work closely on pressing global challenges, where their approach may not be similar but are, in essence, the same. As India assumes the leadership of the G20 presidency in 2023, it must play a crucial role in spearheading the economic growth and development strategy for not just India but the entire global South.

Way Forward

Some observers feel that in view of the prevalent profound disagreements and persistent tensions between and among the G20 members, the prospects of cooperation among them look bleak. Nevertheless, India should ensure that the G20 can at least provide a sense of leadership for the diminution, if not resolution, of tensions and of multilateral disputes. The establishment of the G20 Secretariat in India entails the potential of enabling capacity building, including knowledge and expertise for rendering support to India's leadership on and contribution to global issues in a multilateral forum in the coming years. India's hosting of the G20 presidency also affords opportunities in multiple sectors like tourism, hospitality, IT, and civil aviation among others. **India's policy of prioritizing international peace to ensure national security is essential to enable global financial stability, addresses climate change mitigation, and ensure sustainable development. As India braces for its first presidency of G20, which is just a few months away, there is room for both caution and leadership.**

India's Nationally Determined Contributions (NDC): Their Underpinnings

One of the most challenging issues that the world is contending with is climate change. It poses a threat to the planet's future, and we don't have much time to prepare for it or alleviate its impacts. Countries agreed that cooperating is vital to combat climate change, and in a historic agreement reached in Paris in 2015, they committed to putting forth efforts to keep global warming to 1.5°C. NDCs are at the heart of the Paris Agreement and the achievement of these long-term goals. The report was solicited in consideration of the Conference of the Parties (COP 26) to the UNFCCC's 26th session, which has taken place in Glasgow, UK, from November 1–12, 2021.



Governments committed under the Paris Agreement to keep temperature rise well below 2°C over pre-industrial levels and to strive toward a 1.5°C limit. However, when present initiatives and targets are combined on a worldwide scale, they fall well short of their goals, leading to an estimated 3°C of global warming. Governments have agreed, in compliance with the Paris Agreement that their NDCs should reflect the highest level of ambition and should advance over time with the goal of putting global emissions on a 1.5°C-compatible pathway.



These initial commitments to reduce carbon emissions and transition to renewable energy are insufficient to limit the increase in global temperature to no more than 2.0 degrees. Countries are obligated to assess, improve, and submit more ambitious actions to reduce greenhouse gas emissions every five years. Submissions were anticipated before the Conference of the Parties' (COP 26) 26th session, which had been postponed to 2021 and for the 5-year review in 2020. The Paris Agreement has been ratified by 194 countries in February 2020, including the European Union. The Agreement has been ratified or acceded to by 188 states and the EU, accounting for nearly 97% of the world's greenhouse gas emissions. These states include China, the United States (which has informed the UN of its

decision to withdraw from the agreement), and India, which together account for three of the four largest emitters of greenhouse gases.

The updated (NDC) for India has been submitted to the United Nations Framework Convention on Climate Change has been accepted by the Union Cabinet, which is convened over by Prime Minister Shri Narendra Modi (UNFCCC). The updated NDC aims to increase India's contributions to the Paris Agreement's goal of strengthening the global response to the challenge of climate change. Such a

move will also assist India in establishing growth routes with minimal emissions. Based on the UNFCCC's guiding principles and provisions, it would defend the nation's interests and future development needs.

"To put forward and further disseminate a healthy and sustainable way of life based on traditions and values of conservation and moderation, especially through a mass movement for "LIFE"- "Lifestyle for Environment" as a cornerstone to addressing climate change," states the amended NDC. The choice to adopt enhanced NDCs indicates India's dedication to decoupling economic growth from greenhouse gas emissions at the highest level. As a crucial component of addressing climate change, Prime Minister Narendra Modi established the "Lifestyle for the Environment (LIFE)" movement, promoting an environmentally conscious way of living that emphasizes "mindful and deliberate utilization" rather than "mindless and destructive consumption". However, to accomplish this, traditional methods of constructing massive infrastructure are no longer economically viable.

The modified NDC serves as the roadmap for India's switch to greener energy from 2021 to 2030. The revamped framework will present a chance to improve India's manufacturing capacity and increase exports, along with many other government measures, such as tax breaks and incentives like the Production Linked Incentive scheme for promoting manufacturing and adoption of renewable energy. Overall, it will boost the number of green jobs in fields like renewable energy, clean energy industries, the automotive industry, the production of low-emission products like electric vehicles and extremely energy-efficient appliances, and cutting-edge technologies like green hydrogen. The new National Development Plan (NDP) of India will be implemented between 2021 and 2030 through initiatives and plans of pertinent Ministries and Departments, with assistance from the States and Union Territories.

To increase India's efforts in both adaptation and mitigation, the government has developed a number of projects and programmes. Under these plans and programmes, appropriate actions are being taken in a variety of areas, including water, agriculture, forestry, energy, business, sustainable mobility and housing, waste management, circular economy, and resource efficiency, among others. The aforementioned actions have allowed India to gradually separate economic growth from greenhouse gas emissions. Indian Railways alone will reduce emissions by 60 million tonnes yearly by achieving its Net Zero goal by 2030. Similarly, India is decreasing emissions by 40 million tonnes a year thanks to a large LED bulb push.

India has so far financed the majority of its climate initiatives with domestic funds. However, one of the commitments and duties of the developed countries under the UNFCCC and the Paris Agreement is to transfer technology and provide new and additional financial resources to address the global climate change crisis. India will additionally require its fair share of these global financial and technological resources. India's NDC does not obligate it to take any sector-specific mitigation measures. India wants to gradually lower its total emission intensity and boost its economy's energy efficiency while also safeguarding the weaker sections of the economy and society.

Metamorphosing into a net zero Economy??

“At the COP 27 climate conference in Egypt, we need commitments that will deliver a reduction of emissions by 45 per cent by 2030 so we can reach net zero emissions by mid-century” said UN Secretary General Mr. Antonio Guterres highlighting the imperative of bringing countries on board to have set a net-zero targets, covering about 76% of global emissions.

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Climate change is one of the most pressing problems facing our world today. Its afflicting nature on present families to their children’s future is a worrisome thought. So, it is in the interests of everyone that we see a systemic change that averts climate catastrophe and unlocks the sheer potential of green growth. The recent Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) categorically stated that the world faces cataclysmic consequences of rising temperatures unless nations make serious efforts to overhaul this course, by reducing greenhouse gas emissions. ‘Net Zero’ refers to offsetting new greenhouse gas emissions with other actions, to (supposedly) make net emissions zero. This concept has become the kernel for action to deal with global warming and climate change induced by anthropogenic activities.

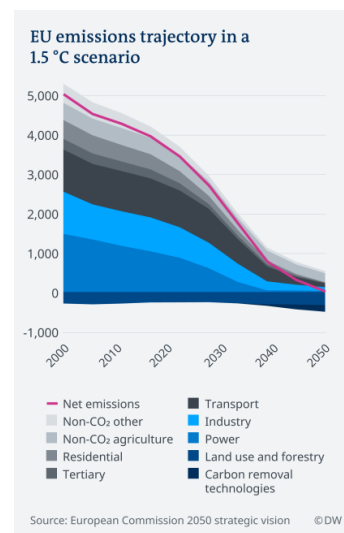


Image source DW news

At the 2021 COP26 the 26th Conference of Parties that signed the United Nations Framework Convention on Climate Change in 1994—many countries agreed to goals of achieving Net Zero by 2050. While these goals may still be too weak- kneed to completely remove the risk of catastrophe, they do represent major progress over previous commitments. No commitments made by governments to date fall far short of what is required. Current national climate plans – for all 193 Parties to the Paris Agreement taken together – would lead to a sizable increase of almost 14% in global greenhouse gas emissions by 2030, compared to 2010 levels. Getting to net zero requires all governments – first and foremost the biggest emitters – to significantly

strengthen their Nationally Determined Contributions (NDCs) and take bold, immediate steps towards reducing emissions now. The Glasgow Climate Pact called on all countries to revisit and strengthen the 2030 targets in their NDCs by the end of 2022, to align with the Paris Agreement temperature goal.

Race to Zero is a global campaign to rally leadership and support from businesses, cities, regions, investors for a healthy, resilient, zero carbon recovery that prevents future threats,



creates decent jobs, and unlocks inclusive, sustainable growth. It mobilizes a coalition of leading net zero initiatives, representing 1,049 cities, 67 regions, 5,235 businesses, 441 of the biggest investors, and 1,039 Higher Education Institutions. These ‘real economy’ actors join 120 countries in the largest-ever alliance committed to achieving net zero carbon emissions by 2050 at the latest. Collectively these actors now cover nearly 25% of global CO₂ emissions and over 50% GDP.

The Indian federal cabinet approved the new national emissions pledges, known as Nationally Determined Contributions (NDCs). The new NDC will commit India to reduce the emissions intensity of its GDP by 45% from its 2005 level in the next 7 years - a 10% increase over its previous 2016 pledge. India will also aim to meet half of its energy demands from renewable sources, such as solar and wind, by 2030. This, too, is a boost over its previous target of 40%. The decision on enhanced NDCs demonstrates India's commitment at the highest level to decoupling of economic growth from greenhouse gas emissions.

As rightly said by former Australian Prime Minister Kevin Rudd, who is Asia Society's global president and the convener of the High-level Policy Commission on Getting Asia to Net Zero, said, “India's net zero ambitions are not just important for the global fight against climate change – they can also be a boon for the country's own sustainable and inclusive development. If approached with comprehensive, holistic planning, in a way that attracts additional investment and ensures a just transition for those most reliant on fossil fuels, India's path to net zero can create new jobs, secure livelihoods and improve health.”

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India is at the apex of two significant transformations. The first is its **economic transformation**. India will soon be the most populous country in the world – and will be home to one of the youngest populations in the world with more than 62% of the population in the working age

group. The country is also home to a large population that lives below the poverty line. A robust and equitable economic growth will be critical to meet the growth and lifestyle aspirations of 1.4 billion people. The manufacturing sector will need to grow to supplement the impressive services sector economy and cater to the large population living off the agrarian economy.

The second is its **green transformation**. India's per capita energy use today is lower than most nations somewhere around 6500 kWh, its use of materials such as iron is still modest, and its manufacturing sector is still relatively underdeveloped. Unlike developed nations like Nordics which aim to reduce their CO₂ emissions at least 40% by 2030 compared to 1990 levels with mature greenhouse gas (GHG) infrastructure, India is yet to build a lot of its GHG inventory. However, as India grows, so will its GHG footprint. While India's growth will need to factor in higher consumption levels across

In addition to the five sectoral pillars, India will need four cross-sectional enablers for its green transition. These include an accelerated approach to green technology innovation, an overarching framework to catalyze green finance, an integrated approach to carbon capture, utilization and storage, and a plan for climate adaptation.

its population, it has a unique opportunity to leapfrog this journey through low/no emissions technologies as India's green transformation is an attractive, crucial, and mandatory component of its overall economic transformation. A Green New Deal for India will necessarily implicate the five sectors that contribute to almost all its GHG emissions:

Pillar 1 – Energy: The energy sector accounts for ~40% of India's GHG emissions, with coal being the dominant source of total fossil CO₂ emissions. Although India has already achieved the target of 40% of installed electricity capacity from non-fossil fuel based sources as an initiative under de-carbonizing the energy sector a foundational priority for India's energy sector which will require a triad approach: replace fossil fuels with renewable; reduce fossil CO₂ emissions from legacy infrastructure through enhanced efficiencies; and remove unavoidable carbon emissions through carbon sequestration.

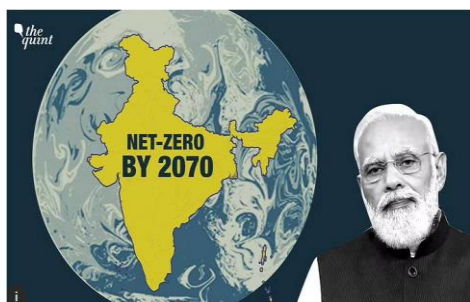
Pillar 2 – Mobility: The mobility sector is heavily reliant on oil and contributes to almost half of India's oil demand. A green transformation of mobility will need a shift in modal mix from road to rail, as well as a broad-based fuel diversification approach to encourage sustainable fuels (bio-fuels, CNG, LNG) in the immediate term, electrification in the medium term and hydrogen-based heavy mobility in the long term.

Pillar 3 – Industry: Manufacturing is a key contributor to India's GHG emissions, with the iron and steel, cement, and chemicals and fertilizers sectors having the highest CO₂ footprint. A robust de-carbonization of these sectors will need demand-management measures such as circular economy acceleration; continued energy efficiency improvements; electrification of

heat; carbon capture, utilization and storage; low carbon fuels such as biomass and hydrogen; and innovative technologies with non-fossil feedstock.

Pillar 4 – Green Buildings, Infrastructure and Cities: India’s top 25 cities contribute more than 15% of its estimated GHG emissions. India’s transition to greener cities, buildings and infrastructure will need a rethink of its approach to urban planning with a focus on transit-oriented urban development and an emphasis on low carbon buildings and infrastructure construction.

Pillar 5 – Agriculture: The agriculture sector is the largest contributor to nitrous oxide (N₂O) and methane emissions. To reduce agriculture emissions, India will need a national campaign to empower, educate and enable more than 100 million farmers in adopting precision agriculture, sustainable animal husbandry and green energy.



Source/Credit: <https://www.thequint.com/>

In addition to the five sectoral pillars, India will need four cross-sectional enablers for its green transition. These include an accelerated approach to green technology innovation, an overarching framework to catalyze green finance, an integrated approach to carbon capture, utilization and storage, and a plan for climate adaptation. By reaching net zero by 2050, India could boost annual GDP by as much as 7.3% (\$470 billion) and create nearly 20 million additional jobs by 2032,

compared with the current policies. Across the five pillars and the four enablers, it is estimated that a Green New Deal for India could represent upwards of a \$15 trillion economic opportunity by 2070, with the potential to create more than 50 million net new jobs. With concerted action, \$1 trillion of this opportunity could potentially materialize within this decade. In this context, it is suggested that now it’s time for a Green New Deal for India. The government, the private sector, investors, civil society organizations and individual citizens need to step forward and accelerate the Next Holistic Green Revolution to make transforming into a net zero economy a reality but not a chimera.

The current pace that the world is developing has a detrimental effect on its natural systems. Over the last 50 years, the global economy has grown nearly fivefold, due largely to a tripling in extraction of natural resources and energy that has fueled growth in production and consumption. The world population has increased by a factor of two, to 7.8 billion people, and though on average prosperity has also doubled, about 1.3 billion people remain poor and some 700 million are hungry. Due to the overuse of our natural resources, there have been extreme events happening like climate change, biodiversity loss, pollution and resource degradation. Social, economic and financial systems fail to account for the essential benefits society gets from nature and to provide incentives to manage it wisely and maintain its value.

Sustainable development goals, Biodiversity conservation, Climate change, Land degradation, Climate change, Biodiversity loss, Pollution

Current and projected changes in climate, biodiversity loss and pollution make achieving the SDGs even more challenging. For example, even small increases in temperature, along with associated changes such as in weather, precipitation, heavier rainfall events, extreme heat, drought and fire, increase risks to health, food security, water supply and human security, and these risks increase along with warming.

In 2018 alone, damages from climate-related natural disasters cost about US\$155 billion. The deteriorating state of the planet undermines efforts to achieve healthy lives and well-being for all. Around one quarter of the global burden of disease stems from environment-related risks, including those from animal-borne diseases (such as COVID-19), climate change, and exposure to pollution and toxic chemicals. Pollution causes some 9 million premature deaths annually and millions more die every year from other environment-related health risks.



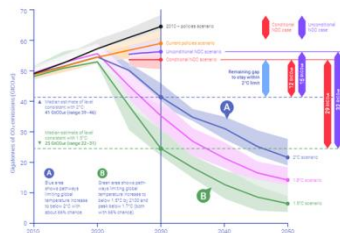
The risks to human well-being and the achievement of the Sustainable Development Goals will continue to escalate unless environmental degradation is halted. Global warming of more than 2°C combined with continued loss of biodiversity and increasing pollution will likely have dire consequences for humanity. The costs of inaction on limiting environmental change far outweigh the costs of action. Global aggregate impacts from climate change are estimated to be very high by the end of the century unless cost-effective mitigation strategies are undertaken.

Transforming human’s relationship with nature is paramount to a sustainable future. Only a system-wide transformation will achieve well-being for all within the Earth’s capacity to support life, provide resources and absorb waste. This transformation will involve a fundamental change in the technological, economic and social organization of society, including world views, norms, values and governance.

Global greenhouse gas emissions under different scenarios and the emission gap in 2030 for unconditional and conditional nationally determined contributions (NDCs) scenarios

Major shifts in investment and regulation are key to just and informed transformations that overcome inertia and opposition from vested interests. Regulatory processes should embody transparent decision-making and good governance involving all relevant stakeholders. Opposition to change can be defused by redirecting subsidies toward alternative livelihoods and new business models.

The COVID-19 crisis provides an impetus to accelerate transformative change. The pandemic and the ensuing economic upheaval have shown the dangers of ecosystem degradation, as well as the need for international cooperation and greater social and economic resilience. The crisis has had major economic costs and is triggering significant investments. Ensuring that these investments support transformative change is a key to attaining sustainability.



Given the interconnected nature of climate change, loss of biodiversity, land degradation, and air and water pollution, it is essential that these problems are tackled together. Response options that address multiple issues can mitigate multidimensional vulnerability, minimize trade-offs and maximize synergies. Limiting global warming to well below 2°C above pre-industrial levels and pursuing efforts to further limit the temperature increase to 1.5°C requires rapid implementation and a significant strengthening of pledges under the Paris Agreement. Globally, net carbon dioxide emissions need to decline by 45 per cent by 2030 compared with 2010 levels and reach net zero by 2050 to put the world on a pathway to 1.5°C with a probability of about 50 per cent, whereas more ambitious targets would be necessary for higher certainty.

Governments should incorporate full natural capital accounting into their decision-making and use policies and regulatory frameworks to provide incentives for businesses to do the same. Governments should shift away from environmentally harmful subsidies, invest in low-carbon and nature-friendly solutions and technologies, and systematically internalize environmental and social costs. A One Health approach integrates action across sectors and disciplines to protect the health of people, animals and the environment. Such an approach is a key to minimize future human health risks from climate change, ecosystem degradation and deteriorating food, air and water quality. It is also essential in preventing and limiting the impact of future health emergencies, including pandemic outbreaks of animal-borne diseases such as COVID-19.

We all have a part to play in bringing together transformative change with an immediate and long-term impact. This can be enhanced through capacity-building and education. Governments initiate and lead in intergovernmental cooperation, policies and legislation that transform society and the economy. Such transformations enable the private sector, financial institutions, labour organizations, scientific and educational bodies and media as well as households and civil society groups to initiate and lead transformations in their domains. Individuals can facilitate transformation by, for instance, exercising their voting and civic rights, changing their diets and travel habits, avoiding waste of food and resources, and reducing their consumption of water and energy. They can also promote behavioural change by raising awareness in their communities. Human cooperation, innovation and knowledge-sharing will create new social and economic possibilities and opportunities in the transformation to a sustainable future.

Marseille Diaries

“We are facing huge challenges. We are seeing the climate changing and impacting hugely our societies. We are seeing biodiversity disappearing and the pandemic hitting our economies, our families, our health,” said IUCN chief Bruno Oberle.

The IUCN World Conservation Congress, the world’s largest and most inclusive environmental decision-making forum concluded in Marseille, France, with an address by the President of France, Emmanuel Macron. The IUCN Congress focused on three main themes: the post-2020 biodiversity conservation framework, to be adopted by the parties to the UN Biodiversity Convention; the role of nature in the global recovery from the COVID-19 pandemic; the need to transform the global financial system and direct investments into projects that benefit nature and to elect the President, Treasurer, Regional Councilors and Chairs of Commissions, who will make up the IUCN Council. This is the body responsible for the oversight and general control of all the affairs of IUCN. With this year’s elected President and the elected IUCN Councilor for South and East Asia being from Asian countries, it is an advent of new possibilities for Asian countries and there are many expectations from the elected officials especially from India.

Advent of the Asian leadership at IUCN



Picture Courtesy: Razan Al Mubarak

Ms. Razan Al Mubarak was elected President of the International Union for Conservation of Nature (IUCN) by the members of the IUCN. She is the first woman from an Arab country and only the second ever woman to lead the 73-year-old organization.

Ms. Mubarak is the managing director of both the Environment Agency – Abu Dhabi and the Mohamed bin Zayed Species Conservation Fund. She started her conservation activities in 2001 and She went on to build and run the Mohamed bin Zayed Species Conservation Fund (MBZ Fund), which has distributed to more than 2,250 conservation projects in over 180 countries since 2008, and served as the youngest Secretary General of the Environment Agency – Abu Dhabi (EAD), a government agency.

Ms. Mubarak said that she was honoured to be elected President saying, “I am truly honoured to have been elected as the 15th President of the IUCN, especially in this critical moment when we need to elevate nature conservation to the forefront of the global sustainability agenda”.

Vivek Menon Elected IUCN Councilor for South and East Asia

As a cherry on the cake for Asia was the election of Dr. Vivek Menon, Executive Director of the Wildlife Trust of India as IUCN councilor for South and East Asia. He is a wildlife conservationist, environmental commentator, author and photographer with a passion for elephants. He has been part of the founding of five environmental & nature conservation organizations in India. The winner of the 2001 Rufford Award for International Conservation, the 2018 Whitley Continuation Award and the 2019 Clark R Bavin award for his work to save the Asian elephant, Menon is the Founder and Executive Director of the Wildlife Trust of India as well as Senior Advisor to the International Fund for Animal Welfare. In India, he plays a role in advising the government on natural heritage conservation as a part of several national committees as well as having been part of the Indian delegations to CITES, UNESCO and CMS.



Mr. Vivek Menon

Twenty-eight Regional Councilors were elected for the Africa, Meso and South America, North America and the Caribbean, South and East Asia, West Asia, Oceania, East Europe, North and Central Asia and West Europe regions. Regional Councilors act as IUCN ambassadors, working to serve the interests and mission of IUCN, and inform the Council on the interests, priorities and needs of IUCN Members in their regions.

Highlights of the Congress

The IUCN World Conservation Congress took place from 3rd September to 11th September, 2021. The IUCN World Conservation Congress is an event that happens once in 4 years. The



French President
Emmanuel Macron

event, originally scheduled for June 2020, was postponed due to the COVID-19 pandemic. It was the first hybrid in-person and virtual environmental event since the pandemic began. The Congress brought together leaders from IUCN's 1500+ government, civil society,

"There is no vaccine for a sick planet. The battle for the climate, against climate change, is twinned with the battle to preserve and restore biodiversity," said French President Emmanuel Macron

Indigenous peoples' organizations, business, and academia with over 9000 participants to determine the world's most pressing environmental and development challenges, and actions to address them. IUCN's unique and inclusive membership gives the Congress a powerful mandate as it is not solely government or non-government, but both together.

"The battle for the climate, against climate change, is twinned with the battle to preserve and restore biodiversity," said French President Emmanuel Macron. The French President spoke at the opening event, and he stressed that, "There is no vaccine for a sick planet". He stated that the

world needs to phase out pesticide use, end plastic pollution and eradicating raw materials linked to deforestation of rainforests from supply chains around the world. He also mentioned that he would push for the Earth’s Polar Regions to be recognized as common global assets and that the world economies should agree to goals and make financial commitments for nature similar to the climate goals.

Hollywood actor and active environmentalist Harrison Ford, who is a passionate campaigner for the protection of the Amazon, highlighted the role of indigenous communities in protecting nature spoke at the opening ceremony on behalf of Conservation International. He paid tribute to the young generation of environmentalists in protecting nature and battling against climate change. He said that they are sitting in lecture halls, venturing into the field for the first time, writing their thesis, they’re leading marches, organizing communities, are learning to turn passionate into progress and potential into power and that in a few years they will be sitting here. He also said that “We are ambitious for perfect solutions, perfect policies, nobody has got that luxury anymore, we got to get to work and got to make things happen, we got to make it happen now!”.



Chinese Premier Li Keqiang spoke at the opening ceremony via a video link and urged the major powers of the world to “show responsibility” and play a leading role in improving global environmental governance to create a “clean and beautiful world” highlighting the enormous journey of a herd of Asian elephants in Yunnan as an example of China’s growing success with conservation efforts. He said that countries should use the United Nations to frame global rules and create a governance system that is fair, reasonable and benefit sharing.

Resolutions and Recommendations Passed

IUCN members are given the opportunity to submit motions on a variety of critical issues for conservation and sustainability. Between 7 May and 28 August 2019, IUCN Members and Council submitted over 200 motions and the submitted motions underwent a technical review to assess their scientific and technical content which will then be put up for online discussions and finally for electronic voting. The Motions are the mechanism by which IUCN Members can influence third parties and guide the policy and Programme of IUCN. Members vote to approve motions, and once adopted, they become Resolutions and Recommendations, and therefore the body of IUCN’s general policy.

For the motions process of the World Conservation Congress 2020, Members were asked to vote on 109 Motions, including 15 with amendments. The voting took place on October 2020 with 729 IUCN Members participated in the electronic voting process and all 109 Motions were adopted continuing a trend from previous Congresses that the majority of motions that reach the

vote are ultimately adopted. Some of the motions adopted are Strengthened institutional inclusion concerning indigenous peoples, transforming global food systems through sustainable land management that is aligned to the UN SDGs, to name a few.

Under normal circumstances, the motions adopted by electronic vote prior to a Congress would be recorded en bloc during the Members' Assembly, at which point they would enter into force as Resolutions and Recommendations, thereby becoming part of IUCN's general policy. However, due to Covid-19 and the postponement of the Congress, the 109 motions that Members adopted by electronic vote had already entered into force as IUCN policy as of late October, 2020, and have been renumbered and reclassified as Resolutions and Recommendations. Of the 109 approved motions, 96 have been classified as Resolutions, while 13 have been classified as Recommendations.

Launches during the Event

Launch of Declaration by World Water Council

Under the aegis of World Water Council and on the side lines the declaration of “No water security without ecological security / No ecological security without water security” of which India Water Foundation is a proud signatory along with INBO, The Nature Conservancy (TNC) and few more for an enhanced dialogue between the water and conservation communities was launched. It was overwhelming to be part of one of its kind of declarations.



This historic declaration mentions seven strong commitments for which each signatory organizations commits to work for “a better integration of ecosystems and biodiversity in the activities of the water sector”. They will work to develop and promote integrated projects and appropriate public policies at global, national, local and river and lake basin levels. In a second phase, the declaration will be accompanied by concrete actions that will be presented at the 9th World Water Forum in Dakar, Senegal, from 21 to 26 March 2022.

Global Indigenous Agenda

“Our global goals to protect the earth and conserve biodiversity cannot succeed without the leadership, support and partnership of Indigenous Peoples,” said Dr Bruno Oberle, IUCN Director General. “The landmark Global Indigenous Agenda presented today breaks ground on Indigenous self-determined nature conservation and natural resource



governance. It was made possible by IUCN's unique convening power as a union of Indigenous peoples, governments and civil society."

In 2016, members of the IUCN voted to include Indigenous Peoples' Organisation as a new constituency. The IUCN's Indigenous Peoples Organisation Members spanning six continents developed the Global Indigenous Agenda for the Governance of Indigenous Lands, Territories, Waters, Coastal Seas and Natural Resources and launched it at the IUCN World Summit of Indigenous Peoples and Nature which was a first-ever event of its kind set within the context of the IUCN World Conservation Congress.

The Global Indigenous agenda lays out an ambitious vision for indigenous led conservation and calls for recognition of policies and laws to respect and secure the right of Indigenous Peoples over their lands, territories and resources. The solutions to biodiversity loss and climate change mitigation efforts should include traditional indigenous knowledge and practices.

The Global Indigenous Agenda lays out 10 high-level proposals and outcomes relating to five themes: Indigenous governance; biodiversity conservation; climate action; post-COVID 19 recovery efforts and food security; and global policy setting.

Sustainable Tourism Initiative

“Protected areas play a crucial role in maintaining the health of the planet and our health as a species, and are critically important in conserving biodiversity, ecosystem services and mitigating impacts of natural disasters and climate change. Through this project, IUCN provides a lifeline to local communities who are unable to finance their vital nature conservation operations after decades of reliance on ecotourism ventures to supplement meagre budgets,” says James Hardcastle, Associate Director, Global Protected Areas Programme, IUCN.

The IUCN and the German development agency GIZ announced a new programme to strengthen the resilience of community-based tourism in and around protected and conserved areas worldwide. The programme, which is funded by the German Federal Ministry of Economic Cooperation and Development (BMZ), will invest up to 17 million Euros to boost the recovery from the impacts of COVID-19 on people and nature. The initiative will use tourism as an instrument to contribute to sustainable development in developing and emerging countries.



IUCN will initially work with two World Heritage sites and five other protected areas in Peru and Vietnam to increase the resilience of the community-based tourism sector to future disruptions. The activities will include engaging local communities and indigenous people in

developing community-based ecotourism action plans, and revising site management plans to include detailed tourism destination and visitor management protocols and guidance.

Local people who are dependent on nature tourism will be able to earn an additional income for example, by restoring trails or other infrastructure or by collecting marine plastic, from the dedicated ‘cash for work’ scheme under the initiative. IUCN will also provide training for protected area managers and local entrepreneurs on tourism recovery measures, One Health principles, safeguards and strategies post-COVID-19, itinerary and product development and promotion for small-scale visitor management.

Experiences gathered in the pilot sites will help to form better decision and inform further action for community-based tourism solutions and the role of community-based tourism in pandemic recovery and prevention in and around protected areas on a global scale.

Collaborative Certification Scheme for Nature-Based Solutions and Great Blue Wall Initiative

IUCN unveiled a plan to develop a collaborative certification system to ensure sustainable benefits from Nature-based Solutions for Societal Challenges (NbS). The certification-based system will be launched in 2022. Businesses that developed their Nature-based Solutions interventions in accordance with the IUCN Global Standard for Nature-based Solutions and are interested in obtaining certification will be able to apply for certification through one of several existing sustainability certification schemes recognized by IUCN. Upon obtaining certification, they will then be able to use IUCN’s NbS logo in addition to the relevant third-party certification scheme’s logo.

The initiative aims to promote the adoption of Nature-based solutions as a proven sustainable development approach across sectors, and to encourage their delivery at the scale and quality necessary to meet global climate, conservation and development targets by 2030. The Facility will help catalyze financing and investment for NbS, assist implementers in identifying and making use of policy levers at global, regional, national and sub-national levels as well as facilitate knowledge across the globe

Under the leadership of Western Indian Ocean states, IUCN and partners committed to support the Great Blue Wall Initiative, the first regionally connected network to develop a regenerative blue economy to the benefit of 70 million people, while conserving and restoring marine and coastal biodiversity.

IUCN Red List of Threatened Species

Today’s IUCN Red List update is a powerful sign that, despite increasing pressures on our oceans, species can recover if states truly commit to sustainable practices,” said Dr Bruno Oberle, IUCN Director General. “States and others now gathered at the IUCN World

Conservation Congress in Marseille must seize the opportunity to boost ambition on biodiversity conservation, and work towards binding targets based on sound scientific data. These Red List assessments demonstrate just how closely our lives and livelihoods are intertwined with biodiversity.”

The IUCN released the updated Red List of Threatened Species which shows that some 902 species are officially extinct and that 30 per cent of the species that it assessed face the threat of extinction. The updated list shows that four of the seven most commercially fished tuna species have shown signs of recovery, the IUCN said in a press statement.

The bold step taken by French government to invite participants from all over the world especially in times of Corona deserves applaud. The event is jointly organized by the French Ministry for the Ecological and Inclusive Transition and the International Union for Conservation of Nature. With nearly 6,000 registered participants on site and more than 3,500 online participants, this hybrid event brought together leaders from government, civil society, indigenous, faith and spiritual communities, the private sector, and academia, to collectively decide on actions to address the most pressing conservation and sustainable development challenges. To conclude we can say it is an all inclusive roadmap for sustainable conservation recovery.

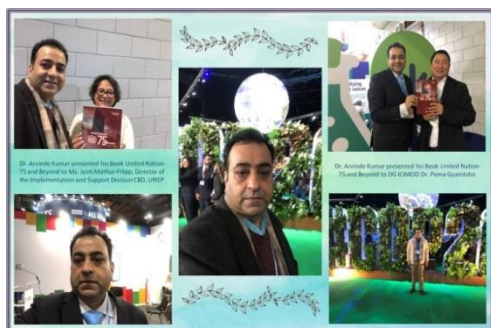
Scotland Diaries

The rugged landscapes and dramatic scenery, striking landmarks and freezing weather are what gives Scotland its particular charm.

Staying at Edinburgh and commuting to Glasgow to attend the UNFCCC COP 26 along with Mr. Donald Wahlang Additional Chief Secretary, Environment and Forest Department Government of Meghalaya afforded me an opportunity to witness this picturesque frame daily. While, Edinburgh – the capital of Scotland – is known for its historic ambience, cobbled streets and hidden alleyways, Glasgow is actually the biggest city in Scotland and is a bustling, cultural metropolis. The number of people registered to attend COP26 has doubled from the last



Courtesy, Credit: India Water Foundation



Courtesy, Credit: India Water Foundation

UN climate conference in 2019 to almost 40,000 people. The enthusiasm of participants was worth noticing.

In the blue zone

The World leaders gathered in Glasgow in a “Last, best hope” to tackle the climate crisis and avert a looming global disaster. British naturalist and COP’s People’s Advocate Sir David Attenborough urged the COP delegates to turn tragedy into triumph and tackle climate change and the greatest problem solvers to have ever

existed on Earth” is the youth. Also had an opportunity to present my book on ‘United Nations at 75 and Beyond’ to Ms. Jyoti Mathur-Filipp, Director of the Implementation and Support Division, CBD and to Mr. Pema Gyamtsho, Secretary General ICIMOD.

Prime Minister Narendra Modi surprised the delegates with bold new five-fold strategy to show the world India’s determination to act decisively to mitigate the climate crisis. He termed the promises as ‘Panch-amrita’ saying that “These five elixirs will be an unprecedented contribution by India towards climate action.” The promises include-

- India will take its non-fossil energy capacity to 500 GW by 2030.
- India will meet 50 percent of its energy requirements from renewable energy by 2030.
- India will reduce the total projected carbon emissions by one billion tonnes from now till 2030.
- India will reduce the carbon intensity of its economy by less than 45 percent by 2030.

- India will achieve the target of Net Zero by the year 2070.

The UN Environment Programme (UNEP) and India signed a Host Country Agreement on the sidelines of the UN Climate Change Conference (COP26) in Glasgow. India was represented by Shri Bhupender Yadav, Minister for Environment, Forest and Climate Change, Government of India, while Ms.



Image Courtesy, Credit: @andersen inger Twitter



Inger Andersen, Executive Director, UNEP, signed the Agreement on UNEP's behalf. The Host Country Agreement comes as Prime Minister Narendra Modi announced his commitment to climate change by presenting his 5 key agendas at the COP26 key climate summit on 1 November 2021.

Outside the blue Zone

Several programmes were being organized at all levels outside the blue zone as well and one of them was the high-level luncheon: "Carbon Negative Food Systems Hold the Key to a Sustainable Planet" organized by the Global Alliance for sustainable planet at Marriot Glasgow.

Launch of Initiative for the Resilient Island States

PM Modi congratulated the Coalition for Disaster Resilient Infrastructure (CDRI) for the initiative and said "It is the collective responsibility of all of us towards mankind. It is, in a way, a shared atonement for our sins". British Prime Minister Johnson said that it is incredibly cruel that vulnerable, small island states are right in the frontline of loss and damage that is caused by global warming and that they have done virtually nothing to cause global warming. He said that the UK will financially help the initiative.



Image Courtesy, Credit: ukcop26.org

Launch of the One Sun One World One Grid (OSOWOG) project

Another coalition between India and the UK has led to the launch of a 'green grids' initiative-the One Sun One World One Grid (OSOWOG) project. The project aims to connect grids from across borders to facilitate a faster transition to the use of renewable energy. PM Modi spoke

about the project said that, “If the world has to move to a clean and green future, these interconnected transnational grids are going to be critical solutions and energy cost but also opens a new avenue for cooperation between different countries and regions”.

Glasgow Leaders’ Declaration on Forest and Land Use: This historic declaration aims to halt and reverse forest loss and land degradation by 2030 which was signed by 105 countries, including 24 African countries.

The Global Methane Pledge: 105 Countries led by the United States and European Union signed the voluntary and non binding Global Methane Pledge. The countries pledged to cut their methane emissions by at least 30 percent by 2030.

Pledge to Phase Out Coal: More than 40 countries signed to phase out coal, UK, Poland, Canada, South Korea, Ukraine, Indonesia and Vietnam all pledged to quit coal between 2030 and 2040.



Image Courtesy, Credit : UNEP

What’s next?

The COP26 summit could have had stronger outcomes but we should not lose sight of the fact that much has been achieved and progress has been made. Alok Sharma acknowledged the scale of the task remaining, saying “We can now say with credibility that we have kept 1.5°C alive. But, its pulse is weak and it will only survive if we keep our promises and translate commitments into rapid action”. António Guterres, the UN secretary-general, also warned that further urgent work was needed, saying, “Our fragile planet is hanging by a thread. We are still knocking on the door of climate catastrophe. It is time to go into emergency mode or our chance of reaching net zero will itself be zero”. Ultimately, the Glasgow Climate Pact will accelerate the pace of energy transition which will affect all the sectors of the global economy. But more needs to be done, if the pledges announced at the COP meeting are implemented, temperatures are still projected to rise 2.4°C by 2100, well above the 1.5°C target agreed at the 2015 Paris climate summit. The next few years will be critical in limiting the Earth’s temperature below 1.5°C or even below 2°C and countries need to deliver on their promises and make revised bold pledges ahead the next COP to be held in Egypt.

* President, India Water Foundation attended UNFCCC COP 26 at UK as part of delegation from India Water Foundation, an observer organization with UNFCCC

Link:

COP 26: India Leads the Climate Charge -<https://www.focusglobalreporter.org/cop26-india-leads-the-climate-charge/>

COP 26: A Balance Sheet:<https://www.focusglobalreporter.org/cop26-a-balance-sheet/>

India and COP 26: <https://www.focusglobalreporter.org/india-and-cop-26/>

COP 26: Challenges and Opportunities: <https://www.focusglobalreporter.org/cop-26-challenges-and-opportunities/>

How India surprised the world at COP 26: https://youtu.be/FFz_pPSWlxc

Live from COP 26: <https://www.facebook.com/indiawaterfoundation/videos/3187686438129066>

DAKAR 2022 - THE FORUM OF RESPONSES

"This 9th World Water Forum gives us the opportunity to sound the alarm on the seriousness of the situation so that water-related issues remain at the heart of the international agenda. The lives and health of billions of people around the world are at stake, but also the preservation of international peace and security", said H.E. Macky Sall, President of the Republic of Senegal at the opening ceremony.

The 9th World Water Forum took place in Dakar, Senegal from 21-26 March 2022, under the theme: 'Water Security for Peace and Development'. It is the first time that an international event of this magnitude has been organized in sub-Saharan Africa. The location was aptly chosen as Africa faces acute challenges of universal access to water and sanitation while



also battling the challenges of poverty and growing pressures related to climate change, rapid population growth, uncontrolled urbanization, pollution, etc.



Figure: Speech by the President of the Republic of Senegal H.E. Macky_Sall in Opening Ceremony 9th World Water Forum

The Grand Opening Ceremony was attended by more than 2000 participants from all over the world. The ceremony was graced by His Excellency Macky Sall, President of the Republic of Senegal. In the presence of his

counterparts from Ethiopia, Congo, Guinea-Bissau, Mauritania, the Vice-President of Gambia, the President of the World Water Council, Mr Loïc Fauchon, the President of the World Bank, the Director-General of UNESCO and other participants from the water community all over the world.

The Forum was opened by H.E. Macky Sall, he noted that water is at the beginning and at the end of life and is important for peace, development and security in Africa, as well as globally. The President invited the international community to pay attention to water issues and asked participants to do everything to meet the expectations of the forum. Mr Loïc Fauchon, President of the World Water Council and co-organizer of the Forum spoke at the opening ceremony and reiterated calls for all to work together to combat global water challenges and to adopt dialogue and cooperation to bring an end to water conflicts. He also called for the international community to set up a blue fund to help prevent the extreme shocks imposed by climate change.



Figure - Speech by Mr Loïc Fauchon President World Water Council in Opening Ceremony 9th World Water Forum

There were also speeches from world leaders including, Mr. Denis Sassou Nguesso, President of the Republic of Congo, said that we will win the water battle through a permanent collective commitment in the context of a truly active solidarity and a consequent financial effort. Mrs Sahle-Work Zewde, President of the Republic of Ethiopia, said that this year's theme of water security for peace and development is an important topic for a secure society and a water development model. Through a video message His Majesty Naruhito, the Emperor of Japan said that he hopes that the discussions at the Dakar Forum will bring new impetus to the water agenda in Africa and



Figure: video message His Majesty Naruhito, the Emperor of Japan

the world to achieve our goal. Recalling the theme of the Forum, World Bank President David Malpass noted the impact of Covid-19, inflation and rising interest rates on the economy, as well as the impact of climate change to development and peace. He called for policy and institution reform, increased investment in water and greater citizen participation in the face of the world's water challenges.

On behalf of the UN, the Director-General of UNESCO, Ms Audrey Azoulay released the 'World Water Development Report 2022' by handing over the report to the President of the Republic of Senegal, Macky Sall, during the opening ceremony. The report is aptly titled "Groundwater: Making the invisible visible". Ms Azoulay said that ground water is 20 times more important in volume than lake water but insisted that groundwater must be preserved from inappropriate use. She said that global cooperation at the UN level is the only solution to face the challenges and opportunities of water in general and advocates an international commitment to sustainable and equitable management of this vital resource.



Figure: most prestigious and globally recognized prizes 'The Hassan II World Water Prize' was given to the Organization for the Development of the Senegal River (OMVS)

One of the most prestigious and globally recognized prizes 'The Hassan II World Water Prize' was given to the Organization for the Development of the Senegal River (OMVS). It contributes to creating global awareness and taking concrete measures to promote the cause of water. The prize is awarded at every World Water Forum and the Moroccan Minister of Equipment and Water, Nizar Baraka, presented the prize to the High Commissioner of OMVS, Hamet Diane Séméga. The prize consists of a trophy, a certificate and a sum of 500,000 US dollars.

HIGHLIGHTS FROM THE FORUM

INITIATIVE DAKAR 2022: The main innovation of the Forum was the selection of high-impact projects for the achievement of SDG 6 on universal access to water and sanitation. The Dakar 2022 Initiative is a project focusing on economic, social and environmental development. The projects must respond to this goal and also take into account 4 priorities of the Forum: water and sanitation security and sanitation; water for rural development; cooperation; Tools and Means including the crucial issues of governance, knowledge management and innovation. In the end, 126 labeled projects were selected and will benefit from international exposure, partnerships and, for some, funding from the Forum’s partner institutions.

HIGH LEVEL MEETINGS

The Forum kicked off with a number of high-level meetings including the Ministerial Round Table on ‘Water Security for Peace and Development’, under the aegis of the Ministry of Foreign Affairs and the Ministry of Water and Sanitation of Senegal. During this strategic meeting, the ministers discussed the major problems encountered in their respective countries and the challenges for water security. At the end of this high-level meeting, the stakeholders were called upon to adopt an action plan covering the various aspects of drinking water quality, sanitation, pollution prevention and risk management. A roundtable discussion on ‘Tools and Means for water security’ was conducted by member countries of OECD with the participation of UNESCO. During this session, the speakers outlined the actions and work provided by several actors for universal access to water. The speakers noted that technical solutions and infrastructures are essential to ensure universal access to water and sanitation to deal with water that is overly abundant, scarce, and polluted. The speakers called for a wide range of means and tools is needed to implement such policies at all levels by governments and public and private sector actors.

The highly anticipated Parliamentarians’ Dialogue was held on the second day of the Forum. The panel focused on the follow-up of the evaluation and consolidation of national public policies and international commitments on water and sanitation, in the service of peace and sustainable development. The discussions resulted in several solutions recommended by the parliamentarians, among others, the creation of a global parliamentary fund on water and innovative legislative frameworks; the establishment of a Blue Fund for water investment; the regular monitoring of governments’ international commitments; the adoption of a water code



Figure: Ms. Debashree Mukherjee, Additional Secretary, Department of Water Resources, RD&GR, Ministry of Jal Shakti participating in the High Level Meetings under the theme of "Water Security & Sanitation for Peace and Development" at the 9th World Water Forum

already in place in Côte d’Ivoire. The parliamentarians also emphasized the issues of financing human resources to be increased and the consistency of public policies.

YOUTH VISION OF THE FORUM

Participation of youth was one of the priorities of this year’s Forum. Senegal, with the support of its partners, created a place for the convergence of ideas and solutions across generations, sectors and countries: the Youth Space. The Youth Space offered young people from all over the world the possibility to work together with key actors, to strengthen their capacities on major water-related issues, as well as gather to make the necessary transformations that our societies and our planet require to ensure a sustainable and equitable present and future. By creating a true intergenerational exchange within the Youth Space, the World Water Forum in Dakar positioned itself as the catalyst of a global youth movement for water at the local, regional and global levels. Also to ensure a better representation of the world’s youth, the SE9FME with the support of its partners had set up the ‘Water Jambaars Programme’ (Jambaars, a Wolof word meaning ‘warrior’). The objective is to ensure a diverse representation of young people from around the world, Strengthen the scientific, technical, entrepreneurial, managerial, and leadership capacities of young people, Supporting and valuing youth initiatives in improving global water security, among others.



Figure: Union Minister Gajendra Singh Shekhawat gave a presentation on 'Water for Peace and Development' at the 9th World Water Forum

IMPORTANCE OF NEXUS APPROACH

During the high-level session on applying the nexus approach to the ‘Water-Energy-Food-Environment’ synergy, the panelists iterated that the Nexus issue is now more than necessary, especially in the context of developing countries in general and sub-Saharan Africa in particular, where storms, floods, droughts, climate shocks are aggravated by the heavy consequences of the health crisis. The panelists agreed that the nexus approach should be promoted and they mentioned, among other things, promoting a better understanding of the nexus concept for the development of synergies, bringing out good practices and innovative solutions to make the nexus approach operational, defining cooperation methods in order to maximize the benefits.

INDIA’S FOOTPRINT AT THE WORLD WATER FORUM

The Indian Government participated in a big way at the 9th World Water Forum. The Prime Minister was represented by a high-level delegation under the honorable Minister of Jal Shakti Sh. Gajendra Singh Shekhawat including officials from the ministry, WAPCOS Ltd, a Government of India undertaking, state governments like Meghalaya sending a high-level

delegation, more than 100 delegates attended from India like members of world water council, other states and agencies.

The Jal Shakti Ministry showcased India's successful initiatives including, inter alia, success stories of the Swachh Bharat Mission, Jal Jeevan Mission, projects between India and Africa, via a country pavilion which was organized by Wapcos Ltd. The pavilion was visited by the President H.E. Macky Sall himself and was appreciated.

Sh. Gajendra Singh Shekhawat, Union Minister of Jal Shakti, gave a presentation on 'Water for Peace and Development'. He talked about India's challenges in the water sector and explained how India has dealt with it through programmes like the Swachh Bharat Mission, Jal Jeevan Mission envisioned by PM Narendra Modi. Ms. Debashree Mukherjee, Additional secretary, Jal Shakti Ministry also spoke during the Forum on water supply and sanitation where she showcased India's successful endeavors to improve the water supply and sanitation situation in the country. As a cherry on the cake for India, The Kyoto World Water Grand Prize worth 2 million Yen has been awarded to an Indian organization called 'Pragati'. The Kyoto World Water Grand Prize is jointly organized by the Japan Water Forum and the World Water Council. This 5th edition rewarded field organizations from developing countries involved in the field of water. The award aims to find and develop outstanding local activities related to water issues around the world. The Grand Prize is an initiative of the City of Kyoto, host of the 3rd World Water Forum in 2003, and is awarded every three years on the occasion of each World Water Forum.



Figure Sh. Gajendra Singh Shekhawat, Union Minister of Jal Shakti, Ms. Debashree Mukherjee, Additional secretary, Jal Shakti Ministry and Officials from WAPCOS



Figure Dr. Arvind Kumar having a discussion with Sh. Gajendra Singh Shekhawat, Union Minister of Jal Shakti and Ms. Debashree Mukherjee, Additional secretary, Jal Shakti at India Pavilion, Dakar Senegal



Figure Dr. Arvind Kumar with H.E. Sh G.V. Srinivas, Ambassador Embassy of India, Dakar (Senegal)

INDIA WATER FOUNDATION AT THE WORLD WATER FORUM

India Water Foundation (IWF) had a big presence at the 9th World Water Forum. As Governor on the board of World Water Council, Dr Arvind Kumar organized and contributed to various high-level panels and sessions.



Figure: Dr Arvind Kumar, President, India Water Foundation during his panel discussion in one of the thematic session of Rural Development of the 9th World Water Forum Dakar Senegal

Dr. Arvind Kumar spoke as a panelist in the session on **‘Participatory governance for rural water supply and sanitation’**. The objective of the session was to highlight the contribution of the participatory governance approach to the massive development of sustainable sanitation in rural areas and rural towns and better understand the reforms undertaken in the governance of the sector. During

the session Dr. Arvind elaborated on how adopting integrated approach by cooperation, coordination and convergence will help in ensuring access to water supply and sanitation in rural areas. The session was organized by Programme SolidariteEau on 21st March 2022.

Dr. Arvind Kumar also spoke as a panelist in the session on **"Localizing Multi-stakeholders partnership for Sustainable Resilient and Inclusive Water Resources Management in Africa and Asia"**. The objective of the session was to organize political dialogue to achieve water-related SDGs and water security in Africa and Asia among multi-sectors and actors to enhance the urgency and political commitment for sustainable, inclusive, and climate-resilient water resource management. Focusing on "policy coherence" and "stakeholders engagement," it will discuss what we need to

do and how to mainstream water resilience into political and development agendas towards quality growth in post-Covid-19 communities in Africa and Asia. During the session Dr. Arvind elaborated on how border partnerships between governments, international organizations, private sector and regional Civil Society Organizations (CSO's) should be augmented and CSO's should be given more space and scope in order to address regulatory and resource mobilization challenges. The session was organized by Japan Water Forum and OECD.



Figure: President, India Water Foundation during his panel discussion in one of the thematic session on "Localizing Multi-stakeholders partnership for Sustainable Resilient and Inclusive Water Resources Management in Africa and Asia".

Ms. Shweta Tyagi, Chief Functionary of IWF was part of a high-level panel discussion in the session on **‘Systems approach to deliver water to people’**. The objective of this session was to present a preliminary vision Systems Approach to Deliver Water to People and to solicit feedback from the broad water community on the vision. During the session Ms. Tyagi elaborated on how adopting an integrated approach instead of a sectoral approach for achieving and implementing SDGs



Figure Ms. Shweta Tyagi, Chief Functionary of IWF was part of a high-level panel discussion in the session on ‘Systems approach to deliver water to people’.

and also stressed on how

cooperation and coordination among various agencies is imperative to deliver water and sanitation facilities to all. The session was organized by the World Water Council and moderated by Dr Rabi Mohtar, Dean and

Professor, Faculty of Agricultural & Food Sciences American University of Beirut and closing remarks by Mr Guatavo Saltiel, Lead water and sanitation specialist at the World Bank.



Figure: Dr Arvind Kumar, President, India Water Foundation during the special session on Ecosystem based Adaptation for Complete Water Security to commemorate IWF's founding day

To commemorate India Water Foundation’s founding day, IWF organized a special session on **‘Ecosystem based Adaptation for Complete Water Security’** at the World Water Council boot at the Forum. The session was moderated by Mr. Atul Bagai, Head, UNEP India Office, other speakers in the session were Mr. Lifeng Li, Director, FAO Land and Water Division, Mr. Piyush Dogra, Consultant World Bank and Dr. Arvind Kumar, President, India Water Foundation. During the session Mr. Aiban shngain Swer, OSD of MBDA Meghalaya Government presented the case study of Meghalaya during the session. The session was inspired by the latest book of Dr. Arvind Kumar with Elsevier publications on Ecosystem based adaptation.



Figure: Dr. Arvind Kumar with H.E. Sh Dindin Wahyudin, Ambassador, Embassy of the Republic of Indonesia, Dakar (Senegal)



Figure: Dr. Arvind Kumar with Ms. Jennifer J. Sara, Global Director, Water Global Practice, World Bank, Governor, World Water Council

OUTCOMES OF THE FORUM

“Rest assured, nothing that has been done and said here in Diamniadio will be in vain, let alone forgotten. With abnegation, we will bring together the results of the Forum to the heart of the world water agenda, in particular at the 2023 UN conference on water. We will implement them in our territories, our homes, our fields, our rivers, our factories, in nature and in all our activities, in short, at all times and in all places” said Mr. Serigne Mbaye Thiam at the closing ceremony.



Figure: Closing ceremony at the 9th World Water Forum 2022 Dakar, Senegal

The 9th World Water Forum concluded with the release of a declaration called “Blue Deal”. The Dakar Declaration- A “Blue Deal” for Water Security and Sanitation for Peace and Development aimed at guaranteeing access to water and sanitation for all, ensuring adequate financing and inclusive governance, and strengthening cooperation. Through this declaration in four main areas, the aim is to accelerate the implementation of the right to drinking water and sanitation for all by providing appropriate legislative frameworks, said Abdoulaye Sène, Executive Secretary of the 9th World Forum. The declaration also emphasizes the need to mobilize all stakeholders through integrated and inclusive strategies. The text is the result of three years of preparation and a week of intense exchanges.



Figure: Closing ceremony at the 9th World Water Forum 2022 Dakar, Senegal

The 9th World Water Forum was a historic and effective Forum and was a perfect illustration that nothing great happens without passion and commitment. The Forum had a footfall of over 30,000 participants with over 3000 projects launched and 5000 contributions made. The Government of Senegal left no stone untouched to make Forum a success and made sure that all the participants felt welcomed by offering free transportation and food during the whole event. The Dakar 2022 has shown initiative, imagination, and dedication in placing various countries on the path leading to the improvement of the various indicators relating to water. The outcomes from the forum through its high level exchanges, proposes of innovative action plans will bring water issues to world and will have a real impact on the populations, especially those who do not yet have proper access to water and sanitation. This Forum has made the horizon clear and the road well marked towards the 10th World Water Forum which will be hosted by the Republic of Indonesia in 2024.

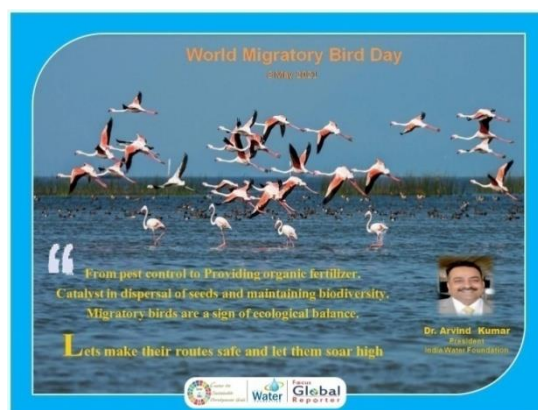
Biodiversity to Desertification Day

2021 being the year of “Make or Break”, India Water Foundation contributed by celebrating and observing various environment events by generating awareness among the society and engaging various stakeholders to motivate and engage communities in talks towards protected and sustainable environment.

Migratory Day, 8 May

The migration of birds is a natural event that happens all around the world. Migratory birds fly hundreds to thousands of kilometers to find the best habitats that provide good feeding grounds and shelter for raising their young. Migratory birds have perfectly adapted bodies which help them to fly huge distances.

World migration bird day (WMBD) is an awareness raising campaign on migratory birds. It highlights the need for conserving migratory birds and also their habitats. It aims to draw attention to the threats faced by migratory birds, their ecological importance, and the need for international cooperation to conserve them. WMBD is celebrated bi-annually on the second Saturday of May and October.



The theme for this year’s WMBD was “Sing, Fly, Soar-Like a Bird!” with a focus on the phenomena of ‘Bird song and bird flight’ as a way to connect and inspire people of various group ages in the world and celebrate their shared desire to protect birds and the habitats they need to survive.

Bees Day, 20 May

To develop awareness and concerns about food security and its impact on the economy due to bee’s loss, the United Nations General Assembly on December 20, 2017 declared May 20 as World Beekeeping Day to commemorate the birthday of Anton Jansa, a pioneer beekeeper born in 1734.

There are 2 billion bees on earth as of year 2020, and are most efficient around the world than any other pollinator of food plants. It is estimated that one third of our daily diet depends on pollination, mainly by bees, but also by other insects, birds, and bats. Bees are responsible for

pollinating about 85% of all human food crops, as well as many of the plants that grow food for cattle. Bees participate in all aspects of nature. They support the growth of trees, flowers, and other plants, which serve as food and shelter for large and small creatures. Bees contribute to complex, connected environments that allow for a wide range of species to survive. We can lose all the plants that bees pollinate, all the animals that eat those plants, and so on in the food web. This means that a world without bees would be vulnerable to feed the world's 7 billion people, hence bees are a key to biodiversity.

Biodiversity Day, 22may

Biodiversity (biological diversity), is the abundance of living things that make up life on Earth (UNEP, 2020). Biodiversity ensures that we have fertile soil, as well as a variety of foods, including fruits and vegetables that we should eat. It is the basis of many of our industries and livelihoods and helps to control climate change by storing carbon and rain control.

Climate change alters ecosystems and its affects can be seen in individual species and how they interact with their components of ecosystem, it's an ever-growing threat to us humans and also to the natural biodiversity and ecosystems. We are losing 1,000 times more species than ever before in recorded human history and one million species are at risk of extinction. (IPBES, 2019). The effects of climate change present significant challenges to current conservation approaches. To mitigate these uncertainties, Nature based solutions including, site-specific natural and cultural contexts that include traditional, local and scientific knowledge can be very helpful in conserving biodiversity.

To raise awareness for conserving biodiversity, the world observes 'Biodiversity week' with 22 may'2021 as international day for biological diversity.

Environment Day, 5 June

On world environment day the UN launched the decade on Ecosystem Restoration. India Water Foundation, President Dr Arvind Kumar, was invited as Distinguished speaker By Department of Agriculture and environmental science, National Institute of food technology entrepreneurship and management the celebrated wanted by midday on team of ecological restoration. The event was organized by ministry of food processing industries and NIFTEM.

He presented a keynote presentation on the theme **"ECOLOGICAL RESTORATION"**



Food Safety Day, 7 June

On 7th June 2021 to call attention and inspire action to help prevent, detect and manage foodborne risks, innumerable benefits of safe food, human health and sustainable development, World Food Safety Day (WFSD) was celebrated with this year's theme being 'Safe food today for a healthy tomorrow' emphasizing the importance of production and consumption of safe and healthy food and its immediate and long-term benefits for people, the planet and the economy. This acts as catalyst for WHO to pursue its efforts to mainstream food safety in the public agenda and reduce the burden of foodborne diseases globally. With the observance of WFSD, all stakeholders are motivated to participate in awareness generation about food safety and to highlight that everyone involved in food systems has a part to play. This year WFSD call for action by: Ensure it's safe - Government must ensure safe and nutritious food for all; Grow it safe - Agriculture and food producers need to adopt good practices; Keep it safe - Business operators must make sure food is safe; Eat it safe- All consumers have a right to safe, healthy and nutritious food; Team up for safety – Food Safety is a shared responsibility.

World Ocean Day, 8 June

World Oceans Day was observed on June 8, giving the world an opportunity to raise awareness among people about the impact of economic activities and human actions on the ocean. As oceans play a major role in the everyday life of people globally by being the lungs of our planet and playing an important part in the biosphere. This year's theme was 'The Ocean: Life and Livelihoods' to shed light on 'the wonder of the ocean and how it is our life source, supporting humanity and every other organism on Earth'

The Indian Ocean, being the warmest ocean plays a crucial role in regulation of the mean climate patterns and variability of Asian as well as tropical countries. With growing natural disasters, there is now a need to invest in capacity building, governance transparency, and confidence-enhanced institutional cooperation. With India working on mitigating the impacts of climate trends due to the warming of the Indian Ocean, it can be a model framework to combat climate change impacts in the climate-resilient pathways.

Ground Water Day, 10 June

India facing it's one of the most major serious water crises, the 2018 Niti Aayog report 'Composite water management index' Should how to major cities of India like Delhi, Bengaluru, Chennai and Hyderabad among others Running towards zero groundwater levels by 2020 that will be affecting access for more than 100 million people in India. the groundwater depletion rate in India have been increased by 22% percent between 2000 and 2010.

As the amount of water is increasing year by year leading to water scarcity in many parts of the world, today's awareness of the problems of water pollution contamination and rapid depletion of groundwater causing freshwater crisis we observed groundwater day on 10th June 2021 to raise dialogue and awareness among stakeholders and communities. Groundwater being the most viable source of freshwater should be conserved by proper groundwater recharging techniques, minimizing the use of pollutants, safe waste disposal, and by initiatives like reducing, reusing, recycling and replenishing.

Wind Day, 15 June

On June 15 2021 global wind day was observed as a worldwide event with the #InWithWind, to celebrate the discovering of wind energy its powers and the possibility it holds to positively impact economic by green jobs and growth. The event is organised by Wind Europe and the global energy council and act as a catalyst to create awareness of the benefits of wind energy.

Wind energy is the most sustainable renewable source and a great alternative to fossil fuels to create clean energy it is the fastest growing industry and helps to mitigate the impacts of climate change and global warming. Wind energy is also seen as one of the cheapest forms of energy, especially in European countries. It is economically viable and long-term sustainable technology and can help us to achieve that zero targets in direction of climate action. Wind energy helps us de-carbonising our economy and aid to limit Global warming. It can help us achieve India's commitment to achieving 60GW from the wind as committed by the Government of India. India Water Foundation celebrated the event by raising awareness with our #HarnessWindPower.

Sea Turtle Day, 16th June

Sea turtles play an important part in the marine food web. They can help prevent some impacts of Climate Change in coastal communities. Having strong and healthy dune systems and coral reefs will prevent coastal areas to get flooded due to sea level rise and due to an increase of extreme weather events like hurricanes. Sea turtles are very important for different ecosystems and many other species depend on them.

However, the continued decline of sea turtle populations will have serious economic consequences, particularly for coastal communities in developing countries, said Dr. Susan Lieberman, Director WWF's global Species Programme. Today 6 out of the 7 species of sea turtles are threatened with extinction. With poaching being the most blamed there are many other anthropogenic threats that are the main cause for their decline in population.

To generate awareness about this issue we celebrate Sea Turtle Day, on June 16th'2021 under the theme 'Turtles rock!' calling for pledge to educate and collaborate communities about marine pollution and degrading sea habitat.

Desertification and Drought Day, 17 June

Consider as one of the main issues of 21st century and impacting negatively a minimum of more than 3 billion people, land degradation impacts agriculture productivity food security water security and total economic value of the area, caused due to dryland ecosystems, deforestation, overgrazing and bad irrigation practices. Land degradation disrupts the ecosystems and cause great harm to the environment. To call attention to this issue and with aims at finding achievable solutions for combating desertification that can be practiced by the majority of the countries and individuals all over the world. Desertification and Drought Day is marked on June 17 across the globe, with this year's theme 'Restoration Land Recovery. We build back better with healthy land'. Land degradation requiring more attention than ever before, India water foundation.

Latest Book & Review

Ecosystem-Based Adaptation: Approaches to Sustainable Management of Aquatic Resources

(Arvind Kumar, *Ecosystem-Based Adaptation: Approaches to Sustainable Management of Aquatic Resources*, London: Elsevier Publishers, February 2022. Pages 682+)

Climate change and the pandemic have been with humankind as perennial problems for ages wreaking havoc with human lives and prosperity. Mass vaccination has provided a semblance of respite to humankind from the scourge of the COVID-19 pandemic but climate change continues to threaten the very existence of biotic life on Earth. Among the various solutions advanced by scientists from time to time to combat climate change, Ecosystem-Based Adaptation (EbA) is garnering sufficient international traction and its successful implementation in many countries, as portrayed in the book under review, is a testimony to its rationale and contemporary relevance.

The book presents a close examination of the role of ecosystem-based adaptation in managing river basins, aquifers, flood plains, and their vegetation to provide water storage and flood regulation. Furthermore, the book explores improved ecosystem-based services for managing floods conservation of water and its resources (including watersheds), avoiding water scarcity, and ensuring long-term water security planning, all in the context of sustainable development goals.

The academic and research worth of this book lies in its prime focus on applying ecosystem-based adaptation to major goals enshrined in the 2030 Agenda which is touted as a plan of action for the prosperity of the people of planet Earth. The author has meticulously intertwined linkages between ecosystem-based adaptation and major sustainable development goals by specifically focusing on viz., tackling the problem of hunger (SDG-2) by ensuring food security, clean drinking water (SDG-6) by ensuring water security, sustainable cities (SDG-11) by moving towards sustainable smart cities, climate action (SDG-13) by understanding the magnitude of the challenge of climate change and suggesting means to cope with this problem, safeguarding life

The Daily Guardian THURSDAY | 28 JULY 2022

BOOK REVIEW

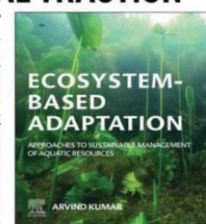
ECOSYSTEM-BASED ADAPTATION GARNERING INTERNATIONAL TRACTION

PRADEEP MALIK

Climate change and the pandemic have been with humankind as perennial problems for ages, wreaking havoc on human lives and prosperity. Mass vaccination has provided a semblance of respite to humankind from the scourge of the pandemic, but climate change continues to threaten the very existence of biotic life on Earth. Among the various solutions advanced by scientists to combat climate change, Ecosystem-Based Adaptation is garnering sufficient international traction, and its successful implementation in many countries, as portrayed in the book, is a testimony to its rationale and contemporary relevance. It presents a close examination of the role of ecosystem-based adaptation in managing river basins, aquifers, flood plains, and their vegetation to provide water storage and flood regulation. The book explores improved ecosystem-based services for managing floods, conservation of water and its resources, avoiding water scarcity, and ensuring long-term water security planning, in the context of sustainable development goals.

The academic and research worth of this book lies in its prime focus on applying ecosystem-based adaptation to major goals enshrined in the 2030 Agenda, which is touted as a plan of action for the prosperity of the people of planet Earth. The author has meticulously intertwined linkages between ecosystem-based adaptation and major sustainable development goals by specifically focusing on viz., tackling the problem of hunger (SDG-2) by ensuring food security; clean drinking water (SDG-6) by ensuring water security; sustainable cities (SDG-11) by moving towards sustainable smart cities; climate action (SDG-13) by understanding the magnitude of the challenge of climate change and suggesting means to cope with this problem; safeguarding life below water (SDG-14) by suggesting means and measures to sustain life below water; and protecting life on Earth (SDG-15) by adhering to means and measures that help conserve life. The salient feature of this book lies in its emphasis on nature-based solutions, with specific emphasis on ecosystem-based adaptation (EbA), and it recommends mainstreaming EbA into national, provincial, and local level adaptation plans as a means to realise the goals of Agenda 2030. This book is helpful to scientists, policymakers, climatologists, development experts, and all those interested in saving this planet from the vagaries of climate change because it paves the way for easy implementation of sustainable development goals for ensuring a secure and sustainable future.

The book has ten chapters, and each chapter deals with the diverse ecosystems. The first



chapter focuses on the concept of disaster and its interlink ages with notions of risk and hazard, along with an emphasis on vulnerability and resilience as well. The second chapter provides a brief description of the main components of climate change— atmosphere, biosphere, cryosphere, hydrosphere, and lithosphere. Chapter three focuses on the Ecosystem-based Adaptation (EbA) approach as a concept, along with a brief examination of the major ingredients of the approach. Chapter four takes into account the pros and cons of mitigation and adaptation measures to deal with climate change. Chapter five takes into account the pros and cons of mitigation and adaptation measures to deal with climate change. Chapter five deals with the theme of water security with a specific focus on the issues of water quality and water scarcity, and thereafter proceeds to analyse the impact of climate change on water. Chapter six takes into account the concept of food security, which is elaborated with a brief appraisal of the notion of hunger and the impacts of climate change on ensuring food security. Chapter seven deals with smart cities, along with a focus on linkages between urbanisation and sustainable development. Chapter eight focuses on life below water, with specific emphasis on environmental stressors like marine pollution, acidification, deoxygenation, and sea-level rise, along with anthropogenic stressors like plastic pollution, oil spills, overfishing, greenhouse gases, land-based sources of marine pollution, etc. Chapter nine focuses on the theme of life on Earth, with a specific focus on freshwater ecosystems, forests, genetic resources, wildlife, and land-use, etc. Chapter ten emphasises mainstreaming EbA in programmes and policies in the action plan at national and provincial levels. The concept of mainstreaming is examined along with categories of mainstreaming climate change adaptation. The writer is a former journalist and works in the Haryana Electricity Regulatory Commission as Dy Director, Media.

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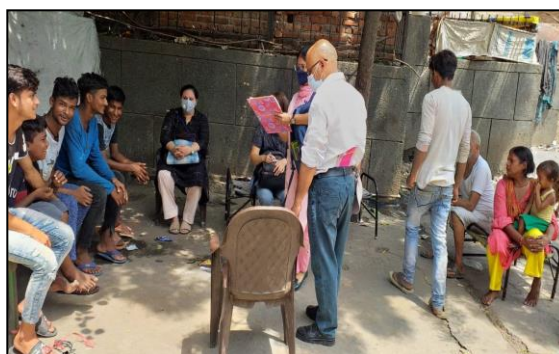
CONCLUDED PROJECT

Survey on Information Collection of Water Supply and Sanitation in Urban Slum Areas

India Water Foundation had undertaken a study for Japan International Cooperation Agency (JICA) for information collection on water supply and sanitation in selected 50 representative slum samples out of around 5200 urban slum areas of Delhi in 2021-22 in collaboration with NJS Engineers India Ltd. The objective of the study was to analyze the achievements and lessons learnt in water supply and sanitation sector in urban slum areas through reviewing related central and state government policies, programmes and activities by other development agencies. Reviewing and analyzing various JICA funded representative projects in the sector and proposing assistant policy/implementation plan for future project formulation in the water sector. Although The survey was quite a challenge in itself, especially considering the COVID prevalence and restrictions, the enthusiastic study team addressed those challenges and conducted the survey, various outreach activities and came up with invaluable data which became the ground stone to draft synthesis indicators enabling interpretation of results obtained from respondents. This study will be helpful in planning for future project formulation in the water sector to achieve the target of SDG6 and Clean India Movement.

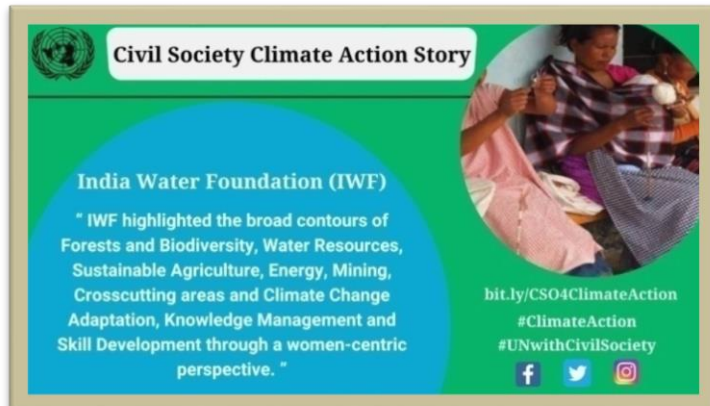
To read the complete report of the concluded study please clicks on the link:

<https://www.indiawaterfoundation.org/final-report/>



Special Moments

Proud moment for India Water Foundation to be showcased as one of the four best civil societies in the world for their climate action story that inspires others, benefits the planet and its positive impact provide hope for the future. Congratulations to the people of Meghalaya and all partners associated with this project which we undertook on probono basis.



<https://www.un.org/en/civil-society/india-water-foundation>



IPBES8 Stakeholder Days

India Water Foundation E-poster was selected for the IPBES 8 stakeholder days.

The poster represented India Water Foundation's mission and priority areas and how they are related to IPBES which is The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, an intergovernmental organization established to improve the interface between science and policy on issues of biodiversity and ecosystem services.

SHWETA TYAGI ELECTED AS MEMBER GCNI

June 2021: The chief-functionary of India Water Foundation, Mrs. Shweta Tyagi was elected as a member in the Governing Council of UN Global Compact Network India. Mrs. Tyagi is excited and committed to contribute towards amplifying and integrating SDGs.



India Water Foundation is selected as one of the two members of the South Asia network for sustainable development (SANS), adding another feather in cap of India Water Foundation. SANS by ENSCAP has been developed to foster subregional cooperation by sharing good practices towards achievement of the SDGs amongst the government agencies, think-tanks, CSOs and other stakeholders in South Asia to build back better.



Figure 1 India water foundation, now a member of SANS

India water foundation is now committed to push for integration of SDGs in programmes and policies and to ACTNOW with cooperation and coordination in pursuit of a shared development vision in the south Asian region.



Our Jal Mitra campaign to turn ‘Biodiversity Conservation into Public Movement’ has been well received and shared by CBD as IWF's action commitment. Let's take collective actions to safeguard, conserve and protect biological diversity.

Sector Partner: India Water Foundation has signed Memorandum of Understanding with the National Jal Jivan Mission of the Ministry of Jalshakti, Government of India for the implementation of the Jal Jivan Mission across the country.

Major Events and Activities

FEBRUARY 2022: Road to Dakar: Water Security for Peace and Development

The Government of Senegal and the World Water Council are organizing 9th World Water Forum from 22-27 March 2022 at Dakar, Senegal. Yesterday at the extraordinary board meeting the governors were presented with the logistics planning for the forum.

The Senegal government has planned out some fabulous sessions, and has made the procedure to attend convenient and accessible for all. I am sure the forum will be a big success. Let's attend the Mecca of Water in huge numbers. The French government and others are taking a huge delegation of officials and experts. In UNFCCC COP26 as well there was record participation, so as a Governor on board I urge hon'ble members, governments, basin organizations to attend the high level plenaries, sessions and exhibitions in big numbers, showcase your success stories and benefit from the quality, multi-actor exchanges. The forum programme, agenda, logistics is all on the forum website

https://lnkd.in/gNqAvP_w. The COVID cases are minimal in Senegal and there is visa on arrival for Indian nationals. In case of any difficulty please contact us and we shall facilitate the procedure for you.



our office and having a comprehensive discussion on diverse agendas of Technology Support, Environment and Water Conservation and Sustainable Development especially in context to the Prosperity and Development of Asia Pacific Region and heralding a new chapter of mutual cooperation.

Mainstreaming wetlands ecosystem services & #biodiversity into our developmental policies & urban planning processes, including climate change mitigation, is the pressing need of the hour." said Dr Arvind Kumar on the World Wetlands Day celebrations organized by NMCG and WWF.



The common people, civil societies and state agencies should come together for protection of #wetlands in the country and wetlands conservation would not be limited to just getting them a Ramsar tag but increasing space for peoples participation in management and decision making.

DECEMBER 2021: Dr. Arvind Kumar while speaking at the Dialogue on “50 Years of Bangladesh-India Partnership: Towards a Journey in the Next 50 Years”, organised by Centre for Policy Dialogue (CPD) in collaboration with the Research and Information System for Developing Countries (RIS), India in hybrid mode on 1st December 2021, highlighted how connectivity projects can create more trade opportunities for Bangladesh and especially the Northeastern states of India like the ‘border haats for hilisha, flowers, spices located on the zero line of the border between the two nations have played a vital role in boosting waterways connectivity for people centric approach which he had personally witnessed. He further stressed on renewing the Water sharing dialogue between both countries with a new impetus and also congratulated the people of Bangladesh for 50 glorious years of independence.



NOVEMBER 2021: The Fifth sub-regional SDG Forum was organized by the UNESCAP on 15-16 November 2021 for Asia and the Pacific to bring together stakeholders on a common platform to discuss achievements and challenges in the progress towards the SDGs for further review at the Asia-Pacific Forum for Sustainable Development and at the United Nations High-level Political Forum on Sustainable Development (HLPF). The forum was followed by Policy Dialogue on

Regional Cooperation for Sustainable Development in South Asia on 17th November 2021.

Dr. Arvin Kumar as representative of think tank India Water Foundation deliberated on Life below water SDG14 regional cooperation. He stressed on the need for investment in sustainable fisheries and tourism, greening the shipping industry, better waste management and promoting research for better data collection to prevent ocean pollution and protect life below water". He also highlighted how "The SANS portal can play a very crucial role in accelerating knowledge sharing and achieving the SDG goals being a multistakeholder platform. Broader partnerships between governments, international development organizations, private sector and



regional CSOs should be given more space and scope in order to address regulatory and resource mobilization challenges."

Special mention to the government of Sri Lanka for their wonderful hospitality, warmth and diplomatic welcome. Inaugurating the Forum, Prime Minister Mahindra Rajapaksa of Sri Lanka said that "the theme of this year's Forum is timely and relevant, as we strive to build back better and stronger from the global pandemic that resulted in devastating consequences for our economies and societies."

<https://www.linkedin.com/feed/update/urn:li:activity:6870301819734679552>

NOVEMBER 2021: Investment in 'blue' recovery and stimulus packages, along with policy reform, can immediately create jobs and provide short-term economic relief, all while fostering long-term economic growth, resiliency and social and environmental benefits" said Dr. Arvind Kumar while speaking at the 5th South Asia SDG Forum Building Back Better from COVID19 while accelerating the implementation of SDG in SSWA, 15-16 November 2021 organised by UNESCAP and Government of Sri Lanka.



As Alternate Governor of World Water Council Shweta Tyagi Chief Functionary India Water Foundation attended the 75th virtual board of governors meeting of World Water Council. The deliberations were timed considering the upcoming World Water Forum at Dakar Senegal in March 2022. Looking forward to an all inclusive enriching forum



Hi friends speaking live from COP amidst the vibrant ambience at the Scottish event campus and palpable excitement and enthusiasm among all participating.

Dear Friends please find the perspectives of India Water Foundation on the developments at the leaders summit and why this COP 26 is crucial for India. Watch the full video on India Water Foundation YouTube channel (https://youtu.be/FFz_pPSWlxc).

OCTOBER 2021: Dr. Arvind Kumar emphasized that Transversal shift interlinking vertical linkages between water, energy Food and environment nexus with horizontal linkages like Agriculture, Entrepreneurship, livelihoods must be incorporated. Knowledge-driven



approach is required across sectors and actors at local level where indigenous knowledge, With UNFCCC COP just around the corner and speaking about common country analysis and NDC updation this model interlinks both and ensures food security in a sustainable manner. Nature and modern science based solutions should be leveraged to enhance rural prosperity. More small holder-centric reforms in the agriculture sector are needed before the EBA model is widely applied in India. While presenting "Enabling Business in Agriculture via Ecosystem based adaptation for sustainable food security" at the Seminar on "Sustainable Agriculture and India towards Total Food Security organized by World Food Trust on 28th October 2021.

<https://www.linkedin.com/feed/update/urn:li:activity:6859789657111093248>

Dear Jalmitra, Please find the activities of India Water Foundation as a direct member of International Commission on Irrigation and Drainage, (ICID) published in their Annual report 2020-21.



https://icid-ciid.org/icid_data_web/ar_2020.pdf



Dr. Arvind Kumar president India Water Foundation attending the CSO Townhall with World Bank Group President, David Malpass. Great interactive session and questions of civil societies being answered comprehensively.

Dr. Arvind Kumar, Governor-World Water Council and Founder President-India Water Foundation presenting his new compilation "United Nations: 75 and beyond" to Shri Aziz Haider, Head-Media

Communications at the World Food Trust. Dr. Arvind Kumar, environment and sustainable development goals (SDGs), Regional Water Diplomacy, RainfedAg Water Environment Federation (WEF, World Food Trust WFT

Attended the inaugural Asia Pacific Science Policy Business Forum (AP-SPBF) of the UNEP convened virtually as a one-day event yesterday from 6.30 am to 4 pm. The opening session explored the dynamic of the post-COVID recovery in the region and the thematic sessions focused on the two issues of regional and global significance: the first on combating marine plastic pollution and the other on mitigating emerging zoonotic diseases. All in all it created greater understanding of diverse perspectives regarding some of today's most pressing issues.



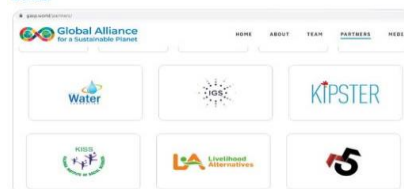
SEPTEMBER 2021: Presented a copy of the limited edition of United Nations 75 and Beyond to Mr. R. M. Mishra Executive Chairman of the Meghalaya Investment Board. We are grateful to Mr. Mishra for his insightful contribution to the book in the form of an interview.



“There is a need for integration to achieve synergies between all the water needs to deliver the sustainable development goals, specifically SDG 6 with water as a central integrator, that can leverage on the opportunities from other sectors in the context of the SDGs.” said Dr Arvind Kumar as member of ‘The Economic Times SDGs Water Leadership Council’ first meeting convened on 14th September. <https://www.linkedin.com/feed/update/urn:li:activity:6844563459632353280/>

To amplify our efforts in Sustainability, India Water Foundation has forged a new partnership with Global Alliance for a Sustainable Planet (GASP). A collaborative platform for transformation and mobilizing action. Looking forward to an exciting voyage.

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gasp.world/partners/

Attended the Launch of the second Progress Report on Transboundary Water Cooperation. Global status of SDG indicator 6.5.2 and acceleration needs” jointly organized by UNESCO and UNECE in their role as UN custodian agencies of the SDG6 indicator 6.5.2. The report is very comprehensive and informative and throws light on how concrete actions can be taken to accelerate transboundary water cooperation in support of the SDG 6 and towards the 2030 Agenda for Sustainable Development. <https://www.linkedin.com/feed/update/urn:li:activity:6843537530701328384/>

August 2021: "The harmony of sustainability and water security should be embedded in the future of water management and important to ensure good water quality because India’s development and self-reliance is dependent on water security and water connectivity." said Dr. Kumarin his keynote address at the Virtual 5th World Water Summit 2021 from 21st to 22nd August 2021. The inaugural session was opened by Sh. R. K. Singh Honble Union Cabinet Minister of New and Renewable Energy and Power Government of India, and Dr. Ajay Mathur Director General International Solar Alliance. The Summit was attended by national and



international delegates from Australia, Belgium, Berlin, Canada, Denmark, Egypt, Germany, Greece, Italy, Japan, Netherlands, Portugal, Sweden, Thailand, Turkey, UK and USA. The Summit brought together leading international and domestic players, policy makers, government officials, technocrats, industry and academia on a common platform.

<https://www.linkedin.com/feed/update/urn:li:activity:6835543564202639360/>

Dr. Arvind Kumar, President, India Water Foundation participated in the National Stakeholder Consultation for the Common Country Analysis today 16 August 2021 and had a very rich discussion on leveraging evidence-based policy research for the Sustainable Development Goals (SDGs) in India



Dr. Arvind Kumar sharing his views at brainstorming meeting "How to Make SANS more effective & sustainable". SANS members engage in productive panel discussion at brainstorming meeting "How to Make SANS more effective & sustainable led by Dr. Nagesh Kumar.

June 2021: As Governor of the World Water Council Dr. Arvind Kumar, President India Water Foundation attended the **74th World Water Council Board of Governors meeting** virtually on 29th June 2021. IWF proudly became a signatory of the declaration on No ecological security without Water Security. Among other usual discussions and presentations the roadmap for the preparations of 9WorldWaterForum which will be held in March 2022 in Dakar was charted out.

Our Jal Mitra campaign to turn ‘Biodiversity Conservation into Public Movement’ has been well received and shared by CBD as IWF's action commitment. Let's take collective actions to safeguard, conserve and protect biological diversity. By adopting a bottom-up approach and ‘Putting People First’ the India Water Foundation aims to mobilize local action to protect the environment and biodiversity. This includes their Jal Mitra campaign to turn ‘Biodiversity Conservation into Public Movement’. India Water Foundation's pledge is part of the Action Agenda for Nature and People.



To achieve the vision of our Prime minister of restoring 26 million hectares of degraded land by 2030 and achieve land degradation neutrality we have to cooperate and collaborate and work in convergent mode to restore our land ecosystem said Dr Arvind Kumar how ecosystem restoration is interlinked to economic recovery. Please like, share and subscribe India Water Foundation YouTube channel for a wider dissemination. <https://youtu.be/nr0Hc8u2dQk>



On World Environment Day Dr. Kumar made keynote presentation on the theme "ECOLOGICAL RESTORATION" organized by National Institute of Food Technology Entrepreneurship and Management (NIFTEM) and Ministry of Food Processing Industries, Government of India on 5th June 2021. Please like, share and Subscribe India Water Foundation YouTube channel for a wider dissemination. (<https://youtu.be/OneU1SN8usI>).

Dr. Kumar's spoke on the International Conference on Ecosystem Restoration on the World Environment Day 2021 organized by AKP Healing India supported by United Nations Environment Programme. Please like and share for a wider dissemination. Also watch the full video on India Water Foundation YouTube channel (https://youtu.be/m9mQ_AEJ_C0)



Presenting a short video about the challenges and crises we are facing – climate change, nature loss and pollution and how we can address these challenges to protect, sustainably manage and restore ecosystems that address societal challenges effectively and adaptively. Please like and share for a wider dissemination. Also watch the full video on India Water Foundation YouTube channel (<https://youtu.be/v6Zw3ZSGPhY>).

May 2021: Whether in a village in Ladakh or a metropolis such as Delhi, humans depend on the services ecosystems provide, such as fresh water, pollination, soil fertility and stability, food and medicine. Ecosystems weakened by the loss of biodiversity are less likely to deliver those

services, especially given the needs of an ever-growing human population. Therefore, let us all be a part of conservation and restoration of ecology and ecosystems.

Also watch the full video on (<https://youtu.be/CHa9Y6Ci1Zo>).

We humans are a part of biodiversity and need to stop behaving as the Supreme Being at the top of the hierarchy of all life forms. Let's be part of the solution by planting more trees, consuming a variety of foods in our diets to promote crop diversity, not wasting food and water. Conservation of biodiversity is pivotal for the management and restoration of ecosystem services. Also watch the full video on India Water Foundation You Tube channel (<https://youtu.be/CGLt7bnQoPU>).



As a member of Technical Advisory Committee Dr. Kumar had a comprehensive focused discussion convened by the Ministry of Environment Forest & Climate Change Government of India of the TAC Members on the submission of India's Third National Communication (TNC) and Biennial Update Report (BUR) to the UNFCCC under the chairmanship of Mrs. Richa Sharma Additional Secretary MoEFCC and Advisor Dr. J R Bhatt. The 13 sectoral presentations by government and other institutions on studies relating to impacts, vulnerability and adaptation were innovative and presented with high enthusiasm. Remarkable preparation for the COP 26.

As the nation grapples with the current situation, there is an urgent need for coordination and cooperation amongst all stakeholders on a high moral and ethical ground but are we treading on that path. Listen to Dr Kumar articulating about the same. You tube Video Link:

<https://youtu.be/3q9DDdI6a3w?list=PLbFmm9rLOoERli4XR-AvhqIXFZuZSaOeA>



April 2021: As Governor of the World Water Council during the 73 World Water Council Board of Governors meeting Dr Arvind Kumar commented on the interlinkage of water security and ecological security. Among other usual discussions and presentations, the roadmap for the preparations of 9WorldWaterForum which will be held in March 2022 in Dakar was charted out keeping in mind the pandemic situation and travel restrictions. Amidst COVID19 pandemic situation the 73 World Water Council Board of Governors Meeting was held virtually on 1st April 2021.

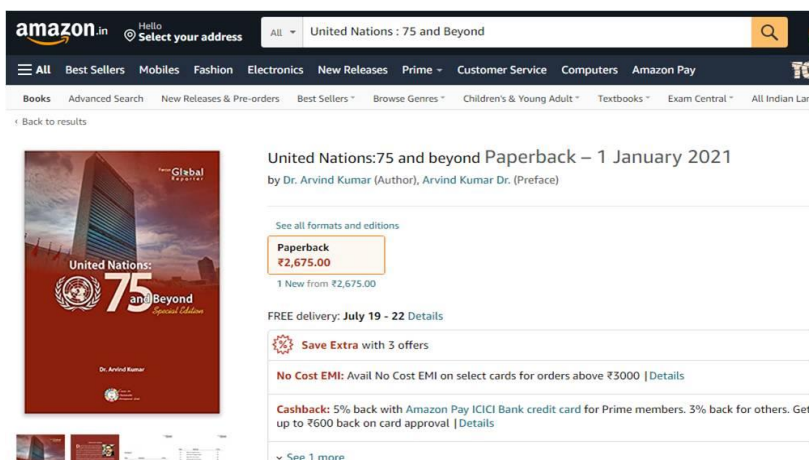
Major Publications and Published Articles:

United Nations: 75 and Beyond:

We are pleased to present ‘United Nations:75 and beyond’ the iconic special publication of Focus Global Reporter (FGR), a publication of UN accredited India Water Foundation commemorating the 75th anniversary year of the United Nations giving an overview of UNs role today and tomorrow. We have

endured to bring significant issues to the forefront and concentrated on getting insights and perspectives on the same from 20 people who are environmental authorities, leaders, experts, influencers, intellectuals and generate a strong voice in their respective domains. In their interviews they have provided integrated interpretation with a thorough and fundamental analysis. I am hopeful the publication is expected to give our readers a power-packed and enriching experience and shall foster communication not only among the disciplines, but also with the development partners, decision makers and most importantly the public which depends on such information to understand the minute contours of thematic issues. As always, even in the turbulent times a modest effort from the team of Focus Global

Reporter. https://www.amazon.in/United-Nations-Dr-Arvind-Kumar/dp/B091YKS9ZM/ref=sr_1_1?dchild=1&keywords=United+Nations+%3A+75+and+Beyond&qid=1626513510&sr=8-1



Special Supplement

On the occasion of environment day 2021, India water foundation released a special supplement to accelerate its actions and be a platform to disseminate Environment based knowledge, Best Practices through its various platforms.

The special supplement included an editorial by Dr. Arvind Kumar on *Restoration is not a substitute for conservation*. The team and members of India Water Foundation contributed with insightful articles on various issue for the supplement.

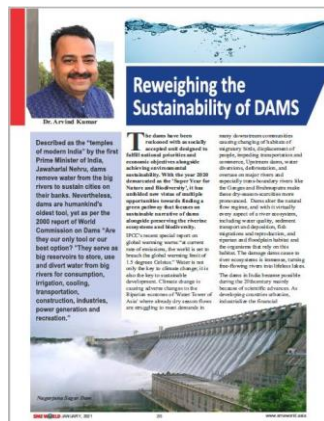
<https://www.indiawaterfoundation.org/special-supplement/>



January 2021: Dr. Kumar's article "Reweighing the Sustainability of DAMS" published in **SME World magazine**, January 2021, Vol XIV No. 1 issue.

Described as the “temples of modern India” by the first Prime Minister of India, Jawaharlal Nehru, dams remove water from the big rivers to sustain cities on their banks. Nevertheless, dams are humankind's oldest tool, yet as per the 2000 report of World Commission on Dams “Are they our only tool or our best option?” They serve as big reservoirs to store, use and divert water from big rivers for consumption, irrigation, cooling, transportation, construction, industries, power generation and recreation.”...Read more

https://www.smeworld.asia/Focus.aspx?Focus=Focus-281%2Freweighing-the--sustainability-of-dams&fbclid=IwAR2xcPDB4I_RL_rrSagcphXq3AiPu6zbYTYaHyirjvwpqTOIYdmFFVLQpg#.YMxZVWQzbIX



Article on Ecosystem-based approach: The case of Meghalaya–on the portal of India Water Portal. Communities have been adapting to climate variability for centuries, but today their coping mechanisms are being outpaced by the fast-changing climate. In response to global climate change impacts, most countries have focused.....more

https://www.indiawaterportal.org/article/ecosystem-based-approach-case-meghalaya?fbclid=IwAR2zzWYrbf8Zzt_EwaK-OhLJyyXmTY8EEWllogkvaKDzu1vrgPeNQdhFtJlg

Ask a Question

HOME DATA ARTICLES WEEKLY NEWS OPPORTUNITIES & EVENTS QUESTIONS TOPICS OTHER PORTALS

Ecosystem-based approach: The case of Meghalaya

Author: Arvind Kumar
Post By: Arvind Kumar
Multistakeholder action needed for a green post-COVID-19 recovery.

Posted Date: March 2021-01-18 13:55

All Articles

Building leadership of women at the grassroots

Championing community mobilisation to conserve water resources

Deepor Beel faces moderate contamination and ecological risk, says study

Atmanirbhar Krishi App launched to equip

Communities have been adapting to climate variability for centuries, but today their coping mechanisms are being outpaced by the fast-changing climate. In response to global climate change impacts, most countries have focused on 'hard' or 'grey' infrastructure options such as embankments for flood control or new reservoirs to cope with water shortages.

These options can be costly to build and maintain, and generally do not take the benefits of Ecosystem-based Approaches (EbA) into account.

According to the International Union for Conservation of Nature (IUCN), EbA involves the conservation, sustainable management and restoration of ecosystems as cost-effective solutions that can help people adapt to the impacts of climate change. Examples of such nature-based solutions to climate change include sustainable agriculture, integrated water resource management and sustainable forest management. Harnessing the power of nature can bring in benefits to human communities and natural systems.

WHY EbA?

- It emphasizes water as a socio-economic connector and indicator that interlinks sectors like agriculture, energy, biodiversity through actor-sector synergy and inter-sectoral convergence.
- EbA harnesses biodiversity and ecosystem services to increase resilience and reduce the vulnerability of human communities and natural systems to climate change.
- Healthy ecosystems such as intact forests, wetlands and coastal areas provide many benefits to local communities including firewood, clean water, medicines, shelter and food. They can also form physical barriers against extreme weather events such as cyclones and storm surges.
- EbA restores ecological integrity through effective ecosystem management and contributes to biodiversity conservation and local economies through healthy ecosystems.
- Though primarily an adaptation approach, EbA can also contribute to climate change mitigation by reducing the emissions that transpire from habitat loss and ecosystem degradation.

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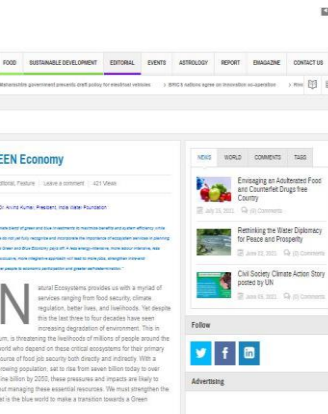
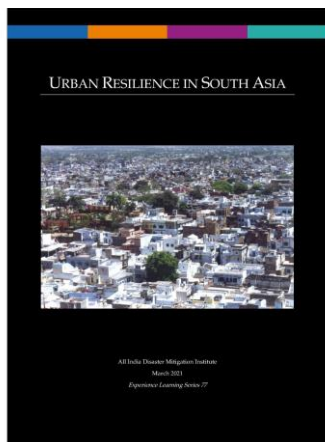
Damming North East India

Hydropower in the Northeast

Re-strengthening the BLUE GREEN Economy: Natural Ecosystems provides us with a myriad of services ranging from food security, climate regulation, better lives, and livelihoods. Yet despite this the last three to four decades have seen increasing degradation of environment. This in turn, is threatening the livelihoods of millions of people around the world who depend on these critical ecosystems for their primary source of food job security both directly and indirectly.
.....more

<http://www.focusglobalreporter.org/restrengthening-the-blue-green-economy/>

March 2021: My contribution on “Towards Renewed and Resilient Green Cities’: A Commitment” published in ‘Urban Resilience in South Asia’ Experience Learning Series 77 taken out by All India Disaster Mitigation Institute.



Wetlands and Rivers: Undeniable Linkage: In the last three decades alone, nearly one-third of natural wetlands have been lost to urbanization, agriculture expansion and pollution. The loss of wetlands in urban areas has been more rapid. Data from 26 cities and towns show that since 1970s, for everyone square kilometer increase in built up area, 25 ha of wetlands has been lost. Similarly in the last 150 years, the need to create farmland, generate electricity and make water transport easier has changed the dynamics of the river. The link about integrated river basin management and we forgot about wetlands, then the whole thing would fall in a way. Imagine being able to improve food production, reduce pollution, recharge groundwater and boost the diversity of plants and animals all at the same time. Riverine wetlands can make it possible. They are working with life and provide a variety of different habitats, especially as they serve as spawning grounds for fish and nesting grounds for migratory birds. Rights reserved by the India Water Foundation. Dr. Shrivastava on World Wetlands Day celebrations on 27 February 2021. His 'Living Wetland Convention to Basin Management' Plan would help the entire country as a model framework. I totally agree. Wetlands located in the floodplains of a river are integral to its health as they provide a habitat for aquatic biodiversity, lateral connectivity and groundwater recharge for base flow and without integrated wetland restoration plans achieving water security targets are forfeited.

<http://www.focusglobalreporter.org/wetlands-and-rivers-undeniable-linkage/>

April 2021: Rethinking Climate and Health Emergency: Don't you feel in addition to socio-economic determinants of human health, the impact of environmental, climate, ecosystem change and degradation on health should be increasingly recognized? Clean and safe drinking Water and Health and nutrition is a fundamental human right and a key indicator of sustainable development but are we doing enough to maintain our Water, health and food systems?.....more

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June 2021: Dr. Kumar's article on 'Re-instilling Resilienc to Climate Change a Necessity' published in MEDC's issue on the theme of Sustainable Development & Climate Change – Rising to the Challenge”.



Rethinking the Water Diplomacy for Peace and Prosperity: India's geographical setting render it a key player in the South-East Asian region in water sharing, with neighbouring countries of Pakistan, Nepal, Bhutan, Bangladesh, China and Myanmar. Interestingly, India's relationships with her neighbours, becomes especially significant in the context of its water-sharing and.....more

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Restoration is not a substitute for conservation: While we can successfully restore biodiversity, structure, and function to a degraded ecosystem, ecological restoration is not a substitute for conservation, nor should the promise of restoration be used to justify destruction or unsustainable use. In reality, restoration may not succeed in re-establishing the full assemblage of native species or the full extent of the original ecosystem's structure and function.....more

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July 2021: Dr. Arvind Kumar's article on 'Water's Cross-Cutting Nature in Achieving Sustainable Development Goals' published in 'The Palgrave Handbook of Climate Resilient Societies'. A palgrave Macmillan publication edited by Dr Robert Brears. Please feel free to share your comments and suggestions for improvement.....more

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Dr. Arvind Kumar's article on 'Role of MSMEs in Ecosystem Restoration' published in SME World magazine, July 2021 Vol. XIV, No. 07 issue.

<https://api.smeworld.asia/images/upload/PDF/SME%20World%20%20July%202021%20issue.pdf>

September 2021: Dr. Arvind Kumar's article on 'Sustainable Cities via Urban Ecosystem Restoration' published in 'The Palgrave Encyclopedia of Urban and Regional Futures'. A palgrave Macmillan, Cham publication edited by Dr Robert Brears. Please feel free to share your comments and suggestions for improvement.....more

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Interview of Dr. Arvind Kumar: **Majority of water-related problems are solvable through sustainable water management** (published in [Educlasses.co.in](https://www.educlasses.co.in) 24 September 2021)

Sustainable Cities via Urban Ecosystem Restoration (The Palgrave Handbook of Climate Resilient Societies {Springer Nature} First Online :15 September 2021)

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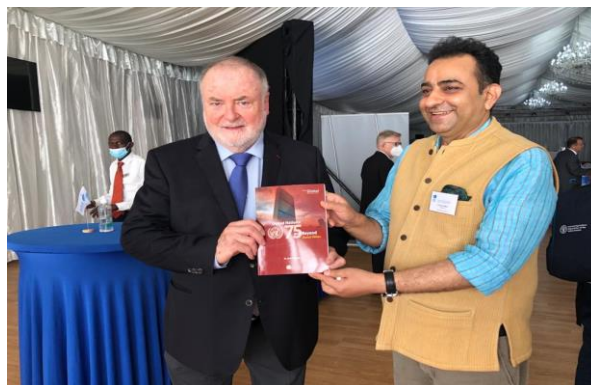
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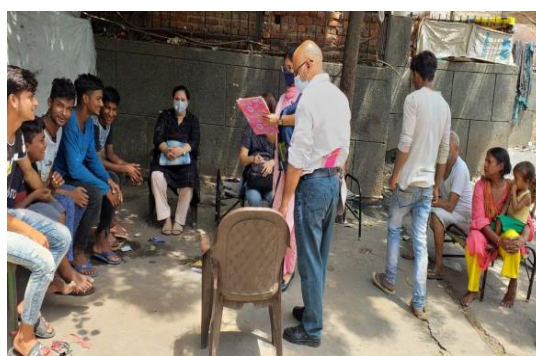


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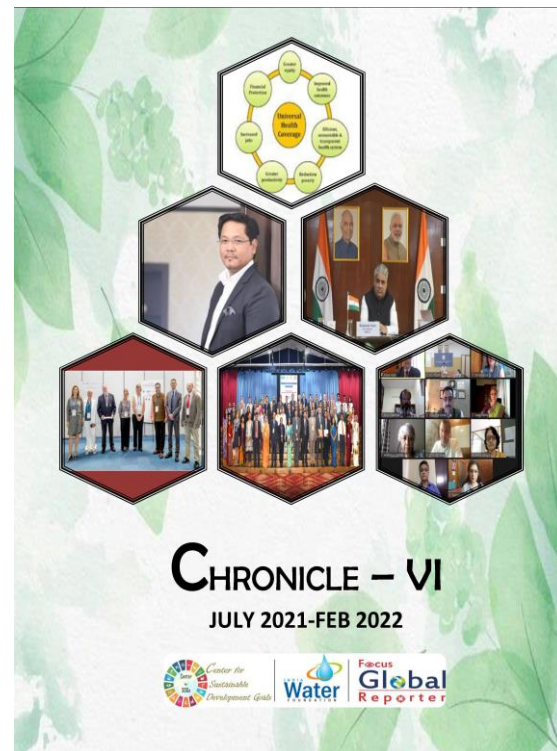
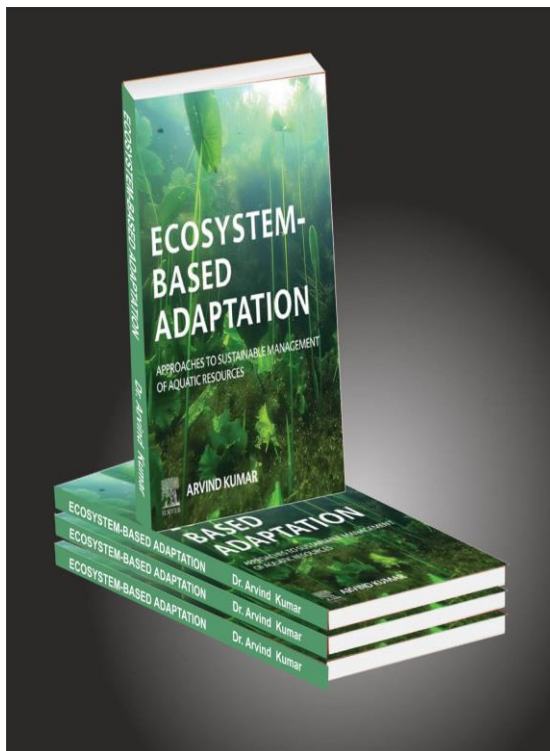
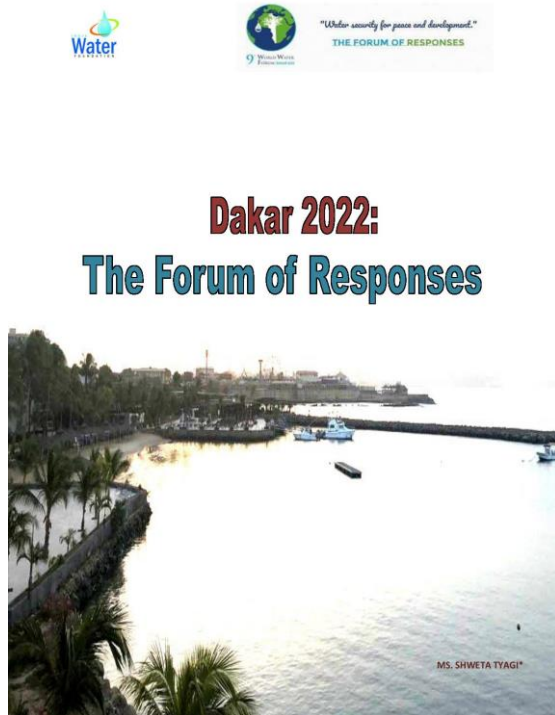


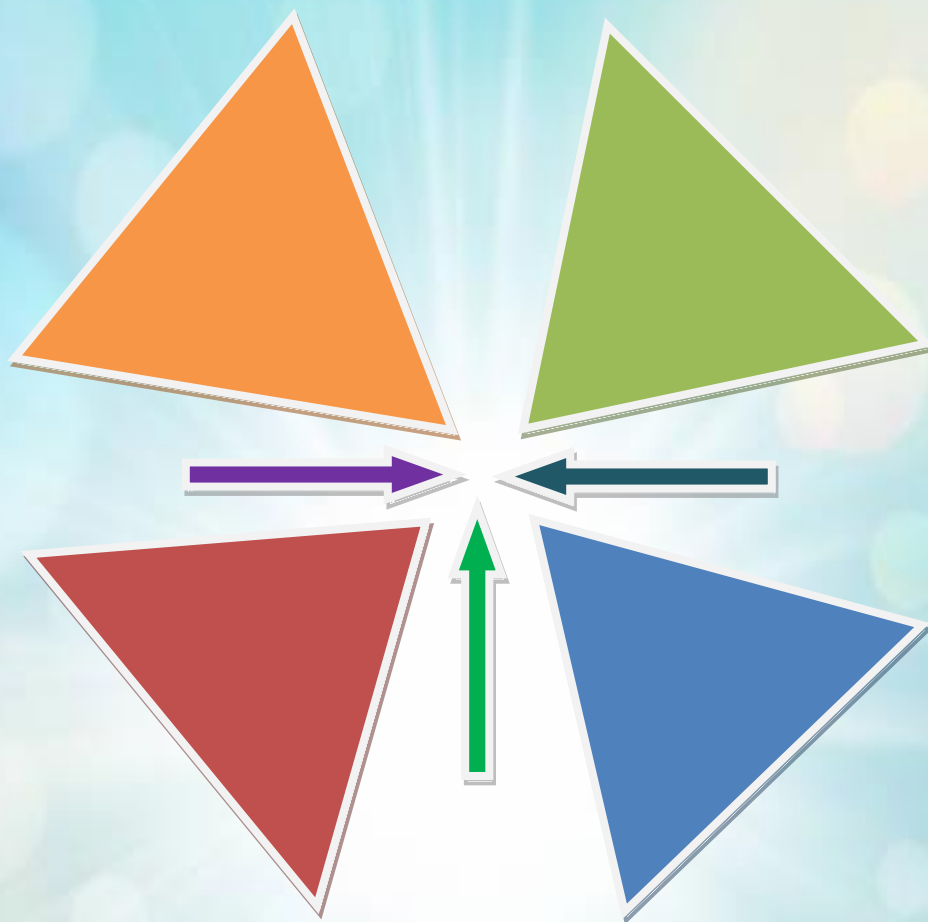
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