Ganga

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Indigenous Protesters Interrupting COP 30 (Source: Outlook Planet)

Commentary

Efforts to slow global warming remain deeply uncertain in a world full of economic and political uncertainty. International institutions are losing their relevance in guiding meaningful directions to fight with climate change issues and global warming. President Donald Trump has pulled out the Paris Agreement on Jan. 2026. It's the second time the US officially exited of the pact that commits almost 200 countries to keep global warming to no more than 2°C (3.6°F) above pre-industrial levels.

COP30 has yet to provide concrete directions on reducing fossil fuels or financing disaster losses to developing nations. Increasingly, these summits risk appearing more symbolic than substantive. Deforestation continues worldwide, with devastating advances in the Amazon and other tropical forests. The REDD+ program has shown only limited success in offsetting carbon through tropical forest projects, as reported in the Science journal. Meanwhile, many countries' Nationally Determined Contributions (NDCs) under the Paris Agreement fall short, often prioritizing development over biodiversity protection.

India's 2015 NDCs pledged to generate 50% of electricity from non-fossil fuels by 2030 and reduce emissions intensity of GDP by 45% compared to 2005 levels. By 2023, India had achieved 44% non-fossil energy and a 33% emissions reduction between 2005 and 2019. Yet, despite these achievements, India is pressing ahead with economic projects in the pristine Great Nicobar Island—destroying

tropical forests, threatening indigenous communities, and eroding unique biodiversity. Even more troubling, compensatory afforestation is planned in Haryana, a region with vastly different climate, ecology, and land use from Nicobar.
Where does this path lead us?

NEWS

Study Finds Only 19% of REDD+ Tropical Forest Offsets Meet Targets

REDD+ (Reducing Emissions from Deforestation and Degradation Plus) is an international initiative that provides financial incentives to developing countries to conserve forests, enhance carbon stocks and support livelihoods. Only a small fraction of tropical forest carbon offset projects under the REDD+ programme have delivered meaningful reductions in deforestation, with just 19 per cent meeting their reported targets, according to a new study published in *Science*.

Tropical forests are vital for biodiversity and ecosystem services, yet their loss contributes nearly five billion metric tonnes of carbon dioxide emissions annually—second only to fossil fuels.

The study examined 54 voluntary REDD+ projects across South America, Africa and Southeast Asia certified under Verra's Verified Carbon Standard. It found that 17 per cent of projects recorded higher forest loss within project areas than in control sites, with major losses reported in Brazil's Serra do Amolar and Madagascar's Ankeniheny-Zahamena Corridor. However, about one-third of projects showed significantly lower forest loss, including Brazil's Portel-Pará project, which conserved over 19,000 hectares by 2022.

Although the study estimates that 13.2 per cent of issued carbon credits are tradable, which is higher than earlier estimates; it cautions that many projects overstate their climate benefits. A key issue is reliance on historical deforestation trends, which fail to account for political and socioeconomic changes, such as the surge in Amazon deforestation between

2019 and 2021. The authors call for improved methodologies that better reflect country-specific governance and policy cycles.

Source: *Down to Earth, Climate Change*

Soil Security Motion Signals Move toward Global Protection

The International Union for Conservation of Nature (IUCN) has approved "Motion 007: Soil Security Law" at its World Conservation Congress in Abu Dhabi, marking an important step toward giving soil formal global legal recognition. The motion calls for exploring international legal and policy instruments to protect soil and integrate soil security into national and global frameworks.

Motion 007 defines soil security as the responsible management and preservation of soil so it can continue to provide essential ecosystem services. It highlights five guiding dimensions—capacity, condition, capital, connectivity and codification—to help countries integrate soil protection into policies and programmes. Soil is increasingly recognised as the "eighth existential issue," alongside climate change, biodiversity loss, food and water scarcity.

According to the UN Convention to Combat Desertification, up to 16 million square kilometres of land could be severely degraded by 2050 without urgent action; with global economic losses estimated at $878 billion annually. Scientists warn that soil degradation threatens food security, climate action and biodiversity by sabotaging the planet's ability to sustain humanity; affecting at least 12 of the 17 Sustainable Development Goals, including the goal of ending hunger.

While global conventions exist for climate, biodiversity and desertification, soil has so far to be given similar significance. Though a standalone global soil convention may take years to negotiate, the approval of Motion 007 is seen as a milestone that could pave the way for stronger international action on soil protection.

Source: *Down to Earth, Agriculture*

CSRA's Assessment on Watershed Management Work in Birbhum with PAN Network Support

The **Centre for Social and Rural Action** (CSRA), along with representatives from the PAN Network, conducted a three-day visit to Birbhum district from November 13 to 15, 2025, to review and support the ongoing Natural Resources Management (NRM) project. Staying at Mohammad Bazar, the team visited the CSRA micro-watershed areas of Jethia and Agaya villages under Bharkata Gram Panchayat to observe field activities related to water and soil conservation. The visiting team included Mr. Mintu Nath and Mr. Ayan Kumar Samadder from the PAN Network, and CSRA executives led by Mr. Shyamaprasad Mukherjee.

On November 13, a technical meeting was held at the CSRA office focusing on capacity building of CSRA staff on watershed management. During the session, the PAN team presented key NRM concepts and interacted with CSRA officials on watershed identification, drawing watershed boundaries, and assessing existing natural resources and land features. Practical training was provided on gully plugging techniques, calculation of water volume and storage capacity, and basic field measurements using simple formulas. The team also demonstrated methods for mapping groundwater contours through regular collection and analysis of well data to understand groundwater behavior in the project area.

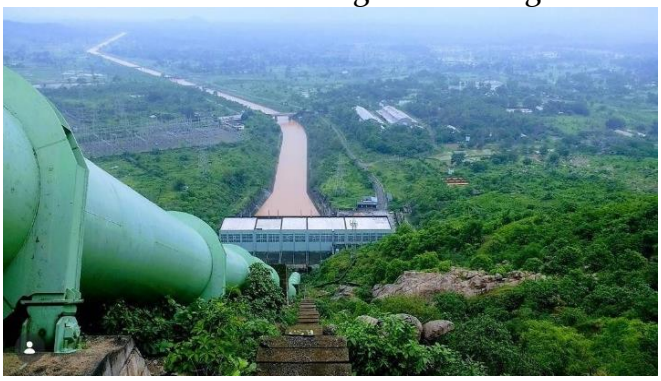
Field-level demonstrations and community interactions were carried out on November 14, when the PAN team, together with local villagers, constructed a gully plug on the Agaya Canal as part of soil and water conservation efforts. Training was also provided on the practical use of Topo sheets in the field, including choosing directions for area measurement. The team held discussions with villagers of Agaya and CSRA staff to raise awareness on water and soil conservation and explained how watershed management contributes to groundwater recharge and improved agricultural productivity.

During the visit, suitable locations were identified for new farm ponds, the 30/40 land development model, and agroforestry interventions, with GPS waypoints numbered 485, 486, and 487 recorded for future reference. Practical guidance was further given on land preparation techniques for implementing the 30/40 model on the ground.

RIVERS OF INDIA

Godavari River
(Part - 9)
Indravati River Sub-basin

As mentioned in the last issue, the Indravati Dam is categorized as a gravity dam located about 43 km from Nabarangpur in the state of Odisha in India. It is connected to the main Indravati reservoir via a head race tunnel designed for a discharge capacity of 210 cumecs and terminating in a surge shaft.



Beautiful view of Mukhiguda Township from Valve house (Upper Indravati Powerhouse)

Increasing water availability for farming while also addressing the rising energy needs of the region, the Upper Indravati Hydro Electric Project is a major multipurpose project in Odisha that involves diversion of water from the Indravati River in the Godavari basin to the Hati River in the Mahanadi basin for power generation and irrigation, with infrastructure comprising four dams, eight dykes, interlinking channels forming a reservoir of 1435.5 million cubic metres live capacity, a 7m dia 4.32 km tunnel, a powerhouse (4 × 150 MW= 600 MW), a 9 km tailrace channel, and an irrigation barrage with canals. Conceived in 1978 with World Bank assistance, the project faced setbacks due to a tunnel accident in 1991 and withdrawal of World Bank funding, but was taken over by Odisha Hydro Power Corporation in 1996 and completed using support from the Power Finance Corporation and internal resources. Fully commissioned between 1999 and 2001, the project, despite cost escalation from Rs.208.15 crores to about Rs.1107 crores, remains highly economical with less than Rs.2 crores investment per MW and generation cost of about 64.96 paise per kWh, provides

irrigation to over one lakh hectares in the drought-prone districts of Kalahandi and Nabarangpur, and plays a significant role in supplying low-cost, environment-friendly power to Odisha and the region.

Agriculture forms a major component of the land use within the sub-basin. Estimates suggest that between 7,100 and 7,168 square kilometers of the basin's area, representing around 17 % of the entire basin is used for farming. The fertile soil and water availability support the cultivation of a wide variety of crops, most notably paddy, which is the dominant crop, along with several millets such as finger millet, kodo, and kutki. Farmers also grow pulses like black gram, green gram, red gram, and horse gram, as well as oilseed crops including groundnut, soybean, niger, and sunflower. This strong agricultural base has encouraged the growth of associated industries such as rice mills, sugar-processing units, and oil extraction plants, all of which contribute significantly to the livelihood and economic development of communities across Odisha, Chhattisgarh, and Maharashtra.

One of the most significant infrastructural developments on the river is the Upper Indravati Irrigation Project in Odisha, supported by Japan's Official Development Assistance (ODA), was launched in 1978 to improve irrigation, hydropower, and reservoir capacity in drought-prone regions comprising a high proportion of Scheduled Castes and Tribes. Completed in 1998 after delays due to land and forest clearances, the project expanded irrigated command area beyond targets and achieved near full utilization by 2001.

Sluice Gates of Indravati Dam Opened

It significantly increased rice production, improved food security, raised farmers' incomes, reduced seasonal migration, and enhanced living standards, education access, and rural employment especially during dry season while crop diversification has been limited due to farmers' continued preference for rice. Though operational challenges persist particularly in maintenance funding and irrigation association development, the project has delivered substantial agricultural and social benefits. Long-term sustainability depends on stronger farmer participation, improved maintenance systems, and continued institutional support.

The river contributes significantly to the natural beauty and biodiversity of the region. One of the most well-known features on the river is the Chitrakoot Falls, located roughly 40 kilometers from Jagdalpur, which draws visitors from across the country. Adjacent to the river lies the Indravati National Park, which also acts as a Tiger Reserve. This protected area shelters a diverse range of flora and fauna, making the region an important ecological hotspot.

Despite its many benefits, the Indravati sub-basin is highly susceptible to flooding. The absence of major regulating structures and the challenging climatic conditions of the region contribute to frequent inundation, particularly during the southwest monsoon, which generally lasts from mid-June to mid-October and brings an average annual rainfall of around 1,267 millimeters. In recent years, floods have become more common and more severe. During August 2020, heavy rains submerged nearly thirty villages in Koraput and Nabarangpur districts of Odisha, cutting off key highways. Similarly, in July 2019, continuous rainfall left thousands stranded in the Kosagumuda block of Nabarangpur, highlighting the growing vulnerability of the region to extreme weather events. The increasing frequency of floods indicates a rising risk to both human settlements and the natural environment within the Indravati basin.

Source:

- *Water shed atlas Government of India.*
- *International Journal of Innovative Research in Advanced Engineering (IJIRAE), July 2016) Dr. P. D. Dahe & Ms B. B. Deshmukh.*
- *Past, Present and Future of Indravati River Capture. A Geomorphological Investigation Article in IOSR Journal of Applied Geology and Geophysic · January 2014 by S. D Deshmukh & K.R. Hari.*
- *https://journaljsrr.com/index.php/JSRR/article/view/2818*
- *https://www.scribd.com/document/722951388/Indravati-River-Project*
- *https://www.newindianexpress.com/states/odisha/2019/Jul/31/odishas-indravati-river-swelling-10-villages-marooned-2011928.html.*
- *https://www.ohpcltd.com/indravati*
- *https://www.tripuntold.com/india/odisha/nabarangpur/indravati-dam/*
- *https://www.jica.go.jp/english/activities/evaluation/oda_loan/post/n_files/1565398_2-39_full.pdf*

Special Feature

COP30: Progress at the Margins, Failure at the Core

The 2025 UN climate conference, COP30, concluded on 22 November after prolonged and often acrimonious negotiations. While the final outcome delivered a few incremental gains, it failed decisively on several critical issues. At a time when global efforts to halt temperature rise are dangerously off track and climate disasters are becoming increasingly destructive, COP30 was expected to chart clear pathways for delivering past pledges and accelerating climate action. Instead, deep divisions over finance, mitigation pathways, trade measures, and fossil fuel phase-out stalled progress until the very end.

The final decision left many countries deeply disappointed. More than 80 nations had pushed for a clear global roadmap to transition away from fossil fuels, while developing countries demanded stronger commitments on climate finance. Both expectations were largely unmet. Strong opposition from petroleum-producing countries and industry lobbyists ensured that COP30 stopped short of endorsing binding commitments on fossil fuel phase-out or halting deforestation. The final agreement relied largely on voluntary initiatives, with the Brazilian Presidency indicating that fossil fuel and deforestation roadmaps may be pursued outside the formal COP framework.

COP30 took place against a backdrop of geopolitical fragmentation and global gridlock. The role of the United States was particularly complex. Under the Trump administration's climate-sceptical stance, active US

participation might have weakened negotiations further. Yet its absence also mattered: historically, the US has acted as a power broker in multilateral climate talks, helping to push consensus at critical moments. This vacuum emboldened major petrostates and fossil fuel interests to block decisive language on fossil fuel phase-out.

Despite these setbacks, the outcome also demonstrated that international cooperation has not entirely collapsed. Limited progress was made on adaptation frameworks, nature-based initiatives, and sectoral actions—suggesting that cooperation is still possible, albeit insufficient for the scale of the crisis.

The NDC Shortfall

By the end of COP30, 119 countries—representing around 74% of global emissions—had submitted updated Nationally Determined Contributions (NDCs). While these commitments show some movement toward emission reductions and sectoral action, collectively they deliver less than 15% of the emission cuts required by 2035 to keep global temperature rise within 1.5°C.

The central unresolved issue remains fossil fuels—the root cause of the climate crisis. Although over 80 countries supported a global roadmap for ending fossil fuel use, this proposal was blocked by a small group of powerful countries, particularly major oil and gas producers.

Adapting to Climate Impacts

On the Global Goal on Adaptation (GGA) under the Paris Agreement, COP30 adopted 59 indicators across seven sectors, including water, agriculture, and health, along with policy processes on finance, capacity building, and technology transfer. However, the outcome was mixed. Many negotiators were surprised to see substantial changes to indicators developed by 78 independent experts over two years. Several adopted indicators are difficult to measure and thematically incomplete, raising serious technical concerns. Objections raised during the final plenary forced the COP Presidency to promise further discussions at the Bonn climate talks in June 2026.

Climate Finance: Too Little, Too Late

The Glasgow pledge to double adaptation finance from 2019 levels expires this year, prompting intense debate at COP30. Developing countries argued for tripling adaptation finance by 2030, but the final agreement settled on "at least tripling" adaptation finance by 2035. This implies that out of the projected $300 billion-plus climate finance for developing countries by 2035, around $120 billion would be allocated for adaptation and resilience.

Discussions also continued on scaling finance from all sources toward the broader $1.3 trillion target for developing countries by 2035. Article 9.1 of the Paris Agreement—affirming the responsibility of developed countries to provide finance—was deferred to a two-year work programme. A separate dialogue was launched on Article 2.1(c), which seeks to align all global financial flows with climate goals.

Nature and Ecosystems: Symbolism without Scale

Despite being hosted in Belém, the gateway to the Amazon, COP30 failed to launch a global roadmap to end deforestation. Some notable

initiatives were announced, including Brazil's Tropical Forests Forever Facility, with initial pledges of $6.7 billion from countries such as Brazil, Indonesia, France, Germany, and Norway—far short of the $25 billion target.

Minister Bhupender Yadav with India delegates at COP 30 Balem

Additional commitments included renewed funding for forest and land tenure security, an intergovernmental pledge to recognize Indigenous and community land rights, expanded wildfire action, and progress on ocean conservation. These steps reflect growing recognition of the role of Indigenous Peoples, local communities, and ecosystems—but they remain fragmented and voluntary.

A Moral and Political Failure

Speaking from Geneva, United Nations High Commissioner for Human Rights **Volker Türk** warned that the meagre results and inaction at COP30 could one day be judged as a crime against humanity, highlighting how corporate power and inequality shape climate outcomes.

Similarly, **Ian Higham**, a research fellow at the Grantham Research Institute at the London School of Economics, described the outcome as a serious disappointment. While negotiations did not completely collapse, ambition remains far below what is required to avert catastrophic climate impacts.

A troubling reality underpins these failures: fossil fuel lobbyists now form one of the largest delegations at COPs—often outnumbering scientists, academics, and Indigenous representatives. This power imbalance distorts negotiations. As COP decisions rely on consensus, opposition by even a single powerful country can derail progress, as seen repeatedly since the Paris Agreement.

COP30 did not fail entirely—but it failed where it mattered most. It did not confront fossil fuels decisively, did not secure adequate finance for vulnerable countries, and did not match the urgency of the climate emergency. The time has come for citizens, especially in the Global South who bear the brunt of climate disasters, to demand accountability, resist corporate capture of climate governance, and push relentlessly for a just and rapid phase-out of fossil fuels.

Source:

- *https://www.wri.org/insights/cop30-outcomes-next-steps#adaptation*
- *https://www.iisd.org/articles/insight/cop-30-outcome-what-it-means-and-whats-next*
- *https://www.un.org/en/climatechange/news/cop30-key-results*

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