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'Real friends in difficult times': India and Poland look at tie-ups in strategic sectors

Shubhajit Roy
New Delhi, October 22

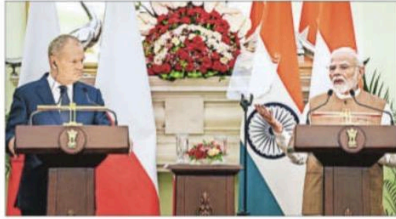
AWARE OF Delhi's close ties with Moscow, visiting Polish Prime Minister Donald Tusk told Prime Minister Narendra Modi Thursday that India and Poland have "no conflict of interest" and their pursuit of "shared goals" in the space industry, digitisation, satellites, state-of-the-art defence systems can deepen the strategic partnership between the two countries.

Following their bilateral talks, Modi said, "Today we have agreed to deepen ties in defence, space and nuclear energy..."

The two sides agreed to establish a defence industry dialogue and a counter-terrorism dialogue, two critical areas of strategic cooperation.

Over the last five years, more so after the start of the war between Russia and Ukraine, two countries with which it shares a border in the north (the Russian exclave of Kaliningrad) and southeast, Poland has been ramping up its defence industry. Its drone and satellite imagery capabilities have been used by Ukraine against Russia.

Polish drone and loitering munitions were also deployed by India during Operation Sindoor which led to hostilities with Pakistan in May 2025. In fact, Tusk referred to this when he said, "Our drones... have been very useful recently. And I am convinced that our cooperation, both in the area of satellites and



PM Narendra Modi and his Polish counterpart Donald Tusk at a joint press meet at Hyderabad House in New Delhi, Thursday. PTI

drones, has helped our countries in times of political tensions and crises." He told Modi that Poland and India have become "real friends that can rely on one another in difficult times".

Recalling his visit to Poland in 2024, Modi said, "During that visit, we elevated our relations to a Strategic Partnership... our partnership has gained new momentum over the past two years. And in today's meeting with the Prime Minister, we have taken several important decisions to further strengthen our Strategic Partnership."

Referring to supply chains being threatened by China, Tusk said, "We are very much aware of the political threats and the need to become independent as much as possible in the areas of critical resources, minerals and strategic resources of any country to make sure that Poland, India and Europe are independent in those..."

Mindful of India's strategic and strong ties with Russia, he said, "Our discussions are very successful, not only because Poland and India are countries that share a lot, but we are divided by nothing, maybe by geographic distance... We have no conflict of interest. We have no historical issues that divide us. We are building our friendship based on trust, shared values and ideas such as the idea of non-violence. The great Polish revolution of solidarity was based on action without violence, and we were very much inspired by your tradition and your history."

Praising Modi, Tusk said, "We value and appreciate the global role that you, Prime Minister, play in the global context, and this is a sign of hope in the times of destabilisation, uncertainty, political uncertainty, and instability. Somebody such as you, Prime Minister of such a powerful country as India, is a

beacon of hope for all of us, and I am very, very proud, truly proud that I can call myself your friend, Mr Prime Minister."

He was referring to India's proposal for a ceasefire in the Black Sea region, a move which has been welcomed by Russia, Ukraine and the US in the last few weeks. Modi said, "Be it Ukraine or West Asia, India will continue to support every meaningful effort towards peace."

Tusk said there has been unprecedented economic success in the two countries in the last 35 years. "The world looks upon us with envy," he said.

"Last year, Poland's GDP surpassed the historic milestone of one trillion dollars... India also recorded... growth of 7.8% in the last quarter," Modi said.

"Our growing economic strength has created new opportunities for the India-Poland partnership. And the India-European Union Free Trade Agreement has further expanded these opportunities... This agreement will open up new opportunities for exports of machinery, chemicals, plastics, and engineering goods from India to Poland. Additionally, we will attract new investments from Poland in sectors such as railways and mobility, advanced manufacturing, food processing, and biotech," he said.

Modi said that the two countries have decided to double bilateral trade by 2030.

He will be travelling to Bengaluru Friday.

Netanyahu calls Modi, invites him to light torch on Israel's I-Day

Shubhajit Roy
New Delhi, October 22

ISRAEL'S PRIME Minister Benjamin Netanyahu called up Prime Minister Narendra Modi on Thursday. They reviewed the "sustained momentum" in bilateral ties and Netanyahu invited Modi to Israel's Independence Day.

Netanyahu, who faces elections on October 27, called up Modi and also exchanged views on the war in West Asia. The war has been ongoing for the last eight months, and the two leaders have spoken at least twice. After the phone conversation, Modi said, "Received a phone call from Israeli Prime Minister Benjamin Netanyahu. We reviewed the sustained momentum in our bilateral ties and reaffirmed our commitment to further strengthening our partnership."

"We also exchanged views on recent developments in West Asia and underscored the urgent need to restore peace and stability in the region," he said.

Netanyahu, in his post in Hindi, said, "I spoke with my friend, Indian Prime Minister Narendra Modi, and invited him

to light the torch alongside a brave Indian pilot on Israel's Independence Day."

"Modi thanked me for the invitation and said that on land and in the air, India and Israel are fighting terrorism together. He also commended the strong and decades-old ties between us," he said. During a phone conversation on October 3, the Israeli PM had invited Indian pilot Smit Machchhar, who survived a violent assault by his Omani co-pilot in a Flydubai cockpit and averted a catastrophic crash on September 30.

He invited Machchhar and PM Modi to Israel for Independence Day, and called the pilot a "hero of Israel, India and the world". Israel celebrates its Independence Day on May 14.

"The two leaders welcomed the sustained momentum in India-Israel relations and reaffirmed their shared commitment to further strengthening the Special Strategic Partnership between the two countries," the PMO said, adding, "The leaders also exchanged views on recent developments in West Asia and underscored the urgent need to restore peace and stability in the region."



1. India–Poland Strategic Partnership: Outcomes of Donald Tusk’s Visit

Source: The Indian Express | **GS Paper II – International Relations**

Context: Polish Prime Minister Donald Tusk is visiting India from 21–23 October 2026, accompanied by over 100 CEOs and business leaders. On 22 October, he held bilateral talks with Prime Minister Narendra Modi to strengthen cooperation in trade, defence, technology and energy.

1. Background and Bilateral Trade

A. Diplomatic relations established in 1954; upgraded to a **Strategic Partnership in August 2024** under the Joint Action Plan (2024–2028).

B. Bilateral trade reached **US\$6.36 billion in 2025**, with a target of approximately **US\$12.7 billion by 2030**.

C. Indian investments in Poland exceed US\$3 billion, providing access to Central and Eastern European markets.

2. Major Outcomes

A. **Defence:** Defence Industry Dialogue to promote joint manufacturing and co-production.

B. **Counter-terrorism:** Bilateral dialogue to address terrorist networks and financing.

C. **Disaster resilience:** Poland to join India-led Coalition for Disaster Resilient Infrastructure (CDRI).

D. **Trade and innovation:** Commitment to expand bilateral commerce, advance the India–EU Free Trade Agreement (FTA), and explore an India–Poland Startup Bridge and technology hackathons.

3. Strategic Areas of Cooperation

A. **Defence and security:** Joint production, cybersecurity and protection of classified information.

B. **Emerging technologies:** Artificial intelligence, semiconductors, quantum computing and space research.

C. **Energy and critical minerals:** Nuclear energy, mineral processing, rare-earth recovery and battery recycling.

D. **Connectivity:** Direct air links, maritime cooperation and opportunities through the India–Middle East–Europe Economic Corridor (IMEC).

E. **People-to-people ties:** University exchanges, joint research, tourism and cultural cooperation.

4. Key Challenges

- A. **Geopolitical divergence:** Poland's security concerns regarding Russia differ from India's longstanding ties with Moscow.
- B. **Trade barriers:** European regulatory standards and compliance costs may constrain Indian exporters.
- C. **Implementation gap:** Diplomatic commitments must translate into concrete investments and joint projects.
- D. **Technology security:** Defence cooperation requires safeguards for sensitive information and intellectual property.
- E. **Environmental concerns:** Mining and coal gasification require strict ecological safeguards and emissions controls.
- F. **FTA uncertainty:** The anticipated benefits depend on the agreement's conclusion, ratification and implementation.

5. Way Forward

- A. Establish measurable targets and annual reviews under the 2024–2028 Joint Action Plan.
- B. Convert defence dialogue into concrete co-production and technology partnerships.
- C. Improve market access for Indian exporters and facilitate business-to-business investment.
- D. Prioritise commercially viable projects in artificial intelligence, space, semiconductors and critical minerals.
- E. Promote cleaner energy technologies, sustainable mining and circular-economy solutions.

Key Takeaway

India–Poland cooperation can strengthen India's engagement with Europe through **economic diversification, defence indigenisation and advanced-technology partnerships**, while balancing geopolitical differences through pragmatic diplomacy.

Breach of 1.5 degrees Celsius temperature threshold now 'unavoidable', says Emissions Gap Report

Amitabh Sinha
New Delhi, October 22

THE 1.5 degree Celsius temperature target is now completely out of reach and the best that the world can now hope for is to restrict the global rise in temperatures to 1.8 degrees Celsius and try to pull it back after that, a new UN report has said.

The Emissions Gap Report, published by the UN Environment Programme (UNEP) every year ahead of the annual year-ending climate conference, has said that the breach of 1.5 degree Celsius target, set in the 2015 Paris Agreement, was now "unavoidable". The opportunity to hold the temperature rise within 1.5 degree Celsius from pre-industrial times, or

allow only a limited 'overshoot', has been lost, it said.

"Decades of insufficient climate action makes exceedance of 1.5 degrees Celsius (temperature target) unavoidable," this year's edition of Emissions Gap Report, released on Wednesday, said.

"The task now, therefore, is not only to ensure that global warming stays well below 2 degrees Celsius, but to minimize the duration and magnitude of overshoot and establish a credible return path to 1.5 degrees Celsius by the end of the century," it said.

The conclusion is similar to the one arrived at by another UNEP report last month, which had said that even in the best-case scenarios now, global rise in temperature would reach at

least 1.8 degrees Celsius. The main question now was to assess whether actions from the countries would be adequate to force the warming to return to 1.5-degree-Celsius level after rising to 1.8 degree Celsius sometime in the second half of this century, it had said.

These two have been the first authoritative climate reports to acknowledge the inevitability of the breach of the 1.5 degree Celsius temperature threshold. Until now, most reports and assessments, including those by the Intergovernmental Panel on Climate Change, have maintained that a narrow, though shrinking, window of opportunity to achieve the 1.5 degree Celsius target existed, if only countries stepped up their climate action.

However, far from countries making greater efforts, climate change has clearly fallen off the priority list of the international community in the last few years, particularly after Donald Trump's second innings as President of the United States began last year.

The Emissions Gap Report, in fact, noted that the United States, the world's second biggest emitter of greenhouse gases, saw its annual emissions increase by more than 133 million tonnes of CO2 equivalent in 2025, the largest for any country, as per preliminary data.

Emissions grew in China as well while at least one dataset showed that it had slowed down marginally in India, the world's third-largest emitter.

Globally, greenhouse gas emissions in 2025 remained around the same levels as in 2024, around 58.4 billion tonnes of CO2 equivalent. Some datasets showed that emissions in 2025 were about 0.1 billion tonnes of CO2 equivalent lower than in 2024, but the difference was way smaller than the error of margin in assessment.

"Due to the high aggregate uncertainty range and the provisional nature of emissions estimates for the prior year, it is not possible to conclude on the overall direction of emissions in 2025. Emissions have steadily grown over the past decade since 2016 (0.8 per cent per year) and in the period between 1990 and 2016 (1.7 per cent per year)," the report said.

2. Breach of the 1.5°C Warming Target: UNEP Emissions Gap Report 2026

Newspaper: The Indian Express
GS Paper III | Environment and Climate Change

Context: The United Nations Environment Programme (UNEP) warns that breaching the 1.5°C warming threshold is now unavoidable, making rapid emission cuts essential to limit temperature overshoot and return to 1.5°C by 2100.

1. Basics of the Emissions Gap Report

- A. **Publisher:** United Nations Environment Programme (UNEP), with the UNEP Copenhagen Climate Centre and partners.
- B. **First published:** 2010; released annually ahead of the United Nations Climate Change Conference (COP).
- C. **What it measures:** The gap between projected global greenhouse gas (GHG) emissions under countries' climate pledges and the lower emissions needed to meet the Paris Agreement's temperature goals.
- D. **Purpose:** Assess whether national climate commitments are sufficient, estimate future warming and identify policies to reduce emissions.

E. **Key distinction:** The *emissions gap* concerns the shortfall in emission reductions; *temperature overshoot* means temporarily exceeding a global warming threshold before potentially returning below it.

2. Key Findings of the 2026 Report

A. **1.5°C threshold:** Avoiding a significant overshoot is no longer considered achievable. The priority is to limit the overshoot and return to 1.5°C by 2100.

B. **Lowest-overshoot pathway:** Warming peaks at around **1.7–1.8°C by mid-century**, with approximately a 50% chance of returning to 1.5°C or below by 2100.

C. **Required global emission cuts:** Compared with 2025 levels, emissions must fall by **18% by 2030, 45% by 2035 and 69% by 2040**.

D. **Current trajectory:** Existing policies could result in around **2.8°C warming** this century. Full implementation of Nationally Determined Contributions (NDCs) would limit warming to approximately **2.6°C**.

E. **Global emissions:** Estimated at **58.4 billion tonnes of CO₂-equivalent in 2025**, broadly unchanged from 2024. The available data do not establish a sustained global emissions peak.

F. **Carbon removal:** The lowest-overshoot pathway could require removing and permanently storing approximately **320 gigatonnes of CO₂** during this century; feasibility remains uncertain.

3. India-Specific Findings

A. **Total emissions:** Approximately **4.5 billion tonnes of GHGs in 2025**, making India the world's third-largest emitter.

B. **Per-capita emissions:** Around **3.1 tonnes per person**, compared with the global average of 6.4 tonnes.

C. **Emission trend:** India's emissions showed little change in 2025, although estimates vary and the trend remains uncertain.

D. **Climate commitments:** India's updated 2035 targets include reducing emissions intensity of GDP by 47% from 2005 levels and achieving around 60% non-fossil-fuel installed electricity capacity.

E. **Key challenge:** India must expand energy access and economic activity while accelerating renewable energy, efficiency and low-carbon industrial development.

4. Major Concerns

A. **Climate risks:** Higher temperatures intensify heatwaves, floods, droughts, wildfires and sea-level rise.

B. **Climate-action gap:** Current national pledges fall far short of the emission reductions required.

C. **Climate justice:** Developing countries face growing adaptation costs despite lower per-capita emissions and differing historical responsibilities.

D. **Overshoot risks:** Temporary warming above 1.5°C increases the risk of irreversible ecosystem damage and potential climate tipping points.

5. Way Forward

A. **Renewables and efficiency:** Implement the global commitment to triple renewable energy capacity and double the annual rate of energy-efficiency improvement by 2030.

B. **Fossil-fuel transition:** Reduce dependence on coal, oil and gas while ensuring a just transition for affected workers and regions.

C. **Methane reduction:** Strengthen controls across energy, agriculture and waste sectors.

D. **Climate finance:** Expand affordable finance and technology transfer for developing countries.

E. **Carbon removal:** Develop credible carbon-dioxide removal and permanent-storage capacity alongside immediate emission cuts.

F. **Accountability:** Strengthen NDC ambition, transparent emissions monitoring and implementation of national climate policies.

● 'FUND FOR RESPONDING TO LOSS AND DAMAGE', CREATED ON DEMANDS OF DEVELOPING COUNTRIES, TO SET ASIDE \$20 MILLION FOR NEPAL

Nepal becomes first beneficiary of global funding for loss & damage

Amitabh Sinha
New Delhi, October 22

A NEWLY-created international climate fund that seeks to provide financial assistance to countries affected by climate disasters decided on Thursday to earmark US \$20 million for Nepal to help it recover from the devastating flash floods in August, making it the first beneficiary of international funding for loss and damage – a long-pending demand of developing countries.

The Fund for Responding to Loss and Damage (FRLD), created in 2022, convened an emergency board meeting on Thursday at the request of Nepal and several other developing

countries. The Board decided to "provisionally set aside" a sum of \$20 million for Nepal.

Nepal has been asked to make a formal application for a funding request which will be considered at the Board's next meeting in December.

According to Nepal government's estimates, the economic loss and damage from the floods was at least \$2.69 billion, with initial recovery and reconstruction needs pegged at a minimum of \$4.71 billion.

What the FRLD board has approved for Nepal is, therefore, less than one per cent of the assessed requirement, but \$20 million is the largest amount that can be approved by the FRLD for



Drone view shows mud-covered buildings after flash floods in Devighat, Nepal. FILE

any single event right now.

Nepal was devastated by massive floods following a rock and ice avalanche on August 26 in the northeastern district of

Rasuwa. The incident, which has been scientifically assessed to have been a result of climate change induced processes, killed more than 1,300 people, and over 5,000 people are still known to be missing, according to Nepal government sources.

It was the kind of incident for which the FRLD was created on the demands of developing countries, particularly small and least developed nations, which are most vulnerable to impacts of climate change, and have least resources to deal with these.

After over a decade and a half of negotiations, the FRLD was created at the COP27 meeting in Sharm-el Shaikh in Egypt in 2022, and was operationalised at

COP28 in Dubai the following year with the announcement of the first round of pledges.

As of June this year, the FRLD had received 176 funding requests from 119 countries for a total sum of \$2.8 billion. These requests are still being processed and are expected to be decided at the scheduled board meeting in December. Following the flooding event in August, Nepal had requested immediate support.

While countries can submit multiple requests for different incidents, each of these requests have to be between \$5 million and \$20 million.

The provisional approval for Nepal is being seen as a small but significant step forward in

operationalising the international loss and damage framework in which small and vulnerable countries are able to access some financial assistance to deal with climate disasters.

"The FRLD has taken a landmark operational step by provisionally allocating \$20 million for reconstruction in Nepal following GLOF event. But the funding is less than 0.5 per cent of Nepal's estimated \$5 billion reconstruction costs, and would be released only after Nepal clears further bureaucratic project proposals, risking a delay to relief amid an ongoing structural crisis," Ajay Mathur, former director-general of International Solar Alliance, said.

3. Nepal Becomes First Beneficiary of Global Loss and Damage Funding

Newspaper: The Indian Express

GS Paper III | Environment and Climate Change

Context: The Fund for Responding to Loss and Damage (FRLD) provisionally earmarked US\$20 million for Nepal following devastating flash floods in August 2026, marking its first beneficiary allocation.

1. Nepal's Case: Key Facts

A. Allocation: US\$20 million provisionally earmarked, subject to Nepal's formal application and the Fund Board's approval.

B. Economic damage: Nepal estimated losses of US\$2.69 billion, with at least US\$4.71 billion required for recovery and reconstruction.

C. Human impact: The newspaper reported more than 1,300 deaths and over 5,000 people missing following the disaster in Rasuwa district.

D. Funding gap: The provisional allocation is less than 0.5% of Nepal's estimated US\$5 billion reconstruction costs.

2. Loss and Damage: Meaning and Significance

A. Meaning: Loss and damage refers to the adverse impacts of climate change that occur despite mitigation and adaptation efforts, including both economic losses and non-economic harm.

B. **Economic losses:** Damage to homes, roads, agriculture, infrastructure, livelihoods and public assets.

C. **Non-economic losses:** Loss of life, cultural heritage, biodiversity, community identity and displacement.

D. **Why the fund matters:** Vulnerable developing countries often have limited resources to recover from climate-related disasters despite contributing relatively little to cumulative global emissions.

E. **Climate justice:** The fund recognises the need for international support to help vulnerable countries address climate impacts they cannot manage through domestic resources alone.

3. Loss and Damage Fund (FRLD): Funding Status

A. **Established:** Created at COP27 in Egypt in 2022 and operationalised at COP28 in the United Arab Emirates in 2023.

B. **Total pledges:** Approximately US\$822.06 million from 27 contributors as of 15 March 2026.

C. **Funds received:** Approximately US\$485.77 million by 31 July 2026. Pledges are commitments; received funds are amounts actually transferred to the Fund.

D. **Global demand:** By June 2026, 119 countries had submitted 176 funding requests totalling approximately US\$2.8 billion.

E. **Key gap:** The requested funding substantially exceeds the resources pledged and received. Nepal's provisional allocation is not equivalent to money already disbursed.

4. Major Challenges

A. **Inadequate finance:** Available resources remain small compared with the scale of climate-related losses.

B. **Delayed assistance:** Application and approval procedures may delay urgent recovery.

C. **Unequal vulnerability:** Least developed countries often lack the financial and institutional capacity to rebuild.

D. Accountability: Funds must reach affected communities transparently and produce measurable recovery outcomes.

5. Way Forward

A. Scale up finance: Secure predictable, additional contributions to the Fund.

B. Simplify access: Make funding applications and approvals faster while retaining accountability.

C. Build resilience: Integrate early-warning systems, resilient infrastructure and disaster preparedness into reconstruction.

D. Ensure transparency: Monitor approvals, actual disbursements and outcomes for affected communities.

E. Advance climate justice: Provide timely support for vulnerable countries facing climate-related losses beyond their capacity to manage.

Forest department to seek expert help for 'surgery' to save over 500 girdled trees dying inside tiger reserve

Jayprakash S Naidu
Raipur, October 22

IN A bid to save at least over 500 trees that were girdled allegedly by encroachers in Karka village situated deep inside the Udanti Sitanadi Tiger Reserve (USTR), the forest department is seeking expert help to save the trees by performing bridge grafting technique.

Girdling is a process in which portions of the bark are removed to cut off nutrient supply, eventually resulting in the death of the tree.

Earlier this month, *The Indian Express* had reported that around 2,500 trees predominantly Sal, Bija and Tendu were found girdled in the Tiger Reserve during an inspection. At least over 500 of them are freshly girdled and the chances of saving them is higher, a forest official said.

The trees were girdled allegedly by villagers of Karka for encroaching on forest land. A forest case has been registered against them. Between September 22 and October 10 an inspection was carried out by the forest department. This includes a DGPS-enabled drone survey read alongside ISRO satellite imagery from 2010, 2016 (dense forest) which helps the forest department to estimate that encroachers have cleared several thousands of trees in the affected landscape between 2016-2026.

"These findings underscore the magnitude of forest loss and the urgent need for restoration and stronger protection measures besides prosecution of the accused persons from Karka. While several trees have suffered damage over the years, some (over 500) have been freshly girdled, raising con-



The trees were girdled allegedly by villagers of Karka for encroaching on forest land

cerns that deliberate damage is being used to facilitate further expansion of encroachment. Protecting the forests of USTR is particularly important given

their significance for biodiversity and the Mahanadi River's origin landscape," said Deputy Director of USTR, Varun Jain.

In order to save the girdled trees especially the newly girdled ones, a specialised conservation initiative is being undertaken where Vijay Nishanth, known as Tree Doctor for his work in tree conservation through Project Vruksha Foundation, will visit the Tiger Reserve soon to provide technical assistance in the surgical treatment and restoration of affected trees.

"Bridge grafting involves grafting a healthy branch across the girdled portion of a tree to reconnect the damaged tissues. We currently apply a mixture of cow dung and soil over the wound and wrap it with gunny bags. The procedure is more effective pre-monsoon when tissue growth is

higher. However, our success rate was less as we have not had enough time to research the technique and so to try and save more trees, we are taking expert help to save the trees," Jain added.

Scientific Surgery to Save Girdled Trees USTR had previously undertaken bridge grafting of girdled trees in Touranga Range in 2022. However, the intervention recorded a success rate of approximately 10%, highlighting the need for specialised expertise and improved treatment techniques.

Nishanth's proposed visit will focus on assessing affected trees, identifying those that can potentially be saved, and recommending appropriate surgical interventions, including bridge grafting and other suitable tree-restoration techniques.

The initiative will also provide an opportunity for USTR

personnel to learn specialised treatment procedures and develop protocols for subsequent care and monitoring.

Integrating Traditional Ecological Knowledge alongside scientific interventions, USTR is consulting tribal communities and forest dwellers residing in and around the Reserve to draw upon their traditional ecological knowledge and indigenous practices relating to tree care and healing.

The initiative seeks to explore how traditional knowledge, assessed alongside scientific methods, can contribute to the recovery of damaged trees and strengthen community participation in forest conservation.

The primary objective is to prevent the irreversible loss of valuable trees where timely intervention offers a reasonable chance of recovery.

4. PHP2Shell: Critical Vulnerabilities in PHP

Newspaper: The Indian Express

GS Paper III | Science and Technology — Cybersecurity

Context: Two critical vulnerabilities in PHP prompted precautionary website shutdowns worldwide due to the risk of remote cyberattacks.

1. Basics

- A. **PHP (Hypertext Preprocessor):** An open-source, server-side programming language used to run website functions such as logins, file uploads and online transactions.
- B. **PHP2Shell:** Name given to two vulnerabilities that could allow attackers to execute malicious code on affected servers remotely.
- C. **Scale:** PHP powers roughly 70% of websites with an identifiable server-side language, according to the report.

2. Major Vulnerabilities and Risks

- A. **Memory-handling flaw:** Improper processing of incomplete information can create exploitable weaknesses.
- B. **Leftover information:** Data retained from one user's request may interfere with another user's request.
- C. **Remote code execution:** Attackers may send malicious requests over the internet without needing an account or physical access.
- D. **Potential consequences:** Theft of login credentials, exposure of personal information, compromised uploaded files and disruption of server operations.

3. Why Websites Went Offline

- A. **Immediate threat:** Vulnerable servers could be taken over remotely.
- B. **Precautionary shutdowns:** Some organisations temporarily disabled websites when immediate patching was not possible.
- C. **Legacy systems:** Outdated devices and software may not support security updates.
- D. **Shared hosting:** Small website owners may lack direct control over the servers running PHP.

4. AI and Cybersecurity

- A. **Defensive use:** AI tools helped researchers identify and investigate vulnerabilities faster.

B. **Offensive use:** Attackers can also use AI to discover weaknesses and accelerate exploit development.

C. **Security challenge:** Faster exploitation reduces the time organisations have to secure vulnerable systems.

5. Way Forward

A. **Patch systems:** Install official security updates and verify that vulnerabilities are fixed.

B. **Identify exposure:** Audit servers, applications and third-party devices running affected PHP versions.

C. **Strengthen protection:** Use access controls, network segmentation, security monitoring and regular backups.

D. **Modernise infrastructure:** Replace unsupported software and coordinate updates with hosting providers.

E. **Responsible AI use:** Employ AI for defensive testing, early detection and coordinated vulnerability disclosure.

GST reforms to be rolled out in phases, starting November 1

ENS Economic Bureau
New Delhi, October 22

THE PROCESS reforms announced by the Goods and Services Tax (GST) Council earlier this month will be implemented in phases, with authorities focusing on simplified registration for e-commerce sellers, streamlined registration process and faster refunds in the first phase. The Ministry of Finance will also share draft GST returns on 'myGov.in' portal on November 1 for public comments till November 30 in a bid to incorporate industry feedback and minimise the sources of mismatches that account for nearly 80% of notices issued at present, officials said on Thursday.

Based on industry representations and consultations, the

government is attempting to modify the GSTR-1 return — the monthly or quarterly statement of outward supplies. "Based on the industry responses, we are modifying the GSTR-1 form, we are improving the IMS (invoice management system) so that the need for editing (GSTR) 3B does not arise. If the need does not arise, there won't be any case for notice based on mismatches. We will put the forms on 'myGov' for comments on November 1 with a 30-day window," Gaurav Singh, Commissioner (GST Policy Wing), Central Board of Indirect Taxes and Customs (CBIC), said at Assocham's National Conclave on GST.

If reforms in the GST returns system can be implemented successfully, the integrity issues in the supply chain get resolved,

Singh said. "This would be the foundation for further reforms," he added. The government is focusing on bringing in the changes that only require administrative processes in the first phase from November 1 that is likely to include simplified GST registration for small sellers on e-commerce platforms, unified documentation for GST registration, faster refunds, and a Rs 10,000 threshold for issuing GST notices.

The changes which require an amendment to the GST law would be implemented from April 1, 2027. The notifications and circulars on the relevant process reforms have already been approved by the legal department and are likely to be issued on Friday, an official said.

FULL REPORT ON

WWW.INDIANEXPRESS.COM

5. GST Process Reforms: Phased Implementation from November 2026

Newspaper: The Indian Express

GS Paper III | Indian Economy and Taxation

Context: The 57th GST Council meeting recommended reforms to simplify registration, improve return filing, accelerate refunds and reduce unnecessary litigation.

1. Major Reforms

A. Simplified GST Registration

1. **E-commerce sellers:** Simplified registration for eligible small sellers supplying goods through e-commerce operators in States/UTs where they have no physical business presence.
2. **Eligibility:** Monthly input tax credit (ITC) transfer must not exceed ₹2.5 lakh, subject to prescribed conditions.
3. **Benefit:** Easier interstate expansion and lower compliance costs for small businesses.

B. GST Returns and ITC Reconciliation

1. **Return matching:** Improve coordination between GSTR-1, GSTR-1A, the Invoice Furnishing Facility (IFF) and GSTR-3B.
2. **Invoice Management System (IMS):** Enable recipients to accept, reject or keep invoices pending for ITC purposes.
3. **Objective:** Reduce return mismatches, incorrect ITC claims and avoidable tax notices.
4. **Proposed timeline:** Revised return mechanism from 1 April 2027, subject to implementation requirements.

C. Faster Refunds

1. **Cash-ledger refunds:** Automate refunds of eligible excess balances in the electronic cash ledger.
2. **Acknowledgement period:** Proposed reduction from 15 days to 10 days.
3. **Provisional refunds:** Risk-based refunds of up to 90% for eligible zero-rated supplies and inverted-duty-structure claims.
4. **Benefit:** Improve business liquidity and reduce working-capital constraints.

D. Reduced Litigation

1. **Show-cause notices:** Proposed minimum tax threshold of ₹10,000.
2. **General penalty:** Proposed reduction in the maximum penalty from ₹25,000 to ₹10,000.
3. **Prosecution threshold:** Proposed increase from ₹1 crore to ₹5 crore.
4. **Legal status:** Measures requiring statutory amendments will take effect only after the necessary legal process.

2. Implementation Timeline

1. **1 November 2026:** First phase of administrative reforms, subject to applicable notifications and procedures.
2. **November 2026:** Stakeholder consultation on proposed GST return changes.

3. **1 April 2027:** Proposed commencement of the revised return mechanism.
4. **Statutory changes:** Implementation depends on the required legislative amendments and notifications.

3. Significance

1. **Ease of doing business:** Simplifies compliance for small businesses and e-commerce sellers.
2. **Working capital:** Faster refunds release funds for business operations.
3. **Tax compliance:** Better reconciliation reduces errors and unnecessary notices.
4. **Trust-based taxation:** Proportionate penalties can reduce avoidable disputes while preserving action against fraud.

4. Challenges

1. Preventing fake registrations, invoices and fraudulent ITC claims.
2. Supporting small taxpayers in adopting digital systems.
3. Coordinating portal upgrades and legal amendments.
4. Balancing faster refunds with revenue protection.

5. Way Forward

1. Implement reforms in phases with clear notifications and taxpayer guidance.
2. Test revised return systems before full rollout.
3. Strengthen invoice verification and risk-based refund scrutiny.
4. Monitor refund timelines, mismatches and litigation to measure effectiveness.

Forest department to seek expert help for 'surgery' to save over 500 girdled trees dying inside tiger reserve

Jayprakash S Naidu
Raipur, October 22

IN A bid to save at least over 500 trees that were girdled allegedly by encroachers in Karka village situated deep inside the Udanti Sitanadi Tiger Reserve (USTR), the forest department is seeking expert help to save the trees by performing bridge grafting technique.

Girdling is a process in which portions of the bark are removed to cut off nutrient supply, eventually resulting in the death of the tree.

Earlier this month, *The Indian Express* had reported that around 2,500 trees predominantly Sal, Bija and Tendu were found girdled in the Tiger Reserve during an inspection. At least over 500 of them are freshly girdled and the chances of saving them is higher, a forest official said.

The trees were girdled allegedly by villagers of Karka for encroaching on forest land. A forest case has been registered against them. Between September 22 and October 10 an inspection was carried out by the forest department. This includes a DGPS-enabled drone survey read alongside ISRO satellite imagery from 2010, 2016 (dense forest) which helps the forest department to estimate that encroachers have cleared several thousands of trees in the affected landscape between 2016-2026.

"These findings underscore the magnitude of forest loss and the urgent need for restoration and stronger protection measures besides prosecution of the accused persons from Karka. While several trees have suffered damage over the years, some (over 500) have been freshly girdled, raising con-



The trees were girdled allegedly by villagers of Karka for encroaching on forest land

cerns that deliberate damage is being used to facilitate further expansion of encroachment. Protecting the forests of USTR is particularly important given

their significance for biodiversity and the Mahanadi River's origin landscape," said Deputy Director of USTR, Varun Jain.

In order to save the girdled trees especially the newly girdled ones, a specialised conservation initiative is being undertaken where Vijay Nishanth, known as Tree Doctor for his work in tree conservation through Project Vruksha Foundation, will visit the Tiger Reserve soon to provide technical assistance in the surgical treatment and restoration of affected trees.

"Bridge grafting involves grafting a healthy branch across the girdled portion of a tree to reconnect the damaged tissues. We currently apply a mixture of cow dung and soil over the wound and wrap it with gunny bags. The procedure is more effective pre-monsoon when tissue growth is

higher. However, our success rate was less as we have not had enough time to research the technique and so to try and save more trees, we are taking expert help to save the trees," Jain added.

Scientific Surgery to Save Girdled Trees USTR had previously undertaken bridge grafting of girdled trees in Touranga Range in 2022. However, the intervention recorded a success rate of approximately 10%, highlighting the need for specialised expertise and improved treatment techniques.

Nishanth's proposed visit will focus on assessing affected trees, identifying those that can potentially be saved, and recommending appropriate surgical interventions, including bridge grafting and other suitable tree restoration techniques.

The initiative will also provide an opportunity for USTR

personnel to learn specialised treatment procedures and develop protocols for subsequent care and monitoring.

Integrating Traditional Ecological Knowledge alongside scientific interventions, USTR is consulting tribal communities and forest dwellers residing in and around the Reserve to draw upon their traditional ecological knowledge and indigenous practices relating to tree care and healing.

The initiative seeks to explore how traditional knowledge, assessed alongside scientific methods, can contribute to the recovery of damaged trees and strengthen community participation in forest conservation.

The primary objective is to prevent the irreversible loss of valuable trees wherever timely intervention offers a reasonable chance of recovery.

6. Udanti–Sitanadi Tiger Reserve: Saving Over 500 Girdled Trees

Newspaper: The Indian Express

GS Paper III | Environment and Biodiversity

Context: The Chhattisgarh Forest Department is seeking expert assistance to save over 500 recently girdled trees in Udanti–Sitanadi Tiger Reserve, allegedly damaged to facilitate forest encroachment.

1. Basics of Udanti–Sitanadi Tiger Reserve

1. **Location:** Gariaband district, Chhattisgarh.
2. **Established:** Notified as a tiger reserve in 2009.
3. **Area:** 1,842.54 sq. km, comprising 851.09 sq. km of core area and 991.45 sq. km of buffer area.
4. **Rivers:** Named after the Udanti and Sitanadi rivers.
5. **Wildlife significance:** Important habitat for tigers and the endangered Asiatic wild buffalo.
6. **Tiger reserves in Chhattisgarh:** The state has four — Udanti–Sitanadi, Indravati, Achanakmar and Guru Ghasidas–Tamor Pingla.

2. Tree Damage and Scientific Intervention

1. **Girdling:** Removal of a strip of bark disrupts nutrient transport and can eventually kill a tree.
2. **Extent of damage:** Around 2,500 trees, including Sal, Bija and Tendu, were reportedly found girdled; over 500 were freshly damaged and have a better chance of recovery.
3. **Bridge grafting:** Experts will assess whether healthy plant tissue can be grafted across the damaged section to restore nutrient transport.
4. **Forest monitoring:** Drone surveys and satellite imagery are being used to assess forest loss and possible encroachment.

3. Challenges and Way Forward

1. **Challenges:** Forest encroachment, low success rates of previous grafting attempts and limited specialised expertise.
2. **Scientific restoration:** Identify viable trees, apply suitable treatments and monitor their recovery.

3. **Community participation:** Integrate traditional ecological knowledge with scientific conservation methods.
4. **Stronger protection:** Improve surveillance and enforce forest protection laws to prevent further damage.

India, Ethiopia share 100th spot on Global Hunger Index

India fares worse than Bangladesh, Nepal and Sri Lanka; one in five children suffers wasting

By NH Digital

Published: 22 Oct 2026, 5:07 PM IST



Children at a free food distribution camp in Delhi (file photo) NH archives

India shares 100th place with Ethiopia, scoring 24.1 in the 2026 Global Hunger Index.

Child wasting affects 19 per cent of children under five, while stunting stands at 29.3 per cent.

Bangladesh, Nepal and Sri Lanka record lower hunger scores than India; Pakistan and Afghanistan score higher.

7. Global Hunger Index 2026: India Ranks 100th

Newspaper: National Herald

GS Paper II | Issues Related to Poverty and Hunger; GS Paper III | Food Security

Context: India shares the 100th position with Ethiopia in the 2026 Global Hunger Index (GHI), scoring 24.1 and facing persistent child malnutrition.

1. Key Findings

1. **India's ranking:** 100th position, with a GHI score of **24.1**, indicating a serious level of hunger.
2. **Child wasting:** **19%** of children under five suffer from wasting, reflecting low weight for their height.
3. **Child stunting:** **29.3%** of children under five suffer from stunting, indicating impaired growth due to chronic undernutrition.
4. **Regional comparison:** Bangladesh, Nepal and Sri Lanka perform better than India, while Pakistan and Afghanistan have higher hunger scores.

2. About the Global Hunger Index

1. **Published by:** Concern Worldwide and Welthungerhilfe.
2. **Purpose:** Measures and tracks hunger and undernutrition across countries.
3. **Four indicators:**
 - A. Undernourishment
 - B. Child wasting
 - C. Child stunting
 - D. Under-five child mortality

3. Reasons for India's Hunger Challenges

1. **Nutritional deficiencies:** Inadequate access to diverse, nutritious food.
2. **Poverty and inequality:** Unequal access to food, healthcare and sanitation.
3. **Maternal and child health:** Poor maternal nutrition and inadequate infant-feeding practices.
4. **Implementation gaps:** Challenges in delivering nutrition and food-security programmes effectively.

4. Government Measures and Way Forward

1. **POSHAN Abhiyaan:** Addresses malnutrition among children, adolescent girls, pregnant women and lactating mothers.

2. **PM POSHAN:** Provides cooked meals to eligible schoolchildren.
3. **National Food Security Act, 2013:** Provides a legal framework for subsidised food grains to eligible households.
4. **Way forward:** Strengthen nutrition services, dietary diversity, maternal healthcare, sanitation and monitoring of nutrition outcomes.