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ADDIS ABABA

Interim Tigray administration to be established, says Ethiopian govt.



REUTERS

▲ Ethiopian Prime Minister Abiy Ahmed announced on Friday an interim administration would be established in the northern Tigray region, which has been controlled by rebels who have clashed with federal forces in recent weeks. The federal government caretaker administration will administer Tigray for the next six months. AFP

97. Consider the following pairs :

<i>Area of conflict mentioned in news</i>	<i>Country where it is located</i>
1. Donbas	: Syria
2. Kachin	: Ethiopia
3. Tigray	: North Yemen

How many of the above pairs are correctly matched?

(a) Only one

(b) Only two

(c) All three

(d) None



1. Ethiopia's Tigray Region: Interim Administration

Source: The Hindu | GS Paper 2: International Relations, Conflict Resolution and Federalism

Latest development: Ethiopian Prime Minister Abiy Ahmed announced a caretaker administration for Tigray for six months amid renewed clashes between federal forces and the Tigray People's Liberation Front (TPLF).

Purpose: Stabilise the region and prepare for regional elections.

Background: The conflict escalated in 2020 between Ethiopia's federal government and the TPLF. The Pretoria Agreement (2022) sought to end the fighting.

Significance: The development highlights challenges in post-conflict reconciliation, regional autonomy and restoring political stability.

2. Prelims Booster: Geography and Important Places

Ethiopia: Landlocked country in the Horn of Africa; capital — Addis Ababa.

Tigray: Region in northern Ethiopia; capital — Mekelle.

Tigray's boundaries: Eritrea (north), Sudan (west), Afar region (east) and Amhara region (south).

Aksum: Historic city associated with the ancient Kingdom of Aksum and its monumental obelisks.

Tekeze River: Important river flowing through the Tigray region.

Ethiopia's neighbouring countries: Eritrea, Djibouti, Somalia, Kenya, South Sudan and Sudan.

Strategic fact: Ethiopia became landlocked after Eritrea gained independence in 1993, leaving Ethiopia without a coastline.

Trump says US may need to strike Iran's Pickaxe Mountain

Reuters

Washington, October 16

PRESIDENT DONALD Trump said the US may have to target Pickaxe Mountain, a site linked to Iran's nuclear program, as he aims to ensure Tehran does not get a nuclear weapon.

In an interview with *Newsmax* on Thursday night, Trump also said he would not use a nuclear weapon in the war on Iran, which began in February with US-Israeli strikes.

Trump said the US wanted to make sure Iran will never have a nuclear weapon "because if they had it, they would use it."

"Their nuclear is buried



US President Donald Trump speaks to reporters as he departs the White House for Joint Base Andrews on Friday. AP

under millions of tons of mountain. Now we're looking at Pickaxe Mountain. We may have to go there. We'll take a shot at that

one. We'll knock it out fast," Trump told the news outlet.

Pickaxe Mountain is a fortified facility buried deep underground near one of Tehran's main nuclear sites.

The US president said there was no need to use a nuclear bomb in Iran. "I wouldn't use nuclear. We don't have to." Trump reiterated he was not considering using US ground troops in Iran.

Trump did not say if he had authorized use of GBU-43/B Massive Ordnance Air Blast Bomb, also known as "mother of all bombs," against Iranian energy infrastructure and nuclear sites. He did say the MOAB bomb was not a nuclear bomb.



2. Iran's Pickaxe Mountain: A Potential Target in the Nuclear Standoff

GS Paper 2: International Relations, International Security

Context

US President Donald Trump threatened to target Pickaxe Mountain (Kuh-e Kolang Gaz La), a heavily fortified underground site in Iran's Isfahan province. The facility's suspected role in Iran's nuclear programme and its deep underground construction have raised concerns about the difficulty of monitoring and striking protected nuclear infrastructure.

1. Pickaxe Mountain: Location, Structure and Suspected Role

Location: Near Natanz in central Iran, approximately 220 km south of Tehran and around 2 km from the Natanz nuclear complex.

Construction: Development reportedly began around 2020, following an incident at the Natanz facility. Satellite imagery has shown extensive excavation and reinforced tunnel entrances.

Underground protection: The site is believed to be deeply buried beneath a mountain. Estimates of its depth vary, and its precise design is not publicly established.

Suspected purpose: Analysts believe it may be intended for assembling advanced uranium-enrichment centrifuges or protecting other sensitive nuclear equipment. Its exact function and operational status remain unconfirmed.

Why it matters: Facilities buried beneath substantial rock cover can be more difficult to damage than surface installations, potentially allowing sensitive infrastructure to survive attacks on other nuclear sites.

Verification gap: The International Atomic Energy Agency (IAEA) has not independently verified the facility's internal activities or established whether it contains enriched uranium or operational enrichment equipment.

3. Three Iranian Nuclear Facilities Struck by the US in June 2025

Under Operation Midnight Hammer, on 22 June 2025, the United States struck three major nuclear facilities during the 12-day war between Israel and Iran. Israel had launched its broader campaign against Iran on 13 June.

Fordow Fuel Enrichment Plant: Located near Qom, this deeply buried facility was a major uranium-enrichment site. Its underground position made it particularly challenging to target.

Natanz Nuclear Facility: Located in Isfahan province, it was a principal centre for uranium enrichment, with above-ground and underground installations. The strikes severely damaged key infrastructure.

Isfahan Nuclear Complex: Supported uranium conversion and other nuclear fuel-cycle activities. The strikes targeted parts of the complex, including buildings and tunnel-related infrastructure.

L&T-built *INS Samarthak* inducted into Indian Navy

Saurabh Trivedi

NEW DELHI

The Indian Navy on Friday commissioned *INS Samarthak*, the first of two multi-purpose vessels being built by Larsen & Toubro (L&T), strengthening its capability to test and evaluate indigenously developed sensors and weapons amid an evolving maritime security environment.

Vice-President C.P. Radhakrishnan presided over the commissioning ceremony in the presence of Chief of the Naval Staff Admiral Krishna Swaminathan, and senior naval and Defence officials in Karwar.

According to the Indian Navy, *INS Samarthak* marks a significant milestone in India's indigenous shipbuilding efforts, highlighting the growing role of the private sector in developing platforms for the armed forces. The vessel has over 75% indigenous



The indigenous multi-purpose vessel *INS Samarthak*. PTI

content, according to the Navy.

Conceived primarily as a versatile platform for trials and evaluation, the ship will support the testing and training of new sensors and weapons developed by domestic industry. Its induction is expected to strengthen the Navy's ability to validate indigenous technologies before wider deployment, it added.

Named *Samarthak*, meaning 'the proponent', the vessel has been de-

signed to undertake a range of operational and developmental tasks. Besides supporting trials and evaluation, it can carry out maritime surveillance and reconnaissance, offshore patrolling and disaster relief operations.

The Navy said the vessel's versatility would also be particularly useful in an unpredictable maritime environment where traditional security challenges are increasingly accompanied by non-traditional threats.

3. INS Samarthak: India's Indigenous Multipurpose Naval Vessel

GS Paper 3: Defence Technology, Indigenous Manufacturing and Maritime Security

Context

The Indian Navy commissioned INS Samarthak, the first of two multipurpose vessels designed to support the testing and evaluation of indigenous naval weapons, sensors and emerging technologies.

1. Key Features

Indigenous content: More than 75%.

Primary role: Testing, evaluation and training of naval weapons and sensors under realistic maritime conditions.

Additional capabilities: Surveillance, reconnaissance, offshore patrolling, unmanned-system support and humanitarian assistance and disaster relief (HADR).

Builder: Larsen & Toubro (L&T), at its Kattupalli Shipyard in Tamil Nadu.

2. Strategic Significance for India

Defence self-reliance: Strengthens domestic development and validation of naval technologies.

Operational efficiency: Reduces the need to divert frontline warships for developmental trials.

Technological modernisation: Supports testing of advanced sensors, weapons and unmanned systems.

Maritime preparedness: Offers additional capabilities for surveillance, patrol and disaster response.

Private-sector participation: Demonstrates the contribution of Indian shipbuilders to defence indigenisation under Aatmanirbhar Bharat.

3. Similar Vessels and Project Status

INS Samarthak: First vessel of the Indian Navy's multipurpose vessel project; commissioned in October 2026.

INS Utkarsh: Second vessel in the project; launched in January 2025 and, according to the previously cited reports, undergoing sea trials rather than commissioned service.

International comparison: China operates dedicated naval test ships, including Type 909-series vessels. The United States has used the Self-Defense Test Ship (SDTS), formerly USS Paul F. Foster, to evaluate naval weapons and self-defence systems.

China to curb exports of 40 cutting-edge technologies including AI, photovoltaics

Ananth Krishnan

BEIJING

China on Friday announced a sweeping draft plan to restrict exports of more than 40 cutting-edge technologies, including solar manufacturing technologies, AI models, and some biotech platforms.

A number of technologies related to the manufacture of solar cells have been listed for either a complete export ban or restricted exports. While the draft plan does not restrict most solar exports, new controls on next-generation solar manufacturing technologies could impact efforts by countries including India to reduce dependence on China as they look to move up the solar chain.

Several AI-driven technologies have also been listed in the draft plan, announced on Friday by the Ministry of Commerce and the Ministry of Science and Technology and titled "Announcement No. 48".

It covers 40 key technologies in the fields of AI, biomedicine and photovoltaics. Of these, 14 technologies were proposed for a complete prohibition of export, including perovskite and tandem solar-cell mo-

A new **roadblock**

The draft plan proposes export bans on 14 technologies and restrictions on 26 others



Solar: Perovskite and tandem-cell manufacturing know-how among the proposed bans; polysilicon production faces restrictions

AI, biotech: Select AI systems and cell- and gene-therapy platforms also targeted

■ India might face potential delays in solar investments, licensing and domestic manufacturing



border lawyer.

"The timetable for localisation is set to launch when domestic capacity from three independent domestic manufacturers exceeds 15 GW. This initial set of domestic manufacturers might experience delays in commencing production due to Announcement 48," he said.

In March, India amended restrictions on Chinese investment imposed in 2020, and listed polysilicon and ingot-wafer segments as priority sectors for fast-track approvals.

These "might not receive traction since Chinese firms will face con-

control over technologies or inappropriate proliferation..." the statement said.

The statement said China was adding 12 photovoltaic technologies covering polysilicon production, wafer manufacturing and solar-cell manufacturing.

Chinese interests

Citing the need to "safeguard national security and interests", it said, "photovoltaic technologies are increasingly being used in aerospace, defence, unmanned systems and other sensitive sectors; as a result, the national-security implications of technology exports have increased."

On the proposed AI controls, the spokesperson said that while "most AI technologies will continue to be freely exportable", China was adding 23 key AI technologies covering foundation models, intelligent agents, computing clusters and information-processing technologies.

"Technologies such as autonomous malicious-code generation and mutation could be used to target critical infrastructure, defence systems and core government networks or to evade national security defences," the statement said.

4. China's Export Controls on 40 Critical Technologies

GS Paper 2: India–China Relations

GS Paper 3: Science & Technology, Renewable Energy, Economic Security

1. Context

On 16 October 2026, China proposed export controls on 40 technologies related to artificial intelligence (AI), solar photovoltaics and biotechnology: 14 proposed export bans and 26 restrictions. The move highlights China's ability to use technological dominance as strategic leverage.

2. China's Technological Dominance

China dominates the solar manufacturing supply chain, from raw materials to finished modules.

Polysilicon: Dominates production of high-purity silicon used in conventional solar cells.

Silicon ingots and wafers: Controls the overwhelming majority of global wafer manufacturing capacity.

Solar cells: Has extensive production capacity and expertise in converting wafers into electricity-generating cells.

Solar modules: Leads in assembling cells into finished panels through large-scale, integrated manufacturing.

Manufacturing technology: Holds expertise in specialised machinery, production processes and technical know-how.

Emerging technologies: Proposed controls cover selected perovskite and tandem solar-cell manufacturing processes.

AI and biotechnology: Selected advanced AI capabilities and cell- and gene-therapy technologies are also covered.

3. India's Dependence

Polysilicon: Nearly 100% import-dependent.

Silicon wafers: More than 90% import-dependent.

Solar cells: More than 60% import-dependent.

Manufacturing equipment: Reliance on imported machinery and specialised technology constrains upstream manufacturing.

Structural gap: India has expanded module production but still lacks comparable capacity across the entire solar value chain.

4. Implications for India

Higher costs: Restricted access to technology may force manufacturers to seek costlier alternatives.

Manufacturing delays: Shortages of specialised machinery or restricted technology transfers could slow factory expansion.

Energy security: Supply-chain disruptions could complicate solar deployment and clean-energy targets.

Technology gap: Limited access to advanced cell-manufacturing processes could weaken India's future competitiveness.

Strategic vulnerability: Dependence on Chinese technology creates exposure to geopolitical tensions and export restrictions.

AI and biotechnology: Selected technology transfers may become harder, although the proposal is not a blanket ban on Chinese AI services or biomedical products.

5. Way Forward

Upstream manufacturing: Build domestic capacity in polysilicon, ingots, wafers and solar cells.

Research and development: Invest in advanced solar technologies, indigenous AI and biotechnology.

Supply-chain diversification: Develop alternative suppliers and international technology partnerships.

Technology transfer: Promote joint ventures, licensing and domestic technical expertise.

Industrial incentives: Use the Production Linked Incentive (PLI) scheme to encourage technological depth and domestic value addition.

Spoke to PM Modi, he is visiting Canada on Dec 11-12, says Carney

Trade, energy, tech on the table, signals Indian mission

Shubhajit Roy
New Delhi, October 16

PRIME MINISTER Narendra Modi will visit Canada on December 11 and 12, Canadian Prime Minister Mark Carney and the Indian High Commission in Ottawa have officially confirmed.

PM Carney shared the news while speaking with visitors at a local restaurant in Calgary on Thursday morning. He said he "just spoke" to PM Modi about his upcoming visit. Carney said Modi will travel to Toronto and Ottawa, but added, "We'll see if we can broaden it out."

Later, the Indian High Commission in Ottawa posted on X: "PM Shri Narendra Modi will visit Canada on 11-12 December



PM Narendra Modi with his Canadian counterpart Mark Carney. FILE

2026. In the recent conversation with Rt. Hon. PM Mark Carney, both the leaders agreed to build on the positive momentum in ties and work towards concrete outcomes in trade, energy, technology, security and people-to-people ties."

Ministry of External Affairs' official spokesperson Randhir Jaiswal on Friday said: "As you are aware, Foreign Minister of

Canada visited India a few days back. She met with the External Affairs Minister (S Jaishankar) and discussed progress in bilateral ties. She also called on the Prime Minister. During the visit, the Prime Minister's visit to Canada came up for discussion. The dates for the visit are presently under discussion. We will announce the visit at the appropriate time."

PM Modi met visiting Foreign Minister of Canada Anita Anand on Wednesday and said India is committed to building a "constructive and forward-looking strategic partnership" with Canada that delivers "tangible benefits" to the people of both countries. Modi, after meeting Anand, said, "Pleased to meet Canadian Foreign Minister Anita Anand. We had a productive discussion on further strengthening India-Canada ties in trade, technology, security, energy, education and people-to-people exchanges."

"India is committed to building a constructive and forward-looking strategic partnership with Canada that delivers tangible benefits to the people of both countries," he posted on X.

During the meeting, PM Modi and Foreign Minister Anand discussed ongoing efforts to strengthen bilateral ties and expand cooperation in areas of mutual interest, including trade, science and technology, defence,

security, energy, education, people-to-people ties and multi-lateral cooperation, the PM's Office said in a statement.

PM Modi emphasised the importance of sustaining momentum in bilateral engagement and translating it into tangible outcomes, including through early conclusion of negotiations on a Comprehensive Economic Partnership Agreement (CEPA), it said.

"They also exchanged views on regional and global developments of mutual interest," it said, adding that PM Modi conveyed his warm greetings to Prime Minister Carney and said that he looked forward to continuing their engagements.

Earlier that day, External Affairs Minister S Jaishankar met Anand and said they "reviewed progress in our ties across trade and investment, education, energy, defence and people-to-people exchanges. Also exchanged views on key regional and global developments".

5. India-Canada Relations: Cooperation, Challenges and Way Forward

GS Paper II: International Relations

1. Context

India-Canada relations are gradually improving after the 2023 diplomatic crisis. Canadian Prime Minister Mark Carney confirmed Prime Minister Narendra Modi's proposed visit to Canada on 11-12 December 2026, signalling renewed efforts to rebuild bilateral ties.

2. Major Areas of Cooperation

- 1. Trade and investment:** Negotiations for a Comprehensive Economic Partnership Agreement (CEPA) aim to improve market access, expand investment and diversify trade partnerships.
- 2. Energy and critical minerals:** Canadian uranium, liquefied natural gas (LNG) and critical minerals can support India's nuclear energy programme, energy security and clean-energy transition.
- 3. Technology and innovation:** Cooperation in artificial intelligence, scientific research, advanced manufacturing and emerging technologies can strengthen innovation and industrial capacity.
- 4. Education and diaspora:** Indian students, professionals and the diaspora provide a strong foundation for educational exchanges, research collaboration and people-to-people relations.
- 5. Security and strategic cooperation:** Dialogue on law enforcement, countering extremism and transnational crime can rebuild trust. Shared interests also include resilient supply chains and Indo-Pacific stability.

3. Recent Developments: Diplomatic Reset

- 1. Ministerial engagement:** Canadian Foreign Minister Anita Anand visited India from 13–15 October 2026 and met PM Modi and External Affairs Minister S. Jaishankar.
- 2. Trade mission:** A major Canadian business delegation visited India to explore commercial and investment opportunities.
- 3. Security dialogue:** Renewed official engagement indicates efforts to address bilateral security concerns.
- 4. CEPA negotiations:** Both countries are working towards concluding the trade agreement by the end of 2026.
- 5. Leadership engagement:** Modi's proposed December visit could consolidate the reset and establish priorities for future cooperation.

4. Five Key Challenges

- 1. Trust deficit:** The 2023 Nijjar controversy severely damaged diplomatic confidence.
- 2. Khalistani extremism:** India remains concerned about extremist activities targeting Indian interests from Canadian territory.
- 3. Foreign-interference allegations:** Competing security concerns require credible investigations and respect for due process.

- 4. Trade barriers: Differences over market access and regulatory issues may delay CEPA.**
- 5. Domestic political pressures: Diaspora-related sensitivities can complicate bilateral decision-making.**

5. Five-point Way Forward

- 1. Institutionalise dialogue: Maintain regular political, diplomatic and security consultations.**
- 2. Address security concerns: Strengthen lawful cooperation against extremism and transnational crime while respecting sovereignty.**
- 3. Conclude CEPA: Resolve outstanding differences and establish a predictable framework for trade and investment.**
- 4. Deliver economic outcomes: Advance energy, critical-mineral, technology and clean-energy partnerships.**
- 5. Rebuild public confidence: Protect educational exchanges, diaspora links and people-to-people cooperation from diplomatic tensions.**

Ripples from future

The Economics Nobel rewards work
that holds lessons for India

This year's Nobel Prize in Economics has been awarded for work that is particularly crucial in the current global context. Implications from the work also have lessons for Indian policymakers, some of which have already been learnt, while others remain a work in progress. The crux of the research done by the laureates Robert E. Hall and Michael Woodford is in quantifying the future-looking aspect of the consumption and pricing decisions made by households and companies, respectively. Bringing empirical backing and rigour to this aspect, as the laureates have done, has helped policymakers identify economically distressed segments of the population, implement more effective policies during supply shocks, and communicate their policies better. Mr. Hall's research in particular has helped governments identify the exact proportion of consuming households that are living hand-to-mouth. This is of vital fiscal importance for countries such as India. At the moment, India provides free food to more than 81 crore people, based on estimates that are between 13 to 15 years old. Using data – as Mr. Hall's research allows – to identify those who truly need help will

6. Economics Nobel Prize: Lessons for India

GS Paper III: Indian Economy, Inflation, Subsidies and Fiscal Policy

1. Context

The Economics Nobel-winning work of Robert E. Hall and Michael Woodford highlights how households' consumption decisions depend on current and expected income, while companies' pricing decisions depend on expectations about future costs and economic conditions. These insights offer important lessons for India's welfare targeting, inflation management and policymaking.

2. India's Current Situation

1. Food security: India provides free foodgrains to over 81 crore people. The article highlights that beneficiary estimates rely on data from 13–15 years ago, raising concerns about outdated coverage and inefficient targeting.

2. Fiscal constraints: Large welfare and subsidy commitments make accurate identification of vulnerable households essential for efficient public expenditure.

3. Business expectations: The private-sector Purchasing Managers' Index (PMI) captures business expectations over approximately one month. Longer-term government surveys are needed to understand future business conditions.

4. Policy uncertainty: Controversies surrounding the Farm Laws, Labour Codes and Citizenship (Amendment) Act highlight the importance of clear policy communication and public consultation.

5. External shocks: The West Asian conflict creates uncertainty over energy prices, supply chains and inflation, affecting household and business decisions.

3. Significance for India

- 1. Better welfare targeting:** Updated household data can identify vulnerable families, improve food-subsidy delivery and reduce inclusion and exclusion errors.
- 2. Fiscal efficiency:** Better targeting can reduce avoidable expenditure while protecting eligible beneficiaries and maintaining food security.
- 3. Inflation management:** Monitoring firms' future expectations can help policymakers anticipate price pressures and respond to supply shocks.
- 4. Policy credibility:** Clear and predictable communication helps households plan consumption and businesses make pricing and investment decisions.
- 5. Crisis management:** Understanding household vulnerability and business expectations enables more effective responses to global conflicts, energy-price increases and economic uncertainty.