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Current Affairs - 21 October 2025

THE NEW ARC OF INDIA-AUSTRALIA COLLABORATION

- **India's growing engagement with Australia** marks one of the most dynamic transformations in the Indo-Pacific's defence landscape.
- **Defence Minister Rajnath Singh's visit to Canberra and Sydney** for the inaugural Australia-India Defence Ministers' Dialogue **represented a milestone in this trajectory**, not merely symbolising shared rhetoric on regional security but demonstrating **a concrete shift toward operational and industrial collaboration**.
- Amid these ongoing developments, **it is important to examine the evolution, drivers, and implications of the deepening India-Australia defence relationship**, highlighting how the partnership is transitioning from strategic alignment to a robust, capability-driven cooperation.

Evolving Stages of Partnership

- **Strategic Convergence**
 - **Strategic convergence** formed the foundation of bilateral cooperation.
 - **Both nations share concerns about China's expanding influence** and coercive behaviour in the Indo-Pacific, which threatens the rules-based maritime order.
 - These **mutual anxieties have manifested in recurring engagements** through the Quadrilateral Security Dialogue (Quad) and a series of ministerial-level consultations, where both sides reiterated their commitment to a free and open Indo-Pacific.
- **Operational Deepening**
 - **Regular joint military exercises, such as Talisman Sabre**, and increased information-sharing established **habits of cooperation between the two militaries**.
 - The **signing of arrangements on air-to-air refuelling** and logistics marked practical advances, enabling greater interoperability and flexibility in joint operations.



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- **Industrial and Logistics Convergence**

- The most recent phase, **industrial and logistics convergence**, is arguably the most transformative.
- Defence industry roundtables, discussions on joint ship maintenance, and cooperation on submarine rescue capabilities reveal a **maturing partnership that extends beyond symbolic statements**.
- This **phase aims to create a self-sustaining ecosystem** of defence production, repair, and innovation that enhances both countries' operational readiness.

Structural and Practical Drivers of Cooperation

- **Structurally, the shifting balance of maritime power**, with China's assertiveness challenging freedom of navigation and regional stability, has **pushed middle powers to strengthen interlinkages**.
- For both New Delhi and Canberra, **collaboration serves as a hedge against overreliance on any single external security provider**.
- On a practical level, **cooperation mitigates operational friction during crises**.
- **Shared logistics arrangements**, submarine rescue mechanisms, and **information-sharing frameworks enhance readiness and reduce vulnerabilities**.

Conclusion

- The **India–Australia defence relationship exemplifies a shift** from rhetorical partnership to strategic pragmatism.
 - **Rooted in shared democratic values and mutual concerns over regional security**, it has matured into a multidimensional collaboration spanning maritime operations, **industrial innovation, and institutional resilience**.
 - **As both nations continue to align capabilities and interests**, their cooperation will play an increasingly decisive role in shaping the Indo-Pacific's security architecture, **ensuring that it remains open, stable, and inclusive in the face of emerging geopolitical challenges**.
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FAO HONOURS SUNDARBANS' SUSTAINABLE AQUACULTURE MODEL

- The **Sundarbans**, spanning India and Bangladesh, is the world's largest mangrove delta and a UNESCO World Heritage Site.
- The Indian portion, located primarily in **West Bengal**, covers nearly **9,630 square kilometres** and supports millions of people who depend on fishing, aquaculture, honey collection, and agriculture for their livelihoods.
- However, this region is increasingly threatened by **climate change, rising sea levels, soil salinity, and land-use change**.
- Frequent cyclones like Amphan and Yaas, coupled with unregulated aquaculture and deforestation, have severely impacted both biodiversity and human livelihoods.
- In this context, the **integration of mangrove conservation with sustainable economic activities** has emerged as a key model for resilience and adaptation.

Sustainable Aquaculture in Mangrove Ecosystems: A Climate-Resilient Model

- The Sustainable Aquaculture in Mangrove Ecosystems (SAIME) initiative, developed by the **Nature Environment and Wildlife Society (NEWS)**, represents a pioneering approach to balancing livelihood needs with ecological conservation.
- Implemented in the **Sundarbans region of North and South 24 Parganas districts**, the project has demonstrated that **sustainable shrimp farming can coexist with mangrove restoration**.
- Under this model, aquaculture ponds maintain **5%-30% mangrove coverage**, ensuring that biodiversity, carbon sequestration, and coastal protection are integrated into shrimp farming practices.
- The mangrove litter also serves as natural fodder, replacing expensive chemical feed and thus **reducing production costs significantly**.
- After years of implementation across **29.84 hectares** by **42 fish farmers**, the **average net profit per farmer increased by over 100%**, highlighting the model's financial viability.



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FAO's Global Recognition of the Sundarbans Model

- Recently, during its **80th Anniversary and World Food Forum** held in Rome, the **Food and Agriculture Organisation** of the United Nations conferred **Global Technical Recognition** on the SAIME model.
- The recognition highlights how a community-based, nature-integrated model can contribute to **climate resilience, sustainable food systems, and biodiversity conservation**.

Balancing Livelihoods with Mangrove Conservation

- The Sundarbans have seen rapid land-use transformation over recent decades, with **unregulated shrimp monoculture** leading to widespread mangrove destruction.
 - The SAIME model was conceptualised as a **counter-narrative to exploitative aquaculture practices**, promoting an **ecosystem-based and community-driven**
 - The project involves **community participation** at every stage, from pond management to mangrove plantation, ensuring that conservation efforts are **locally owned and socially inclusive**.
 - Farmers are trained in **Good Aquaculture Practices (GAPs)**, including maintaining water quality, using organic inputs, and avoiding antibiotics or synthetic feed.
 - This integrated approach has multiple benefits:
 - **Environmental:** Mangroves act as natural buffers against cyclones and tidal surges, reducing coastal erosion and supporting marine biodiversity.
 - **Economic:** Reduced input costs and improved yields have doubled farmer income.
 - **Social:** Community participation fosters environmental stewardship and local empowerment.
 - **Climate:** Enhanced mangrove coverage aids in **carbon sequestration**, supporting India's broader climate action commitments under the **Paris Agreement**.
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INDIA-US TRADE DEAL - BALANCING STRATEGIC GAINS AND ECONOMIC SOVEREIGNTY

- The trade negotiations aim to **address tariff and non-tariff barriers** impacting bilateral trade.
- **The US seeks greater access** to India's markets, particularly in digital services, agriculture, and intellectual property.
- **India aims to secure tariff concessions** and expand exports while protecting domestic industries and policy space.

Key Issues and Considerations:

- **Written agreement before announcement:**
 - India must ensure that **all commitments are documented** before public announcements.
 - **Past instances** show the **US has altered terms unilaterally** post-negotiation — India must guard against such last-minute changes.
- **Avoiding last-minute US demands:**
 - Historically, the US has introduced new conditions during final negotiation rounds at GATT/WTO.
 - India should **resist such pressures even at the cost of delayed finalisation** and consult all relevant ministries and stakeholders.
 - New demands can be deferred to a "Phase II" of negotiations for later discussion.
- **Reducing overdependence on US markets:**
 - Over-reliance on one export destination **can make India economically vulnerable**.
 - India must ensure the trade deal does not deepen dependence on the US or support US efforts to isolate China through "**supply chain resilience**" clauses.
 - **Safeguarding India's autonomy** in trade partnerships and participation in global value chains is essential.



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- **Assessing the cost of concessions:**
 - India must **evaluate** how the deal alters its existing rights and obligations.
 - US trade deals with Japan, EU, and Vietnam show that partner nations often -
 - **Reduce tariffs** on industrial and agricultural goods.
 - **Offer major concessions**, while the US reciprocates marginally (e.g., reducing 50% tariffs to 15–20%).
 - India must **avoid an asymmetric agreement** that undermines its developmental and industrial policy space.
- **Protecting red lines - Farmers, fishermen and digital sovereignty:**
 - Though assurance on protecting farmers' and fishermen's interests is significant, negotiators must also uphold red lines in **digital economy and intellectual property rights (IPR)**.
 - The digital sector holds immense potential for India's **Atmanirbhar Bharat vision** and future economic growth.

Challenges for India:

- **Power asymmetry** in political and economic leverage favours the US.
- **India's non-confrontational approach** limits its bargaining strength.
- **Securing a mutually beneficial agreement** under these conditions would be a diplomatic achievement.

Way Forward:

- **Maintain strategic autonomy:** Avoid clauses that constrain India's independent trade or digital policies.
- **Insist on reciprocity:** Ensure fair tariff reductions and market access from the US side.
- **Protect core sectors:** Uphold red lines in agriculture, fisheries, and the digital economy.
- **Enhance diversification:** Reduce export dependence on any single market to strengthen resilience.
- **Be prepared to walk away:** As Chanakya advised, when treaty benefits are unfairly distributed, non-agreement is preferable to an unequal one.



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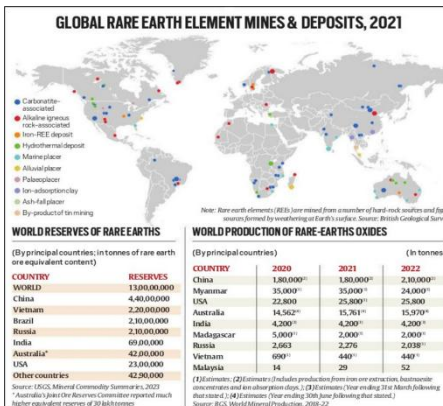
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US-CHINA TRADE TENSIONS REVIVE OVER RARE EARTHS

- Rare earths refer to 17 metallic elements — from lanthanum (57) to lutetium (71), plus scandium (21) and yttrium (39) — known for their high density, conductivity, and thermal resistance.
- They are divided into light and heavy rare earths, based on atomic weight, and form an essential subset of critical minerals vital to modern industries.
- **Why They Matter?**
 - These elements are indispensable, even in trace quantities, for a wide array of technologies — from smartphones, wind turbines, and electric vehicles to weapons systems, robotics, MRI scanners, and cancer treatment equipment.
 - Their unique properties make them irreplaceable components in both civilian and defence applications, underpinning the global clean energy and digital revolutions.
 - Rare earths typically occur in low concentrations, making extraction and refining expensive and environmentally complex.
 - This high cost limits the number of countries that can profitably mine and process them.
- **China's Global Dominance**
 - According to the International Energy Agency (IEA):
 - Over 60% of rare earth mining occurs in China.

More than 90% of global processing and refining capacity is also controlled by Beijing.

This near-monopoly gives China strategic leverage in global supply chains, making rare earths a central weapon in trade and geopolitical rivalries, especially with the United States.





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Global Reserves, Limited Production

- While **Brazil, Australia, and India** hold substantial rare earth reserves, their production remains minimal.
- The reasons include:
 - Low economic viability due to high extraction costs, and
 - Environmental concerns, as rare earth mining is highly polluting and requires complex waste management systems.

New Restrictions on Rare Earth Exports and Impact on India

- China has expanded its export control list to include **five additional rare earth elements** — holmium, erbium, thulium, europium, and ytterbium — along with related magnets and materials, bringing the total number of restricted elements to 12.
- **Limited Impact on India—for Now**
 - India's exposure to rare earth supply disruptions is relatively limited, owing to low domestic consumption. The auto sector (particularly EVs) and the electronics industry have felt the sharpest impact from earlier Chinese restrictions in April.

India's Domestic Initiatives and Future Plans

- India's rare earth production remains modest, led by state-owned IREL Ltd, which operates a processing unit with a capacity of over **10,000 tonnes per annum**, compared to China's 200,000 tonnes in 2023.
 - However, India is actively expanding its footprint:
 - **Seven seabed blocks in the Andaman Sea** have been auctioned for exploration and mining of polymetallic nodules and crusts that may contain heavy rare earths.
 - The Department of Atomic Energy has cleared plans for a **Rare Earths Theme Park** to establish pilot plants across the value chain.
 - Two major projects — the **Rare Earth Permanent Magnet Park in Visakhapatnam** and the **Rare Earth and Titanium Theme Park in Bhopal** — are being developed with central funding to strengthen India's presence in this strategic sector.
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SILENT VALLEY NATIONAL PARK



- It is a stretch of **wet evergreen forest** located along the **southwest corner of the Nilgiris** in the State of Kerala.
 - It constitutes the **centerpiece of the Nilgiri Biosphere Reserve**, sanctified as a **World Heritage Site** by UNESCO in 2012.
 - It is nourished by the **Kunthipuzha River**, which meanders through the dense forest.
 - The valley is said to be "**silent**" because of the **absence of the cicadas**, a **type of insect that produces a loud buzzing sound** in many forests.
 - **Vegetation:** It has four types of vegetation "**West Coast tropical evergreen forest, southern sub-tropical broad-leaved hill forest, montane wet temperature forest, and grasslands.**
 - The park's dense forests, riverine ecosystems, and high-altitude grasslands provide a habitat for a variety of species, many of which are endemic to the Western Ghats.
 - **Flora:**
 - The flora of the valley includes about **1000 species of flowering plants**, 107 species of **orchids**, 100 ferns and fern allies, 200 liverworts, 75 lichens, and about 200 algae.
 - **Plants of high medicinal value** as well as the **towering Culinea trees** are also found here.
 - **Fauna:**
 - The park is famous for its population of **lion-tailed macaques**, an **endangered primate species** that is **endemic to the Western Ghats**.
 - Other notable mammals include the **Nilgiri langur**, **Malabar giant squirrel**, Indian elephant, tiger, leopard, and gaur (Indian bison).
 - The park is also home to over 200 species of birds, including the great **Indian hornbill**, **Nilgiri wood pigeon**, and several species of eagles and owls.
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