2. INDIA–SINGAPORE Cooperation

During Singapore PM Lawrence Wong's visit to India, Singapore acknowledged India's interest in patrolling the strategically vital Malacca Strait, marking a new phase in bilateral and Indo-Pacific cooperation.

Strategic & Security Cooperation

Support for Malacca Straits Patrol (MSP) - Singapore welcomed India's interest in joining the Malacca Straits Patrol, a multilateral security initiative involving Singapore, Malaysia, Indonesia, and Thailand. This is significant because the Malacca Strait is a vital chokepoint for global maritime trade and energy security.

Defence Technology Collaboration - Both sides agreed to deepen cooperation in emerging defence technologies, including quantum computing, artificial intelligence (AI), automation, and unmanned surface/underwater vessels. This will help strengthen joint operational capabilities.

Maritime & Submarine Rescue Cooperation - India and Singapore will expand collaboration in maritime security, joint naval exercises, and submarine rescue operations, enhancing regional stability in the Indo-Pacific.

Indo-Pacific Oceans Initiative (IPOI) - Singapore reaffirmed its partnership in IPOI, especially in maritime security and digital economy cooperation, aligning with the broader vision of a free, open, and rules-based Indo-Pacific.

Counter-Terrorism Coordination - The two countries agreed to strengthen cooperation through the Financial Action Task Force (FATF) to combat cross-border terrorism, money laundering, and terror financing.

Malacca Strait – Geostrategic Importance

Location & Connectivity - The Malacca Strait links the Andaman Sea (Indian Ocean) with the South China Sea (Pacific Ocean), making it one of the most strategic waterways globally.

Maritime Chokepoint - Nearly 60% of world trade and oil shipments pass through this narrow strait, making it one of the busiest and most critical sea lanes of communication.

India's Strategic Stakes - India's Andaman & Nicobar Islands overlook the western entrance of the strait, giving India a strategic advantage in monitoring trade flows and maritime security.

Security Challenges - The strait is vulnerable to piracy, human trafficking, illegal arms trade, terrorism, and increasing Chinese naval presence, raising concerns for India and its partners.

Green & Digital Economy Cooperation

Green Energy Export - India and Singapore signed an MoU to promote green energy exports from India (including renewable energy sources like solar and wind) through specially designated green ports.
Green & Digital Shipping Corridor - Both countries agreed to establish a corridor for sustainable maritime trade, focusing on reducing carbon emissions and adopting digital technologies in shipping.
Skill Development in Advanced Manufacturing - A National Centre of Excellence for skilling in advanced manufacturing will be set up in Chennai, aimed at preparing a skilled workforce for future industries.

Infrastructure & Trade Cooperation

PSA Mumbai–Bharat Mumbai Container Terminal - Leaders virtually inaugurated this major infrastructure project, which will enhance India's port capacity, trade efficiency, and connectivity with Southeast Asia.
Civil Aviation R&D & MRO - Cooperation in research, development, and Maintenance, Repair & Overhaul (MRO) in the aviation sector will improve India's domestic aviation ecosystem and reduce dependency on foreign servicing hubs.
Semiconductor Sector Collaboration - Singapore will support India in developing semiconductor design and fabrication clusters, crucial for India's ambition to build a resilient and self-reliant electronics ecosystem.

Semiconductors – Background & Importance

Nature of Semiconductors - These are materials whose electrical conductivity lies between conductors (like metals) and insulators (like rubber or glass), making them highly versatile for electronic applications.
Key Property - Semiconductors can conduct electricity under certain conditions (temperature, voltage, or light) while behaving as insulators under others, enabling them to be precisely controlled.
Common Materials - Silicon (Si) and Germanium (Ge) are most widely used, with silicon dominating modern electronics due to its abundance and stability.
Doping Process - By adding controlled impurities, semiconductors can be modified into p-type (positive) or n-type (negative), which are the building blocks of electronic devices.
Applications - They are used in computers, smartphones, microprocessors, solar cells, LEDs, lasers, sensors, power devices, and communication systems.
Strategic Importance - Semiconductors are the foundation of the digital economy and are essential for next-generation technologies such as Artificial Intelligence, Internet of Things (IoT), 5G, and advanced defence systems.
Source - https - //www.thehindu.com/news/national/india-singapore-relations-go-far-beyond-diplomacy-pm-modi/article70011429.ece