

Disaster Management (Amendment) Bill, 2024



The bill seeks to enhance and address the operational challenges of the original Act, ensuring better alignment with evolving needs.

The Bill seeks to bring clarity and convergence among stakeholders working in the field of disaster management.

The Amendment Bill 2024 seeks to bring more clarity and convergence in the roles of authorities and committees and provide statutory status to certain pre-Act organisations like the National Crisis Management Committee and the High-Level Committee.

The Bill also seeks to bring in an extra layer of city-level disaster institutions through the Urban Disaster Management Authorities (UDMAs). The UDMAs will function for state capitals and large cities that have municipal corporations. Finally, the Bill seeks the creation of a State Disaster Response Forces by the state governments.

Following the amendment, the National Executive Committee and the State Executive Committees will no longer formulate national-level and state-level disaster plans. The NDMA and SDMAs would take over these duties. The NDMA could also appoint experts and consultants to assist in performing its functions. The Amendment Act also considers the possible climate change risks. It stresses that the expression “‘emerging disaster risks’ refers to risks of those disasters that may not have taken place but may occur in future due to extreme climate events and other factors.’ The Bill empowers the NDMA to take stock of the entire range of disaster risks, including fresh disasters that the country could face.

The Amendment Act focuses on Disaster Risk Reduction (DRR) rather than post-disaster management. For this purpose, it brings in a definitional alteration. It states that the

expression ‘disaster management’ is inclusive of ‘disaster risk reduction’, that is, the practice of ‘reducing disaster risk through systematic efforts to analyse and manage the causal facts of disaster through reduced exposure to hazard, reduced vulnerability of people, property, infrastructure, economic activity, environmental and natural resources and improved preparedness, resilience and capacity to manage and respond to adverse event.

India's foreign exchange reserves surpassed \$700 billion



As of October 2024, India’s foreign exchange (forex) reserves have swelled to \$701 billion, making it only the fourth country in the world to cross the \$700 billion mark, after China, Japan, and Switzerland. This milestone signifies not just a stockpile of wealth but the country’s growing ability to navigate global financial uncertainties and support its trade and investment needs. Since January 2024 alone, these reserves have surged by \$84 billion. These reserves represent a crucial buffer allowing India to confidently engage on the world stage.

While India's international outreach is a key indicator of its rising global stature, the domestic outlook remains equally promising. The World Bank’s recent India Development Update (IDU) highlighted this transformation, projecting a robust 7% GDP growth rate for FY 2024-25 and affirming India as the fastest-growing major economy.

According to the latest RBI data, India's foreign currency assets (FCA), the largest component of forex reserves, increased by \$10.468 billion to \$616.154 billion. Expressed in dollar terms, the FCA include the effect of appreciation or depreciation of non-US units like the euro, pound and yen held in the foreign exchange reserves.

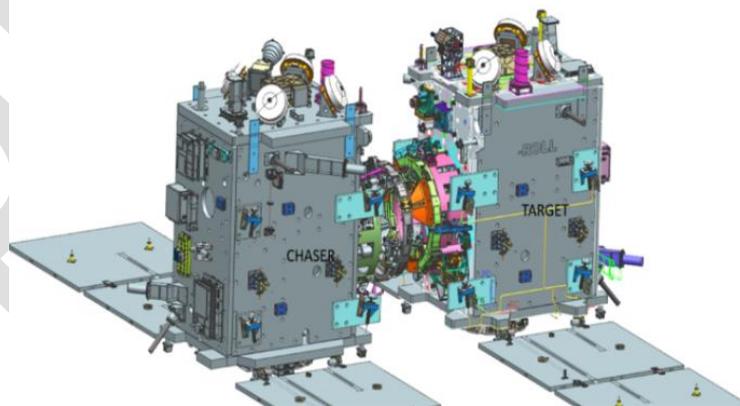
Gold reserves increased by \$2.184 billion to \$65.796 billion during the week. The Special Drawing Rights (SDRs) were up by \$8 million to \$18.547 billion. India's reserve position with the International Monetary Fund (IMF) was down by \$71 million to \$4.387 billion in the reporting week. The surging reserves have been facilitated by overseas inflows into India's stocks and bonds.

As per estimates, India's forex reserves are sufficient to cover over a year of projected imports. In 2023, India added about \$58 billion to its forex reserves. In contrast, reserves saw a cumulative decline of \$71 billion in 2022.

Overseas inflows into the nation's stocks and bonds have helped the RBI boost its stockpile to \$705 billion, the fourth highest in the world. This amount provides stability to the rupee against external shocks, with the RBI using its reserves to limit extreme swings in the currency, which is hovering near a record low.

The country has been boosting its forex reserves since 2013 when foreign investors pulled out due to weak macroeconomic fundamentals. Since then, stricter inflation control, higher economic growth, and narrower fiscal and current account deficits have helped draw in foreign funds, boosting reserves.

The SpaDeX (Space Docking Experiment) Mission



India becomes the fourth country in the world to achieve this technological feat. ISRO started the mission on 30th December 2024, with the successful launch of the SpaDeX spacecrafts using Polar Satellite Launch Vehicle (PSLV)-C60.

This groundbreaking mission aims to showcase India's technological prowess in spacecraft rendezvous, docking, and undocking — a critical capability for future advancements such as satellite servicing, space station operations, and interplanetary exploration.

SpaDeX is a cost-effective technology demonstrator mission designed to showcase in-space docking using two small spacecrafts launched by 62nd PSLV flight. This mission is pivotal for India's future space ambitions, including lunar missions, sample returns, and the development of the Bharatiya Antariksh Station (BAS).

The main goals of the SpaDeX mission are:

- Develop and demonstrate technology for rendezvous and docking using two small spacecrafts.
- Showcase controllability in the docked condition.
- Demonstrate the potential for extending the life of the target spacecraft.
- Test power transfer between docked spacecraft.

The mission demonstrates India's growing self-reliance in cutting-edge space technologies and reaffirms ISRO's commitment to advancing its capabilities to meet future challenges in the rapidly evolving field of space exploration.

The SpaDeX mission involves two small satellites, SDX01, which is the Chaser and SDX02, the Target, each weighing approximately 220 kilograms. These spacecrafts are androgynous in nature i.e. either of the spacecraft can act as chaser (active spacecraft) during docking.

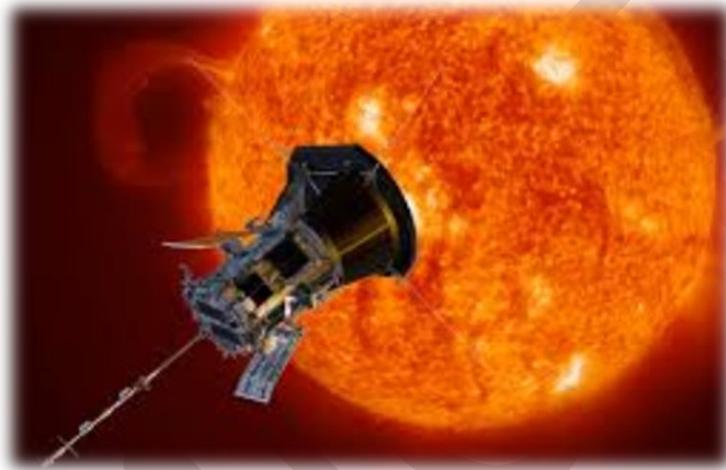
They are equipped with solar panels, lithium ion batteries, and a robust power management system. The Attitude and Orbit Control System (AOCS) includes sensors such as star sensors, sun sensors, magnetometers and actuators like reaction wheels, magnetic torquers and thrusters.

Indigenous technologies incorporated in the SpaDex Mission:

- Docking mechanism.
- A suite of four rendezvous and docking sensors.
- Power transfer technology.
- Indigenous novel autonomous rendezvous and docking strategy.

- Inter-satellite communication link (ISL) for autonomous communication between spacecrafts, incorporated with inbuilt intelligence to know the state of the other spacecraft.
- GNSS-based Novel Relative Orbit Determination and Propagation (RODP) processor to determine the relative position and velocity of the other spacecraft.
- Simulation test beds for both hardware and software design validation and testing.

NASA's Parker Solar Probe



NASA's Parker Solar Probe set a historic record by flying closer to the Sun than any other man-made object, withstanding temperatures up to 982°C .

Breaking its previous record by flying just 3.8 million miles (around 6.1 million kilometers) above the surface of the sun, NASA's Parker Solar Probe hurtled through the solar atmosphere at a blazing 430,000 miles per hour (692,000 kilometers per hour)—faster than any human-made object has ever moved.

This pass, the first of more to come at this distance, is allowing the spacecraft to conduct unrivalled scientific measurements with the potential to change our understanding of the sun.

Parker Solar Probe has spent the last six years setting up for this moment. Launched in 2018, the spacecraft used seven flybys of Venus to gravitationally direct it ever closer to the sun.

With the last Venus flyby on Nov. 6, the spacecraft reached its optimal orbit, an oval-shaped loop that brings it around the sun every three months—close enough to study our sun's mysterious processes but not too close to become overwhelmed by the sun's heat and

damaging radiation. The spacecraft will remain in this orbit for the remainder of its primary mission and potentially for many years after that.

By flying through the solar corona, Parker Solar Probe can take measurements that help scientists better understand how the region gets so hot, trace the origin of the solar wind (a constant flow of material escaping the sun), and discover how energetic particles are accelerated to half the speed of light

Parker's 21 previous passes have already resulted in scientists getting insights into the inner working of the sun. The magnetic field zig-zag-shaped structures, called switchbacks, observed by Parker Solar Probe in abundance close to the sun hold key insight into the plasma heating and acceleration. Since April 2021, the spacecraft has been spending more time flying through the immediate solar atmosphere—the corona—where most of the critical physical processes occur.

Deep Ocean Mission



In a groundbreaking achievement, a team of Indian scientists from the National Institute of Ocean Technology (NIOT) and the NCPOR captured the first image of an active hydrothermal vent located 4,500 metres below the surface of the Indian Ocean.

This is a major milestone in India's ambitious Rs 4,000-crore Deep Ocean Mission, aimed at exploring uncharted depths of the ocean to find new minerals and life forms and improve understanding of the ocean's role in climate change.

Hydrothermal vents are like hot springs on the ocean floor. They form along mid-ocean ridges where tectonic plates move apart. The magma from the Earth's mantle rises to fill the gap and cools to form new crust and volcanic mountain chains.

When seawater seeps into the cracks in the crust, it gets heated by this magma and shoots back out, carrying dissolved minerals. As the hot water meets the cold seawater, these minerals solidify, creating chimney-like structures around the vents

The first hydrothermal vent was discovered in 1977 on the Galapagos Rift in the eastern Pacific Ocean. Since then, scientists have discovered hundreds of hydrothermal vents across the world's oceans, particularly along mid-ocean ridges, back-arc basins, and other tectonically active regions.

They produce valuable minerals like nickel, cobalt, and manganese, which are essential for modern technologies and clean energy solutions and second, they support unique life forms that thrive without sunlight, using a process called chemosynthesis to survive.

This discovery opens doors for Indian scientists to study life forms that exist in extreme conditions. These organisms could provide insights into the origins of life on Earth.

China India water war- Brahmaputra



Chinas controversial plan to construct the world's largest dam on the Brahmaputra River in Tibet is raising alarm bells in India, as tensions between the two nations escalate. Beijing claims that the ambitious project is primarily for energy generation, but experts are concerned that it could drastically disrupt the rivers water flow, sparking a potential water crisis for millions downstream.

The Brahmaputra River is a major source of water for India, flowing from Tibet into Indias northeastern states and eventually to Bangladesh. Chinas ambitious plan to build a massive

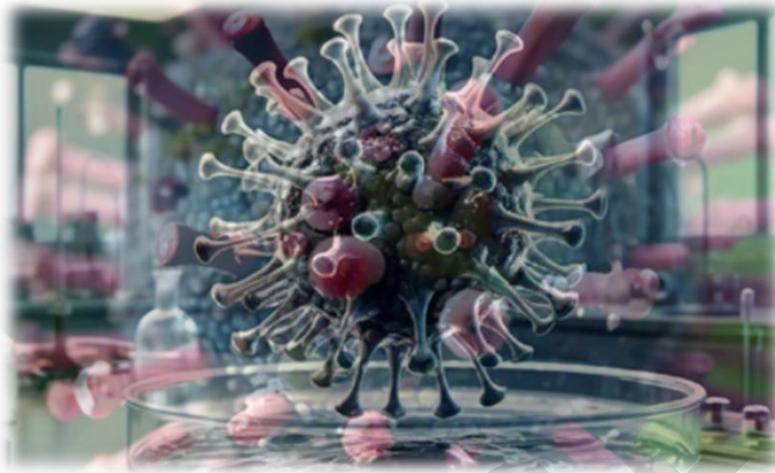
dam in Tibet could significantly alter the water flow to these downstream countries. The \$137 billion project is being constructed in the ecologically sensitive Himalayan region, an area located along a tectonic plate boundary. The proposed dam would be built at a gorge in the Himalayas, where the Brahmaputra makes a sharp U-turn before entering Indias Arunachal Pradesh and flowing into Bangladesh.

Beijing has defended the project, asserting that the dam will address China's domestic energy needs and will not interfere with the water flow to neighbouring countries. However, this assurance has done little to ease the growing concerns in India. Experts worry that such a large-scale project could drastically reduce the river's water flow, affecting agriculture, power generation, and the livelihoods of millions in Indias northeastern states.

The Brahmaputra River provides essential water resources to India, and many fear that Chinas control over the river could provide Beijing with leverage in future geopolitical disputes. The ongoing territorial tensions between the two nations, particularly along their shared border, make the timing of this project all the more concerning. In the past, both countries have collaborated on water-sharing protocols, but Chinas growing influence over the Brahmaputra has sparked fears of future disputes, particularly if the dam alters the rivers flow.

If the dam has a significant impact on the rivers water supply, India could face severe shortages, with potentially devastating economic and environmental consequences. Water scarcity could cripple agriculture, affect power generation, and jeopardise the livelihood of millions. While India and China have worked together in the past on water-sharing agreements, Indias growing mistrust of Chinas intentions over the Brahmaputra raises the stakes of this new dispute

Marburg Virus Disease (MVD) outbreak



Marburg virus (MARV) and Ravn virus (RAVV) of the species *Orthomarburgvirus marburgense* are the causative agents of Marburg virus disease (MVD). The disease has a case fatality ratio of up to 88%, but it can be much lower with good and early patient care.

Both viruses are part of the *Filoviridae* family (filovirus) to which *Orthoebolavirus* genus belongs. Though caused by different viruses, Ebola and Marburg diseases are clinically similar. Both diseases are rare but have the capacity to cause outbreaks with high fatality rates.

MVD was initially detected in 1967 after two simultaneous outbreaks in Marburg and Frankfurt in Germany, and in Belgrade, Serbia. These outbreaks were associated with laboratory work using African green monkeys (*Cercopithecus aethiops*) imported from Uganda. Subsequently, outbreaks and sporadic cases have been reported in Angola, the Democratic Republic of the Congo, Equatorial Guinea, Ghana, Guinea, Kenya, South Africa (in a person with recent travel history to Zimbabwe), Tanzania and Uganda. In 2008, two independent cases were reported in travellers who had visited a cave inhabited by *Rousettus aegyptiacus* bat colonies in Uganda. In September 2024, Rwanda reported the country's first outbreak and Tanzania declared another outbreak in January 2025.

Rousettus aegyptiacus bats are considered natural hosts for Marburg virus. There is no apparent disease in these fruit bats. As a result, the geographic distribution of Marburg virus may overlap with the range of *Rousettus* bats.

African green monkeys (*Cercopithecus aethiops*) imported from Uganda were the source of infection for humans during the first MVD outbreak.

Table: Chronology of major Marburg virus disease outbreaks

| Year | Country | Cases | Deaths | Case fatality rate |
|--------------|--------------------------------------|-------|--------|--------------------|
| 2024 | Rwanda | 66 | 15 | 23% |
| 2023 | Tanzania | 9 | 6 | 67% |
| 2023 | Equatorial Guinea | 40 | 35 | 88% |
| 2022 | Ghana | 3 | 2 | 67% |
| 2021 | Guinea | 1 | 1 | 100% |
| 2017 | Uganda | 3 | 3 | 100% |
| 2014 | Uganda | 1 | 1 | 100% |
| 2012 | Uganda | 15 | 4 | 27% |
| 2008 | Netherland (ex-Uganda) | 1 | 1 | 100% |
| 2008 | United States of America (ex-Uganda) | 1 | 0 | 0% |
| 2007 | Uganda | 4 | 2 | 50% |
| 2005 | Angola | 374 | 329 | 88% |
| 1998 to 2000 | Democratic Republic of the Congo | 154 | 128 | 83% |
| 1987 | Kenya | 1 | 1 | 100% |
| 1980 | Kenya | 2 | 1 | 50% |
| 1975 | South Africa | 3 | 1 | 33% |
| 1967 | Yugoslavia | 2 | 0 | 0% |
| 1967 | Germany | 29 | 7 | 24% |

MVD begins abruptly, with high fever, severe headache and severe malaise. Muscle aches and pains are a common feature. Severe watery diarrhoea, abdominal pain and cramping, nausea and vomiting can begin on the third day. Non-itchy rash have been reported in patients between 2 and 7 days after onset of symptoms.

From day 5 of the disease, patients may develop haemorrhagic manifestations, including fresh blood in vomitus and faeces, and bleeding from the nose, gums and vagina. Bleeding at venepuncture sites (where intravenous access is obtained to give fluids or obtain blood samples) can also be observed. Involvement of the central nervous system can result in confusion, irritability and aggression. Orchitis (inflammation of one or both testicles) has been reported occasionally in the late phase of disease.

In fatal cases, death occurs most often between 8 and 9 days after symptom onset, usually preceded by severe blood loss and shock.

Major Atmospheric Cherenkov Experiment (MACE) telescope inaugurated



The Major Atmospheric Cherenkov Experiment (MACE) telescope is a state-of-the-art ground-based gamma-ray telescope inaugurated in Hanle, Ladakh. Located at around 4.3 km above sea level, it is the highest imaging Cherenkov telescope in the world. It boasts of a 21-metre-wide dish, the largest of its kind in Asia and second largest in the world.

The facility was built by the Bhabha Atomic Research Centre, the Tata Institute of Fundamental Research, the Electronics Corporation of India Ltd., and the Indian Institute of Astrophysics.

Light comes in a wide range of wavelengths, but humans can only see a small portion. In the electromagnetic spectrum, gamma rays have the shortest wavelength and the highest energy, with each light-particle possessing more than 100,000 electron volts. (Visible-light photons have around 1.63-3.26 eV each.)

MACE's main goal is to study gamma rays with more than 20 billion eV of energy. The telescope can examine high-energy gamma rays emitted from near black holes beyond the Milky Way, and which are digesting large volumes of matter. Other potential astrophysical targets include gamma-ray pulsars, blazars, and gamma-ray bursts.

One important goal is to find dark matter particles. Dark matter is a type of matter believed to make up more than 85% of the total mass in our universe. It is a fundamental part of the

standard model of cosmology — but scientists don't know what subatomic particles it could be made of.

One of the proposed particle constituents of dark matter is weakly interacting massive particles (WIMPs). Scientists have predicted that these particles can produce high-energy gamma rays when they collide into and destroy each other. These gamma rays could be produced in large galaxy clusters, small galaxies, and/or the centre of large galaxies, including the Milky Way.

India has been active in gamma-ray astronomy for more than five decades now. The unveiling of the MACE telescope marked a significant step towards further technological and scientific advancements in the field. Most of MACE's subsystems were also built and designed within the country. With its advanced capabilities, MACE could play an important role in addressing fundamental open questions in the field of high-energy astrophysics and particle physics and pave the way for cutting-edge research.

Gharchola' handicraft received the GI tag



Gujarati “Gharcholas” traditionally worn on weddings within Hindu and Jain communities has received a Geographical Indication or GI tag from the Government of India.

This is the 27th GI tag that Gujarat has received. The GI recognition for Gharchola demonstrates Gujarat's commitment to guarding its rich artistic heritage.

These Gharchola sarees are traditionally crafted in auspicious colours such as red, maroon, green, and yellow, which hold special significance in Hindu customs. Along with the Gharchola saree, several other remarkable handicrafts have also earned GI tags under the

Hastakala Setu Yojana. These include Surat's vanishing 'Saadeli' art, Banaskantha's intricate 'Soof' embroidery, Bharuch's 'Sujni' craft, Ahmedabad's distinctive 'Saudagiri Print,' and the vibrant 'Maata Ni Pacchedi' handicrafts, all of which were honoured last year.

India and Kuwait partnership



India and Kuwait have elevated their bilateral relationship to a strategic partnership, focusing on cooperation in sectors like pharmaceuticals, IT, FinTech, infrastructure, and security.

focused on a roadmap to expand cooperation in areas such as defence, energy, trade, investment and technology.

The two sides signed a memorandum of understanding (MoU) on defence that will lead to an increase in cooperation in training, joint exercises, defence industry and supply of defence equipment.

The two countries have close energy and business ties and India is among Kuwait's top trading partners, with two-way trade worth \$10.47 billion during 2023-24. Kuwait is India's sixth largest crude supplier and fourth largest LPG supplier, meeting 3% of the country's energy needs.

During delegation-level talks, the two sides discussed a roadmap to strengthen the strategic partnership in areas such as politics, trade, investment, energy, defence, security, health, education, technology, culture and people-to-people ties.

Strengthening SMILE initiative



The Government of India and the Asian Development Bank (ADB) have signed a \$350 million policy-based loan under the second subprogram of Strengthening Multimodal and Integrated Logistics Ecosystem (SMILE) program.

The SMILE program is a programmatic policy-based loan (PBL) to support the government in undertaking wide-ranging reforms in the logistics sector in India. The programmatic approach comprises two subprograms, which aim to expand India's manufacturing sector and improve the resilience of its supply chains.

The program establishes and operationalizes a comprehensive policy framework to enhance logistics efficiency through

- (i) strengthening the institutional bases for multimodal logistics infrastructure development at the national, state, and city levels.
- (ii) standardizing warehousing and other logistics assets to strengthen supply chains and incentivize greater private sector investment.
- (iii) improving efficiencies in external trade logistics; and
- (iv) adopting smart systems for efficient and low emission logistics.

The development of India's logistics sector is vital to enhancing the competitiveness of its manufacturing sector. Through strategic policy reforms, infrastructure development, and digital integration, ongoing reforms are poised to transform the logistics landscape. This transformation is expected to reduce costs, improve efficiency, generate substantial

employment opportunities, and promote gender inclusion—driving sustainable economic growth.

The collaboration between the Government of India and ADB reflects a shared commitment to fostering growth and innovation in the logistics sector, supporting India's broader economic development goals.

Addressing the space debris – Japan India



Japan is partnering with India to address the challenge of space debris through advanced laser-equipped satellites.

Space startups in Japan and India had agreed to jointly study using laser-equipped satellites to remove debris from orbit, an experimental approach to the increasingly imminent problem of orbital congestion.

Carved out from Japanese satellite giant SKY Perfect JSAT this year, Orbital Lasers is building a system that will use laser energy to stop the rotation of space junk by vaporising small parts of its surface, making it easier for a servicing spacecraft to rendezvous.

A United Nations panel on space traffic coordination in late October said that urgent action was necessary to track and manage objects in low Earth orbit because of the rapid increase in satellites and space junk.

The project is the latest example of collaboration between Japan and India, whose governments are working together on the joint Lunar Polar Exploration (LUPEX) mission, which could launch as early as 2026.

Government of India under the second subprogram of the Strengthening Multimodal and Integrated Logistics Ecosystem (SMILE) initiative

Bordoibam-Bilmukh Bird Sanctuary located, where a significant decline in bird species was observed

The Central government and the Asian Development Bank (ADB) have signed a \$42 million loan agreement aimed at strengthening coastal and riverbank protection in Maharashtra. This initiative is designed to enhance the resilience of coastal communities against coastal erosion, flooding, and climate change.

Network Readiness Index 2024



The NRI is one of the leading global indices on the application and impact of ICT in economies across the world. In this latest version, 'Building a Digital Tomorrow: Public-Private Investments and Global Collaboration for Digital Readiness, the NRI Report maps the network readiness landscape of 133 economies on their performances across four pillars: Technology, People, Governance, and Impact, with each pillar comprised of three sub-pillars, and a further 54 variables.

The NRI 2024 reveals a complex global digital landscape where significant disparities exist between regions and development levels. The United States leads with exceptional

performance across technology adoption and innovation metrics, particularly excelling in areas like AI scientific publications, VC deals in AI, and digital business transformation.

Regarding regional representation, Singapore and Korea are the only countries from Asia and the Pacific that appear in the top 10, while the United States is the sole representative from the Americas. The remaining top 10 positions underscore Europe's dominance in global network readiness.

For the third consecutive year, the United States leads the world in its access to, and use of, information and communications technology (ICT), the 2024 Network Readiness Index (NRI) published by Portulans Institute and Saïd Business School at the University of Oxford has shown.

Singapore has once again claimed the second spot, with Finland keeping hold of third place. Movers in the top ten include Sweden, up to fourth, South Korea rising to fifth, and the United Kingdom moving up to eighth place. Meanwhile, the Netherlands, Switzerland, Germany, and Denmark round off the leader board.

Notably, the small Island nation of the Seychelles has debuted in this year's ranking, impressively placing second globally in Mobile App Development, though this result reflects both its strengths and the impact of GDP PPP scaling in smaller economies., the UAE comes first in the world for the price of its mobile handsets. New entries this year include Sierra Leone, Yemen and Trinidad and Tobago.

The top performers in NRI 2024 underscore that advanced economies across Europe, the Americas, Asia, and the Pacific continue to excel in network readiness. Specifically, among the top 25 countries, Europe is represented by seventeen nations – predominantly the Western and Scandinavian regions. East and Southeast Asia contribute four economies – Singapore, South Korea, China, and Japan. Oceania is represented by Australia and New Zealand, and North America includes both Canada and the United States.

Middle- and low-income economies, notably China, Ukraine, Vietnam, and Kenya, have significantly outperformed expectations in digital readiness, achieving scores that exceed their GDP per capita trendlines by at least 10%. Africa and Asia & Pacific lead regionally, with countries like Rwanda, Brazil, and Kyrgyzstan also displaying a notable performance. The lower middle-income group shows the largest concentration of high performers, highlighting its prominent role in this ongoing digital evolution.

The top performers in the NRI consistently display three significant trends: they are primarily high-income nations, they exhibit strong network readiness across all dimensions and are in the Western or Scandinavian parts of Europe, albeit few exceptions like Singapore, the Republic of Korea, and the United States of America – that leads this year global table for the third consecutive year.

launch a free mRNA cancer vaccine



Russia has come up with a vaccine for cancer. The vaccine aims to treat cancer patients rather than prevent tumour formation in patients. The vaccine is personalised for each patient. This is similar to vaccines being developed in western countries.

This personalised cancer vaccine makes use of parts of a patient's own tumour to teach the immune system to battle the disease. It helps the immune system recognise and attack proteins unique to the patient's cancer.

This process involves genetic material called RNA, taken from the patient's tumour.

Whereas traditional vaccines use parts of a virus to prevent disease, these cancer vaccines make use of harmless proteins from the surface of cancer cells, known as antigens.

When introduced into the body, these antigens stimulate the immune system to make antibodies that can attack and destroy cancer cells. Other nations are also developing personalised cancer vaccines.

In May, researchers at the University of Florida tested an individualised vaccine on four patients with glioblastoma, a particularly aggressive brain cancer which claimed the lives of Senator John McCain and Beau Biden in the US.

The study revealed that the vaccine triggered a robust immune response within two days of injection.

In the UK, scientists are testing a personalised vaccine for melanoma, the deadliest form of skin cancer. Early results have shown that this vaccine significantly improves survival chances.

Moldova joins the International Solar Alliance (ISA)



Moldova has joined the International Solar Alliance (ISA) by signing the ISA Framework Agreement in New Delhi, reinforcing its commitment to renewable energy. Co-founded by India and France during COP21 in 2015, the ISA aims to address challenges in solar energy financing and technology.

A treaty-based international intergovernmental organisation, International Solar Alliance (ISA), aims at mobilising more than USD 1000 billion of investment needed by 2030 for the massive deployment of solar energy.

Last month, Armenia became the 104th full member of the International Solar Alliance (ISA), Ministry of External Affairs Official Spokesperson Randhir Jaiswal announced.

Headquartered in India, the ISA has brought together several countries to collectively address barriers related to technology, finance, and capacity in scaling up solar energy.

India is playing a crucial role in shaping the sustainable energy future by providing renewable energy solutions to the world, especially the Global South. Under India's Presidency of the ISA, it has undertaken numerous impactful projects, including solarisation of Malawi's Parliamentary building, solar-powered healthcare centres in Fiji, solar-powered cold storage facility in Seychelles, and solar PV rooftop systems in Kiribati.

The alliance has also facilitated technical training for experts from member countries to enhance solar energy capabilities.

India's data centre market is booming



With robust data centre (DC) demand fuelling expansion into India's digital infrastructure, investment commitments in the industry are expected to surpass \$100 billion by the end of 2027, with Maharashtra and Tamil Nadu emerging as the most preferred destinations.

India's data centre market has emerged as a magnet for global and domestic investors, attracting nearly \$60 billion in investment commitments between 2019 and 2024.

Mumbai, which accounts for 49 per cent of India's total DC stock, continues to dominate the market, followed closely by Chennai, Delhi-NCR, and Bengaluru. Together, these Tier-I cities constituted about 90 per cent of the country's DC stock in the January-September 2024 period.

Mumbai and Chennai's stronghold is bolstered by their strategic infrastructure, including multiple cable landing stations, government support, and established financial industries, making them prime hubs for BFSI, cloud, hyperscale, and OTT companies.

In 2025, an additional 475 MW of capacity is under construction, with Mumbai and Chennai expected to lead the supply additions.

Demand from technology firms, BFSI, fintech, and media sectors, along with public sector undertakings, is expected to further boost occupancy rates, which currently stand at 75-80 per cent.

India's generative AI sector is forecasted to grow at a compound annual growth rate (CAGR) of 28 per cent from 2023 to 2030, contributing significantly to DC demand.

The adoption of generative AI is projected to add \$400 billion to India's economy by 2030, underscoring the importance of robust digital infrastructure.

State-level incentives have played a pivotal role in attracting DC investments. Maharashtra, Tamil Nadu, and Telangana were among the first to introduce dedicated policies, defining DCs as an "essential service" and offering extensive infrastructure support.

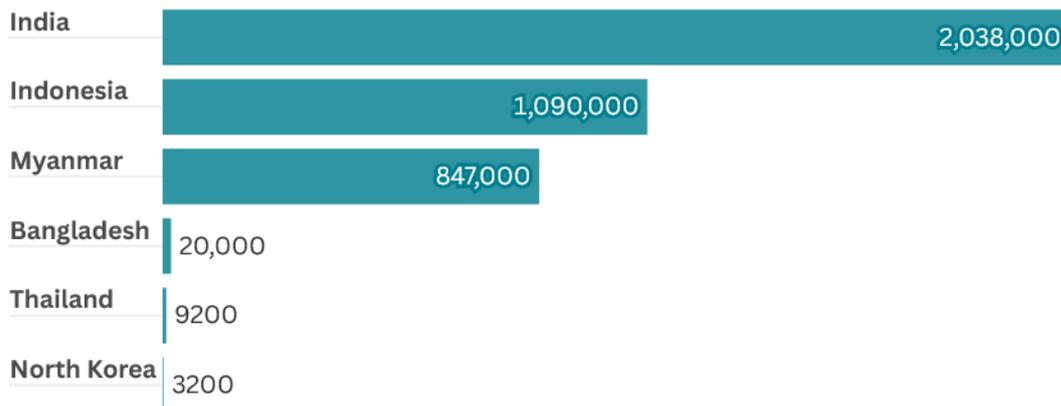
Malaria – a global concern



The World Health Organisation's Southeast Asia Region contributes about 1.5% of the burden of malaria cases globally and India accounted for about half of all estimated cases in 2023, followed by Indonesia, which carried just under one-third. Estimated malaria deaths in the region fell by 82.9%, from 35,000 in 2000 to 6,000 in 2023. Together, India and Indonesia accounted for about 88% of malaria deaths in the Region.

According to the WHO’s latest World Malaria Report (2024) since 2000 the WHO South-East Asia Region has made remarkable progress against malaria and estimated malaria cases in the region fell from 22.8 million in 2000 to 4 million in 2023 – a reduction of 82.4%.

Estimated number of malaria cases in South-East Asia region, 2023



Source: Source: WHO World Malaria Report 2024

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“In the period 2022-2023, four countries achieved reductions in their malaria caseload — Bangladesh (-9.2%), India (-9.6%), Indonesia (-5.7%) and Nepal (-58.3%). Meanwhile, three countries saw case increases — Democratic People’s Republic of Korea (+47.9%), Thailand (+46.4%) and Myanmar (45.1%). In 2023, both Timor-Leste and Bhutan reported zero indigenous cases of malaria. With the exception of Myanmar and Thailand, all countries reported either a decline in their malaria mortality rate or zero malaria deaths.

A reduction in case incidence of 87% was achieved between 2000 and 2023, from 17.7 to 2.3 per 1000 population at risk.

Meanwhile, new data from the WHO revealed that an estimated 2.2 billion cases of malaria and 12.7 million deaths have been averted since 2000, but the disease remains a serious global health threat, particularly in the WHO African Region.

According to WHO’s latest World malaria report, there were an estimated 263 million cases and 597,000 malaria deaths worldwide in 2023. This represents about 11 million more cases in 2023 compared to 2022, and nearly the same number of deaths. Approximately 95% of the deaths occurred in the WHO African Region, where many at risk still lack access to the services they need to prevent, detect and treat the disease.

As of November 2024, 44 countries and one territory had been certified malaria-free by WHO, and many more are steadily progressing towards the goal. Of the 83 malaria-endemic countries, 25 countries now report fewer than 10 cases of malaria a year, an increase from 4 countries in 2000.

Beyond funding, malaria-endemic countries continue to grapple with fragile health systems, weak surveillance, and rising biological threats, such as drug and insecticide resistance.

In many areas, conflict, violence, natural disasters, climate change and population displacement are exacerbating already pervasive health inequities faced by people at higher risk of malaria, including pregnant women and girls, children aged under 5 years, Indigenous Peoples, migrants, persons with disabilities, and people in remote areas with limited healthcare access.

China said its first atmospheric monitoring station in Antarctica



China's first atmospheric monitoring station in Antarctica started operations. It is a move aimed at helping observe changes on the southern continent and supporting the global response to climate change. Like the United States, China has been expanding its presence in Antarctica and in the Arctic to explore polar resources.

The station is located in East Antarctica's Larsemann Hills. The station will monitor climate changes and support global climate action by observing atmospheric component concentration changes. This marks a significant step in China's scientific research and environmental monitoring efforts in the region. India also has stations in Antarctica, including Dakshin Gangotri, Maitri, and Bharati, which contribute to climate-related research.

Polar regions are "amplifiers" of global climate change, said Ding Minghu, director of the Institute of Global Change and Polar Meteorology at the Chinese Academy of Meteorological Sciences.

Swiss suspends MFN status



Switzerland has decided to suspend the Most-Favored-Nation (MFN) clause in its Double Taxation Avoidance Agreement (DTAA) with India, starting from January 1, 2025. This decision will increase tax rates on dividends and royalties to 10%. The suspension was triggered by a ruling from India's Supreme Court, which stated that the application of the MFN clause requires formal notification under the Income Tax Act. This change is expected to impact tax burdens for both Indian and Swiss companies, potentially affecting their bilateral trade relations. As a result, Swiss companies such as Nestlé face higher taxes on dividends.

Most-Favoured-Nation (MFN) clause in the Double Taxation Avoidance Agreement (DTAA) that India and Switzerland had entered originally in 1994 and amended in 2010.

Given the Swiss government's differing interpretation of the DTAA's Protocol between the two nations, it announced it would suspend unilateral implementation of the MFN clause in the absence of reciprocal acknowledgment.

Analysts highlight that this development aligns with a larger global trend where nations are increasingly adopting stricter interpretations of treaty provisions to safeguard their domestic tax revenues. They also stress the importance of clear and consistent understanding between treaty partners to ensure predictability and stability in international taxation.

Switzerland's decision to suspend the unilateral application of the MFN clause with India under the DTAA is not expected to jeopardize the US\$100 billion investment commitment outlined in the trade agreement between India and the European Free Trade Association (EFTA) countries, signed earlier in March 2024.

The trade agreement with EFTA is regarded as a milestone in fostering trade relations and boosting India's economic growth by providing a conducive environment for FDI. While the MFN suspension raises short-term tax considerations, it does not undermine the broader investment goals of the agreement, which are expected to enhance India's manufacturing capabilities, technology exchange, and job opportunities.

Key aspects of the Supreme Court's ruling:

- **Automatic trigger rejected:** The Court clarified that the MFN clause in India's DTAA's, including the one with Switzerland, does not take effect automatically when India or Switzerland enters into a more favorable tax agreement with a third country. The benefits can only apply after proper notification by the Indian government.
- **Protocol interpretation:** The Indian Supreme Court emphasized that the interpretation of the MFN clause must align with India's domestic legal framework, which requires formal notification to enforce treaty provisions. This position contrasts with Switzerland's prior unilateral application of the clause.
- **Impact on treaty benefits:** Prior to the ruling, Indian businesses operating in Switzerland benefited from reduced withholding tax rates (e.g., 5 percent on dividends) under the MFN clause. With the Court's stance, these benefits cannot be extended unless India issues an official notification. Without this, higher residual tax rates (e.g., 10 percent) will apply.
- **Treaty implementation dynamics:** The ruling highlighted the importance of reciprocity and mutual acknowledgment of treaty interpretations. It underscored that India would not allow automatic implementation of tax benefits granted to other nations without due process.