

DAILY CURRENT AFFAIRS (DCA)

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CONCERNS OVER INCREASING WEAPONIZATION OF TRADE

Context

- The External Affairs Minister of India, S. Jaishankar highlighted that rising globalization along with trade weaponization has resulted in job losses and dissatisfaction in many societies.

What is trade weaponization?

- Trade weaponization refers to the **strategic use of trade policies and economic measures** by countries to exert political or economic pressure on others.
- Instead of trade being purely an economic activity aimed at mutual benefit, it becomes a **tool of influence, coercion, or retaliation**.

Tools of trade weaponization

- Tariffs and Sanctions:** Countries impose tariffs or sanctions on imports from a particular country to hurt its economy.
 - Example:** US-China trade war
- Export Controls:** Restrictions on exports of critical technologies or materials to a nation.
 - In **2020**, the US government started imposing stricter export controls on China to limit its access to advanced semiconductor technology.
- Supply Chain Disruptions:** Manipulating supply chains for critical goods, like rare earth metals or energy resources, to gain leverage in political disputes.
- Currency Manipulation:** It boosts a nation's export competitiveness while hurting the importing country's economy.

Challenges of trade weaponization

- Increased Uncertainty:** The imposition of tariffs and sanctions creates uncertainty in international markets, making it difficult for businesses to plan for the future.
- Loss of Export Markets:** Retaliatory tariffs restrict access to key export markets, negatively affecting domestic industries that rely on international sales.
- Strained Diplomatic Relations:** Trade weaponization leads to heightened tensions between nations, complicating diplomatic relations.
- Erosion of Multilateralism:** The rise of unilateral trade measures undermines established international trade norms and institutions, such as

the World Trade Organization (WTO), leading to a fragmented global trading system.

- Disproportionate Effects:** Protectionist measures disproportionately affect low-income workers and communities, leading to job losses in industries exposed to international competition.

Steps taken against trade weaponization

- Regional Trade Agreements:** Countries are forming or revitalizing regional trade agreements (RTAs) to enhance cooperation and reduce reliance on major economies.
 - Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP),
 - Regional Comprehensive Economic Partnership (RCEP) etc.
- Mineral Security Partnership (MSP)** to diversify and stabilize global supply chains of Critical Minerals.
- Reform of the WTO:** Ongoing discussions to reform the World Trade Organization (WTO) aim to enhance its dispute resolution mechanisms and address the challenges posed by unilateral trade actions.
- Indo-Pacific Economic Framework (IPEF):** It serves as a countermeasure to economic coercion by countries that use trade as a tool of influence, promoting a more equitable and rules-based trading system.

Concluding remarks

- The challenges arising from the weaponization of trade are complex and multifaceted, affecting not only national economies but also the global trading system and international relations.
- There is further need for encouraging transparency, enhanced communication, and **conflict resolution mechanisms** to promote a stable and equitable international trading system.

Source: IE

WORLD MENTAL HEALTH DAY

Context

- World Mental Health Day is observed **annually on October 10**.
 - It was first initiated in **1992** by the World Federation for Mental Health (WFMH).
 - This global observance aims to raise awareness about mental health issues and mobilize efforts in support of mental health care worldwide.

About

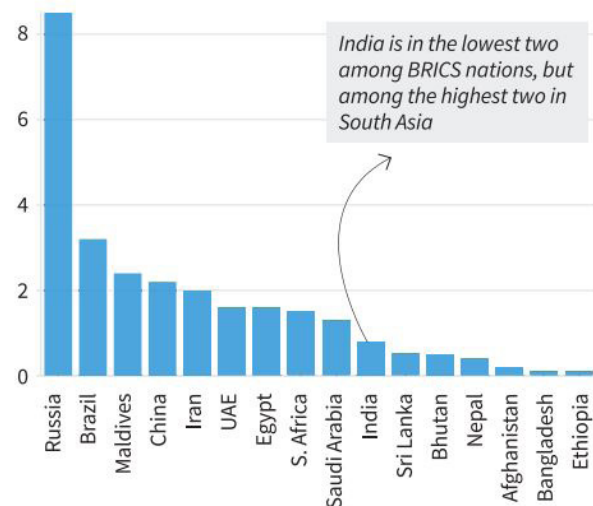
- India is currently witnessing a **surge in mental health disorders**.
- According to The Lancet Psychiatry Commission, **over 197 million people** suffer from conditions such as **depression, anxiety and substance abuse**.
- **Economic growth** has created new opportunities, but it has also intensified societal pressures and personal expectations.
- As **India's developmental aspirations rise**, mental well-being is often overlooked, fuelling a **crisis driven by materialism** and a growing disconnect from community and self-awareness.

Causes of Mental Illness

- Exposure to **unfavorable social, economic, geopolitical and environmental circumstances** – including poverty, violence, inequality and environmental deprivation.
- Over the past few years, **the pandemic-led lockdowns and the uncertainties associated** with them have had a detrimental effect on mental well-being
- Early adverse life experiences, such as **trauma or a history of abuse** (for example, child abuse, sexual assault, witnessing violence, etc.)
- Use of **alcohol or drugs, having feelings of loneliness or isolation**, etc.
- **Family Dynamics:** Dysfunctional family relationships and lack of support systems can negatively impact mental health.
- **The growing focus on consumerism**, particularly in urban areas, has fostered a culture where luxury and conspicuous goods define status. This leads to **feelings of inadequacy, stress and social comparison**.
 - ♦ The **endless quest for affluence** disconnects individuals from the essential elements of a meaningful life **trapping them in a cycle of dissatisfaction**.

Issue of Lack of Psychiatrists in India

- The World Health Organization's guidelines state that there should be at least **three practising psychiatrists per one lakh population**.
- As per the latest National Mental Health Survey (NMHS), which was conducted between 2015 and 2016, **India has only 0.75 psychiatrists per 1 lakh population**.



- Among the **BRICS nations**, India is one of the two countries with the lowest number of psychiatrists per capita; the other is Ethiopia.
- Keeping aside factors such as attrition and unemployment, it would take India about **27 years to meet the WHO-recommended goal**.
 - ♦ If India wants to achieve this mark earlier, it requires policy intervention with adequate incentives to increase supply.

Government of India Initiatives

- **National Mental Health Programme (NMHP):** Launched in 1982, this program aims to improve mental health services through community-based approaches, enhance mental health care at primary, secondary, and tertiary levels, and raise awareness.
- **Mental Healthcare Act, 2017:** The act **decriminalised suicide attempts** in India and also included WHO guidelines in the categorisation of mental illnesses.
 - ♦ The most significant provision in the act was **“advanced directives”**, which allowed individuals with mental illnesses to decide the course of their treatment.
 - ♦ It also **restricted the use of electro-convulsive therapy (ECT)**, and banned its use on minors, finally introducing measures to tackle stigma in Indian society.
- **Rights of Persons with Disabilities Act, 2017:** The Act acknowledges mental illness as a disability and seeks to enhance the Rights and Entitlements of the Disabled.
- **Manodarpan Initiative:** An initiative under Atmanirbhar Bharat Abhiyan, aims to **provide psycho-social support to students** for their mental health and well-being.

- **Kiran Helpline:** The helpline is a **step towards suicide prevention**, and can help with support and crisis management.
- **National Tele-Mental Health Programme:** Launched in 2022, this initiative aims to provide mental health services through telemedicine, expanding access to care, especially in underserved and remote areas.
- For the first time ever, **the Economic Survey 2023-24** talked about mental health, its significance and implications on policy recommendations.
 - ♦ It emphasizes the need for effective implementation to accelerate progress in mental healthcare, addressing existing gaps to ensure maximum impact.

Way Forward

- There is a need for an urgent and well-resourced **whole-of-society approach** to protect, promote and care for the mental health of people.
 - ♦ **Killing the deep stigma surrounding mental health issues** which prevents patients from seeking timely treatment.
- **Making mental health an integral part of the public health programme** to help screen and identify high-risk groups and strengthen mental health interventions like counselling services.
- **Special emphasis on schools:** Pay special attention to groups that are highly vulnerable to mental health issues such as children facing domestic or sexual violence.
- **Collective action, community as solutions:** To address this crisis, we must shift focus from individual success to collective well-being.
- Addressing India's mental health crisis requires rethinking what it means to live a good life.
- We must challenge the materialistic notion of success and refocus on mental, emotional, and social well-being.

Source: TH

NEED OF BATTERY STORAGE FOR A RENEWABLES-HEAVY ELECTRICITY GRID

Context

- According to a report by the Central Electricity Authority (CEA), around **34 gigawatts (GW)** or 136 gigawatts per hour (GWh) of battery energy storage systems is expected to be installed in India by 2030.

Background

- India is targeting to have **half of its electric power capacity come from renewables by 2030** and energy storage is key in maintaining grid flexibility during surplus and deficit power generation.
- Traditional energy sources offer consistent output, but renewable energy's variability can cause a **3-5% error** in dispatches.
- For India's planned 500 GW capacity by 2030, a 3% error could cut 15 GW, destabilizing the grid.

Ancillary Services

- In absence of infrastructure that can store electricity in large amounts, it must be produced and used simultaneously.
- **Ancillary services provide quick, real-time adjustments** to balance supply and demand of power. There are three kinds of ancillary services;
 - ♦ **Primary services** respond to fluctuations in real-time (less than a second), making them most relevant in addressing imbalances in renewables-heavy grids. They can only be provided via hydroelectricity, and battery storage (more on that later).
 - ♦ **Secondary services** respond to fluctuations within 10-15 minutes. These comprise gas-based capacities.
 - ♦ **Tertiary services** take about 20-30 minutes to respond, and comprise thermal power plants, including the coal-fired plants that remain in use in India.

Need for Battery Storage

- Renewables make up roughly **10%** of India's energy portfolio at the moment. As India's grid becomes more renewables-heavy, deployment of **Battery Energy Storage Systems (BESS)** is necessary.
- BESS is the fastest in responding to grid contingencies, and can transition from standby to full power in under a second.
- It can provide essential services such as frequency control, voltage regulation, congestion relief, peak shaving, power smoothing, and peak capacity support, making it an invaluable asset in the modern grid.

Challenges

- **Raw Material Scarcity:** India lacks sufficient reserves of critical materials like lithium, cobalt, and nickel, essential for battery manufacturing.

- **Energy Density and Lifespan:** Current battery technologies may not meet the energy density requirements for long-term storage or withstand prolonged cycling without significant degradation, impacting overall efficiency.
- **Regulatory Hurdles:** Lack of clear regulatory frameworks and incentives for BESS deployment slows down its adoption, making it harder to integrate into the existing grid.

Way Ahead

- The government announced a **Viability Gap Funding scheme**, allocating INR 3,760 crore to develop 4,000 MWh of battery storage systems.
- **Partnering with industry leaders and start-ups** to co-develop and commercialize advanced energy storage technologies will be key to driving innovation and scaling solutions.
- Also developing efficient and scalable **battery recycling facilities** will help recover valuable materials and reduce the environmental impact of battery waste, supporting a circular economy.

Source: IE

GLOBAL WILDLIFE POPULATION FELL 73% : LIVING PLANET REPORT

In News

- The World Wildlife Fund's (WWF) Living Planet Report 2024 reveals a catastrophic 73% decline in monitored wildlife populations over the past 50 years (1970-2020)

The Living Planet Report

- WWF's flagship publication, released every two years
- It is a comprehensive study of trends in global biodiversity and the health of the planet.

Key Findings

- The Living Planet Index (LPI) tracks trends in nearly 35,000 populations of 5,495 species.
- Freshwater populations experienced the steepest decline at 85%, followed by terrestrial (69%) and marine (56%).
- **Regions wise :** It highlights significant declines in monitored wildlife populations across different regions:
 - ♦ Latin America and the Caribbean: 95% decline
 - ♦ Africa: 76% decline

- ♦ Asia-Pacific: 60% decline
- ♦ North America: 39% decline
- ♦ Europe and Central Asia: 35% decline
- Some populations have stabilized or increased due to conservation efforts, such as:
 - ♦ Mountain gorillas increased by about 3% per year in East Africa (2010-2016).
 - ♦ Bison populations rose from 0 to 6,800 in central Europe (1970-2020).
- **Primary Threats:** The main threats to wildlife include:
 - ♦ Habitat loss and degradation
 - ♦ Overharvesting (mainly from the global food system)
 - ♦ Invasive species
 - ♦ Disease
 - ♦ Climate change

Impact

- Significant drops in wildlife threaten ecosystem health and can lead to irreversible changes, pushing nature towards dangerous tipping points (e.g., decimated forests, destroyed rainforests, and coral reefs).
- Declines in wildlife populations signal increased extinction risks and ecosystem health issues.

Recommendations:

- WWF leaders emphasize the need for immediate action to prevent further declines, highlighting that compromised nature is more vulnerable to climate change.
- Develop and implement ambitious national nature and climate plans.
- Reduce overconsumption of food and energy equitably.
- Increase public and private investments aligned with sustainability goals.
- Eliminate activities negatively impacting biodiversity and redirect funding toward positive initiatives.

Source: TH

THE NOBEL PRIZES FOR 2024 IN CHEMISTRY

Context

- The Nobel Prizes for 2024 in Chemistry was awarded to **David Baker** "for computational protein design" along with **Demis Hassabis and John M. Jumper** "for protein structure prediction".

About

- **Proteins** are large, complex molecules that play many critical roles in the body.
 - ♦ They are made up of smaller units called **amino acids**, which are linked together in long chains.
 - ♦ There are **20 different types of amino acids**, and the specific sequence in which they are arranged determines the protein's structure and function.
- **In 2003, David Baker**, a professor at the University of Washington, succeeded in using these blocks to design a new protein that was unlike any other protein.
 - ♦ Since then, his research group has produced one imaginative protein creation after another.
- **In 2020, Demis Hassabis and John Jumper** developed an **AI model called AlphaFold2**, as part of Google's DeepMind project, that was able to predict the structure of virtually all the 200 million proteins that researchers have identified.
- **Significance:** It allows us to better understand how life functions, including why some diseases develop, how antibiotic resistance occurs or why some microbes can decompose plastic.

About Nobel Prize

- **Since 1901**, the Nobel Prize has been awarded in the fields of **physics, chemistry, physiology or medicine, literature and peace**, while a memorial prize in economic sciences was added in **1968**.
 - ♦ In 1895 **Alfred Nobel** gave the largest share of his fortune to a series of the Nobel Prizes.
- From Stockholm, the **Royal Swedish Academy of Sciences** confers the prizes **for physics, chemistry, and economics**, the **Karolinska Institute** confers the **prize for physiology or medicine**, and the **Swedish Academy** confers the **prize for literature**.
- The **Norwegian Nobel Committee** based in Oslo confers the **prize for peace**.
- The **Nobel Foundation** is the **legal owner and functional administrator** of the funds and serves as the joint administrative body of the prize-awarding institutions, but it is not concerned with the prize deliberations or decisions, which rest exclusively with the four institutions.

Source: IE

NEWS IN SHORT**NATIONAL MARITIME HERITAGE COMPLEX (NMHC)****In News**

- The Union Cabinet, chaired by Prime Minister Narendra Modi, approved the development of the **National Maritime Heritage Complex (NMHC)** at Lothal, Gujarat.

About National Maritime Heritage Complex (NMHC)

- It is being constructed at Lothal, Gujarat, a site of historical significance linked to the Indus Valley Civilization. The project is under the **Ministry of Ports, Shipping, and Waterways**.
- Its primary objective is to showcase the **maritime heritage of India from ancient to modern times**, utilizing an edutainment approach and incorporating the latest technology
- **Importance:** The NMHC is set to become the **world's largest maritime museum complex**, positioning it as a key international tourist destination.
- The project aligns with the Prime Minister's vision to showcase India's 4,500-year maritime heritage, initiated by the Ministry of Ports, Shipping & Waterways (MoPSW).
 - ♦ It is a part of the **Sagarmala Programme**, a flagship initiative by the Government of India aimed at promoting port-led development and enhancing the efficiency of logistics in the country.
 - ♦ **Employment generation.**

Source: PIB

SAHARA DESERT**Context**

- The Sahara Desert in southeastern Morocco has experienced a rare deluge of rainfall, transforming it into a blue lagoon.

About Sahara

- **Location:** It stretches from the **Red Sea in the east** and the **Mediterranean in the north to the Atlantic Ocean in the west**, where the landscape gradually changes from desert to coastal plains.
 - ♦ To the south it is bounded by the **Sahel**, a belt of semi-arid tropical savanna.
- **It stretches across countries**, including Algeria, Egypt, Libya, Mali, Mauritania, Morocco, Niger, Western Sahara, Sudan, Chad, and Tunisia.

- **Mountains:** Ahaggar Mountains, Tibesti Mountains, Air Mountains.
- **Human Inhabitants:** It is home to nomadic groups like the **Tuareg and Berbers**.
- **Flora:** Date palms, tamarisk, and acacia trees.
- **Fauna:** Gazelles, Addax (antelope), Saharan silver ant etc.

Source: TOI

EVM BATTERY FUNCTIONALITY

In News

The Congress party has raised concerns about the Haryana Assembly election results, questioning the integrity of **Electronic Voting Machines (EVMs)**.

About

- The ECI has not officially responded to the allegations but stated that no complaints about EVM batteries were received during polling.
- Legal challenges to EVMs have consistently failed, and the Supreme Court recently upheld the use of EVMs, rejecting calls for a return to paper ballots.

EVM Battery Functionality:

- EVMs operate on alkaline batteries, with the control unit (CU) typically having a power pack of 7.5 or 8 volts and the Voter Verifiable Paper Audit Trail (VVPAT) unit at 22.5 volts.
- Battery levels are monitored and displayed as “High”, “Medium”, “Low”, and “Change Battery.”
 - ♦ A new battery generally lasts throughout the election and counting process.
- **Battery Change Procedure:** Batteries are checked and installed before elections, with political party representatives allowed to observe.
 - ♦ In case of low battery during polling, a replacement occurs in the presence of polling agents and sector officers.

Source: IE

INDIAN INSTITUTE OF SKILLS (IIS)

In News

- Prime Minister Narendra Modi inaugurated various development projects in Maharashtra worth over Rs 7600 crore via video conference.

Indian Institute of Skills (IIS):

- IIS was launched in Mumbai to enhance the employability of Indian youth for national and global opportunities.

- It was established through a **Public-Private Partnership (PPP)** between the Ministry of Skill Development and Tata Trusts.
- It aims to prepare an industry-ready workforce for Industry 4.0.
 - ♦ Initially offers six specialized courses, including Advanced Industrial Automation and Electric Vehicle Battery Specialist.
- **Key Training Areas:** Focuses on factory automation, digital manufacturing, mechatronics, artificial intelligence, data analytics, and additive manufacturing.
- **Importance :** It is aimed at creating a skilled, resilient workforce to drive economic growth and prosperity.
 - ♦ IIS is pivotal for India’s vision as the “**Skill Capital of the World.**”

Source: PIB

FOREX RESERVES HIT ALL-TIME HIGH OF \$704.89 BILLION

Context

- India’s forex reserves reached a record high of **\$704.89 billion** as of September 27, marking a \$12.5 billion increase.

About

- Foreign Exchange Reserves are assets held by a country’s central bank in foreign currencies. These reserves include;
 - ♦ **Foreign Currencies:** A reserve of foreign currencies, including US dollars, euros, yen, etc.
 - ♦ **Special Drawing Rights (SDRs):** These are international reserve assets allocated by the International Monetary Fund (IMF).
 - ♦ **Reserve Position in the IMF:** This is the amount a country can access in the IMF without conditions.
 - ♦ **Gold Reserves**
- **Reserve Bank of India (RBI)** is the custodian of the Foreign exchange reserves in India.

Purposes of Foreign Exchange Reserves

- **Stabilizing Currency:** Reserves help stabilize the national currency by managing exchange rate volatility.
- **Supporting Imports and Debt:** Reserves are used to pay for essential imports or service external debt.

- **Confidence in Economy:** Large reserves provide confidence to foreign investors regarding a country's economic stability.
- **Balance of Payments:** These reserves help manage any deficits in a country's balance of payments.

Source: ET

NON-BANKING FINANCIAL COMPANIES (NBFCs)

Context

- Reserve Bank of India (RBI) governor Shaktikanta Das warned of action against those **non-banking financial companies (NBFCs)** who are pursuing unsustainable practices to push growth.

Non-banking financial companies (NBFCs)

- It is a company registered under the **Companies Act, 1956** engaged in the business of loans and advances, acquisition of shares/stocks/bonds/debentures/securities issued by Government or local authority or other marketable securities.
- They are financial institutions that **offer various banking services but do not have a banking license.**
- Generally, these institutions are not allowed to take traditional demand deposits—readily available funds, such as those in checking or savings accounts—from the public.
- The functions of the NBFCs are managed by both the **Ministry of Corporate Affairs and the Reserve Bank of India.**

What is the difference between banks & NBFCs?

- NBFCs lend and make investments and hence their activities are akin to that of banks; however there are a few differences as given below:
 - ♦ NBFC cannot accept demand deposits;
 - ♦ NBFCs do not form part of the payment and settlement system and cannot issue cheques drawn on itself;
 - ♦ Deposit insurance facility of Deposit Insurance and Credit Guarantee Corporation is not available to depositors of NBFCs, unlike in case of banks.

Source: TH

DIGITAL ARREST

Context

- Fraudsters in Indore duped a 65-year-old woman of 46 lakh through a five-day fake interrogation, in a case of 'digital arrest.'

What is Digital Arrest?

- Digital Arrest is a **form of cyber fraud** where scammers impersonate law enforcement officers through audio or video calls, falsely accusing individuals of crimes or legal violations.
- The fraudsters use fabricated legal documents and **confine victims to their homes** by threatening arrest unless a payment is made.

The Legality of Digital Arrests in India

- Arrests in India require physical detention by recognized law enforcement officials under the **Code of Criminal Procedure, 1973** or under the **Bharatiya Nagarik Suraksha Sanhita, 2023 (BNSS).**
- The law only provides for service of the **summons** and the **proceedings in an electronic mode.**

Measures taken by government

- **The Indian Cyber Crime Coordination Centre (I4C)** blocked over 1,000 Skype IDs linked to fraud, collaborating with Microsoft, and provided technical support to state/UT police for investigations.
- **The National Cyber Coordination Centre (NCCC)** monitors cyber threats and facilitates timely information sharing to enable proactive, preventive, and protective actions by entities.
- **Chakshu Facility:** It is a feature on the **Sanchar Saathi portal** that encourages citizens to proactively report suspected fraudulent communications received via call, SMS, or WhatsApp.

Source: TH

CCS CLEARS DEALS FOR 31 MQ-9B DRONES AND NUCLEAR SUBMARINES

Context

- **The Cabinet Committee on Security (CCS)** approved the purchase of 31 MQ-9B High Altitude Long Endurance (HALE) Unmanned Aerial Vehicles (UAV) from General Atomics of the U.S. as well **indigenous construction of two Nuclear Attack Submarines (SSN).**

About

- **Nuclear Attack Submarines:** India has already indigenously manufactured nuclear-powered

ballistic missile submarines (SSBN) and the SSN project will be a follow-on to that.

- ◆ The submarines are likely to be built at the Ship Building Centre in Visakhapatnam and will involve private sector firms.
- ◆ The SSNs are a critical requirement for the Navy which give unlimited endurance to perform a variety of tasks.
- **The MQ-9Bs**, to be assembled in India, will enhance the ISR (intelligence, surveillance, and reconnaissance) capabilities of India's armed forces.
 - ◆ They can also carry out precision strikes on strategic targets in mountains and the maritime domain during long-endurance missions.

Cabinet Committee on Security (CCS)

- **Members:** It is chaired by the Prime Minister, the CCS has the ministers for Finance, Defence, Home Affairs and External Affairs as its members.
- **Functions:** It is responsible for debates, discussions and appointments of/ in the national security bodies.
 - ◆ Major decisions with respect to the significant appointments, issues of national security, defence expenditure of India are taken by CCS.

- ◆ Besides dealing with defence related issues, the CCS also brainstorms on issues relating to law and order and internal security, and policy matters concerning foreign affairs on security-related issues.
- ◆ It also considers matters relating to atomic energy.

Source: TH

MALABAR- 2024

Context

- The maritime exercise Malabar 2024, the most comprehensive version of all editions so far, commenced at Visakhapatnam, India.

About: Exercise Malabar

- The Malabar series of exercises began as an **annual bilateral** naval exercise between **India and the United States** in 1992.
- However, it has evolved into a key multilateral event aimed at enhancing interoperability, fostering mutual understanding, and addressing shared maritime challenges in the Indian Ocean and Indo-Pacific region.
- **Japan** joined the naval exercises in 2015 and **Australia rejoined** the exercise in 2020 after having last participated in 2007.

