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Australia reports its first human Avian flu infection Case

A child was infected by H5N1 (a type of avian influenza A virus).

It is a big concern as H5N1 virus is mainly an animal virus that primarily infects animals.

About Avian influenza (Bird Flu)

- Refers to the disease caused by infection with Avian Influenza Type A viruses. >
- Influenza A viruses are divided into subtypes on the basis of two proteins on the surface of the virus: Hemagglutinin (HA) and Neuraminidase (NA).
- Categorized into different subtypes such as H5N3, H5N8 etc.
- Also, on the basis of severity, it is categorised in two types-Low Pathogenicity and High Pathogenicity Avian Influenza. ● H5N1 is a High Pathogenicity Avian Influenza.
- Carrier and Transmission: Migratory wild birds especially > waterfowl, are natural reservoirs of avian influenza viruses.

Associated Concerns

- Cases of Bird flu may rise due to global warming as birds > migration patterns will change.
- Mutation in the Influenza virus can create new subtypes.
- ● A mutation is a change in the genetic sequence of an
 organism.
- Trade of infected poultry and poultry products may spread the disease if not regulated properly.

Impacts: Economic Loss due to culling of birds, rise in production costs due to the implementation of bird flu control measures, etc.

Steps Taken

- Global >
 - Slobal Influenza Surveillance and Response System (GISRS): WHO- global laboratory system that identifies and monitors strains of circulating influenza viruses, and provides advice to countries on their risk to human health and available treatment or control measures.
 - international organization that collaborates across nations to enhance animal health.
- India >
 - Containment of Avian Influenza (revised in 2021): Outlines the steps to manage a confirmed Notifiable Avian Influenza (NAI) outbreak.
 - In 2023, WOAH has approved India's self-declaration of freedom from Highly Pathogenic Avian Influenza (HPAI) in specific poultry compartments.

Three Cities in India ranked in Top 50 cities for Startups worldwide

PitchBook (private organisation) recently released its 2024 global rankings for the best startup cities.

It ranked Mumbai at 32nd place, Bengaluru at 34th and Gurugram at 48th among the top 50 startup cities globally.

About Startups & its status

- It is an entity working towards innovation, development or improvement of products or processes or services, or with a > scalable business model etc.
- It should have age less than 10 years and annual turnover not exceeding Rs 100 crore.
- Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry recognize business as a > startup.
- India has 3rd largest startup ecosystem in the world and record of 114 unicorns as of March 2024. ● Unicorn is a startup business worth more than \$1 billion.

Promoting factors

- Big corporations connecting.
- Rich talent pool of skilled engineers, developers, etc. >
- Digital revolution helped startups to reach a vast and diverse > consumer base.
- Large demography provides a vast market.

Significance:

- Creation of more than 12 lakh jobs.
- Rise in number of patents by Startups.
- > Attracting foreign funding, Democratising consumption, etc.

Initiatives for Startups

- > Startup India by DPIIT which aim to build a strong ecosystem for nurturing innovation and encouraging investments
- Atal Incubation Centers by NITI Aayog >
- Startup Grants NIDHI Programme by Department of Science > & Technology
- 3 MAARG portal - Mentorship, Advisory, Assistance, Resilience and Growth of Startup India by DPIIT.

Challenges: Availability of finance, Poor revenue generation, lack of mentorship, tight regulations related to intellectual property rights, etc.

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National Green Tribunal's (NGT's) Judgement on Coastal Regulation Zone (CRZ)

Southern Bench of the NGT has directed to halt **Chennai Shoreline Renourishment and Revitalization Project** (includes cycle track, food court, etc.) in the **CRZ II zone**, where such activities are prohibited.

- > The Project aims to get Blue Flag certification for beaches.
 - Blue Flag Certification is a voluntary globally recognized eco-tag given to environment-friendly & clean beaches marinas and boats, accorded by Foundation for Environmental Education (FEE).
- NGT has directed Authorities to take approval from State Coastal Zone Management Authority before carrying out any activity on the beaches, besides cleaning and removing encroachments.

About Coastal Regulation Zone (CRZ)

- CRZ notification, 1991 issued by the Ministry of Environment, Forest and Climate Change (MoEF&CC) under the Environment Protection Act, 1986.
 - Replaced later by the CRZ Notification, 2011 (reviewed by Shailesh Nayak Committee) and CRZ Notification, 2019.
- Institutional Mechanism:

 - District Level Committees (DLCs) in every district that has a coastal stretch

Classification of CRZs	
CRZ-IA	Ecologically Sensitive Areas like Mangroves, Salt Marshes etc.
CRZ-1B	Intertidal zone i.e. area between Low Tide Line and High Tide Line.
CRZ-II	Constitute the developed land areas up to or close to the shoreline, within the existing municipal limits or in other existing legally designated urban areas.
CRZ-III	Land areas that are relatively undisturbed (viz. rural areas, etc.) and those which do not fall under CRZ-II.
CRZ-IVA	Area between Low Tide Line up to 12 nautical miles on the seaward side.
CRZ-IVB	Applicable on Tidal influenced water bodies.

Spain becomes 99th member of International Solar Alliance (ISA)

About ISA

- Objective: A treaty-based intergovernmental organization that is an action-oriented, member-driven, collaborative platform for increased deployment of solar energy technologies.
- Genesis: Jointly launched by India and France in 2015 on the sidelines of COP-21 of the United Nations Framework Convention on Climate Change (UNFCCC) in Paris.
 - It was officially established in 2017, with the entry into force of the ISA Framework Agreement.
 - With the amendment of the Framework Agreement in 2020, all member states of the United Nations are eligible to join the ISA.
- Key Strategy: Guided by the 'Towards 1000' strategy. Under it, ISA aims to
 - Mobilise USD 1,000 billion of investments in solar energy solutions by 2030
 - ⊕ Delivering energy access to 1,000 million people
 - Installation of 1,000 GW of solar energy capacity.
- Observer Status of UN: In 2021, the UN General Assembly conferred Observer Status to the ISA.
- > HQ: Gurugram, India

Significance of ISA

- Ensuring Just energy transition through solar by facilitating technology transfer, mobilising finance, etc.
- ISA along with initiatives like Global Biofuels Alliance and Coalition for Disaster Resilient Infrastructure are mechanisms for India to assert its soft power.

Initiatives taken by ISA

- One Sun One World One Grid (OSOWOG): Aims to connect different regional grids through a common grid that will be used to transfer renewable energy power.
- > The Global Solar Facility (GSF): Catalyze solar investments in underserved segments and geographies across Africa.
- Solar Technology Application Resource Centre [STAR C] Initiative: To support capacity building efforts.
- Development of Large-Scale Solar Power Projects under Solar Park Concept in Cluster/Group of ISA Member Countries.

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Reserve Bank of India (RBI) approves surplus transfer of Rs 2.11 lakh crore to government for FY24

The transfer (140% higher than last year) is based on the Revised Economic Capital Framework (ECF).

RBI has also decided to increase the Contingency Risk Buffer to 6.5% for FY 2023-24 from 6%.

About Surplus Transfer and ECF

- As the manager of Government finances, every year, the RBI pays a dividend to Government to help with the Government's finances from its surplus profit.
 - Section 47 of the RBI Act, 1934 mandates that any profits made by the RBI from its operations be sent to the Centre.
- ECF provides a methodology for determining the appropriate level of risk provisions and profit distribution to be made under Section 47 of the RBI Act, 1934.
- RBI constituted a Committee headed by Bimal Jalan to review the 2015-16 ECF in 2018.
 - RBI also has to maintain a CRB within a range of 6.5% to 5.5% of the RBI's balance sheet.

Ways by which RBI earn its profit

- Open market operations, wherein a central bank purchases or sells bonds.
- Interest received from bonds.
- > Returns from its foreign currency assets.
- Lending to banks for very short tenures

Contingency Risk Buffer

CRB is a fund kept for unforeseen contingencies like depreciation of securities values, risks from monetary rate policy, etc.

Also in News



Inverted Duty Structure (IDS)

Ministry of Commerce and Industry shared certain items to Ministry of Finance to address Inverted Duty Structure (IDS).

About Inverted Duty Structure

- Refers to situation where import duties on input goods are higher than on finished goods.
- Impact of IDS:
 - Affects domestic industry, manufacturers' have to pay high price for raw material than on finished products.
 - Expensive inputs make their products costly and cannot compete in the export market.
 - ⊕ Taxpayers who face an inverted duty structure will always have Input Tax Credit (ITC) in their GST electronic credit ledger
 - ● Creates working capital issues for the taxpayers as their resources remain blocked in the form of Input Tax Credit (ITC) due to high input tax.
 - Also, IDS leads to refund-related issues under the GST regime.

BIMSTEC acquires 'legal personality' after charter comes into force

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The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) charter was signed and adopted during the 5th summit of the grouping in Sri Lanka, in 2022.

With the endorsement of the charter by Nepal, all member states completed the ratification of the foundational document and the charter came into force on May 20, 2024.

About BIMSTEC Charter

- BIMSTEC Charter is a foundational document that outlines the goals, principles, and structure of the BIMSTEC.
- Charter confers legal personality on the grouping and paves the way for external partnerships and admission of observers and new members.

About BIMSTEC

- Genesis: Established in 1997 with the signing of the Bangkok Declaration.
- Members: Bangladesh, India, Sri Lanka, Thailand, Myanmar, Nepal and Bhutan
- Secretariat: Dhaka, Bangladesh
- Purpose: To create an enabling environment for rapid economic development and social progress and maintain peace and stability in the Bay of Bengal region.

Significance for India

- Give boost to India's Act East and Neighbourhood First policy.
- > It acts as a bridge between South and SouthEast Asia.
- BIMSTEC would provide an alternative platform especially after dysfunction of SAARC since 2016.

Challenges:

- Slow Organizational progress: The charter enforced after 27 years of formation.
- Absence of a Free Trade Agreement among BIMSTEC members: Members involved in bilateral, multilateral trade with non-members.
- Strained relations between members: Bangladesh-Myanmar relations over the Rohingya refugee crisis, the India-Nepal border issue, etc.



Himalayan Ibex

Wildlife authorities in Himachal Pradesh have started a survey to estimate the population of the Himalayan ibex along with blue sheep. About Himalayan ibex

It is a goat with sweeping horns.

- Habitat: Above the tree line in the Himalayas up to 5500 m, grazes on alpine pastures but always close to rocky precipitous terrain. Occasionally enters forests.
- Distribution: Mountains of Pakistan, China, India (Ladakh, Himachal Pradesh and Jammu and Kashmir), Afghanistan, etc.
- Conservation status: Schedule I of Wild Life Protection Act (WPA), 1972.

About Blue Sheep (Bharal)

- Habitat: Open grassy slopes in high mountains from 2,500-5,500 m.
- Distribution: Bhutan, China, India, Myanmar, Nepal and Pakistan
- Conservation status: Least Concern (IUCN) and Schedule I of WPA, 1972

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Geopolitical Recession

- Political scientist Ian Bremmer defines a geopolitical recession as a situation where established global power frameworks are crumbling.
 - According to him, like economic recession, Geopolitics have \odot boom and bust cycles, too.
- During geopolitical recession, responding to a crisis becomes significantly more challenging due to the decreased resilience of political institutions.
- Reasons for current geopolitical recession
 - € Long-term rise of China and the Global South, combined with a decline of European and Japanese economic power.
 - € Tensions over trade between the US and China.

Animal Diplomacy

Malaysia is aiming to improve its environmental image by putting forward "orangutan diplomacy", a type of Animal diplomacy.

About Animal Diplomacy

Involves giving or lending animals as a sign of friendship or 3 goodwill between countries.

These creatures possess cultural significance or are € indigenous to the country that gifts them.

- Considered as an element of soft power. .
- Key Examples: China's panda diplomacy; Australia's koala diplomacy, etc.
- Ethical Concern: Animals are being used as a means (considering them as an object) to fulfil interest of Nations.

Graphite

India has initiated discussions with Sri Lanka to acquire graphite mines.

- It is among 30 critical minerals declared by India. > Graphite
- Also known as plumbago or black lead. .
- Stable form of naturally occurring Carbon.
- It is one of the allotropes of Carbon.
- **Properties:**
 - Grey to black metallic lustre. €
 - Extremely soft and cleaves (splits into layers) with very light € pressure.
 - Good conductor of heat and electricity.
 - **Resistant** to attack by ordinary chemical agents.
- Applications: EV battery-making components, lubricants, pencils, foundry facings, paints crucibles etc.

Places in News

Kyrgyzstan (Capital: Bishkek)

Violence has erupted in Kyrgyzstan, with mobs targeting hostels housing students from India, Bangladesh and Pakistan.

Political Features

- The country is located in Central Asia.
- Boundaries: Kazakhstan (Northwest and North), China (East and South) Tajikistan (South) and Uzbekistan (West).

> It is a landlocked country.

Geographical Features

- >
- Major Rivers: Syr Darya, Naryn and Chu River



Shallow Aquifer Management (SAM)

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SAM pilot models was recently launched in Telangana. About SAM:

- It is a sustainable urban water management technique
- It involves drilling shallow water borewells to pump out water. The underneath layers are recharged during rainfall causing rise in water tables.
- It is part of Atal Mission for Rejuvenation and Urban 3 Transformation (AMRUT) scheme of the Ministry of Housing and Urban Affairs
- National Aquifer Mapping and Management program (NAQUIM) aims to characterize aquifers and develop plans for Ground Water management.



Wind Shear

Recently, a plane of Singapore Airlines experienced severe mid-air turbulence (irregular motion of the air).

One of the primary kinds of turbulence is called the Clear-air turbulence and it is caused by wind shear.

About Wind shear

- Defined as the change in wind speed, wind direction, or both, > over some distance.
- Occurs either horizontally or vertically. Also, it can occur at both high and low altitude.
- Usually associated with the weather phenomenon such as jet streams, mountain waves or temperature inversion layers, thunderstorms etc.



Jagannath Temple

About Jagannath Temple

- Location: Puri, Odisha >
- > Dedicated to: Lord Vishnu along with his brother Lord Balabhadra and sister Devi Subhadra.
- Built by: Anantavarman Chodaganga Deva (1112-1148 AD) and was completed by Anangabhima Dev
- > Festivals: Devasnana Purnima and Chariot Festival (Rath Yatra).
- > Features:
 - Part of Kalinga school of architecture (a local style of Nagara € School of temple architecture)
 - € Built on a raised platform
 - € No shadow of the temple falls on the ground at any time of the day
 - € The idols of the holy trinity are carved out of wood rather than stone or metal idols.

