GAGAN

THE DESERVING INDIA

02/06/24 - 08/06/24
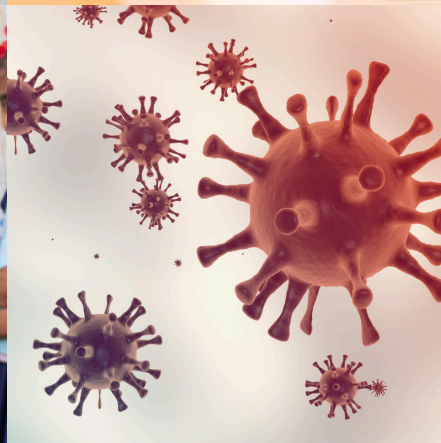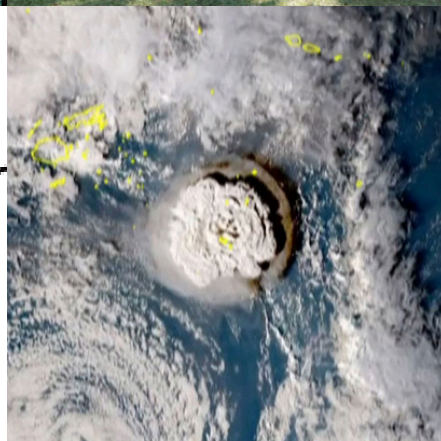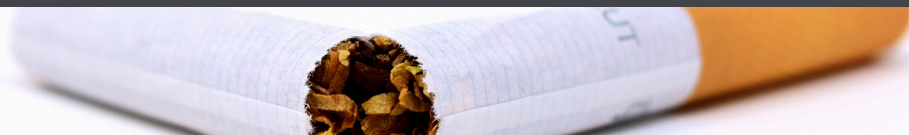
CURRENT AFFAIRS

TOBACCO EPIDEMIC IN INDIA

Why in News?

Tobacco is the leading cause of preventable illness and death worldwide.
In India, nearly 260 million people use tobacco, making it the country with the second-highest number of tobacco users after China.

What are the Statistics About Tobacco Consumption in India?

- **No Significant Decrease in Bidi or Cigarette Consumption:** According to the National Family Health Survey (NFHS), there hasn't been a notable reduction in bidi or cigarette consumption between districts with the National Tobacco Control Programme (NTCP) and those without it. This could be due to insufficient staff, resources, and monitoring.

- **Cigarettes and Bidis Have Become More Affordable:** Over the past 10 years, cigarettes, bidis, and smokeless tobacco products (SLTs) have become cheaper. The Goods and Services Tax (GST) system has made them even more affordable by lowering prices through an integrated tax system.

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National Legislation:

- Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply, and Distribution) Act (COTPA) 2003:**
- Regulates various aspects of tobacco, including production, supply, advertising, promotion, distribution, sale, packaging, and labeling.

National Tobacco Control Program (NTCP) 2007:**

- Strengthens the implementation of COTPA and compliance with FCTC.

Key functions include:
- Public Awareness Campaigns: Educating the public about the health risks of tobacco use through mass media campaigns.
- Smoking Cessation Initiatives: Providing quitlines, counseling, and behavioral interventions to help people stop smoking.
- Enforcement Mechanisms: Ensuring the enforcement of COTPA provisions through designated authorities.

The Prohibition of Electronic Cigarette Act (PECA), 2019:

- Bans e-cigarettes in India.

National Tobacco Quitline Services (NTQLS):**

- mCessation Programme: Uses mobile technology to support tobacco cessation, launched in 2016 as part of the government's Digital India initiative.

Tobacco Taxation:

- India heavily taxes tobacco, with a 53% tax on cigarettes and a much lower 16% tax on bidis, which are a cheaper alternative. Public health experts advocate for higher taxes on bidis to discourage use and increase government revenue.

What are Hidden Costs of Tobacco Beyond Health Risks?'

- Soil Depletion: Tobacco farming rapidly depletes soil nutrients, necessitating more fertilizers, which further degrade soil quality.
- Deforestation: Tobacco production leads to deforestation, as significant amounts of wood are needed for processing. Up to 5.4 kg of wood is required to process 1 kg of tobacco.
- Waste Generation: The production and consumption of tobacco generate massive amounts of waste, totaling 170,000 tonnes annually in India.
- Economic Burden: Tobacco use imposes substantial healthcare costs, estimated at Rs. 1.7 lakh crore in 2017-18, which exceeds the national health budget of Rs. 48,000 crores.
- Health Risks for Workers: Over 6 million people working in the tobacco industry are at risk of health issues due to tobacco absorption through the skin.Waste Management Cost: The cost of cleaning up tobacco waste is significant.

What are Challenges to Effective Tobacco Control in India?

- **Non-compliant Products:** Smokeless tobacco products like gutkha and smuggled items evade regulations under the Cigarettes and Other Tobacco Products Act (COTPA), making it challenging to control their production, sale, and marketing.
- **Weak Fines:** The fines for violating COTPA regulations, which haven't been updated since 2003, are low. For instance, the maximum fine for first-time violations of packaging restrictions is only Rs. 5,000, which doesn't serve as a strong deterrent.
- **Surrogate Advertising:** Tobacco companies cleverly use ads for unrelated products like elaichi to indirectly promote their tobacco brands, circumventing regulations on tobacco marketing. These ads indirectly encourage tobacco use.
- **Stalled Amendments:** Proposed amendments to strengthen COTPA in 2015 and 2020 haven't been passed by the Indian government, leaving regulatory gaps unaddressed.
- **Limited Enforcement Capacity:** The National Tobacco Control Programme (NTCP) lacks adequate staff, resources, and monitoring systems to enforce COTPA effectively nationwide.
- **Effective Lobbying in Tobacco Industry:** Despite the ban on e-cigarettes, enforcement of the policy is incomplete. Additionally, tax breaks for small tobacco companies create disparities in pricing, making harmful products more affordable.
- **Conflict of Interest with Government:** The government's 7.8% stake in ITC Ltd., India's largest tobacco company, raises concerns about its commitment to tobacco control.

Way Forward

- **Strengthening Legislation:** Updating the Cigarettes and Other Tobacco Products Act (COTPA) and the National Tobacco Control Programme (NTCP) is crucial to bolster tobacco control efforts in India.

- **Higher Tobacco Taxes:** Tobacco taxes, particularly on bidis and smokeless tobacco, fall below the recommended WHO target of 75%. Raising taxes would discourage consumption and provide revenue for public health initiatives.

- **Effective Monitoring:** Consistent monitoring is necessary to track tobacco use trends, pinpoint areas of COTPA violations, and evaluate the impact of anti-tobacco campaigns.

- **Support for Tobacco Farmers:** Implementing public programs to assist tobacco farmers in transitioning to alternative crops would alleviate the economic challenges posed by reduced tobacco cultivation.

- **Data-Driven Strategies:** Timely collection of data on tobacco use patterns is essential for understanding evolving trends and identifying new tactics employed by the tobacco industry. This data is vital for crafting effective tobacco control policies.

WIPO TREATY PROTECTING GENETIC RESOURCES AND TRADITIONAL KNOWLEDGE

Why in News?

The World Intellectual Property Organization (WIPO) has just finished a new treaty on Intellectual Property (IP), Genetic Resources (GRs), and Traditional Knowledge (ATK). This is a big win for countries in the global South, like India.

The treaty was agreed upon by over 150 countries, including many developed nations, at an international meeting.

What does the WIPO Treaty Entail?

- Protection of Biodiversity: The WIPO Treaty aims to balance the rights of countries rich in biodiversity and traditional knowledge with the global Intellectual Property Rights (IPR) system. For the first time, traditional knowledge and wisdom, which have supported economies, societies, and cultures for centuries, are now part of the global IP system.

- Inclusive Innovation: The treaty promotes inclusive innovation by recognizing the connection between local communities and their genetic resources (GRs) and associated traditional knowledge (ATK).

- Disclosure Requirements: The treaty will require countries to make it mandatory for patent applicants to disclose the country of origin or source of the genetic resources when their invention is based on these resources or associated traditional knowledge.

How is this Treaty Significant for India and the Global South?

India: India, a hotspot of biodiversity with rich traditional knowledge, now sees these systems recognized in the global IP system for the first time with this treaty.

Prevention of Misappropriation: The treaty prevents the misuse of Indian genetic resources (GRs) and traditional knowledge (TK) in countries without existing disclosure laws. By establishing mandatory disclosure obligations, it offers added protection, preventing their misappropriation. This is crucial because several Indian herbs and products have previously been falsely claimed as foreign inventions, leading to contested patent applications.

Global Standards: The treaty sets new global standards within the IP system for countries that provide genetic resources and traditional knowledge.

Global South: The Global South, with its vast traditional knowledge on medicinal plants, agriculture, and other areas, benefits from the WIPO Treaty, which protects this knowledge from misappropriation.
The WIPO Treaty helps combat biopiracy by creating a legal framework to protect genetic resources and traditional knowledge from unauthorized commercial exploitation.

What are the Past Cases Surrounding Traditional Knowledge and Genetic Resources in IPR?

Traditional Knowledge:

The Turmeric Case:

- Turmeric, a tropical herb from India, is widely used in the country for medicinal, culinary, and dye purposes. It is known as a blood purifier, for treating the common cold, and as an antiparasitic for skin infections.
- In 1995, the US granted a patent for using turmeric powder for wound healing to the University of Mississippi Medical Center. However, the patent was later revoked after the Indian Council for Science and Industrial Research (CSIR) provided evidence of prior use.

The Neem Case:

- This case involved a patent granted to W.R. Grace for a formulation using azadirachtin, an active ingredient from the neem plant, which has long been recognized for its medicinal and pesticide properties in traditional medicine systems like Ayurveda and Unani.
- The patent gave the company exclusive rights to use azadirachtin in a specific storage solution, leading to an outcry and re-examination at the United States Patent and Trademark Office (USPTO) and the European Patent Office (EPO). The EPO eventually ruled against the patent, stating it lacked innovation, although the USPTO upheld it.

Genetic Resources:
Wheat Varieties Case (2003):

- This case involved the biopiracy of Indian wheat varieties known as Nap Hal and Nap Hal-49, which were patented by a European company claiming to be the inventors.
- Indian authorities provided evidence that these wheat varieties were originally from India and were not novel inventions. As a result, the patents were revoked.

Basmati Rice Case (2000):

- A US company was granted a patent for Basmati rice by the USPTO, falsely claiming to have invented the new variety. This led to a conflict between Indian and American agricultural organizations.
- The patent claims were eventually narrowed when the applicants admitted they didn't invent Basmati rice.

What are India's Initiatives Related to Protecting Traditional Knowledge and Genetic Resources?

Traditional Knowledge:

- Traditional Knowledge Digital Library (TKDL):
- The TKDL is a comprehensive database of medicinal formulations in various languages.
- Established in 2001 in response to India's challenges in overturning patents on traditional remedies like turmeric and neem.
- This joint effort by the CSIR and the Department of AYUSH aims to protect India's rich medicinal knowledge from being wrongly patented, a problem that was occurring in an estimated 2,000 cases per year.
- The TKDL has been crucial in protecting India's traditional medicinal systems globally.

Patents (Amendment) Act, 2005:

- This act aims to protect the rights of indigenous communities by requiring patent applicants to disclose the origin of biological resources in their inventions.
- Failure to disclose this information, especially related to traditional knowledge, can result in the patent being refused.

Trademark Act, 1999:

- Trademarks distinguish goods and prevent confusion about the source of a product.

- The act allows for the protection of agricultural and biological products, including those from indigenous communities.
- Indigenous groups can use trademark registration to differentiate their brand and ensure unique quality.

Biological Diversity Act, 2002:
- This act provides for the conservation of biological diversity, sustainable use of its components, and fair and equitable sharing of the benefits arising from the use of genetic resources.

Geographical Indications (GI):
- GIs protect products that have a specific geographical origin and possess qualities or a reputation due to that origin. This includes agricultural, natural, and manufactured goods.

Genetic Resources:

National Gene Bank:
- The National Gene Bank conserves the genetic diversity of India's flora and fauna, ensuring the preservation and sustainable use of genetic resources.

Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001:
- This act ensures that plant breeders and farmers who provide Plant Genetic Resources (PGR) for developing new varieties receive a fair share of commercial gains.
- The PPV&FR Act 2001 includes provisions for access and benefit-sharing (ABS) along with Plant Breeder's Rights (PBRs).

National Bureau of Plant Genetic Resources (NBPGR):
- An Indian institute under the Indian Council of Agricultural Research (ICAR) that plays a key role in conserving and protecting the genetic diversity of cultivated plants and their wild relatives in India.

National Bureau of Animal Genetic Resources (NBAGR):

- Part of ICAR, NBAGR aims to conserve, characterize, and utilize animal genetic resources for sustainable livestock development in India. It maintains a genbank repository.

Microbial and Insect Biodiversity:

- The National Bureau of Agriculturally Important Insects (NBAII) acts as a central agency for the collection, characterization, documentation, conservation, exchange, and utilization of agriculturally important insect resources.

INDIA TO IMPORT WHEAT AFTER 6 YEARS

Why in News?

India, the world's second-largest wheat producer, plans to start importing wheat again after a six-year break to replenish its reserves and control rising prices. This move is driven by three consecutive years of poor harvests.

To facilitate this, India is expected to remove a 40% import tax on wheat, enabling private traders to buy wheat from countries like Russia, though in limited quantities.

Why India Decided to Resume Wheat Imports?

Declining Wheat Production:

- India's wheat production has decreased over the last three years due to unfavorable weather, leading to a significant drop in output.
- The government estimates this year's wheat crop to be 6.25% lower than the previous year's record production of 112 million metric tons.

Depletion of Wheat Reserves:
- As of April 2024, wheat stocks in government warehouses have fallen to 7.5 million tons, the lowest in 16 years.
- This depletion is due to the government selling over 10 million tons from its reserves to control domestic prices.

Shortfall in Wheat Procurement by Government:
- The government aimed to procure 30-32 million metric tons of wheat in 2024 but has only managed to purchase 26.2 million tons so far.

Surge in Domestic Wheat Prices:
- Domestic wheat prices have remained above the government's minimum support price (MSP) of 2,275 rupees per 100 kg and have been rising recently.

Policy Response:
- To address these issues, the government has decided to remove the 40% import duty on wheat, allowing private traders and flour millers to import wheat, mainly from Russia.

What are the Possible Implications of the Decision?

Domestic Market:

Enhanced Availability and Price Stability:
Abolishing the import duty will likely increase wheat supplies in the domestic market, helping to mitigate price hikes.

Replenishing Strategic Reserves:
- Lower import costs can help the government replenish depleted wheat reserves, bolstering food security by creating a buffer against unforeseen disruptions in domestic production.

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Global Market:

Potential Upward Price Pressure:

Although India's estimated import volume (3-5 million metric tons) is modest, it could contribute to a rise in global wheat prices, given current high prices driven by production concerns in major exporting nations like Russia.

Limited Overall Impact:

- India's import requirement is unlikely to significantly influence the global market, as larger players will continue to have a more substantial impact on global wheat price trends.

Conclusion

India's decision to resume wheat imports after a six-year gap is a pragmatic move to address domestic supply and price concerns caused by declining wheat production and depleted government reserves.

While these imports may have a moderate impact on global wheat prices, the primary focus for the Indian government is to ensure food security and price stability for its citizens.

UNDERSTANDING THE GRADES AND CHARACTERISTICS OF INDIAN COAL

Why in News?

A recent report by the Organized Crime and Corruption Reporting Project says that in 2014, the Adani Group falsely labelled low-quality Indonesian coal as high-quality.

They increased its value and sold it to Tamil Nadu's power company, TANGEDCO. The report comes from a group funded by billionaire George Soros.

Coal Quality and Gradation

Understanding Coal Quality

Coal quality is measured by its Gross Calorific Value (GCV), which is the amount of heat or energy produced when the coal is burned. Coal is a fossil fuel made up of carbon, ash, moisture, and various impurities. Higher carbon content means better quality coal.

Coal is categorized into:

- Non-coking coal: Graded based on Gross Heat content.
- Coking coal: Graded based on ash content.
- Semi coking coal and weakly coking coal**: Graded based on ash and moisture content.

Coal Grades

Coal has 17 grades, with grade 1 being the highest quality. Grade 1 coal generates over 7,000 kcal/kg, while the lowest grades produce 2,200-2,500 kcal/kg. Higher carbon content in coal means a higher grade.

Application Context

The usefulness of coal varies by application. For example:

- Non-coking coal: Used in thermal power plants. It can have higher ash content but still generate enough heat for boilers and turbines.
- Coking coal: Essential for steel production, it requires minimal ash content.

What are the characteristics of Indian coal?

Low Calorific Value

Indian coal has historically been known for its high ash content and low calorific value compared to imported coal. The average GCV of domestic thermal coal ranges from 3,500-4,000 kcal/kg, while imported thermal coal has a GCV of over 6,000 kcal/kg.

High Ash Content

Indian coal has an average ash content of over 40%, compared to less than 10% in imported coal. Burning high-ash coal results in more particulate matter, nitrogen, and sulfur dioxide emissions.

Government Policies

Since 1954, the government has controlled coal prices to prevent the use of high-grade coking coal for power generation. To manage coal production, meet power needs, and reduce pollution, the government recommends using imported coal with lower ash and moisture content. In 2012, the Central Electricity Authority (CEA) suggested blending 10-15% imported coal with Indian coal for power boilers designed for low-quality domestic coal.

What is Clean coal?

About Clean Coal

Clean coal refers to technologies and practices aimed at reducing the environmental impact of coal energy production by increasing its carbon content and reducing its ash content. These methods strive to make coal a cleaner energy source, lessening its negative effects on the environment and human health.

Production of Clean Coal

Key aspects of clean coal technology include:

- Carbon Capture and Storage (CCS): Capturing carbon dioxide emissions from coal-fired power plants and storing them underground to prevent them from entering the atmosphere.
- Coal Washing: Removing impurities from coal before it is burned to reduce emissions of ash, sulfur, and other pollutants.
- Flue Gas Desulfurization (FGD): Also known as scrubbers, this technology removes sulfur dioxide from the exhaust flue gases of coal-fired power plants.
- Gasification: Converting coal into synthetic gas (syngas), which burns cleaner than coal.
- Advanced Combustion Techniques: Improving the efficiency of coal combustion to reduce emissions and increase energy output.

Disadvantages Associated with Coal Washing

Coal plants use washing techniques, employing blowers or baths to remove ash and moisture. However, this process is costly and increases power production expenses.

Coal Gasification

An alternative method is coal gasification, which converts coal into gas. Integrated Gasification Combined Cycle (IGCC) systems use steam and pressurized air or oxygen to create syngas (a mixture of carbon monoxide, hydrogen, CO2, and water vapor). The syngas is cleaned and burned in gas turbines to produce electricity. IGCC increases coal efficiency by generating both steam and syngas, resulting in cleaner and more efficient power production.

Future of Coal in India
Production

In 2023-24, India produced 997 million tonnes of coal, marking an 11% increase over the previous year. Most of this coal was produced by the state-owned Coal India Ltd and its subsidiaries.

Coal in India's Energy Economy

Coal remains the mainstay of India's energy economy, even as the country aims to transition its electricity sector away from fossil fuels.

Change is in the Air

For the first time this year, renewable energy made up 71.5% of the record 13.6 GW power generation capacity added by India in the first quarter. During this period, coal's share (including lignite) of total power capacity dropped below 50% for the first time since the 1960s.

DIVERGENT VIEWS EMERGE WITHIN IAMAI ON PROPOSED DIGITAL COMPETITION BILL
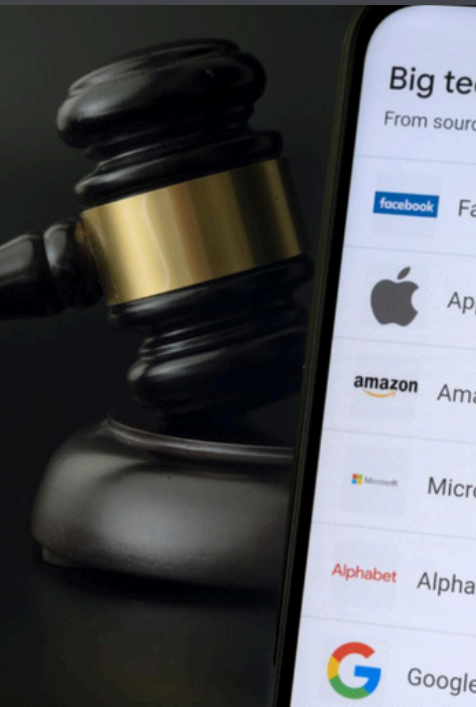
Why in News?

Divergent Stance on the Digital Competition Bill Four members of the Internet and Mobile Association of India (IAMAI) have taken a different position on the proposed Digital Competition Bill (DCB). They have written to the Ministry of Corporate Affairs (MCA) urging the quick implementation of regulations to prevent anti-competitive practices.

Apprehensions About the Draft Bill

In May 2024, the IAMAI expressed concerns about the draft Digital Competition Bill 2024. The association argued against the need for ex-ante (before the event) regulations for digital markets in their submission on the draft bill.

About IAMAI

IAMAI is a key industry body that represents numerous digital entities, including major tech firms.

What is Digital Competition Bill, 2024?

About the Digital Competition Bill

The Digital Competition Bill aims to regulate large digital enterprises, including news aggregators, to ensure fair competition in the digital space. Proposed in March 2024, the bill seeks to:

Regulate Big Tech: Prevent companies like Google, Facebook, and Amazon from favoring their own services or using data from one business to benefit another.

Ex-Ante Regulations: Establish presumptive norms to curb anti-competitive practices before they occur.

Heavy Penalties: Impose substantial penalties, potentially amounting to billions of dollars, for violations.

Nodal Ministry

The Ministry of Corporate Affairs (MCA) is responsible for handling the draft of the Digital Competition Bill.

What is the need for such bill?

Ex Post Antitrust Framework in India

Currently, India operates under an ex post antitrust framework established by the Competition Act, 2002. However, there have been significant criticisms of this approach.

Criticisms of the Current Framework

- Delays in Regulation: One major criticism is that regulating aftermarket abuse occurs leads to delays. By the time the offending company is penalized, market dynamics may have changed, disadvantaging smaller competitors.
- Ineffectiveness in Digital Markets: In the complex world of digital markets, regulating after market abuse (ex-post) may not be optimal.

- **Advocacy for Ex-Ante Framework:** There's a call for a forward-looking, preventive, and presumptive law (ex-ante framework) that anticipates potential antitrust issues and establishes pre-determined boundaries to prevent abuse.

History of Anti-Competitive Practices by Big Tech

Big tech companies, notably Google, have a history of engaging in anti-competitive practices. For example, in 2023, Google was fined Rs 1.337 crore by the Competition Commission of India (CCI) for its anti-competitive conduct in the Android ecosystem.

High Market Barriers for New Entrants
Analysts argue that most of the innovation in the tech sector has been limited to a few big US-based companies. This is partly due to the high market barriers for new entrants, particularly in the online market. Once a company establishes significant market share, it becomes difficult for rivals to challenge their dominance, creating a default preference for their products or services.

What are the key proposals of the draft digital competition Bill 2024?

List of Core Digital Services (CDS)
The bill outlines core digital services (CDS) under Schedule I, including:
1. Online search engines
2. Online social networking services
3. Video-sharing platform services
4. Interpersonal communications services
5. Operating systems
6. Web browsers
7. Cloud services
8. Advertising services

- 9. Online intermediation services (such as webhosting, service providers, payment sites, auction sites, app stores, e-commerce marketplaces, and aggregators)

Systemically Significant Digital Enterprises (SSDEs)

The bill proposes to designate certain enterprises as Systemically Significant Digital Enterprises (SSDEs). SSDEs provide core digital services in India and have a significant presence and financial strength in the country.

Parameters for SSDE Designation
The bill proposes two tests to determine SSDE designation:
1. Financial Strength Test: Turnover in India not less than Rs 4,000 crore in the last 3 financial years, or global turnover not less than $30 billion.
2. Spread Test (User Base Test): Core digital service should have at least 1 crore end users or 10,000 business users.

Obligations of SSDEs
SSDEs are prohibited from engaging in practices such as self-preferencing, anti-steering, and restricting third-party applications. Violations can result in fines up to 10% of their global turnover.

Associate Digital Enterprises (ADEs)
The bill proposes to designate associate digital enterprises (ADEs) to assess the role of data collected by one company within a major technology group in benefiting other group companies. ADEs have the same obligations as SSDEs based on their involvement with the core digital service offered by the main company. For example, Google Maps could be considered an associate entity because Google Search directs users to it. Similarly, YouTube's status as an ADE depends on the data shared between Google Search and YouTube, which affects the video recommendations made to users.

RELATIONSHIP BETWEEN THE HARAPPAN AND THE VEDIC AGE

Why in News?

Archaeologists are collaborating with Sanskrit scholars to decode the Rigveda, continuing research that may uncover connections between the people of the Vedic age and the Harappan civilization.

Indus Valley Civilisation (IVC)/ Harappa Civilisation (3300 - 1300 BCE):

The Indus Civilization, also known as the Harappan Civilization, was a Bronze Age civilization located in the northwestern regions of South Asia. It earned its name from Harappa, now in Punjab, which was the first site excavated in the early 20th century.

- Alongside ancient Egypt and Mesopotamia, it was one of the three early civilizations of the Near East and South Asia, and the most extensive among them. Its sites covered an area from northeast Afghanistan, through much of Pakistan, into western and northwestern India.

- The civilization prospered in the basins of the Indus River and along rivers that once flowed near the seasonal Ghaggar-Hakra river in northwest India and eastern Pakistan. Its cities were known for their urban planning, baked brick houses, sophisticated drainage systems, water supply systems, large non-residential buildings, and advancements in handicrafts (like carnelian products and seal carving) and metallurgy (including copper, bronze, lead, and tin).

- Urbanization likely began as the region's soil gradually dried out during the third millennium BCE. However, the civilization eventually declined as weaker monsoons and reduced water supply forced its population to disperse eastward and southward.

The Vedic Age (1500 - 600 BCE):

- The Vedic age, occurring during the late Bronze Age and early Iron Age of India's history, saw the composition of Vedic literature, including the Vedas, in the northern Indian subcontinent. It marks the period between the decline of the urban Indus Valley Civilization (IVC) and the onset of the second urbanization, starting in the central Indo-Gangetic Plain around 600 BCE.

- In terms of literature, social structures, and cultural development, the Vedic age is divided into two stages:

- 1. The Rigvedic period or Early Vedic period (circa 1500 BC to 1000 BC).

- 2. The Later Vedic period (circa 1000 BC to 600 BC).

- During the Early Vedic period, the early Vedic Aryans lived in the region known as Sapta-Sindhu, an area of seven rivers, in and around present-day Punjab.

- As the Vedic age progressed into the Later Vedic period, the Vedic Aryans gradually migrated eastward, settling in areas such as eastern Uttar Pradesh (Kosala) and north Bihar (Videha).

How Archaeologists are Establishing Relationships Between the Harappan and the Vedic Age?

Ongoing Debates
- **Recent NCERT Addition**
- The NCERT recently updated the Class 12 History textbook, suggesting that the Harappans were indigenous based on DNA evidence from the remains of a 4,600-year-old woman. However, a disclaimer was added, acknowledging the need for further research to confirm this relationship.

Dating of the Vedas

- Some historians propose that the Vedas date back to around 2,500 BC, which would align with the time of the Indus Valley Civilization (IVC).

Archaeological Investigations
- **Establishing Harappan-Vedic Connection**
- Archaeologists are investigating the hypothesis that the Harappans and the Vedic people were the same. Renowned archaeologist Vasant Shinde emphasizes the importance of understanding Rigveda texts to correlate them with archaeological findings at Harappan sites.

Evidence from Excavations

- At the Rakhigarhi site in Haryana, archaeologists discovered ritual platforms and fire altars, echoing the mention of fire worship in Rigvedic texts.

- The Rigveda mentions the Saraswati River numerous times, and many Harappan settlements were found along the banks of the modern Ghagghar-Hakra river, believed to be the ancient Saraswati.
- Archaeo-zoologists studying animal bones in the Surkotada region of Kutch, Gujarat, found bones that some researchers suggest belong to domesticated horses, as mentioned in the Rigveda. However, another group concluded they belonged to wild asses.

PROMOTION IS NOT A FUNDAMENTAL RIGHT

Why in News?

The Supreme Court recently confirmed that government employees in India do not have a guaranteed right to promotions. The Constitution doesn't set any rules for promotions, so it is up to the legislature and executive to decide.

What are the Constitutional Provisions Related to Reservation?

Here is a simpler version of the provided text:

Article 15 (6): This allows the government to create special measures for helping economically weaker sections of citizens, including reserving seats in educational institutions. These reservations can be in any educational institution, both private and government-aided, except for minority institutions under Article 30 (1).

- Article 16 (4): This permits the government to reserve jobs for any backward class of citizens who are not adequately represented in government services.
- Article 16 (4A): This allows the government to reserve promotions in government jobs for Scheduled Castes (SC) and Scheduled Tribes (ST) if they are not adequately represented.
- Article 16 (4B): This lets the unfilled SC/ST quota from a particular year be carried forward to the next year. Both Articles 16 (4A) and 16 (4B) were added by the 77th Constitutional Amendment Act in 1995.
- Article 16 (6): This allows the government to reserve up to 10% of jobs for economically weaker sections, in addition to existing reservations.
- Article 335: This acknowledges the need for special measures to consider the claims of SCs and STs for jobs and promotions, to bring them to the same level as others.
- 82nd Constitutional Amendment Act, 2000: This added a condition to Article 335, allowing the government to relax qualifying marks for SC/ST candidates in exams.

What are the Pros and Cons of Reservation in Promotion?

Here is a simplified version of the pros and cons of reservation:
- Pros of Reservation
- Social Justice & Inclusion: Helps ensure that historically disadvantaged groups (SC, ST, OBC) are represented in higher positions.
- Breaks Caste & Social Barriers: Promotes diversity in leadership, leading to a better understanding of societal issues.
- Empowerment & Upliftment: Provides opportunities for marginalized communities to advance and compete at higher levels.
- Positive Discrimination: Helps overcome past social and economic discrimination by giving disadvantaged groups a better chance.

Cons of Reservation

- Merit vs Reservation: May overlook the most qualified candidates for promotion.
- Demotivation & Frustration: This can cause frustration among general category candidates who feel they are being passed over.
- Creamy Layer Issue: The more advantaged individuals within reserved categories might benefit the most, which can undermine the goal of upliftment.
- Seniority & Efficiency: This can disrupt seniority-based promotion systems and affect overall efficiency.

What are the Reservation Developments in India?

- Here is a simpler version of the summary of the Indra Sawhney Judgment, 1992:
- In the Indra Sawhney Judgment of 1992, a nine-judge bench made these key decisions:
- Promotion Reservations: Article 16(4) of the Constitution allows reservation in appointments but not in promotions.
- 27% Reservation: The court upheld the 27% reservation for OBCs but set a limit of 50% for total reservations unless there are exceptional circumstances.
- Carry Forward Rule: This rule is valid but must also stay within the 50% limit. No reservations should be applied to promotions.
- Relationship Between Articles 16(1) and 16(4): Article 16(4) does not override Article 16(1). Article 16(1) guarantees equality of opportunity as a fundamental right, while Article 16(4) is an enabling provision for reservations.
- Exclusion of Creamy Layer: The court directed that the economically well-off (creamy layer) within OBCs should not receive reservation benefits. This exclusion does not apply to SCs and STs.
- Article 16(1): Ensures equality of opportunity for all citizens in employment or appointment to any state office.

Way Forward

- Here is a simplified version of the provided text:
- Data-Driven Approach: Collect data on the current representation of SC/ST/OBCs in various levels and departments. Use this information to set clear targets for filling reservation quotas.
- Focus on Merit with Relaxation: Promote a system that focuses on merit but allows some relaxation in qualifying marks for SC/ST/OBC candidates in promotions. This ensures qualified candidates from these communities have better opportunities while maintaining competency.
- Addressing Concerns: Recognize worries about unqualified candidates being promoted due to reservations. Propose solutions like rigorous training and mentorship programs for promoted SC/ST/OBC employees to help them excel in their new roles.
- Long-Term Vision: Highlight that reservations are a temporary measure to achieve long-term social justice and equal opportunity in promotions. Support parallel initiatives that improve education and access to resources for these communities, aiming for a future where reservations are no longer needed.

Conclusion

- The Supreme Court's stance on reservation in promotions has evolved to balance equality and affirmative action. The Court permits states to offer such reservations but imposes conditions to ensure administrative efficiency and safeguard the public interest.
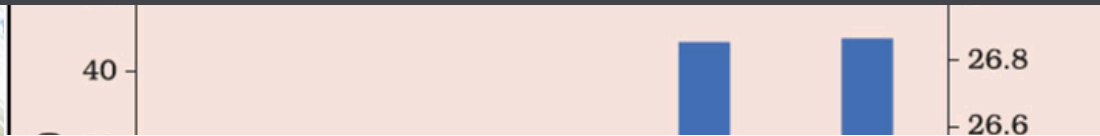
Why in News?

Recent data from the Insolvency and Bankruptcy Board of India (IBBI) indicates that creditors in India have recovered nearly half of their claims under the Insolvency and Bankruptcy Code (IBC), 2016 when resolutions are completed within the 330-day deadline. However, delays in the process have reduced the amount of money recovered.

What are the Key Highlights of the Latest Data?
Recovery Rates and Timeliness

Total Recoveries: Since the inception of the Insolvency and Bankruptcy Code (IBC) in 2016, the resolution of 947 financially stressed companies has resulted in creditors receiving ₹3.36 lakh crore, which is 32.1% of their claims.

Trends in Recovery Rates:

- FY18 and FY19: Recoveries were at 54%.
- FY21: Recoveries dropped to 22% due to the pandemic.
- FY22: Recoveries slightly increased to 23%.
- FY23: Recoveries improved to 36%.
- FY24: Recoveries declined again to 27%.

Number of Resolutions:

- FY22: 144 resolutions.
- FY23: 189 resolutions.
- FY24: Reached a record of 269 resolutions, largely due to the government filling vacancies in the National Company Law Tribunal (NCLT) over the past two years.

Cumulative Recoveries:

- Compared to the fair value of stressed companies at the time of insolvency admission, creditors have experienced stronger cumulative recoveries, reaching 85%.
- In terms of liquidation value, the recovery rate has reached 161.8% of the assets.
- Impact of Delays: Delays in the resolution process, averaging 679 days, have significantly reduced recovery rates to 26%, negatively affecting asset value and debt recovery. Experts emphasize the importance of timely initiation of the IBC for effective stress resolution.

What are the Proposed Measures to Strengthen IBC?

Strategies to Improve Insolvency Resolution and Recovery Rates

Reduce Delays

Streamline Processes: Resolve insolvency cases within the IBC's 330-day deadline. The current average duration of 679 days highlights the need to streamline procedures and reduce litigation.

Improve Recovery Rates

Enhanced Efficiency at NCLT: Ensure sufficient judges and staff at the National Company Law Tribunal (NCLT) to handle cases efficiently, expediting processing and reducing delays caused by backlogs.

Simplify Procedures: Review and simplify IBC procedures to eliminate unnecessary steps and standardize processes, speeding up approvals.

Sector-Specific Regimes

Specialized Insolvency Frameworks: Develop specialized insolvency regimes for sectors like real estate, which face unique challenges compared to other industries.

Cross-Border Insolvency Framework

Legal Framework: Establish an effective legal framework based on the UNCITRAL (United Nations Commission on International Trade Law) guidelines to handle insolvency cases involving companies with assets in multiple countries.

Review Timelines

Re-evaluate Timelines: Reassess the timelines mandated by the IBC to ensure they are efficient and minimize unnecessary delays.

Formal Prepack for All Companies

Pre-packaged Insolvency Process: Allow a formal pre-packaged insolvency process for all companies, not just Micro, Small, and Medium Enterprises (MSMEs). This involves agreeing on a resolution plan before initiating formal bankruptcy proceedings.

What are the Key Highlights of the Insolvency and Bankruptcy Code, 2016?

Overview of the Insolvency and Bankruptcy Code (IBC), 2016

Purpose: The IBC, 2016, provides a structured framework for resolving

bankruptcy and insolvency for companies, individuals, and partnerships promptly.

Key Concepts:

Insolvency: This occurs when an individual or organization's liabilities exceed its assets, making it unable to raise sufficient cash to meet its debts as they become due.

Bankruptcy: A legal declaration that a person or company cannot pay their due and payable bills.

Amendment Act, 2021: This amendment aimed to provide a more efficient insolvency resolution framework for Micro, Small, and Medium Enterprises (MSMEs), ensuring quicker, cost-effective, and value-maximizing outcomes for all stakeholders.

Insolvency and Bankruptcy Board of India (IBBI)

Role: The IBBI serves as the regulatory authority overseeing insolvency proceedings in India.

Composition: The IBBI is led by a chairperson and three full-time members, appointed by the government, who are experts in finance, law, and insolvency. It also includes ex-officio members.

Adjudication of Proceedings

National Companies Law Tribunal (NCLT): Handles insolvency proceedings for companies.

Debt Recovery Tribunal (DRT): Manages proceedings for individuals.

These bodies play a crucial role in approving the initiation of the resolution process, appointing professionals, and endorsing the final decisions of creditors.

Insolvency Resolution Procedure

Initiation: The process can be initiated by either the debtor or the creditor upon default.

Management: Insolvency professionals are appointed to manage financial information and the debtor's assets.

Prohibition Period: There is a 180-day prohibition on legal action against the debtor during the resolution process.

Committee of Creditors (CoC)

Formation: Comprising financial creditors, the CoC is formed by insolvency professionals.

Responsibilities: The CoC decides on the resolution of outstanding debts, which may include debt revival, changes to the repayment schedule, or asset liquidation.

Deadline: The CoC must decide within 180 days, after which the debtor's assets may be liquidated if no resolution is found.

Liquidation Process

Proceeds from the sale of the debtor's assets are distributed in the following order:

- Insolvency resolution costs
- Secured creditors
- Dues for workers and employees
- Unsecured creditors

This structured approach aims to ensure an efficient and fair resolution of insolvency and bankruptcy cases, maintaining a balance between creditor recovery and debtor rehabilitation.

PANDEMIC TREATY
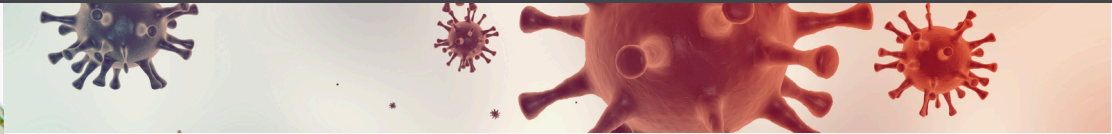
Why in News?

During the recent annual meeting, the World Health Assembly (WHA) made significant amendments to the International Health Regulations (2005) (IHR). These changes aim to enhance global preparedness, surveillance, and responses to public health emergencies, particularly pandemics.

Additionally, the WHA committed to finalizing negotiations on a global pandemic agreement by 2025. These developments mark a crucial step towards improving international cooperation in addressing health crises worldwide.

What are the Key Amendments Agreed to IHR?

Definition:

Introduction of a definition of pandemic emergency to enhance international collaboration in response to potential pandemics.

Criteria include wide geographical spread, exceeding health system capacity, causing social and economic disruption, and requiring rapid international action.

Commitment to Solidarity and Equity:

Establishment of a Coordinating Financial Mechanism to support the identification and access to financing needed for developing countries.

Development and strengthening of core capacities and other pandemic emergency prevention, preparedness, and response-related capacities.

Cooperation for Effective Implementation:

Creation of a States Parties Committee to promote cooperation and effective implementation of the amended regulations.

Establishment of National IHR Authorities to improve coordination of implementation within and among countries.

Need for Global Health Cooperation:

Curbing Infectious Diseases:

Global cooperation is crucial in curbing pandemics like Covid-19, which can rapidly spread across borders.

Early detection and sharing of disease outbreaks enable a faster global response, as seen with the WHO's role in identifying and tracking COVID-19 variants.

Collaboration accelerates the development of vaccines, diagnostics, and treatments.

Addressing Antibiotic Resistance:

Global cooperation is essential to combat antibiotic resistance, a global health threat.

Establishing common guidelines for antibiotic use in humans and animals helps slow resistance.

The WHO warns that antimicrobial resistance could lead to millions of deaths annually if not addressed collaboratively.

Chronic Disease Management:

Non-communicable diseases like heart disease and diabetes are a growing global concern.

Knowledge sharing in prevention, treatment, and lifestyle interventions allows countries to learn from each other, as seen with initiatives like the Global Alliance for Chronic Diseases (GACD).

Health Equity and Access:

Global cooperation promotes technology transfer to address healthcare challenges in resource-limited countries.

Sharing knowledge and technology allows developing countries to improve their healthcare systems, as seen with initiatives like the Medicines Patent Pool facilitating access to affordable generic drugs.

What is the Existing Framework for Global Health Cooperation?

Multilateral Agencies:

Various multilateral organizations like WHO, UNICEF, UNFPA, and UNAIDS play crucial roles in specific health areas such as child health, reproductive health, and HIV/AIDS.

The WHO serves as the central coordinating authority on global health within the United Nations system. It sets international health standards, provides technical assistance to countries, and coordinates the global response to health emergencies.

International Health Regulations (IHR):

A legally binding agreement between 196 countries outlining their rights and obligations regarding public health events with international implications.

Global Health Initiatives:

Targeted programs addressing specific health challenges, such as the Global Fund to Fight AIDS, Tuberculosis, and Malaria, and Gavi, the

Vaccine Alliance.

Public-Private Partnerships:

Collaboration between governments, NGOs, and the private sector to leverage resources and expertise. An example is the Bill & Melinda Gates Foundation.

Regional Organizations:

Regional bodies like the Pan American Health Organization (PAHO) and the African Union coordinate health efforts within their respective regions.

Conclusion

The recent amendments made by the World Health Assembly (WHA) to the International Health Regulations (IHR) and the commitment to establish a global pandemic agreement by 2025 represent a significant advancement in global health security.

These changes, which include introducing a definition for pandemic emergencies, emphasizing equity and financing, and enhancing national and international cooperation, are designed to better equip the world to detect, prevent, and respond to future health threats.

WOMEN IN CORPORATE ROLES IN INDIA

Why in News?

A recent report called "Women in Leadership in Corporate India" by a networking platform shows that women are still underrepresented in leadership roles in Indian companies. The percentage of women in these positions has stayed below 30% for a long time.

What are the Findings of the Report?

Stagnation of Women's Representation in Corporates:

Women make up less than 30% of the workforce and senior leadership roles, and this number has been dropping since the pandemic. The decline is due to fewer women being hired for leadership positions.

Women in Leadership by Sector:

Lowest Representation:

- Construction, Oil, Gas, and Mining, and Utilities: 11%

- Wholesale and Manufacturing: 12%

- Accommodation and Food Services: 15%

Moderate Representation:

- Technology, Information & Media, Financial Services: 19%

Highest Representation:

- Education: 30%

- Government Administration: 29%

Breaking the Law:

The Companies Act, 2013 requires women directors on company boards, but this rule is often ignored. From April 2018 to December 2023, 507 companies were fined for not complying, with 90% of them being listed companies.

What are the Factors Contributing to Lower Representation of Women in Corporations?

Factors Affecting Women's Representation in Corporates:

Unconscious Bias:

- Societal biases and stereotypes about women's abilities and leadership styles result in unfair evaluations and fewer advancement opportunities.

Reduction in Work-from-home Options:

- Fewer hybrid or remote work opportunities can limit women's participation in the workforce, as these arrangements often help them balance work and personal responsibilities.

Work-Life Balance Challenges:

- Women often carry a larger share of domestic and caregiving duties, making it harder for them to match the commitment and availability expected in corporate roles.

Safety Concerns:

- Safety issues and inadequate urban infrastructure can deter women from seeking and keeping jobs, especially in urban areas.

Lack of Mentorship and Sponsorship:

- Women have less access to mentors and sponsors who can support their career growth and help them navigate the corporate environment.

Limited Representation in Leadership:

- Few women in senior roles mean a lack of visible role models, making it harder for women to see themselves in leadership positions.

What Measures Can Be Adopted to Enhance Gender Diversity in Corporate Leadership?

Strategies to Improve Women's Representation in Corporates:

Flexible or Hybrid Work Policies:

- These policies are crucial for retaining women, especially at junior and middle management levels, helping them balance career aspirations and family commitments.

Skills-First' Approach to Hiring:

- Focus on candidates' relevant skills, qualifications, and experience rather than gender-based assumptions to reduce biases and promote meritocracy.

-

Promoting Diversity in Senior Leadership:

- Government initiatives can raise awareness of board diversity in listed companies. For example, Japan's "Nadeshiko Brands" program highlights companies that support women's empowerment and leadership as attractive investment opportunities.

Establish Networking and Support Groups for Women:

- Creating a Strong Network: These groups can help women professionals connect and collaborate, empowering them to reach leadership positions.
- Peer Learning and Support: Women can share experiences, learn from each other's successes and challenges, and build a strong support system.

Mentorship and Networking Opportunities:

- Providing mentorship and networking opportunities helps women navigate the corporate ladder. Experienced female leaders can offer guidance, support, and strategies for career advancement.

Shared Parental Leave Policies:

- These policies promote a more equitable distribution of caregiving responsibilities between men and women. Paid paternity leave, especially in the private sector, can support this goal.

Conclusion

The stagnation in the representation of women in corporate leadership roles in India is a concerning trend that requires concerted efforts to address. Implementing a multifaceted approach, including policy changes, organizational reforms, and cultural shifts, is essential to enhance gender diversity and unlock the full potential of women in the corporate sector.

KAZA SUMMIT 2024 AND WILDLIFE PRODUCT TRADE

Why in News?

Recently, the 2024 Heads of State Summit for the Kavango-Zambezi Trans-Frontier Conservation Area (KAZA-TFCA) took place in Livingstone, Zambia.

At the summit, member states renewed their calls to withdraw from the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). This demand arose due to repeated denials of permission to sell their abundant ivory and other wildlife products.

What are the Key Issues Discussed at the 2024 Summit?
The KAZA-TFCA Initiative:

The Kavango-Zambezi Trans-Frontier Conservation Area (KAZA-TFCA) spans across five southern African nations: Angola, Botswana, Namibia, Zambia, and Zimbabwe, along the Okavango and Zambezi river basins.

Conservation Efforts: About 70% of KAZA land is under conservation, comprising 103 wildlife management areas and 85 forest reserves.

Elephant Population: This region is home to over two-thirds of Africa's elephant population, approximately 450,000 elephants. Botswana has around 132,000 elephants, and Zimbabwe has about 100,000.

Historical Dispute with CITES:

At the 2022 Conference of Parties in Panama, southern African countries, including those in KAZA, advocated for legalizing the ivory trade to finance conservation efforts and reduce human-wildlife conflicts.

Despite their large elephant populations and the challenges, they face, their proposal was rejected. These countries accused CITES of prioritizing anti-trade ideologies over scientific conservation methods.

Key Issues Discussed at the 2024 Summit:

At the 2024 Heads of State Summit in Livingstone, Zambia, several critical issues were discussed:

Economic Impact of CITES Restrictions:

- Delegates emphasized the economic pitfalls of existing CITES restrictions and advocated for the right to sell wildlife products.
- Highlighted were elephant mortality rates and the lost economic potential from ivory stockpiles.
- The ban on ivory and wildlife product trade negatively impacts conservation funding, as revenue from sales could support wildlife management.

Decision-Making Concerns:

Delegates argued that CITES decisions are driven by populism and political agendas rather than scientific evidence, undermining the effectiveness of the organization in promoting sustainable conservation.

Calls to Exit CITES:

There were renewed appeals to exit CITES, with proponents suggesting that such a move could prompt the organization to reconsider its stance or allow KAZA states to independently manage their wildlife resources.

Exploring Alternative Markets:

- In response to increasing restrictions on trophy hunting imports by Western countries, Zimbabwe and other KAZA states are exploring alternative markets, particularly in the East.
- Trophy Hunting: This practice involves selectively hunting wild animals, often large mammals, to obtain body parts like antlers or horns, which are seen as symbols of achievement or for display.

The discussions and decisions at the summit highlight the ongoing conflict between conservation needs and international trade regulations, with KAZA states pushing for more autonomy and flexibility in managing their wildlife resources.

What are the Causes of the Wildlife Product Trade?

Factors Contributing to Wildlife Trafficking:

Organized Commercial Illegal Sourcing:

- Organized crime groups engage in remote operations like elephant and tiger poaching.
- These activities often merge with other criminal networks, exploiting power dynamics, illicit weapons, and money laundering channels.

Black Markets Create New Demands:

- When legal sales decline, illegal traders find new ways to sell products, including rare animals and endangered species trophies.
- The scarcity of these items makes illegal markets more attractive to buyers.

Supplementary Livelihoods and Opportunism:
While major criminal groups drive some trafficking, many poor individuals participate to make ends meet.

Corruption:

- Corruption severely undermines efforts to combat wildlife trafficking.
- This includes bribery at inspection points and higher-level influence on permit issuance and legal decisions.

Cultural Roots of Poaching:

- Wildlife poaching isn't solely financially motivated; cultural factors play a role too.
- For example, in the Chinko reserve in the Central African Republic, elephant hunting is a cultural heritage symbolizing courage and masculinity.

Existence of Legal Markets for Wildlife Products:

- Legal markets for wildlife products, such as bear bile trade in Lao PDR, complicate the recognition of products' origins, whether from legal or illegal sources.
- Japan has the world's largest legal ivory market, which further complicates efforts to curb illegal poaching.

What are the Measures Needed to Tackle Wildlife Crime?

Strategies to Combat Wildlife Trafficking:

Banning Illegal Wildlife Products:

- This approach aims to reduce demand by making it illegal to possess or trade goods derived from illegally obtained wildlife.

Effective Funding for Wildlife Protection:

- Funds should directly support agencies that protect wildlife, such as park rangers and anti-poaching teams.

Public Awareness and Empowerment:

- Educating people about the consequences of wildlife trafficking and the value of wildlife can help lower the demand for illegal products.

Ivory-Specific Measures:

- An independent scientific review could assess the sustainability of the potential ivory trade from KAZA countries.
- CITES and KAZA countries could collaborate on exploring alternative sources of income for conservation, such as promoting ecotourism ventures and carbon offset programs within the KAZA region.

Best Practices:

TRAFFIC and WWF Campaigns:

- TRAFFIC's technical expertise supported a WWF campaign in Thailand, significantly reforming Thai legislation and nearly eliminating the domestic ivory market.
- In China, WWF and other NGOs played a crucial role in implementing a domestic ivory ban.

Stockpile Destruction:

- Gabon, Congo, and the USA have recently destroyed stockpiles of confiscated ivory to prevent its return to the black market and publicly condemn the ivory trade and poaching.

By combining these strategies, nations can address both the supply and demand sides of wildlife trafficking, promote sustainable conservation practices, and reduce illegal wildlife trade.

AMRUT (ATAL MISSION FOR REJUVENATION AND URBAN TRANSFORMATION) SCHEME

Why in News?

Recently, the AMRUT scheme has been in the spotlight due to the difficulties it's encountering in tackling infrastructure problems concerning water, mobility, and pollution.

What is the AMRUT Scheme?
Overview of AMRUT Scheme:
AMRUT 1.0:

- Launched on June 25, 2015, in 500 selected cities across India, covering about 60% of the urban population.
- Aims to enhance basic infrastructure and implement urban reforms, including water supply, sewerage, drainage, green spaces, non-motorized transport, and capacity building.

AMRUT 2.0 Scheme:
- Launched on October 1, 2021, for 5 years (FY 2021-22 to FY 2025-26), absorbing AMRUT 1.0.
- Aims for universal coverage of water supply from 500 cities to about 4,900 statutory towns and coverage of sewerage/septage management in these cities.
- Focuses on promoting the circular economy of water through recycling/reuse of treated sewage, rejuvenation of water bodies, and water conservation.
- Includes reforms agenda for ease of living, such as reducing non-revenue water, strengthening urban planning, and improving urban finance.

Components of AMRUT 2.0:
- **Pey Jal Survekshan: Ensures equitable water distribution, promotes wastewater reuse, maps water bodies, and fosters healthy competition among cities.**
- **Technology Sub-Mission for Water: Utilizes global technologies in water management.**
- **Information, Education, and Communication (IEC) Campaign: Raises awareness about water conservation.**

Status of AMRUT 2.0 Scheme:
Fund Allocation:
The total outlay for AMRUT 2.0 is Rs. 2,99,000 crore for ongoing projects until March 2023.
Impact:
- **Positive impact on women's lives, as it reduces the effort in fetching water and leads to a decrease in waterborne diseases due to safe drinking water availability.**

Challenges:
- Despite the scheme's implementation, around 200,000 people die

Challenges:

- Despite the scheme's implementation, around 200,000 people die annually due to inadequate water, sanitation, and hygiene.
- India's disease burden from unsafe water and sanitation is significantly higher compared to China's, with limited improvement.
- A NITI Aayog report predicts groundwater depletion in 21 major cities by 2030, leaving 40% of India's population without access to drinking water.
- A large percentage of urban Indian households lack piped water and sewerage system connections.

What are the Challenges in the Implementation of AMRUT Scheme?

Challenges and Concerns with AMRUT Scheme Implementation:

State Project Implementation:

- Despite regular fund releases, states like Bihar and Assam have struggled to complete projects or utilize the PPP model, resulting in less than 50% execution completion in most states.

AMRUT Program Scope:

- The scheme focuses on a project-focused approach rather than a holistic perspective, potentially limiting its effectiveness in addressing broader urban development issues.

Potential Overlaps and Convergence Challenges:

- Overlap between AMRUT and other schemes, such as the Swachh Bharat Mission, could lead to funding allocation challenges and increased workload in addressing specific urban issues.

Unaddressed Air Pollution:

- The National Clean Air Programme was launched to tackle deteriorating air quality, which remained unaddressed since AMRUT

Unaddressed Air Pollution:

- The National Clean Air Programme was launched to tackle deteriorating air quality, which remained unaddressed since AMRUT 2.0 shifted solely to water and sewerage, leaving unresolved air quality issues from AMRUT 1.0.

Non-Inclusive Governance Structure:

- The scheme lacks organic participation from elected city governments, resulting in a less inclusive approach for urban people and potentially hindering effective governance and decision-making.

What are the Steps Needed to Revamp the AMRUT Scheme?

Financial Challenges and Solutions:

Diversification of Financial Resources:

- Local urban bodies should diversify financial resources to implement local projects instead of relying solely on a top-down funding approach.

Holistic Approach:

Considering Climate Change and Infrastructure:

- Urban water management should consider climate change, rainfall patterns, and existing infrastructure to cater to evolving challenges effectively.

Nature-Based Solutions and People-Centric Approach:

- The scheme needs nature-based solutions and a comprehensive methodology with a people-centric approach, empowering local bodies to address urban water management issues.

Community Engagement:

Encouraging Participation:

Engaging community groups, including NGOs and resident

associations, can enhance the effectiveness of housing schemes by soliciting ideas and feedback from grassroots levels.

Learning from Success Stories:

Studying Successful Case Studies:

- Learning from successful case studies, such as the "Water Availability for All" initiative in Dahanu Taluka, can provide valuable insights for addressing similar challenges in housing initiatives.
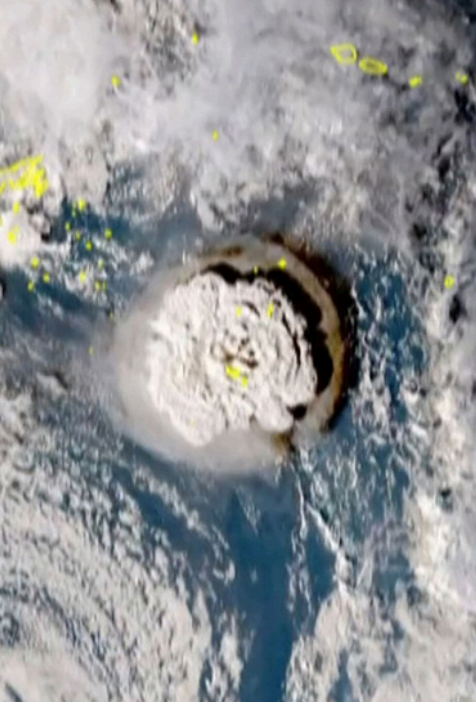
Innovation and Research:

Establishing Innovation Hubs:

- Innovation hubs can foster industry-specific research and development related to health and housing issues, spurring innovative solutions and technologie
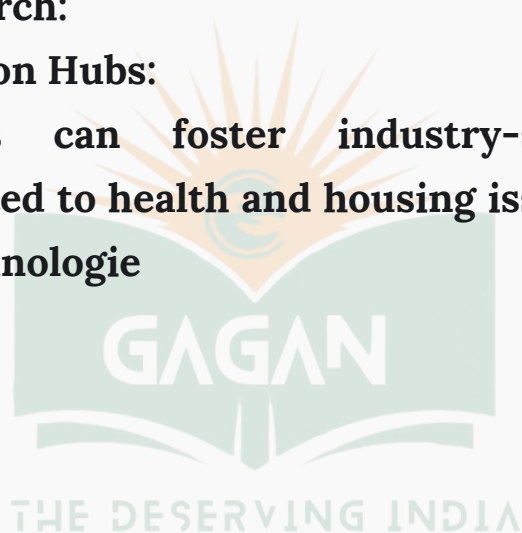
TONGA VOLCANO IMPACTING WEATHER

Why in News?

A recent study in the Journal of Climate found that the Hunga Tonga-Hunga Ha'apai Volcano eruption in January 2022 has greatly affected global weather.

What are the Effects of the Hunga-Tonga Volcano on the Climate?

Extraordinary Ozone Hole in 2023:

The underwater eruption of the Hunga Tonga-Hunga Ha'apai Volcano in January 2022 released 100-150 million tonnes of water vapor, increasing the stratosphere's water content by about 5%. This extra water vapor harms the ozone layer and acts as a strong greenhouse gas.

The study found that the large ozone hole seen from August to December 2023 was partly due to this eruption. The water vapor took almost two years to reach the polar stratosphere over Antarctica, causing the early appearance of the ozone hole.

Wet Summer of 2024 in Australia:

The study's model predicted a positive phase of the Southern Annular Mode for the summer of 2024, indicating a higher chance of a wet summer in Australia. This prediction went against the expected El Niño conditions and was made two years in advance.

Regional Weather Disruptions:

The study forecasts colder and wetter winters for northern Australia until around 2029. North America might experience warmer winters, while Scandinavia could have colder winters. These changes are linked to the Tonga eruption's effect on atmospheric waves, impacting local weather patterns. This highlights the importance of region-specific climate predictions and adaptation plans.

Minimal Impact on Global Temperatures:

The eruption's effect on global mean temperatures was very small, only about 0.015°C. The extremely high temperatures observed for about a year cannot be blamed on the Tonga eruption.

PERSONALITY RIGHTS

Why in News?

The recent conflict between a Hollywood actress and OpenAI shows how important personality rights are regarding AI models.

The actress claimed that OpenAI used her voice without permission after she had refused to license it to the company's CEO. Earlier, the New York Times sued OpenAI and Microsoft, accusing them of using its copyrighted content without permission to train AI models like ChatGPT.

What are Personality Rights?
Personality Rights
Definition:

Personality rights allow individuals to protect their identity, which falls under the broader categories of privacy and property rights. These rights cover different elements of a celebrity's public persona, such as their name, voice, signature, images, distinctive features, mannerisms, and poses.

Types:

Right to Privacy:

- Protects an individual's control over their personal information and affairs.
- Prevents unauthorized disclosure of personal details or intrusion into one's private life.
- Supported by the Supreme Court judgement in the Puttaswamy v Union Of India, 2017 case.

Right of Publicity:

- It grants individuals control over the commercial use of their name, image, likeness, or other recognizable characteristics.
- It allows them to decide if and how these aspects of their identity are used in product endorsements or advertising.

Importance:

- These rights are crucial for celebrities as their names, photos, or voices can be easily exploited by companies in advertisements to boost sales.

What is the Status of Personality Rights in India?

Legal Framework for Personality Rights in India

Overview:

While personality rights are not explicitly mentioned in Indian statutes, they are protected through principles related to privacy and property rights.

Key Legal Provisions:

Article 21 of the Indian Constitution:

- The right to privacy, enshrined in Article 21, provides legal protection for personality rights in India.

Copyright Act, 1957:

Though not directly addressing personality rights, it offers some protection through concepts like "passing off" and "deception" in Intellectual Property Rights (IPR) cases.

Passing Off: Occurs when someone misrepresents their goods or services as belonging to someone else. This can relate to personality rights if:

- A celebrity's name or image is used to endorse a product without permission, misleading the public into thinking the celebrity is associated with the product.
- A character or image similar to a well-known personality deceives the public into thinking it's the real person.

Deception: Using a person's name or likeness deceptively or misleadingly can constitute copyright infringement, especially if it harms the person's reputation.

Indian Trademarks Act, 1999:

- Section 14 restricts the use of individual names and representations without permission.

Court Judgments:

- Courts have recognized the right of publicity, allowing celebrities to protect their name, likeness, and persona from unauthorized use.
- Krishna Kishore Singh vs. Sarla A Saraogi, 2021: The Supreme Court held that the right to publicity is distinct from the right to privacy and affirmed that publicity rights are inheritable and devisable.
- Arun Jaitley vs. Network Solutions Private Limited, 2011: The Delhi High Court observed that an individual's popularity or fame is significant on the internet as well as in real life. The court stated that a name can acquire its distinctive significance.

Examples:

Jackie Shroff Case (May 2024):

- The Delhi High Court upheld Jackie Shroff's personality and publicity rights, preventing various e-commerce stores, AI chatbots, and others

- The Delhi High Court upheld Jackie Shroff's personality and publicity rights, preventing various e-commerce stores, AI chatbots, and others from using his name, image, voice, and likeness without consent.

Anil Kapoor Case (September 2023):
- The Delhi High Court restricted 16 entities from using Anil Kapoor's name, image, or likeness for commercial purposes without permission.

D.M. Entertainment Pvt. Ltd. vs. Baby Gift House, 2010:
- The Delhi High Court ruled in favor of Daler Mehndi's company, which sued shops selling dolls that mimicked Mehndi's appearance and sang his songs. The court upheld Mehndi's right to control his public image commercially.

What is the Status of AI Regulation in India?

AI Regulation in India

Current Status:

India does not have a specific regulation for artificial intelligence (AI). However, various advisories, guidelines, and IT rules provide legal supervision for the advancement of AI, Generative AI, and large language models (LLM).

Key Initiatives:

NITI Aayog's Leadership:
- In 2018, NITI Aayog released the "National Strategy for Artificial Intelligence #AIForAll." This document outlines the responsible development and deployment of AI in sectors such as healthcare, agriculture, education, and smart infrastructure.

Data Protection and Global Collaboration:

- The Digital Personal Data Protection Act (2023) empowers the government to address privacy concerns arising from AI use.
- India's membership in the Global Partnership on Artificial Intelligence (GPAI) promotes collaboration on responsible AI development, data governance, and ethical considerations.

MANY FACETS OF TRUTH

Why in News?

For thousands of years, philosophers have grappled with questions about truth—what it is, how we can know it, and whether it's the same for everyone or different depending on who you ask. This has led to a wide range of viewpoints on the idea of truth.

What are the Various Thinkers' Perspectives on Truth?

Theories of Truth

Correspondence Theory:

- Thinkers like Aristotle and Bertrand Russell argue that truth depends on how well our statements match reality. In other words, a statement is true if it accurately reflects what's happening in the external world.

- For example, saying "The grass is green" is true because it matches the fact that grass actually has the color green.
- However, this theory struggles with abstract truths like mathematical theorems that don't directly relate to physical reality.

Coherence Theory:
- Thinkers like Immanuel Kant and Friedrich Hegel propose that truth comes from the internal consistency of ideas. A statement is true if it fits with the established knowledge framework.
- Scientific theories are considered true if they're internally consistent and explain various phenomena.
- Yet, this approach can lead to closed belief systems resistant to new evidence.

Pragmatic Theory:
- Thinkers like William James and John Dewey suggest that truth depends on practical usefulness and successful outcomes.
- For instance, the theory of gravity is true because it helps predict object movements and build stable structures.
- However, this view makes truth relative to context and ignores objective facts independent of human usefulness.

Mahatma Gandhi's Quest for Truth
Divine Truth and Non-Violence:
- Gandhi saw truth as more than factual accuracy—it was the ultimate reality, God itself.
- He believed truth was evident but required removing ignorance to see clearly. He linked absolute truth with non-violence (ahimsa).
- Truth, for Gandhi, wasn't just a concept but an eternal principle, akin to God, making truth and non-violence inseparable.

The Unending Quest:

- Gandhi's pursuit of truth involved introspection, constant questioning, and accepting mistakes. He saw truth as a continuous journey of self-discovery rather than a fixed destination.

Truth in Action:

- Gandhi's dedication to truth shaped his methods of protest, leading to the concept of Satyagraha, or "truth force."
- Satyagrahis, Gandhi's followers, aimed to awaken oppressors' consciences through civil disobedience and unwavering honesty.

What are the Dilemmas and Complexity of Truth?

The Complexity of Truth

Symbolism in India's National Emblem:

- The three lions on the Ashokan pillar in India's national emblem represent three perspectives of truth: personal truth, your truth, and an observer's truth. There's also a fourth, unfathomable dimension of truth often referred to with the saying, "God only knows the truth."

Challenges for the Election Commission:

- During elections, the Election Commission of India faces challenges due to political parties using clever language to engage in caste or communal speech, making it difficult for the commission to take action.
- While the Model Code of Conduct (MCC) prohibits explicit appeals on these grounds, loopholes allow parties to make divisive statements indirectly.

The Dilemma of Truth and Deception:

- Historical and mythological narratives, such as Yudhishthira's half-truth in the Mahabharata, illustrate ethical dilemmas when truth is manipulated.

- Yudhishthira's false declaration of Ashwathama's death led to misinterpretation and contributed to Dronacharya's demise.
- This story highlights the moral complexities that arise when the truth is distorted for strategic purposes, potentially resulting in the loss of moral integrity.

Conclusion

The saying "Satyameva Jayate" is like a compass for India's democracy. But, to make it work in our daily lives, everyone must commit to acting ethically. This needs politicians and citizens to wake up to it together. Keeping truth alive in a democracy needs constant watchfulness, thinking, and sticking to the law and good values.

OPEN NETWORK FOR DIGITAL COMMERCE

Why in News?

In May 2024, the Open Network for Digital Commerce (ONDC) had its busiest month, with 8.9 million transactions. That's a big 23% increase from the previous month.

What is ONDC?

The Open Network for Digital Commerce (ONDC) is like a big network of online markets where sellers, like brands, can sell directly to buyers without any middlemen. It was started in 2021 by the Ministry of Commerce as part of Digital India. ONDC helps with delivering groceries, home stuff, food, and more.

It's not a profit-making organization and aims to help local online shops in different industries to be found easily by any app. It's kind of like UPI but for e-commerce, making things fairer for everyone.

The Quality Council of India is ensuring different online shops can join and improve this network. Here are its main goals:

- Making e-commerce fair and open for everyone.
- Helping small, local businesses join in.
- Giving more choices to buyers.
- Making things cheaper.

How it works:

- ONDC isn't just one website like Amazon or Flipkart. It's more like a hub where buyers and sellers from different websites can connect.

What are the Potential Advantages of ONDC?

- Here's a simplified version:
- Empowering Consumers:
- ONDC gives consumers more information, so they can make better choices and have more options to buy from. This might mean lower prices for them.
- Boosting Competition:
- ONDC makes the competition fairer by giving smaller sellers a chance. This encourages more sellers to join, offering a wider range of products and maybe lower prices for buyers.
- Innovation:
- ONDC's open system encourages new ideas and improvements.
- Cost Efficiency:
- ONDC's setup could make things run smoother and save money by cutting down on unnecessary steps.
- Boosting Small Businesses:
- ONDC makes it easier for small businesses to join the online market, creating a more diverse and fairer digital shopping world.

What are the Challenges to ONDC?

- Here's a simplified version:
- Complexity Factor:
- ONDC is more complex compared to user-friendly systems like UPI.

. It might not be as easy for people to use.

- **Breaking Established Habits:**

People are used to how current e-commerce sites work. ONDC needs to be easy to use to compete.

- **Dispute Resolution Concerns:**

ONDC only handles buying and selling online, not the whole transaction process. This might cause more disputes about deliveries, product quality, etc., as ONDC isn't directly involved.

- **Lack of a Robust Grievance Redressal Mechanism:**

It's not clear who's responsible for customer service on ONDC, which might make people hesitant to join.

- **Challenges from Existing E-commerce Platforms:**

Big e-commerce sites already have loyal customers and special deals. ONDC needs good plans to attract and keep customers in this tough competition.

- **Price Advantage Uncertainty:**

ONDC might be unable to control prices or offer big discounts as big players do.

- Way Forward
- Here's a simplified version:
- Enhancing Digital Infrastructure:
- The government can help ONDC by improving internet access in rural areas and promoting digital skills for everyone.
- Promoting Digital Literacy:
- Teaching people how to use ONDC in their language will help both buyers and sellers, especially small businesses. Making ONDC

use is important.

- Targeted Outreach Programs:

Special programs with enough funding are needed to get small sellers, like local shops, to join ONDC. Giving them support and incentives can help them get started.

- Dispute Resolution Framework:

Having a system to solve problems like unclear pricing or disputes between buyers and sellers is important. This will make everyone trust ONDC more.

- Conclusion
- The success of ONDC depends on teamwork between the government, businesses, and society.
- By focusing on improving internet access, teaching people digital skills, helping sellers join, and solving problems quickly, ONDC can bring fairness, openness, and more competition to online shopping in India.
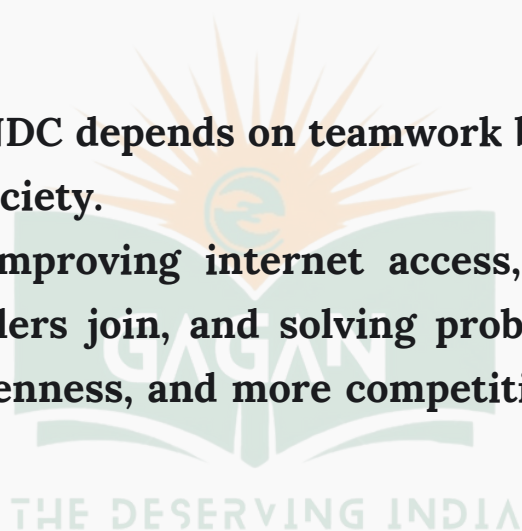
ROLE OF NUCLEAR TECHNOLOGY IN GLOBAL FOOD SAFETY

Why in News?

A recent International Symposium called "Safe Food for a Better Life," held by the Food and Agriculture Organisation (FAO) and the International Atomic Energy Agency (IAEA), talked about how nuclear technologies are crucial for making sure our food is safe.

The symposium also pointed out how nuclear technology can help in making sure we have enough food for everyone, ensuring food security.

What is the Application of Nuclear Technology on the Food Safety Standard?

Supporting the One Health Approach:

- The One Health approach sees human, animal, and environmental health as connected. Nuclear methods can detect and monitor harmful substances in food and the environment. For example, Polymerase Chain Reaction (PCR) tests, a nuclear technique, quickly identify animal diseases.

Food Irradiation:

- Using ionizing radiation, food irradiation removes harmful bacteria and pests, making food safer and last longer.

Stable Isotope Analysis:

- This nuclear method checks the origin and authenticity of food, detecting any fake products and confirming labels.

Soil and Water Management:

- Nuclear fallout helps scientists study soil erosion. Radioactive elements from nuclear events indicate soil health and erosion rates.

Pest Control:

- Techniques like the Sterile Insect Technique (SIT) use nuclear methods to control pests in agriculture, reducing the need for chemical pesticides.

Plant Breeding and Genetics:

- Nuclear technology helps develop crop varieties resistant to climate change. By exposing seeds to radiation, genetic diversity increases, aiding breeding efforts.

What is the Need for Tech-Related Advancements in Food Security?

Climate Change:

- Climate-related issues like droughts, floods, and changing temperatures can harm crop growth and food supply. That's why we need to promote climate-smart agriculture (CSA).

Food Waste:

- About one-third of the food produced globally is wasted each year, according to the FAO. This is around 1.3 billion tons. Also, in 2020, around 3.1 billion people couldn't afford a healthy diet.

around 3.1 billion people couldn't afford a healthy diet.

Increasing Population:

- The world's population is expected to reach 9.7 billion by 2050, putting a lot of pressure on food production. We need technological advancements to meet this demand.

Limited Resources:

- There's not much arable land or freshwater available. Technology like vertical farming, hydroponics, and better irrigation can help us produce more food with what we have.

What Challenges are Associated with Using Nuclear Technology for Food Safety?

Geographical and Regional Variations:

- Different regions have unique climates and farming methods, which can make it hard to use nuclear techniques everywhere. Adjusting isotopic techniques for soil and water management may need specific adaptations for different soil types, climates, and irrigation methods.

Limited Funding and Technology:

- Building facilities for food preservation and pest control using irradiation needs a lot of money, which can be hard to get due to budget limits. Also, accessing advanced techniques or specialized equipment can be tough because of high costs or technology transfer rules.

Regulatory Challenges:

- Using nuclear tech in agriculture has strict rules to ensure safety. Getting approvals and licenses can be slow and complicated. Also, issues like intellectual property rights can slow down progress.

Lack of Allied Infrastructure:

- There aren't enough labs or experts in nuclear agriculture, which limits how much we can use these techniques.

Way Forward

Developing Infrastructure and Facilities:

- Invest funds and resources to establish facilities like food irradiation centres and labs equipped for nuclear technology. These facilities can help preserve perishable food, reduce waste, and ensure food safety.

Regulatory Reforms and Streamlining Processes:

- Develop safety guidelines for handling radioactive materials in agriculture and form a regulatory body to approve and commercialize mutant crops. This will ensure safety while making the approval process smoother.

Promoting Public-Private Partnerships:

- Encourage partnerships between research institutions, private companies, and the industry to share nuclear technology. Offer incentives for companies to invest in developing and selling nuclear-based agricultural products.

International Cooperation and Knowledge Sharing:

- Work with international organizations like the Joint FAO/IAEA Centre to share knowledge and technology. Collaborating internationally can help improve nuclear agriculture practices globally.

SPECIAL MARRIAGE ACT, 1954

Why in News?

The recent decision by the Madhya Pradesh High Court regarding the marriage of a Muslim man and a Hindu woman, even though it was registered under the Special Marriage Act (SMA), has sparked widespread discussion.

The court rejected the couple's request for protection and assistance in registering their marriage, stating that it didn't align with personal laws.

A 'registered marriage' refers to a civil marriage under the SMA, conducted in a registrar's office without any religious ceremonies.

What is the Recent Judgement of the MP High Court?

The petitioners argued that since they intended to marry under the Special Marriage Act, they didn't need the Islamic Nikah ceremony. They planned to continue following their religions without the Hindu petitioner converting to Islam.

However, the High Court noted that according to Islamic law, the marriage of a Muslim man with a Hindu woman is not considered valid. Even if such a marriage is registered under the Special Marriage Act, it would still be seen as irregular.

The court stressed that personal laws take precedence over the Special Marriage Act in this situation and dismissed the couple's petition.

What is the Special Marriage Act, of 1954?

The Special Marriage Act of 1954 (SMA) allows couples to marry without changing their religion, unlike other marriage laws which may require conversion. Here's how it works:

About SMA:

- It's a law for civil marriage, where the state approves the marriage, not the religion.
- Other laws, like the Muslim Marriage Act and Hindu Marriage Act, often require one spouse to convert.
- SMA lets couples from different religions or castes marry without converting.

Who Can Apply:

- Anyone from any faith – Hindu, Muslim, Sikh, Christian, Jain, Buddhist, etc.
- Some rules like not marrying close relatives still apply.
- Minimum age for marriage: 21 for men, 18 for women.

Procedure:

- Couples need to inform the "Marriage Officer" of their district at least 30 days before.
- They and three witnesses sign a declaration.

After that, they get a "Certificate of Marriage.

Notice Period:

- The notice is kept public for 30 days.
- Anyone can object if they think the marriage breaks SMA rules.
- The Marriage Officer investigates any objections.

Concerns:

Objections: Sometimes, people object to delay or stop the marriage.

Privacy: Publishing notices can invade privacy.

Social Stigma: Couples may face discrimination for inter-caste or inter-religious marriages.

Conclusion

The recent ruling by the MP High Court emphasized the challenges faced by interfaith couples in India due to conflicts between personal laws and secular marriage laws. It highlights the need for a better understanding of legal frameworks and social dynamics related to marriage.