

Demographic Transition and Opportunity for India

For Prelims: Economic Survey, Periodic Labour Force Survey, National Family Health Surveys, Malnutrition, Massive Open Online Courses (MOOCS).

For Mains: Significance of India's Demographic Dividend, Challenges Associated with India's Demographic Dividend.

Why in News?

The world is going through a phase of <u>demographic transition</u> towards aged populations. Adaptation strategies will require governments, businesses and common people to make key adjustments.

This may usher in a great opportunity for India that is experiencing a demographic dividend.

What is the Demographic Transition and Demographic Dividend?

- A demographic shift refers to a change in the composition of a population over time.
 - This change can occur due to various factors such as changes in birth and death rates, migration patterns, and changes in social and economic conditions.
- A <u>demographic dividend</u> is a phenomenon that occurs when a country's population structure shifts from having a high proportion of dependents (children and elderly) to having a **higher** proportion of working-age adults.
 - This change in population structure can result in economic growth and development if the country invests in its human capital and creates conditions for productive employment.

What is the Significance of India's Demographic Dividend?

- About:
 - India entered the demographic dividend opportunity window in 2005-06 and will remain there till 2055-56.
 - India's median age is markedly lower than that of the US or China.
 - While the median ages of the US and China are already 38 and 39 respectively, India's median age is not expected to reach 38 until 2050.
- Challenges Associated with India's Demographic Dividend:
 - Low Female Labour Force Participation: India's labour force is constrained by the absence of women from the workforce.
 - As per **Periodic Labour Force Survey 2020- 2021,** female labour workforce participation stands at **25.1%**.
 - Environmental Degradation: India's rapid economic growth and urbanisation have led to significant environmental degradation, including <u>air pollution</u>, water pollution, and deforestation.
 - Addressing these issues is essential to ensuring sustainable economic growth.
 - High Dropout Rate: While over 95% of India's children attend primary school, the National Family Health Surveys confirm that poor infrastructure in government

- **schools,** malnutrition, and scarcity of trained teachers have resulted in poor learning outcomes and high dropout ratios.
- Lack of Employment Opportunities: With a large and growing working-age population,
 Indian job market is not able to generate enough jobs to meet the demands of this expanding workforce.
 - This has resulted in high rates of underemployment and unemployment.
- Lack of Adequate Infrastructure: Poor infrastructure, including inadequate education and health facilities, transportation, power, and communication network, makes it challenging for people to access basic services and employment opportunities, particularly in rural areas.
- Brain Drain: India has a large pool of highly skilled and talented professionals, but many of them choose to leave the country in search of better job opportunities and living conditions abroad.
 - This brain drain is a significant loss for India, as it results in a shortage of skilled workers and limits the country's ability to fully leverage its demographic dividend.

How India can Utilise its Demographic Dividend?

- Gender Equality: India needs to address gender inequality in education and employment, including improving access to education and employment opportunities for women.
 - Women's participation in the workforce can increase economic growth and lead to a more inclusive society.
- Raising Education Standards: In both rural and urban settings, the public school system must ensure that every child completes high school and goes on to skilling, training, and vocational education.
 - The modernization of school curricula along with the implementation of <u>Massive Open</u>
 Online Courses (MOOCS) and the establishment of open digital universities will further contribute to India's qualified workforce.
- Encouraging Entrepreneurship: India needs to encourage entrepreneurship and innovation, particularly among the youth, to create job opportunities and contribute to economic growth.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Prelims

Q1. In the context of any country, which one of the following would be considered as part of its social capital? (2019)

- (a) The proportion of literates in the population
- **(b)** The stock of its buildings, other infrastructure and machines
- (c) The size of population in the working age group
- (d) The level of mutual trust and harmony in the society

Ans: (d)

Q2. India is regarded as a country with "Demographic Dividend". This is due to (2011)

- (a) Its high population in the age group below 15 years
- **(b)** Its high population in the age group of 15-64 year
- (c) Its high population in the age group above 65 years
- (d) Its high total population

Ans: (b)

<u>Mains</u>

- **Q1.** Discuss the main objectives of Population Education and point out the measures to achieve them in India in detail. **(2021)**
- Q2. "Empowering women is the key to control the population growth." Discuss. (2019)
- **Q3.** Critically examine whether growing population is the cause of poverty or poverty is the main cause of population increase in India. **(2015)**

Source: HT

Sealed Cover Jurisprudence

Prelims: Sealed Cover Jurisprudence, Supreme Court, Indian Evidence Act of 1872, Short Selling

Mains: Sealed Cover Jurisprudence, Related Issues and Way Forward

Why in News?

Recently, the <u>Supreme Court (SC)</u> has rejected a "Sealed Cover" suggestion from the Government pertaining to the **Adani-Hindenburg issue.**

The Centre Government had earlier proposed the names of members of the committee to assess the market regulatory framework and recommend measures related to the Adani-Hindenburg issue.

Vision

 But the SC refused to accept any suggestions on names in Sealed Cover in order to maintain transparency.

Note

- Hindenburg Research has alleged that the Adani Group was "engaged in a stock manipulation and accounting fraud".
- Hindenburg is a US-based investment research firm that specializes in activist Short-Selling.

What is Sealed Cover Jurisprudence?

- About:
 - Sealed Cover Jurisprudence (SCJ) is a legal concept that refers to the practice of presenting sensitive or confidential information to a court or tribunal in a sealed envelope or cover, to be opened and reviewed only by the judge or judges in charge of the case.
 - Even though there is no specific law to define the idea of sealed cover, the SC derives its power to use it from Rule 7 of order XIII of the Supreme Court Rules 2013 and Section 123 of the Indian Evidence Act of 1872.
 - The Court can ask for information in a sealed cover in broadly two circumstances:

- When information is connected to an ongoing investigation,
- When it involves personal or confidential information whose disclosure may result in violation of an individual's privacy or breach of trust.

Rule 7 of order XIII of the Supreme Court Rules:

- If the Chief Justice or the Court directs certain information to be kept under sealed cover or considers it of confidential nature, no party would be allowed access to the contents of such information, except if the Chief Justice himself orders that the opposite party be allowed to access it.
- The information can be kept confidential if its publication is not considered to be in the interest of the public.

Section 123 of the Indian Evidence Act of 1872:

- Official unpublished documents relating to state affairs are protected and a public officer cannot be compelled to disclose such documents.
- Other instances where information may be sought in secrecy or confidence are when its
 publication impedes an ongoing investigation, such as details which are part of a
 police case diary.

What are the Issues Related to Sealed Cover Jurisprudence?

Lack of Transparency:

- Sealed cover jurisprudence can limit transparency and accountability in the legal process, as the evidence or arguments presented in the sealed cover are not available to the public or other parties.
- It stands against the idea of an open court, where decisions can be subjected to public scrutiny.

Disparate Access:

The use of sealed cover jurisprudence can create an unequal playing field, as the
parties who have access to the information in the sealed cover may have an advantage
over those who do not.

Limited Opportunity to Respond:

 The parties who are not privy to the information in the sealed cover may not have the opportunity to respond to or challenge the evidence or arguments presented in it, which can undermine their ability to present their case effectively.

Risk of Abuse:

 Sealed cover jurisprudence can be abused by parties who seek to conceal information that is not legitimately confidential, or who use it to gain an unfair advantage in the legal process.

Interference with Fair Trial:

The use of sealed cover jurisprudence can interfere with the right to a fair trial, as the
parties may not have access to all the
in the decision-making process.

Arbitrary Nature:

 Sealed covers are dependent on individual judges looking to substantiate a point in a particular case rather than common practice. This makes the practice ad-hoc and arbitrary.

What are SC's Observations over Sealed Cover Jurisprudence?

■ P. Gopalakrishnan vs The State of Kerala case (2019):

 The SC held that disclosure of documents to the accused is constitutionally mandated, even if the investigation is ongoing and documents may lead to a breakthrough in the investigation.

INX Media case (2019):

- The Supreme Court had criticised the Delhi High Court for basing its decision to deny bail to a former Union Minister on documents submitted by the <u>Enforcement Directorate (ED)</u> in a sealed cover.
- $\circ\,$ It held the action as against the concept of fair trial.

• Cdr Amit Kumar Sharma v Union of India case (2022):

• The SC said, "the non-disclosure of relevant material to the affected party and its

disclosure in a sealed cover to the adjudicating authority...sets a dangerous precedent. The disclosure of relevant material to the adjudicating authority in a sealed cover makes the process of adjudication vague and opaque".

Way Forward

- The use of Sealed Cover Jurisprudence must be carefully balanced with the principles of due process, fair trial, and open justice, and be justified and proportionate to the specific circumstances of the case.
- Courts and tribunals should also ensure that the parties who are not privy to the information in the sealed cover are given a fair opportunity to present their case and challenge the evidence or arguments presented in it.

Source: TH

REAIM 2023

Prelims: REAIM 2023, Artificial Intelligence, Responsible AI.

Mains: REAIM 2023, Pros and Cons of using AI in military, Ethical Principles for AI

Why in News?

Recently, the world's First International Summit on the **Responsible Use of** <u>Artificial intelligence</u> **in the Military (REAIM 2023)** was held in the Hague, Netherlands.

The Vi

What are the Key Highlights of the Summit?

Themes:

- Mythbusting Al: Breaking Down the Characteristics of Al
- Responsible deployment and use of Al
- Governance frameworks

Objectives:

- Putting the topic of 'responsible AI in the military domain' higher on the political agenda;
- Mobilising and activating a wide group of stakeholders to contribute to concrete next steps;
- Fostering and increasing knowledge by sharing experiences, best practices and solutions.

Participants:

- The conference, co-hosted by South Korea, hosted 80 government delegations (including those from the US and China), and over 100s of researchers and defense contractors.
 - India was not a participant in the summit.
- REAIM 2023 brought together governments, corporations, academia, startups, and civil societies to raise awareness, discuss issues, and possibly, agree on common principles in deploying and using AI in armed conflicts.

Call on Action:

 Appealed to the multi-stakeholder community to build common standards to mitigate risks arising from the use of AI.

- The US called for the responsible use of artificial intelligence (AI) in the military domain and proposed a declaration which would include 'human accountability'.
- The proposal said Al-weapons systems should involve "appropriate levels of human judgment".
 - The US and China signed the declaration alongside more than 60 nations.

Opportunities and Concerns:

- Artificial intelligence is bringing about fundamental changes to our world, including in the military domain.
- While the integration of AI technologies creates unprecedented opportunities to boost human capabilities, especially in terms of decision-making, it also raises significant legal, security-related and ethical concerns in areas like transparency, reliability, predictability, accountability and bias.
- These concerns are amplified in the high-risk military context.

Explainability in AI as a Solution:

- To remove bias from AI systems, researchers have resorted to 'explainability'.
- Explainable Al seeks to address the lack of information around how decisions are made.
- This in turn will help **remove biases and make the algorithm fairer.** But, in the end, the call to make a **final decision will rest with a human** in the loop.

How can a Responsible AI be Ensured Aligning with Ethical Principles?

- Ethical Guidelines for AI Development and Deployment:
 - It can help ensure that developers and organizations are working towards the same ethical standards and that AI systems are designed with ethical considerations in mind.
- Implement Accountability Mechanisms:
 - Developers and Organizations should be held accountable for the impact of their Al systems.
 - It can include establishing clear lines of responsibility and liability, as well as creating reporting mechanisms for any incidents or issues that arise.

Foster Transparency:

- Al systems should be **transparent in terms of how they make decisions** and what data they use to do so.
- It helps ensure that Al systems are fair and not biased towards certain groups or individuals.

Protect Privacy:

- Organizations should take steps to protect the privacy of individuals whose data is used by AI systems.
 - It can **include using anonymized data**, **obtaining consent from individuals**, and establishing clear data protection policies.

Involve Diverse Stakeholders:

- It is important to involve a **diverse range of stakeholders in the development and deployment** of AI, including individuals from different backgrounds and perspectives.
- It will help ensure that AI systems are designed with the needs and concerns of different groups in mind.

Conduct Regular Ethical Audits:

 Organizations should conduct regular audits of their AI systems to ensure that they are aligned with ethical principles and values. This can help identify any issues or areas for improvement and ensure that AI systems continue to operate in an ethical and responsible manner.

Source: TH

Payment Aggregators

Prelims: RBI, Payment and Settlement Systems Act, 2007, Payment Gateway.

Mains: Payment Aggregators.

Why in News?

Recently, the **Reserve Bank of India (RBI)** has given in-principle approval to 32 firms to operate as Online Payment Aggregators (PA), under the Payment and Settlement Systems Act, 2007 (PSS Act).

 The PSS Act, 2007 provides for the regulation and supervision of payment systems in India and designates the RBI as the authority for that purpose and all related matters.

Note

In principle approval means that an approval has been granted based on certain conditions or assumptions, but that additional information or steps may be required before final approval is given. The Visio

What is a Payment Aggregator?

About:

- Online payment aggregators are companies that facilitate online payments by acting as intermediaries between the customer and the merchant.
 - The RBI introduced <u>Guidelines for Regulating PAs</u> and Payment Gateway in March 2020.

Functions:

- They typically provide a range of payment options to customers, including credit and debit cards, bank transfers, and e-wallets.
- Payment aggregators collect and process payment information, ensuring that transactions are secure and reliable.
- By using a payment aggregator, businesses can avoid the need to set up and manage their own payment processing systems, which can be complex and
 - Some examples of payment aggregators include PayPal, Stripe, Square, and Amazon Pay.

Key Features:

- Multiple Payment Options: Payment aggregators offer a range of payment options to customers, making it easier for them to pay for goods and services.
- Secure Payment Processing: Payment aggregators use advanced security measures to ensure that transactions are safe and secure.
- Fraud Detection and Prevention: Payment aggregators use algorithms and machine learning to detect and prevent fraud, reducing the risk of chargebacks and other payment disputes.
- Payment Tracking and Reporting: Payment aggregators provide detailed reports on payment transactions, making it easier for businesses to manage their finances and reconcile their accounts.
- Integration with Other Systems: Payment aggregators can integrate with a range of other systems, such as accounting software and inventory management systems, to

streamline the payment process and make it easier to manage business operations.

Types:

- Bank Payment Aggregators:
 - They involve high setup costs and are difficult to integrate.
 - They lack many of the popular payment options along with detailed reporting features. Because of the **high cost, bank payment aggregators are not suitable for small businesses** and startups.
 - e.g.; Razorpay and CCAvenue.
- Third-Party Payment Aggregators:
 - Third-party PAs offer innovative payment solutions to businesses and have become more popular these days.
 - Their user-friendly features include **a comprehensive dashboard**, easy merchant onboarding, and quick customer support.
 - e.g.; PayPal, Stripe and Google Pay.
- RBI's Criteria for Approving an Entity as Payment Aggregator:
 - Under the payment aggregator framework, only firms approved by the RBI can acquire and offer payment services to merchants.
 - A company applying for aggregator authorisation must have a minimum net worth of Rs 15 crore in the first year of application, and at least Rs 25 crore by the second year.
 - It must also be compliant with **global payment security standards.**

How is the Payment Aggregator different from Payment Gateway?

- A payment gateway is a software application that connects an online store or merchant to a payment processor, allowing the merchant to accept payment from a customer.
 - Payment aggregators, on the other hand, are intermediaries that provide a single platform to connect multiple merchants to different payment processors.
- The main difference between a payment aggregator and payment gateway is that the former handles funds while the latter provides technology.
- Payment aggregators can offer a payment gateway, but vice versa is not true.

What are RBI's Other Initiatives to Regulate Fintech Firms?

- RBI's Fintech Regulatory Sandbox:
 - Established in 2018 with the primary objective of being a controlled regulatory environment for testing fintech products.
- Payment System Operators license:
 - This initiative was brought in in order to scrutinize the ever-expanding payments landscape in India.
- Digital Lending Norms:
 - All digital loans must be disbursed and repaid through bank accounts of regulated entities only, without the pass-through of lending service providers (LSPs)
- RBI's Payment Vision 2025:
 - It aims to elevate the payment systems towards a realm of empowering users with affordable payment options accessible anytime and anywhere with convenience.
 - It builds on the initiatives of <u>Payments Vision 2019-21.</u>
- RBI's upcoming White-List:
 - The RBI has prepared a "white-list" of digital lending apps (List of Approved Lenders) in order to curb rising malpractices in the digital lending ecosystem.

Source: IE

Special Marriage Act, 1954

For Prelims: Special Marriage Act 1954, UK's Marriage Act of 1949, Inheritance rights, Muslim Marriage Act, 1954, Hindu Marriage Act 1955.

For Mains: Basic Provisions of Special Marriage Act, Issues Related to SMA.

Why in News?

In India, the secular personal law - **Special Marriage Act (SMA) 1954**, provides an alternate route to religious laws for **marriage to interfaith couples**.

What is the Special Marriage Act 1954?

- About:
 - The Special Marriage Act (SMA), 1954 is an Indian law that provides a legal framework for the marriage of people belonging to different religions or castes.
 - It governs a civil marriage where the state sanctions the marriage rather than the religion.
 - The Indian system, where both civil and religious marriages are recognised, is similar to the laws in the **UK's Marriage Act of 1949.**
- Basic Provisions:
 - Applicability:
 - The applicability of the Act extends to the people of all faiths, including **Hindus**, **Muslims**, **Sikhs**, **Christians**, **Sikhs**, **Jains**, **and Buddhists**, across India.
 - Recognition of Marriage:
 - The Act provides for the registration of marriages, which gives legal recognition to the marriage and provides a number of legal benefits and protections to the couple, such as inheritance rights, succession rights, and social security benefits.
 - It forbids polygamy and declares a marriage null and void if either party had a spouse living at the time of the marriage or if either of them is incapable of giving a valid consent to the marriage due to unsoundness of mind.
 - Written Notice:
 - Section 5 of the Act specifies that the parties must give written notice to the Marriage Officer of the District and that at least one of the parties must have lived in the district for at least 30 days immediately before the date of such notification.
 - **Section 7** of the Act allows any person to object to the marriage before the expiration of **30 days from the date of the notice's publication.**
 - Age Limit:
 - The minimum age to get married under the SMA is 21 years for males and 18 years for females.
- Differentiation from Personal Laws:
 - Personal laws, such as the <u>Muslim Marriage Act</u>, <u>1954</u>, and the <u>Hindu Marriage Act</u>, <u>1955</u>, require either spouse to convert to the religion of the other before marriage.
 - However, the SMA enables marriage between inter-faith or inter-caste couples without them giving up their religious identity or resorting to conversion.
 - But, once married as per the **SMA**, an individual is deemed **severed from the family** in terms of rights like the **right to inheritance**.
- Issues Related to SMA:

- **Objections to Marriage:** One of the main issues with the Special Marriage Act is the provision for **objections to be raised against marriage.**
 - This **can often be used to harass consenting couples** and delay or prevent their marriage from taking place.
 - In January 2021, the Allahabad HC ruled that couples who wish to solemnise their marriage under the Special Marriage Act can choose **not to publish the mandatory 30-day notice of their intention to marry.**
- Privacy Concerns: The requirement for notices to be published can also be seen as a
 violation of privacy, as it can disclose the personal information of the couple and their
 plans to get married.
- Social Stigma: Inter-caste or inter-religious marriages are still not widely accepted in many parts of India, and couples who choose to get married under the SMA may face social stigma and discrimination from their families and communities.

Way Forward

- Streamlining the Process: The government could work to simplify and streamline the process to make it easier for couples to get married under this law.
 - Also, the requirement for a 30-day notice period has been a contentious issue, as it can lead to interference or harassment from third parties.
 - The government could consider removing this requirement or making it optional in certain cases.
- Raising Awareness: Many people in India are not aware of the provisions of the Special Marriage
 Act or may not know that they have the option to marry someone from a different
 religion or caste under this law.
 - The government could work to raise awareness about this law and its benefits, especially in rural areas where awareness is low.

Source: IE

Income Tax Dept Surveys BBC

Why in News?

Recently, the <u>Income Tax (I-T) Department</u> conducted surveys at the premises of the **British Broadcasting Corporation (BBC)** in Delhi and Mumbai.

Which Laws Confer Authority on the I-T Department to Conduct Surveys?

- The Income Tax Department is conducting surveys at BBC offices using **Section 133A of the** Income Tax Act, 1961, which allows authorised officers to enter any business, profession, or charitable activity within their jurisdiction to collect hidden information.
 - This provision was added to the **Act through an amendment in 1964.**
- During the survey, the officers can verify the books of account or other documents, cash, stock, or other valuable articles or things. The officers may impound and retain any books of account or other documents after recording reasons for doing so.
 - The provisions for impounding or seizing goods were introduced in the Finance Act,
 2002.

What is the Difference Between Search and Survey Under I-T Act?

Search and survey are often used interchangeably, but they denote different things and have

different consequences.

- Search, defined under Section 132, can take place anywhere within the jurisdiction of the authorised officer, and it's a more serious proceeding than a survey.
 - A survey under Section 133A (1) can only be conducted within the limits of the area assigned to the officer or at any place occupied by a person under the officer's jurisdiction where a business or profession is carried out.
- Surveys are conducted only during working hours on business days, whereas a search can happen on any day after sunrise and continue until the procedures are completed.
- The scope of a survey is limited to the inspection of books and verification of cash and inventory, while in a search, the entire premises can be inspected to discover undisclosed assets, with the help of police.
 - The consequences of a search are more severe, and the penalties are steeper than in a survey.

Source: IE

Pangolin

Why in News?

A new report by **TRAFFIC** and **World Wide Fund for Nature-India** revealed that 1,203 pangolins were poached for illegal wildlife trade in India from 2018-2022.

 These were recovered in 342 seizure incidents across 24 states and one Union territory of India. The highest number of seizure incidents and pangolins seized were in Odisha.

What are the Characteristics of Pangolin?

- About:
 - Pangolins are nocturnal mammals that dig burrows and feed on ants and termites, and play a vital role in <u>ecosystem management</u>, mostly in aerating and adding moisture to the soil.
 - Pangolins are known for their unique appearance. They have scales made of keratin that cover their entire body.
 - When threatened, they can roll into a ball to protect themselves.



- Pangolin Species: There are eight species of pangolin:
 - 4 Species in Africa: Black-bellied pangolin, White-bellied pangolin, Giant Ground pangolin and Temminck's Ground pangolin.
 - 4 Species in Asia: Indian pangolin, Philippine pangolin, Sunda pangolin and the Chinese pangolin.

Habitat:

- It is adaptable to a wide range of habitats including **primary and secondary** tropical forests, limestone and bamboo forests, grasslands and agricultural fields.
- The Indian Pangolin is found across the Indian subcontinent; Bihar, West Bengal, and Assam also have the presence of Chinese pangolin.

Threats:

- Once known to be found in large numbers, its population is rapidly declining in its range due to habitat loss and rampant poaching for its skin, scales, and meat.
- Pangolins are among the most trafficked wild mammals, globally, traded mostly in Asia, where their scales are considered to be medicinal and their meat a delicacy.

Protection Status:

- In the red list of animals published by the <u>International Union for Conservation of</u>
 <u>Nature (IUCN)</u>, Indian Pangolin is listed in the **Endangered (EN) category.**
 - The Chinese pangolin has been listed as "critically endangered".
- In India, pangolins, both Indian and Chinese, are protected under Schedule 1 of the <u>Wildlife (Protection) Act 1972</u> that prohibits its hunting, trade or any other form of utilisation.
- All pangolin species are listed in <u>Convention on International Trade in Endangered Species (CITES)</u>
 Appendix I.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. Consider the following animals (2021):

- 1. Hedgehog
- 2. Marmot
- 3. Pangolin

To reduce the chance of being captured by predators which of the above organisms rolls up/roll up and protects/ protects its/their vulnerable parts?

- (a) 1 and 2
- **(b)** 2 only
- (c) 3 only
- (d) 1 and 3

Ans: (d)

Source: DTE

Rapid Fire Current Affairs

Aero India 2023

Aero India 2023 was Organised at Air Force Station, Yelahanka, Bengaluru from 13th Feb-17th Feb, 2023. The event was the biggest-ever till date and witnessed the participation of 98 countries, according to the Ministry of Defence.

This year's theme is 'The runway to a billion opportunities' and the focus is on showcasing India's growth in aerospace and defense capabilities.

Events included **Defence Ministers' Conclave**, a **CEOs Round Table**, **Manthan start-up event**, and **Bandhan ceremony (for forging and renewing partnerships between business entities)**, **Air show** (open to the public) with aerial displays being the highlight.

MoUs included the ones between Gopalan Aerospace India Private Limited and Omnipol of Czech Republic for manufacturing and assembling 1st passenger aircraft by a private company in India.

Read More: Aero India 2023.

What are Volatiles?

Volatiles are elements or compounds that change from solid or liquid state into vapour at relatively low temperatures. The most common volatiles are carbon dioxide, nitrogen, ammonia, hydrogen, methane, sulphur dioxide and water.

New research suggests that some of the well-known volatiles may have come from beyond inner solar system such as zinc, a volatile, has come from asteroids originating in the outer Solar System beyond the asteroid belt.

Without contribution of outer Solar System material, the Earth would have had fewer concentrations of volatiles, making the planet drier and potentially unable to nourish and sustain life.

Material with a high concentration of zinc and other volatile constituents is also likely to be rich in water, giving clues about the origin of Earth's water.

In a recent study, the researchers examined meteorites from the inner Solar System, known as non-carbonaceous meteorites, and from the outer Solar System, known as carbonaceous

meteorites.

While the Earth only incorporated about ten percent of its mass from carbonaceous bodies, this material supplied about half of Earth's zinc.

The Japanese Archipelago now has Double the Islands from 1987



The Japanese archipelago, that lies just off the coast of Eurasia, now has **14,125 islands, which is double from 6,852**, the official figure of 1987.

The survey used the definition of 'island' as defined by the United Nations Convention on the Law of the Sea. It states that an island is a "naturally formed area of land, surrounded by water, which is above water at high tide."

Survey selected only those islands with Circumference of 100 meters or greater.

The reason behind the increase in the number of islands may be tectonic plate movement, 2011

Tohoku Earthquake in Japan (could have removed or added small islands) or small pieces of land just above the waterline can show up as islands when one takes an electronic photograph from a satellite.

With sea levels going up, many islands will disappear in due course of time.

Japan is the fourth-largest island nation globally. However, Japan's population is concentrated on four islands known as the 'Home Islands' -Honshu, Hokkaido, Kyushu and Shikoku.

Read More: Kuril Islands.

Lavani Folk dance



Recently, Several Senior performers of Lavani have called for ban on vulgar performances, in the name of Lavani.

Lavani is a **traditional folk-art** form of Maharashtra in which **women dancers wearing nine-yard-long sarees in bright colours, make-up, and ghunghroos perform on dholak beats** on a stage before a live audience. The word Lavani comes from **'lavanya' or beauty.**

It attained **popularity in the Peshwa era** in the 18th century. Traditionally, performances were **held in front of kings or lords,** and for the **entertainment of tired soldiers** resting during breaks in fighting.

State-wise	
Famous Folk	
dances of India	
State of Origin	List of Folk Dances in India
Andhra Pradesh	Vilasini Natyam, Bhamakalpam, Veeranatyam, Kolattam
Arunachal	Buiya, Chalo, Wancho, Ponung, Popir
Pradesh	
Assam	Bihu, Bichhua, Natpuja, Maharas, Kaligopal, Bagurumba, Naga
	dance, Khel Gopal
Bihar	Jata-Jattin, Jhijhiya
Chhattisgarh	Gaur Maria, Raut Nacha, <mark>Vedama</mark> ti, Kapalik
Gujarat	Garba, Dandiya Raas, <mark>Bhava</mark> i
Goa	Tarangamel, Koli, Fugdi, Samayi nrutya
Haryana	Jhumar, Phag <mark>, Daph</mark>
Himachal	Jhora, Jh <mark>ali, Dham</mark> an, Chhapeli
Pradesh	
Jammu &	Rauf, Kud Dandi Nach
Kashmir	
Jharkhand	Agni, Jhumar, Janani Jhumar, Paika, Phagua
Karnataka	Yakshagana, Huttari, Karga
Kerala	Ottam Thullal, Kaikottikali
Maharashtra	Lavani, Nakata, Koli, Lezim, Gafa, Dahikala Dasavtar
Madhya Pradesh	Jawara, Matki, Aada, Khada Nach, Phulpati, Selalarki,
	Selabhadoni
Manipur	Dol Cholam, Thang Ta, Lai Haraoba, Pung Cholom
Meghalaya	Nongkrem, Laho
Mizoram	Cheraw Dance, Khuallam, Chailam, Zangtalam
Nagaland	Rangma, Zeliang, Bamboo dance
Odisha	Savari, Ghumara, Painka,

Punjab	Bhangra, Giddha, Daff, Dhaman, Bhand
Rajasthan	Ghumar, Chakri, Ganagor, Jhulan Leela, Jhuma
Sikkim	Singhi Chaam or the Snow Lion, Yak Chaam
Tamil Nadu	Kumi, Kolattam, Kavadi
Tripura	Hojagiri
Uttar Pradesh	Nautanki, Raslila, Kajri, Jhora, Chappeli
Uttarakhand	Garhwali, Kumayuni, Kajari, Jhora, Raslila

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