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Current Affairs - 20 September 2024

AMAZON RIVER



The Amazon River basin is experiencing an unprecedented drought, with water levels plummeting to historic lows across the region.

Amazon River is the world's largest river by water volume and width and the second-longest river in the world after the Nile.

- **Course:** Its journey begins high in the Andes Mountains and empties into the Atlantic Ocean on the northeastern coast of Brazil.
 - **River basin:**
 - It has the largest drainage area of any river system.
 - Its watershed spans the countries of **Brazil, Peru, Ecuador, Colombia, Venezuela, and Bolivia.**
 - Roughly two-thirds of the Amazon's main stream and by far the largest portion of its basin are within Brazil.
 - The river's size changes with the seasons. In the dry season, it spans 4 to 5 km in width, but during the wet season, this can swell to 50 km.
 - **Tributaries:** Notable tributaries include the Rio Negro, the Madeira River, and the Xingu River, among many others.
 - The Amazon Rainforest, which represents about half of the Earth's remaining rainforest, also constitutes its single largest reserve of biological resources.
 - It is sometimes referred to as the "lungs of the Earth" due to its role in regulating the planet's oxygen and carbon cycles.
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WHAT IS A 'MINI-MOON'?

According to a new study, the Earth's gravitational field will temporarily capture a small asteroid named 2024 PT5 which will behave as a 'mini moon'.



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Mini-moons are asteroids that fail to escape Earth's gravity and end up orbiting the planet for some time.



- They are usually **very small and hard** to detect — only four mini-moons of Earth have ever been discovered, and none are still orbiting Earth.

- These events are relatively frequent, with similar occurrences happening every few decades.

How does Earth capture Mini Moons?

- Mini moons are captured from the **Near-Earth Object (NEO)** population, which consists of asteroids and other celestial bodies that pass close to Earth.
- NASA classifies any space object that comes **within 120 million miles** (190 million kilometers) of our planet as a **near-Earth object**, while objects within 4.7 million miles (7.5 million kilometers) are considered potentially hazardous.

Key facts about 2024 PT5

- It is an **Apollo-class NEO**, which follows an orbit similar to that of previous mini moons like 2022 NX1.
- The asteroid was discovered with the help of the **NASA-funded Asteroid Terrestrial-impact Last Alert System (ATLAS)**.
- It is estimated to be just 33 feet long and is too small to be visible to the naked eye or through typical amateur telescopes.
- It is within the brightness range of telescopes used by professional astronomers.

Significance: The observations of 2024 PT5 will help scientists **expand the knowledge of asteroids** that pass close to the Earth and those that sometimes collide with it.



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WHAT IS THE FINANCIAL ACTION TASK FORCE (FATF)?



- FATF is an **intergovernmental policy-making and standard-setting body** dedicated to **combating money laundering and terrorist financing**.
- **Objective:** To establish international standards, and to develop and promote policies, both at national and international levels, to combat money laundering and the financing of terrorism.
- **Origin:**
 - It was established in **1989 during the G7 Summit** in Paris to develop policies against money laundering.
 - In 2001, its mandate expanded to include terrorism financing.
- **Headquarters: Paris, France.**
- **Members:**
 - To become a member, a **country must be considered strategically important** (large population, large GDP, developed banking and insurance sector, etc.), must adhere to globally accepted financial standards, and be a participant in other important international organizations.
 - FATF members include **39 countries**, including the **United States, India, China**, Saudi Arabia, Britain, Germany, France, and the EU as such.
 - India became a member of FATF in 2010.
- The FATF **researches how money is laundered** and terrorism is funded, **promotes global standards** to mitigate the risks, and **assesses whether countries are taking effective action**.
- Once a **member, a country or organization must endorse** and support the most recent **FATF recommendations, commit to being evaluated** by (and evaluating) other members.



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- The **FATF holds countries to account** that do not comply with the FATF Standards.
- **If a country repeatedly fails to implement FATF Standards**, then it can be named a Jurisdiction under Increased Monitoring or a High-Risk Jurisdiction. These are often externally referred to as “**the grey and black lists**”.

What are FATF 'grey list' and 'blacklist'?

- **Black List:** Countries known as **Non-Cooperative Countries or Territories (NCCTs)** are put on the blacklist. These countries **support terror funding and money laundering**. The FATF revises the blacklist regularly, adding or deleting entries.
- **Grey List:** Countries that are considered a **safe haven for supporting terror funding and money laundering** are put on the FATF grey list. This inclusion **serves as a warning** to the country that it may enter the blacklist.
- Three countries-**North Korea, Iran, and Myanmar** are **currently in FATF’s blacklist**.
- **Consequences of being on the FATF blacklist:**
 - **No financial aid** is given to them by **the International Monetary Fund (IMF)**, the World Bank, the Asian Development Bank (**ADB**), and the European Union (**EU**).
 - They also face a number of **international economic and financial restrictions** and sanctions.
- FATF **regularly publishes reports** that raise awareness about the latest money laundering, terrorist financing and proliferation financing techniques so that countries and the private sector can take the necessary steps to mitigate these risks.



[VIVAD SE VISHWAS SCHEME 2024 \(VSV 2.0\)](#)

The scheme aims to **reduce ongoing litigations related to income tax**.

- VSV 2.0 will **enable taxpayers and the Income Tax Department to resolve disputes** through a streamlined appeals process.



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- It will provide a mechanism for **filing appeals across various appellate forums**, including the **Joint Commissioner of Income-tax (Appeals)**, the **Income Tax Appellate Tribunal (ITAT)**, and **higher courts**.
- The scheme covers **appeals, writ petitions, and special leave petitions pending** as of July 22, 2024, and will **waive penalties and interest for settlements**, ensuring **no prosecution will be initiated for cases resolved** under the scheme.
- The scheme also covers cases with objections filed before the Dispute Resolution Panel (DRP) where no final assessment order has been issued and pending revision applications before the Commissioner.
- However, **certain cases are excluded** from eligibility, including **those involving searches, prosecutions, and undisclosed foreign income**.
- **Taxpayers under specific legal restrictions or serious offenses** will also **not benefit from the scheme**.
- The primary goal of VSV 2.0 is to provide a **cost-effective mechanism** for settling disputed issues, thereby alleviating the burden of litigation on taxpayers and the judicial system.

WHAT IS WHITE REVOLUTION 2.0?



- It is a comprehensive initiative aimed at **empowering women farmers** and creating job opportunities.
- The programme focuses on **four key areas**:
 - Empowering women farmers
 - **Enhancing local milk production**
 - **Strengthening dairy infrastructure**
 - **Boosting dairy exports.**
- Under White Revolution 2.0, the government **aims to increase milk procurement by dairy cooperative societies by 50 percent over the next five years** by providing market

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access to dairy farmers in uncovered villages/panchayats and increasing the share of the organized sector in milk procurement.

- The plan involves **setting up and strengthening 100,000 new and existing district cooperative societies**, multi-purpose district cooperative societies, and **multi-purpose Primary Agricultural Credit Societies (M-PACS)**, which will be **linked to milk routes** with necessary infrastructure.
- **Providing enabling infrastructure** AMCU (Automatic Milk Collection Unit), DPMCU (Data Processing Milk Collection Units), testing equipment, Bulk Milk Coolers, etc., will be the key component of the initiative for carrying out dairy activities.
- **Initially, the National Dairy Development Board (NDDB) will fund the initiative** from its own resources, providing Rs 40,000 per M-PACS to 1,000 M-PACS.
- **Future funding is expected from the proposed National Programme for Dairy Development 2.0 scheme** of the department animal husbandry and dairying (DAHD).

FOOD PROCESSING SECTOR REFORMS IN LAST 10 YEARS

- **The 1st edition of the WFI** was launched by the **Ministry of Food Processing Industries (MoFPI)** in 2017, with the objective of
 - Introducing the world to rich Indian food culture.
 - As well as promoting investments in the diverse food processing sector of the country.
- In view of celebrating **2023 as the International Year of Millets** and to bring the global food processing industry together, the MoFPI organised the **2nd** edition WFI in 2023.
- **The 3rd edition** of the WFI 2024 will be organised from 19th to 22nd September 2024.

Food Processing Sector in India:

- Food processing in India - '**A Sunrise sector**' - has an **essential role in linking Indian farmers to consumers** in the domestic and international markets.



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- **Major sectors** constituting the food processing industry in India are processed fruits and vegetables, ready-to-eat/cook (RTE/RTC), mozzarella cheese, processed marine products, edible oils, beverages, and dairy products.
- The sector has grown substantially, averaging an annual growth rate of **around 7.3%**, during 2015-2022.
- The industry has a share of **12.22% in the employment generated** in all Registered Factory sectors engaging **approximately 2.03 million people**.
- **Unregistered food processing sector** supports employment to 5.1 million workers, constituting 14.18% of employment in the unregistered manufacturing sector.
- **Growth drivers:**
 - **Agri-commodity hub:**
 - Due to its **diverse agro-climatic conditions**, it has a wide-ranging and large raw material base suitable for food processing industries.
 - India has **access to several natural resources** that provides it with a competitive advantage in the food processing sector.
 - India is the **largest producer of milk and spices** and one of the leading producers of fruits and vegetables, poultry, and meat.
 - **Huge consumer base; strong economy; conducive policies; One District, One Product (ODOP); etc.**
- **Future prospects:** The market size of the food processing sector in India is estimated to reach **US\$ 1,274 billion in 2027 from US\$ 866 billion in 2022**, backed by changing lifestyle and food habits due to rising disposable income and urbanisation.

Steps Taken by the Government (MoFPI) to Boost Food Processing Sector in India:

- **PM Kisan SAMPADA Yojana (PMKSY):** It has been envisaged as a comprehensive package which will result in creation of modern infrastructure with efficient supply chain management from farm gate to retail outlet.

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- **PM Formalisation of Micro food processing Enterprises (PMFME) Scheme:** It aims to enhance existing individual micro-enterprises in the unorganised segment of the food processing industry.
 - **Production Linked Incentive Scheme for Food Processing Industry (PLISFPI):** It aims to -
 - **Boost domestic manufacturing, increase exports,** while supporting food manufacturing entities with stipulated sales.
 - **Make investment for expansion of processing capacity.** For example, **100% FDI** is permitted in the food processing sector
 - Incentivise emergence of strong Indian brands. Food processing units qualify for **complete profit exemption** in the first five years.
 - **The One District One Product (ODOP) scheme:**
 - It was launched under the PMFME to provide the framework for value chain development and alignment of support infrastructure.
 - ODOP approved for 713 districts in 35 States/UTs with 137 unique products.
 - **The Mega Food Park (MFP) scheme:**
 - The scheme follows a cluster approach, establishing modern food processing units within well-defined agri/horticultural zones.
 - Under the MFP scheme 41 projects were approved, of which 24 are operational as of December 2023.
 - **Operation Greens:**
 - It was launched to boost Farmer Producers Organisations (FPOs), agri-logistics, processing facilities, and professional management, focusing initially on Tomato, Onion, and Potato (**TOP**) value chains from **2018**.
 - As part of the "Aatmanirbhar Bharat Package", the scheme was extended from TOP crops to all fruits and vegetables (**TOTAL**).
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PHEROMONE



Recently, India scientists developed sustainable pheromone dispenser with a controlled release rate which could bring down costs of pest control and management.

- Pheromones are **chemical substances** which are secreted on the **outside** by an **individual**, and received by another individual of the same species.
- These are present in **all bodily secretions**, and especially in the axillary sweat — can be detected by the olfactory system.
- Pheromones are **ecto-hormones**, meaning they are secreted outside the body.

Types of Pheromones

- **Releaser pheromones:** They work right away and elicit a specific response from the other person.
 - **Signaler pheromones:** They give information about the person who releases them. For example, they help a mother tell her own baby apart from other babies.
 - **Modulator pheromones:** They affect mood and emotions.
 - **Primer pheromones** affect hormones, for example during pregnancy or menstrual cycles.
 - Animals, with their heightened senses and **vomer nasal organ** are known to secrete pheromones to trigger many kinds of behaviours like raising an alarm, **signalling a food trail**, warning another animal to back off, and bonding with an offspring.
 - Pheromones are also used by some **fungi, slime molds, and algae** as **attractants in reproduction**; organisms of complementary reproductive cell types grow or move toward each other.
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