

24 August, 2022

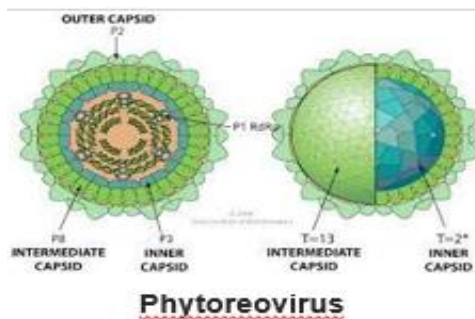
Dwarfing of Rice

❖ Context

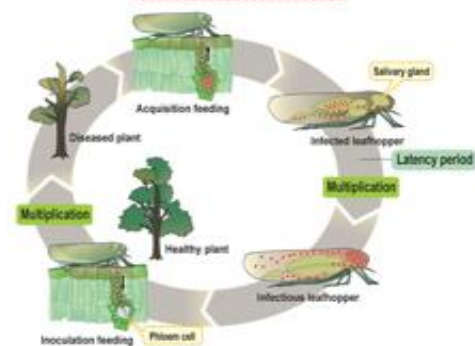
- Agriculture scientists have narrowed down the cause of a mystery disease causing “dwarfing” of rice plants in Punjab and Haryana.

❖ Key Highlights

- Many farmers in **Punjab, Haryana** and even parts of **western Uttar Pradesh** and **Uttarakhand** have been reporting stunting of paddy plants in their fields.
- Such stunting has taken place typically **30-35 days** after transplanting or direct seeding of rice.
- Preliminary laboratory analysis indicates the “**phytoreovirus**” or **rice grassy stunt virus** as the source of infection.
- The vector responsible for their transmission is the **brown plant hopper**, an insect pest that sucks sap from the stems and leaves of rice plants.
- The second possible source is **phytoplasma**, a bacterial pathogen that is spread by both **brown plant hopper** and **green leaf hopper** sucking insect pests.
- Phytoplasma affects phloem cells of the plants.
- Scientists are also considering possibilities of **fusarium fungus** and **rice root nematodes** that are known to cause dwarfism.
- **Hirschmanniella oryzae**, i.e. **rice root nematode**, is among the major pests of rice and is the most common plant-parasitic nematode found on irrigated rice.



Phytoreovirus



Life Cycle of Phytoplasma



Rice Root Nematode



Brown Plant Hopper



Green Leaf Hopper



Fusarium Fungus

The Overseas Investment Rules and Regulations

❖ Context

- The **Ministry of Finance** has notified the Overseas Investment Rules and Regulations.

❖ Key Highlights

- They have been notified under the **Foreign Exchange Management Act**.
- They will be administered by the **Reserve Bank of India (RBI)**.
- They subsume all existing **norms pertaining to overseas investments** as well as **acquisition and transfer of immovable property outside India**.
- They are aimed at making it easier for domestic corporations to invest abroad, while making it tougher for loan defaulters and others being probed by investigative agencies and regulators to shift funds out of the country.
- **No Indian resident shall be allowed to make investments into foreign entities** that are engaged in real estate activity, gambling in any form.
- Dealing with financial products linked to the Indian rupee would require the central bank’s specific approval.

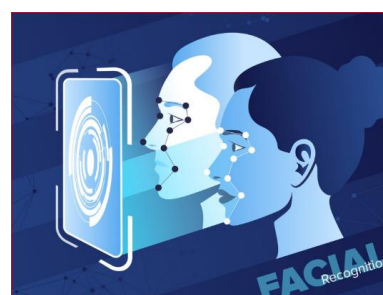
❖ No Objection Certificate

- Bank defaulters and fraudsters, to acquire assets abroad, need to secure a No Objection Certificate (NOC) from their **lender, or concerned regulators and investigative agencies** before making any ‘financial commitment’.
- This NOC shall be mandatory for any person who has a bank account classified as a **non-performing asset, or is labelled a wilful defaulter** by any bank, or is under the investigation by a financial service regulator.
- If lender banks or the concerned regulatory body or investigative agency fail to furnish the NOC **within 60 days of receiving an application**, it may be presumed that they have no objection to the proposed transaction.

Facial Recognition Technology

❖ Context

- Facial Recognition System under Disguise (FRSD) was recently mentioned in a Ministry of Defence (MoD) report on “AI in Defence”.



How Facial Recognition Systems Work



Face to Face Centres

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❖ Key Highlights

- FRSD has been developed by the Defence Research and Development Organisation (DRDO) to address the issue of facial recognition in the wild, where there are wide-ranging issues like **low-resolution cameras**.
- FRSD technology will rely **totally on algorithms** which will be used to identify the person from low-resolution surveillance camera feeds.
- This technology can be used by the local security agencies for searching across large repositories and can be deployed in restricted zones and security areas.
- DRDO has developed such a technology that can penetrate under wigs, sunglasses, masks, disguises hats and the like.
- Developed and deployed by the Indian Army is meant for surveillance, garrison security and population monitoring.

- It can be set up remotely with a field ready system, **doesn't require internet connectivity** and is capable of gathering intelligence from multiple sources.
- This state of the art system can be deployed in disturbed areas and will help in nonstop monitoring and surveillance.
- China, being uber rich and technology keen along with a totalitarian mandate, leads the world in developing FRT for surveillance of its citizens.
- Key Issues:** FRT never actually produces a right or wrong statement. Instead, like any other recognition algorithm, it creates a confidence number, usually in percentage, indicating the match's likelihood. This means that instead of being a dictatorial system, it is a tool and up to the operator to decide how much to rely on it.

Shanghai Cooperation Organisation (SCO)

❖ Context

- Defence Minister is visiting Tashkent, Uzbekistan from 23rd to 25th August, 2022 to attend the Annual Meeting of the Defence Ministers' of Shanghai Cooperation Organisation (SCO) Member States.

❖ Key Highlights

- The **Shanghai Cooperation Organisation (SCO)** is a Eurasian political, economic and security organization.
- In terms of geographic scope and population, it is the world's largest regional organization, covering approximately 60% of the area of Eurasia, 40% of the world population, and more than 30% of global GDP.
- The SCO is governed by the Heads of State Council (HSC), its supreme decision-making body, which meets once a year.

- It has total eight members. They are:-

- China
- Pakistan
- Uzbekistan
- Kazakhstan
- Kyrgyzstan
- Russia
- India
- Tajikistan



Kerala Savari

❖ Context

- Kerala has soft launched '**Kerala Savari**', the country's first online taxi service owned by a State government.



❖ Key Highlights

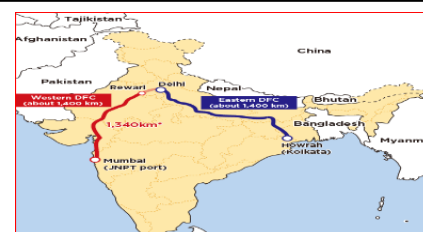
- It is operated by the **Motor Workers Welfare Board under the aegis of the Labour Department**.
- Kerala Savari only charges an 8% service charge in addition to the rate set by the government.
- Of the 8% service charge, **6%** will go to the technical partner & the remaining 2% will go to the implementation of this scheme and for providing promotional incentives to passengers and drivers.
- Kerala Savari is a safe and reliable online service for women, children, and senior citizens.
- A police clearance certificate is mandatory for drivers joining the scheme apart from the required proper training.

- A panic button system has been introduced in the app.
- This button can be pressed in the event of a car accident or in cases of any other danger. One can do it completely privately.
- Kerala has over 5 lakh autorickshaws & 1 lakh cabs. The State govt plans to bring all auto-taxi workers engaged in the sector under the new platform.
- Significance:** As private companies are purely focusing on profit making, the government-controlled online taxi service is a service-oriented scheme - a win-win situation for both passengers and taxi-auto drivers and owners.

Railways Freight Corridors

❖ Context

- In a progress report on the corridors, the Railway Ministry recently said 734 km of track on the Western DFC and 618 km of track on the Eastern DFC have been commissioned.



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❖ About the DFCs

- The government has sanctioned two **Dedicated Freight Corridors (DFCs)**, namely **Eastern DFC & Western DFC**.
- All works contracts have been awarded and 100 per cent of the land has been acquired for the two dedicated freight corridors, in an indication that the ambitious project is gaining pace.
- The 2 corridors are targeted to be completed by June 2023.
- The **Eastern DFC** is 1,337 kms, while the **Western DFC** is 1,506 km in length.

- Both these corridors are under execution & at present 1,339 km length has been completed out of 2,843 km.

❖ Significance:

- The two corridors are expected to help pave the way for segregation of freight and passenger services, which would lead to decongestion of the routes.
- They would also help run longer, heavier, higher, and faster freight trains to achieve higher transport output with reduced transit time and lower cost, thus improve the modal share of Railways.

Ranganathittu Bird Sanctuary

❖ Context

- After a gap of nearly one month, Ranganathittu Bird Sanctuary near Mysuru has reopened for tourists and boating.



❖ Key Highlights

- The sanctuary was closed due to heavy rains forcing the authorities to release surplus water into the river that submerged places including Ranganathittu located downstream.
- It is a bird sanctuary in the Mandya District of the state of Karnataka in India.
- It is the largest bird sanctuary in the state, **40 acres** (16 ha) in area, and comprises six islets on the banks of the Kaveri river
- The sanctuary has been designated as a protected Ramsar site since 2022.



News in Between the Lines

Tomato Flu



❖ Context

- With cases of tomato flu reported from at least four states - Kerala, Tamil Nadu, Haryana, and Odisha - the Union Health Ministry recently issued a set of guidelines on prevention, testing, and treatment of the infection.

❖ Key Highlights

- The Lancet study states that this common contagious disease generally targets children between **one and five years** of age and adults with weaker immunity.
- The disease reportedly affects the mouth, hand and foot, claimed the study.
- Tomato Flu is caused by a virus and shows symptoms similar to those of Covid-19 but is not related to SARS COV-2.
- This disease was first identified in Kerala's Kollam district.

Pandurang Khankhoje



❖ Context

- Lok Sabha Speaker will travel to Mexico and unveil statues of Swami Vivekananda and Pandurang Khankhoje.

❖ Key Highlights

- He was a **Maharashtra-born freedom fighter and agriculturalist (1883-1967)**.
- He was inspired by **Bal Gangadhar Tilak, Swami Dayanand and Arya Samaj movement**.
- He went abroad for further training in revolutionary methods and militaristic strategy.
- After spending time with nationalists from Japan and China, he eventually moved to the US, where he enrolled in a college as a student of agriculture.
- He joined the **Mount Tamalpais Military Academy in California**. At the academy, he met many people from Mexico.
- He was one of the founding members of the **Ghadar Party**, established by Indians living abroad in 1914.
- He had sought refuge in Mexico and was appointed a professor at the **National School of Agriculture in Chapingo**, near Mexico City.

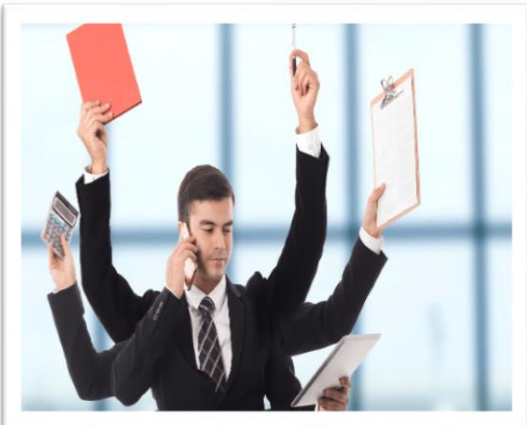
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Moonlighting



- He researched corn, wheat, pulses & rubber, developing frost & drought-resistant varieties, and was part of efforts to bring in the **Green Revolution in Mexico**.
- Later on, the American agronomist **Dr Norman Borlaug**, called the Father of the Green Revolution in India, brought the Mexican wheat variety to Punjab.

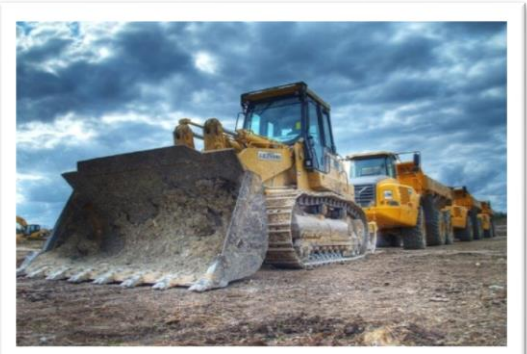
❖ Context

- The Executive Chairman of a reputed IT firm has expressed concern on the growing moonlighting trend in the IT industry.

❖ Key Highlights

- The concept of “moonlighting” essentially connotes **employees taking up other ‘side’ jobs in addition to their regular employment**.
- Most companies have legal contracts with their employees insisting that they cannot work for anybody else.
- During the pandemic, employees shifted to work from home mode and monitoring them became difficult.
- Employees essentially took up other jobs either to have an extra source of income or to monetize their passion, learn new skill sets.
- However, companies are concerned about **productivity, data breach, and conflict of interest** due to moonlighting activities by their employees.

Sarfartoq Deposit Mines



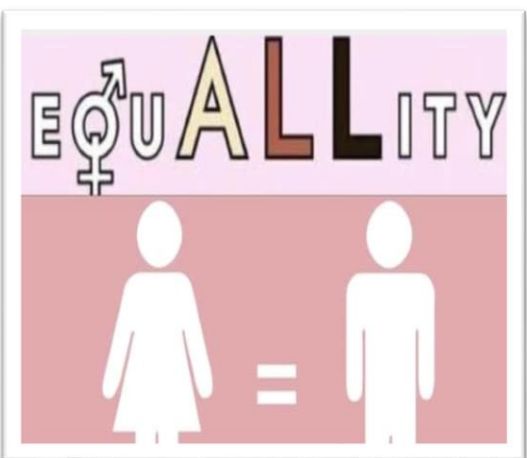
❖ Context

- One of the world's few rare earths processors outside China has bought exploration rights to **a mine in Greenland**.

❖ Key Highlights

- Rare earths are a group of minerals used in the manufacture of **electric vehicles, wind turbines, electronics, robots and other machinery**.
- **China currently dominates** global production, **processing about 85% of the world's rare earths**.
- Skyrocketing demand is pushing companies to look for other sources.
- The **US, Europe and Japan** call their dependence on China's rare earths a “**national security risk**” and have sought to diversify their supply.
- Greenland is an **autonomous district of Denmark**, a member of the EU.

India's Sex Ratio at Birth Normalises Slightly

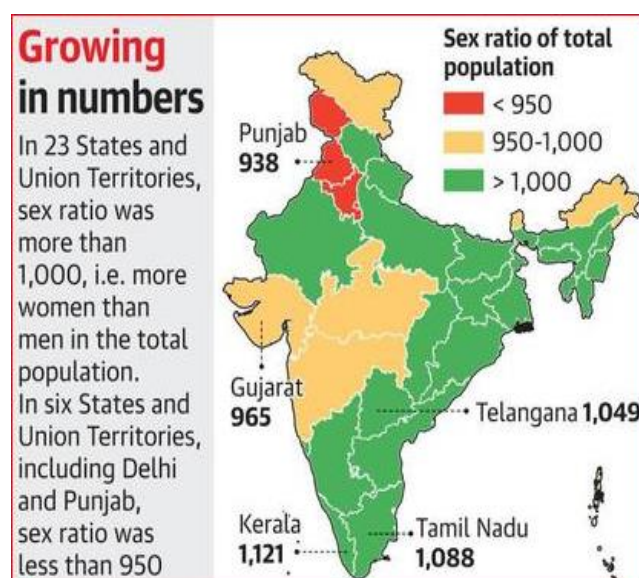


❖ Context

- The latest study by Pew Research Center has pointed out that “son bias” is on a decline in India.

❖ Key Highlights

- Among the major religions, the biggest reduction in sex selection seems to be among the groups that previously had the greatest gender imbalances, particularly **among Sikhs**.



- The average annual number of baby girls “missing” in India fell from about 480,000 (4.8 lakh) in 2010 to 410,000 (4.1 lakh) in 2019.
- The “**missing**” here refers to how many more female births would have occurred during this time if there were no female-selective abortions.
- From a large imbalance of about 111 boys per 100 girls in India's 2011 census, the sex ratio at birth appears to have normalised slightly over the last decade, narrowing to about 109 in the 2015-16 wave of the National Family Health Survey and to 108 boys in the latest wave of the NFHS, conducted from 2019-21.

- World over, boys modestly outnumber girls at birth, at a ratio of approximately 105 male babies for every 100 female babies.

Face to Face Centres