Prelim Bits 17-08-2022 | UPSC Daily Current Affairs

Super Vasuki

The Indian Railways conducted a test run of the 3.5-km-long freight train, Super Vasuki, with 295 wagons carrying over 27,000 tonnes of coal, as part of the 'Azadi Ka Amrit Mahotsav' celebrations.

> *The freight train gets its name from Vasuki, the Hindu god of serpents. Shiva's snake, Vasuki, is portrayed as being around his neck.*

- The Super Vasuki is a 3.5-km-long freight train run by the **South East Central Railway**.
- It is the longest and heaviest freight train ever run by the Railways, adding the train takes about 4 minutes to cross a station.
- It was formed by amalgamating five rakes of goods trains as one unit.
- The Railways plans to use this arrangement (longer freight trains) more frequently, especially to transport coal in peak demand season to prevent fuel shortages in power stations.
- **Significance** - Earlier in 2022, coal shortages had pushed the country into a severe power crisis.
- The amount of coal carried by Super Vasuki is enough to fire 3000 MW of power plant for one full day.
- This is three times the capacity of existing railway rakes (90 cars with 100 tonnes in each) that carries about 9,000 tonnes of coal in one journey.

Reference

1. https://www.newindianexpress.com/nation/2022/aug/16/railways-conducts-test-run-of-its-longest-freight-train-carrying-27000-tonnes-of-coal-2488117.html
2. https://www.livemint.com/news/india/watch-indian-railways-3-5-km-long-train-super-vasuki-with-295-wagons-11660708930326.html
3. https://www.news18.com/news/india/super-vasuki-indias-longest-heaviest-freight-train-powered-by-six-locos-tested-on-i-day-watch-5761939.html

Nereguli Paddy

Farmers in the villages of Saidur, Kanale and Hirenallur gram panchayats grow a flood-resistant traditional variety of paddy.

- Nereguli is a **flood-resistant traditional variety** of paddy.
- Nereguli variety yields about 15 bags of paddy, each weighing about 60 kg per acre.

- Though the **yield is less** compared to other varieties of paddy, this variety has a higher rate of tolerance to flooding.
- The paddy did not lose its quality even when the field was inundated for 40 days.
- The grass blades rot and what remains are the stalks, which sprout once the water level recedes.
- There are other varieties in Bangladesh and Andhra Pradesh that can withstand floods and grow tall but will collapse once the water recedes, but Nereguli is quite the opposite, since, it is rooted and grows fast once the water recedes.
- However, due to the extensive use of chemical fertilizers, this variety of paddy too could withstand flood only for 25 days.
- It is liked for its vigour, taste and health quotient.
- This variety is organically grown using traditional methods and is highly nutritious and in great demand, in Kerala and Goa.

Reference

1. https://www.thehindu.com/news/national/karnataka/nereguli-paddy-shivamogga-farmers-bank-on-flood-resistant-nereguli-paddy/article65639807.ece
2. https://www.deccanherald.com/spectrum/the-elusive-birthplace-of-purandara-dasa-1105198.html

Dip in Child Mortality

The Union Minister of State for Health said that India has taken rapid strides in reducing child mortality since 2014 from 45 per 1,000 live births to 35 per 1,000 live births in 2019.

- The government's Sample Registration System (SRS) has reported that the country's Infant Mortality Rate (IMR) was 20 out of 1,000 babies born in the country in 2020.
- This means that 20 babies born die within 12 months of their birth.
- IMR is defined as the number of infant deaths (under one year) per thousand live births in a given time period.
- It is widely acknowledged as a measure of a country's overall health situation.
- However, in India, while the IMR situation has improved since 1971 when the country's IMR was an abysmal 129, it is still patchy across the country.

Paalan 1000

- 'Paalan 1000 - Journey of the First 1000 Days' is a National Campaign and Parenting App launched by the Ministry of Health & Family Welfare to reduce child mortality.
- 'Paalan 1000' focuses on the cognitive developments of children in the first two years of its life.
- The companion app will provide practical advice to caregivers on what they can do in their everyday routine and will help clear doubts
- The app combines coaching for parents, families and other caregivers with services designed to meet the families' basic needs.
- The programme is aligned with the mission of the Rashtriya Bal Swasthya Karyakram (RBSK), emphasising responsive care and focused interventions during the first 1,000 days.
- **Importance of the early phases of a child's life** - A baby's brain development

begins during pregnancy and is influenced by the pregnant woman's health, nutrition and environment.
- The first 1,000 days encompass conception as well as the first two years of a growing child's life and during this period, the child needs the right nutrition, stimulation, love and support.
- The first 1,000 days establish a solid platform for a child's physical, mental, emotional, cognitive and social health.

Reference

1. https://www.thehindu.com/news/national/child-mortality-has-dipped-to-35-per-1000-live-births-minister/article65775332.ece
2. https://thediplomat.com/2022/06/indias-infant-mortality-rate-improves-but-still-lags-behind-much-of-asia/
3. https://economictimes.indiatimes.com/news/india/centre-launches-paalan-1000-campaign-parenting-app-to-focus-on-child-health/articleshow/93595771.cms?from=mdr

SC on Contradictory Dying Declarations

The Supreme Court spoke about the dying declaration while acquitting a man convicted under Section 304-B (dowry death) of the Indian Penal Code.

Dying Declaration

- Section 32 of the Indian Evidence Act, 1872 deals with cases in which a statement of relevant fact is made by a person who is dead or cannot be found.
- The general rule under Section 60 of the Act is that all oral evidence must be direct i.e. he heard it, saw it or perceived it.
- Dying declarations can be recorded by
    1. Anyone can record the dying declaration of the deceased as per law.
    2. The law does not compulsorily require the presence of a Judicial or Executive Magistrate to record a dying declaration.
    3. A dying declaration cannot be relied upon as a solitary piece of evidence unless recorded by a Judicial or Executive Magistrate.
    4. A dying declaration recorded by a Judicial or Executive Magistrate will muster additional strength to the prosecution case though.
    5. A dying declaration may in several cases be the primary piece of evidence to prove the genesis of occurrence.
    6. The person who records the dying declaration must be satisfied that the victim is in a fit state of mind.
- To know more about the dying declaration, click here.

The Supreme Court Ruling

- The SC said that a dying declaration can be the sole basis for recording a conviction and if it is found reliable and trustworthy, no corroboration is required.
- The SC also said that a court is required to examine whether a dying declaration is true and reliable by scrutinizing the facts of an individual case very carefully.

- A court should also examine whether the dying declaration has been given when the deceased was physically and mentally fit to make the declaration, and was not under any tutoring or duress or prompting.
- In case there are multiple dying declarations and there are inconsistencies between them, the dying declaration recorded by the higher officer like a Magistrate can be relied upon.
- However, the SC said this is with the condition that there is no circumstance giving rise to any suspicion about its truthfulness.

Reference

1. https://www.newindianexpress.com/nation/2022/aug/16/court-required-to-examine-whether-dying-declaration-true-and-reliable-sc-2488125.html
2. https://www.livelaw.in/top-stories/contradictory-dying-declarations-supreme-court-206663

New Weapon Systems of the Army

Defence Minister Rajnath Singh handed over two new weapons, the Nipun mines, the Landing Craft Assault (LCA) and the F-INSAS system, to the Army.

F-INSAS System

- F-INSAS stands for Future Infantry Soldier as A System.
- It is a programme for infantry modernisation aimed at increasing the operational capability of the soldier.
- Its aim is to optimise the soldier's performance across the full spectrum and duration of a military operation.
- F-INSAS is conceptualised in line with the targets of the Army's Infantry Soldier Modernisation Programme.
- As part of the project, soldiers are being equipped with modern systems that are lightweight, all-weather-all-terrain, cost-effective and low maintenance.
- The full gear of the F-INSAS system includes an AK-203 assault rifle, which is a Russian-origin gas-operated, magazine-fed, select-fire assault rifle.
- It has a **range of 300 metres** and is being made at Korwa near Amethi in a Russia-India joint venture.
- The F-INSAS includes a multi-mode hand grenade, which can be used in defensive and offensive modes.
- In **defensive mode**, the grenades are to be hurled when the thrower is in a shelter or has a cover, while the target is in the open and can be harmed by fragmentation.
- In the **offensive mode**, the grenades do not fragment and the adversary is harmed by the blast or is stunned.
- The weapon kit also has a **multi-purpose knife** for close-quarters combat.
- It provides soldiers with **ballistic helmets** and **ballistic goggles** for protection against small projectiles and fragments, along with a bullet-proof vest.
- The helmet and the bullet-proof jacket are capable of protecting the soldier against 9 mm bullets and ammunition fired from AK-47 rifles.
- The F-INSAS also comes with hands-free, secured advanced communications set for

real-time exchange of information with the command post and fellow soldiers for enhanced situational awareness.
- All these items have been indigenously designed by the Indian entities, including the DRDO and the ordnance factories ecosystem.

Nipun Mines

- Nipun mines are indigenously designed and developed **anti-personnel mines**, termed by the DRDO as soft target blast munition.
- These mines are meant to act as the first line of defence against infiltrators and enemy infantry.
- Anti-personnel mines are meant to be used against humans, unlike anti-tank mines that are aimed at heavy vehicles.
- They are smaller in size and can be deployed in large numbers.

Landing Craft Assault (LAC)

- The Landing Craft Assault (LCA) is meant to serve as a **replacement for the boats** with limited capabilities currently in use in the Pangong Tso lake.
- The LCA, which has been indigenously developed, is said to have better launch, speed and capacity to operate across water obstacles in eastern Ladakh.

Reference

1. https://indianexpress.com/article/explained/all-about-nipun-f-insas-lca-new-weapon-systems-handed-over-to-the-army-8093327/

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