

1. National Creche Scheme

Topic: Government Schemes

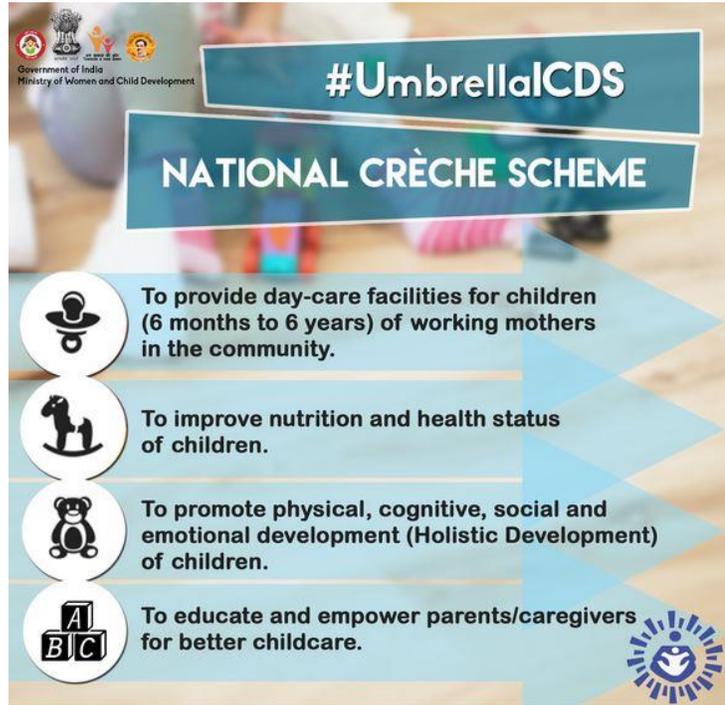
In News: Ministry of Women and Child Development stopped payment to creches in FY 2021-22 stating that all creches were closed last year.

More on the Topic:

- This centrally sponsored scheme is being implemented by the **Ministry of Women and Child Development (WCD)**.
- The scheme, previously known as the Rajiv Gandhi National Creche Scheme for The Children of Working Mothers dates back to January 1, 2006.
- It was launched to **primarily nurture children between six months to six years from mothers belonging to low-income groups who go to work at least 15 days in a month.**
- While BPL families pay ₹20 per child per month, the fee ranges from ₹100 to ₹200 for others.
- The centre provides 60 per cent of the funds in all states, except the Himalayan and North Eastern states.
- The remaining 30 per cent funds are provided by the state, while NGOs put in 10 per cent from their corpus.
- Concerns: Ministry stated that Creches were not functioning during covid 19. The reality is that there were many creches which were functioning and they faced severe fund crunch.
- NGO which provided their funds for the scheme has not received their share from the government.
- As many as 11,582 creches functioning under this scheme have been shut down between FY18 and FY20.
- These facts have affected low income group working mothers adversely including quitting from work force to take care of their toddlers.

Way Ahead:

- More funds should be allocated under the scheme to meet the growing demand for creches.



- The scheme may be revamped and expanded and the WCD ministry should be approached for more allocation, emphasising the need for creches in view of safety of children of working mothers.

Source: Indian Express

2. Supreme Court Recognises Sex work as a Profession

Topic: Polity and Governance

In News: In a socially and historically path breaking order, the Supreme Court has recognised prostitution as a profession. This order has been issued based on Invoking SC's special powers under Article 142 of the Constitution.

More on the Topic:

- The important directions given by the court are:
- All those engaged in prostitution and their children are entitled to the same human “decency and dignity” as is available to others.
- They are also entitled with the “opportunities” to grow and advance in their lives guaranteed under **Article 21 of the Constitution -- right to life.**
- The police across the country **should refrain from being “brutal” and “violent” towards the sex workers** and “not to abuse them, both verbally and physically, subject them to violence or coerce them into any sexual activity”.
- The government **should sensitise the police and other law enforcement agencies** about the rights of sex workers, who also enjoy all basic human rights and other rights guaranteed in the Constitution to all citizens.
- Any sex worker who is a “**victim of sexual assault**” **should be provided with all facilities available to a survivor of sexual assault**, including immediate medical assistance, in accordance with Section 357C of the Code of Criminal Procedure 1973.
- “No child of a sex worker should be separated from the mother merely on the ground that she is in the sex trade”.
- Press Council of India should issue appropriate guidelines for the media to “take utmost care not to reveal the identities of sex workers, during arrest, raid and rescue operations for protecting the identities of sex workers from media exposure.



About Article 142:

- Article 142 provides discretionary power to the Supreme Court as it states that the Supreme Court in the exercise of its jurisdiction may pass such decree or make such order as is necessary for doing complete justice in any cause or matter pending before it.

About Article 21:

- Article 21 of Indian Constitution provides for “**Protection of Life and Personal Liberty**” and reads as “No person shall be deprived of his life or personal liberty except according to procedure established by law.”
- The fundamental right under Article 21 is one of the most important rights provided under the Constitution which has been described as **the heart of fundamental rights by the Apex Court in Unni Krishnans case.**
- The objective of the fundamental right under Article 21 is **to prevent encroachment upon personal liberty and deprivation of life** except according to procedure established by law.

Source: Indian Express

3. ‘Intelligent Solutions for Road Safety through Technology and Engineering’ (iRASTE)

Topic: Science and Technology

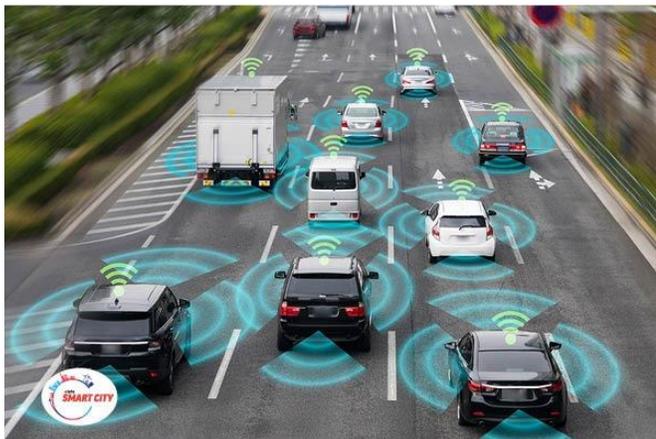
In News: A project called ‘Intelligent Solutions for Road Safety through Technology and Engineering’ (iRASTE) is being implemented in Nagpur to tackle the problem of road accidents.

More on the Topic:

- The project is based on artificial intelligence (AI) and will help identify potential accident-causing scenarios while driving a vehicle.
- iRASTE will alert drivers about the potential accident with the help of the Advance Driver Assistance System (ADAS).
- The iRASTE project is being undertaken by the I-Hub Foundation, IIIT Hyderabad, supported by the Department of Science and Technology (DST) under its National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS).
- At present, iRASTE is being rolled-out in Nagpur but will be replicated in other cities too.

How iRASTE Works?

- The unique AI approach that **iRASTE uses could predict and identify risks on the road, and a collision alert system to communicate timely alerts to drivers**, to make several improvements related to road safety.



- The project (iRASTE) **will also identify ‘greyspots’**, by data analysis and mobility analysis by continuously monitoring dynamic risks on the entire road network.
- The need to identify ‘greyspots’ is of immense importance because if they remain unaddressed, **they can become blackspots (locations with fatal accidents)**.
- Moreover, the system also **performs continuous monitoring of roads and designs engineering fixes to correct existing road blackspots** for preventive maintenance and improved road infrastructure.

Significance of the Project:

- It will help India achieve following targets.
- **Reduce road accident deaths by 50% by year 2024.**
- By 2030, all countries have national laws to restrict or prohibit use of mobile phones while driving.
- By 2030, all countries accede to one or more of core road safety-related UN legal instruments.
- India is signatory to **United Nation's Brasilia Declaration to reduce road fatalities**.
- The AI project **will also help in preparing a critical resource for future use** by researchers, startups, and industry, mainly in the areas of smart mobility, healthcare along with smart buildings.
- Further, not only will it help in reducing road accidents, but also create practical solutions, as a blueprint, suitable for Indian conditions.

Source: AIR

4. First Movers Coalition

Topic: International Affairs

In News: India has joined First Movers Coalition to decarbonise carbon-heavy sectors.

More on the Topic:

- It is a global initiative aimed at decarbonising the heavy industry and long-distance transport sectors responsible for 30 per cent of global emissions.
- Led by the WEF and the US government, the First Movers Coalition targets sectors, including aluminium, aviation, chemicals, concrete, shipping, steel and trucking.
- The coalition's members have committed to purchasing - out of their total industrial materials and long-distance transport spending - a percentage from suppliers using near-zero or zero-carbon solutions, despite the premium cost.



- Besides India, Denmark, Italy, Japan, Norway, Singapore, Sweden and the United Kingdom have also joined the US as government partners to create early markets for clean technologies through policy measures and private sector engagements.
- India, along with Japan and Sweden, has also joined the steering board of the coalition.

Source: Indian Express

5. Paramporul

Topic: Science and Technology

In News: PARAM PORUL, a state-of the art Supercomputer at NIT Tiruchirappalli dedicated to the nation under National Supercomputing Mission (NSM).

More on the Topic:

- It is a **joint initiative of Ministry of Electronics and Information Technology (MeitY) and Department of Science and Technology (DST).**
- PARAM PORUL supercomputing facility is established under **Phase 2 of the NSM**, where in majority of the components used to build this system have been manufactured and assembled within the country, along with **an indigenous software stack developed by C-DAC, in line with the Make in India initiative.**
- PARAM PORUL system is based on **Direct Contact Liquid Cooling technology** to obtain a high power usage effectiveness and thereby reducing the operational cost.
- Multiple applications from various scientific domains such as **Weather and Climate, Bioinformatics, Computational Chemistry, Molecular Dynamics, Material Sciences, Computational Fluid Dynamics etc.** has been installed on the system for the benefit of researchers.
- This high end computing system will be a great value addition for the research community.

Source: Business Standard

FEATURES

- Large storage capacity
- More than one CPU necessitated by physical limits of circuit technology
- Very fast input/output capability
- Fortran is the language most preferred for scientific programming

6. Magnetron tech

Topic: Science and Technology

In News: Government is supporting indigenous development of high-powered Magnetron technology used mainly for cancer radiation therapy.

More on the Topic:

- Magnetron is a **type of vacuum tube device**.
- It is **compact and low-cost source of microwave power** as compared to other similar microwave tubes.
- It works on a principle of **crossed-field device, which uses the motion of electrons in perpendicular electric and magnetic fields** to generate microwave radiation, used for generating **Radio frequency (RF) Power Source in Linear Accelerator for Medical, non-destructive technology (NDT)** and other allied applications.
- NDT is a testing and analysis technique used by industry to evaluate the properties of a material, component, structure or system.



About Indian Medical Device Industry:

- Currently, India is the **fourth largest medical devices market in Asia**, after Japan, China and South Korea and positioned 20th in the global market.
- **India imports about 86% of its requirement** of medical equipment and almost 100% of high-end medical equipment.

Source: Hindu

7. Kherson Region

Topic: Places in News

In News: Russia is planning to set up army base in Ukraine's Kherson region.

More on the Topic:

- Russia invaded Ukraine in February, seizing in particular the Kherson region which is adjacent to Crimea, the peninsula which Moscow has controlled since an earlier conflict in 2014.
- It has installed a new administration there and started introducing the Russian rouble as a currency.

Source: Hindu

Areas of Russian military control in Ukraine

