


April - 20

TAMIL NADU

E-taxi

- ❖ The IIT-Madras incubated start-up has designed an electric flying taxi for urban commute.
- ❖ This can carry people to their destination
 - 10 times faster,
 - safer,
 - economical,
 - noise free and
 - eco-friendly.
- ❖ The battery powered taxi will have a capacity of 200kg payload.
- ❖ It can to accommodate two passengers
- ❖ The final prototype is expected to be ready in early 2022.

<p>How the electric taxi designed by IIT-M incubated 'The ePlane Company' will function</p> 	<ul style="list-style-type: none">➤ It can travel 10 times faster than normal taxis, but they are safe , economical, eco-friendly and quiet➤ It may cost 1.5 to 2 times more than a normal taxi initially but the cost will come down as it becomes more popular➤ The taxi will be a two-seater with a total payload capacity of 200kg and will operate with fixed wings and rotors➤ The battery powered taxi will fly at an altitude of 0.5km to 2km at around 200km per hour
<ul style="list-style-type: none">➤ The electric flying taxis with land and take off vertically for urban commute➤ It aims at minimising traffic and the amount of time spent on commute	

Rare stoneware (Seed crusher) near Uttiramerur

- ❖ A rare stone has been found in Vinnamangalam village near Uttiramerur in Kanchipuram district.
- ❖ Buried in the soil, it dates back to the 15th century.

❖ Line 3 had inscriptions on it.



T.N. sets record in job guarantee scheme

Generating employment | After a gap of four years, Tamil Nadu's tally with regard to the generation of person days has crossed the 30-crore mark

Performance of the South in MGNREGS in a pandemic year (2020-21)



State/ Union Territory	Person days generated (in crore days)		Share in person days (in %)		Families employed (in lakh)	Families with 100 days' work (in lakh)	Wages paid (in ₹ crore)	Average rate a day per person (in ₹)
	Target	Actual	SC/STs	Women				
Tamil Nadu	32	33.4	31.13	85.37	66.49	1.79	6,321.88	191.65
Andhra Pradesh	25.25	25.93	33.38	57.21	47.71	8.64	5,731.91	228.74
Telangana	15.5	15.36	42.78	58.04	30.91	3.16	2,543.58	169.95
Karnataka	14.65	14.87	27.71	49.46	30.21	2.42	3,994.61	270.84
Kerala	10	10.23	22.1	90.49	16.17	4.7	3,000.47	294.65
Puducherry	0.11	0.106	32.77	86.82	0.48	0.00042	22.77	215.11
All India	383.33	389	37.69	53.17	756	71.96	77,747.49	200.76

Note: Figures are approximate

Source: Website of the Mahatma Gandhi National Rural Employment Guarantee Scheme (<http://nrega.nic.in/>)

- ❖ Tamil Nadu has created a record in the implementation of the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) in the just-concluded financial year (2020-21).
- ❖ After four years, the number of person days generated in the State crossed the 30-crore-mark.
- ❖ It stood at 33.4 crore person days.
- ❖ For 2020-21, the Centre had fixed a target of 27 crore person days for the State.
- ❖ Later, it revised the target to 32 crore person days.
- ❖ Salem was one of those districts that exceeded the target of person days last year, generating about 1.24 crore person days against the approved 1.12 crore person days.
- ❖ Kancheepuram's performance was said to be impressive in natural resources management, water conservation and plantation.

NATIONAL

India Energy Dashboards

- ❖ The Niti Aayog recently launched the India Energy Dashboards Version 2.0.
- ❖ It will provide single window access to the data related to utilisation, pricing, production, distribution of energy in the country.
- ❖ It will also provide data from schemes such as Saubhagya, PRAAPTI, UJALA and Vidyut PRAVAH.
- ❖ It will provide data from Central Electricity Authority, Ministry of Petroleum and Natural Gas and from Coal Controller's Organisation.
- ❖ The India Energy Dashboard Version 1.0 was launched in 2017.



INDIA ENERGY DASHBOARDS

One Stop Destination for India's Energy Data



INTERNATIONAL

Freedom of Navigation Operation

- ❖ The US Navy recently conducted Freedom of Navigation Operation in the Indian Ocean Region near Lakshadweep.
- ❖ During the operation, the US warship entered the Exclusive Economic Zone of India without seeking prior consent from India.
- ❖ According to the United Nations Convention of the Law of the Sea (UNCLOS), countries cannot prevent ships from using Exclusive Economic Zone.
- ❖ However, according to Indian laws, any foreign military must inform before conducting any activity in the Exclusive Economic Zone of India.
- ❖ India, being a developing nation, is yet to explore its EEZ to the fullest.

ECONOMY

Petroleum consumption in India

- ❖ The Ministry of Petroleum recently released a report on petroleum consumption of India.
- ❖ According to the report, fuel consumption of the country reduced by 9.1% in the year 2020-21 as compared to that of the previous year.
- ❖ This is the first time the petroleum consumption contracted to the highest since 1998-99.

India's Debt Ratio

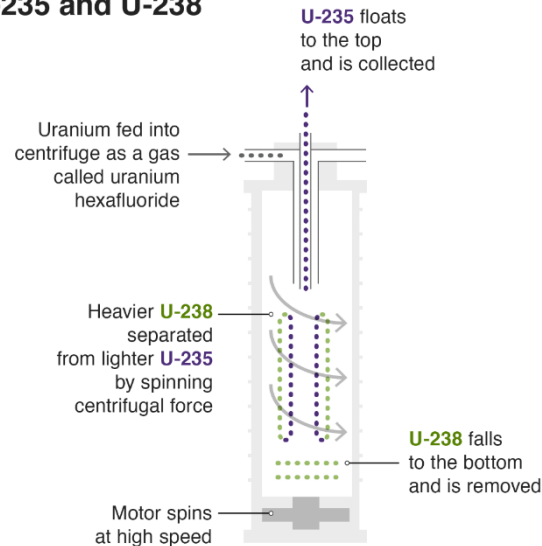
- ❖ The International Monetary Fund recently announced that the debt to GDP ratio of India increased from 74% to 90% due to COVID-19 crisis.
- ❖ This is to increase to 99% in 2021.
- ❖ The international financial organisation has also stated that this is to reduce to 80% after economic recovery.
- ❖ The Debt to GDP ratio is the ratio between the debt of the Government measured in the units of its currency to the GDP measured in the same unit.
- ❖ When the Debt to GDP ratio is low, it means that the country produces and sells goods and services that are sufficient to pay back debts without incurring further debts.
- ❖ The Debt to GDP ratio of India has remained 70% since 1991.

- ❖ The Public Debt in India is the total liability of the Union Government that must be paid from the Consolidated Fund of India.

SCIENCE AND TECHNOLOGY

Iran Nuclear Program

How a centrifuge separates uranium atoms, U-235 and U-238



- ❖ Iran recently launched Advanced Nuclear Centrifuges at the Natanz Nuclear Plant to mark its National Nuclear Technology Day.
- ❖ Iran has started enriching its uranium supply to 60 percent purity.
- ❖ Iran has ever come to this level for the first time.
- ❖ It is the closest level needed for a weapon.
- ❖ Under the Joint comprehensive Plan of Action (JCPOA), also known as the 2015 Nuclear Agreement, Iran is restricted to use only certain number of Uranium enrichment centrifuges.
- ❖ However, in May 2018, the US Government under Donald Trump abandoned the agreement and reimposed sanctions on Iran.
- ❖ The current US Government under Joe Biden has pledged to return to JCPOA.

Centrifuge

- ❖ It is used to separate particles suspended in a medium.
- ❖ In a Nuclear Centrifuge, Uranium-235 is separated from Uranium-238.
- ❖ The Nuclear Fuel used in nuclear reactor must have higher concentration of Uranium-235 isotope than that of its natural form, that is, Uranium-238.



- ❖ The Uranium-235 is more radioactive than Uranium-238.

NanoSniffer

- ❖ The Union Education Minister recently launched the world's first Microsensor based Explosive Trace Detector called the "NanoSniffer".
- ❖ It was developed by an IIT Bombay incubated startup called NanoSniff Technologies.
- ❖ The NanoSniffer can detect explosives in less than ten seconds.
- ❖ It can detect all class of military, homemade and conventional explosives.
- ❖ It can detect even nano gram quantities of explosives.
- ❖ The Explosive Trace Detection is the technology used to detect explosives of small magnitude.
- ❖ The three main characteristics of Explosive Trace Detection are sensitivity, light weight, and size.

IMPORTANT DAYS

International Haiku Poetry Day – April 17

- ❖ It is an initiative of The Haiku Foundation.
- ❖ A haiku is an ancient form of Japanese poetry.

World Hemophilia Day - April 17

- ❖ The theme of the event this year is "Adapting to change: sustaining care in a new world".
- ❖ It is an initiative of 'World Federation of Haemophilia'.
- ❖ April 17 was chosen in honour of Frank Schnabel's birthday.



- ❖ Presently, there are 38 World Heritage Sites located in India that include 30 Cultural properties, 7 Natural properties and 1 mixed site.
- ❖ The Mixed site is Khangchendzonga National Park.
- ❖ In 2019, 'Jaipur City' became the 38th addition of India to the list under Culture.
- ❖ India has the sixth largest number of sites in the world.
- ❖ So far, only China, Italy, Spain, Germany, and France have more locations on the list than India.

