

24th December, 2021 Current Affairs

1. NITI Aayog- UN WFP agreement to diversify Food Basket:

Recently, NITI Aayog and United Nations World Food Programme (UN WFP) have agreed to variegate the food basket. Both the organisation have signed a Statement of Intent.



Salient Points:

- The Partnership between NITI Aayog and UN WFP is aimed to mainstream the millets and support India in taking a lead internationally in knowledge exchange amid the recognition of 2023 as an International Year of Millets.
- This partnership also aims to build resilient livelihoods for small-farmers and adaptation capacities towards climate change as well as transforming food systems.
- “The Statement of Intent” is targeted on strategic and technical collaboration between both the parties, in order to strengthen climate resilient agriculture for enhanced food & nutrition security to all over India.

National Year of Millets:

Government of India had observed 2018 as a year of millets, to encourage and promote the millet production. Government also lead the resolution of UNGA, for declaring 2023 as International Year of Millets.

Steps taken by Government:

Governments have taken various steps to promote millets:

- Establishment of centre for Excellence,
- Integration of nutri-cereals with National Food Security Act and
- Establishment of Millet Mission in multiple states.

But still there are several challenges exist in terms of production, distribution and adaptability among consumers.

What more steps can be taken to fight the challenges?

- Under the distribution system, there is a need to shift the focus of food distribution programmes from ‘calories fundamentalism’ to “provide a more diversified food basket, such as coarse grains and millets for improving nutritional status among pre-school children and women of reproductive age.
- The partnership between NITI Aayog and WFP is intended to identify and address these challenges in an effective manner.

Way Ahead:

NITI Aayog and UN WFP will conduct following activities together:

- Joint development of a compendium of good practices around millets.
- Provide technical support to scale up millets mainstreaming through intense engagement in select states with the help of state governments, IIMR & other associated institutions.

2. ‘Artificial sun’:

Recently, China has conducted a nuclear fusion experiment, for advancing its “artificial sun.”

Salient points:

- The Experimental Advanced Superconducting Tokamak (EAST) heating system was recently kicked off by Hefei Institute of Physical Science.
- EAST heating system experiment was conducted with the goal of making artificial sun or auxiliary heating system ‘hotter and more durable’.
- China has spent some 6 billion yuan on a large doughnut-shaped installation called as a Tokamak.



- Tokamak uses extremely high temperatures to boil the hydrogen isotopes into a plasma and then fuse them together to release energy.
- If the released energy will be able to utilised, it will only require tiny amounts of fuel and create no radioactive waste, virtually.

Background:

- EAST system replicates the process of nuclear fusion, which became operational in 2006.
- This experiment has broken a record in June 2021, by reaching a temperature of 160 million degrees Celsius, which was ten times hotter than the sun.

Experimental Advanced Superconducting Tokamak (EAST):

- EAST is a superconducting tokamak magnetic fusion energy reactor which is located at Hefei in China. Experiments has been conducted by Hefei Institutes of Physical Science, for the Chinese Academy of Sciences.
- It has operated since 2006. EAST is the first tokamak, that employ superconducting toroidal and poloidal magnets. The experiment is aimed for plasma pulses of up to 1000 seconds.

When was EAST project developed?

- EAST experiment followed China's first superconducting tokamak device, called HT-7.
- It was built by the Institute of Plasma Physics in association with Russia in 1990s.
- This project was proposed in 1996 but received the approval in 1998. Its Construction was completed in March 2006. First plasma was achieved in September 2006.

About ITER Project:

- China is also a member of ITER project. It is the most ambitious project, for which 35 countries have collaborated.
- The project is being developed in France. Under this project, countries are building world's largest tokamak. The Tokamak is a magnetic fusion device which is designed to prove the feasibility of fusion as a large-scale and carbon-free source of energy.

- It is based on the same principle powering the Sun and stars.

3. Surface-to-Surface Missile 'Pralay' flight-tested

Recently, the first successful test flight of short-range surface-to-surface "Pralay missile" has been conducted.



Salient Points:

- Pralay ballistic missile was flight-tested from Dr. APJ Abdul Kalam Island off the coast of Odisha.
- Missile followed the desired quasi-ballistic trajectory and reached the designated target with high-degree accuracy.
- Therefore it validated the control, guidance and mission algorithms.

About Pralay:

- Pralay is a canisterised surface-to-surface and short-range ballistic missile (SRBM).
- It has been developed by DRDO for battlefield use. This missile is the merger of the technologies developed for exoatmospheric interceptor missile Prithvi Defence Vehicle (PDV) and Prahaar tactical missile.
- The Project to develop Pralay was sanctioned in March 2015 with an outlay of Rs. 332.88 crore.

Salient Features of Pralay:

- Pralay is able to hit the target at a range of 150 to 500 kilometres, with an accuracy of about 10 metres or less.
- It can also be launched from a mobile launcher.
- It has a guidance system, which include state-of-the-art navigation mechanisms and integrated avionics.
- It is a solid fuel missile, which follows a quasi-ballistic trajectory.

- Missile is capable of performing mid-air manoeuvres using maneuverable reentry vehicle (MaRV) for defeating anti-ballistic missile (ABM) interceptors.
- It can carry 350 kg to 700 kg high explosive preformed fragmentation warhead, Runway Denial Penetration Sub munition (RDPS) and Penetration-Cum-Blast (PCB).

Background of the Missile:

The Defence Research and Development Organisation (DRDO) started developing this project around 2015. The missile was later named as Pralay.

What is ballistic missile?

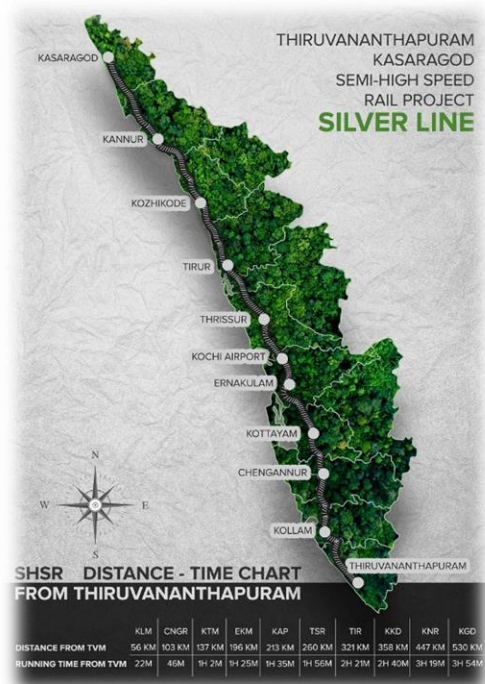
- Ballistic missile follows a ballistic trajectory for delivering one or more warheads on a predetermined target.
- Ballistic weapons are guided only during relatively short periods.
- Short-range ballistic missiles remain in Earth's atmosphere.
- On the other hand, intercontinental ballistic missiles (ICBMs) are launched on a sub-orbital trajectory.

4. Protests against Kerala's SilverLine project:

Many political parties and citizen outfits like K-Rail SilverLine Viruddha Janakeeya Samiti have been protesting against the "Kerala's SilverLine project".

Why this protest is going on?

Many MPs have signed a petition against the project stating that, there was "astronomical scam in the making" and it will lead the state further into debt. Furthermore, environmentalists are of the view that, project will cause great environmental harm because its route



cuts through wetlands, paddy fields and hills.

About the SilverLine Project:

SilverLine project is a semi high-speed railway project. It is intended to trains running at 200 km/h between northern and southern ends of Kerala. Total estimated cost of the project is Rs. 63,940 crore. The proposed rail-link is of around 529.45-km.

It will link Thiruvananthapuram to Kasaragod. It will cover 11 districts through 11 stations. Travel time between Kasaragod to Thiruvananthapuram will reduce to less than four hours at 200 km/hr from 12 hours.

Executing authority and Deadline:

The project is being executed by "Kerala Rail Development Corporation Limited (KRDCL)". The project is a joint venture of Kerala government and Union Ministry of Railways. Deadline for the execution of this project is 2025.

Importance of the SilverLine project:

- Various Urban policy experts raise the concerns that, existing railway infrastructure in Kerala will not be able meet the demands of future. Most of the trains run at an average speed of 45 km/hr because of curves and bends on the existing stretch.
- This government is working on SilverLine project, which can take a significant load of traffic from the existing stretch and can make travel faster for commuters.
- Apart from that, project will also reduce greenhouse gas emissions.
- It will produce employment opportunities and help in expansion of Ro-Ro services, integrate airports & IT corridors as well as enable faster development in cities it passes through.

Salient Features of the project:

- The Project will run trains of electric multiple unit (EMU) type. Each of the train will have preferably nine cars expandable to 12.
- 9-car can rake 675 passengers in business and standard class settings.
- Trains will run at a maximum speed of 220 km/hr on a standard gauge track.

5. **The first home Covid-19 treatment authorised by the US:**

Recently, US health regulators has authorized the first pill (a drug by Pfizer) against Covid-19.



Salient Points:

- People will be able to take Pfizer drug at home, in a bid to head off the worst effects of covid-19.
- The reason for the approval of Pfizer drug is rising new infections due to Omicron variant, rising hospitalization and deaths in United States.

About Pfizer drug: Paxlovid

- The drug called Paxlovid is a fast and economic way to treat early Covid-19 infections.
- Nirmatrelvir drug is sold under the brand name of Paxlovid. This antiviral medication has been developed by Pfizer.
- It acts as an orally active 3CL protease inhibitor. The drug was granted emergency use authorization by US Food and Drug Administration (FDA) to treat COVID-19 disease recently.
- It is not authorized for pre-exposure or post-exposure prevention of COVID-19. It can also be used for initiation of treatment in people who need hospitalization due to critical COVID-19.

Who can use this drug?

- The FDA has authorized Pfizer's drug for adults and children aged 12 and more, who have been tested positive with Covid-19.
- People with early symptoms and highest risks of hospitalization can use this drug. Children eligible for medication must weigh at least 40 kilograms.
- Patients will need a positive Covid-19 test to get a prescription.

Effectiveness of Paxlovid:

Paxlovid has proven effective, when it has been provided within five days of symptoms appearing.

6. 'Pillar of Shame': Where is the memorial located?

Recently, oldest university Hong Kong has launched an overnight operation to dismantle a statue that commemorates people killed in Beijing's Tiananmen Square in latest blow to academic freedoms.



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About the Pillar of Shame:

- "Pillar of Shame" are a series of 8-metre (26-feet) high statues which is constructed by Jens Galschiot.
- It is constructed on the University of Hong Kong's (HKU) campus since 1997. In the same year, former British Colony, Hong Kong was handed back to China.
- The statue features 50 miserable faces and tortured bodies. These bodies have been piled on one another.
- It commemorates democracy of protesters, who were killed by Chinese troops in 1989 at Tiananmen Square.
- Each statue is made up of bronze, copper or concrete.

When and where was the sculpture inaugurated?

- In 1996, the sculpture was inaugurated at the NGO Forum of FAO summit in Rome.
- Since then, three more pillars have been erected, in Hong Kong, Mexico, and Brazil.
- Fifth statue was planned to be erected in Berlin in 2002. However, the plan has not successful, due to various issues.

Remoulding of Hong Kong:

- Presently, China is remoulding Hong Kong in its own authoritarian image following democracy protests two years ago.
- Thus, commemorating Tiananmen has become illegal, effectively.

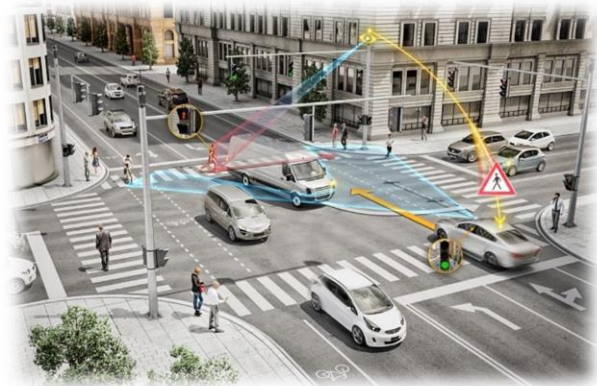
- In October 2021, University's officials ordered to remove the sculpture, highlighting new legal risks.

Dismantling operation:

University staff has confirmed that statue had been removed in an overnight operation. It has been placed in storage after completing the operation.

7. What is launched 'Intelligent transport system'?

Recently, Union Minister for Road Transport & Highways Nitin Gadkari has launched India's first "Intelligent Transport System" on Eastern Peripheral Expressway at Dasna, Ghaziabad.



Salient Facts:

- This system was developed in a bid to minimize traffic problems and enhance safety of regular travelers.
- On the occasion, minister noted that, India needs to improve its road engineering, because every year, around 1.5 lakh people are killed in 5 lakh accidents in India.

Intelligent Transport System (ITS) on expressway:

- ITS is a revolutionary state-of-the-art technology.
- It will achieve traffic efficiency by prompting efficient infrastructure usage, minimizing traffic problems, enriching users with prior information on traffic, reducing travel time and enhancing safety & comfort of commuters.
- This system can detect any accident and receive alerts for ensuring that ambulance reaches the accident spot within 10-15 minutes.

Highway project in Meerut & Muzaffarnagar:

- On the occasion, Union Minister has also laid the foundation stone of National Highway projects of 240 Km, in Meerut & Muzaffarnagar in Uttar Pradesh.

- Total estimated outlay of the project is Rs. 9,119 crore.
- As per minister, these projects will make it easy for the farmers to take their crops to market, and thus uplifting their economic situation.

Eastern Peripheral Expressway (EPE):

- The Kundli–Ghaziabad–Palwal Expressway is dubbed as “Eastern Peripheral Expressway”. It is a 135 km long, 6-lane wide expressway which passes through Haryana and Uttar Pradesh.
- It starts from Western Peripheral Expressway at Kundli in Sonipat and passes through Baghpat, Ghaziabad & Noida in Uttar Pradesh and Faridabad district in Haryana.
- It finally rejoins the Western Peripheral Expressway near Dholagarh in Palwal. In March 2006, the Eastern Peripheral Expressway was declared as National Expressway 2 (NE-2).

8. What is Education Ministry’s caution on using Ed-tech platforms?

Recently, India’s ministry of Education has issued an advisory on education technology (edtech) platforms, stating that some firms are targeting families by getting their consent on Electronic Fund Transfer (EFT) mandate or activating auto-debit feature.



Key Points:

- This advisory was issued as a Department of School Education and Literacy received several complaints regarding such offers.
- There were reports about people losing money because of auto debit feature in ed-tech.

What are the guidelines?

- Ministry has directed the parents, students and all stakeholders in school education to be careful while opting for online content and coaching.
- It also asked parents to consider avoiding automatic debit option to pay subscription fee in Freemium models. This is because, some ed-tech companies offer “Free-Premium business model”, in which a lot of their services seem to be free at first glance but in order to gain continuous learning access, students are required to opt for a paid subscription.
- Because of auto-debit activation, child start accessing the paid features without realizing that he/she is no longer accessing free services offered by ed-tech Company.
- Ministry has also asked the citizens to read the terms and conditions, because their IP address and personal data may be tracked.
- Users should check the background of the Ed-tech Company thoroughly, as well ask for a tax invoice statement for purchase of educational devices loaded with contents or pen drive learning or app purchase.
- Users have been asked to avoid adding their data like emails, contact numbers, addresses, card details, etc. online because data may be sold or used for later scam attacks.

Content Quality:

Ministry has also suggested users to verify the content quality provided by ed-tech companies before purchasing it and ensure that content is in line with the syllabus and scope of study.