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Kerala's Smart Kitchen Project

- The Kerala government's budget has set apart Rs 5 crore for the initial phase of the Smart Kitchen project.
- **Purpose** - This project is meant to modernise (mechanise) kitchens and ease the difficulty faced by homemakers in household chores.
- Under the scheme, KSFE would give soft loans to women from all walks of life for purchasing household gadgets or equipment.
- The cost of household equipment can be repaid as instalments within a particular period.
- The interest of the loan/cost would be equally shared among the beneficiary, local self-government body and the state government.
- The scheme would be implemented through the Kerala State Financial Enterprises (KSFE), a state-run chit fund and lending firm. To implement the scheme, KSFE would start smart kitchen chits.
- **Preference** - Members of Kudumbashree (Kerala's women empowerment and poverty alleviation scheme) would get preference in purchasing kitchen gadgets under smart kitchen scheme.
- No collateral would be demanded from Kudumbashree members.

Haryana's Pran Vayu Devta Pension Scheme

- To avoid oxygen deficit in the future, the Haryana government has come out with a first of its kind initiative called "Pran Vayu Devta Pension Scheme (PVDPS)".
- **PVDPS** - Haryana government will honour the trees which are of the age of 75 years and above and have served humanity throughout their life by producing oxygen, reducing pollution and so on.
- The Forest Department had commissioned a survey to identify these old trees throughout the state. Such trees will be looked after by involving local people in this scheme.
- For maintenance of trees older than 75 years, a "pension amount" of Rs 2,500 per tree would be given per year in the name of PVDPS. This 'tree pension' shall continue to increase every year.
- The pension shall be given by the Urban Local Bodies department to the village panchayats for the upkeep of the trees, installing plates, etc.

- **Oxy Van (Oxy Forests)** - To get pure air from the environment and reduce the 'Heat Island Effect', Oxy Van will be planted on land ranging from 5 acres to 100 acres in the cities of Haryana.
- Oxy Vans are identified pieces of land, on which as many as 3 crore trees would be planted. They will occupy 10% of the land across Haryana.
- This Park will have components named, Chit Van (Forest of Beauty), Paakhi Van (Forest of Birds), Antriksh Van (Forest of Zodiac Signs), Tapo Van (Forest of Meditation), Arogya Van (Healing/herbal Forest), Neer Van (Forest of Waterfalls), Rishi Van (Sapt Rishi), Panchvati (Five Trees), Smaran Van (Forest of Memories), and Sugandh Suvaas/Sugandh Van (Forest of Fragrance).

Performance Grading Index on School Education

- Third Performance Grading Index (PGI) 2019-20 for States and Union Territories of India was released. It was first published in 2019 with reference year 2017-18.
- The PGI is a tool to provide insights on the status of school education in States and UTs including key levers that drive their performance and critical areas for improvement.
- Department of School Education and Literacy (DoSEL) has designed the PGI to catalyse transformational change in the field of school education.
- The PGI is structured in two categories - Outcomes, and Governance & Management.
- It comprises 70 indicators in aggregate with a total weightage of 1000.
- It assesses the States and UTs in five domains - Learning Outcome and Quality; Access; Infrastructure and Facilities; Equity; and Governance Process.
- **Findings** - Punjab, Chandigarh, Tamil Nadu, Andaman & Nicobar Islands and Kerala occupy the highest grade (Grade A++) for 2019-20.
- Andaman & Nicobar Islands, Arunachal Pradesh, Manipur, Puducherry, Punjab and TN have improved overall PGI score by 10%, i.e., 100 or more points.
- **Significance** - The PGI exercise would propel States and UTs towards undertaking multi-pronged interventions that will that will bring about the much-desired optimal education outcomes.
- It helps the States/UTs to pinpoint the gaps and accordingly prioritise areas for intervention to ensure that the school education system is robust at every level.

World Energy Investment Report 2021

- The [International Energy Agency](#) (IEA) has released the World Energy

Investment Report, 2021.

- According to this report, global energy investment is expected to rebound this year and increase 10% year-on-year to around \$1.9 trillion.
- Most of this investment will flow towards power and end-use sectors, shifting out of traditional fossil fuel production.
- The global energy demand is projected to rise 4.6% year-on-year in 2021, offsetting its contraction in 2020.
- Energy efficiency sector will see a 10% rise in investment, though the low fossil fuel price may act as a deterrent.
- **Renewable power** will have the largest share - around 70% of the total \$530 billion will be spent on new power generation capacity.
- Substantial gain of renewable as the future energy outlook has been dependent on technological development, well-established supply chain and demand from consumers for carbon-neutral electricity.
- **Fossil fuel** - Upstream investment in oil is expected to grow 10%.
- This expansion in fossil fuels was planned with novel technologies like carbon capture and storage (CCS) and bioenergy CCS, which are yet to be attain commercial success.
- The increment of coal-fired power in 2020, mostly driven by China, is indicating that 'coal is down but not yet out'.
- **Pandemic recovery strategies** in many countries lack the required stimulant towards emission biennial technologies and pathways.
- The rhetoric around 'Net Zero' is gaining momentum but its transition to actual action is not visible.
- **Increased Emissions** - Global carbon dioxide emission is set to grow by 1.5 billion tonnes in 2021, after a contraction in 2020 mainly due to economic slowdown induced by the COVID-19 pandemic.
- The emerging market is almost 70% responsible for demand growth and India plays an important part in this block.
- The responsibility-share of developed nations should not be undermined: Their in-country growth of emission is moderate but their exported emission is of concern.
- Market stimulus amid the pandemic may have lost the opportunity to maximise the clean developmental pathway.

Fugitive Economic Offenders Act 2018

- At the UN General Assembly (UNGA) Special Session on Challenges and Measures to fight Corruption, India raises the serious issue of Fugitive Economic Offenders and Assets which flee across national jurisdictions.
- India's Fugitive Economic Offenders Act 2018 law empowers authorities for non-conviction-based attachment and confiscation of proceeds of crime and

properties and assets of a 'fugitive economic offender'.

- **Fugitive Economic Offenders** are those against whom a warrant for arrest for a Scheduled Offence has been issued by any Indian court and who has left India to avoid criminal prosecution or judicial processes.
- **Scheduled Offence** refers to a list of economic offences contained in the Schedule to this Act.
- Some of the offences listed in the act are counterfeiting government stamps or currency, cheque dishonour, money laundering, transactions defrauding creditors, etc.,
- **Declaration** - After hearing the application, a special court (designated under the PMLA, 2002) may declare an individual as a fugitive economic offender.
- It may confiscate properties which are proceeds of crime, Benami properties and any other property, in India or abroad.
- Upon confiscation, all rights and titles of the property will vest in the central government, free from encumbrances (such as any charges on the property).
- The central government may appoint an administrator to manage and dispose of these properties.
- To know more about the Fugitive Economic Offenders Act 2018, [click here](#).

Corbevax

- India has placed an advance order to block 300 million doses of Covid-19 vaccine, Corbevax, from Hyderabad-based company Biological E.
- **Working of Corbevax** - Corbevax is a "recombinant protein sub-unit" vaccine, which means it is made up of a specific part of SARS-CoV-2 — the spike protein on the virus's surface.
- The spike protein allows the virus to enter the cells in the body so that it can replicate and cause disease.
- However, when this protein alone is given to the body, it is not expected to be harmful as the rest of the virus is absent.
- The body is expected to develop an immune response against the injected spike protein.
- So, when the real virus attempts to infect the body, it will have an immune response ready that will make it unlikely for the person to fall severely ill.
- **Making of Corbevax** - Corbevax's beginnings can be traced to the Baylor College of Medicine's (BCM's) National School of Tropical Medicine.
- They put the gene sequence for the spike protein into yeast, so that it could manufacture and release copies of the protein.
- After this, the protein was purified to remove any remnants of the yeast. Then, the vaccine was formulated using an adjuvant to better stimulate the immune response.

- Later, BCM transferred its production cell bank for this vaccine to Biological E, so that Biological E could take the candidate through trials.
- **Difference** - Other Covid-19 vaccines approved so far are either,
 1. mRNA vaccines (Pfizer and Moderna),
 2. Viral vector vaccines (AstraZeneca-Oxford/Covishield, Johnson & Johnson and Sputnik V) or
 3. Inactivated vaccines (Covaxin, Sinovac-CoronaVac and Sinopharm's SARS-CoV-2 Vaccine-Vero Cell).
- Corbevax, like the mRNA and viral vector Covid-19 vaccines, targets only the spike protein, but in a different way.
- Viral vector and mRNA and vaccines use a code to induce our cells to make the spike proteins against which the body have to build immunity.
- In this case (Corbevax), we're actually giving the protein.
- Inactivated vaccines, which include killed particles of the whole SARS-CoV-2 virus, attempt to target the entire structure of the virus.
- Like most other Covid-19 vaccines, Corbevax is administered in two doses.

Source: PIB, The Hindu, The Indian Express, Down To Earth

