

World Dairy Summit

Context

- Prime Minister will inaugurate 'IDF World Dairy Summit 2022' on 12 September 2022 at Greater Noida wherein more than 1,500 delegates from 50 countries are scheduled to participate.



Key Highlights



- The dairy summit is a congregation of global and Indian dairy industry leaders, experts, farmers, and policy planners.
- "India is **number one** in milk production and accounts for **23 per cent** of the global output.

Milking opportunities

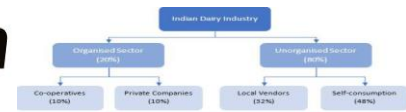
- 6.2%** India's annual growth in milk production over the past 5 years.
- 210 MMT** The estimated milk production in 2020-21 in million metric tonnes
- 427** Grams per day is the projected per capita milk availability in the country in 2020-21, far ahead of the world average of 305 gm/day
- 23%** India's contribution to the world's total milk production
- 80 million** Indian households are engaged in dairy farming as their main source of income
- 81%** Of India's total milk production is hogged by 10 states
- 600 MMT** The projected domestic demand for dairy in the next four decades
- Rs 23 bn** The value of dairy products exported from India in 2021, despite strong domestic consumption leaving little for exports

Sources: Government data, Statista, research reports

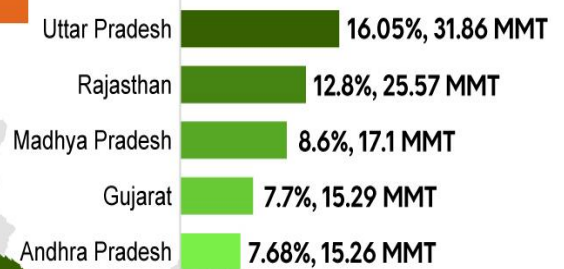
- Theme of the 4-day event is 'Dairy for Nutrition and Livelihood'.
- Last time India hosted the International Dairy Congress in 1974.
- Foreign delegates would be sharing their experience and talk about latest technologies in the dairy sector.
- There are **about 8 crore dairy farmers** in India mostly small and marginal (having at an average 2 bovines).
- The annual domestic production of milk in the country is estimated at **220 million tonne**.

Milk production in India

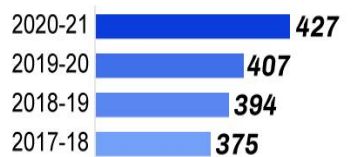
India is ranked **1st** in milk production



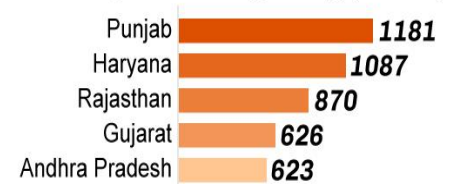
The top 5 milk-producing states are (2019-20):



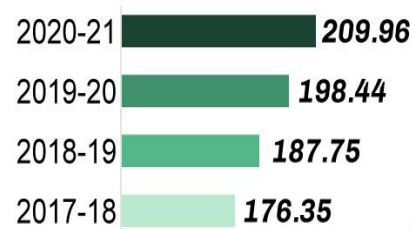
Per capita availability of milk in India (gms/day):



Per Capita Availability of Milk by States/UTs (gms/day) (2018-19):



Milk production (in million tonnes)



Ban On The Export of Broken Rice

Context

- The Centre has banned the export of broken rice, mostly used as animal feed and as a component for ethanol production, in view of the domestic demand and production scenario of rice.



Key Highlights

- The export of broken rice had increased by **4178%** during the months between April 2022 and August 2022 compared to same months of 2019.
- The export is mainly to **China, Senegal, Vietnam, Djibouti and Indonesia**.
- The country exported about **21.31 lakh metric tonnes** of broken rice in the last five months.
- Approximately **50 to 60 LMT** of broken rice is produced annually in India, which is mainly used as poultry feed and feed for other animals.
- It is also used as a feedstock by the grain-based distilleries for producing ethanol, which is used for blending with petrol.
- There has been a rise in global demand for broken rice due to geo-political scenario which has impacted price movement of commodities, including those related to animal feed.

- The move would ensure adequate availability of broken rice for consumption by domestic poultry industry and for other animal feedstock; and to produce ethanol for successful implementation of Ethanol Blending Programme.

About Broken Rice

- Broken rice is fragments of rice grains, broken in the field, during drying, during transport, or during milling.
- Mechanical separators are used to separate the broken grains from the whole grains and sort them by size.
- Broken rice is fragmented, not defective; so there is nothing wrong with it.
- It is as nutritious as the equivalent quantity of unbroken rice.

BROKEN RICE EXPORTS OVER THE YEARS

| COUNTRY | FY19 | FY20 | FY21 | FY22 |
|--------------|--------------|------------|--------------|-------------|
| China | — | — | 2.73 | 15.85 |
| Senegal | 6.73 | 1.62 | 8.64 | 9.22 |
| Vietnam | — | — | 1.87 | 3.44 |
| Djibouti | 1.08 | 0.17 | 1.07 | 2.44 |
| Indonesia | 1.51 | — | 0.41 | 2.08 |
| TOTAL | 12.21 | 2.7 | 20.64 | 38.9 |

(Lakh metric tonnes)

Face to Face Centres





JEEVIKA Scheme

❖ Context

- Bihar is encouraging rural women to make glass bangles from seized liquor bottles in an effort to reduce waste and also provide them livelihood.

❖ Key Highlights

- Bihar banned liquor in April 2016, making storage transportation, sale, consumption & manufacturing a punishable offence.
- The Prohibition Department of the state government has sanctioned ₹1 crore as seed money for setting up bangle manufacturing units with women linked to the rural livelihood programme 'JEEVIKA' at the helm.

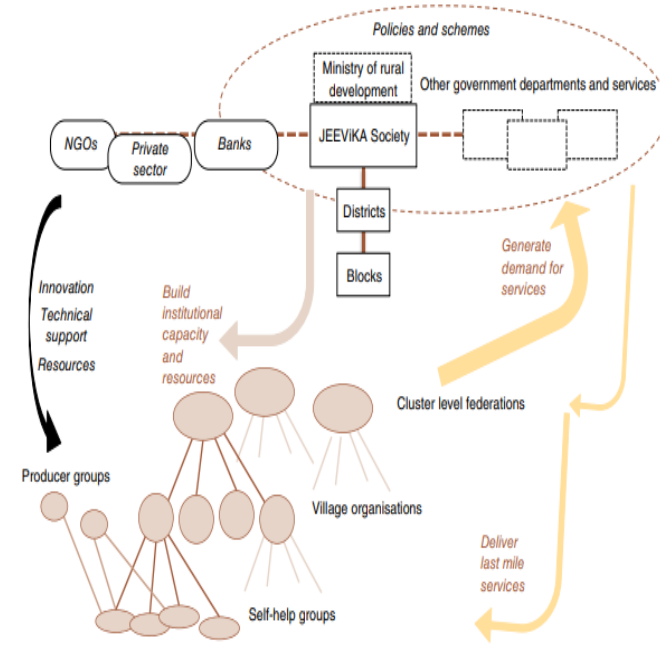
- Large quantities of alcohol are seized every year in the state & the authorities often find it difficult to dispose of the confiscated bottles.
- A group of JEEVIKA workers is being trained for making glass bangles by the Rural Development Department.

JEEVIKA

- The objective of Jeevika [Bihar Rural Livelihood Promotion Society]: Livelihood Enhancement and Vulnerability Reduction
- Jeevika works through creating SHGs of poor women and bigger community institutions.
- Each SHG member 'Didi' is representative of poor Household
- Mgnrega is one such scheme which ensures employment for 100 days and hence reduces vulnerability context of poor.

❖ Scheme Objective

- The JEEVIKA scheme, aided by World Bank, aims at poverty alleviation.

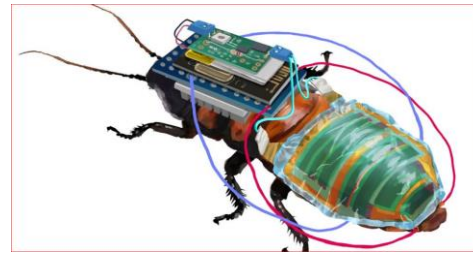


- The objective of the scheme is to generate more employment for the poor, especially women, in rural areas.
- JEEVIKA workers are already engaged in the manufacturing of LED tube lights and bulbs, and they are financially self-reliant.

Cyborg Cockroaches

❖ Context

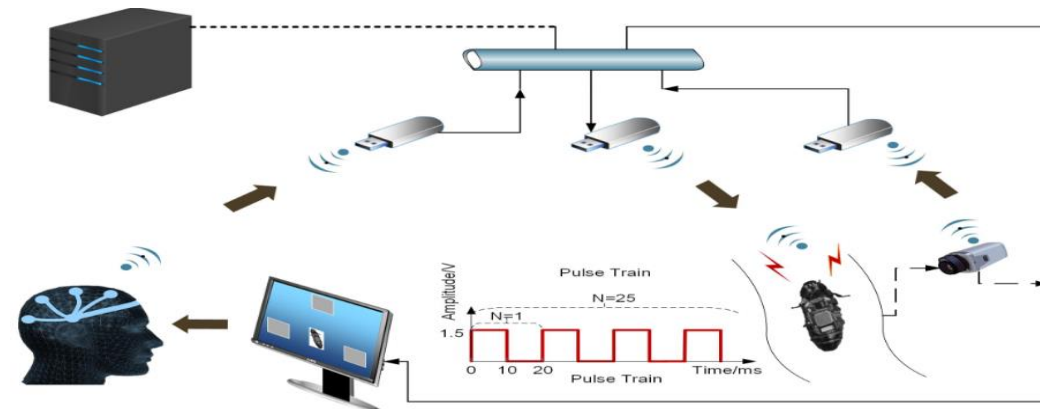
- An international team of researchers led by Japan's scientific institution, RIKEN's Cluster for Pioneering Research (CPR), have devised a system that can create cyborg cockroaches, that are part insect and part machine.



❖ Key Highlights

- They claim that these insects, whose movements are controlled by tiny integrated circuits, will be able to conduct surveillance in procedures like urban search and rescue, environmental monitoring and inspection of areas dangerous to humans.
- By equipping the cockroaches with small wireless control modules, handlers will be able to control the insect's legs remotely for long periods of time.
- The researchers have designed the system to be rechargeable, by powering it with a super thin **0.004 mm solar** cell module that is installed on the dorsal side of the cockroach's abdomen.

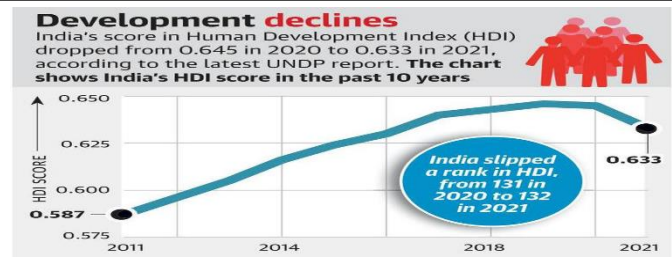
- This was done to ensure that the battery remains charged and the cockroach can be controlled for long periods of time, while simultaneously ensuring that the movement remains unhindered.



Human Development Report 2021-22

❖ Context

- The United Nations Development Programme has released the report - which is entitled "Uncertain Times, Unsettled Lives: Shaping our Future in a Transforming World".



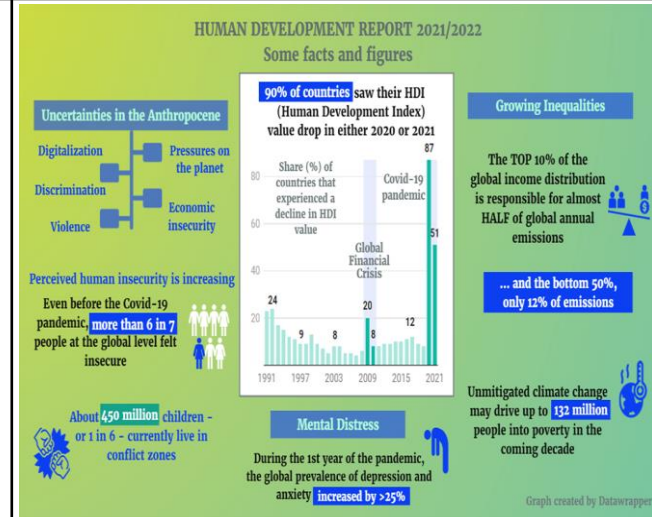
❖ Key Highlights

- **India ranks 132**, falling from 130 in 2020, in the Human Development Index (HDI) 2021. India's score has **declined over two consecutive years for the first time in three decades**.
- The HDI was first launched in **1990** and has been released annually ever since, except in **2012**.

- It measures the average achievement of a country in three basic dimensions of human development — **a long and healthy life, education and a decent standard of living**.
- It is calculated using **four indicators** — life expectancy at birth, mean years of schooling, expected years of schooling, and the Gross National Income (GNI) per capita.



- It is divided into four tiers: **very high human development** (0.8-1.0), **high human development** (0.7-0.79), **medium human development** (0.55-.70), and **low human development** (below 0.55).
- India's HDI score of **0.633** places it in the medium human development category.
- Like global trends, in India's case, the drop in HDI from 0.645 in 2018 to 0.633 in 2021 can be attributed to **falling life expectancy at birth**.
- In the neighbourhood, **Sri Lanka (73rd)**, **China (79th)**, **Bangladesh (129th)**, and **Bhutan (127th)** are ranked above India, while **Pakistan (161st)**, **Nepal (143rd)**, and **Myanmar (149th)** are worse off.
- Switzerland (0.962) tops** the list of 191 countries while South Sudan is at the bottom.



Red-eared Slider Turtles

❖ Context

- The presence of invasive and non-native south red-eared slider turtles would lead to the extinction of native species of their own kind, according to recent reports.



❖ Key Highlights

- India is home to **29** freshwater turtles and tortoise species of the 356 turtle species recognised worldwide and around 80 per cent of them are threatened.
- "The red-eared slider are native to south-eastern USA and Mexico, but have found their way across the globe including India through trade of exotic animals.
- In India, keeping indigenous turtles as pets is prohibited under the wildlife protection act. But the foreign breeds are not restricted and are kept as pets in many families across India.
- The species breeds faster compared to other local turtle varieties.

- The species has a wide set of diet and eats almost all vegetation, unlike native species.
- The red-eared slider is also aggressive, it drives away the native species.
- The species is already spread across many Indian states and poses a threat to all species of its kind, including soft-shell and hard-shell turtles.
- It is widely found in urban wetlands, such as - Sukhna lake in Chandigarh, temple ponds of Guwahati, lakes of Bengaluru, Sanjay Gandhi national park in Mumbai, Yamuna river in Delhi - among other water bodies.

Changthang Wildlife Sanctuary

❖ Context

- The standing committee of **National Board of Wildlife** cleared eight Defence projects in the **Changthang and Karakoram wildlife sanctuaries**.



❖ Key Highlights

- The measure is in line with ramping up the country's defence infrastructure near the LAC to match similar initiatives being taken by China to upgrade its military infrastructure in the area.
- This is the 1st time that the NBWL has looked at proposals from the Ladakh region as the area did not fall under the Wildlife Protection Act prior to the 2019 abrogation of Article 370.
- The region falls under **Ladakh's protected cold desert**.

❖ About Changthang WS

- Spread over an area of 1,600 sq km, it is located in the **Ladakhi Changthang Plateau** in the Leh district.
- It has some of the highest altitude lakes including **Tso Moriri** and is famous for being the home of the **snow leopard**, the **Tibetan wolf**, **wild yak**, **bharal**, **brown bear**, **marmot**, **Tibetan wild ass** and **dark-necked crane**.

❖ About Karakoram WS

- Spread over 5,000 sq km in Leh district, the sanctuary is famous for **Tibetan antelope**, also known as **chiru**.



News in Between the Lines

Diamond Trophy

❖ Context

- Neeraj Chopra recently became the first Indian to win the Dimond Trophy, the prestigious title in the finale of the Diamond League series in men's javelin.

Face to Face Centres





❖ Key Highlights

- The Olympic champion from Tokyo, threw 88.44m to finish on the top step of the podium.
- Olympic silver medallist Jakub Vadlejch of the Czech Republic finished second with a best throw of 86.94m.
- The Diamond League **encompasses 32 Diamond Disciplines**, following a championship-style model.
- Athletes earn points at the 13-series meet to qualify for the final of their respective disciplines.

Solar-Powered Unmanned Aerial Vehicle



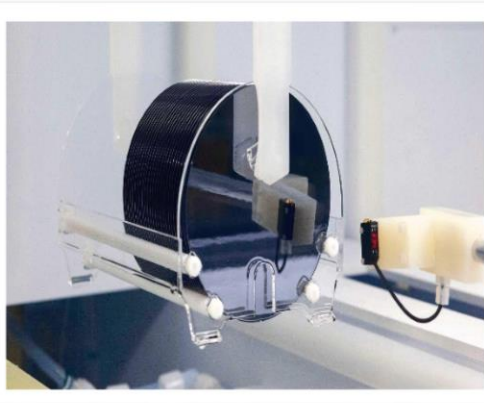
❖ Context

- China has successfully tested its first fully solar-powered **unmanned aerial vehicle (UAV)** which can fly for months and can function even as a satellite if required.

❖ Key Highlights

- The Qimingxing-50, with a wingspan of 50 m, is a high-altitude long-endurance drone that is capable of high altitude aerial reconnaissance, assessing forest fire and can also be used for communications.
- This technology will bolster Chinese defences in space and at sea. It can be used in the field of renewable energy, new materials and aeronautical engineering.
- This test flight is an important step towards sustainable development.
- It is also referred to as a 'High Altitude Platform Stations' or a pseudo satellite.
- It can be used when there is unavailability or disruption in satellite services.
- Compared to the cost and complexity of installing a satellite in orbit, this UAV is much more cost-effective and easy to operate.
- Like satellites, it is fully electric-driven powered by solar energy and can operate at 20 km above the Earth's surface for an extended period continuously.
- **Other countries with similar technology:** The U.S. & the United Kingdom have already developed solar-powered drones that can fly 20 km up in the sky.

US CHIPS Act



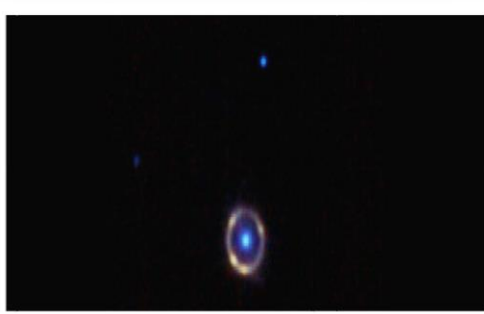
❖ Context

- The law passed in the USA recently (Aug-2022), can be beneficial for countries such as India.

❖ Key Highlights

- The US government's **Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act, 2022**, aims to incentivize technology companies to build semiconductor factories in the country.
- The scheme offers **incentives totalling \$53 billion** (around ₹4.2 trillion).
- However, companies accepting federal funding for the same are **barred from building high-tech facilities in China for the next 10 years**.
- The incentives from the US may be utilised by firms in the medium term (2-3 years) to expand globally for which India would be a good choice keeping in view the ₹76,000 crore PLI scheme for chipmakers announced by the Indian government earlier this year.

Einstein's Ring

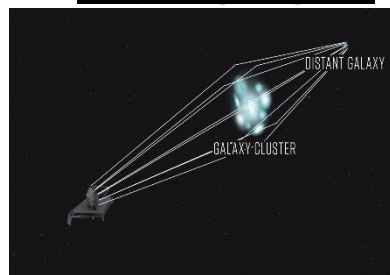


[Daily Current Affairs](#)

❖ Context

- **James Webb Space Telescope** has captured the image of a near-perfect Einstein ring formed from the light of a distant galaxy, around **12 billion light-years away, from Earth**.

❖ Key Highlights



- An **Einstein ring** is a ring of light created when light from a galaxy, star or other light-emitting cosmic objects passes near a massive object before it reaches the Earth or the observer.
- **Gravitational lensing** causes the light to get diverted. If the source, lens and the observing element are all in perfect alignment, this light appears as a ring.

Face to Face Centres

