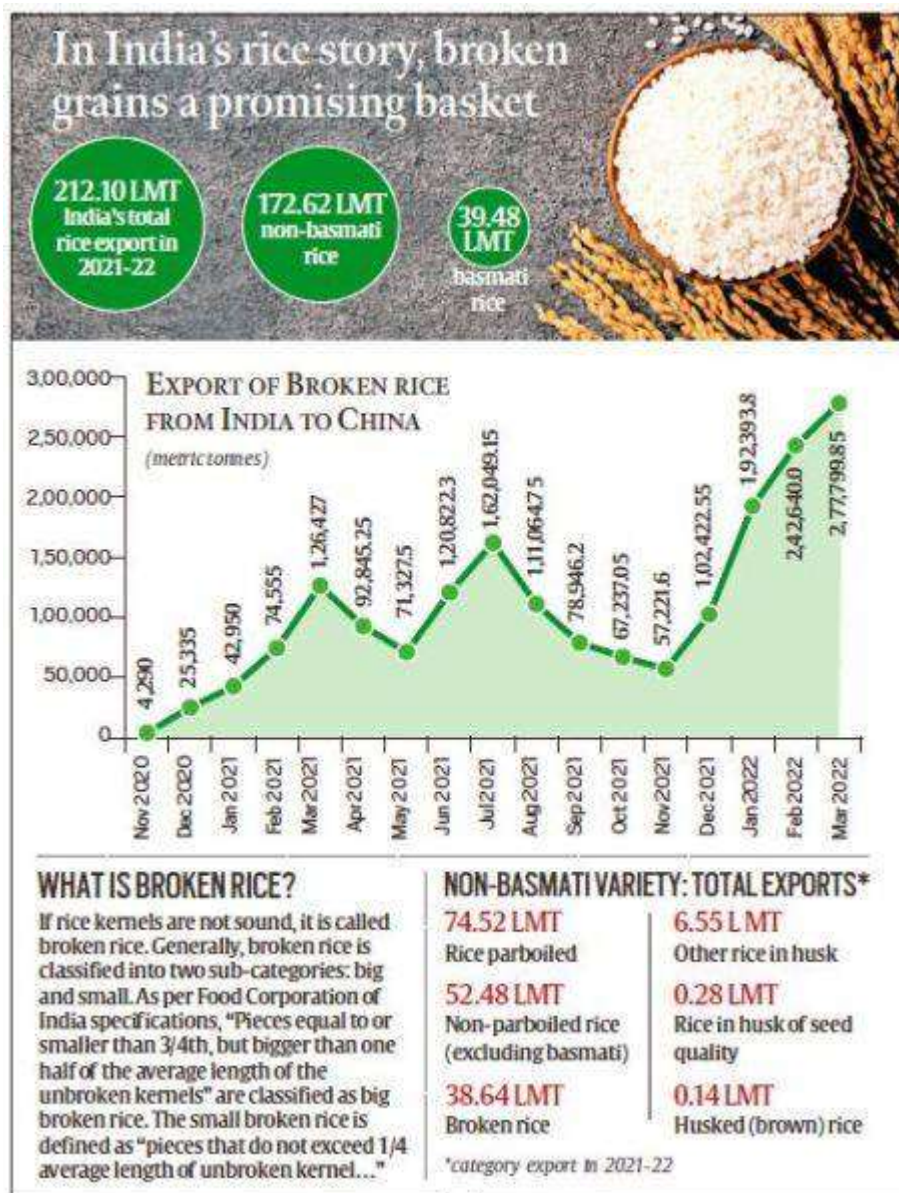


## China takes over as biggest importer of Indian broken rice

**(GS Paper 3, Indian Economy)**

### Why in news?

- In financial year 2021-22, China emerged as the top buyer of Indian broken rice.



### Key Highlights:

- China emerged as the top buyer of Indian rice during the pandemic, with the neighbouring country importing 16.34 lakh metric tonnes (LMT) or 7.7 per cent of India's total rice export of 212.10 LMT in financial year 2021-22.
- The analysis shows that out of China's total rice import from India of 16.34 LMT, nearly 97 per cent, or 15.76 LMT, was broken rice, which has seen a spike in demand from that country.
- In fact, China is now the top buyer of Indian broken rice, which was earlier exported mostly to African countries.

### Reasons for increased demand by China:

- The reason for this increase in export of broken rice to China is the higher demand of rice for making noodles and wine in that country.
- China had sent a delegation to India before the outbreak of Covid-19 and that delegation visited several rice mills.

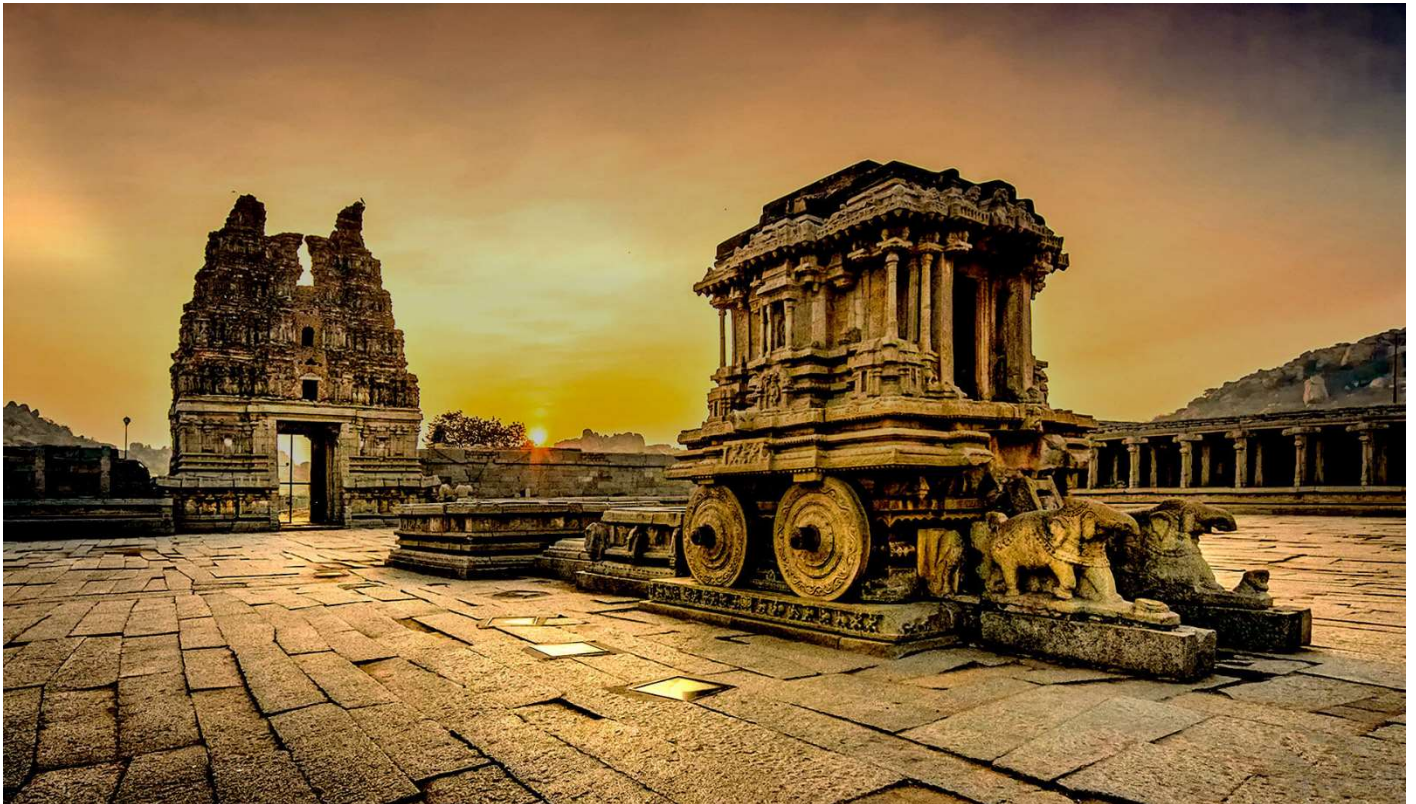
- Another reason for this increase in demand could be rising prices of corn. The demand for broken rice has seen a spike at a time when prices of food items have registered an increase globally in recent months, particularly after Russia's invasion of Ukraine.

## **15th century Vijayanagara empire stone inscription found in Udupi**

**(GS Paper 1, Culture)**

### **Why in news?**

- A stone inscription belonging to 15th century Vijayanagara empire was found in Nandanavana village of Byndoor taluk in Udupi district in Karnataka.



### **Description of the inscription:**

- The inscription found is inscribed in Kana stone.
- The inscription which is 5 feet tall and 2.5 feet wide has 38 lines in Kannada.
- On either side of the Vamana idol on the top end, conch, chakra, sun and moon are carved.
- It has a headline, 'Swasti Sri Ganadhipataye Namah' and the date is mentioned as 1442 Varthamana Pramadhi Samvatsarada Shravana Shuddha 15 Budhawara which means August 21, 1519 AD.

### **Prayer:**

- The inscription is a prayer for the long life and prosperity of ruler Vijayappa Odeya.
- The inscription had also received a donation from Keshava Upadhyaya, son of Eshana Upadhyaya of Angirasa Gothra.

### **Dateline:**

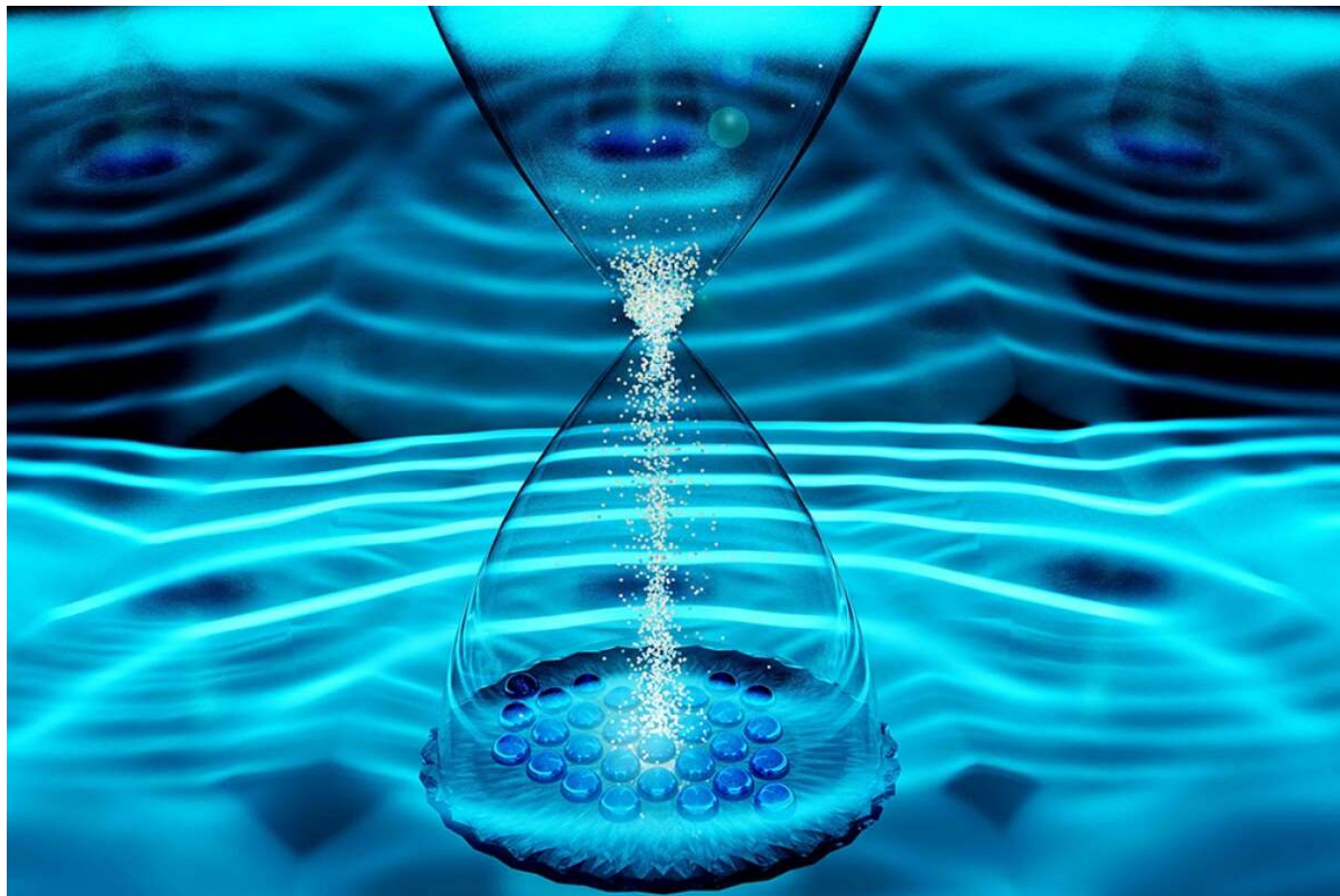
- The dateline on the stone inscription clearly states that this belonged to the times of Tuluva king Krishnadevaraya of Vijayanagara Empire.
- During the period, Barakoora state was ruled by Vijyappa Odeya, son of Ratnappa Odeya.

## Scientists create time crystals

(GS Paper 3, Science and Tech)

### Why in news?

- Scientists have for the first time created a two-body system in an experiment that could bend the laws of physics.
- Being called time crystals, this new phase of matter has been created after scientists witnessed their first interaction and were long believed to be impossible.



### Details:

- A team of researchers from Lancaster University, Royal Holloway London, Landau Institute, and Aalto University in Helsinki observed **the time crystals by using Helium-3** which is a rare isotope of helium with one missing neutron.
- They observed it for a record amount of time, about 1,000 seconds before it decayed.

### What is time crystal?

- A time crystal is a macroscopic quantum system in periodic motion in its ground state.
- They have now proved that this new phase of matter can not only be created but can also be used for useful purposes, including in quantum computing.
- Time crystals are **different from standard crystal-like metals or rocks**, which are composed of atoms arranged in a regularly repeating pattern in space.
- **Nobel Laureate Frank Wilczek was the first to theorize time crystals** in 2012 and identified them in 2016 as exhibiting the bizarre property of being in constant, repeating motion in time despite no external input.
- The atoms in time crystal are constantly oscillating, spinning, or moving first in one direction, and then the other.

### Mechanism:

- They cooled superfluid helium-3 to about one ten-thousandth of a degree from absolute zero and created two time crystals inside the superfluid, and brought them to touch.
- They then saw the two time crystals interacting as described by quantum physics.

#### **Way Forward:**

- The new matter could prove useful in developing quantum computers with have much faster processing rates and can use this new phase of matter by linking myriad time crystals, each one designed to act as a qubit.

### **38th India-Indonesia Coordinated Patrol (IND-INDO CORPAT)** **(GS Paper 2, International Relation)**

#### **Why in news?**

- The 38th India-Indonesia Coordinated Patrol (IND-INDO CORPAT) between the Indian Navy Units of Andaman & Nicobar Command (ANC) and Indonesian Navy is being conducted in the Andaman Sea and Straits of Malacca.
- The 38th CORPAT is the first post pandemic Coordinated Patrol (CORPAT) between the two countries.



#### **Vision SAGAR:**

- It includes a visit by the Indonesian Navy units to ANC at Port Blair followed by a Sea Phase in the Andaman Sea and visit by IN Units to Sabang (Indonesia).
- As part of Government of India's vision of SAGAR (Security And Growth for All in the Region), Naval Component under the aegis of HQ ANC undertakes coordinated patrols with other littoral countries of the Andaman Sea along respective Exclusive Economic Zones (EEZ) towards enhancing regional maritime security.

#### **Background:**

- India and Indonesia have enjoyed especially close relations, covering a wide spectrum of activities and interactions which have strengthened over the years.
- The two Navies have been carrying out CORPAT along their International Maritime Boundary Line (IMBL) since 2002.

- This has helped build understanding and interoperability between both the Navies and has facilitated measures to prevent and suppress Illegal Unreported Unregulated (IUU) fishing, drug trafficking, maritime terrorism, armed robbery and piracy, etc.

**Way Forward:**

- The IND-INDO CORPAT contributes towards forging strong bonds of friendship across the Andaman Sea and Straits of Malacca.

**Intensified Diarrhoea Control Fortnight – 2022**

**(GS Paper 3, Science and Tech)**

**Why in news?**

- Recently, Ministry of Health and Family Welfare launched the Intensified Diarrhoea Control Fortnight (IDCF)-2022.
- IDCF programme is being implemented from 13th June to 27th June, 2022 in the States/UTs.

**Aim:**

- The goal of IDCF is to attain zero child deaths due to childhood diarrhoea.



**Child mortality rate in India:**

- According to the latest report of SRS-2019, **child mortality rate** in the country has come down considerably since 2014.
- This rate has come down from 45 per 1000 live births in 2014 to 35 per 1000 live births in 2019. But even today, diseases related to diarrhoea continue to be a major cause of death in children under the age of five.
- **According to the latest survey (NFHS-5)** conducted by the Ministry, only **60.6% children under the age of five with diarrhoea were given ORS** and only 30.5% were given zinc. This means that there is lack of awareness among mothers.

**About IDFC:**

- Intensive Diarrhoea Control Fortnight (IDCF) is being organized since 2014 with an objective to 'bringing the number of deaths due to diarrhoea in childhood to zero'.

- In view of the high prevalence of diarrhoea, this fortnight is organized especially during summer/monsoon so that preventive measures can be taken.

#### Activities:

- IDCF consists of a set of activities to be implemented in an intensified manner for prevention and control of deaths due to dehydration from diarrhoea across all States & UTs.
- These activities mainly include intensification of advocacy & awareness generation activities for diarrhoea management, strengthening service provision for diarrhoea case management, establishment of ORS-Zinc corners, repositioning of ORS by ASHA in households with under-five children and awareness generation activities for hygiene and sanitation.

### StartUps for Railways (GS Paper 2, Governance)

#### Why in news?

- Recently, the Indian Railways, has taken an important initiative in field of innovation through participation of start-ups and other entities.
- It has launched “StartUps for Railways” in Rail Bhavan, New Delhi.

**5 Top Emerging Rail Monitoring Startups**

startUS  
INSIGHTS

Global Startup Heat Map inside ►►

#### Key Highlights:

- Through this platform startups will get a good opportunity to connect with Railways.
- Out of over 100 problem statements received from different divisions, field offices/zones of Railways, 11 problem statements like rail fracture, headway reduction etc. have been taken up for phase 1 of this program. These will be presented before the start ups to find innovative solutions.

#### Salient details of Indian Railway Innovation Policy are as under:-

- Grant up to Rs. 1.5 Crore to innovator on equal sharing basis with provision of milestone-wise payment.
- Complete process from floating of problem statement to development of prototype is online with defined time line to make it transparent and objective.

- Trials of prototypes will be done in Railways. Enhanced funding will be provided to scale up deployment on successful performance of prototypes.
- Selection of Innovator/s will be done by a transparent and fair system which will be dealt through online portal inaugurated today by Minister of Railways.
- Developed Intellectual property rights (IPR) will remain with innovator only.
- Assured developmental order to innovator.
- De-centralization of complete product development process at divisional level to avoid delays.

**Way Forward:**

- This policy will bring **scale and efficiency in the field of operation, maintenance and infrastructure creation** through participation of very large and untapped startup ecosystem.