

## The 'Ayahs' Home of London

### ❖ Context

- A home in London for Ayahs or nursemaids brought back by British families from India during the Raj is to be honoured with a **Blue Plaque** as part of a series to highlight the working-class experiences of the UK capital.

### ❖ Key Highlights

- The **'Ayahs' Home in the Hackney area of east London**, which dates back to **1900-1921**, housed many maids from India and other colonies in South and South-East Asia.
- The term **'Ayah'** was applied to all those women who served the British as **nannies and nursemaids** in India and other colonies.
- The Home provided safety and shelter to the many women who arrived in London with British families only to find that their **employers did not honour the promise of a return journey**, or offer the means to survive in the interim.
- The Ayahs, thus **abandoned**, were often **forced into common lodging houses** or the workhouse.
- The London home of WWII British Indian spy **Noor Inayat Khan** was also honoured recently. She was the **first woman of Indian origin** to be commemorated by the distinct blue London plaque.

### ❖ The Blue Plaque Scheme

- The idea of placing commemorative plaques on historically significant buildings was first mooted in **1863**.
- The idea was to **honour important people and organisations** who have lived or worked in London buildings.
- In 1867 the first blue plaque commemorated the poet Lord Byron at his birthplace.
- Currently, the blue plaque scheme is being run by the charity organisation, English Heritage, that takes care of historic sites and buildings in England.
- Over a span of more than 150 years, the blue plaque has been placed on more than 900 buildings in London.
- It has been **erected on houses and venues associated with several Indian men** including **Mahatma Gandhi, Raja Ram Mohon Roy, and B R Ambedkar**.

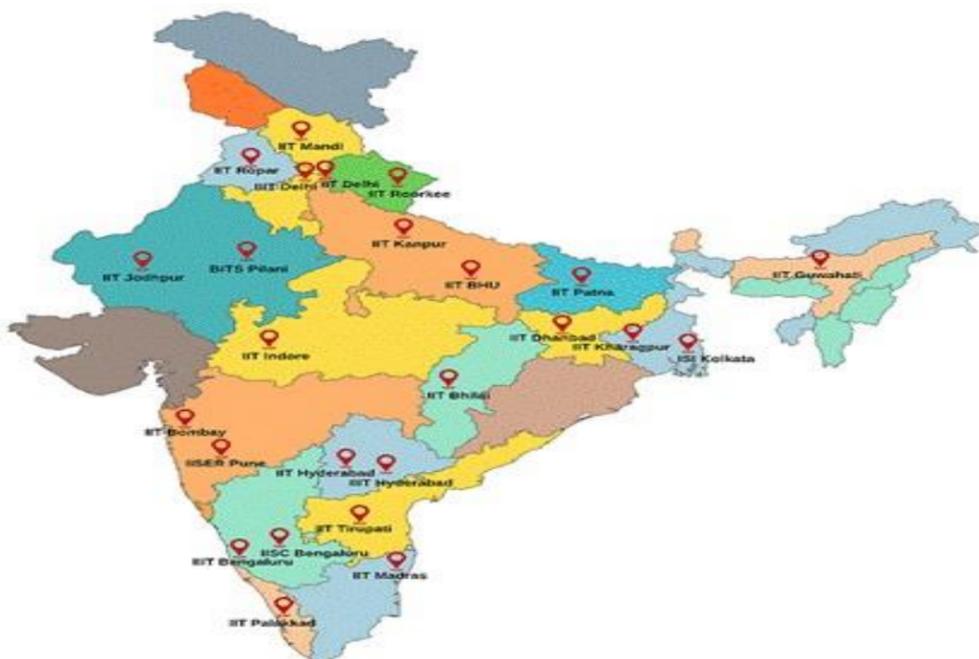
## National Mission on Interdisciplinary Cyber-Physical Systems

### ❖ Context

- The Government released press information.

### ❖ Key Highlights

- **Cyber-Physical Systems (CPS) combines digital/ cyber elements with physical objects** (e.g. machines, autonomous vehicles) and data with capabilities of communication, data collection & processing, computing, decision making and action.
- CPS is an **integrated system** involving Sensors, Communication, Actuators, Control, interconnected computing networks and data analytics.
- They allow organisations to take timely and optimal interventions/ actions.



Map courtesy: Survey of India, GOI

- Under the mission, **25 Technology Innovation Hubs (TIH)** have been set up across the country in the top academic & National R&D institutes.
- The Mission will feed the Central Ministries/ Departments and State Govts and also the Industry to effectively use the CPS technologies in their core mandate, projects and schemes for the benefit of the society.
- The Mission was approved by the Centre in 2018.

### ❖ Some Initiatives by TIH

- IIT Ropar's AWaDH (Agriculture & Water Technology Development Hub) has developed first of its kind **IoT device** that monitors ambient temperature during the transportation of vaccines, including Covid-19, medicines, blood samples.
- A team of scientists from IIT Bombay has developed **tapestry method** for screening COVID-19 under Remedial Action, Knowledge Skimming, and Holistic Analysis of COVID-19 (RAKSHAK).
- An **AI-driven platform** that helped Chest X-ray interpretation of images sent over WhatsApp was developed by ARTPARK at IISc Bangalore. It brought early intervention through rapid screening of COVID 19.

### Face to Face Centres



## AI Supercomputer

### ❖ Context

- Recently, Facebook-parent Meta announced in January last week that it is building an **AI supercomputer, the AI Research SuperCluster (RSC)**.

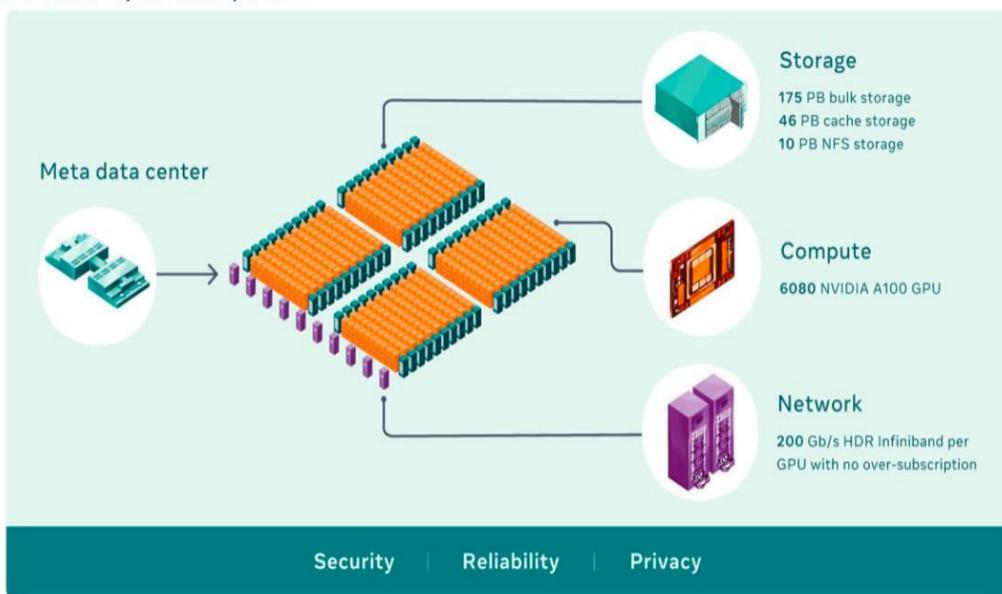
### ❖ Key Highlights

- The company said that this will be the **fastest supercomputer in the world** once fully built by mid-2022.
- The device is said to **accelerate AI research** and **help in building the metaverse**, the next major computing platform.

### ❖ About Supercomputers

- A supercomputer can perform **high-level processing at a faster rate** when compared to a normal computer.
- Supercomputers are **made up of hundreds or thousands of powerful machines** which use better **artificial intelligence (AI) models** to improve operations that process huge amounts of data in **less time** than normal computers.
- They work together to **perform complex operations** that are not possible with normal computing systems.
- Supercomputers require **high-speed and specialized chip architectures**.
- The chip performs **660 operations per cycle** and thus runs up to **230 gigaflops at 350 MHz**.
- AI supercomputers are built by combining multiple **graphic processing units (GPUs)** into compute nodes, which are then connected by a high-performance network fabric to allow fast communication between those GPUs.

Research supercluster phase 1



### ❖ About RSC

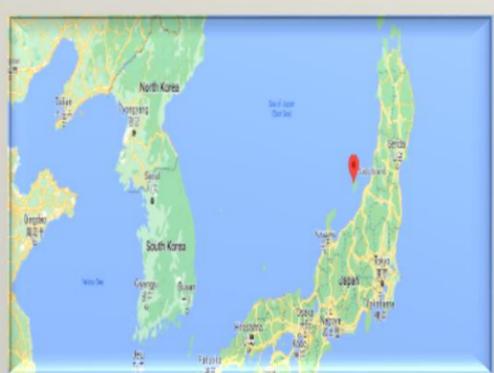
- Meta considers the RSC as a powerful supercomputer capable of **quintillions of operations per second**.
- It can perform tasks like **translating text between languages** and help identify potentially harmful content on Meta's platform.
- The RSC, compared with Meta's legacy production and research infrastructure, can run computer vision workflows **up to 20 times faster**.
- The RSC trains **large-scale natural language processing (NLP) models** three times faster.
- Meta estimates that a **model with billions of parameters** can finish training in three weeks, compared to the nine weeks it was before.

### ❖ Significance of RSC

- **RSC will help its researchers build better AI models.**
- Those AI models can learn from trillions of examples, work across hundreds of different languages, seamlessly analyze text, images and video together.
- It also can **power real-time voice translations to large groups** of people speaking different languages so that they can collaborate on a research project or play an AR game together, and develop new augmented reality tools.
- Researchers will be able to train the largest models needed to develop advanced AI for computer vision, and speech recognition.

## News in Between the Lines

### Sado Island



### ❖ Context

- Japan government' nomination of **three gold and silver mines in Sado Island** for UNESCO world heritage designation, has drawn criticism from South Korea.

### ❖ Key Highlights

- Located in **Sea of Japan**, 40 miles northwest of Japan.
- Mines supplied precious metals to Japan when the country was **cut off from the rest of the world** between 17th & 19th centuries, under the military rulers, **shoguns**.
- However during world war II, 1500 Koreans were conscripted to work in mines as subjects of colonial rule.
- The spat has worsened the relations between the countries that were already at their lowest point in decades.

## Face to Face Centres



## Exercise COBRA WARRIOR



### ❖ Context

➤ **Indian Air Force** will participate in a multi nation air exercise named 'Ex Cobra Warrior 22' at Waddington, **UK** in **March 2022**.

### ❖ Key Highlights

- IAF **Light Combat Aircraft (LCA) Tejas** will participate in the exercise along with fighter aircraft of the UK and other leading Air Forces.
- The exercise is aimed at providing operational exposure and share best practices amongst the participating Air Forces, thereby enhancing combat capability and forging bonds of friendship.
- IAF **C-17** aircraft will provide the necessary transport support for induction and de-induction.

## Quantum Key Distribution



### ❖ Context

➤ **DRDO and IIT Delhi Scientists** demonstrate Quantum Key Distribution between two cities 100 kilometres apart.

### ❖ Key Highlights

- It was the **first successful demonstration in India** of the Quantum Key Distribution.
- The link was between **Prayagraj and Vindhyachal in Uttar Pradesh**, a distance of more than **100 kilometres**.
- This technological breakthrough was achieved **over a commercial grade optical fibre** already available in the field.
- With this success, the country has demonstrated indigenous technology of secure key transfer for bootstrapping military grade communication security key hierarchy.
- The performance parameters have been found to be repetitively within the reported international standards at **sifted key rates of up to 10 KHz**.
- This technology will enable security agencies to plan a suitable quantum communication network with indigenous technology backbone.

## Nord Stream 2 Gas Pipeline



### ❖ Context

➤ Recently, Germany has **suspended the certification process** of Nord Stream 2 gas pipeline from Russia.

### ❖ Key Highlights

- Nord Stream 2 is a **1,200-kilometer pipeline under the Baltic Sea** which will take gas from the **Russian coast near St Petersburg to Lubmin in Germany**. It falls in the territory of EU members Germany and Denmark.
- It cost **€10bn (£8.4bn)** to build and was **completed September 2021**.
- The **Russian state-owned energy giant Gazprom put up half of the cost** and western energy firms such as **Shell and ENGIE of France are paying the rest**.
- Although it is awaiting German certification to become operational.
- Nord Stream 2 runs parallel to an existing gas pipeline, Nord Stream, which has been working since 2011.
- Together, these two pipelines could deliver **110bn cubic meters of gas to Europe every year**. That is about two-thirds of all the gas that European Union countries use annually.

## Annual Frontiers Report 2022

### ❖ Context

➤ Recently, The United Nations Environment Programme (UNEP) released its Annual Frontiers Report.

### ❖ Key Highlights

- **The 3 chapters of Frontiers 2022 are**
  - Listening to Cities: From Noisy Environments to Positive Soundscapes,
  - Wildfires Under Climate Change: A Burning Issue and
  - Phenology: Climate Change Is Shifting the Rhythm of Nature.
- In this report it has warned that wildfires are predicted to worsen in the coming years and decades.

## Face to Face Centres

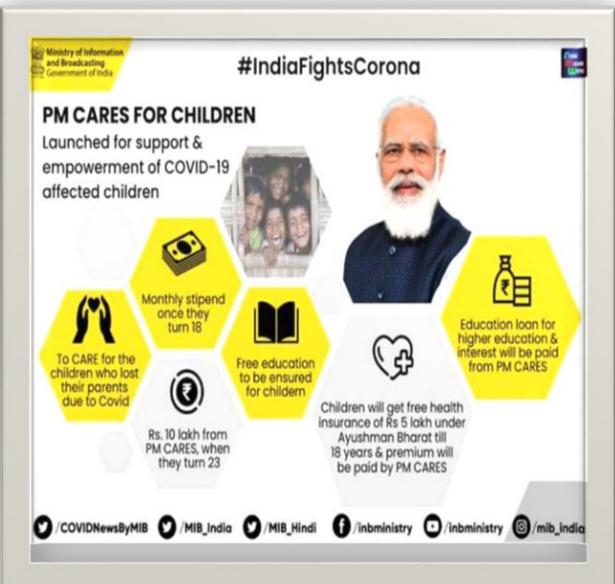


## Annual Frontiers Report 2022



- The report also outlined that **between 2002 and 2016**, an average of **423 million hectares of the land surface** - about the size of the European Union - **burned**.
- The report states that black carbon and other pollutants released by wildfires, can pollute water sources, cause landslides, accelerate glacier melt, and turn rainforests into carbon sinks.
- Wildfires are one of three most important environmental issues to have emerged due to climate change, according to the report.
- The other two are noise pollution and shifts in biological life cycles of plants and animals.
- Terming noise pollution "**a raucous killer**", it said that unwanted, prolonged, and high-level sounds from road traffic, railways, or leisure activities, impair human health and well-being.
  - The report encourages urban planners to **prioritize noise reduction by investing in urban infrastructure** that creates positive soundscapes such as tree belts, green walls, and more green spaces in cities - also offering diverse health benefits.
- With reference to the **Phenology**, which refers to **periodic events in biological life cycles**, the report says that decades of global warming is causing shifts in the timing of life stages of interacting species, sometimes resulting in ecosystem-disrupting phenological mismatches.
  - For example, some birds now have their nestlings in the nest when food supply is already waning, so late breeding pairs have lower success than early-breeding one.

## PM CARES Scheme for Children



### ❖ Context

- Recently, The Ministry of Women and Child Development has extended the **PM CARES for Children Scheme** till February 28, 2022.
- Earlier, the scheme was valid till December 31, 2021.

### ❖ Key Highlights

- The scheme covers **all children who have lost both parents, surviving parent, legal guardian, adoptive parents** or single adoptive parent due to COVID 19 pandemic, starting from March 11, 2020.
  - This is the date on which WHO has declared and characterized COVID-19 as a pandemic till February 28.
- To be entitled to benefits under this scheme, the child should **not have completed 18 years of age** on the date of death of parents.
- **Benefits:**
  - The scheme was announced to **ensure comprehensive care and protection**, in a sustained manner, enable their well-being through health insurance, empower them through education and equip them for self-sufficient existence with financial support on reaching 23 years of age.
  - The PM CARES for Children scheme inter-alia provides **support to these children through convergent approach**, gap funding for ensuring education, health, monthly stipend from the age of 18 years, and lumpsum amount of Rs 10 lakh on attaining 23 years of age.

## Eastern Bridge-VI

### ❖ Context

- **The Indian Air Force (IAF) and Royal Air Force of Oman (RAFO)** are participating in a bilateral exercise named '**Eastern Bridge-VI**' from 21 to 25 February 2022 at Air Force Station **Jodhpur**.

### ❖ Key Highlights

- The 6th edition of the exercise is aimed at providing an opportunity to **enhance operational capability and interoperability** between the two Air Forces.
- Further, the participation of IAF and RAFO in this exercise will **promote**



professional interaction, exchange of experiences and enhancement of operational knowledge, besides strengthening bilateral relations between the two countries.

- **Exercise Eastern Bridge V** was held in October 2019 at the Air Force Base Masirah, Oman.
- The IAF contingent comprised **MiG-29** and C-17 aircraft.
  - It was the first time that MIG-29 fighter aircraft participated in an International Exercise outside India.
- **Other Exercises Between India and Oman**
  - **Naseem-al-Bahr**-It is a bilateral biennial naval exercise between India and Oman.
  - **AL NAGAH**- It is a bilateral military exercise between India and Oman.

## Meri Policy Mere Hath



### ❖ Context

- **Pradhan Mantri Fasal Bima Yojana (PMFBY)** entering the seventh year of implementation in the upcoming Kharif season.
- The government has announced a new doorstep crop insurance distribution policy known as '**Meri Policy Mere Hath**'.

### ❖ Key Highlights

- It aims to ensure all farmers are well aware and equipped with all information on their policies, land records, the process of claim and grievance redressal under the **Pradhan Mantri Fasal Bima Yojna (PMFBY)**.
- The doorstep campaign will be launched in all implementing states in the upcoming **Kharif season** beginning June, the ministry said in a statement.

### ❖ Pradhan Mantri Fasal Bima Yojna

- **PMFBY** was launched with the aim of providing financial assistance to all the farmers who have suffered crop damage or loss from natural disasters.
- This scheme replaced two schemes called **National Agricultural Insurance Scheme (NAIS)** and **Modified National Agricultural Insurance Scheme (MNAIS)**.
- In the year 2020, PMFBY was modified to allow farmers to participate voluntarily. The Scheme shall be implemented on an '**Area Approach basis**' i.e., Defined Areas for each notified crop for widespread calamities.
- It has also been made easier for farmers to report crop damage within **72** hours after the occurrence of any event, either through the Crop Insurance App, the CSC Centre, or the nearest agriculture officer, with claim benefits sent automatically into eligible farmers' bank accounts.

## Khajuraho Dance Festival



### ❖ Context

- The **48th** edition of the World famous '**Khajuraho Dance Festival**' is being organized in **Khajuraho**, located in **Chhatarpur** district of **Madhya Pradesh**.

### ❖ Key Features

- This festival **highlights the richness of the Indian classical dance styles** such as **Kathak, Bharathanatyam, Odissi, Kuchipudi, Manipuri** and **Kathakali** with performances of some of the best exponents in the field. Modern Indian dance has been added recently.
- The **dances are performed in an open-air auditorium**, usually in front of the **Chitragupta Temple** dedicated to **Surya** (the Sun God) and the **Vishvanatha Temple** dedicated to **Lord Shiva**, belonging to the western group. These temples were built between **950-1050 AD** by the **Chandela dynasty** that ruled this region. Many of these temples were destroyed over the years, and only **20 of the original 85 survive**. Other than erotic art, 90% of the sculptures actually depict various other aspects of life, like **meditation, spiritual teachings, kinship, wrestling, royalty**.
- The Khajuraho Dance Festival began in **1975** to **celebrate this art** and since then has become one of the most anticipated cultural events in India.

