



## News Analysis (14 Jul, 2020)

---

 [drishtias.com/current-affairs-news-analysis-editorials/news-analysis/14-07-2020/print](https://drishtias.com/current-affairs-news-analysis-editorials/news-analysis/14-07-2020/print)

### India Dropped from Chabahar Rail Project

---

#### Why in News

---

Recently, Iran has decided to proceed with the **Chabahar** rail line construction on its own, citing **delays from the Indian side** in beginning and funding the project.

#### Chabahar Port

- Chabahar port is located on the **Gulf of Oman** and is only 72 km away from the **Gwadar port in Pakistan** which has been **developed by China**.
- The port serves as the **only oceanic port of Iran** and consists of two separate ports named Shahid Beheshti and Shahid Kalantari.

## BEING DIRECT: INDIA TO CHABAHAR



### Key Points

- Iran has inaugurated the track-laying process for the **628 km Chabahar-Zahedan rail line**, which will be **extended to Zaranj across the border in Afghanistan**.
- The entire project would be **completed by March 2022** and Iranian Railways will use approximately **USD 400 million** from the **Iranian National Development Fund**.
- **Background:**
  - In May 2016, India, Iran and Afghanistan signed the **trilateral agreement** which entailed the establishment of **Transit and Transport Corridor** among the three countries using Chabahar port in Iran as one of the regional hubs for sea transportation.
  - Construction of a rail line from Chabahar port to Zahedan, along the border with Afghanistan as an alternate trade route to Afghanistan and Central Asia, was also a part of it.

The state-owned **Indian Railways Construction Ltd. (IRCON)** had signed a **Memorandum of Understanding (MoU)** with the **Iranian Rail Ministry** and promised to provide all services, superstructure work and financing (around USD 1.6 billion).
  - The Chabahar port is being considered a gateway to golden opportunities for trade by the three countries with other Central Asian countries in the wake of **Pakistan denying transit access to India**.

- **Reasons:**

- Despite several site visits by IRCON engineers and preparations by Iranian railways, **India never began the work**, worrying that it could attract **sanctions by the USA**.
  - India has already **zeroed out its oil imports from Iran** due to USA sanctions.
  - The USA had provided a sanctions waiver for the Chabahar port and the rail line but it was **difficult to find equipment suppliers and partners** due to worries of being targeted by the USA.
- Another reason could be the '**Comprehensive Plan for Cooperation between Iran and China**' which is a **25-year and USD 400 billion strategic partnership deal**.
  - Both nations are **close to finalising** the deal, which will **include Chinese involvement** in Chabahar's duty-free zone, an oil refinery nearby and possibly a larger role in Chabahar port as well.
  - The cooperation will extend from **investments in infrastructure, manufacturing and upgrading energy and transport** facilities, to **refurbishing ports, refineries and other installations** and will commit Iranian oil and gas supplies to China during that period.
  - Iran proposed a tie-up between the Chinese-run Pakistani port at Gwadar and Chabahar in 2019 and offered interests to China in the **Bandar-e-Jask port** 350 km away from Chabahar, as well as in the Chabahar duty-free zone.

## Way Forward

---

- The Iran-China deal **impinges on India's strategic ties with Iran** and the use of Chabahar port. Bandar-e-Jask lies to the west of Chabahar and right before the Strait **of Hormuz** which would **allow China to extend its control along the Pakistan-Iran coast**.
- Each of these possibilities **should be watched closely** by India and it should **strengthen its relations** with the concerned countries.
- As an emerging power, India cannot remain confined to South Asia and a peaceful extended neighbourhood (Iran-Afghanistan) is not only good for trade and energy security but also plays a **vital role in India's aspirations of becoming a superpower**.

**Source: TH**

---

## Tiger Census 2018: Guinness Book of World Records

---

### Why in News

---

**India's 2018 Tiger Census** has made it to the **Guinness Book of World Records** for being the **world's largest camera trapping wildlife survey**.

- India has also fulfilled its resolution to double the **Tiger** numbers made at St. Petersburg Tiger Summit in 2010, before the target year of 2022.
- The tiger numbers in India have increased from around 1500 in 2010 to 2976 in 2020.

### Key Points

---

- **Comprehensive:** The **fourth cycle** of the **Tiger Census 2018**, conducted in 2018-19 is the most comprehensive in terms of both resource and data recorded.
  - It counted **2976 tigers** which is **75%** of the global tiger population.
  - The census is done quadrennially (every four years) by the **National Tiger Conservation Authority (NTCA)** with technical help from the **Wildlife Institute of India**.  
It is done with cooperation from the state Forest Departments and partners.
- **Methods:**
  - **Camera traps** were placed at multiple locations across different sites and surveyed an effective area of 121,337 square kilometres.  
**Camera Traps** are **outdoor photographic devices** fitted with motion sensors that start recording when an animal passes by.
  - It also conducted extensive **foot surveys** that sampled habitat plots for vegetation and prey dung.
- **Identification:** From these photographs 83% of the total tiger population were identified using **stripe-pattern-recognition software**.  
The software helps to match a new image of a tiger already in the database, based on the pattern of stripes.

## Project Tiger

---

- It was launched in **1973** with 9 tiger reserves for conserving our national animal, the tiger.
- It is an ongoing **Centrally Sponsored Scheme** of the Ministry of Environment, Forests and Climate Change.
- Currently, the Project Tiger coverage has increased to 50 Tiger reserves, spread out in 18 tiger range states which amounts to around 2.21% of the geographical area of our country.
- The tiger reserves are **constituted on a core/buffer strategy**. The core areas have the legal status of a national park or a sanctuary, whereas the buffer or peripheral areas are a mix of forest and non-forest land, managed as a multiple use area.
- The **NTCA** was **launched in 2005**, following the recommendations of the Tiger Task Force. It is a **statutory body of the Ministry**, with an overarching supervisory/coordination role, performing functions as provided in the Wildlife (Protection) Act, 1972.
- **M-STrIPES** (Monitoring System for Tigers - Intensive Protection and Ecological Status) is an **app based monitoring system**, launched across Indian tiger reserves by the NTCA in 2010.  
The system would enable field managers to assist intensity and spatial coverage of patrols in a geographic information system (GIS) domain.



Tiger

- **Scientific Name:** *Panthera tigris*
- **Indian Sub Species:** *Panthera tigris tigris*.

- **Habitat:** It stretches from Siberian temperate forests to **subtropical and tropical forests on the Indian subcontinent** and Sumatra.
- It is the largest cat species and a member of the genus Panthera.
- Traditionally **eight subspecies of tigers** have been recognized, out of which **three are extinct**.
  - **Bengal Tigers:** Indian Subcontinent
  - **Caspian tiger:** Turkey through central and west Asia (**extinct**).
  - **Amur tiger:** Amur Rivers region of Russia and China, and North Korea
  - **Javan tiger:** Java, Indonesia (**extinct**).
  - **South China tiger:** South central China.
  - **Bali tiger:** Bali, Indonesia (**extinct**).
  - **Sumatran tiger:** Sumatra, Indonesia.
  - **Indo-Chinese tiger:** Continental south-east Asia.
- Designated as the National Animal of India, Bengal Tiger is most recognisable for its dark vertical stripes on orange-brown fur with a lighter underside.
- **Importance:** Tigers are terminal consumers in the ecological food pyramid, and their conservation results in the conservation of all trophic levels in an ecosystem.
- **Threats:** Habitat destruction, habitat fragmentation and poaching.
- **Protection Status:**
  - **Indian Wildlife (Protection) Act, 1972: Schedule I**
  - **International Union for Conservation of Nature (IUCN) Red List: Endangered.**
  - **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): Appendix I.**
- **Tiger Reserves in India**
  - **Total Number: 50**
  - **Largest: Nagarjunsagar Srisailem Tiger Reserve, Andhra Pradesh**
  - **Smallest: Orang National park, Assam**

**Source: PIB**

---

## **USA: India's Top Trading Partner**

---

### **Why in News**

---

As per the data from the Ministry of Commerce and Industry, the **USA remained India's top trading partner for the second consecutive fiscal year in 2019-20.**

This indicates **increasing economic ties** between the two countries.

### **Key Points**

---

- **Trade with the USA:**

- In 2019-20, the bilateral trade between the USA and India stood at USD 88.75 billion as against USD 87.96 billion in 2018-19.
- The USA is one of the few countries with which **India has a trade surplus**.  
India's trade surplus with the USA increased to USD 17.42 billion in 2019-20 from USD 16.86 billion in 2018-19.
- In 2018-19, the **USA surpassed China** to become India's top trading partner.

- **Trade with China:**

- The bilateral trade between India and China has **dipped** to USD 81.87 billion in 2019-20 from USD 87.08 billion in 2018-19.
- **Trade deficit** between the two neighbours has declined to USD 48.66 billion in 2019-20 from USD 53.57 billion in the previous fiscal.
- **China was India's top trading partner from 2013-14 till 2017-18**.  
Before China, **the United Arab Emirates (UAE)** was the country's largest trading nation.
- Further, India is considering certain steps like framing technical regulations and quality control orders for host of items with a view to cut import dependence on China and boost domestic manufacturing.
  - Recently, **India banned 59 Chinese apps** and made **government approval mandatory for Foreign Direct Investment (FDI) from neighbouring countries**.
  - The app ban decision came amid **tensions on the border**.

- **Way Forward for the USA and India:**

- There is a huge potential to boost bilateral trade between the countries on account of **increasing anti-China sentiment in both the nations**.  
Because of the anti-China sentiment, several USA companies are exploring new suppliers in countries like India to cut dependence on China and if this happens, then it will greatly help India to boost exports to the USA.
- **Presence of Indian diaspora** in the USA is one of the main reasons for increasing bilateral trade. A **balanced trade** deal can further boost the economic ties.
  - India and the USA are negotiating a limited trade pact with a view to iron out differences at trade front and boost commercial ties.
  - However, India should be a bit cautious while negotiating the pact with the USA in areas such as **agriculture, dairy and issues related to intellectual property rights**.
  - Recently, the USA administration has **extended the ban on immigrant and non-immigrant visas** till the end of 2020.  
**India's IT services exports to the USA**, which depend significantly on the **H-1B visa**, has been an **important** constituent element of **bilateral economic trade**.

Source: BS

---

**Retail Inflation Growth at 6.09%**

---

**Why in News**

---

Recently, the **National Statistical Office (NSO)** released the retail inflation data, which rose to **6.09%** in the month of June, 2020.

Retail inflation is measured by the **Consumer Price Index (CPI)**.

## Key Points

---

- The retail inflation growth was mainly due to a rise in **pulses and products** prices that saw a **16.68%** on-year rise in June.
  - Apart from pulses and products segment, the **meat and fish** segment saw a rise of **16.22%**, while that of **oils and fats** rose 12.27% and **spices** prices gained **11.74%**.
- The retail inflation has grown beyond the **Reserve Bank of India's (RBI) upper margin of 6%**.
  - The Central government has mandated the RBI to keep inflation within the range of  $4\pm 2\%$ .
  - This **inflation range (4% within a band of +/- 2%) was recommended by the committee headed by Urjit Patel in 2014.**
- The NSO also released the **Consumer Food Price Index (CFPI)** data which measures the inflation in the food basket.
  - The CFPI stood at 7.87% in the month of June. The CFPI for May was revised to 9.20%.
  - The reduction in CFPI is because of ease in supply related issues post lockdown.
- The government **has not released the retail inflation data for April and May.**
  - The price collection of Consumer Price Index (CPI) through personal visits of price collectors was suspended due to the announcement of nation-wide lockdown to contain spread of **Covid-19 pandemic.**

## Inflation

- Inflation refers to the **rise in the prices of most goods and services** of daily or common use, such as food, clothing, housing, recreation, transport, consumer staples, etc.
- Inflation measures the average price change in a basket of commodities and services over time.
- Inflation is indicative of the **decrease in the purchasing power** of a unit of a country's currency. This could ultimately lead to a deceleration in economic growth.
- However, a **moderate level of inflation is required in the economy** to ensure that production is promoted.
- In India, the NSO under the Ministry of Statistics and Programme Implementation measures inflation.
- In India, inflation is primarily measured by two main indices — **WPI (Wholesale Price Index) and CPI (Consumer Price Index)** which measure wholesale and retail-level price changes, respectively.

## Consumer Price Index

- It measures price changes from the **perspective of a retail buyer.**
- The CPI calculates the difference in the price of commodities and services such as food, medical care, education, electronics etc, which Indian consumers buy for use.
- The CPI has several sub-groups including food and beverages, fuel and light, housing and clothing, bedding and footwear.

- Four types of CPI are as follows:
  - **CPI for Industrial Workers (IW).**
  - **CPI for Agricultural Labourer (AL).**
  - **CPI for Rural Labourer (RL).**
  - **CPI (Rural/Urban/Combined).**
  - Of these, the first three are compiled by the Labour Bureau in the **Ministry of Labour and Employment**. Fourth is compiled by the National Statistical Office (NSO) in the Ministry of Statistics and Programme Implementation.
- **Base Year** for CPI is **2012**.
- The **Monetary Policy Committee (MPC)** uses CPI data to control inflation.

Source: IE

---

## Language of the Tangams

---

### Why in News

---

Recently, the Chief Minister of Arunachal Pradesh has released a book titled “**Tangams: An Ethnolinguistic Study Of The Critically Endangered Group of Arunachal Pradesh**”.

The book has valuable data on **endangered oral narratives** like ritual songs, lamentation songs, lullabies and festival songs in **Tangam language** spoken by the Tangam community, which has **reportedly 253 speakers left now**.

### Key Points

---

- **Tangam People:**
  - It is a little-known community within the larger **Adi tribe of Arunachal Pradesh** which resides in the **hamlet of Kugging in Upper Siang district’s Paidem circle**.
  - For long, the only account of the Tangams could be found in a book, “**Tangams**” (1975) where the community’s population was pegged at 2,000 spread across 25 villages.
- **Tangam Language:**
  - Tangam is an **oral language that belongs to the Tani group**, under the greater **Tibeto-Burman language family**.
  - It has been marked ‘**critically endangered**’ by the **UNESCO World Atlas of Endangered Languages** (2009).



Degree of Endangerment	Intergenerational Language Transmission
Safe	Language is spoken by all generations; intergenerational transmission is uninterrupted.
Vulnerable	Most children speak the language, but it may be restricted to certain domains.
Definitely endangered	Children no longer learn the language as mother tongue in the home.
Severely endangered	Language is spoken by grandparents and older generations; while the parent generation may understand it, they do not speak it to children or among themselves.
Critically endangered	The youngest speakers are grandparents and older, and they speak the language partially and infrequently.
Extinct	There are no speakers left.

### Reasons for its Decline:

- **Low population:** Smaller languages are more vulnerable and extinction is directly proportional to population.  
Another **critically endangered language is Meyor** but it is better off than Tangam because the community has a population of around 1,000 people.
- **Multilingualism:** Tangams have become **multilingual over time** to communicate with their neighbours.  
Kugging is surrounded by a number of villages inhabited by Adi subgroups such as Shimong, Minyongs, as well as the Buddhist tribal community of Khambas, among others.
- **Less or No Use of Tangam:** They rarely speak their own language now because their population is restricted to a single village. Moreover, they are relatively unknown even within the state so there was no possibility of its expansion.
- **Lack of Development and Infrastructure:** The village lacks proper infrastructure in all basic sectors of education, health, drinking water facilities, road and electricity. Not a single person from the community has gone to a university.

### Languages of Arunachal Pradesh

---

- There has been **no systematic, scientific or official survey** on the number of languages in Arunachal Pradesh till recently.
  - An **official linguistic survey** by the state government began only in **2018**, which is currently underway.
  - Before that, **People's Linguistic Survey of India** was published in **2017**.
- According to experts, there are **around 32-34 languages** with a disclaimer that it is **not a conclusive figure**.  
If various linguistic varieties or dialects embedded within these languages are enlisted then the numbers can go up to 90.
- The languages of Arunachal Pradesh have been **classified under the Sino-Tibetan language family** and **more specifically under the Tibeto-Burman and Tai group of languages**, such as Lolo-Burmish, Bodhic, Sal, Tani, Mishmi, Hruishh and Tai.

- The **education system introduced Devanagari, Assamese and Roman scripts** for most tribal languages but **new scripts such as Tani Lipi and Wancho Script** have been developed by native scholars as well.
- According to the UNESCO Atlas of the World's Languages in Danger, **more than 26 languages** of Arunachal Pradesh have been identified as endangered with the **degrees ranging from 'unsafe', 'definitely endangered' to 'critically endangered'**.
- **Risks:**
  - The **diversity of languages** has led various communities to **depend on English, Assamese and Arunachalee Hindi as the link languages.**
  - The **younger generation** of various tribes, especially in the urban areas, **has mostly discarded** the use of their mother tongue.

## Way Forward

---

- The study for the book took a multidisciplinary approach by taking into account not only language but also rituals, folklore, food habits, belief systems, etc.
- The book will help future children retain their unique identity as an ethnolinguistic group and will appeal to those interested in ethnolinguistics, anthropology and folkloristics of lesser studied tribes.

## Source: IE

---

## The Padmanabhaswamy Temple Case

---

### Why in News

---

Recently, the **Supreme Court of India upheld the right of the Travancore royal family** to manage the property of deity at **Sree Padmanabhaswamy Temple** in Thiruvananthapuram (Kerala).

The Temple has been in the news since 2011 after the discovery of treasure worth over Rs. 1 lakh crore in its underground vaults.

### Key Points

---

- **Judgement:**

- The Supreme Court (SC) **reversed the 2011 Kerala High Court decision**, which had directed the Kerala government to set up a trust to control the management and assets of the temple.
- The High Court (HC) had ruled that the **successor to the erstwhile royals could not claim to be in control of the Sree Padmanabhaswamy Temple** after the **amendment of definition of ‘Ruler’ in Article 366 (22)** of the Constitution of India.
  - The definition of Ruler was amended by the **Twenty Sixth (Constitutional) Amendment Act, 1971**, which abolished the privy purses.
  - Article 366 (22) reads, “Ruler” means the Prince, Chief or other person who, at any time before the commencement of the Twenty Sixth (Constitutional) Amendment Act, 1971, was recognised as the Ruler of an Indian State or was recognised as the successor of such Ruler.
- However, the SC rejected this and said that, **as per customary law**, the members of the royal family have the **shebait rights** even after the death of the last ruler.

Shebait rights means right to manage the financial affairs of the deity.
- The SC held that, **for the purpose of shebait rights the definition of Ruler would apply** and would transfer to the successor.

- **Administrative Committees:**

- The SC accepted the submission of the royal family that the temple is a **public temple**, and directed setting up of an **administrative committee with the Thiruvananthapuram District Judge as its chairperson**, for its transparent administration in the future.

The other members of the Committee would be a nominee of the trustee (royal family), the chief thanthri of the temple, a nominee of the State and a member nominated by the Union Ministry of Culture.
- The SC **also ordered a second committee** to be constituted to advise the administrative committee on policy matters.

This would be **chaired by a retired High Court judge** nominated by the Chief Justice of the Kerala High Court.
- The primary duties of the two committees would be to preserve the treasures and properties.

- **Background:**

- As per the **Instrument of Accession** signed between the princely states and the Government of India, the administration of the Padmanabhaswamy Temple was **vested in trust in the Ruler of Travancore**, since 1949.
- **In 1971, privy purses to the former royals were abolished** through a constitutional amendment stripping their entitlements and privileges.
- In 1991, when the last ruler of Travancore, Chithira Thirunal Balarama Varma, passed away, his brother Uthradam Thirunal Marthanda Varma took over the temple management.
- This created a furore that he had no legal right to claim the control or management of the temple.
- However, the royal family continued to manage the affairs of Sree Padmanabhaswamy Temple till the Kerala High Court in 2011 ruled that the family cannot continue to exert its shebait rights.

- According to Historians, the temple dates back to the **8<sup>th</sup> century** but the present structure was built in the 18<sup>th</sup> century by the then Travancore **Maharaja Marthanda Varma**.  
The temple was initially made of wood but later it was constructed with granite.
- The temple is built in the unique **Chera style of architecture**, and its **main deity is Lord Vishnu** who is found in the **Anantha Shayana posture** (reclined posture of eternal yoga) on **Adishesha** or king of all serpents.
- It is known to be **one of the 108 holy temples associated with Vaishnavism in India**.

**Source: TH**

---

## India's Second Voluntary Review of SDGs

---

### Why in News

---

Recently, India has represented the **second voluntary national review of Sustainable Development Goals (SDGs)** report titled as '**Decade of Action: Taking SDGs from Global to Local**' to the **United Nations High-level Political Forum**.

- The report, presented by **NITI Aayog**, discusses SDGs related policy, means of implementation and situation of **Covid-19** in India.
- It presented the **first** voluntary national review of SDGs in **2017**.

### Key Points

---

- **Localising SDGs:** The goal wise account of the progress on SDGs has been represented with examples of a range of diverse practices and success stories of interventions from the States, specifically **Aspirational Districts**.
- **Financial Assistance:** Highlighted the challenges thrown up by the Covid-19 outbreak, India has called on developed countries to provide **financial assistance** to the developing countries, especially for **global public good such as climate change mitigation and control of pandemics**.  
According to a study conducted by the government in partnership with the **International Monetary Fund (IMF)** — education, health, electricity, roads and water and sanitation — will require additional funding for “significant” progress.
- **Curbing Illicit Financial Flows:** Deliberating on the “SDG-17” that is about “partnerships for the goals”, the report highlighted the need for international cooperation for curbing illicit financial flows.
- **Efforts to curb the Covid-19:** It mentioned the vulnerabilities faced by the migrants and the urban poor in the wake of the pandemic.
  - India is leading a multi-faceted effort to revamp the public health infrastructure, protect jobs and livelihoods to reduce the impact of the Covid-19.
  - Government has announced **economic relief packages** for them.

### United Nations High-Level Political Forum

- Formed in 2013, it is a subsidiary body of both the **United Nations General Assembly** and the **United Nations Economic and Social Council** responsible for the entire organization's policy on sustainable development.
- **Headquarter:** New York, USA
- It adopts negotiated declarations, reviews commitment and the progress of the **2030 Agenda for Sustainable Development**.
- Member countries are required to apprise about the progress in the form of **Voluntary National Review reports (VNRs)**.
  - The VNRs that are presented by the member states are a critical component of the **review of the implementation and progress** of 2030 Agenda and SDGs.
  - The process of the preparation of a country's VNR provides a platform for the partnerships, which includes the participation of various stakeholders.
  - India's VNR in 2020 undertook a paradigm shift in terms of embodying a **'whole of society' approach** in letter and spirit.
    - It has been prepared with the help of sub-national and local governments, civil society organizations, local communities, people in vulnerable situations and the private sector.
    - NITI Aayog has the mandate of overseeing the adoption and monitoring of SDGs at the national and sub-national level.

**Source: IE**

---

## Warning of Higher NPAs

---

### Why in News

---

Recently, the **Reserve Bank of India (RBI)** Governor has warned that the economic impact of the **Covid-19 pandemic** would lead to higher **Non-performing Assets** and capital erosion of banks.

### Key Points

---

- **Reasons:**
  - Just in a span of decade, Indian economy has been hit by the **global financial crisis of 2008-09** and the **Covid-19 pandemic in 2020**.
  - The current crisis may leave a longer impact on Indian economy, which is predicted to contract in the Financial Year (FY) 2020-21 for the first time in the past four decades.
  - Uncertainty about :
    - Full restoration of supply chains.
    - Normalisation of demand conditions.
    - Long term impact of the pandemic on India's potential growth.
- **Issues Involved:**
  - Banks have poor asset quality, lack of profitability, loss of capital, excessive risk exposure, poor conduct, and liquidity concerns.
  - There is also a **lack of a mechanism** to address bank failures.
  - Stress on **Non-banking Finance Companies (NBFCs)** and mutual funds are emerging as crucial stress points in the financial system.

- **Suggestions:**

- The RBI Governor has advised all **financial intermediaries** to assess the impact of Covid-19 on their balance sheet, asset quality, liquidity, profitability and capital adequacy for the FY 2020-21 and to work out possible mitigating measures.

The idea is to **ensure continued credit supply** to different sectors of the economy and maintain financial stability.

- Financial intermediaries should make risk management **in tune with the emerging contingencies.**

The risk management includes, building buffers and raising capital, which will strengthen the internal defences of banks against the risks posed by Covid-19 also ensure credit flow.

- **Recapitalisation plan for Public Sector Banks (PSBs)** and private banks since the minimum capital requirements of banks may no longer be sufficient enough to absorb the losses.

The minimum capital requirements of banks are calibrated based on historical loss events.

**Source: TH**

---

## **App to Monitor Rice Fields: Paddy Watch**

---

### **Why in News**

---

Researchers from University of Sydney in collaboration with other partners have been developing an app i.e. **Paddy watch**, which will act as the **first real-time monitoring platform for rice fields**.

The project has been undertaken in collaboration with **Google Earth** and the **Group on Earth Observations (GEO)**.

### **Key Points**

---

- **Development of the App:** The Paddy watch is being developed in partnership with **Indian Agricultural Research Institute**, India along with the research institutes from different countries i.e. China, Malaysia, Indonesia, and Vietnam.
  - These five countries hold the position of the largest rice-producing countries across the globe.
  - Among these, **India, China and Indonesia** are the world's three largest producers of rice and together account for about **60% of the total** world production.
- **Functioning:** The **real-time land-use data** will be generated using **Google Earth** and **cloud computing technology**, and will be verified by field operators in partner countries to ensure accuracy of rice production worldwide.

- **Significance:**

- **Digital Agriculture:** The app would work on **deep-learning techniques** (works on the idea of **Artificial Intelligence**) to forecast crop yields and water consumption.  
This type of technology would enhance the world's confidence to feed the population in a sustainable way.
- **Accurate Information:** Accurate and up-to-date information on rice planted and harvested can be achieved through the app.
  - It would allow **farmers, agricultural scientists, non-government organisations and government planners** to manage land use to **ensure food security** in the world's rice bowls.  
Therefore, helps in meeting the **United Nations**-mandated **sustainable development goal** No.2 – of '**Zero Hunger.**'
  - It would help in water management and **water security** by predicting the use of water for the rice fields.
- **GreenHouse Gas Emission:** As paddy fields release methane, a significant component to the **greenhouse gases**, the app would help in the estimation of the emission and impact of **global warming**.
- **Policy Formulation:** The information collected through the app would also help the associated partners to develop policies for education, economic growth, gender equity, and reduction of social inequality.

### **Group on Earth Observations**

- GEO is a unique **global network** connecting government institutions, academic and research institutions, data providers and scientists to benefit the world by comprehensive and sustained Earth observations.
- It coordinates international efforts to build a **Global Earth Observation System of Systems (GEOSS)**.  
It aims to produce a **global public infrastructure** that generates, near-real-time environmental data, information and analyses for a wide range of users and mitigation of global issues like climate change.

**Source: DTE**

---