



## Wassenaar Arrangement

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# Wassenaar Arrangement

**For exchange of information on transfers of conventional weapons and dual-use goods and technologies**




## About

- **Voluntary** export control regime **formally estd. in 1996**
- Succeeded the Cold War-era **Coordinating Committee for Multilateral Export Controls**

## Objective

- Controlling the movement of technology material or components to countries or entities which **undermine international security and stability**

## Members

- **42** members (mostly NATO and EU states)  
- The **P5** (except China) of UNSC are members 

## India's Membership of WA

- India joined as a **member in 2017** (latest entrant)
- India's membership implies that it is **recognised to have dual use technology**
- Being a non-signatory to the NPT, the WA membership is significant for India to **boost its credentials to enter the Nuclear Suppliers Group (NSG)**

## Secretariat

- **Vienna, Austria**

## WA Plenary

- Decision-making body with **representatives from all participating states**
- Plenary **chair rotates annually; India's chairmanship begins from 1st Jan, 2023**



**Drishti IAS**

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# The Future of Food and Agriculture: FAO

**For Prelims:** FAO, Food Security, SDG, The State of Food Security and Nutrition in the World.

**For Mains:** The Future of Food and Agriculture: FAO.

## Why in News?

According to the [Food and Agriculture Organization's \(FAO\)](#) new report, **The Future of Food and Agriculture — Drivers and triggers for transformation**, the world will witness persistent [food insecurity](#) if agrifood systems remain the same.

- This report aims at **inspiring strategic thinking and actions to transform agrifood systems** towards a sustainable, resilient and inclusive future.

## What are the Findings of the Report?

- **Drivers of Agrifood System:**
  - There are 18 **interconnected socio-economic and environmental forces**, called drivers, which interacted and shaped the **various activities occurring within agrifood systems**, including farming, food processing, and food consumption.
  - Poverty and inequalities, geopolitical instability, scarcity and the degradation of resources, and climate change are some of the key drivers and how they are and their management will determine **what the future of food looks like**.
- **Concerns over Food Insecurity:**
  - The world will witness **persistent food insecurity**, degrading resources and unsustainable economic growth in the future if agrifood systems remain the same.
  - The world is **“tremendously off track” to meet the Sustainable Development Goals (SDG)**, including agrifood targets.
    - Many of the SDGs are not on track and will only be achieved **if agrifood systems are transformed properly to withstand ongoing global adversity** that undermines food security and nutrition due to **growing structural inequalities and also regional inequalities**.
  - By 2050, there will be **10 billion people in the world to feed and this will be an unprecedented challenge** if significant attempts are not made to reverse current trends.
- **Future Scenarios:**
  - There will be **four future scenarios** for agrifood systems that bring diverse outcomes in terms of food security, nutrition and overall sustainability.
    - **More of the same**, that envisages continuing muddling through by reacting to events and crises.
    - **Adjusted future**, where some moves towards sustainable agrifood systems occur at a slow, uncertain pace.
    - **Race to the bottom**, that portrays a **world in disarray in the worst version of itself**.
    - **Trading off for sustainability**, where short-term Gross Domestic Product (GDP) growth is traded **off for inclusiveness**, resilience and sustainability of agrifood, socioeconomic and environmental systems.

## What are the Suggestions?

- Decision makers need to think **beyond short-term needs**. A lack of vision, piecemeal approaches and quick fixes **will come at a high cost for everyone**
- There is an urgent need to **change course so that a more sustainable and resilient future for agrifood systems is created**.
- There is a need to work on Key **'triggers of transformation'**:
  - Improved governance.
  - Critical and informed consumers.
  - Better income and wealth distribution.
- Innovative technologies and approaches.
- A comprehensive transformation, however, will come at a cost and **will require trade-off of contrasting objectives that governments, policy makers and consumers will have to address and balance**, while tackling resistance to the paradigm shift.

## What is the Food and Agriculture Organization?

- **About:**
  - FAO is a specialised agency of the [United Nations](#) that leads international efforts to defeat hunger.
  - [World Food Day](#) is celebrated every year around the world on 16th October. The day is celebrated to mark the anniversary of the founding of the FAO in 1945.
  - It is one of the UN food aid organisations based in Rome (Italy). Its sister bodies are the [World Food Programme](#) and the International Fund for Agricultural Development (IFAD).
- **Initiatives Taken:**
  - [Globally Important Agricultural Heritage Systems \(GIAHS\)](#).
  - Monitors the [Desert Locust](#) situation throughout the world.
  - The [Codex Alimentarius Commission or CAC](#) is the body responsible for all matters regarding the implementation of the Joint FAO/WHO Food Standards Programme.
  - The [International Treaty on Plant Genetic Resources for Food and Agriculture](#) was adopted by the Thirty-First Session of the Conference of the FAO in 2001.
- **Flagship Publications:**
  - The State of World Fisheries and Aquaculture (SOFIA).
  - The State of the World's Forests (SOFO).
  - [The State of Food Security and Nutrition in the World \(SOFI\)](#).
  - The State of Food and Agriculture (SOFA).
  - The State of Agricultural Commodity Markets (SOCO).

## UPSC Civil Services Examination Previous Year Question (PYQ)

**Q. The FAO accords the status of 'Globally Important Agricultural Heritage System (GIAHS)' to traditional agricultural systems. What is the overall goal of this initiative? (2016)**

1. To provide modern technology, training in modern farming methods and financial support to local communities of identified GIAHS so as to greatly enhance their agricultural productivity.
2. To identify and safeguard eco-friendly traditional farm practices and their associated landscapes, agricultural biodiversity and knowledge systems of the local communities.
3. To provide Geographical Indication status to all the varieties of agricultural produce in such identified GIAHS.

**Select the correct answer using the code given below:**

- (a) 1 and 3 only
- (b) 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

Ans: (b)

[Source: DTE](#)

## India's Progress in Tackling IMR, MMR and Malnutrition

**For Prelims:** Infant Mortality Rate, Maternal Mortality Rate, Malnutrition, Undernutrition, NFHS 5, Registrar General of India, Poshan Abhiyan, National Health Mission, ICDS Scheme, Anaemia, Hidden Hunger, Initiatives to tackle Malnutrition

**For Mains:** Challenges to tackling Malnutrition, IMR and MMR and India's related initiatives

### Why in News?

The data presented by the [Registrar General of India \(RGI\)](#) presents a gain in momentum of the pace of decline in India's **maternal and infant mortality rates (MMR and IMR)** post-2005.

- Unfortunately, nutrition is one key area that has **remained oblivious to any major progress.**

### What is the Registrar General of India?

- Founded in 1961 under the **Ministry of Home Affairs**, the RGI **arranges, conducts and analyses the results of the demographic surveys of India** ([Census of India](#) and [Linguistic Survey of India](#)).
- The **position of Registrar is usually held by a civil servant** holding the rank of Joint Secretary.
- The Office of RGI is primarily responsible for conducting:
  - Housing & Population Census
  - [Civil Registration System \(CRS\)](#)
  - Sample Registration System (SRS)
  - [National Population Register \(NPR\)](#)
  - Mother Tongue Survey

### What Progress has been Made in Reducing MMRs and IMRs?

- **Declining Trends:**
  - According to a special bulletin released by the office of the RGI, **India's MMR was 97 during 2018-2020** compared to **301 during 2001-03**.
  - The **IMR has also been reduced to 27 (as of 2021)** compared to **58 in 2005**.
    - The Rural-Urban difference in this context has also been narrowed.
- **Role of NHM and NRHM:** As observed, for the last few years the **National Rural Health Mission (NRHM)** and the [National Health Mission \(NHM\)](#) has been a game changer for the country in terms of mortality reductions for infants and mothers.
  - The NRHM was launched in 2005 to provide accessible and affordable healthcare through a public system of primary health care.

- NHM was launched by the government of India in 2013 subsuming the National Rural Health Mission (Launched in 2005) and the National Urban Health Mission (Launched in 2013).

## GOALS of National Health Mission

- Reduce MMR to 1/1000 live births
- Reduce IMR to 25/1000 live births
- Reduce TFR to 2.1
- Prevention and reduction of anemia in women aged 15-49 years
- Prevent and reduce mortality and morbidity from communicable, non-communicable, injuries and emergency diseases
- Reduce household out-of-pocket expenditure on total health care expenditure
- Reduce annual incidence and mortality from Tuberculosis by half
- Reduce prevalence of Leprosy to <1/10000 population and incidence to zero in all districts
- Annual Malaria incidence to be <1/1000
- Less than 1percent microfilaria prevalence in all districts
- Kala-Azar Elimination by 2015, <1case per 10000 population in all blocks

## What is the Scenario of Tackling Malnutrition?

### ▪ About:

- **Malnutrition** is the condition that develops when the body is deprived of vitamins, minerals and other nutrients it needs to maintain healthy tissues and organ function.
- Malnutrition occurs in people who are either **undernourished or over nourished**.

### ▪ Findings of NFHS 5:

- The **5<sup>th</sup> National Family Health Survey 2019-21** reports **35.5% of children under 5 are stunted, 19.3% are wasted, and 32.1% are underweight**.
  - **Meghalaya** has the **highest number of stunted children** (46.5%), followed by Bihar (42.9%).
  - **Maharashtra** (25.6%) has the **highest percentage of wasted children** followed by Gujarat (25.1%).
- Compared with NFHS-4, the **prevalence of overweight or obesity has increased** in most States/UTs in NFHS-5.
  - At the national level, it increased from 21% to 24% among women and 19% to 23% among men.
- The **incidence of anaemia** in under-5 children (from 58.6 to 67%), women (53.1 to 57%) and men (22.7 to 25%) has **worsened in all States of India**.

### ▪ Inefficiency of Govt. Initiatives:

- The **POSHAN Abhiyaan**, though innovative, is still not addressing the institutional **decentralised public action challenge** yet.
- The initiatives for nutrition have remained **compartmentalised and fragmented**; the institutional role of local panchayats and communities with **untied financial resources is still lagging**.

### ▪ Other Issues:

- The **vicious cycle of poverty, undernutrition**, diminished work capacity, low earnings and poverty.
- **Infections like malaria and measles** precipitate acute malnutrition and **aggravate the existing nutritional deficit**.
- Arbitrariness and inter-state-variation in determining a household's BPL status results in **arbitrary identification of hunger**.

- **Negligence towards micro-nutrient deficiency ([hidden hunger](#)) and inadequate knowledge among mothers** regarding nutrition and breast-feeding.

## What Initiatives have been launched to Tackle Malnutrition?

- **POSHAN Abhiyaan:** The government of India has launched the National Nutrition Mission (NNM) or POSHAN Abhiyaan to ensure a **“Malnutrition Free India” by 2022.**
- **[Anemia Mukh Bharat Abhiyan:](#)** Launched in 2018, the mission aims at **accelerating the annual rate of decline of anaemia** from one to three percentage points.
- **[The National Food Security Act \(NFSA\), 2013:](#)** It aims to ensure **food and nutrition security for the most vulnerables** through its associated schemes and programmes, making access to food a legal right.
- **[Pradhan Mantri Matru Vandana Yojana \(PMMVY\):](#)** Rs.6,000 is transferred directly to the bank accounts of pregnant women for availing better facilities for their delivery.
- **[Integrated Child Development Services \(ICDS\) Scheme:](#)** It was launched in 1975 and the scheme aims at **providing food, preschool education, primary healthcare, immunisation, health check-up and referral services** to children under 6 years of age and their mothers.
- **[Eat Right India](#)** and **[Fit India Movement](#)** are some other initiatives to **promote healthy eating and healthy lifestyle.**

## What Should be the Reorganisation Principles for Nutrition Success?

- Vesting in **grassroot level administration** (Gram Panchayat, Gram Sabha and other community organisations), the **responsibility of education, health, nutrition, skills and diversified livelihoods.**
- Operationalising **village-specific planning process with decentralised financial resources.**
- Assessing (and accordingly increasing) (a) the **need for additional caregivers** with capacity development to **ensure household visits and (b) the intensity of monitoring** needed for outcomes in nutrition.
- Encouraging **diversity of local food including millets**, served hot.
- Intensifying **behaviour change communication.**
- Institutionalising monthly health days at every Anganwadi centre with **community connection and parental involvement.**
- Creating a **platform for adolescent girls in every village for empowerment** and for diversified livelihoods through skills.

## Conclusion

Nutrition as a subject calls for a whole-of-government and whole-of-society approach. Technology can at best be a means and monitoring too has to become local. Panchayats and community organisations are the best way forward.

## UPSC Civil Services Examination, Previous Year Questions (PYQs)

### Prelims

#### Q. Which of the following are the objectives of ‘National Nutrition Mission’? (2017)

1. To create awareness relating to malnutrition among pregnant women and lactating mothers.
2. To reduce the incidence of anaemia among young children, adolescent girls and women.
3. To promote the consumption of millets, coarse cereals and unpolished rice.
4. To promote the consumption of poultry eggs.

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 1, 2 and 3 only
- (c) 1, 2 and 4 only
- (d) 3 and 4 only

Ans: (a)

### **Mains**

**Q.** Can the vicious cycle of gender inequality, poverty and malnutrition be broken through microfinancing of women SHGs? Explain with examples. **(2021)**

**Source: IE**

## **Global Report on Health Equity for Disables**

**For Prelims:** WHO, Persons with Disabilities, Chronic Illnesses.

**For Mains:** Issues Related to Persons with Disability in India, Initiatives to Empowerment of Disables.

### **Why in News?**

Ahead of the [International Day of Persons with Disabilities \(3<sup>rd</sup> December\)](#), the [World Health Organization \(WHO\)](#) has released a report titled- [Global report on health equity for persons with disabilities](#).

### **What are the Findings of the Report?**

- **Statistics related to Disabilities:**
  - Currently, **some 1.3 billion people, or one in six, worldwide suffer from major disabilities.**
  - Because of the **systemic and persistent health inequities**, many persons with disabilities face the risk of dying much earlier—**even up to 20 years earlier—than persons without disabilities.**
  - An estimated 80 % of people with disabilities reside in **low- and middle-income countries** with limited resources, making it difficult to address these inequities.
- **Risk of Disabilities:**
  - They are at a **two-fold risk of contracting chronic illnesses** like [asthma](#), [depression](#), [diabetes](#), obesity, dental disorders and stroke.
  - Many of the discrepancies in health outcomes cannot be attributed to underlying health conditions but rather to preventable, unfair and unjust circumstances.
- **Some Factors for Inequity in Healthcare:**
  - Hostile attitudes of healthcare providers
  - Non-comprehensible health information formats
  - Physical barriers, lack of transportation, or financial constraints that prevent access to a health center.



## What are the Recommendations?

- It is crucial to ensure that **people with disabilities participate fully and effectively in all facets of society** and to instil inclusion, accessibility and non-discrimination in the medical field.
- Health systems should be alleviating the challenges that people with disabilities face, not adding to them.
- Ensuring health equity for persons with disabilities will also have wider benefits and can advance global health priorities in 3 ways:
  - **Health equity for all is critical** towards achieving universal health coverage;
  - Inclusive public health interventions that are administered equitably across different sectors can contribute to healthier populations; and
  - Advancing health equity for persons with disabilities is a central component in all efforts to protect everyone in health emergencies.
- Governments, health partners and civil society should ensure **all health sector actions are inclusive of persons with disabilities** so that they can enjoy their right to the highest standard of health.

## What are the Initiatives to Empowerment of Disables?

- **India:**
  - [Right of Persons with Disabilities Act 2016](#)
  - [Unique Disability Identification Portal](#)
  - [Accessible India Campaign](#)
  - [DeenDayal Disabled Rehabilitation Scheme](#)
  - [Assistance to Disabled Persons for Purchase/fitting of Aids and Appliances](#)
  - [National Fellowship for Students with Disabilities](#)
- **Global:**
  - Incheon Strategy to “Make the Right Real” for Persons with Disabilities in Asia and the Pacific.
  - United Nations Convention on Rights of Persons with Disability.
  - [International Day of Persons with Disabilities](#)
  - [UN Principles for People with Disabilities](#)

## UPSC Civil Services Examination, Previous Year Questions (PYQs)

### Prelims

**Q. India is home to lakhs of persons with disabilities. What are the benefits available to them under the law? (2011)**

1. Free schooling till the age of 18 years in governmentrun schools.
2. Preferential allotment of land for setting up business.
3. Ramps in public buildings.

**Which of the statements given above is/are correct?**

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

**Ans: (d)**

### Mains

**Q.** Does the Rights of Persons with Disabilities Act, 2016 ensure effective mechanism for empowerment and inclusion of the intended beneficiaries in the society? Discuss. **(2017)**

[Source: DTE](#)

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## Report on Forced Displacement: UNDP

**For Prelims:** UNDP, Internal Displacement, Climate Change.

**For Mains:** Report on Forcibly Displacement: UNDP.

### Why in News?

According to the [United Nations Development Program \(UNDP\)](#) report “**Turning the tide on internal displacement: A development approach to solutions**”, for the first time ever, more than 100 million people were forcibly displaced in 2022, most of them within their own countries.

### What are the Findings of the Report?

#### ▪ Statistics:

- At the end of 2021, there were over **59 million people forcibly displaced within their own countries** due to conflict, violence, disasters and [climate change](#).
- Before the [war in Ukraine](#), 6.5 million people are estimated to have been internally displaced.
- By 2050, climate change may force more than an **estimated 216 million people to move within their own countries**.
- Disaster-related internal displacement is even more widespread, with new displacements **recorded in over 130 countries and territories in 2021**.
- Around 30% of professional lives became unemployed and 24% were not able to earn money the same way as before. 48% of the internally displaced **households earned less money** than before displacement.

#### ▪ Impact:

- The internally displaced persons **struggle to cover their basic needs**, find decent work or have a stable source of income.
  - Female and youth-headed households **are more impacted**.
- Sub-Saharan Africa, the Middle East and North Africa and parts of the Americas are the mostly affected regions from forced displacement.
- The direct impact of internal displacement globally is estimated **at over USD 21.5 billion in 2021** in the form of the **financial cost of providing every internally displaced person** with housing, education, health and security, and accounts.
- Lack of Proper and Commonly Accepted Statistics about displacement has led to **a lack of policies for displaced people**.

#### ▪ Suggestions:

- Longer-term development **action is needed to reverse record levels of internal displacement**, with millions more people predicted to be uprooted by climate change.
- Humanitarian aid **alone cannot overcome record levels** of internal displacement globally. There is a need to devise new ways **to address the consequences of internal**

**displacement** through a development approach.

- Five **key pathways to development solutions** can be adopted, which are,
  - Strengthening governance institutions
  - Boosting **socio-economic integration** through access to jobs and services
  - Restoring security
  - Enhancing participation
  - Building social cohesion

## What is United Nations Development Program?

- The **United Nations Development Programme (UNDP)** is the **UN's global development network**.
- UNDP is based on the **merging of the United Nations Expanded Programme of Technical Assistance** and the **United Nations Special Fund**.
- The UNDP was **established in 1965 by the United Nations General Assembly**, and became **operational in January 1966**.
- It provides **expert advice, training and grants support** to developing countries, with increasing emphasis on assistance to the least developed countries.
- The UNDP **Executive Board is made up of representatives from 36 countries** around the world who serve on a rotating basis.
- It is funded entirely by voluntary contributions from member nations.
- UNDP is **central to the United Nations Sustainable Development Group (UNSDG)**, a network that spans 165 countries and unites the 40 UN funds, programmes, specialized agencies and other bodies working **to advance the 2030 Agenda for Sustainable Development**.
- **UNDP Publication:** [Human Development Index](#).

## UPSC Civil Services Examination Previous Year Question (PYQ)

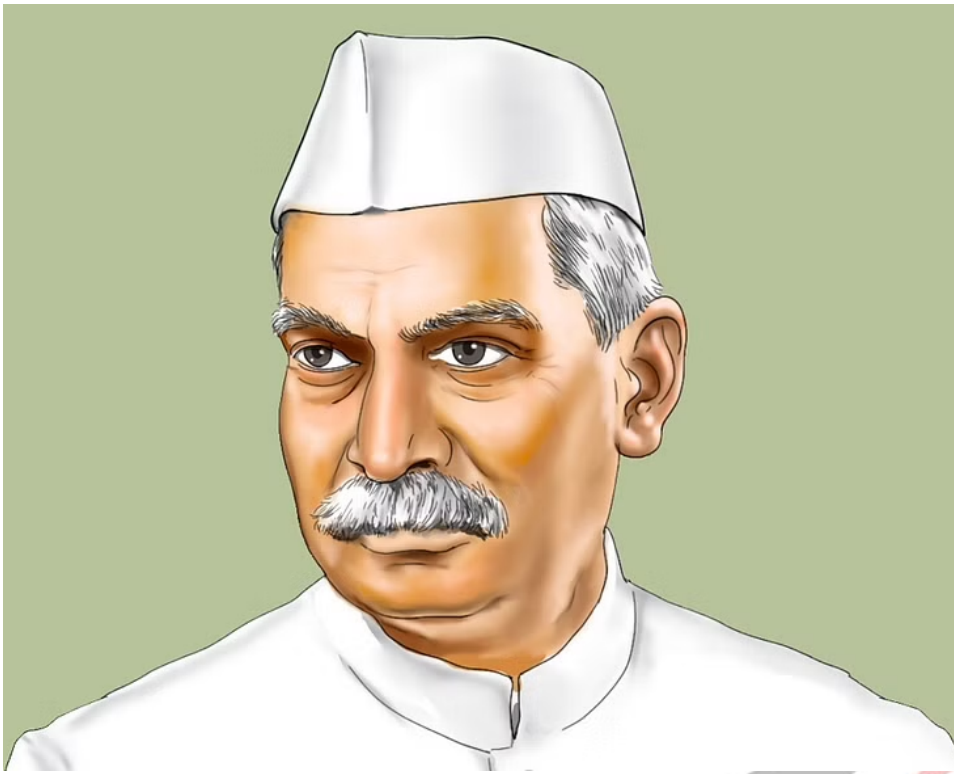
**Q.** Rehabilitation of human settlements is one of the important environmental impacts which always attracts controversy while planning major projects. Discuss the measures suggested for mitigation of this impact while proposing major developmental projects. **(2016)**

**Source:** [DTE](#)

## Dr. Rajendra Prasad

### Why in News?

[The President of India](#) paid floral tributes to **Dr. Rajendra Prasad**, the **First President of India**, on his birth anniversary at Rashtrapati Bhavan on **3<sup>rd</sup> December 2022**.



## Who was Dr. Rajendra Prasad?

- **Birth:**
  - Son of Mahadev Sahai, he was born in **Zeradei, Siwan, Bihar** on **3<sup>rd</sup> December 1884**.
- **Education:**
  - He joined the famed **Calcutta Presidency College in 1902**.
  - In 1915, Prasad appeared in the **examination of master's in law from the Department of Law, University of Calcutta**, passed the examination and won a gold medal.
  - In 1916, he commenced his **legal career in the Patna High Court**. He completed his **Doctorate in Law from Allahabad University in 1937**.
- **Role in Fight for Freedom:**
  - **Association with Gandhiji:**
    - While **Gandhiji** was on a fact-finding mission in **Chamaparan district of Bihar** to address grievances of local peasants, he called on **Dr. Rajendra Prasad to come to Champaran with volunteers**.
      - Gandhiji's influence **greatly altered many of his views**, most importantly on **caste and untouchability**.
    - The **Champaran Satyagraha** not only brought him closer to Mahatma Gandhi, but also changed the entire course of his life.
    - **The Rowlatt Act of 1918** and the **Jallianwala Bagh massacre of 1919** pushed Rajendra Prasad closer to Gandhiji.
  - **Call for Non-cooperation:**
    - Dr. Prasad called for **non-cooperation** in Bihar as part of **Gandhiji's non-cooperation movement**.
  - **National College:**
    - He gave up his law practice and started a **National College near Patna, 1921**.
  - **Salt Satyagraha:**
    - In March 1930, Gandhiji launched the **Salt Satyagraha**. Under the guidance of Dr. Prasad, a salt Satyagraha was launched in Nakhas Pond, Bihar.
      - Batch after batch of volunteers courted arrest while making salt. He called for more volunteers.
      - Public opinion forced the Government to withdraw the police and allow the volunteers to make salt.
      - He then sold the manufactured salt to raise funds. He was sentenced to six months imprisonment.

#### ▪ **Dr. Prasad & Indian National Congress:**

- He officially **joined the Indian National Congress in 1911**, during its annual session held in Calcutta.
- He presided over the [Bombay session of the Indian National Congress](#) in October 1934.
- Following the **resignation of Subhash Chandra Bose** as the President of the Congress in April 1939, **He was elected President for the second time.**
- In 1946, he **joined the Interim Government of Pandit Jawaharlal Nehru** as the Minister of Food & Agriculture and gave the slogan of **“Grow More Food”**.

#### ▪ **Dr. Prasad & Constituent Assembly:**

- In July 1946, when the **Constituent Assembly** was established to frame the [Constitution of India](#), he was elected its President.
- **Committees of Constituent Assembly under the chairmanship of Dr. Prasad includes:**
  - Ad hoc Committee on the National flag
  - Committee on the Rules of Procedure
  - Finance and Staff Committee
  - Steering Committee
- Two and a half years after independence, **on 26<sup>th</sup> January 1950**, the **Constitution of independent India was ratified** and he was elected **India's First President.**

#### ▪ **Awards & Recognition:**

- In 1962, after 12 years as President, **Dr. Prasad retired**, and was subsequently awarded the [Bharat Ratna](#), the nation's highest civilian award.
- Dr. Prasad recorded his life and the decades before independence in many books, which includes:
  - Satyagraha at Champaran
  - India Divided
  - His autobiography “Atmakatha”
  - Mahatma Gandhi and Bihar, Some Reminiscences
  - Babu ke Kadmon Mein

#### ▪ **Death:**

- Dr. Rajendra Prasad spent the last few months of his life in retirement at the Sadaqat Ashram in Patna.
- He died on 28<sup>th</sup> February 1963.

[Source: TOI](#)

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## **J C Bose: A Satyagrahi Scientist**

### **Why in News?**

Recently, the Ministry of Culture has organized an **international conference on the contributions of J C Bose: A Satyagrahi Scientist** on his 164<sup>th</sup> birth anniversary.



## Who was Jagdish Chandra Bose?

### ▪ About:

- Born on 30<sup>th</sup> November, 1858 to Bama Sundari Bose and Bhagawan Chandra, Bengal.
- He was a **Plant Physiologist and physicist** who invented the crescograph, a device for measuring the growth of plants. He for the first time demonstrated that plants have feelings.

### ▪ Education:

- He earned a **BSc from University College London**, which was connected with the University of London in 1883, and a BA (Natural Sciences Tripos) from the University of Cambridge in 1884.

### ▪ Scientific Contribution:

- Acharya Jagadish Chandra Bose was a biologist, physicist, botanist and an early writer of science fiction.
- Bose discovered **wireless communication and was named the Father of Radio Science** by the **Institute of Electrical and Electronics Engineering**.
- He was responsible for the **expansion of experimental science in India**.
- Bose is **considered the father of Bengali science fiction**. A crater on the moon has been named in his honour.
- He founded **Bose Institute**, a premier research institute of India and also one of its oldest. Established in 1917, the Institute was the **first interdisciplinary research centre in Asia**. He served as the Director of Bose Institute from its inception until his death.
- To facilitate his research, he constructed **automatic recorders capable of registering extremely slight movements**, these instruments produced some striking results, such as quivering of injured plants, which Bose interpreted as a power of feeling in plants.

### ▪ Books:

- His books include **Response in the Living and Non-Living (1902)** and **The Nervous Mechanism of Plants (1926)**.

### ▪ Death:

- He died on 23<sup>th</sup> November 1937 in Giridih, Bihar.

[Source: PIB](#)

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# Indo-French Partnership on Kaziranga Project

## Why in News?

India and France are collaborating on [Kaziranga Project](#).

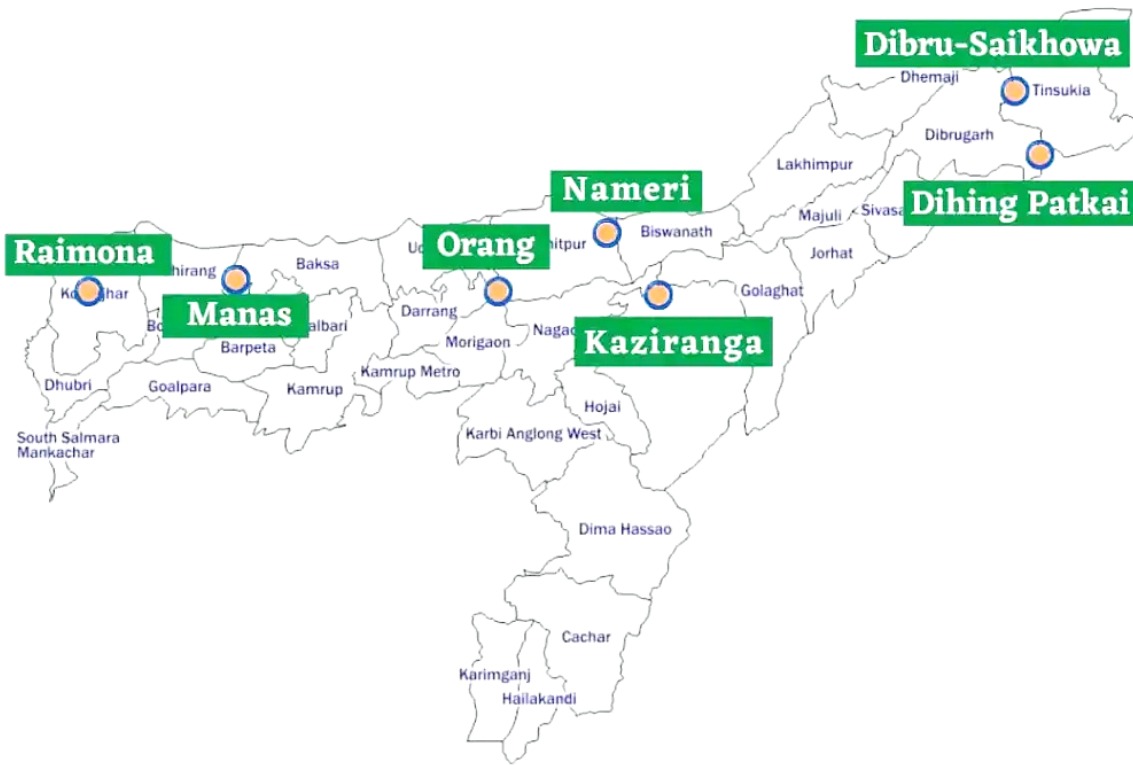
- **Agence Française de Développement (AFD) of France has committed funding** of €80.2 million for a 10-year period, between 2014-2024.

## What is Kaziranga Project?

- The [Kaziranga project](#) is a part of a larger **Assam Project on Forest and Biodiversity Conservation (APFBC)**.
  - The Assam government, with the support of AFD, launched the **APFBC in 2012**, to restore forest ecosystems, protect wildlife and enhance the livelihood of the forest-dependent communities.
- The project conceptualised the **reforestation of 33,500 hectares of land and the training of 10,000 community members** in alternate livelihoods by 2024.

## What are Key Facts about Kaziranga National Park?

- **Location:**
  - It is located in the State of Assam and covers **42,996 Hectare (ha)**.
  - It is the **single largest undisturbed and representative area** in the Brahmaputra Valley floodplain.
- **Legal Status:**
  - It was declared as a **National Park in 1974**.
  - It has been declared a [tiger reserve](#) since **2007**. It has a total tiger reserve area of 1,030 sq km with a core area of 430 sq. km.
- **International Status:**
  - It was declared a [UNESCO World Heritage Site](#) in 1985.
  - It is recognized as an Important Bird Area by BirdLife International.
- **Biodiversity:**
  - It is the home of the **world's most one-horned rhinos**.
    - [Pobitora Wildlife Sanctuary](#) has the highest density of one-horned rhinos in the world and second highest number of Rhinos in Assam after Kaziranga National Park.
  - Much of the focus of conservation efforts in Kaziranga are **focused on the 'big four' species - Rhino, Elephant, Royal Bengal tiger and Asiatic water buffalo**.
  - Kaziranga is also home **to 9 of the 14 species** of primates found in the Indian subcontinent.
- **Rivers and Highways:**
  - National Highway 37 passes through the park area.
  - The park also has more than 250 seasonal water bodies, besides the Diphlu River running through it.



## 7 NATIONAL PARKS IN ASSAM

- 6th : Raimona National Park (Notified in 2021)
- 7th : Dihing Patkai National Park (Notified in June 2021)

### UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. Consider the following pairs: (2013)

	National Park	River flowing through the Park
1.	Corbett National Park	Ganga
2.	Kaziranga National Park	Manas
3.	Silent Valley National Park	Kaveri

Which of the above pairs is/are correctly matched?

- (a) 1 and 2  
 (b) 3 only  
 (c) 1 and 3  
 (d) None

Ans: (d)

Exp:

- Jim Corbett National Park: River Ramganga, a tributary of river Ganga is the primary source of water for the park. Tributaries of Ramganga are Khoh, Kolhu and Mandal rivers. **Hence, pair 1 is**



**not correctly matched.**

- Kaziranga National Park: It is a park hosting around two-third of total world's one-horned rhinoceros and is circumscribed by the Brahmaputra River. The Brahmaputra forms the northern and eastern boundaries of it, whereas the Mora Diphlu forms the southern boundary. Other notable rivers within the park are the Diphlu and Mora Dhansiri. **Hence, pair 2 is not correctly matched.**
- Silent Valley National Park: Located in Kerala, the park's entire stretch drains from north to south by River Kuntipuzha. It is part of the Nilgiri Biosphere Reserve. **Hence, pair 3 is not correctly matched.**
- **Therefore, option D is the correct answer.**

[Source: IE](#)

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## Swar Dharohar Festival

### Why in News?

Recently, the Ministry of Culture, Government of India in collaboration with **"Swar Dharohar Foundation," inaugurated a three day "Swar Dharohar Festival" under Kalanjali.**

- Under Kalanjali, cultural programmes are being organised at Central Vista every week.

### What is the Swar Dharohar Festival?

- It is a **Music, Art & Literature Festival to showcase the iconic art and culture of India** and the rich literary Art & Heritage of Indian States.
- In this program, the upcoming local Artists will **perform with Legend Artist on the same platform to showcase their talents.**
- The National as well as Local Poets will exhibit their artistry through Kavi Sammelan.

[Source: PIB](#)

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