



Mission Life



Mission LiFE

Lifestyle For Environment
(Encourage P3 i.e. Pro Planet People)

Approach



Focus on
Individual Behaviours



Co-create Globally



Leverage
Local Cultures

- Concept was introduced by Prime Minister **at COP26** in Glasgow in November 2021.
 - **LiFE Global Movement** invites ideas from across the world aimed at individuals, households and communities to drive climate-friendly behaviours.
- **Mission LiFE** has been launched at the Statue of Unity in Gujarat.
 - To mobilise at least one billion Indians and other global citizens to take individual and collective action for conserving the environment in the **period 2022-28**.
- **Piloted by NITI Aayog** and **implemented by the Union Ministry of Environment, Forest and Climate Change**.

According to UNEP, if **1** out of **8 billion** people worldwide **adopt environment-friendly behaviours** in their daily lives, **global carbon emissions could drop upto 20%**.

Examples Set by India

- **Swachh Bharat Mission (SBM)** led to the use of over 100 million toilets in rural India within a span of 7 years.
- **Ujjwala Scheme** increased households with LPG connections from 62% in 2015 to 99.8% in 2021.
- **Traditional Indian practices** such as adaptive architectural forms that minimise electricity consumption and dietary preference for plant-based foods and millets can serve as foundations for LiFE.



Drishti IAS

UN's 77th Anniversary

Why in News?

Recently, the World has celebrated the 77th anniversary of the [United Nations\(UN\)](#) on 24th October 2022.

What is the UN?

▪ About:

- The United Nations (UN) is an **international organization founded in 1945**. It is currently made up of **193 Member States**.
- Its mission and work are guided by the purposes and principles contained in its **founding Charter and implemented by its various organs** and specialised agencies.
- Its activities include maintaining **international peace and security, protecting human rights, delivering humanitarian aid**, promoting sustainable development and upholding international law.

▪ History:

- In 1899, the **International Peace Conference was held in The Hague to elaborate instruments for settling crises peacefully, preventing wars and codifying rules of warfare**.
 - It adopted the **Convention for the Pacific Settlement of International Disputes** and established the **Permanent Court of Arbitration**, which began work in 1902. This court was the forerunner of the **UN International Court of Justice**.
- The forerunner of the United Nations was the League of Nations, an organization conceived in circumstances of the **First World War, and established in 1919 under the Treaty of Versailles** "to promote international cooperation and to achieve peace and security."
- United Nations Conference on International Organization (1945).
 - Conference held in San Francisco (USA), was attended by representatives of 50 countries and signed the United Nations Charter.
- **The UN Charter of 1945** is the foundational treaty of the United Nations, as an intergovernmental organization.

▪ Components: All the 6 were established in 1945 when the UN was founded.

- **General Assembly**
- **Security Council**
- **Economic and Social Council**
- **Trusteeship Council**
- [International Court of Justice](#)
- **UN Secretariat.**

▪ Funds and Programmes:

- [United Nations Children's Fund \(UNICEF\)](#)
- [United Nations Population Fund \(UNFPA\)](#)
- [United Nations Development Programme \(UNDP\)](#)
- [United Nations Environment Programme \(UNEP\)](#)
- [United Nations Human Settlements Programme \(UN-Habitat\)](#)
- [World Food Programme \(WFP\)](#).

▪ Specialized Agencies:

- [Food and Agriculture Organization \(FAO\)](#)
- [International Civil Aviation Organization \(ICAO\)](#)
- [International Fund for Agricultural Development \(IFAD\)](#)
- [International Labour Organization \(ILO\)](#)

- [IMF](#)
- [World Bank](#)
- [International Maritime Organization \(IMO\).](#)
- [International Telecommunication Union \(ITU\)](#)
- [United Nations Educational, Scientific and Cultural Organization \(UNESCO\)](#)
- [United Nations Industrial Development Organization \(UNIDO\)](#)
- [World Health Organization \(WHO\).](#)
- [UNCTAD.](#)
- [United Nations Office on Drugs and Crime \(UNODC\)](#)
- [United Nations High Commissioner for Refugees \(UNHCR\)](#)
- [United Nations Economic and Social Commission for Asia and the Pacific \(ESCAP\).](#)

What are the UN's Contributions so Far?

- **Increment in the UN membership:**
 - Post- 1960's decolonisation, the membership of the UN expanded from about 50 members to double.
- **Decolonisation:**
 - It was the UN which played the lead role in the 1960 decolonisation and helped around 80 colonies in gaining their freedom.
- **Involvement with Civil Society:**
 - The UN is no more an organisation of nations only, more and more UN bodies have begun engaging with the people within the nations, experts, intellectuals and media with time.
- **Better Sustenance:**
 - The UN has successfully sustained itself till now, as compared to the League of Nations, which is an achievement.
- **Peacekeeping:**
 - The UN has successfully prevented World War - III.

What are the UN's Major Setbacks?

- **Arm Races and Cold War:**
 - Although, the WW-III has been successfully prevented till date, violence, arm races, nuclear races and cold wars still occur among nations.
- **Power Suppressing Principles:**
 - The world body still continues to see a tussle between 'principle' and 'power'.
 - While the hopes of a peaceful and just world are represented by the UN, the most powerful states are privileged by granting them commanding heights over international politics via the undemocratic instruments of veto power and permanent seats in the [UN Security Council \(UNSC\)](#).
- **Not a Multipolar Organisation:**
 - The UN has been unable to present itself as a multipolar and multilateral organisation.
 - At the time of formation, the UN had 5 permanent members with a total of 51 members, presently, it has 193 members but permanent members in the UN General Assembly are still 5.
- **Laggard in Holistic Growth:**
 - The organisation had not been able to cope up with the increasing globalisation.
 - The UN has been a laggard in overall development; no institutional arrangement is there to deal in particular with Pandemics or new technologies such as [Artificial Intelligence](#).

What is the Significance of India at UN?

- **India and the UN:**
 - India is **one of the founding members** of the UN.
 - Since its independence and even before that, India has been an active participant in all initiatives undertaken by the UN like Millennium Development Goals, [Sustainable development goals](#) and various UN summits, including on climate change.
- **Maintaining peace:**

- As far as the peacekeeping ambit of the UN is concerned, India has performed quite well in maintaining peaceful and friendly relations with most of the nations.

▪ **India and UNSC:**

- India has been elected as a **non-permanent member of the UNSC** for two years in January 2021.
- The non-permanent membership of India can be taken as an opportunity to convince the like-minded nations for fighting international terrorism.
- Moreover, India should also focus upon sitting upon the apex body in future; becoming a permanent member of the UN.

▪ **Raising concern over need of reforms:**

- India has realised the urgent need of reforms in the UN specially at the UNSC and has raised concerns over the issue.
 - Developing nations, including India, now play a larger role in both the international economy and politics. But these changes are not reflected in the UNSC, where all critical decisions are still being taken by the veto-wielding permanent members of the Security Council.

Way Forward

- The UN has survived and thrived and has certainly seen incremental changes over the last 75 years but the time has come for the UN to change and change for the better.
- UNSC is in desperate need to undergo reforms, the sooner the better, the later the more redundant.
- In a nutshell, as far as the whole UN is concerned complete reform is needed with principles not to be written by the most powerful anymore.

UPSC Civil Services Examination Previous Year Question

Prelims

Q. 'Beijing Declaration and Platform for Action', often seen in the news, is (2015)

- (a) a strategy to tackle the regional terrorism, an outcome of a meeting of the Shanghai Cooperation Organization
- (b) a plan of action for sustainable economic growth in the Asia-Pacific Region, an outcome of the deliberations of the Asia-Pacific Economic Forum
- (c) an agenda for women's empowerment, an outcome of a World Conference convened by the United Nations
- (d) a strategy to combat wildlife trafficking, a declaration of the East Asia Summit

Ans: (c)

Q. The Security Council of UN consists of 5 permanent members, and the remaining 10 members are elected by the General Assembly for a term of (2009)

- (a) 1 year
- (b) 2 years
- (c) 3 years
- (d) 5 years

Ans: (b)

Q. The 'Common Carbon Metric', supported by UNEP, has been developed for

- (a) assessing the carbon footprint of building operations around the world
- (b) enabling commercial financial entities around the world to enter carbon emission trading
- (c) enabling governments to assess the overall carbon footprint caused by their countries
- (d) assessing the overall carbon foot-print caused by the use of fossil fuels by the world in a unit time

Ans: (a)

Mains

Q. What are the main functions of the United Nations Economic and Social Council (ECOSOC)? Explain different functional commissions attached to it. (2017)

Q. Describe the major outcomes of the 26th session of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC). What are the commitments made by India in this conference? (2021)

[Source: HT](#)

Broadcasting only through Prasar Bharati

For Prelims: Prasar Bharti, TRAI.

For Mains: TRAI and its Powers.

Why in News?

Recently, the Ministry of Information and Broadcasting (I&B) has issued an advisory stating that any kind of broadcasting be done only through **Prasar Bharti**.

What is Prasar Bharti?

- Prasar Bharati is a statutory autonomous body. It is the Public Service Broadcaster of the country.
- It was established under the Prasar Bharati Act in 1997.
- The Prasar Bharati Corporation's main objective is to provide autonomy to Doordarshan and Akashvani in order to "educate and entertain the public."

What is the Advisory?

- It states that ministries, departments of the central government, state governments, and union territory (UT) administrations or entities related to them would not be allowed to enter into broadcasting or distribution of broadcasting activities.
- In case central ministries, states, UTs and **entities related to them are already broadcasting their content**, it would now be done through the public broadcaster Prasar Bharati.
- It is in line with the recommendations of the [Telecom Regulatory Authority of India \(TRAI\)](#), the [Supreme Court](#) judgment and the legal opinion given by the Ministry of Law and Justice.
 - As per the Supreme Court, **Public service broadcasting should be in the hands of a statutory corporation** or corporation set up under a statute **to ensure their impartiality in political, economic, and social matters**.
- As per the existing policy guidelines for setting up of community radio in India, government universities, colleges, schools, Krishi Vigyan Kendras, central / state universities, including autonomous bodies and agricultural universities are eligible for setting up of community radios.

What were the TRAI's Recommendations?

- In 2012, the TRAI had suggested that the Central and State governments, their companies, undertakings, joint ventures with the private sector and the entities funded by the governments **should not be allowed to enter the business of broadcasting** and, or, distribution of TV channels.
 - It relied upon the **Sarkaria Commission's recommendation and the Cricket Association** case verdict.
- The importance of Prasar Bharati should also **not be lost sight of**. The body should fulfil the **legitimate aspirations of government entities as regards broadcasting activities**, while at the same time recommending the 'arm's length' relationship between Prasar Bharati and the government be further strengthened to enhance its autonomy and functional independence.

What is TRAI?

- **Legal Backing:** The **TRAI** was established on 20th February, 1997 by the Telecom Regulatory Authority of India Act, 1997.
- **Objectives of TRAI:**
 - TRAI's mission is **to create and nurture conditions for growth of** telecommunications in the country.
 - TRAI regulates telecom services including fixation/revision of tariffs for telecom services which were earlier vested in the Central Government.
 - It also aims to provide a fair and transparent policy environment which promotes a level playing field and facilitates fair competition.
- **Headquarters:** The head office of the TRAI is located at New Delhi.
- **Powers:**
 - **Order for Furnishing Information:** It can call upon any service provider to furnish in writing the information or explanation relating to its affairs as the Authority may require.
 - **Appointments for Inquiry:** The Authority may appoint one or more persons to make an inquiry in relation to the affairs of any service provider.
 - **Order for Inspection:** It is empowered to direct any of its officers or employees to inspect the books of accounts or other documents of any service provider.
 - **Issue Directions to Service Providers:** The Authority shall have the power to issue such directions to service providers as it may consider necessary for proper functioning by service providers.

[Source: TH](#)

Enhanced Access & Service Excellence

For Prelims: Micro, Small, and Medium Enterprises (MSME), NPA, Regional Rural Banks.

For Mains: Enhanced Access & Service Excellence.

Why in News?

As a part of the [Enhanced Access & Service Excellence \(EASE\)](#) reforms, the government is planning to leverage [Regional Rural Banks \(RRBs\)](#) to expand their portfolio by adding new segments.

What are the Key Points?

- The initiatives and targets will be part of the **EASE reforms** being undertaken by the Centre.
- Rural banks will be asked to look beyond crop loans and also provide loans for tractors, small businesses in rural areas and education and housing loans too in rural areas.
- The Center is working on a proposal to raise the guarantee limit for education loans from Rs 7.5 lakh to Rs 10 lakh to ensure banks restart lending to the education sector.
- The government's plan is to **continue to improve the profitability of RRBs**.
 - After two consecutive years of losses during the [Covid-19 pandemic](#) period, RRBs reported a consolidated net profit of Rs 1,682 crore in FY21, with 30 out of 43 RRBs reporting net profits.

What is the Significance?

- It will help RRBs expand their business by **leveraging their huge rural network** and local understanding, and also **enhance credit access to rural consumers for purposes such as education, housing and micro businesses**.
- Asking RRBs to lend towards education, housing and small businesses would also help **ease credit availability to the sectors**.
- RRBs will be guided towards becoming **more competitive and business friendly** - making them customer friendly is top on the agenda.
- The EASE programme for RRBs will entail focus on **digitising operations and connecting RRBs with each other**.

What is EASE Reform?

- It was launched in **January 2018** jointly by the government and PSBs.
- It was commissioned through **Indian Banks' Association** and authored by Boston Consulting Group.
- It aims to foster new-age reforms in PSBs to improve profitability, asset quality, customer service and digital capabilities.
- Various Stages under **EASE Reforms Agenda**:
 - **EASE 1.0**: The EASE 1.0 report showed significant improvement in PSB performance in resolution of [Non Performing Assets \(NPAs\)](#) transparently.
 - **EASE 2.0**: EASE 2.0 was built on the foundation of EASE 1.0 and introduced new reform Action Points across six themes to make reforms journey irreversible, strengthen processes and systems, and drive outcomes. The six themes are:
 - Responsible Banking;
 - Customer Responsiveness;
 - Credit Off-take,
 - PSBs as UdyamiMitra (SIDBI portal for credit management of [MSMEs](#));
 - Financial Inclusion & Digitalisation;
 - Governance and Human Resource (HR).
 - **Ease 3.0**: It seeks to enhance ease of banking in all customer experiences, using technology viz.
 - Dial-a-loan and PSBloansin59 minutes.com.
 - Partnerships with FinTechs and E-commerce companies,
 - Credit@click,
 - Tech-enabled agriculture lending,
 - EASE Banking Outlets etc.
 - **EASE 4.0**: It commits PSBs to tech-enabled, simplified and collaborative banking to further the agenda of **customer-centric digital transformation**. Following major themes were proposed under this:
 - 24x7 Banking
 - Focus on North-East
 - Bad Bank.
 - Raising Funds Outside the Banking Sector
 - [Leveraging Fintech Sector](#).

- **EASE 5.0:**

- PSBs will continue to invest in new-age capabilities and deepen the ongoing reforms to respond to **evolving customer needs, changing competition and the technology environment.**
- Focuses on Digital customer experience, and integrated and inclusive banking, with emphasis on supporting small businesses and agriculture.
- The initiatives will be across diverse themes: **business growth, profitability, risk, customer service, operations, and capability building.**

What are the Regional Rural Banks?

- **About:**

- **RRBs are financial institutions** which ensure adequate credit for agriculture and other rural sectors.
- Regional Rural Banks were set up on the basis of the **recommendations of the Narasimham Working Group (1975)**, and after the legislation of the **Regional Rural Banks Act, 1976.**
- The first Regional Rural Bank “Prathama Grameen Bank” was set up on 2nd October, 1975.
- The RRBs are required to provide 75% of their total credit as priority sector lending.

- **Stakeholders:**

- The equity of a regional rural bank is held by the Central Government, concerned State Government and the Sponsor Bank in the proportion of 50:15:35.

- **Objectives:**

- To provide **credit and other facilities to the small and marginal farmers, agricultural labourers**, artisans and small entrepreneurs in rural areas.
- To check the outflow of rural deposits to urban areas and reduce regional imbalances and increase rural employment generation.

UPSC Civil Services Examination Previous Year Question:

Q. With reference to India, consider the following: (2010)

1. Nationalization of Banks
2. Formation of Regional Rural Banks
3. Adoption of village by Bank Branches

Which of the above can be considered as steps taken to achieve the “financial inclusion” in India?

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

Ans: (d)

Q. Which of the following grants/grant direct credit assistance to rural households? (2013)

1. Regional Rural Banks
2. National Bank for Agriculture and Rural Development
3. Land Development Banks

Select the correct answer using the codes given below:

- (a) 1 and 2 only
- (b) 2 only

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

Ans: (c)

Q. Consider the following statements: (2020)

1. In terms of short-term credit delivery to the agriculture sector, District Central Cooperative Banks (DCCBs) deliver more credit in comparison to Scheduled Commercial Banks and Regional Rural Banks.
2. One of the most important functions of DCCBs is to provide funds to the Primary Agricultural Credit Societies.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Ans: (b)

- Cooperative bank is an institution established on the cooperative basis and dealing in ordinary banking business.
- In rural India, there exists a 3-tier rural cooperative structure.
 - Tier-I: It includes state cooperative banks (StCBs) at the state level;
 - Tier-II: It includes central cooperative banks (CCBs) at the district level; and
 - Tier-III: It includes primary agricultural credit societies (PACs).
- According to a report of the RBI, in 2016-17, scheduled commercial banks contributed the major share (78- 80%) in agricultural and allied credit. Cooperative institutions also play a significant role in extending agricultural credit and the share of all cooperative banks/institutions (i.e. StCBs, DCCBs and PACs put together) constituted 15-16%. The RRBs contributed the remaining 5% of the agricultural credit. **Hence, statement 1 is not correct.**
- The most significant function of the district central cooperative bank is to provide financial support to the primary cooperative societies that are affiliated to it in the district. **Hence, statement 2 is correct.**
- **Therefore, option (b) is the correct answer.**

[Source: IE](#)

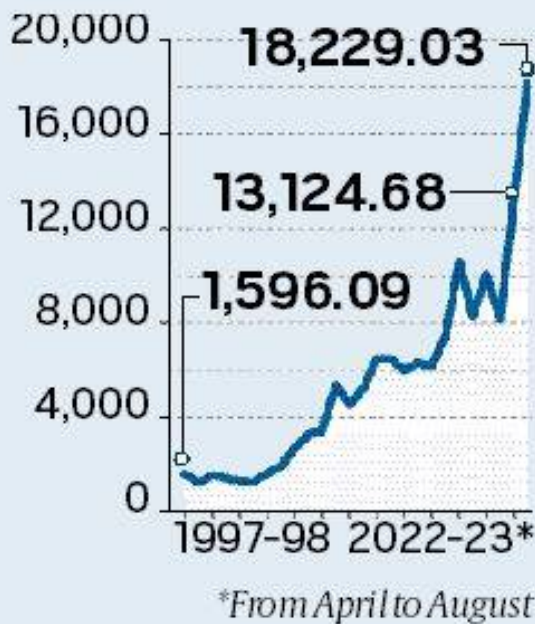
India-Russia Trade

Why in News?

Recently, the Ministry of Commerce and Industry has released data showing that India's bilateral trade with [Russia](#) has soared to an all-time high of **USD 18,229.03 million in just five months (April-August)** of FY 2022-23.

INDIA'S TRADE WITH RUSSIA

Trade in \$ million



What are the Findings?

• Overview:

- The **total annual bilateral trade between the two countries** stood at USD 13,124.68 million in 2021-22, and USD 8,141.26 million in 2020-21.
 - Pre-Covid, it was USD 10,110.68 million in 2019-20, USD 8,229.91 million in 2018-19, and USD 10,686.85 million in 2017-18.
- Russia has now become **India's seventh biggest trading partner** — up from its **25th position last year**.
 - The US, China, UAE, Saudi Arabia, Iraq and Indonesia were the six countries which recorded higher volumes of trade with India during the first five months of 2022-23.
- Of the total USD 18,229.03, India's imports from Russia accounted for USD 17,236.29 million, while India's exports to Moscow were only worth USD 992.73 million, leaving a **negative trade balance of USD 16,243.56 million**.
- An analysis of the data shows that Russia's share in India's total trade has increased to **3.54%, up from 1.27% in 2021-22**. While Russia's share in India's total trade was 2.1% in 1997-98, it has hovered below 2% for the last 25 years.

• Drivers:

- It is mainly due to a **sudden jump in imports from Russia, mainly oil and fertilisers**, which began to surge earlier in 2022.
 - There was an over 500% increase in three months – 561.1% in June, 577.63% in July and 642.68% in August – as compared to the same months of the previous year.
- Petroleum oil and other fuel items (mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes) **accounted for 84% of India's total imports** from Russia.
- Fertilizers were second, fertilisers and fuel together **account for over 91% of the total imports** from Russia this year.

What are the Different Aspects of Indo-Russia Relations?

- **Historical Background:**

- During the **Cold War**, **India and the Soviet Union** had a strong strategic, military, economic and diplomatic relationship. After the Dissolution of the Soviet Union, Russia inherited its close relationship with India which resulted in both nations sharing a Special Strategic Relation.
- However, the relations have taken a steep downfall over the past few years, especially in the post-Covid scenario. One of the biggest causes for this is **Russia's close relations with China and Pakistan**, which have caused many geopolitical issues in the past few years for India.

- **Political Relations:**

- In 2019, Russia signed the **Executive Order on awarding PM Narendra Modi Russia's highest state decoration** - The order of St Andrew the Apostle. The order was presented to PM for his distinguished contribution to the development of a privileged strategic partnership between Russia and India and friendly ties between the Russian and Indian peoples
- Two Inter-Governmental Commissions - **one on Trade, Economic, Scientific, Technological and Cultural Cooperation (IRIGC-TEC), and another on Military-Technical Cooperation (IRIGC- MTC)**, meet annually.

- **Trade Relations:**

- The two countries intend to increase bilateral investment to USD 50 billion and bilateral trade to USD 30 billion by 2025.

- **Defence and Security Relations:**

- Both countries regularly conduct the Tri-Services exercise '**INDRA**'.
- The joint military programmes between India and Russia include:
 - **BrahMos cruise missile programme**
 - 5th generation fighter jet programme
 - Sukhoi Su-30MKI programme
 - Ilyushin/HAL Tactical Transport Aircraft
 - KA-226T twin-engine utility helicopters
 - some frigates
- The military hardware purchased/leased by India from Russia includes:
 - **S-400 Triumph**
 - **Kamov Ka-226 200 to be made in India under the Make in India initiative**
 - **T-90S Bhishma**
 - **INS Vikramaditya aircraft carrier programme.**

- **Nuclear Relations:**

- Kudankulam Nuclear Power Plant (KKNPP) is being constructed within the scope of the Russia-India Inter-Governmental Agreement.
- Both India and Russia are implementing Rooppur Nuclear Power Project in Bangladesh.

What is the Significance of Russia for India?

- **Balancing China:**

- The Chinese aggression in the border areas of eastern Ladakh, **brought India-China relations to an inflection point**, but also demonstrated that Russia can contribute to defusing tensions with China.
- Russia organized **a trilateral meeting among the foreign ministers of Russia, India, and China** following deadly clashes in the **Galwan Valley** in the disputed territory of Ladakh.

- **Emerging New Sectors of Economic Engagement:**

- Apart from traditional areas of cooperation such as weapons, **hydrocarbons, nuclear energy, and diamonds**, new sectors of economic engagement are likely to emerge — mining, agro-industrial, and high technology, including robotics, **nanotech**, and **biotech**.
- India's footprint in the Russian Far East and in the Arctic is set to expand. Connectivity projects may get a boost too.

- **Combating Terrorism:**

- India and Russia are working to close the gap on Afghanistan and are calling for early finalization of the **Comprehensive Convention on International Terrorism**.

- **Support At Multilateral Forums:**

- Additionally, Russia supports India's candidacy for permanent membership of a reformed [United Nations Security Council](#) and of the Nuclear Suppliers Group.

- **Russia's Military Exports:**

- Russia has been one of the largest arms exporters to India. Even as Russia's share in India's arms imports fell by over 50% in the last five-year period compared to the previous five years (2011-2015).
- In the last 20 years, India imported arms and weapons worth USD 35 billion from Russia, according to the Stockholm International Peace Research Institute which tracks global arms trade.

Way Forward

- Russia will remain a **key defense partner for India** for decades to come.
- On the other hand, Russia and China are currently in a quasi-alliance setup. Russia repeatedly reiterates that it does not see itself as anybody's junior partner. **That's why Russia wants India to act as a balancer.**
- The two countries have been discussing how they can cooperate in using India as a production base for exporting to third countries **Russian-origin equipment and services.**
 - To address this, Russia has made legislative changes allowing its companies to set up joint ventures in India to address it following an **Inter-Governmental Agreement signed in 2019.**
 - This agreement needs to be implemented in a time bound manner.

UPSC Civil Services Examination Previous Year Question:

Prelims

Q. Recently, India signed a deal known as 'Action Plan for Prioritization and Implementation of Cooperation Areas in the Nuclear Field' with which of the following countries? (2019)

- (a) Japan
- (b) Russia
- (c) The United Kingdom
- (d) The United States of America

Ans: (b)

Mains

Q. What is the significance of Indo-US defence deals over Indo-Russian defence deals? Discuss with reference to stability in the Indo-Pacific region. (2020)

[Source: IE](#)

Great Indian Bustards (GIBs)

For Prelims: Desert National Park, International Union for Conservation of Nature Red List, Species

Recovery Programme.

For Mains: Measures for the protection of Great Indian Bustards

Why in News?

The recent sighting Great Indian Bustards (GIBs) deep in Pakistan's Cholistan desert has given rise to speculation that the endangered birds might have flown across the international border from India's Desert National Park (DNP).



What are the Key Points About Great Indian Bustard (GIB)?

▪ **About:**

- The Great Indian Bustard (*Ardeotis nigriceps*), the **State bird of Rajasthan**, is considered **India's most critically endangered bird**.
- It is considered the **flagship grassland species**, representing the health of the grassland ecology.
- Its population is confined mostly to **Rajasthan and Gujarat**. Small populations occur in **Maharashtra, Karnataka and Andhra Pradesh**.

▪ **Threat:**

- The bird is under constant **threats due to collision/electrocution with power transmission lines, hunting** (still prevalent in Pakistan), habitat loss and alteration as a result of widespread agricultural expansion, etc.

▪ **Protection Status:**

- [International Union for Conservation of Nature Red List \(IUCN\)](#): **Critically Endangered**
- [Convention on International Trade in Endangered Species of Wild Fauna and Flora \(CITES\)](#): Appendix 1
- [Convention on Migratory Species \(CMS\)](#): Appendix I
- [Wildlife \(Protection\) Act, 1972](#): Schedule I

▪ **Measures taken to protect GIB:**

- **Species Recovery Programme:**
 - It is kept under the species recovery programme under the [Integrated Development of Wildlife Habitats](#) of the Ministry of Environment, Forests and Climate Change (MoEFCC).
- **National Bustard Recovery Plans:**
 - It is currently being implemented by conservation agencies.
- **Conservation Breeding Facility:**
 - MoEF&CC, Rajasthan government and Wildlife Institute of India (WII) have also established a conservation breeding facility in **Desert National Park at Jaisalmer** in June 2019.

- The objective of the programme is to build up a captive population of Great Indian Bustards and to release the chicks in the wild for increasing the population.
- **Project Great Indian Bustard:**
 - It has been launched by the Rajasthan government with an aim of constructing breeding enclosures for the species and developing infrastructure to reduce human pressure on its habitats.
- **Eco-Friendly Measures:**
 - Task Force for suggesting eco-friendly measures to mitigate impacts of power transmission lines and other power transmission infrastructures on wildlife including the Great Indian Bustard.

What are the Key Points About Desert National Park?

- It is situated on the western border of India within **Jaisalmer & Barmer Districts** of Rajasthan.
- Great Indian Bustards, Rajasthan State animal (Chinkara) and State tree (khejri) and State flower (Rohida) are found naturally at this park.
- It was declared a **UNESCO World Heritage Site in 1980** and National Park in 1992.

UPSC Civil Services Examination Previous Year Question:

Q. With reference to India's Desert National Park, which of the following statements are correct? (2020)

1. It is spread over two districts.
2. There is no human habitation inside the Park.
3. It is one of the natural habitats of Great Indian Bustard.

Select the correct answer using the code given below:

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

Ans: (c)

Source: TH

Sandalwood Spike Disease

For Prelims: Sandalwood Spike Disease, Indian Sandalwood, Phytoplasma, Santalum album.

For Mains: Sandalwood Spike Disease and Related Concerns.

Why in News?

Recently, a study showed that **Sandalwood Spike Disease (SSD)** is posing a severe threat on the **Commercial Cultivation of Sandalwood**.

What is Sandalwood Spike Disease?

▪ **About:**

- It is an infectious disease which is caused by **phytoplasma**.
 - Phytoplasmas are **bacterial parasites of plant tissues** — which are transmitted by insect vectors and involved in plant-to-plant transmission.
- There is no cure **as of now for the infection**.
 - Presently, there is **no option but to cut down and remove the infected tree** to prevent the spread of the disease.
- The disease was **first reported in Kodagu, Karnataka in 1899**.
 - More than a million sandalwood trees were removed in the Kodagu and Mysore region between 1903 and 1916.

▪ **Concerns:**

- About 1% to 5% of sandalwood trees are lost every year due to the disease, scientists warn that it could wipe out the entire natural population if measures are not taken to prevent its spread.
- Another concern is, **any delay in arresting the trend may result in the disease spreading to cultivated sandalwood trees**.

▪ **Recent Steps:**

- In an effort to combat the killer disease, the **Institute of Wood Science and Technology (IWST)**, Bangalore joined hands with the Pune-based National Centre for Cell Sciences **for a three-year study**, initiated by the Union Ministry of AYUSH with a financial allocation of Rs. 50 lakhs.
 - IWST is a Centre of Excellence for Sandalwood Research and Wood Science.

What is Indian Sandalwood?

▪ **About:**

- Santalum album, commonly known as Indian Sandalwood, is a **dry deciduous forest species native to China, India, Indonesia, Australia, and the Philippines**.
 - Sandalwood has been long **associated with the Indian heritage & culture, as the country contributed 85% of the world's sandalwood trade** erstwhile. However, lately this has been declining at a fast rate.
- This small tropical tree grows to 20m high with red wood and a variety of dark colors of bark (dark brown, reddish and dark grey).
 - Because it is strong and durable, S. album is mostly harvested for its timber.



▪ **IUCN Red List Status:** Vulnerable

▪ **Uses:**

- In India, it is also called "**Chandan**" and "**Srigandha**". Sandalwood has a special place in Indian tradition **where it is being used from cradle to cremation**.
- Sandalwood heartwood, which is close-grained, is used for fine furniture and carving. The heartwood and roots also **contain 'sandal oil'** which is valued for use in perfumes, incense, cosmetics, soaps, and medicines. The bark contains tannin, which is used for dye.
- Sandalwood essential **oil has antiseptic, anti-inflammatory, antispasmodic and astringent properties**.

- It is used in aromatherapy to reduce stress, hypertension and heals wounds and treats skin blemishes.

▪ **Major Growing Areas:**

- In India, sandalwood is mostly grown in Andhra Pradesh, Telangana, Bihar, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, and Tamil Nadu.

Way Forward

- The study has recommended **accreditation of commercial production of sandalwood seedlings through testing** to ensure that the plants are free from SSD.
- It has also called for a **paradigm shift in policies handling sandalwood seedlings**.

UPSC Civil Services Examination Previous Year Question:

Q. With reference to 'Red Sanders', sometimes seen in the news, consider the following statements: (2016)

1. It is a tree species found in a part of South India.
2. It is one of the most important trees in the tropical rain forest areas of South India.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (a)

Exp:

- Red Sanders has a highly restricted distribution in the southeastern portion of Indian peninsula to which it is endemic. **Hence, statement 1 is correct.**
- Red Sanders (*Pterocarpus santalinus*) occurs in the forest formation which is classified as Southern Tropical Dry Deciduous Forests. **Hence, statement 2 is not correct.**
- The tree is endemic to several districts in Andhra Pradesh and some parts of Tamil Nadu and Karnataka.
- It is known for its rich hue and therapeutic properties. It is high in demand across Asia, particularly in China and Japan, for use in cosmetics and medicinal products as well as for making furniture, woodcraft and musical instruments.
- In the 1980s, the Union government recommended inclusion of Red Sanders in Appendix II of CITES. It was listed in Appendix II of CITES in 1995, and subsequently exports of Red Sanders has been prohibited since 2004.
- **Therefore, option (a) is the correct answer.**

[Source: TH](#)

Why in News?

Recently, [Defence Research and Development Organisation \(DRDO\)](#) successfully test-fired indigenously-developed new generation medium-range ballistic missile Agni Prime (Agni-P) from the APJ Abdul Kalam Island at Odisha coast.

What is Agni Prime?

- It is a two-stage canisterised missile.
- It is the latest and sixth variant of the Agni series missiles (under **IGMDP - Integrated Guided Missile Development Program**).
- With multiple independently targetable re-entry vehicles, the missile is **capable of delivering a number of warheads** at separate locations at a distance of 1,000 - 2,000 km.
- The 10.5 metre tall missile with a diameter of 1.2 metre can carry **warheads up to 1.5 tonne**.
- It can perform high maneuvers while homing in on targets.
- These missiles will be inducted in the armed forces after couple of user associated launches
- It has a **dual redundant navigation and guidance system**.
- The Agni-P missile would further strengthen India's credible deterrence capabilities.

What is the Other Agni Class of Missiles?

- They are the mainstay of India's nuclear launch capability.
- Range of other Agni Missiles:
 - **Agni I:** Range of 700-800 km.
 - **Agni II:** Range more than 2000 km.
 - **Agni III:** Range of more than 2,500 Km
 - **Agni IV:** Range is more than 3,500 km and can fire from a road mobile launcher.
 - **Agni-V:** The longest of the Agni series, an Inter-Continental Ballistic Missile (ICBM) with a range of over 5,000 km.

What is IGMDP (Integrated Guided Missile Development Program)?

- It was conceived by Dr. A.P.J. Abdul Kalam to enable India attain self-sufficiency in the field of missile technology. It was approved by the Government of India in 1983 and completed in March 2012.
- The 5 missiles (P-A-T-N-A) developed under this program are:
 - **Prithvi:** Short-range surface-to-surface ballistic missile.
 - **Agni:** Ballistic missiles with different ranges, i.e., Agni (1,2,3,4,5)
 - **Trishul:** Short-range low-level surface to air missile.
 - **Nag:** 3rd generation anti-tank missile.
 - **Akash:** Medium-range surface-to-air missile.

UPSC Civil Services Examination Previous Year Question:

Q. With reference to Agni-IV Missile, which of the following statements is/are correct? (2014)

1. It is a surface-to-surface missile.
 2. It is fuelled by liquid propellant only.
 3. It can deliver one-tonne nuclear warheads about 7500 km away.
- Select the correct answer using the code given below:

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

Ans: (a)

- Agni-IV is a nuclear-capable long-range ballistic missile of India, with a strike range of 4,000 km.
- The indigenously developed Agni-IV is a two-stage surface-to-surface missile. It is 20 metres long with a weight of 17 tonnes. Hence, statement 1 is correct.
- It is a two-stage solid fuelled system that can carry a one-tonne nuclear warhead over a distance of 4,000 kilometres. **Hence, statements 2 and 3 are not correct.**
- Therefore, option (a) is the correct answer.

Source: HT

[Source: HT](#)

Sukapaika River

Why in News?

The Sukapaika River which stopped flowing 70 years ago, is set to be rejuvenated as the Odisha government has started working on its revival plan following a recent direction from the [National Green Tribunal \(NGT\)](#).

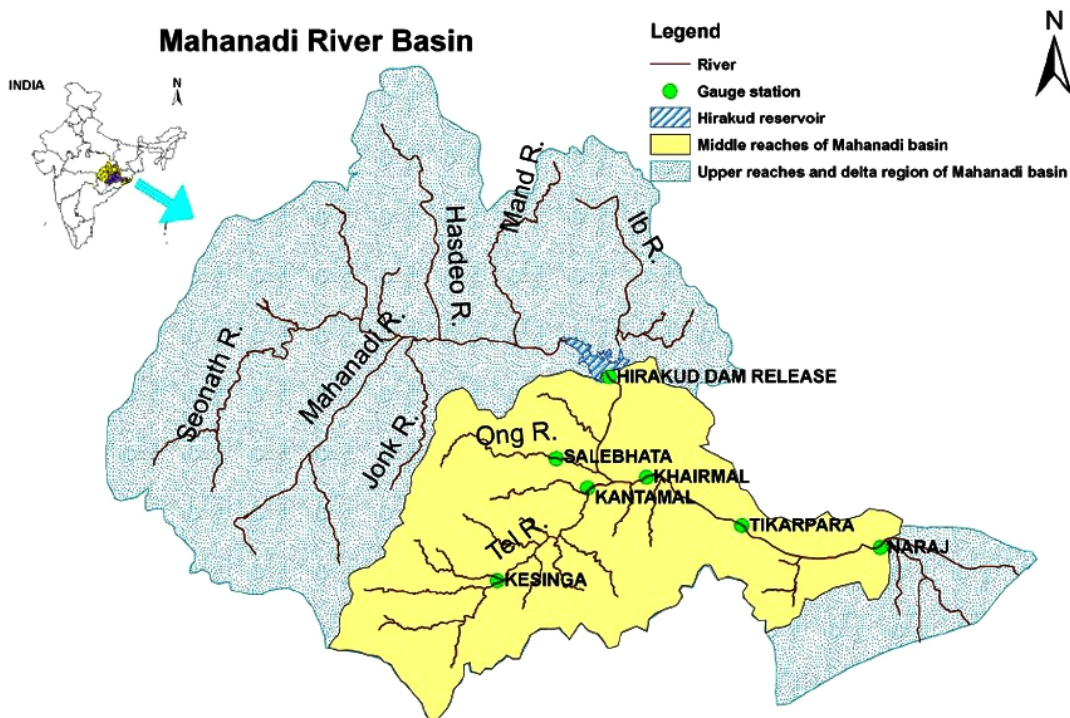
What are the Key Points of Sukapaika River?

- Sukapaika is **one of the several distributaries of the mighty Mahanadi river** in Odisha.
- It **branches away from the Mahanadi at Ayatpur village** in Cuttack district and flows for about 40 kilometres (km) before rejoining its parent river at Tarapur in the same district.
- Sukapaika river is an **important system of the Mahanadi to control floodwater** and maintain the flow in the river as well as the Bay of Bengal.

What are the Key Points of Mahanadi River?

- **About:**
 - The Mahanadi River system is the **third largest of peninsular India after Godavari and Krishna**, and the largest river of Odisha state.
 - The catchment area of the river extends to Chhattisgarh, Madhya Pradesh, Odisha, Jharkhand and Maharashtra.
 - Its basin is bounded by the Central India hills on the north, by the Eastern Ghats on the south and east and by the [Maikala range](#) in the west.
- **Source:**
 - It rises from a place near Sihawa, in the Dhamtari district of Chhattisgarh.
- **Major Tributaries:**
 - The Seonath, the Hasdeo, the Mand and the Ib joins Mahanadi from left whereas the Ong, the Tel and the Jonk joins it from right.
- **Major Dams/Projects on Mahanadi:**
 - [Hirakud Dam](#): This is the longest dam of India.
 - Ravishankar Sagar, Dudhawa Reservoir, Sondur Reservoir, Hasdeo Bango and Tandula are other major projects.
- **Industries:**
 - Mahanadi basin, because of its rich mineral resource and adequate power resource, has a favourable industrial climate.
 - Iron and Steel plant at Bhilai

- Aluminium factories at Hirakud and Korba
- Paper mill near Cuttack
- Cement factory at Sundargarh.
- Other industries based primarily on agricultural produce are sugar and textile mills.
- Mining of coal, iron and manganese are other industrial activities.



UPSC Civil Services Examination Previous Year Question

Q. Consider the following rivers: (2014)

1. Barak
2. Lohit
3. Subansiri

Which of the above flows/flow through Arunachal Pradesh?

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

Ans: (b)

- Barak rises in the Manipur hills and enters the plains near Lakhimpur. The River flows through the states of Nagaland, Manipur, Mizoram and Assam in India and drains into the Bay of Bengal via Bangladesh. It is being developed as one of the Inland waterways of India. Hence, 1 is not correct.
- Major rivers flowing through Arunachal Pradesh: Subansiri, Lohit/Tellu R, Dihang/Siang, Kameng.
- Lohit is a tributary of Brahmaputra. The river rises in Tibet Autonomous Region, where it is known as the Zayü River. It descends through the mountainous region and surges through Arunachal Pradesh in India for 200 kilometres before entering the plains of Assam where it is known as the Lohit River. **Hence, 2 is correct.**
- Subansiri rises in the mountains of Tibet. The total length of the Subansiri is about 442 km, out of which 192 km lies in Arunachal Pradesh and 190 km in Assam and the rest part falls in Tibet. **Hence, 3 is correct.**
- **Therefore, option (b) is the correct answer.**

Q. Consider the following pairs: (2014)

Wetlands	Confluence of rivers
1. Harike Wetlands	: Confluence of Beas and Satluj/Sutlej
2. Keoladeo Ghana	: Confluence of Banas National Park and Chambal
3. Kolleru Lake	: Confluence of Musi and Krishna

Which of the above pairs is/are correctly matched?

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

Ans: (a)

- Harike is one of the largest man-made wetlands of Northern India. It came into existence in 1952 after the construction of barrage near the confluence of rivers Satluj and Beas. It was accorded the wetland status in 1990 under the Ramsar Convention. Hence, pair 1 is correctly matched.
- Keoladeo National Park is situated at the confluence of the Gambhir and Banganga rivers in the Bharatpur district of Rajasthan. Hence, pair 2 is not correctly matched.
- Kolleru Lake is located between Krishna and Godavari deltas. Kolleru spreads into two districts –Krishna and West Godavari. Hence, pair 3 is not correctly matched.
- **Therefore, option (a) is the correct answer.**

[Source: TH](#)

Second Species of the Genus *Allmania*

Why in News?

Recently, a new species of the genus *Allmania* named *Allmania multiflora* has been identified.



What are the Key Highlights about the New Species?

▪ **About:**

- *Allmania multiflora* **grows to a height of about 60 cm** and is **only the second species** of this genus discovered to date.
 - The **first species, *Allmania nodiflora*, was originally published under the genus *Celosia* as *Celosia nodiflora*** in 1753. Specimens found in Ceylon (Sri Lanka) were first described as *Allmania nodiflora* in 1834.
 - Shorter tepals and wider gynoeceum (parts of the flower), shorter bracts and in the diameter of the seeds are among the characteristics that distinguishes it from *Allmania nodiflora*. Flowering and fruiting occurs from May to September.
- The species is quite special from both the botanical and conservation points of view.
- *Allmania multiflora* has been so named for having a higher number of florets within an inflorescence.
- *Allmania multiflora* is an annual herb, erect, with branches arising from the base.
- The stem is **red to violet at the base and green above**.

▪ **Protection Status:**

- **IUCN:** Critically Endangered.

▪ **Threats:**

- It could be accidentally exploited by local people as a vegetable along with amaranths.
- Its habitat, granite hillocks, too faced various forms of threats today.

[Source: TH](#)

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