



ODOP: Handicraft Sector

For Prelims: One District One Product, Atmanirbhar Bharat, Schemes Related to Handicrafts

For Mains: Significance of Handicraft sector and Related Initiatives, Government Policies & Interventions

Why in News?

Recently, **the Ministry of Textile** inaugurated the 'Lota Shop' at National Crafts Museum, New Delhi.

- The shop was opened by **Central Cottage Industries Corporation of India Limited (CCIC)**, popularly known as the Central Cottage Industries Emporium.
 - It **showcases fine handcrafted curios, souvenirs, handicrafts and textiles** based on the traditional craft forms of India.
- The government also reiterated that it is working towards '**One District One Product**' which will give impetus to the **Handicraft sector as well as the Artisans**.

What is One District One Product?

- **About:**
 - The 'One District, One Product' (ODOP) was launched by the Ministry of Food Processing Industries, to **help districts reach their full potential, foster economic and socio-cultural growth**, and create employment opportunities, especially, in rural areas.
 - It was launched in January, 2018, by the Uttar Pradesh Government, and due to its success, was later adopted by the Central Government.
 - This initiative is carried out with the 'Districts as Exports Hub' initiative by the **Directorate General of Foreign Trade (DGFT)**, Department of Commerce.
 - 'Districts as Exports Hub' initiative provides **financial and technical assistance to the district level industries** so that the small-scale industries can be helped and they can provide employment opportunities to the local people.
- **Objectives:**
 - It aims to **identify, promote and brand a product** from one district.
 - To turn every district in India, **into an export hub through promotion of the product in which the district specialises**.
 - It **envisions** to accomplish this by scaling manufacturing, supporting local businesses, finding potential foreign customers and so on, thus helping to achieve the '**Atmanirbhar Bharat**' vision.

What is the Status of Handicraft Sector in India?

- **About:**
 - Handicrafts are items **that are constructed by hand using simple tools rather than mass production methods** and equipment. While very similar to basic arts and crafts, there is **one key difference with handicrafts**.
 - The items produced as a result of the efforts are designed for a specific function or **use as well as being ornamental in nature**.

- The handloom and handicraft industry **has been the backbone of India's rural economy for decades.**
- India **produces** woodware, artmetal wares, handprinted textiles, embroidered goods, zari goods, imitation jewellery, sculptures, pottery, glassware, attars, agarbattis, etc.
- **Trade:**
 - India is one of the **largest handicraft exporting countries.**
 - In March 2022, the total handicraft export excluding handmade carpets from India was USD 174.26 million which **was an 8% increase from February 2022.** During 2021-22, the total exports of Indian handicrafts were valued at USD 4.35 billion; **a 25.7% increase from the previous year.**
- **Significance of the Sector:**
 - **Largest Employment Generator:**
 - It is one of the **largest employment generators after agriculture**, providing a key means of **livelihood to the country's rural and urban population.**
 - Handicraft is one of the most important sectors in the Indian economy employing more than seven million people.
 - **Eco-Friendly:**
 - The sector functions on a **self-sustaining business model, with craftsmen often growing their own raw materials and is well known for being a pioneer of environment-friendly zero-waste practices.**
- **Challenges:**
 - Artisans face challenges such as **inaccessibility of funds, low penetration of technology, absence of market intelligence and poor institutional framework** for growth.
 - In addition, the sector is plagued by implicit contradiction of handmade products, which are **typically at odds with scale of production.**

What Factors Support the Growth of the Sector?

- **Government Schemes:**
 - The central government is actively **working towards developing the industry to maximize its potential.**
 - The introduction of several schemes and initiatives is helping craftsmen to overcome the challenges they face.
- **Rise of Dedicated Trade Platforms:**
 - Few platforms like Craftezy, have emerged that lend the much-needed support to Indian artisans in finding visibility in domestic and global markets.
 - These global handicraft trade **platforms come with a free supplier induction process and aim at giving it an organized image in the global market.**
- **Using Technology for Inclusion:**
 - Technology that can help cross boundaries has proven to be a boon for the handicraft industry.
 - **E-commerce** has opened **doors to seamless access to consumer goods, and this has enabled inclusive growth** as all manufacturers in any part of the globe can showcase their products through these online platforms.
 - Even social media platforms are helping immensely with marketing Indian handicrafts globally.
- **Exports Vs Imports:**
 - In the last five years, **exports of Indian handicrafts have gone up by more than 40%,** as three-fourths of handicrafts are exported.
 - Indian handicrafts are majorly exported to more than a hundred countries, and the US alone constitutes about a third of India's handicrafts exports.
- **Change in Behavior of Artisans:**
 - To **generate enhanced income, artisans adapt to new skills** and create products that meet new market demands.
 - Thus, on account of the introduction of technology and the ease it brings to their table, there is a significant change in the behaviors of sellers and buyers of handicrafts.

What are the Related Government Initiatives?

▪ **Ambedkar Hastshilp Vikas Yojana:**

- To support artisans with their infrastructure, technology and human resource development needs.
- The objective of **mobilising artisans into self-help groups and societies with the agenda of facilitating bulk production and economies in procurement** of raw materials.

▪ **Mega Cluster Scheme:**

- The objective of this scheme includes **employment generation and improvement** in the standard of living of artisans.
- This programme **follows a cluster-based approach in scaling infrastructure** and production chains at handicraft centres, specifically in remote regions.

▪ **Marketing Support and Services Scheme:**

- This scheme **provides interventions for domestic marketing events to artisans in the form of financial assistance** that aids them in organising and participating in trade fairs and exhibitions across the country and abroad.

▪ **Research and Development Scheme:**

- This initiative was introduced to **generate feedback on economic, social, aesthetic and promotional aspects of crafts and artisans** in the sector, with the objective of supporting implementation of aforementioned schemes.

▪ **National Handicraft Development Programme:**

- The important component of this programme is carrying out surveys, upgrading design and technology, developing human resources, providing insurance and credit facilities to artisans, R&D, infrastructure development and marketing support activities.

▪ **Comprehensive Handicrafts Cluster Development Scheme:**

- The approach of this scheme is to scale up infrastructure and production chain at handicraft clusters. Additionally, this scheme aims to provide adequate infrastructure for production, value addition and quality assurance.

▪ **Export Promotion Council for Handicrafts:**

- The main objective of the **council is to promote, support, protect, maintain and increase the export of handicrafts.**
- The other activities of the council are knowledge dissemination, providing professional advice and support to members, organizing delegation visits and fairs, providing liaison between exporters and the government and carrying out awareness workshops.

Way Forward

- Indian craft sector has the **scope to become a billion-dollar marketplace with the right support and business environment.**
- Developing **a systematic approach, which nurtures the intrinsic value of craft skills** and opens avenues for product design and manufacturing will increase access to new markets.
- Alongside, capitalising on e-commerce **for online visibility and operational efficiencies will prove to be a critical success factor** as the sector evolves and gains further traction.
- The present time of **globalization**, **the handicraft sector has massive opportunities** in the domestic and global markets. While the **precarious condition of artisans needs careful interventions for their upliftment**, the government has already been making great strides by adopting measures that will make handicraft products competitive globally and improve the conditions of our craftsmen.

Source: PIB

Periodic Labour Force Survey 2020-21

For Prelims: Periodic Labour Force Survey (PLFS), National Statistical Office (NSO), Unemployment Rate, Labour Force

For Mains: Employment, Growth & Development, Human Resource, Types of Unemployment in India, Recent Initiatives by Government to fight Unemployment

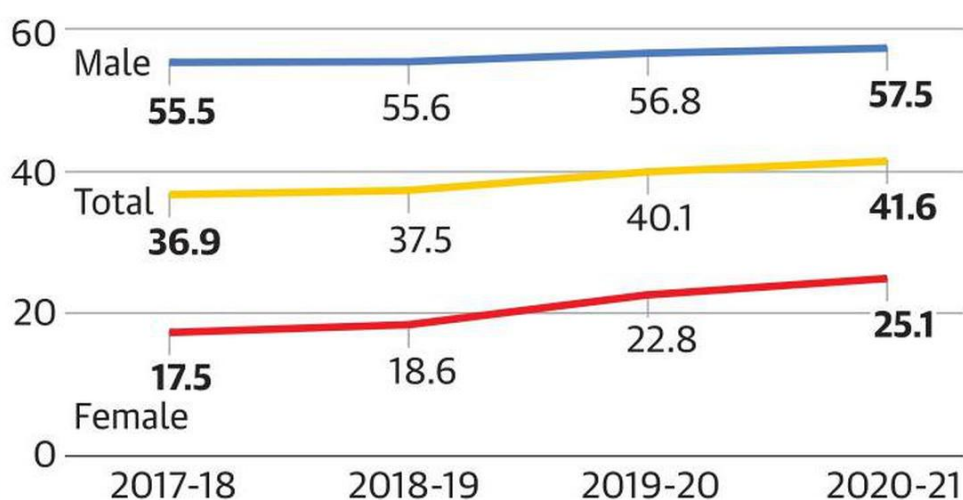
Why in News?

Recently the [Periodic Labour Force Survey \(PLFS\)](#) for 2020-21 released by the [Ministry of Statistics and Programme Implementation\(MOSPI\)](#)

What are the Highlights of PLFS?

- **Unemployment Rate:**
 - It shows that the **unemployment rate fell to 4.2% in 2020-21, compared with 4.8% in 2019-20.**
 - **The rural areas** recorded an unemployment rate of **3.3%** and **urban areas** recorded an unemployment rate of **6.7%.**
- **Labour Force Participation Rate (LFPR):**
 - The percentage of persons in the labour force (that is, working or seeking work or available for work) in the population **increased from 40.1%** in the previous year to **41.6%** during 2020-21.
- **Worker Population Ratio (WPR):**
 - It increased from **38.2%** of the previous year to **39.8%.**
- **Migration Rate:**
 - The migration rate is 28.9%. The **migration rate among women was 48% and 47.8%** in rural and urban areas, respectively.

Looking for work | The labour force participation rate (LFPR) has continued to improve further in 2020-21, according to the latest Periodic Labour Force Survey. The graph shows LFPR over years across genders



Key Terms

- **Unemployment Rate:** The unemployment rate is defined as the **percentage of unemployed persons in the labour force**.
- **Labour Force:** The Labour force, according to **Current Weekly Status (CWS)**, is the number of persons either employed or unemployed on an average in a week preceding the date of the survey.
- **Current Weekly Status(CWS) Approach:** The urban unemployment PLFS is based on the CWS approach.
 - Under CWS, a person is considered **unemployed if he/she did not work even for one hour on any day during the week but sought or was available for work at least for one hour on any day during the period**.
- **Worker Population Ratio (WPR):** WPR is defined as the percentage of employed persons in the population.

What is the Periodic Labour Force Survey?

- Considering the importance of the availability of labour force data at more frequent time intervals, the **National Statistical Office (NSO)** launched the Periodic Labour Force Survey (PLFS) in April 2017.
- The objective of PLFS is primarily two fold:
 - To estimate the key employment and unemployment indicators (viz. **Worker Population Ratio, Labour Force Participation Rate, Unemployment Rate**) in the short time interval of three months for the urban areas only in the **CWS**.
 - To **estimate employment and unemployment indicators** in both usual Status and CWS in both rural and urban areas annually.

What are Recent Initiatives to fight Unemployment?

- [Support for Marginalised Individuals for Livelihood and Enterprise \(SMILE\)](#)
- [PM-DAKSH \(Pradhan Mantri Dakshta Aur Kushalta Sampann Hitgrahi\)](#)
- [Mahatma Gandhi National Rural Employment Guarantee Act \(MGNREGA\)](#)
- [Pradhan Mantri Kaushal Vikas Yojana \(PMKVY\)](#)
- [Start Up India Scheme](#)

Types of Unemployment in India

- **Disguised Unemployment:** It is a phenomenon wherein **more people are employed than actually needed**.
 - It is primarily traced in the agricultural and unorganised sectors of India.
- **Seasonal Unemployment:** It is unemployment that occurs **during certain seasons** of the year.
 - Agricultural labourers in India rarely have worked throughout the year.
- **Structural Unemployment:** It is a category of unemployment arising from the **mismatch between the jobs available in the market and the skills** of the available workers in the market.
 - Many people in India do not get jobs due to a lack of requisite skills and due to poor education levels, it becomes difficult to train them.
- **Cyclical Unemployment:** It is a **result of the business cycle**, where unemployment rises during recessions and declines with economic growth.
 - Cyclical unemployment figures in India are negligible. It is a phenomenon that is mostly found in capitalist economies.
- **Technological Unemployment:** It is the loss of jobs due to **changes in technology**.
 - In 2016, World Bank data predicted that the proportion of jobs threatened by automation in India is 69% year-on-year.
- **Frictional Unemployment:** Frictional Unemployment also called **Search Unemployment**,

refers to the time lag between the jobs when an individual is searching for a new job or is switching between the jobs.

- In other words, an employee requires time for searching for a new job or shifting from the existing to a new job, this inevitable time delay causes frictional unemployment.
- It is often considered voluntary unemployment because it is not caused due to the shortage of jobs, but in fact, the workers themselves quit their jobs in search of better opportunities.

▪ **Vulnerable Employment:** This means, people, working informally, **without proper job contracts and thus sans any legal protection.**

- These persons are deemed 'unemployed' since records of their work are never maintained.
- It is one of the main types of unemployment in India.

UPSC Civil Services, Previous Year Questions(PYQ)

Q. Disguised unemployment generally means (2013)

- (a) large number of people remain unemployed
- (b) alternative employment is not available
- (c) marginal productivity of labour is zero
- (d) productivity of workers is low

Ans:(d)

Exp:

- An economy demonstrates disguised unemployment when **productivity is low** and **too many workers are filling too few jobs.**
- Marginal productivity refers to the additional output that is gained by addition of one unit of labour.
- Since, in disguised unemployment, more number of labour than required are already engaged in the work, the marginal productivity of labour is zero.
- **Therefore, option (c) is the correct answer.**

[Source:TH](#)

Digital News Report 2022

For Prelims: Digital News Report, 2022

For Mains: Digital News Report, 2022, Government Policies and Interventions

Why in News?

Recently, Digital News Report 2022 was released by Reuters Institute.

- The Reuters Institute for the Study of Journalism is **dedicated to exploring the future of**

journalism worldwide through debate, engagement, and research.

- This year's report, the eleventh overall, is **based on a survey conducted by YouGuv**, a British market research and data analytics firm, in January/February 2022 through online questionnaires.
 - It covers 46 markets in six continents.

Fraying connections

Fewer people are reading news. This is why.

- Too much politics/COVID-19
- Negative effect on mood
- Worn out by amount of news
- News is untrustworthy/biased
- Leads to arguments
- Nothing I can do with information
- Feelings of powerlessness
- Don't have time for news
- Hard to understand



What are the Key Highlights of the Report?

- **Trust Issue:**
 - People are trusting news content less and less.
- **Decline in Traditional News Media:**
 - Consumption of traditional news media declined in nearly all the countries surveyed.
- **Increase in Consumers who Avoid News:**
 - The proportion of news consumers who avoid news has risen sharply across countries, with the report describing the phenomenon as “selective avoidance”.
- **Growth in Digital Subscription:**
 - Despite small increases in the proportion of people willing to pay for online news (mostly in richer countries), the growth in digital subscriptions for news content seems to be leveling off.
- **Access Way:**
 - The **smartphone has become the dominant way** in which most people first access news in the morning.
 - While Facebook remained the most-used social network for news, it is TikTok that has become the fastest-growing network, reaching 40% of 18-24-year-olds, with 15% using the platform for news.

What is ‘Selective Avoidance’ of News?

- **About:**
 - Even though the majority of people remain engaged with news, the report finds that a **growing minority are increasingly rationing or limiting their exposure**.
 - The report calls this behavior “**selective avoidance**”.
 - The avoidance of news has doubled in **Brazil (54%) and the U.K. (46%) since 2017**.

▪ **Reasons for the Avoidance:**

- Due to the repetitiveness of the news agenda — especially around politics and [Covid-19](#) (43%)
- Worn out by the news (29%)
- Trust issues (29%)
- Negative effects on mood (36%)
- Leads to arguments (17%)
- Led to feelings of powerlessness (6%)
- No time for news (14%)
- Hard to understand (8%)

What about Preferred Modes of News Consumption?

- Across markets and age groups, **text is still king** when it comes to **news consumption**.
- However, **younger audiences** were more likely to say they **watch the news**.
 - In India, **58% mostly read the news while 17% mostly watch it**.
 - On the other hand, the comparable figures for Finland, which has a historic pattern of high newspaper consumption, was 85% and 3% respectively.

What about the Main Gateway to News?

- **Smartphone** being the preferred mode of access, direct access to apps and websites were becoming less important over time, giving ground to social media, which is becoming more important as a gateway to news due to its ubiquity and convenience.
- At an aggregate level, with social media preference (28%) surging ahead of direct access (23%)” notes the report.

What about the Trends in India?

- India is a strongly mobile-focused market.
- **72%** of the survey respondents accessed news through **smartphones** and **35%** did so **via computers**.
- Also, **84% of the Indian** respondents sourced news **online**, **63%** from **social media**, **59%** from **television**, and **49% from print**.
- **YouTube (53%) and WhatsApp (51%)** were the top social media platforms for sourcing news.
- India registered a **small increase in the level of trust, with 41% trusting news overall**.
- A minority of respondents - 36% and 35% - felt that legacy print brands and public broadcasters lacked undue political influence and business influence, respectively.

[Source: TH](#)

Indian Railway Innovation Policy

For Prelims: Indian Railway Innovation Policy, Headquarters of the Zones of Indian Railways

For Mains: Issues in Indian Railway, Indian Railway Innovation Policy, Government Interventions and Policies

Why in News?

Recently, the Minister of Railways has launched **Indian Railway Innovation Policy- “StartUps for Railways”**.

What are the Key Highlights of the Policy?

▪ About:

- Grant up to **Rs. 1.5 Crore to innovators on equal sharing** basis with provision of milestone-wise payment.
- The complete process from floating of problem statement to development of prototype is online with defined time line to make it transparent and objective.
- Trials of prototypes will be done in Railways.
- **Enhanced funding will be provided** to scale up deployment on successful performance of prototypes.
- **Selection of Innovator/s will be done by a transparent and fair system** which will be dealt through an online portal inaugurated today by the Minister of Railways.
- Developed **Intellectual property rights (IPR)** will remain with innovators only.
- De-centralization of complete product development process at divisional level to avoid delays.

▪ Issues Identified:

- **Eleven problem statements such as rail fracture, headway reduction, etc.**, have been taken up for this program's phase 1 out of the more than 100 problem statements received from various divisions, field offices or zones of Indian Railways.

▪ Expected Benefits:

- This policy will **bring scale and efficiency in the field of operation, maintenance** and infrastructure creation through participation of a very large and untapped startup ecosystem.
- It also aims to **leverage innovative technologies** developed by Indian **Startups/MSMEs/Innovators/Entrepreneurs** to improve operational efficiency and Safety of Indian Railways.
- It will Promote **“Innovation Culture” in the country for co-creation** and co-innovation in the Railway sector.

What are the Key Facts about Indian Railways?

▪ About:

- The Indian Railways network is **one of the longest in the world**.
- It **facilitates the movement of both freight and passengers** and contributes to the growth of the economy.
- The Indian Railway was introduced in **1853**, when a line was constructed **from Bombay to Thane** covering a distance of 34 km.
- Indian Railways is the **largest government undertaking in the country**.
- The length of the Indian Railways network was 67,956 km (Railway yearbook 2019-20).

▪ Zones:

- In India, the railway system has been divided into 16 zones.

Railway Zone	Headquarters
Central	Mumbai CST
Eastern	Kolkata
East Central	Hajipur
East Coast	Bhubaneswar
Northern	New Delhi
North Central	Allahabad
North Eastern	Gorakhpur
North East Frontier	Maligaon (Guwahati)
North Western	Jaipur

Southern	Chennai
South Central	Secunderabad
South Eastern	Kolkata
South East Central	Bilaspur
South Western	Hubli
Western	Mumbai (Church Gate)
West Central	Jabalpur

- Indian Railways is the proud owner of **four UNESCO accorded World Heritage Sites** namely **Darjeeling Himalayan Railway** (1999), **Nilgiri Mountain Railway** (2005), **Kalka Shimla Railway** (2008) and **Chhatrapati Shivaji Terminus**, Mumbai (2004).
 - There are two more in waiting or in the tentative list namely **Matheran Light Railway and Kangra Valley Railway**.

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. With reference to bio-toilets used by the Indian Railways, consider the following statements: (2015)

1. The decomposition of human waste in the biotoilets is initiated by a fungal inoculum.
2. Ammonia and water vapour are the only end products in this decomposition which are released into the atmosphere.

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: (d)

Exp:

- Bio-toilet project of Indian Railways is an innovative and an indigenous development of technology. This technology is the first of its kind and is being used for the first time by any railroad in the world for onboard accelerated digestion of human waste.
- These bio-toilets are fitted underneath the lavatories and the human waste discharged into them is acted upon by a colony of anaerobic bacteria that convert human waste, mainly into water and a small amount of bio-gases like Methane, Ammonia etc. **Hence, statements 1 and 2 are not correct.**
- The gases escape into the atmosphere and waste water is discharged after chlorination onto the track.
- Human waste, thus, does not fall on the railway tracks, thus improving cleanliness and hygiene at platforms, and facilitate track and coaches maintenance staff to perform their work more efficiently.
- Therefore, option (d) is the correct answer.

Source: PIB

Prithvi-II Missile

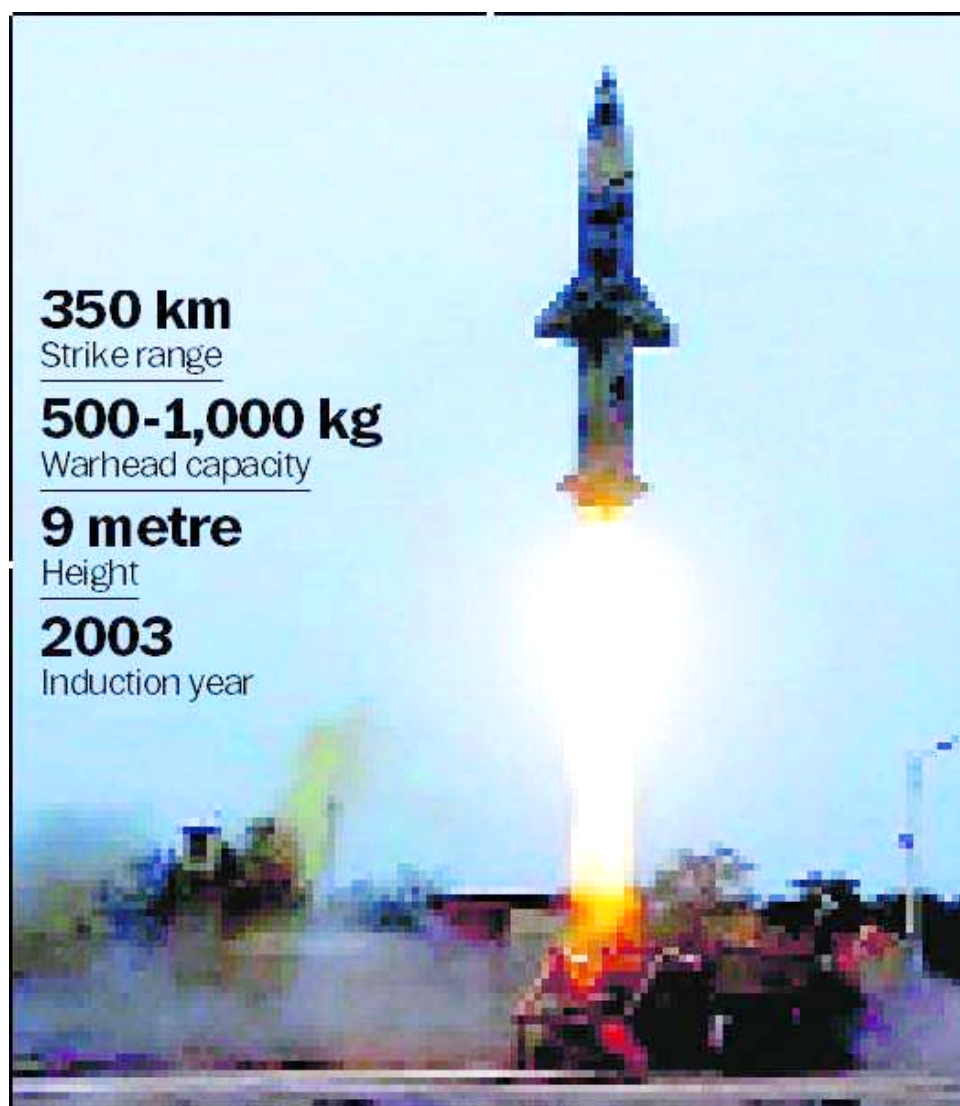
For Prelims: Prithvi II, DRDO, IGMDP, Agni IV, Ballistic Missiles, Various types of Missiles

For Mains: Missile Technology of India, IGMDP

Why in News?

Recently, India successfully conducted the night trial of **surface-to-surface nuclear-capable short-range ballistic missile Prithvi-II**.

- Earlier, Intermediate Range Ballistic Missile **Agni-IV** was tested which can travel as far as 4,000 km.



What are the Key Highlights about Prithvi-II Missile?

- **About:**
 - Prithvi-II is an **indigenously developed Surface-to-Surface Missile Short-Range Ballistic Missile (SRBM)**, which has a range of around 250 km-350km and can carry a one tonne payload.

- Prithvi II class is a **single-stage liquid-fueled missile** that has warhead mounting capability of 500 kg-1000kg.
- The missile is a **proven system and is capable of striking targets** with a very **high degree of precision**.
- The state-of-the-art missile uses an **advanced inertial guidance system** with manoeuvring trajectory to hit its target.
- It was initially **developed for the [Indian Air Force](#)** as its primary user and was **later inducted into the [Indian Army](#) as well**.
- While the missile was inducted into India's Strategic Forces Command for the first time in 2003, it was the first missile developed under the IGMDP.

▪ **Developed by:**

- [Defence Research and Development Organisation \(DRDO\)](#) of India under its [Integrated Guided Missile Development Programme \(IGMDP\)](#).

What are the Prithvi Missiles?

- The **Prithvi missile system** comprises various tactical **Surface-to-Surface Short-Range Ballistic Missiles (SRBM)**.
- Its development began in 1983, and it was **India's first indigenous ballistic missile**.
- It was first test-fired in 1988, from **Sriharikota**, SHAR Centre.
 - It has a range of from 150 to 300 km.
- The **naval variant of Prithvi I and Prithvi III class missiles** have the code-name **Dhanush**.
- The propulsion technology was likely based on the **Soviet SA-2 surface-to-air missile**.
 - **Soviet SA-2 Surface-to-Air Missile:**
 - Developed in the mid-1950s, the **Soviet SA-2 surface-to-air** missile was the first effective Soviet Union surface-to-air missile.
 - Developed as a missile for the battlefield, it could carry a nuclear warhead in its role as a tactical nuclear weapon.
- The Prithvi I missiles have been in service with the Indian Army since 1994.
 - Reportedly, [Prahara missiles](#) are replacing with Prithvi I missiles.
- Prithvi II missiles have been in service since 1996.
- Prithvi III having a more extended range of 350 km, was successfully test-fired in 2004.

What is Integrated Guided Missile Development Programme (IGMDP)?

▪ **About:**

- IGMDP was an Indian Ministry of Defence programme to **research and develop a comprehensive range of missiles**.
- The project started in 1982-1983 under the leadership of [Dr APJ Abdul Kalam](#).
- This Programme made **Dr APJ Abdul Kalam the missile man of India**.
- The integrated guided missile programme was complete in, 2008.

▪ **Five Missiles Developed under the IGMDP:**

- **PRITHVI** (Short range surface-to-surface ballistic missile)
- [AGNI](#) (Medium to intercontinental surface-to-surface missile)
- **TRISHUL** (Short range low-level surface-to-air missile)
- [AKASH](#) (Surface-to-air missile having a range of up to 25 Km and multi-target handling system)
- [NAG](#) (Third generation "fire & forget", "top attack" anti-tank missile)

UPSC Civil Services Examination, Previous Year Question(PYQ)

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)

Exp:

- 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: IE

Bharat Gaurav Scheme

Why in News?

India's first private train, under the [Bharat Gaurav scheme](#) has been flagged off from Coimbatore.

- The train will cover **several historical destinations on the route while giving the passengers an insight into the cultural heritage** of the country.

What is Bharat Gaurav Scheme?

- **About:**
 - **Launched in November 2021**, under the scheme, trains now **have a third segment for tourism**. Till now, **the Railways had passenger segments and goods segments**.
 - These trains are **not regular trains that will run as per a timetable but will be more on the lines of the Ramayana Express** being run by the [IRCTC](#).
 - It was announced under **the theme-based tourist circuit trains**. These trains will be run **by both private players and IRCTC**, in theme-based circuits.
 - By theme-based tourism (circuits), the railways mean trains like **Guru Kripa that go to all places related to [Guru Nanak](#) or a Ramayan-themed train** to touch upon places related to **Lord Ram**.
 - Anyone, from **societies, trusts, consortia and even state governments can apply to take these trains and run them on special tourism circuits** based on a theme.
 - Service Provider will offer all-inclusive packages to tourists including rail travel, hotel accommodation, sightseeing arrangement, visit to historical/heritage sites, tour guides etc.
- **Benefits of such Scheme:**
 - These trains **will help realise India's rich cultural heritage and magnificent historical places** to the people of India and the world.
 - They will also help in **tapping the vast tourism potential** of India.

What are the other Related Scheme?

- **Swadesh Darshan Scheme:**
 - Swadesh Darshan, a [Central Sector Scheme](#), was launched in 2014 -15 for integrated development of theme-based tourist circuits in the country.
- **PRASHAD Scheme:**
 - The 'National Mission on Pilgrimage Rejuvenation and Spiritual Augmentation Drive' (PRASAD) was launched by the Ministry of Tourism in the year 2014-15 with the **objective of holistic development of identified pilgrimage destinations.**
- **Buddhist Conclave:**
 - Buddhist Conclave is **organised every alternate year with the objective of promoting India as a Buddhist Destination** and major markets around the globe.
- **Dekho Apna Desh' Initiative:**
 - It is an **initiative to encourage the citizens to travel widely within the country** and explore the wonders of India thus enabling the development of Domestic Tourism tourist facilities and infrastructure in tourism spots in the country.

What is the State of Tourism in India?

- Tourism in India is important **for the country's economy and is growing rapidly.**
- According to the World Travel and Tourism Council, the travel & tourism industry's contribution to the [Gross Domestic Product \(GDP\)](#) was USD 121.9 billion in 2020 and this is expected to reach **USD 512 billion by 2028.**
- In India, the industry's direct contribution to the GDP is expected to record an annual growth rate of 10.35% between 2019 and 2028.
- Also, the **Travel and Tourism Competitiveness Report 2019** ranked India **34th out of 140 countries** overall, showing India's efforts to improve in the field.

[Source: IE](#)

Ultrathin Heteroprotein Film

Why in News?

Scientists have developed **Ultra-Thin Hetero Protein films** with excellent **thermal, mechanical and pH stability** which can pave the way **for expanding applications of thin films in biomedical and food packaging industries.**

- It consists of two globular proteins: **Bovine Serum Albumin (BSA)** and **Lysozyme (Lys)**. They used the technique called using Langmuir-Blodgett (LB) technique which gives the **films thickness in the order of nanometer.**
- Globular proteins or spheroproteins are spherical proteins and are one of the common protein types. Globular proteins are **somewhat water-soluble, unlike the fibrous or membrane proteins.**

What are the Benefits of Ultrathin Heteroprotein Film?

- Thinner as **compared to the other protein or plastic films.**
- They are **soft and thin and have the advantage of being more flexible** than the other films.
- In the recent past, several modifications of these protein films with the help of suitable heteroprotein complexes were reported by different research groups. These complexes **were**

usually developed from bulk solutions.

- Films of BSA and Lys can be useful for **fabricating highly stable biodegradable thin films of different protein complexes** for expanding its applications in the area of thin-film technology.
- Diverse physicochemical methods such as parameter alteration or incorporation of different fatty acids or polyol moieties (glycerol, starch, gelatin, etc.) into this protein complex **can make the film free standing for diverse applications.**

What are the Proteins?

▪ About:

- Proteins are **composed of amino acids**, arranged into different groups. These fundamental amino acid sequences are specific and its arrangements are controlled by the **DNA (Deoxyribonucleic acid)**.
- There are two types of protein molecules, fibrous proteins and globular proteins.
 - Fibrous proteins are insoluble and elongated.
 - Globular proteins are soluble and compact.

▪ Functions:

- **Enzymes:** Enzymes mostly carry out all numerous chemical reactions which take place within a cell. They also help in regenerating and creating DNA molecules and carry out complex processes.
- **Hormones:** Proteins are involved in the creation of various types of hormones which help in balancing the components of the body. For example hormones like insulin, which helps in regulating blood sugar and secretin. It is also involved in the digestion process and formation of digestive juices.
- **Antibody:** Antibody also known as an immunoglobulin. It is a type of protein which is majorly used by the immune system to repair and heal the body from foreign bacteria. They often work together with other immune cells to identify and separate the antigens from increasing until the white blood cells destroy them completely.
- **Energy:** Proteins are the major source of energy that helps in the movements of our body. It is important to have the right amount of protein in order to convert it into energy. Protein, when consumed in excess amounts, gets used to create fat and becomes part of the fat cells.

Source: PIB