# TATHASTU
Institute of Civil Services

# DAILY CURRENT AFFAIRS

## 4th January, 2024

# WHY IS UPSKILLING NECESSARY FOR THE RURAL YOUTH?

*SOURCE*: THE HINDU

*TAG:* GS Paper II- Government Policies & Interventions, Human Resource

GS Paper III- Growth & Development, Employment IT & Computers

## UPSC PYQs

### Prelims

**Q. With reference to 'National Skills Qualification Framework (NSQF)', which of the statements given below is/are correct? (2017)**

Under NSQF, a learner can acquire the certification for competency only through formal learning.

An outcome expected from the implementation of NSQF is the mobility between vocational and general education.

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

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

**Ans: (b)**

**Q. 'Recognition of Prior Learning Scheme' is sometimes mentioned in the news with reference to (2017)**
**(a) Certifying the skills acquired by construction workers through traditional channels.**
**(b) Enrolling the persons in Universities for distance learning programmes.**
**(c) Reserving some skilled jobs to rural and urban poor in some public sector undertakings.**
**(d) Certifying the skills acquired by trainees under the National Skill Development Programme.**

**Ans: (a)**

### Mains:

**Q. Has digital illiteracy, particularly in rural areas, coupled with lack of Information and Communication Technology (ICT) accessibility hindered socio-economic development? Examine with justification. (2021)**

**Q. "Demographic Dividend in India will remain only theoretical unless our manpower becomes more educated, aware, skilled and creative." What measures have been taken by the government to enhance the capacity of our population to be more productive and employable? (2016)**
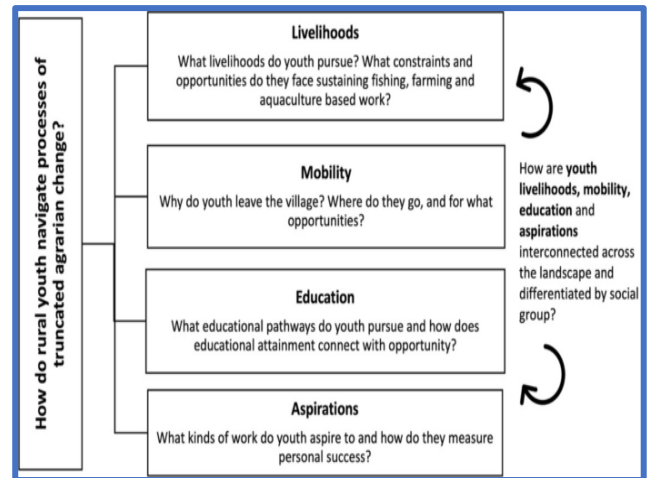
## WHY IN NEWS?

- ❖ *The focus on **rural aspirations and the challenges of urbanization** gains prominence as a significant percentage of **rural youth express a preference to remain in their villages**.*
- ❖ *With a shift in the main source of rural **income and increasing migration**, there is a crucial need to **address these issues**.*
- ❖ *The spotlight is on **enhancing vocational education, preventing migration** through skill development, and **reforming rural education** to empower the youth and bolster rural economies.*

## UNDERSTANDING RURAL YOUTH ASPIRATIONS:

❖ **Increased Connectivity:**
  ☛ Growing internet and mobile phone **access in rural areas have expanded the horizons for rural youth**, providing them **with increased exposure to the outside world**.

❖ **Shift from Government Job Obsession:**
  ☛ The traditional obsession with **securing a government job is diminishing in many regions** among rural youth, paving the **way for diverse career aspirations**.

❖ **Desire for High-Paying Jobs:**
  ☛ Rural youth now **aspire for better-paying job opportunities**, moving beyond **conventional choices,** and seeking paths for financial growth.



❖ **Embracing Entrepreneurship:**
  ☛ A **shift is observed towards self-employment**, with **rural youth expressing a desire to explore entrepreneurship** opportunities aligned with their passions.

❖ **Pursuit of Passion:**
  ☛ **Rural youth exhibit an inclination towards pursuing their passions**, be it in s**ports, arts, culture, or other creative endeavors,** indicating a diverse range of career interests.

❖ **Proactive Contribution to Development:**
  ☛ Recognizing their **role in national development,** rural youth actively participate in the progress of their villages, showcasing a sense of responsibility and engagement.

❖ **Beyond Traditional Courses:**
  ☛ Stakeholders are re-evaluating prevalent courses like **beauty and wellness, hospitality, etc.,** acknowledging the **need to introduce a broader range of options** that align with the evolving aspirations of rural youth.

## NEED FOR RURAL SKILLING ECOSYSTEM:

❖ **Critical Skill Gap in Rural Youth:**
  ☛ **Vocational training penetration in rural India is low**, with **93.7% of youth lacking such training**.
  ☛ Findings from the LSC Voices 2023 survey, encompassing **15,856 young individuals across 11 districts**, underscore the prevailing gaps.
  ☛ The survey highlights that a significant majority of **youth between the ages of 19 and 22 have never undergone any form of vocational training**.
  ☛ Additionally, **only a mere 5% are actively enrolled in vocational courses**.
  ☛ Quality trainers, program inadequacies, and **high dropout rates pose challenges**, leading to many literate rural youth becoming **unskilled migrant workers**.

❖ **New Education Policy Integration:**
  ☛ The **New Education Policy 2020** integrating vocational education into schools and higher education institutions offers a **significant step toward addressing the rural skill gap**, aiming to create a competent and trained workforce.

❖ **Reskilling for Migrant Workforce:**

- ☞ The pandemic-induced migration underscores the **need for livelihood creation in villages.**
- ☞ To facilitate the **return of migrant workers to towns and cities** with access to **skilled work, a focus on reskilling and upskilling is crucial.**
- ☞ Government initiatives **target training for returning workers.**

❖ **E-learning Revolution in Rural India:**
- ☞ The pandemic has accelerated the **adoption of e-learning methods**, providing a transformative opportunity for **vocational training in remote rural areas**.
- ☞ **Enhanced internet accessibility, coupled with affordable hardware** like **tablets and PCs**, is essential for universal e-learning.

❖ **Diversification of Rural Economy:**
- ☞ Rural areas **present growth opportunities in off-farm sector activities**, especially in **healthcare.**
- ☞ The spotlight on the **inadequacies of the public healthcare system emphasizes the need for skilled frontline workers.**
- ☞ Additionally, **training in IT-linked agri-extension services, food processing, e-commerce, and solar technologies aligns** with emerging opportunities in the rural economy.

## CHALLENGES IN RURAL SKILL DEVELOPMENT:

❖ **Technological Barriers:**
- ☞ The **rapid digitization wave**, highlighted further by the recent pandemic, **serves as a substantial enabler for skill development.**
- ☞ However, a significant challenge **lies in the lack of access to technology in rural India**.
- ☞ The digital divide hinders the **rural youth from benefiting fully from skill development initiatives**.



❖ **Limited Technology Accessibility:**
- ☞ The **inability to access technology becomes a major impediment**, restricting rural youth from participating in various skill development programs.
- ☞ **Bridging this technological gap is crucial for ensuring inclusivity and equal opportunities** for skill enhancement in rural areas.

❖ **Sustainability of Initiatives:**
- ☞ While well-formulated initiatives exist, **ensuring their sustainability with long-term benefits poses a considerable challenge.**
- ☞ **Leveraging technology for lasting impact** requires overcoming **infrastructure limitations** and **ensuring continued access to training resources** in rural education institutes.

❖ **Last-Mile Implementation:**
- ☞ The **"last mile" challenge** involves effectively **introducing skill training into rural education institutes.**
- ☞ **Integrating skill development seamlessly into the existing educational framework** demands **overcoming logistical hurdles** and adapting methodologies to suit the unique needs of rural learners.

❖ **Alignment with Rural Context:**
- ☞ **Adapting skill development initiatives to align with the rural context** is essential.
- ☞ Tailoring programs **to address the specific challenges and aspirations of rural youth**, including considerations like **agricultural relevance and local economic needs**, is critical for the success of skill development endeavors in rural areas.

## GOVERNMENT INITIATIVES FOR RURAL SKILL DEVELOPMENT:

| Initiatives | Objectives |
|---|---|
| Deen Dayal Upadhyay Gram Kaushal Yojana (DDU-GKY) | ✓ Add diversity to **incomes of rural poor families.**<br>✓ Address career prospects of **rural youth (15-35 age group).**<br>✓ Provide **placement-linked** skill development. |
| Deendayal Antyodaya Yojana – National Urban Livelihoods Mission (DAY-NULM) | ✓ **Provide urban poor access to skill-related employment.**<br>✓ Organized **skill-based courses to alleviate poverty.**<br>✓ **Enhance entrepreneurial capabilities** of urban street vendors and homeless. |
| Director General of Training – Modular Employable Skills (DGT-MES) | ✓ Provide **vocational training to school dropouts**, rural and unemployed youth, and ITI graduates.<br>✓ Improve **employability of the workforce**, especially in the **unorganized sector**.<br>✓ Prioritize **children above 14 years** who have **suffered child labour.** |
| Ministry of Labor and Employment (MoLE) | ✓ **Protect interests of workers** in organized and **unorganized sectors**.<br>✓ Promote **welfare and social security**.<br>✓ Focus on **women and child welfare**.<br>✓ **Facilitate job matching services** through National Career Services. |
| Mahatma Gandhi National Rural Employment Guarantee Act (NREGA) | ✓ Provide **at least 100 days of wage employment** for **unskilled manual labourers in rural areas**.<br>✓ **Empower rural women**, protect the environment, **reduce migration**, and promote social equality. |
| Ministry of Skill Development and Entrepreneurship (MSDE) | ✓ **Coordinate skill development** efforts nationwide.<br>✓ **Build vocational and technical training framework**.<br>✓ Support various **skill development missions and training partners**.<br>✓ Focus on **current and future job requirements**. |
| National Skill Development Corporation (NSDC) | ✓ Promote skills through **large training institutes**.<br>✓ Provide funding to **enterprises, companies, and organizations** offering skill training.<br>✓ Facilitate employment for **skilled individuals in various sectors**.<br>✓ Collaborate with the **government for financing and training**. |
| National Skill Development Agency (NSDA) | ✓ Coordinate skill development efforts of the **Government and the private sector.**<br>✓ **Target skill needs of disadvantaged groups** (SCs, STs, OBCs, minorities, women, and differently-abled persons). |
| National Rural Livelihood Mission – Aajeevika Skills | ✓ Understand **professional aspirations of rural youth** and increase their income.<br>✓ Upgrade **skills of young people from poor communities**.<br>✓ **Provide food, transport, assured placement**, and post-placement support during training. |
| Pradhan Mantri Kaushal Vikas | ✓ **Train Indian youth** for the global market. |

| Yojana (PMKVY) | ✓ Provide industry-relevant and **skill-based training**. |
| | ✓ Offer **financial support for securing a job**. |
| | ✓ **Conduct short-term training**, job fairs, special projects, and monitoring. |
| **Other Initiatives** | ✓ **National Digital Literacy Mission** |
| | ✓ **PM Kaushal Vikas Yojana (4.0)** |
| | ✓ **Digital India Mission** |
| | ✓ **National Education Policy 2020** |
| | ✓ **DigiSaksham initiative** |
| | ✓ **YuWaah Platform** |
| | ✓ **IndiaSkills 2021** |

## WAY FORWARD:

❖ **Promoting Agriculture as an Aspiring Vocation:**
- ☞ **Implement initiatives to make agriculture an attractive** and economically viable vocation.
- ☞ Provide modern **farming techniques** and **technologies to enhance productivity**.
- ☞ **Encourage agripreneurship** and **value addition in agricultural products**.

❖ **Diversification of Employment Opportunities:**
- ☞ **Create alternative employment opportunities** in rural areas **to reduce the dependency on agriculture.**
- ☞ **Develop small-scale industries** and businesses to absorb the workforce transitioning from agriculture.
- ☞ Promote rural entrepreneurship by **supporting local businesses and startups**.

❖ **Localized Vocational Training:**
- ☞ **Introduce vocational training programs** that align with the specific needs of rural communities.
- ☞ Implement **initiatives like the 'Skills On Wheel'** to bring upskilling opportunities to students in their villages.



**Skilling Ecosystem in India**
Access to skilling: Expansion of Skilling Ecosystem
November, 2022

- ☞ Collaborate with local industries to **design training programs** that lead to meaningful employment.
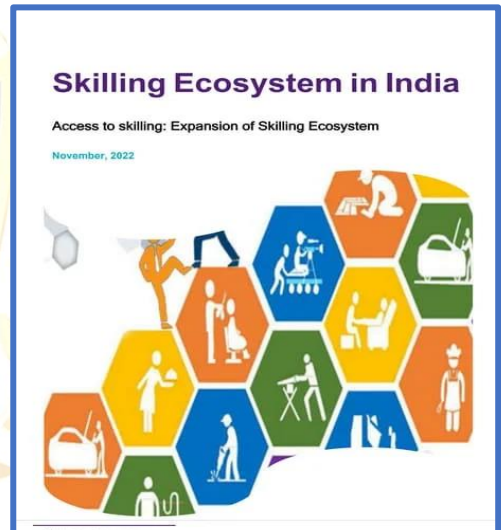
❖ **Integration of Life Skills in Rural Education:**
- ☞ Revamp rural education to focus not only on **academic knowledge but also on essential life skills**.
- ☞ **Infuse vocational training** within the **school curriculum to provide practical skills**.
- ☞ Foster a mindset that values and appreciates both academic and vocational achievements.

❖ **Enhancing Vocational Education Accessibility:**
- ☞ Improve the accessibility of **Industrial Training Institutes (ITIs) in rural areas**.
- ☞ **Establish more vocational training centres** with a focus on creating placement opportunities.
- ☞ Collaborate with industries to **design courses that align with market demand**.

❖ **Tele-Education and E-Learning:**
- ☞ E**mbrace tele-education models, similar to Mexico's tele-schools**, to provide quality education in remote areas.
- ☞ Leverage digital platforms to offer e-learning opportunities, enabling students to access diverse skill development courses.

- ☞ **Provide necessary infrastructure**, such as internet connectivity and devices, to facilitate remote learning.
- ☞ Collaborations with **organizations like NIIT Foundation and Pratham Institute** can play a pivotal role.
- ☞ These organizations are actively involved in providing **upskilling opportunities to children in rural areas**.
- ☞ For instance, **NIIT, in collaboration with UNICEF, offers hybrid life skilling programs through its self-learning platform**, addressing industry-specific skills and life skills.
- ☞ Pratham Institute similarly offers **courses in various sectors**, including **healthcare, electrical, construction, and life skills.**

## CONCLUSION:

In **addressing the challenges faced by rural youth,** recognizing their **aspirations and offering tailored solutions is crucial** for empowering them to thrive locally. A **balanced approach encompassing agricultural development,** **diverse employment opportunities,** and accessible vocational education is key. By **integrating life skills into formal education,** leveraging tele-education, and **fostering collaborations for upskilling,** rural India can cultivate a **generation capable of contributing to a vibrant and sustainable economy**.

## CYBER KIDNAPPING & ITS PREVENTIVE MEASURES

**SOURCE**: THE HINDU

**TAG:** GS Paper II- Government Policies & Interventions

GS Paper III- Cyber Security, Cyber Warfare, Challenges to Internal Security Through Communication Networks

### PRACTICE QUESTIONS

**Mains:**

**Q. Highlight the modus operandi, including the use of virtual kidnapping tactics, and examine the psychological impact on victims and their families.**

**Q. Analyze the role of evolving technologies, such as Artificial Intelligence, in facilitating these crimes, and suggest preventive measures for individuals and law enforcement agencies to address the growing threat of cyber kidnapping.**

### WHY IN NEWS?

The **cyber kidnapping incident involving Kai Zhuang**, a Chinese student in rural Utah, has gained attention due to the **unique nature of the crime**. The **perpetrators employed virtual kidnapping tactics, manipulating the victim** and his family **through online platforms**. The incident highlights the **evolving techniques used by cybercriminals,** emphasizing the **need for public awareness and protective measures** against such extortion schemes. The rising **frequency of cyber kidnapping cases,** coupled with the potential threats posed by **Artificial Intelligence, underscores the urgency for individuals to stay vigilant** and **law enforcement agencies** to adapt strategies to combat these digital crimes.

### WHAT IS CYBER KIDNAPPING?

- ❖ **Definition:**
  - ☞ Cyber kidnapping **involves convincing victims** to hide and then reaching out to **their loved ones for ransom.**
- ❖ **Deceptive Imagery:**
  - ☞ **Victims are coerced to send pictures portraying them as captives**, often showing them bound or gagged, **creating a false sense of danger**.
- ❖ **Virtual Presence:**
  - ☞ **Kidnappers, although not physically present**, **monitor victims online**, utilizing video-call platforms for surveillance.
- ❖ **Utah Boy's Case:**
  - ☞ **Manipulation Period:** In the Utah case, the victim, Kai Zhuang, was **believed to be manipulated by kidnappers since December 20.**
  - ☞ **Identification:** The police traced him by **analyzing call data and bank records, leading to his discovery in rural Utah.**

### HOW CYBERCRIMES OCCUR:

- ❖ **Exploiting Security Holes:**
  - ☞ Cybercriminals **target system vulnerabilities**, exploiting weak authentication methods, passwords, and **lax security models.**

**Factors Leading to Increased Cybercrimes**:
- ❖ **Technological Reliance:**

- ☞ **Increasing reliance on technology and internet-connected devices** contributes to a surge in cybercrimes.
- ❖ *Global Connectivity:*
  - ☞ **Cyberspace allows instantaneous global connectivity**, making cybercrimes easier to commit with varying laws across countries.

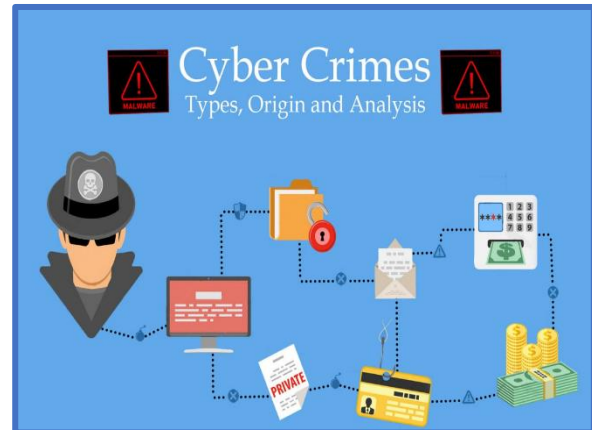*Reasons for Increasing Cybercrimes:*
- ❖ **Vulnerable Devices:**
  - ☞ **Inefficient security measures** create a wide range of **vulnerable devices**, attracting cybercriminals.
- ❖ **Personal Motivation:**
  - ☞ Cybercrimes may be driven by **personal motives**, such as **revenge against individuals**.
- ❖ **Financial Motivation:**
  - ☞ Most cybercrimes, **including hacking groups**, are **financially motivated, seeking profit**.

*Two Main Types of Cybercrimes:*

- ❖ **Targeting Computers:**
  - ☞ Involves harming computer devices, e.g., **through malware or denial-of-service attacks.**
- ❖ **Using Computers:**
  - ☞ Encompasses various **computer crimes committed using computing resources**.

*Classifications of Cybercrimes*:
- ❖ **Individual Cyber Crimes:**
  - ☞ Targeting individuals with activities like **phishing, cyberstalking, and spam**.
- ❖ **Organisation Cyber Crimes:**
  - ☞ Aimed at organizations, often *involving malware attacks and denial-of-service attacks*.
- ❖ **Property Cybercrimes:**
  - ☞ Target property, including **credit cards and intellectual property rights**.
- ❖ **Society Cybercrimes:**
  - ☞ The most dangerous, involving **cyber-terrorism.**
- ❖ **Phishing and Scam:**
  - ☞ **Social engineering attacks using fake messages** to obtain sensitive information.
- ❖ **Identity Theft:**
  - ☞ Unauthorized use of **personal data for fraudulent activities.**
- ❖ **Ransomware Attack:**
  - ☞ Malware encrypts data, **demanding a ransom for access.**
- ❖ **Hacking/Misusing Computer Networks:**
  - ☞ Unauthorized access to networks, **often for illegal purposes.**
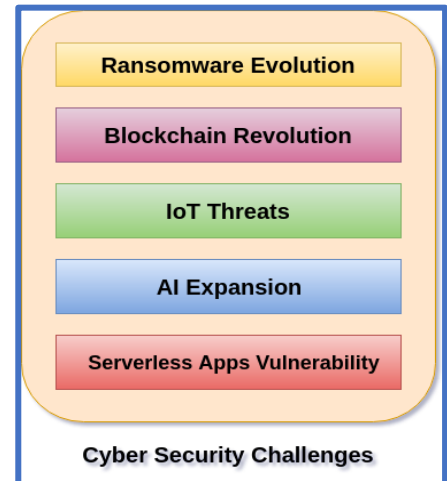- ❖ **Internet Fraud:**
  - ☞ General term for **crimes happening over the internet, including spam and frauds.**

## CHALLENGES OF CYBER KIDNAPPING:

- ❖ **Limited Prosecution Cases:**
  - ☞ Scarcity of cyber kidnapping prosecutions in the **sample poses a major challenge**, hindering comprehensive insights and analysis.
- ❖ **Exploratory Nature:**
  - ☞ The research's exploratory nature, **relying on various sources and triangulation**, makes findings speculative **due to the lack of a well-established framework.**
- ❖ **Language Limitations:**
  - ☞ Focusing on **English-language jurisdictions limits the global perspective**, and challenges arise in accessing documents from **non-English jurisdictions**.
- ❖ **Inconsistent Terminology:**
  - ☞ The inconsistency in using the term **"Cyber kidnapping"** across sources **complicates identification**, leading to **variations in terminology** and **broad criminal charges**.
- ❖ **Identification Complexity:**
  - ☞ Lack of a **standardized definition and criteria for cyber kidnapping** results in complexity when **identifying relevant cases**, requiring scrutiny of various materials for qualification.

Ransomware Evolution

Blockchain Revolution

IoT Threats

AI Expansion

Serverless Apps Vulnerability

**Cyber Security Challenges**

## PROTECTIVE MEASURES AGAINST CYBER KIDNAPPING:

- ❖ **Exercise Caution with Unknown Calls:**
  - ☞ **Be vigilant when receiving calls from unfamiliar numbers**, as cyber criminals may manipulate **caller ID to appear as known contacts**.
  - ☞ Verify the identity of the caller before **disclosing sensitive information.**
- ❖ **Mindful Social Media Sharing:**
  - ☞ **Limit the personal information shared on social media platforms**, including names, specific locations, and images of residences, neighborhoods, or children's schools.
  - ☞ Restricting such details **minimizes the arsenal available to potential cyber kidnappers**.
- ❖ **Verification Before Payments:**
  - ☞ Prioritize verification of any **unusual or threatening communication**, especially those demanding payments.
  - ☞ **Contact law enforcement agencies to validate the legitimacy** of such situations before taking any financial action.
- ❖ **Regular Check-ins on Loved Ones:**
  - ☞ **Establish a practice of regularly checking** in on family and friends, **especially if there are concerns about their well-being.**
  - ☞ Confirm their safety and well-being directly with **them to counter potential cyber kidnapping attempts.**
- ❖ **Prompt Reporting to Authorities**:
  - ☞ **Report any suspicious calls, messages, or threats** to the police promptly.

**PREVENTING CYBER CRIME**

1. Education & Awareness
2. Implement & Enforce App Security
3. Analyze Logs for Suspicious Behaviour
4. Keep Systems Patched & Up-to-Date
5. Use Strong Passwords & Protect Privileged Accounts
6. Don't Allow Installation of Unapproved Applications
7. Be Deceptive

- ☞ Timely reporting enables law enforcement to investigate and take necessary actions to counter cyber kidnapping activities.
- ❖ **Enhanced Awareness and Education**:
  - ☞ Increase public awareness and **educate individuals about the tactics employed in cyber kidnapping**, emphasizing the importance of vigilance and skepticism toward unsolicited communications.

## CONCLUSION:

*Cyber kidnapping* is a ***rising threat where criminals manipulate victims*** *to simulate a kidnapping scenario for extortion. With the* ***potential escalation of such crimes alongside advancements in Artificial Intelligence****, vigilance against* ***unknown calls and cautious sharing of personal information*** *on social media become crucial preventive measures. To safeguard against cyber kidnapping, t****horough verification before making payments and prompt involvement of law enforcement*** *are advised for individuals and their families.*

# PRELIMS POINTERS:

| TOPIC | DISCRIPTION |
|---|---|
| **PM inaugurates Kochi-Lakshadweep Islands Submarine Optical Fibre Connection** | **WHY IN NEWS?** |

**WHY IN NEWS?**
- ❖ *Prime Minister Narendra Modi inaugurated* **the Kochi-Lakshadweep Islands Submarine Optical Fibre Connection (KLI-SOFC) project** *during his visit to Lakshadweep.*
- ❖ *The inauguration was part of various* **developmental projects** *totaling over Rs 1,150 crore, covering sectors like* **technology, energy, water resources, healthcare, and education.**



**ABOUT THE PROJECT**
- ❖ **Objective:**
  - ☛ The **KLI-SOFC project aims to enhance internet speed, marking the first-time Lakshadweep** is connected through **Submarine Optic Fibre Cable.**
- ❖ **Communication Infrastructure:**
  - ☛ It promises a **significant shift in communication infrastructure**, enabling faster and more reliable internet services, telemedicine, e-governance, digital banking, and more.
- ❖ **Funding:**
  - ☛ The project is funded by the **Universal Services Obligation Fund (USOF)**, under the Department of Telecommunications.

**KEY PROJECT DETAILS:**
- ❖ **Link Distance:**
  - ☛ The submarine **cable spans 1,868 kilometers**.
- ❖ **Cost:**
  - ☛ The total project cost is **Rs 1072 crore plus taxes**.
- ❖ **Benefit:**
  - ☛ The KLI Project aligns with **'Digital India'** and **'National Broadband Mission,'** boosting e-governance, tourism, education, health, commerce, and industries.
  - ☛ It brings **high-speed wireline broadband connectivity** and benefits the overall social and economic development of Lakshadweep.

**ABOUT LAKSHADWEEP**
- ❖ **Location:**
  - ☛ Lakshadweep is a tropical archipelago situated in the **Laccadive Sea, 280 km to 480 km off the Kerala coast.**
- ❖ **Islands:**
  - ☛ It comprises **36 atolls and coral reefs**, of which **11 are inhabited.** However, due to sea erosion, there are **currently 35 islands**.
- ❖ **Meaning:**

- ☞ "Lakshadweep" means "**one lakh islands**" in Malayalam, the official language of the territory**.**

**ISLAND SPECIFICS**

❖ **Latitude Range:**
  - ☞ Lakshadweep is situated between **8 degrees N and 12 degrees N latitude.**

❖ **Coral Deposits:**
  - ☞ The islands are made up of **coral deposits**, forming atolls surrounded by **Fringing Reefs**.

❖ **North-South Orientation:**
  - ☞ The islands generally have a **north-south orientation**, **except for Androth,** which has an east-west orientation.

❖ **Channels:**
  - ☞ The **8 Degree Channel separates Minicoy from Maldives**, while **the 9 Degree Channel separates Minicoy from the main Lakshadweep archipelago.**

❖ **Largest Island:**
  - ☞ **Minicoy Island is the largest**, situated **south of the nine-degree channel**.

## Cybercrime Threat

**WHY IN NEWS?**

❖ *The surge in cybercrime complaints, with a significant **portion originating from China, Cambodia, and Myanmar,** has brought attention to the evolving **threat landscape faced by India.***

❖ *The **Indian Cyber Crime Coordination Centre** reports a substantial increase in cyber incidents, leading to **financial losses of ₹10,319 crore from April 2021 to December 2023.***

**KEY FINDINGS OF THE REPORT**

❖ **Origin of Cybercrime Complaints:**
  - ☞ **Around 50% of daily cybercrime complaints** on India's national helpline trace their origins to **China, Cambodia, and Myanmar**, highlighting the international dimension of the rising threat

❖ **Scale of Cybercrime:**
  - ☞ *Daily complaints*: 5,000 on average.
  - ☞ *Financial loss:* ₹10,319 crore from April 2021 to December 2023.
  - ☞ *Yearly trends*: **Approximately 15.5 lakh cybercrime complaints** in 2023, compared to 26,049 in 2019.
  - ☞ *Five-year overview:* **31 lakh cybercrime** complaints with FIRs filed in 66,000 cases**.**

**INTERNATIONAL COLLABORATION AND CONCERNS**

❖ **Foreign origin:**

- 40-50% of cybercrimes originate outside India.
  - ❖ **Operational gangs:**
    - ☛ Criminal gangs from China, Cambodia, and Myanmar conduct cyber operations.
  - ❖ **Chinese apps:**
    - ☛ Presence of Chinese apps identified in these cyber activities.

**ABOUT I4C (INDIAN CYBERCRIME COORDINATION CENTRE):**
- ❖ **Initiative:**
  - ☛ **I4C is an initiative of the Ministry of Home Affairs**, Government of India.
- ❖ **Objective:**
  - ☛ Focuses on dealing with cybercrime in a **coordinated and comprehensive manner.**
- ❖ **Approval:**
  - ☛ The scheme was approved on **October 5, 2018.**
- ❖ **Rollout:**
  - ☛ Since its rollout, I4C has worked on **enhancing the nation's capability to tackle cybercrimes** and improving coordination among Law Enforcement Agencies.
- ❖ **Dedication:**
  - ☛ I4C was dedicated to the Nation on **January 10, 2020**, by the Hon'ble Home Minister.

## GSAT-20 Satellite Mission by NSIL

**WHY IN NEWS?**
- ❖ *NewSpace India Ltd. (NSIL), the commercial arm of ISRO, is set to launch GSAT-20, a high-throughput Ka-band satellite, during the second quarter of 2024 using SpaceX's Falcon-9 rocket.*
- ❖ *Fully owned and funded by NSIL, GSAT-20 aims to provide cost-effective HTS capacity for broadband and other services, particularly targeting remote and unconnected regions.*

**ABOUT THE MISSION**
- ❖ **Launch Details:**
  - ☛ **NewSpace India Ltd. (NSIL),** ISRO's commercial arm, **will launch GSAT-20 (renamed GSAT-N2) using SpaceX's Falcon-9 rocket** in the second quarter of 2024.
- ❖ **Satellite Features:**
  - ☛ GSAT-20 is a **high-throughput Ka-band satellite** with pan-India coverage, including **remote regions like Andaman and Nicobar** and **Lakshadweep islands.**
  - ☛ **Weighing 4,700 kg**, it offers an **HTS capacity of nearly 48 Gbps**.
- ❖ **Ownership and Funding:**

- Fully owned, operated, and funded by NSIL, GSAT-20 is designed to meet the service needs of remote and unconnected areas.
  - ❖ Space Sector Reforms:
    - ☛ Part of space sector reforms, NSIL, mandated to build, launch, own, and operate satellites, has successfully undertaken demand-driven missions like GSAT-24.
  - ❖ Service Providers:
    - ☛ The bulk of GSAT-20's HTS capacity has been secured by Indian service providers for broadband, IFMC, and cellular backhaul services.
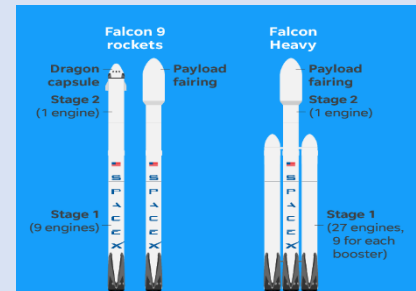
## NEWSPACE INDIA LIMITED (NSIL)
- ❖ Formed on March 6, 2019, under the Companies Act, 2013.
- ❖ Wholly owned by the Government of India, functioning under the Department of Space.
- ❖ Serves as the commercial entity for the Indian Space Research Organisation (ISRO).
- ❖ Core Responsibilities:
  - ☛ Facilitates Indian industries in high-tech space activities.
  - ☛ Promotes and commercializes products and services from the Indian space program.



## FALCON 9 OVERVIEW:
- ❖ General Information:
  - ☛ Height: 70 m / 229.6 ft
  - ☛ Diameter: 3.7 m / 12 ft
  - ☛ Mass: 549,054 kg / 1,207,920 lb
- ❖ Payload Capacity:
  - ☛ Payload to LEO (Low Earth Orbit): 22,800 kg / 50,265 lb
  - ☛ Payload to GTO (Geostationary Transfer Orbit): 8,300 kg / 18,300 lb
  - ☛ Payload to Mars: 4,020 kg / 8,860 lb
- ❖ First Stage:
  - ☛ Incorporates nine Merlin engines and aluminum-lithium alloy tanks containing liquid oxygen and rocket-grade kerosene (RP-1) propellant.
  - ☛ Generates over 1.7 million pounds of thrust at sea level.
- ❖ Interstage:
  - ☛ Connects the first and second stages, housing pneumatic pushers for stage separation.
  - ☛ Equipped with four hypersonic grid fins at the interstage's base to orient the rocket during reentry.
- ❖ Second Stage:
  - ☛ Powered by a single Merlin Vacuum Engine.
  - ☛ Delivers Falcon 9's payload to the desired orbit.
  - ☛ Engine can be restarted multiple times for placing payloads into different orbits.
- ❖ Fairing:
  - ☛ Made of carbon composite material to protect satellites during launch.

- Jettisoned approximately *3 minutes into flight*, with SpaceX recovering fairings for reuse.
- ❖ **In-Flight Features:**
  - ☞ Family of rocket engines developed by *SpaceX for Falcon 1, Falcon 9, and Falcon Heavy.*
  - ☞ *Uses rocket-grade kerosene (RP-1)* and *liquid oxygen as propellants* in a gas-generator power cycle.
  - ☞ Originally designed for *recovery and reuse*.
  - ☞ SpaceX successfully lands *Falcon 9 on drone-ships for reusability.*

## PLACES IN NEWS - KERMAN, IRAN

**WHY IN NEWS?**
- ❖ *Two terrorist attacks during an **anniversary event at the cemetery in Kerman, Iran**, commemorating the **death of Qassem Soleimani**, killed over 100 people and left at least 170 injured.*
- ❖ *The explosions, attributed to remotely detonated explosive devices, **targeted the ceremony dedicated to the Iranian commander killed by a U.S. drone in 2020.***

**WHO WAS GEN SOLEIMANI?**
- ❖ **General Qassem Soleimani, 62**, headed the **Quds Force of Iran's Islamic Revolutionary Guard Corps (IRGC).**
- ❖ The Quds Force was designated as a **Foreign Terrorist Organization (FTO)** by the US in April of the last year.
- ❖ Soleimani, **in charge since 1998**, managed intelligence gathering and covert military operations and held significant influence due to his **close ties with Iran's Supreme Leader, Ayatollah Ali Khamenei.**
- ❖ His killing was compared to the **significance of killing a US Vice President**, given his influential role in Iran.
- ❖ Soleimani played **a key role** in creating an **"Axis of Resistance"** across **the Gulf of Oman, Iraq, Syria, Lebanon, to the Mediterranean Sea.**

**SIGNIFICANCE OF KERMAN**
- ❖ **Kerman, Iran holds significance** as it is the location where the two explosions occurred during a ceremony **commemorating the death of Qassem Soleimani**.
  **The cemetery in Kerman is where Soleimani is buried.**

## NAMIBIAN CHEETAH 'AASHA'
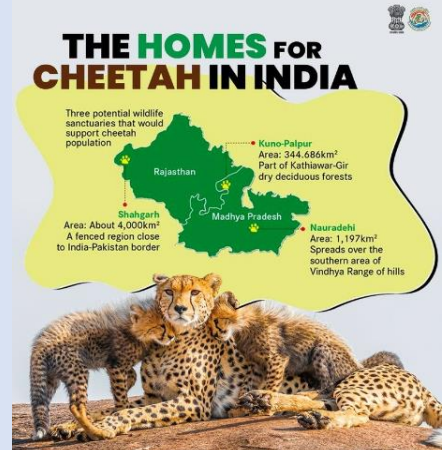
**WHY IN NEWS?**
- ❖ *Three cheetah cubs have been born to **Namibian cheetah Aasha** at Kuno National Park in **Madhya Pradesh's Sheopur district.***
- ❖ *The birth of the cubs is **seen as a significant development for Project Cheetah**, an **initiative envisioned by PM Narendra Modi to restore ecological balance.***

**ABOUT KUNO NATIONAL PARK:**
- ❖ Location:

☞ Situated in **Sheopur district, Madhya Pradesh**, near the **Vindhyan Hills.**

❖ **Name Origin:**
- ☞ Named after the **Kuno River**, a major **tributary of the Chambal River.**

❖ **Establishment:**
- ☞ Initially a **wildlife sanctuary**, it gained **national park status in 2018.**



**ABOUT NAMIBIAN CHEETAH AASHA:**

❖ Aasha arrived in **Kuno on September 17, 2022**, and her pregnancy was confirmed through photographic evidence.

❖ The cheetah is **adapting to the Indian climate**, and the **birth of cubs signifies acclimatization to the habitat.**

**PROJECT CHEETAH**

❖ **Overview:**
- ☞ **World's first inter-continental large wild carnivore** translocation project.

❖ **Approval:**
- ☞ Supreme Court approved it in **January 2020 as a pilot program.**

❖ **Objective**:
- ☞ **Reintroduce cheetahs into India**; around **50 cheetahs to be introduced over the next five years.**

## INDIAN SCIENCE CONGRESS

**WHY IN NEWS?**

❖ *The Indian Science Congress, an **annual tradition since 1914**, faces an unprecedented postponement due to a **financial dispute between the Indian Science Congress Association (ISCA)** and **the Department of Science and Technology (DST).***

❖ ***The DST withdrew funding in 2023**, citing **"financial irregularities,"** leading to a venue change and **subsequent withdrawal by Lovely Professional University**.*

❖ *The **event's decline in recent years**, controversies, and calls for reform **contribute to the government's dilemma**, emphasizing the **need for potential alternative forums to restore the Congress's scientific credibility.***



**ABOUT INDIAN SCIENCE CONGRESS**

- ❖ The Indian Science Congress is an **annual gathering** organized **by the Indian Science Congress Association (ISCA).**
- ❖ The theme for the congress is "*Science and Technology for Sustainable Development with Women Empowerment.*"
- ❖ The **first meeting** of the congress took place from **January 15-17, 1914**, in **Calcutta** at the premises of the **Asiatic Society.**
- ❖ **ISCA, established in 1914**, is a **professional body** under the **Department of Science & Technology, Ministry of Science & Technology**.
- ❖ It encompasses **fourteen sections**, including *Agriculture and Forestry Sciences, Earth System Sciences, Engineering Sciences, Environmental Sciences, and Mathematical Sciences.*
- ❖ **Lovely Professional University(LPU) withdrew from hosting 109$^{th}$ Indian Science Congress (ISC),** raising concern about the event's viability.