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**Of late India and the United Kingdom joined hands to evaluate the efficacy of Ashwagandha (Indian winter berry) for dealing with COVID-19. Evaluate the need for Indian traditional medicine systems amidst the prevailing pandemic situation. Highlight the steps taken by the Indian government to promote the Indian traditional medicine systems.**

1. Ashwagandha is a traditional Indian herb that boosts energy, reduces stress, and makes the immune system stronger.
2. However, in order to ensure its effectiveness, India and the UK recently signed a MoU to conduct the clinical trials of Ashwagandha.

**Need for Indian traditional medicine systems:**

1. They **fill the gap** left by the modern medicinal systems and at many times it could even replace them.
2. They are quite effective in treating both chronic diseases and **psychological problems** especially associated with stress.

3. They give more emphasis to **prevention aspects** of any diseases.
4. They are **natural** as well as **cost-effective**.
5. Very importantly, the Indian medicine systems like ayurveda, siddha and the like are **gaining global attention**. (amidst the lack of medicines for dreadful COVID-19 pandemic)

#### **Government steps:**

1. **National AYUSH Mission (NAM)** to promote AYUSH systems in a multi-dimensional way.
2. Financial assistance, institutional support, technical support and the like has been provided by the AYUSH ministry to promote the **research and development ecosystem** in the country.
3. Under the **Fellowship Scheme**, the Ministry supports many scholars who pursue various courses in AYUSH systems.
4. The AYUSH ministry has signed more than 10 MoUs for setting up **AYUSH Academic Chairs** with foreign universities.
5. 33 AYUSH **Information Cells** have been set up in more than 30 countries to disseminate authentic information about AYUSH systems.
6. Under the **International Cooperation (IC) scheme**, our government publicizes AYUSH systems of medicine including Ayurveda across the globe.
7. **Voluntary Certification of Yoga Professionals** to certifying the competence level of Yoga professionals
8. **Yoga Certification Board** has been established to upgrade the knowledge and skills of Yoga professionals.
9. Ayurveda Day, Unani Day, Siddha Day and **International Day of Yoga** celebrations are sponsored by the government to generate awareness on AYUSH systems
10. **The National Health Policy, 2017** gives special emphasis for the promotion of AYUSH systems.
11. NITI Aayog is currently working on formulating an **Integrative Health Policy** combining AYUSH and modern health systems.

#### **Road Ahead:**

- We can't be complacent with modern medicine that too in the middle of the uncontrollable COVID-19 pandemic. It is high time for the world to embrace the best

which is available in our AYUSH systems. Let us hope for the same for the benefit of **New Healthy India and the World.**

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**What does the term 'planned obsolescence' mean in the context of marketing practice. Discuss how it eventually led to the emergence of the Right to repair movement.**

**Planned Obsolescence:**

1. This term was pointed out by an American industrial designer, Brook Stevens during the 1950s. It is a marketing practice in which manufacturers **artificially shorten product lifecycles** and encourage consumers to buy new products every few years.
2. This practice favoured sellers and made them influence buying decisions **to improve sales and increase profit.**

**Negative repercussions (of this ill-conceived practice)**

1. It **curtailes** to a significant extent the practice and **concept of repairing** the malfunctioning products
2. It increases the **customer spending** on the products to an unacceptable level
3. It **erodes the ethical values** like trust, confidence and value for money from society.
4. It **negatively impacts the environment** as it leads to increased accumulation of e-waste in our land and water.
5. It further heightens the gap between the **haves and havenots** (since the tech giants amass huge wealth at the cost of its customer money and their satisfaction)
6. It further encourages the production of **sub-standard products**, making the customers fools.

**Right to Repair movement:**

1. The above mentioned consequences of planned obsolescence eventually kindled recently, the Right to Repair movement.
2. The participants of this movement assert that **repairs is also a critical function** for all forms of re-use and even extended useful life.
3. It strives for **retention of value** of the products which is lost if it is irreparable.
4. They assert that centuries of **law tell us** that buying something transfers control of that item from seller to buyer.

**Impact of the movement:**

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1. The movement is gaining fruit with the positive **legislative developments** taking place in Europe and the US.
2. Britain's recently enacted **Right to Repair law**, US.' Motor Vehicle Owners' Right to Repair Act and very importantly **EU's directives towards circular economy** are seen as an eyeopener
3. Moreover, some of the **tech giants** started realising the fact that the process of repair could not affect their business negatively.

#### **Road Ahead:**

- It is high time for the people, business communities and ruling circles to realise how the **consumerist culture** is badly sapping our environment. Let's hope for a better and sustainable earth as the concept and idea of a **circular economy** gaining momentum throughout the world.

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**The increasing affinity between Srilanka and China nowadays has not been well received by the Indian political establishment. Do you believe that the strong cultural and historical ties between India and Srilanka could be a game changer?**

- Srilanka's warm acceptance of China's **BRI project**, 99 year lease of **Hambantota port** to a Chinese company and the like have been viewed with apprehension by India. It is quite apparent that China views Srilanka as its cardinal dice for the success of its **string of pearls strategy**.

#### **Cultural and Historical ties between India and Sri-Lanka:**

1. Buddhism, Hinduism, ethnic Tamils, India's support for quelling LTTE, historical maritime trade relations between the two could be used as important threads for knitting the better relationship between two.
  2. However, the cultural and historical ties alone could not be taken as a game changer. They **have their own limitations**. Hence it warrants a **strong multidimensional** relationship between the two.
  3. Though **China and Srilanka are not that much historically connected** when compared to Indo-Srilanka relationship, China was able to have a strong foothold in Srilanka only with the help of its strong economic and political muscle.
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### Need of the Hour:

1. In the same way, India need to put in humongous **resources and political will** to win over the srilankan political establishment and its people.
2. The successful **completion of India's infrastructure projects** in Sri lanka like Sampur Thermal project, Indian Housing Project will be a good starter.
3. India should immediately finalise the **Economic and Technological Cooperation Agreement (ETCA)** to boost its economic ties with Columbo
4. Also India should upgrade its commitment in the domain of **low-interest loans, maritime** cooperation and the like for ensuring a smooth relationship with Columbo.
5. The **little irritants** like fishing disputes and allegations of RAW's involvement in Srilanka should be fixed at the earliest.

### Road Ahead:

- Hence the strong political and economic relationship **supplemented with soft powers** like religious, cultural and historical affinity between the two will ensure a huge success to India's **Necklace of Diamond's strategy**.

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**What does the term Financial Inclusion mean to you? Highlight the broad objectives of RBI's National Strategy for Financial Inclusion. Also list out the challenges in making a financially inclusive India.**

### Financial Inclusion:

- Financial inclusion is the process of ensuring access to financial services, timely and adequate credit for vulnerable groups such as weaker sections and low-income groups at an affordable cost.

### National Strategy for Financial Inclusion (2019-2024)

1. RBI's National Strategy for Financial Inclusion 2019-2024 sets forth the vision of key objectives of the financial inclusion policies in India.
  2. It also has the strategy to **expand and sustain the financial inclusion** process at the national level.
  3. It highlights the need for a broad **convergence of action** for all the stakeholders in the financial sector.
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### Objectives of NSFI:

1. **Universal Access to Financial Services:** Every village to have access to a formal financial service provider within a reasonable distance of 5 KM radius. The financial services should also be hassle free and paperless
2. **Providing Basic Bouquet of Financial Services:** It includes a Basic Savings Bank Deposit Account, credit, a micro life and non-life insurance product, a pension product and a suitable investment product.
3. **Access to Livelihood and Skill Development:** Relevant information about the ongoing Government livelihood and skill development programmes to be provided to the new entrant to the financial system.
4. **Financial Literacy and Education:** Easy to understand financial literacy modules with specific target audience orientation.
5. **Customer Protection and Grievance Redressal:** Related to general services and storing and sharing of customer's biometric and demographic data.
6. **Effective Coordination:** Between the key stakeholders like Government, the Regulators, financial service providers, Telecom Service Regulators, Skills Training institutes etc. to make sure that the customers are able to use the services in a sustained manner.

### Challenges:

1. **Inadequate Infrastructure:** Limited physical infrastructure, limited transport facility, inadequately trained staff etc., in parts of rural hinterland and far flung areas of the Himalayan and North East.
2. **Poor Connectivity:** certain regions in the country that have poor connectivity tend to be left behind in ensuring access to financial services thereby creating a digital divide.
3. **Convenience and Relevance:** The protracted and complicated procedures act as a deterrent while on-boarding customers. This difficulty is further increased when the products are not easy to understand, complex and do not meet the requirements of the customers.
4. **Socio-Cultural Barriers:** important worth mentioning is the lack of financial freedom among women especially in rural areas.



**5. Product Usage:** Most of the newly opened bank accounts or other products tend to remain inactive, if the product holder doesn't have a viable employment avenue. This trend hinders the sustainability of the mission-based approach of financial inclusion.

**6. Payment Infrastructure:** Currently, majority of the retail payment products like UPI, RuPay, IMPS are operated by National Payments Council of India (NPCI). There is a need to have more market players to promote innovation & competition and to minimize concentration risk in the retail payment system.

#### Road Ahead:

- Without financial inclusion, our vision of creating a New India will never become a reality. Hence India desperately needs the grand success of various financial inclusion programmes which are on board in our financial space.

**The extent of the protected areas of India is far below the optimal extent finalised in the Aichi Biodiversity targets. Critically analyse the reasons behind this laggardness and its obvious results.**

#### Aichi Biodiversity Targets:

1. Aichi biodiversity targets are a series of goals that were set in 2010 at a Conference of Parties to the **Convention on Biological Diversity** meeting for protection and conservation of biodiversity.
2. The Aichi target mandates each member nation to bring **17% of their terrestrial land** under the protected areas category.

#### India's Case:

1. However, India's network of protected areas is just hovering around **5% of its total terrestrial extent**, which is far below the Aichi target.
2. It is important to pinpoint that **national parks, wildlife sanctuaries**, conservation reserves and community reserves form part of our protected areas category lands.
3. At present, about **0.3% of EEZ** (exclusive economic zone) is under Marine Protected Areas (MPA) in India, far below the **Aichi Target of 10%**.

#### Reasons for Laggardness:

1. India's **increasing attention** towards erecting transport networks and other **infrastructure** related structures.

2. **Protests by the villagers** in case of their eventual translocation due to declaration of new protected sites.
3. Complacency on the part of the major stakeholders of the **industrial economy** that the existing extent of protected areas in India is good enough.
4. **Lack of resources** (especially in terms of money) to sustain the newly established protected sites.
5. **Increasing dearth of awareness** among the general public regarding the matter in question.

#### **Eventual Consequences:**

1. **Degradation of ecological services** offered by the forests and the wildlife to humans.
2. To be precise, it may put our natural resources like rivers, ponds and other wetlands in jeopardy leading to **water insecurity**.
3. Our **food security** will be put to test if our forests and wild animals weren't given adequate protection.
4. **Deterioration of livelihood opportunities** of millions who depend upon the vibrancy of the forests, oceans.
5. India's potential in **ecotourism** might be negatively affected.
6. India's **economic security** could be in peril if its carbon footprint goes on escalating.
7. Moreover, India's **aesthetic beauty** might become a thing of the past.

#### **Road Ahead:**

- Of late, the Government of India was mulling to **double the number** of protected areas from the current number of 729 (including national parks, wildlife sanctuaries and so on). It is high time for all of us to realise the true values of a **New Green India**.

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**Why does India strive to become a gas-based economy? List out the steps and programmes leveraged by our government in this regard.**

#### **India's Ambition:**

1. The **current share of gas** in India's overall energy mix stands at **6%** which is far below when compared to the **global average of 25%**.
  2. Therefore recently our Government has decided to escalate the share of gas in our primary energy mix to **15% by 2020** under the **VISION 2030 programme**
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## Why a Gas based economy?

1. Very **low emissions** of particulate matter and other harmful gases
2. The natural gas (methane) is 40% cheaper than LPG and **60% cheaper** than gasoline and 45% cheaper than diesel.
3. Presence of huge **untapped natural gas sources** in our country (ex: like cauvery basin)
4. Could significantly **preserve our foreign currency reserves** (by choking gas imports)
5. Moreover India's **energy consumption is growing at 4.2% per annum** (which is the fastest among major economies of the world)

## Steps and Programmes:

1. Replacement of New Exploration Licensing Policy (NELP) with the new innovative as well as encouraging **Hydrocarbon Exploration and Licensing Policy (HELP)**
2. **Open Acreage Licensing (OAL) regime** under HELP for faster coverage of the available geographical area.
3. Establishment of **National Data Repository** (which pools data on the Indian sedimentary basins)
4. The announcement of the ambitious **One Nation, One Gas Grid programme** which strives for the integration of the regional gas grids.
5. Vigorous support to the establishment of various **gas pipelines** by GAIL and other entities.
6. Active implementation of **City Gas Distribution network** under the leadership of Petroleum and Natural Gas Regulatory Board (PNGRB)
7. Launch of **National Biofuels policy** in 2018
8. Vigorous implementation of schemes like **PM Ujjwala Yojana, Gobhardhan yojana.**
9. Interest Subvention Scheme for **waste to energy** biomethanation projects.
10. The recent announcement of the **National Hydrogen Mission.**
11. **Gas pooling mechanism** for supporting fertilizer companies which use natural gas.
12. A government scheme is existing to make operational the **stranded gas based power plants** on R-LNG.
13. **SATAT** (Sustainable Alternative Towards Affordable Transportation), an important initiative of our government, which aims to set up 5000 compressed biogas plants.
14. Reserve Bank of India has included **CBG projects under Priority Sector** that will help in getting the loan for CBG plant.

15. Government organises various investors meeting programmes like **RE-Invest 2020**.

#### **Road Ahead:**

- Considering the inbuilt merits associated with a gas-based economy, it is pertinent for India to religiously implement the roadmap for achieving the VISION 2030 programme.

**The budding agrarian practice of Vertical farming is gaining momentum especially in the developed countries. Do you think that vertical farming could be an answer to India's food security in near future.**

#### **Vertical Farming:**

1. It is the practice of growing crops in **vertically stacked layers**. Controlled-environment agriculture, **hydroponics**, **aquaponics** and aeroponics are its commonly associated techniques.
2. The **structures like buildings, shipping containers**, tunnels and abandoned mine shafts could be productively employed for this practice.

#### **Global Reception:**

1. Start up companies and local governments in cities like **Los Angeles** (USA), Abu Dhabi (UAE), Incheon (South Korea)
2. The electronic city of India ie. **Bangalore** is showing the way for India in this domain.

#### **Merits and Demerits:**

1. **Resistance to erratic weather**, minimization of desertification and other related issues associated with traditional agriculture, production of needed **crops round the year** are some of the merits associated with vertical farming.
2. On the other hand the **issues like huge costs**, increased power consumption, water and light pollution associated with this practice far outweighs its benefits right at this moment.

#### **India's story:**

1. The ultra new practice of vertical farming **cannot sync with the attitudes and beliefs of millions of our farmers** due to many reasons.
2. **Mixed Farming** i.e growing crops and raising cattles simultaneously **is the culture of Indian agriculture**.

3. Moreover our Government is giving a major push to **organic farming, zero budget natural farming**, biotechnology based agriculture and the like.
4. Besides, both our government and the farmers **can't afford** this costly vertical farming.
5. Lastly, our Government's sponsored **Green Revolution 2.0 mission** doesn't have any room for vertical farming.

#### **Road Ahead:**

- The concept of Vertical Farming **might go well with some of the corporate companies** thriving in India. Their contribution to India's food security even in near future cannot be perceptible.

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**The much-anticipated Deep Ocean Mission of Indian government has received a handsome amount from the recent Union Budget. Critically analyse the merits and challenges associated with this mission.**

#### **Deep Ocean Mission:**

1. It is the proposed project of the Union Ministry of Earth Sciences **to explore the deep parts of the Indian Ocean.**
2. Setting up **desalination plants** supported by tidal energy and
3. Developing a **submersible vehicle** to explore depths of at least 6000 metres are also the key components of this mission.

#### **Why this mission?**

1. India has an **Exclusive Economic Zone of 2.2 million Sq.km**, which lies unexplored and unutilised.
2. Besides India, has been allotted a site of 1,50,000Sq Km in the Central Indian Ocean Basin by the International Seabed Authority for the exploitation of **polymetallic nodules.**
3. It has been estimated that 380 Million Metric Tonnes of PMN are available at the bottom of the seas in the Central Indian Ocean,

#### **Potential benefits:**

1. India's **energy security** could be beefed up as the polymetallic nodules are rich in Iron, Nickel, Cobalt and Manganese.
  2. It is estimated that 10% recovery of that reserve can meet India's energy requirements for the next 100 years.
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3. Our **knowledge and prediction** could widen on the future climate change impacts and the disasters like earthquakes, tsunamis and the like.
4. Underwater vehicles and **underwater robotics** would also get a major boost.
5. **New sources of food**, medical drugs and other products can be obtained.
6. Can inspire young people to seek **careers in Ocean studies and Marine Biology**.(thus increasing **employment opportunities**)
7. The declining population of **endangered animal and plant species** in Indian ocean can be arrested (using research done with submersible vehicles)

#### Challenges:

1. **Huge expenditure** due to the usage of various state-of-the-art technologies.
2. **Deep sea mining** could jeopardize the habitat of marine living organisms.
3. Accidental **spillage of fuel** in the ocean is also to be reckoned with.

#### Road Ahead:

- Considering the multidimensional benefits which can be accrued from this mission, India should wisely run this project without risking its marine ecosystem.

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**Critically analyse the inevitability of the “One Nation One Standards” mission of Government of India. Discuss various steps taken by our Government in this regard.**

#### One Nation One Standards Mission:

- It focuses on making India the leader in **setting global benchmarks** for setting quality standards. All areas of production and services have been included in this mission, thereby bringing a **national uniformity and standardization** in all kinds of public procurement and tendering.

#### Need for the mission:

1. To satisfy the **customers aspirations**, be it Indians or foreigners
  2. To **gain international markets** in the era of stiff competition by building the “Brand India” image
  3. The mission could **boost innovation ecosystem** in the country thereby reaping the benefits of state-of-the-art technologies in multiple domains
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4. To **reduce the imports of many goods** and services from abroad (thereby preserving our forex reserves)
5. The standardised commodities could easily **gain investment avenues** from both domestic as well as abroad.
6. It could **augment employment opportunities** to our youth, so that **demographic dividend** could be reaped more positively.
7. Ultimately, this mission could be ensuring the grand **success of Make in India** initiative

#### **Steps taken:**

1. **National Strategy for Standardization (2018)**, it address the important pillars like Standards development, conformity assessment and accreditation, technical regulations, education and awareness
2. **Bureau of Indian Standards (BIS)** has been mandated to formulate Indian standards as its core work.
3. Issue of **Quality Control Orders** from various ministries and departments from time to time.
4. BIS grants licence to manufacturers to use the **Standard mark (ISI mark)** on the product conforming to the relevant Indian Standards.
5. **Production-Linked Incentive scheme** to boost manufacturing of many products
6. Launch of **Udyog Manthan**, a kind of brainstorming exercise to enhance productivity and quality in Indian industry.
7. **Panchan initiative** has been launched to accelerate the culture of standardization in the domain of Indian handicrafts.
8. Strengthening **Intellectual Property Regime** in the country through multidimensional approach.

#### **Road Ahead:**

- Thus, the One Nation One Standards mission is gaining tremendous momentum in the country and its successful implementation is of utmost importance for the success of India's flagship initiatives like Make in India and Atma Nirbhar Bharat.

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**Safeguarding the Indian art and heritage is the need of the moment. Discuss**  
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- India's art and heritage is the richest in the world. Our ancestors excelled in many spheres ranging from dance, music and the like to architectures and sculptures. However, many of our cultural legacies are currently facing a challenge of continuity and survival in the modern era.

**Need to safeguard India's art and heritage:**

1. To augment our knowledge on India's rich history and culture.
2. To showcase India as great tourist destination
3. To increase the employment opportunities to the Indians connected to the tourism industry
4. To strengthen the soft power diplomacy of India (thereby gaining due benefits in the international sphere)

**Available Approaches:**

**1. Constitutional Provisions:**

- Both the Directives Principles of State Policy and the Fundamental duties have necessary provisions touching the subject.

**2. Legal avenues:**

- The Ancient Monuments and Archaeological Sites and Remains Act (AMASR), 1958 and The Antiquities and Art Treasure Act, 1972 are vital for safeguarding as well as showcasing India's monuments.

**3. Institutions:**

- Archaeological Survey of India, National School of Drama, The National Museum etc plays a key role in this regard.

**4. Programmes:**

- Ek Bharat Shresta Bharat, Adopt a Heritage Scheme, PRASAD scheme, HRIDAY scheme etc are important to mention

**5. Awards:**

- Sahitya akademi awards, Saraswathi samman awards are noteworthy to mention

**6. International Cooperation:**



- India has signed **bilateral as well as multilateral cooperation** agreements with many countries to deepen our understanding of India's culture through multiple ways. **Project Mausam is a case in point.**
- India's close relationship with **UNESCO** and the subsequent declaration of many cultural sites as **World Heritage Sites.**

#### Road Ahead:

- It is heartening to sense that India's culture and legacy is nowadays gaining international recognition irrespective of many odds faced by it. The warm embrace of India's remarkable discipline, Yoga by the international community is a case in this point.

#### Why is Africa important to India? Highlight the different approaches leveraged by India to gain its confidence.

- Both India and the African countries interacted positively since ancient times. However their relationship in modern times has gained huge momentum to the benefit of both.

#### Importance of Africa to India:

1. India could strengthen its **energy security** from the huge oil as well as mineral resources of Africa.
2. India imports crops like pulses, cocoa etc are imported from African countries which ensures India's **food security.**
3. Africa is very important for India from a **strategic point of view** to counter the Chinese String of Pearls strategy.  
Ex: -India's coastal radar system deployed in Seychelles could be an answer to **China's Djibouti army base** is a case in point
4. African cooperation is inevitable for the success of India's **SAGAR initiative** (maritime and economy security)
5. African countries has the growing potential to **import India's goods and services**
6. India's general **bargaining power** in the international arena for multiple issues are strong due to the solid backing of many African countries (WTO issues, climate changes for example)
7. Africa is very much important for India in the context of growing **South-South Cooperation.**

## **Different Approaches of India:**

### **1. Summits and conferences:**

1. **India- Africa Forum Summits**, NAM summits and the like for deeper cooperation

### **2. Grants and Aids:**

1. Through India's programmes like Indian Technical and Economic Cooperation (**ITEC**) and Special Commonwealth African Assistance Programme (**SCAAP**)

### **3. Infrastructure Projects:**

1. **Pan African e-network** bringing tele-education and tele-medicine, Asia Africa Growth Corridor (**AAGC**)

### **4. Ensuring Security:**

1. India actively engages in the **UN peacekeeping missions** in African nations
2. India also ensures Africa's security through multidimensional ways like military exercises, naval summits like (**Indian Ocean Naval Symposium**)

### **5. Human Development:**

1. Many educational and skill development programmes for africans are being conducted by India ex: **Solar mamas initiative**

### **6. Climate Change:**

1. India stands squarely behind the African countries to strengthen their resilience to climate change anomalies (ex:- **UNFCCC meetings** and Common but differentiated responsibilities (**CBDR**) principles)

## **Conclusion:**

- Hence it is apparent that India and the African countries share cordial relationships in multiple dimensions. It is certain that they will further strengthen the architecture of **South-South Cooperation**.

**What do you mean by LIDAR technology? Enumerate its applications in various fields.**

**Also give a gist on the Indian projects which utilize the LIDAR technology.**

## **LIDAR Technology:**

- Light detection and ranging is a method for **determining ranges** (variable distance) by targeting an object with a laser and **measuring the time for the reflected light** to

return to the receiver. The light pulses when combined with other data help in generating high-resolution, accurate 3D information of the object.

### **Applications in different fields:**

#### **1. Agriculture:**

Optimal utilization of fertilizer, insect monitoring, detecting variance in production are some of the applications

#### **2. Forestry:**

Canopy heights, biomass measurements, and leaf area can all be studied using airborne lidar systems.

#### **3. Geography:**

The lidar abilities to detect subtle topographic features such as river terraces and river channel banks, glacial landforms etc.

#### **4. Automobiles:**

Autonomous vehicles may use lidar for obstacle detection and avoidance to navigate safely through environments.

#### **5. Law and Order regulation:**

Lidar speed guns are used by the police to measure the speed of vehicles for speed limit enforcement purposes.

**6. Plant species classification** and archaeological findings can be done with ease

### **LIDAR and Indian projects:**

1. Recently the **Ministry of Environment** and Forests released a **survey of forest areas** in ten states based on LIDAR technology.
2. Recently the **Andhra Pradesh government** deployed LIDAR technology for effective implementation of its **fibernet project**.
3. **National High Speed Rail Corporation Limited** is adopting LIDAR survey technique for conducting ground survey for the proposed **Delhi-Varanasi High Speed Rail (HSR)** corridor.

### **Conclusion:**

- Given the multidimensional applications of LIDAR technology, it is obvious that the state-of-the-art technology will play a key role in India's future.

**List out the dedicated freight corridors which are under construction as well as under pipeline in India. What are the obvious benefits of those corridors?**

**Dedicated Freight Corridors (DFCs):**

1. Dedicated freight corridors (DFCs) are meant to create a **safe and efficient freight transportation system** in the country.
2. The Dedicated Freight Corridor Corporation of India Limited (**DFCCIL**) is a wholly owned subsidiary of Indian Railways is responsible for construction, maintenance and operation of the Dedicated Freight Corridors in the country.

**DFCs under construction:**

- Currently, the **Western DFC** connecting Haryana and Maharashtra and the **Eastern DFC** connecting Punjab and West Bengal are under construction.

**Upcoming DFCs:**

- North-South (Delhi-Tamil Nadu), East-West (West Bengal-Maharashtra), East-South (West Bengal-Andhra Pradesh) and South-South (Tamil Nadu-Goa) DFCs are being planned.

**Obvious Benefits of DFCs:**

1. They will act as the **backbone of the industrial corridors projects** like Delhi Mumbai Industrial Corridor (**DMIC**), Amritsar Delhi and Kolkata Industrial Corridor (**ADKIC**) and the ensuing industrial corridor projects.
2. They will **decongest** the existing Indian Railway network
3. They will **increase the average speed of goods trains** from the existing 25 kmph to 70 kmph
4. They will allow running heavy haul trains and carry an overall load of 13,000 tonne.
5. DFCs will **connect the existing ports and industrial areas** for faster movement of goods.
6. The DFC project is an **energy-efficient** and environment-friendly rail transport system as per global standards.

**Road Ahead:**

- The successful construction and maintenance of dedicated freight corridors are imperative for the grand success of Make in India initiative.

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**Is the red corridor gradually fading off on our country's security map? Suggest your ideas for the complete removal of the red corridor from the same.**

**Red Corridor:**

1. It is a **region demarcated by the union government** to notify the districts which are affected by **left wing extremism**.
2. It is spanning across **90 districts in 11 States**, namely Bihar, Jharkhand, Andhra Pradesh, Maharashtra, Odisha, Telangana, West Bengal, Madhya Pradesh, Uttar Pradesh and Chhattisgarh.

**Shrinking trend:**

1. The districts affected by extremism stand at 106 in 10 states as on 12 February 2016.
2. As of February 2019, 90 districts across 11 states are affected by extremism.
3. As of December 2017, 105 districts across 9 states are affected by extremism.

**Necessities for faster results:**

1. Efficient and faster implementation of **infrastructure projects** like roads, schools in the naxal hit areas.
2. Giving adequate resources to the **local governing institutions** for their vibrant functioning.
3. Swift implementation of **Forest rights acts** which could appease the forest dwellers.
4. Augmenting **cooperation of states** on multiple dimensions for quicker results
5. Ensuring **livelihood opportunities** for those affected left wing extremism.
6. Religious implementation of **surrender and rehabilitation policies** of both central and state governments (which could motivate the naxal fighters to give up fighting)
7. Mechanisms to **check corruption** in government machinery.

**Road Ahead:**

- The Left-Wing Extremism is one of the thorns which pierce the fabric of India's security. Its complete eradication from the Indian soil is of utmost necessity for a secured as well as stable India.

