Performance Grading Index for Districts (PGI-D)

For Prelims: Performance Grading Index for Districts (PGI-D), Unified District Information System for Education Plus (UDISE +), National Achievement Survey (NAS).

For Mains: PGI-D, Related Initiatives, Performance of School Education System in Districts.

Why in News?

Recently, the Department of School Education and Literacy (DoSE&L), Ministry of Education (MoE) released the **Centre's first-ever Performance Grading Index for Districts (PGI-D)** for 2018-19 and 2019-20.

- In June, 2021, the Union Education Minister has approved the release of **Performance Grading Index (PGI) 2019-20 for States and Union Territories**.

THE GRADING INDEX

PARAMETERS CONSIDERED

Learning outcomes, Effective classroom transaction, infrastructure facilities and student's entitlements, school safety and child protection, digital learning and governance process

OVERALL SCORE

Percentage	Districts
Over 90%	0
* 81-90%	3
71-80%	86
61-70%	276
51-60%	238
41-50%	87
31-40%	39
*21-30%	3
* 11-20%	2

DIGITAL LEARNING SCORE

Percentage	Districts
71-80%	8
61-70%	41
51-60%	71
41-50%	79
31-40%	83
21-30%	125
11-20%	146
Below 10%	180

DISTRICT SCORES

11-20%	21-30%	81-90%
Shi Yomi (Arunachal Pradesh), Lawngtlai (Mizoram)	KraDaadi and Longding (Arunachal Pradesh), Mamit (Mizoram)	Sikar, Jhunjhunu, Jaipur (all in Rajasthan)

What is the Index All About?

- **About:**
  - PGI-D assesses the performance of the school education system at the **district level by creating an index for comprehensive analysis**.
  - The PGI-D assessed district-level performance in school education based on the data collected from various sources, including **Unified District Information System for Education Plus (UDISE +)**, National Achievement Survey (NAS)**, 2017 and data provided by respective districts**.
- **Methodology:**
  - **Structure:** The PGI-D structure **comprises a total weightage of 600 points across 83 indicators,** which are grouped under **six categories**:
    - Outcomes, Effective Classroom Transaction, Infrastructure Facilities & Student's Entitlements, School Safety & Child Protection, Digital Learning and Governance Process.
      - Two categories — digital learning and effective classroom transaction have been **added in the backdrop of the** Covid-19 pandemic. However, these categories were not part of the state-level PGI.
    - These **categories are further divided into 12 domains**.

- **Assessment Grades:** The PGI-D grades the districts into 10 grades. **The highest achievable grade is 'Daksh'**, which is for districts scoring more than 90% of the total points in that category or overall.
    - It is followed by **'Utkarsh'** (81% to 90%), **'Ati Uttam'** (71% to 80%), **'Uttam'** (61% to 70%), **'Prachesta-1'** (51% to 60%) and **'Prachesta-2'** (41% to 50%).
    - The lowest grade in PGI-D is **'Akanshi-3'** which is for scores upto 10% of the total points.
        - None of the districts figured in the highest 'Daksh' grade in both these years.
- **Significance:**
    - The indicator-wise PGI score **shows the areas where a district needs to improve**. The PGI-D will reflect the relative performance of all the districts in a uniform scale which **encourages them to perform better**.
    - At the same time, it will also **act as a good source of information for best practices followed by States and UTs** which can be shared.
    - It **helps all the stakeholders in the school education system,** including the students, parents, teachers, and administrators to know the performance of their district vis-à-vis other districts.

What are the Key Highlights of the Report?

- **Best Performers:**
    - Three **districts from Rajasthan performed the best** in the assessment.
        - According to the report, the **three districts — Sikar, Jhunjhunu, and Jaipur figured in 'Utkarsh' grade** in 2019-20 in contrast to a year before when no district featured in that category.
    - Rajasthan has the highest 24 districts in this grade, **followed by Punjab (14), Gujarat (13), and Kerala (13)**.
- **Lowest Performers:**
    - The **districts with the lowest scores** (1 out of 50) **in this category were**:
        - South Salmara-Mankachar (Assam), Alirajpur (Madhya Pradesh), North Garo Hills and South Garo Hills in Meghalaya, and Khowai (Tripura) in 2019-20.
    - The 12 states/ UTs which **don't have a single district in the Ati-Uttam and Uttam are**:
        - Bihar, Goa, Jammu and Kashmir, Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, Tripura and Uttarakhand.
- **Progress:**
    - As per the report, **the number of districts in all categories has increased**.
        - In the **'Ati Uttam' grade,** the number of districts increased from 49 to 86 during 2018-19 to 2019-20 **showing "remarkable improvements"**.
        - 33 districts improved their score in outcomes, but there is **no grade-level improvement**.
            - The outcomes category includes **learning outcomes of students, teachers' availability and professional outcomes**.
        - **Digital Learning Category:** As compared to 2018-19, **20 districts have shown over 20% improvement** while 43 districts bettered their **score by over 10%** during 2019-20.
        - **Infrastructural Facilities:** 478 districts improved their score in 2019-20 as compared to 2018-19.
            - Out of these 478, 37 districts made an improvement of over **20% improvement in score and 115 districts** made an improvement of over **10% implying grade-level improvement**.

What are the Other Government Initiatives in this Direction?

- National Education Policy, 2020**:** It aims at making **"India a global knowledge superpower"** by introducing several changes from the school to college level in the Indian education system.
- Samagra Shiksha**:** It is an integrated **scheme for school education extending from pre-school to class XII** to ensure inclusive and equitable quality education at all levels of school education.
- Mid Day Meal Scheme**:** It provides that every child within the **age group of six to fourteen**

years studying in classes I to VIII who enrolls and attends the school, shall be provided hot cooked nutritional meals, free of charge every day except on school holidays.
- Eklavya Model School and Rajiv Gandhi National Fellowship Scheme **(RGNF):** These aim to **encourage the students belonging to** Scheduled Tribes (ST) community to pursue higher education.

Source: TH

New VPN Rules

For Prelims: VPN, CERT-In, IP Address

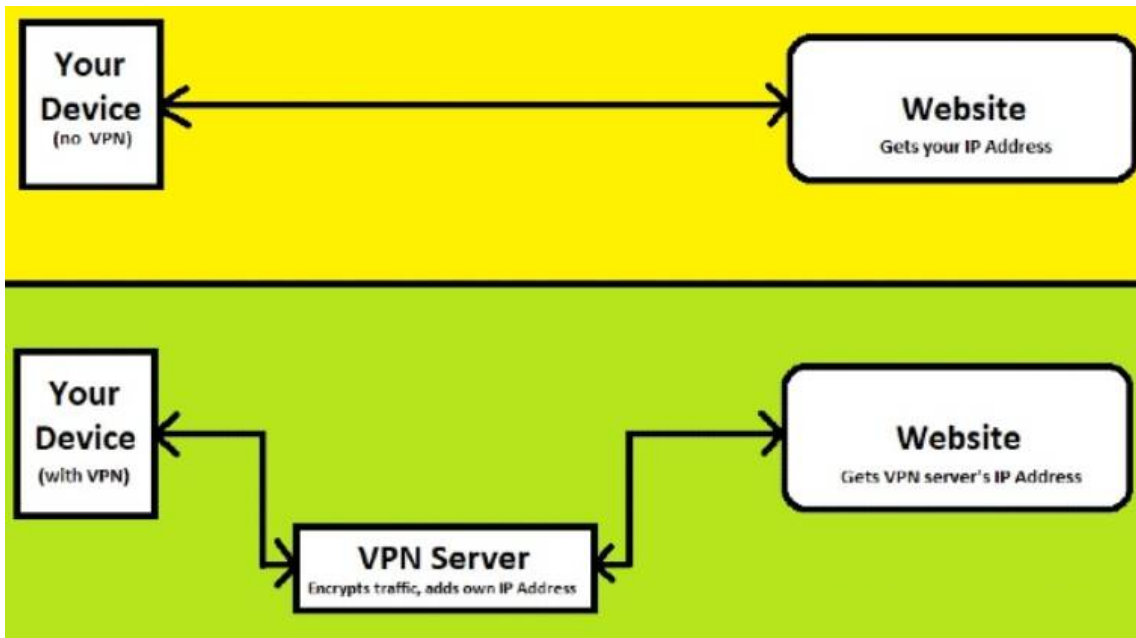**For Mains:** Working of VPN, New VPN Rules, IT and Computers.

Why in News?

Recently, **Indian Computer Emergency Response Team (CERT-In)** issued norms under which **VPN providers have to record personal information of their customers,** including the **purpose of using the service,** for five years.

- CERT-In is an organisation of the Ministry of Electronics and Information Technology with the objective of securing Indian cyberspace.

What is VPN?

- **About:**
  - VPN stands for **"Virtual Private Network"** and describes the opportunity to establish a protected network connection when using public networks.
  - **VPNs encrypt internet traffic and disguise the user's online identity.** This makes it more difficult for third parties to track activities online and steal data. **The encryption takes place in real time.**

- **Functioning:**
  - A **VPN hides the user's** IP address by letting the network redirect it through a specially configured remote server run by a VPN host.
    - This means that if a user is surfing online with a VPN, the VPN server becomes the source of data.
  - Internet Service Provider (ISP) **and other third parties cannot see which websites the user visits** or data sent and received online.
- **Benefits:**
  - **Secures encryption:**
    - A VPN connection **disguises data traffic online** and protects it from external access.
    - Unencrypted data can be viewed by anyone who has network access. **With a VPN, the government, hackers and cyber criminals can't decipher this data.**
  - **Access to regional content:**
    - **Regional web content is not always accessible from everywhere.** Services and websites often contain content that can only be accessed from certain parts of the world. Standard connections use local servers in the country to determine your location.
    - With **VPN location spoofing,** one can switch a server to another country and effectively **change location**.
  - **Secure data transfer:**
    - VPN services connect to private servers and use encryption methods to reduce the risk of data leakage providing secured passage for data.
- **Limitations:**
  - **Reduced Internet Speed:** Since VPNs require your traffic to be routed via a VPN server, it could take longer to reach your destination website.
  - **Not Anti-Virus Software:** VPNs **do not function like comprehensive anti-virus software**. While they protect one's IP and encrypt one's internet history, **a VPN connection does not protect one's computer from outside intrusion**.
    - Once the malware has found its way to a device, it can steal or damage the data, whether VPN is in service or not.
- **Regulation:**
  - Currently, a handful of governments either regulate or outright ban VPNs.
  - These include **China, Belarus, Iraq, North Korea, Oman, Russia, and the UAE**. Many

What are the New Rules related to VPN?

- The **Union Ministry of Electronics and Information Technology** issued new norms for **VPN companies to record personal information of their users** including **names, email id, phone number and IP address** for a period of five years.
  - They also have to record usage patterns, purpose of hiring services and various other information.
- Apart from VPN companies, data centers, virtual service network providers, cloud service providers have also been asked to record and maintain similar data.
- Entities are also **required to report cybersecurity incidents to CERT-In within six hours** of becoming or being made aware of them.

Why has the government issued these rules?

- These rules will **"enhance overall cyber security posture and ensure safe & trusted internet in the country"**.
- It noted that the **Indian Computer Emergency Response Team (CERT-In),** which serves as a safeguard against cyber-attacks, has **identified "gaps"** in the way it analyses online threats due to which it has **issued the new norms for reporting cyber incidents**.
- In 2021, a [Parliamentary Standing Committee](#)**, in a report to the** [Rajya Sabha](#)**,** wanted the Ministry to **block VPNs with assistance from internet service providers**.

What are the related Issues?

- Customers will have to go through a **stringent KYC process** while signing up to use a VPN and will have to state the purpose of using the services.
  - With the new rules the government will basically have access to the personal information of the customers which makes the use of a VPN redundant.
- Many VPN providers are mulling the implications of the new rules and some have even **threatened to pull back their service from the country**.
  - In response to CERT-In rules, Nord VPN, one of the world's largest VPN providers, has said it is moving its servers out of the country. Two other firms, Express VPN and Surfshark, said they will shut down their physical servers in India and **cater to users in India through virtual servers located in Singapore and UK**.

What is a Virtual Server?

- **About:** other countries have internet censorship laws, which make using a VPN risky.
  - A Virtual Server is **a simulated server environment built on an actual physical server**. It recreates the functionality of a dedicated physical server.
  - It uses resources of the physical server. Multiple virtual servers can run on a single physical server.
- **Key Points:**
  - **Efficiency:**
    - Converting one physical server into multiple virtual servers allows organizations to use processing power and resources more efficiently by running multiple operating systems and applications on one partitioned server.
  - **Cost Reduction:**
    - Virtualization also reduces cost as maintaining a virtual server infrastructure is low compared to physical server infrastructure.
  - **Security:**

- Virtual servers also offer **higher security than a physical server infrastructure** as the operating system and applications are enclosed in a virtual machine.
- This helps contain security attacks and malicious behaviors inside the virtual machine.
  - **Testing:**
    - Virtual servers are also useful in testing and debugging applications in different operating systems and versions **without having to manually install and run them on several physical machines**.

Source: TH

India State Support Programme for Road Safety

For Prelims: India State Support Programme for Road Safety, Brasilia Declaration, Motor Vehicles (MV) (Amendment) Act, 2019, World Bank, International Monetary Fund

For Mains: Road Safety - India's related initiatives, challenges, steps that can be taken

Why in News?

The **World Bank** has approved a USD 250 million loan for **India State Support Program for Road Safety** for seven States under which a single accident reporting number will be set up to better manage post-crash events.

What is World Bank?

- **About:**
    - It was created in 1944, as the **International Bank for Reconstruction and Development (IBRD)** along with the **International Monetary Fund (IMF)**. The IBRD later became the World Bank.
    - The World Bank Group is a unique global partnership of five institutions working for sustainable solutions that reduce poverty and build shared prosperity in developing countries.
- **Members:**
    - It has 189 member countries.
    - India is also a member country.
- **Major Reports:**
    - **Human Capital Index.**
    - **World Development Report.**
- **Its Five Development Institutions:**
    - International Bank for Reconstruction and Development (IBRD)
    - International Development Association (IDA)
    - International Finance Corporation (IFC).
    - Multilateral Guarantee Agency (MIGA)
    - International Centre for the Settlement of Investment Disputes (ICSID)
        - India is not a member of this.

What are the Key Highlights of the Program?

- **About:**
    - The project will establish a **national harmonised crash database system** in order to analyse accidents and use that to construct better and safer roads.
    - The USD 250 million variable spread loan from the **International Bank for Reconstruction and Development (IBRD)** has a maturity of 18 years including a grace period of 5.5 years.
    - **It will be implemented** in Andhra Pradesh, Gujarat, Odisha, Tamil Nadu, Telangana, Uttar Pradesh and West Bengal.
- **Aim:**
    - It aims to **fund network expansion of basic and advanced life support ambulances and training of first responder caregivers** to road crash victims on the spot.
    - The project will also **provide incentives to the States to leverage private funding** through **Public Private Partnership (PPP)** concessions and pilot initiatives.
    - Women face the indirect brunt of road accidents. Recognising this challenge, the project has a special focus on gender and will promote women's representation in management roles in the road safety sector.
        - The project will also provide employment opportunities for women especially, in post-crash care command and control centers.

What is the Scenario of Road Accidents in India?

- Road crashes are estimated to cost the Indian economy between 5% to 7% of **GDP (Gross Domestic Product)** a year.
- Official government data show that **each year road accidents in India kill about 1,50,000 people and injure another 4,50,000**.
- More than **half of the victims are pedestrians, cyclists, or motorcyclists** and almost 84% of all fatalities are among road users between the **working ages of 18-60 years**.
- Poor households that account for over 70% of crash victims **bear a higher proportion of the socio-economic burden of road crashes** due to loss of income, high medical expenses and limited access to social safety nets.

What are the Initiatives for Road Safety?

- - **Third High Level Global Conference on Road Safety for Achieving Global Goals 2030':**
    - MoRTH (Ministry of Road Transport and Highways) participated in a conference in Sweden in 2020 — the **Third High Level Global Conference on Road Safety for Achieving Global Goals 2030'** — where it was conceptualised to have zero road fatalities in India by 2030.
  - **Brasilia declaration:**
    - India signed the **Brasilia declaration** and committed to reduction in fatalities.
    - The declaration was signed at the Second Global High-Level conference on Road Safety held in Brazil.
  - **Motor Vehicles (MV) (Amendment) Act, 2019:**
    - It **hiked the penalties for traffic violations**, defective vehicles, juvenile driving, etc.
    - It provides for a Motor Vehicle Accident Fund, which would provide compulsory insurance cover to all road users in India for certain types of accidents.

Source: TH

Issue with the Juvenile Justice Amendment Act, 2021

For Prelims: Juvenile Justice Act, Non-cognisable offence, The Protection of Children from Sexual Offences Act, United Nation Convention on the Right of the Child

For Mains: Concerns Associated with the JJ Amendment Act, 2021, Legal Frameworks for the Welfare of children

Why in News?

The Juvenile Justice Act Amendment is making it harder to report abuse at child care institutions by making abuse and cruelty by staffers or persons in-charge at Child Care Institutions (CCI) **non-cognisable**.

- The **Juvenile Justice (Care and Protection of Children) Amendment Act, 2021** was passed **to amend various provisions of the Juvenile Justice Act, 2015**.

What are the Provisions of Juvenile Justice (Care and Protection) Amendment Act 2021?

- **Non-Cognisable Offence:**
  - Crimes against children which are mentioned in the chapter "Other Offences Against Children" of the JJ Act, 2015 that allow an imprisonment between three and seven years will be deemed "non-cognisable".
- **Adoption:**
  - The amendment provides strength to the provision of protection and adoption of children. There are many adoption cases pending before the court and **to make proceedings of the court faster now the power is transferred to the district magistrate**.
  - Amendment provides that the **district magistrate has the authority to issue such adoption orders**.

What are the Highlights about of Juvenile Justice Act, 2015?

- Parliament introduced and passed the **Juvenile Justice (Care and Protection of Children) Act in 2015 to replace the Juvenile Delinquency Law and the Juvenile Justice (Care and Protection of Children Act) 2000**.
- The Act **offered provisions to allow trials of juveniles in the age group of 16-18 years** as an adult who were found to be in conflict with the law, especially heinous crimes.
- The Act also **offered provisions regarding adoption**. The Act replaced the **Hindu Adoptions and Maintenance Act (1956)** and Guardians of the ward Act **(1890)** with more universally accessible adoption law.
- The Act enabled smooth functioning of **adoption procedures for orphans, surrendered,** and abandoned children while making the **Central Adoption Resource Authority (CARA)** the statutory body for adoption-related matters.
- Child Care Institutions **(CCI):**
  - All Child Care Institutions, whether run by the State Government or by voluntary or non-governmental organisations are to be mandatorily registered under the Act within 6 months from the date of commencement of the Act.

What is the Concern Associated with the Juvenile Justice Amendment Act, 2021?

- Specifically, the **amendment under challenge is the one to Section 86 of the JJ Act,** according to which **crimes under the special law,** with punishment between three to seven years, have been **reclassified as non-cognisable**.
- While the **victims themselves are unable to directly report them due to the imbalance in power,** most such crimes are **reported to the police by either parents or child rights bodies and Child Welfare Committees (CWC)**.
  - **Parents of these Children:** They are mostly daily wage labourers, are either unaware of how to, or not inclined to report the crimes to the police.
    - They **do not want to engage with the legal process** because that **would force them to take time off from work, resulting in loss of wages**.
  - **Child Welfare Committees (CWC):** CWCs' first instinct in most cases is to **"talk and arrive at a settlement"** without having to escalate the matter to the police.
- **Making these crimes non-cognisable** along with several other serious crimes under the special law **would make reporting an offence to the police even more difficult**.

What is a Cognizable and Non-Cognizable offence in India?

- The **Criminal Procedure Code** lays the rules for the conduct of proceedings against any person who has committed an offence under any Criminal law.
- **Cognizable Offences:**
  - A cognizable offence is an offence in which the **police officer** as per the first schedule or under any other law for the time being in force, **can arrest the convict without a warrant and can start an investigation without the permission of the court**.
  - Cognizable offences are generally heinous or serious in nature such as **murder, rape, kidnapping, theft, dowry death etc**.
  - The first information report (FIR) **is registered only in cognizable crimes**.
- **Non-Cognizable Offences:**
  - A non-cognizable offence is the offence listed under the first schedule of the **Indian Penal Code** and is bailable in nature.
  - In case of a non-cognizable offence, **the police cannot arrest the accused without a warrant as well as cannot start an investigation**.
    - A **criminal complaint is lodged with the magistrate** who is supposed to order the concerned police station to initiate an investigation.
  - The crimes of **forgery, cheating, defamation, public nuisance,** etc., fall in the category of non-cognizable crimes.
- **Cases consisting of both Cognizable and Non-Cognizable Offences:**
  - **According to Section 155(4)** of the **Criminal Procedure Code,** when two or more

offences are there in a case, of which at least one is of cognizable nature, and other of non-cognizable nature.

- Then the **entire case has to be dealt as a cognizable case,** and the investigating officer will have all the powers and authority as he has in investigating a cognizable case.

What does the Statistics Say?

- According to the **National Crime Records Bureau (NCRB)**, since **it started recording these crimes in 2017, they had risen by over 700 percent by 2019**.
- The NCRB in 2017 recorded **278 cases of crimes committed by CCI in-charges** across India involving 328 child victims. These cases rose to 1,968 by 2019, involving as many as 2,699 child victims.

What are Other Legal Frameworks for the Welfare of children?

- **The Protection Of Children from Sexual Offences Act (POCSO), 2013**
- **Child Labour (Protection and Regulation) Act, 2016**
- **United Nation Convention on the Right of the Child (UNCRC)**
- **National Commission for Protection of Child Rights, 2005**

Way Forward

- Along with addressing the procedural lacunae and **ensuring faster delivery of justice, there is a need to ease reporting capacity of victims through parents or independent civil society organisations** that will provide the necessary support to the victim and ensure that the child returns to a normal life.
  - High conviction rate would go a long way in ensuring a safe world for children.
- Specific training in child protection rules should be imparted, as district magistrates usually are not trained or equipped to deal with these specific laws.
- To ensure safety of the Childrens, District Administration should work in close coordination with all five arms – **CWC, JJ Board, CCI, district child protection units and special juvenile police units.**

Source: TH

India-Malaysia Defence Cooperation

For Prelims: India-Malaysia Defense Cooperation, Association of Southeast Asian Nations, Free Trade Agreement.

For Mains: India- Malaysia Relations and Recent developments.

Why in News?

Recently, Indian Defence Minister interacted with his Malaysian counterpart to deepen **Defence**

Cooperation between the two countries.

- The Malaysian air force has been looking for 18 new light fighter jets with several nations, including South Korea, Pakistan, China and Sweden, making a pitch. The Indian offer is for the **LCA Mk1A version**.
- India has offered **a dual package for the indigenous fighter jets** as well as maintenance of the Russian origin Su30 MKM aircraft being operated by Malaysia.

What are the Highlights of the Meeting?

- Both countries highlighted the areas in which **Indian defence industries could assist Malaysia**. India invited senior officers from Malaysia to India to **get a first-hand experience of the facilities and products of Indian defence industry**.
- Malaysia expressed the **need for inducting women personnel in peace keeping missions**. Both sides agreed to engage each other on this issue.
- Both countries agreed to **upgrade capability for** Humanitarian Assistance and Disaster Relief (HADR) **operations**.
- Both sides discussed the **existing defence cooperation activities and framework** between the two countries, and ways to further enhance them under the existing **Malaysia India Defence Cooperation Meeting (MIDCOM) framework**.
    - The next MIDCOM is scheduled to held in July 2022, and it was decided to use this **platform for a deeper engagement in defence**.

What are the Key Points of India-Malaysia Relations?

- India established **diplomatic relations with Malaysia in 1957**.
- **Economic Relation:** India and Malaysia have signed Comprehensive Economic Cooperation Agreement (CECA). CECA is a kind of **Free Trade Agreement (FTA)**.
    - India has also signed the Free Trade Agreement (FTA) in services and investments with the 10-member **Association of Southeast Asian Nations (ASEAN)**.
    - Malaysia is the third largest trading partner in ASEAN.
    - Bilateral trade between India and Malaysia is significantly biased in favour of Malaysia.
- **Defence & Security Cooperation:** Joint military exercises "Harimau Shakti" are held annually between the two countries.
- **Traditional medicine:** India and Malaysia have signed a MoU on cooperation in the field of Traditional Medicine in October 2010.
    - The Government of Malaysia has been working to popularize **AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy) systems** in Malaysia.
    - AYUSH systems are practiced in Malaysia.

- **Recent Developments:**
  - In 2020, India [resumed purchases of Malaysian palm oil](#) **after a gap of four-month** following a diplomatic row between the two countries.
    - The former Prime Minister of Malaysia **had criticised India's** [Citizenship Amendment Act (CAA)](#) which was considered as an interference in the internal matter of India.

What is the Significance of Malaysia for India?

- As a country where 7.2% of the population is of Indian origin, **Malaysia assumes an important place in India's foreign policy**.
- Surrounded by busy sea lines of communications such as the **Strait of Malacca** and the **South China Sea**, Malaysia is also a key pillar of **India's Act East policy** and critical to **India's maritime connectivity strategies**.

[Source: TH](#)

International Day Against Drug Abuse and Illicit Trafficking

For Prelims: International Day Against Drug Abuse and Illicit Trafficking, Nasha Mukt Bharat Abhiyaan/Drugs-Free India Campaign , World Drug Report 2022

For Mains: Problem of drug abuse and related Initiatives, World Drug Report 2022, Government Policies & Interventions

Why in News?

Every Year, **26th June is celebrated as the International Day Against Drug Abuse and Illicit Trafficking or World Drug Day**.

- UNODC World Drug Report 2022 was released on the occasion of the **world Drug Day**.
  - UNODC World Drug Report 2022 highlights trends on cannabis post-legalization, environmental impacts of illicit drugs, and drug use among women and youth.

What is the World Drug Day all About?

- **Theme:**
  - Addressing drug challenges in health and humanitarian crises.
    - The focus of **United Nations Office On Drug And Crime (UNODC)** is **to spread awareness about it so that a world free of drug abuse can be created**.
- **History:**
  - On 7th December 1987, the **United Nations General Assembly decided to observe 26th June as** the International Day against Drug Abuse and Illicit Trafficking.
  - It did so to strengthen their efforts in order to achieve the **goal of making the society free of drug abuse**.
- **Significance:**
  - The focus is to create awareness about the hazardous impacts of drug abuse on the society and to create a world without it.
    - In 2022, the world continues to witness widespread **humanitarian crises in Afghanistan**, **Ukraine** and elsewhere, while the **Covid-19 pandemic** is still a

major global health crisis.
- The synthetic drug crisis also requires nimble and adaptable solutions.

What are the Related Initiatives?

- **Indian:**
  - **Nasha Mukt Bharat Abhiyaan/Drugs-Free India Campaign**
  - **National Action Plan for Drug Demand Reduction**
  - **Narco-Coordination Centre**
    - **National Fund to Control Drug Abuse**
- **Global Initiatives:**
  - **Single** Convention on Narcotic Drugs**,** 1961.
  - The **Convention on Psychotropic Substances, 1971**.
  - The UN Convention against Illicit Traffic in **Narcotic Drugs and Psychotropic Substances, 1988**.
    - India is a signatory to all three and has enacted the **Narcotics Drugs and Psychotropic Substances (NDPS) Act, 1985**.
  - Every year, the UN publishes a **World Drug Report**, Global Drug Policy Index**.**

What are the Key Highlights of the World Drug Report 2022?

- **India:**
  - **India's Market and users are likely to Increase:**
    - India is **one of the world's single largest opiate markets in terms of users** and would likely be vulnerable to increased supply.
      - This is because of the intensification of trafficking in opiates originating in Afghanistan may be taking place eastwards, in addition to southwards and westwards along the traditional **Balkan route**.
    - Consequences could range from expanded use to increased levels of trafficking and associated organised crime.
  - **Seizure of Opium:**
    - India has the **fourth largest quantities of opium seized in 2020** at 5.2 tons and the **third-highest amount of morphine was also seized** in the same year at 0.7 tons.
    - About 3.8 tons of heroin were seized in 2020 in India, the fifth-highest in the world.
      - In 2020, authorities in India had announced for the first time dismantling of a major international criminal network trafficking non-medical tramadol and other psychoactive substances on the dark web.
- **World:**
  - **Increase in Drug Usage:**
    - Around 284 million people, aged 15-64 years, used drugs worldwide in 2020, a 26 % increase over the previous decade.
  - **Cocaine Manufacturing is on High:**
    - Cocaine manufacture worldwide was at a record high in 2020, growing 11 % from 2019 to 1,982 tons.
    - Cocaine seizures also increased despite the Covid-19 pandemic to a record 1,424 tons in 2020.
    - Opium production worldwide grew 7 % between 2020 and 2021 to 7,930 tons predominantly due to an increase in production in Afghanistan.
    - However, the global area under opium poppy cultivation fell by 16 %t to 2,46,800 ha in the same period.
  - **Role of Women:**
    - Women remain in the **minority of drug users** globally yet tend to increase their rate of drug consumption and progress to drug use disorders more rapidly than men do.
    - Women now represent an **estimated 45-49 % of users of amphetamines and**

non-medical users of **pharmaceutical stimulants,** pharmaceutical opioids, sedatives, and tranquilizers.
- Women played a wide range of roles in the global cocaine economy, including cultivating coca, transporting small quantities of drugs, selling to consumers, and smuggling into prisons.
  - ○ **Misperceptions depriving people of treatment:**
    - Misperceptions regarding the magnitude of the problem and the associated harms are depriving people of care and treatment and driving young people towards harmful behaviours.
  - ○ **Factors:**
    - The Cannabis legalisation in parts of the world appears to have accelerated daily use and related health impacts.

What are the Recommendations of the Report?

- There is need to devote **the necessary resources and attention to addressing every aspect of the world drug problem,** including the provision of evidence-based care to all who need it, and we need to improve the knowledge base on how illicit drugs relate to other urgent challenges, such as conflicts and environmental degradation.
- It is needed that the policy makers across the world **to tailor holistic drug-supply reduction strategies encompassing economic development** and alternative livelihoods in countries where coca bush is illicitly cultivated.
- Drug policy approaches **should be integrated into conflict and peacebuilding responses in conflict areas**.
- Governments should **encourage more complex and deep investigation of transnational crimes**, aimed at revealing and dismantling related financial flows.

Source: IE

India's Gig Economy

For Prelims: Platform Workers, Startup India Initiative, Code on Social Security 2020

For Mains: Potential of India's Gig Sector, Challenges associated with the Gig Sector, Recommendations of NITI Aayog to improve social security of the workforce.
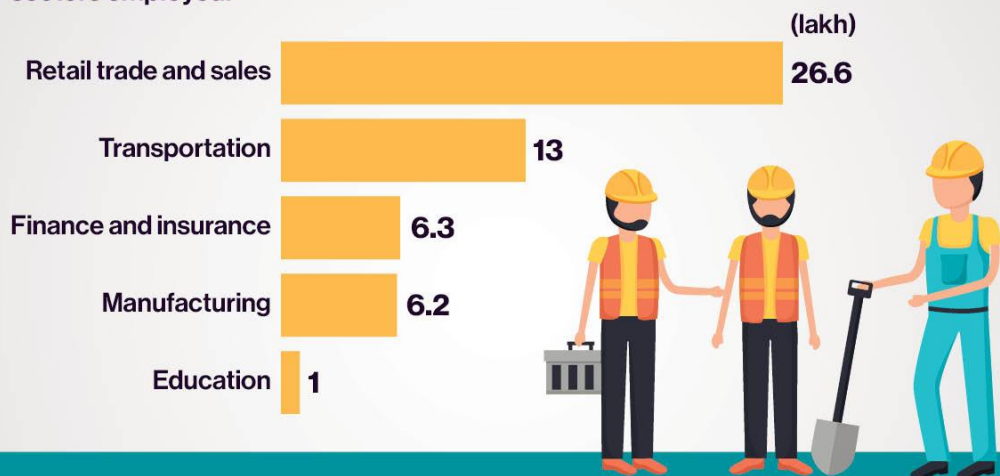
Why in News?

NITI Aayog today launched a report titled **'India's Booming Gig and Platform Economy'**.

- According to the report, **India's gig workforce is expected to expand to 2.35 crore by 2029-30**.
  - ○ The report estimates that in 2020–21, 77 lakh (7.7 million) workers were engaged in the **gig economy**. **They constituted 2.6% of the non-agricultural workforce or 1.5% of the total workforce in India.**
- NITI Aayog recommended extending social security measures for such workers and their families in partnership mode as envisaged in the **Code on Social Security**.

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GIG WORKFORCE IN INDIA

NITI Aayog, in its report, India's Booming Gig and Platform Economy, said that gig workforce in India is expanding. As of 2019-20, here's what the following sectors employed:

(lakh)

Sector	Value
Retail trade and sales	26.6
Transportation	13
Finance and insurance	6.3
Manufacturing	6.2
Education	1

NITI Aayog report stated:

- **31%** are in low-skilled jobs
- **47%** are in medium skilled jobs
- **22%** are in high-skilled jobs

Source: NITI Aayog

What are the Major Issues Raised by the Report?

- **Accessibility:**
  - Even though the gig economy, with the wide variety of employment options it offers, is accessible to all those who are willing to **engage in such employment, access to internet services and digital technology** can be a restrictive factor.
    - This has made the gig economy largely an **urban phenomenon**.
- **Job and Income Insecurity:**
  - Gig Workers do not **get benefit from labor regulations pertaining to wages, hours, working conditions,** and the right to collective bargaining.
- **Occupational Safety and Health Risks:**
  - Workers engaged in employment with the digital platforms, particularly, **women workers in the app-based taxi and delivery sectors, face various occupational safety and health risks**.
- **Skills Mismatch:**
  - Varying degrees of vertical and horizontal skills mismatch can be observed on online web-based platforms.
  - According to **International Labour Organization (ILO)** surveys, workers with higher educational achievements are not necessarily finding work commensurate with their skills.
- **Challenges faced due to Terms of Contract:**
  - Working conditions on digital platforms are largely regulated by the terms of service agreements. They tend to characterize the **contractual relationship between the platform owner and worker** as other than one of employment.

What is the Gig Economy?

- A Gig economy is a **free market system in which temporary positions are common and organizations contract with independent workers** for short-term engagements.
  - [Gig Worker](#): A person who performs work or **participates in a work arrangement and earns from such activities outside of traditional employer-employee relationship.**
- According to a report by Boston Consulting Group, **India's gig workforce comprises 15 million workers** employed across industries such as software, shared services and professional services.
- According to a 2019 report by the India Staffing Federation, **India is the fifth largest in flexi-staffing globally, after the US, China, Brazil and Japan**.

What is the Potential of India's Gig Sector?

- An estimated **56% of new employment in India is being generated by the gig economy** companies across both the blue-collar and white-collar workforce.
- While the gig economy is prevalent among blue-collar jobs in India, the demand for gig workers in white-collar jobs such as project-specific consultants, salespeople, web designers, content writers and software developers are also emerging.
- The gig economy **can serve up to 90 million jobs in the non-farm sectors in India** with a **potential to add 1.25% to the** [GDP](#) **over the "long term"**.
- As India moves towards its stated goal of becoming a **USD 5 trillion economy by 2025**, the gig economy will be a major building block in bridging the income and unemployment gap.

What are the Key Drivers of the Gig Sector?

- **Flexibility to Work from Anywhere:**
  - In the digital age, the **worker need not sit at a fixed location**—the job can be done from anywhere, so employers can select the best talent available for a project without being bound by geography.
- **Changing Work Approach:**
  - The millennial generation **seems to have quite a different attitude to careers**. They seek to do work that they want to do rather than have careers that may not satisfy their inner urges.
- **Business Models:**
  - Gig employees work on **various compensation models such as fixed-fee (decided during contract initiation), time & effort, actual unit of work delivered and quality of outcome**. The fixed-fee model is the most prevalent, however, the time & effort model comes a close second.
- **Emergence of a Start-up Culture:**
  - The [start-up ecosystem](#) **in India has been developing rapidly**. For start-ups, hiring full-time employees leads to high fixed costs and therefore, contractual freelancers are hired for non-core activities.
  - Start-ups are also **looking at hiring skilled technology freelancers** (on a per project basis) in areas such as engineering, product, data science and ML to bolster their tech platforms.
- **Rising demand of Contractual Employees:**
  - MNCs are adopting flexi-hiring options, especially for niche projects, to reduce operational expenses after the pandemic.
  - This trend is significantly contributing to the gig culture in India.

What are Platform Workers?

- **About:**
  - A platform worker implies a **worker working for an organisation that provides specific services using an online platform directly to individuals or organisations**.
  - **Examples:** Ola or Uber drivers, Swiggy or Zomato delivery agents, etc.
- **Concerns:**
  - They fall outside of the purview of the traditional dichotomy of formal and informal labour.
  - Platform workers are **independent contractors** as they cannot access many aspects of workplace protection, and entitlements.

What are the Recommendations?

- **'Platform India Initiative':**
  - On the lines of the **'Startup India initiative'**, accelerating platformization, skill development and social financial inclusion, can provide a framework to balance the flexibility offered by **platforms and social security of workers**.
    - **Self-employed Individuals** engaged in the business of selling regional and rural cuisine, street food, etc., **can be linked to platforms** so that **they can sell their produce to wider markets in towns and cities**.
- **Funding support:**
  - **Access to institutional credit may be enhanced** through financial products specifically designed for platform workers and those interested in setting up their own platforms.
  - Venture capital funding, grants and loans from banks and other funding agencies should be provided to platform businesses of all sizes.
- **Gender Sensitization:**
  - **Encouragement of behavior modification through raising awareness** of gender equality concerns.

Source: TH

Green Hydrogen and Green Ammonia

For Prelims: Green Hydrogen, Green Ammonia, Haber's Process

For Mains: Green Hydrogen/Green Ammonia Policy,

Why in News?

Recently, a seminar on **Production & Use of Green Hydrogen and Green Ammonia in the Process Industry** was held

- **Process Industries** are the companies that extract, transport and process raw materials to manufacture semi-finished or high-quality end products by means of physical, mechanical and/or chemical processes.

What is Green Hydrogen?

- **About:**
  - The fuel can be a **game-changer for the energy security of India,** which imports 85% of its oil and 53% of gas requirements.
  - To promote clean fuels, India is considering making it mandatory for fertilizer plants and oil refineries to purchase green hydrogen.
- **Method of Production:**
  - It is produced by **splitting water into hydrogen and oxygen using an electrolyzer** powered by renewable energy sources such as wind and solar.
- **Uses:**
  - Chemical industry**:** Manufacturing ammonia and fertilizers.

- Petrochemical industry: Production of petroleum products.
        - Furthermore, it is **starting to be used in the** steel industry, a sector which is under considerable pressure in Europe because of its polluting effect.
    - **Significance:**
        - Green hydrogen energy is vital for India to meet its **Nationally Determined Contribution (NDC)** Targets and ensure regional and national energy security, access and availability.
        - Green Hydrogen can act as an **energy storage option**, which would be essential to meet intermittencies (of renewable energy) in the future.
        - In terms of mobility, for long distance mobilizations for either urban freight movement within cities and states or for passengers, Green Hydrogen can be used in railways, large ships, buses or trucks, etc.
        - Hydrogen has the potential to be the key renewable target in **supporting infrastructure as well**.

What is Green Ammonia?

- **About:**
    - Ammonia is a chemical which is **used mainly in the manufacture of nitrogenous fertilizers,** like urea and ammonium nitrate, but can be put to other uses too, such as to run engines.
    - Green ammonia production is where the process of making **ammonia is 100% renewable and carbon-free**.
- **Method of Production:**
    - It is produced by using hydrogen from water electrolysis and nitrogen separated from the air. These are then fed into the **Haber process** (Also known as Haber-Bosch), all powered by sustainable electricity.
        - Green ammonia production **makes use of renewable energy sources** such as hydro-electric, solar power or wind turbines.
    - In the Haber process, **hydrogen and nitrogen are reacted together at high temperatures and pressures to produce ammonia, NH3**.
- **Uses:**
    - **Energy storage:** Ammonia is easily stored in bulk as a liquid at modest pressures (10-15 bar) or refrigerated to -33°C. This makes it an ideal chemical store for renewable energy.
    - Zero-carbon fuel: Ammonia can be burnt in an engine or used in a fuel cell to produce electricity. When used, ammonia's only by-products are water and nitrogen.
    - The maritime industry is likely to be an early adopter, replacing the use of fuel oil in marine engines.
- **Significance:**
    - Green ammonia is intended to be used in the production of **carbon-neutral fertilizer products**, decarbonizing the food value chain, and also has potential as a future climate-neutral shipping fuel.
    - Green ammonia is crucial to **tackle the existential challenges of producing enough food** to feed a growing global population and generating CO2-free energy.

What is Green Hydrogen/Green Ammonia Policy?

- Under the policy, the government is offering to set up manufacturing zones for production, **connectivity to the ISTS** (Inter-State Transmission System) on priority basis, and free transmission for 25 years if the production facility is commissioned before June 2025.
    - This means that **a green hydrogen producer will be able to set up a solar power plant in Rajasthan to supply renewable energy to a green hydrogen plant in Assam** and would not be required to pay any inter-state transmission charges.
    - Besides, producers will be allowed to set up bunkers near ports for storage of green ammonia for export by shipping.
- T**he production target** has also been **raised five times from 1 million tonnes (m) to 5 mt by 2030**.
    - In October, 2021 it was announced that **India is targeting initially around 1 million tonnes annual green hydrogen production by 2030**.

- Manufacturers of Green hydrogen and ammonia are allowed to purchase renewable power from the power exchange or set up **Renewable Energy (RE) capacity** themselves or through any other developer, anywhere.
- To ensure ease of doing business **a single portal for carrying out all the activities including statutory clearances in a time bound manner will be set up by MNRE** (Ministry of New and Renewable Energy).

Source: PIB

Bharat NCAP

For Prelims: Bharat NCAP, Road Safety.

For Mains: Significance and Challenges of Bharat NCAP.

Why in News?

Recently, the Ministry of Road Transport and Highways has approved the **draft GSR (General Statutory Rules)** notification to introduce **Bharat NCAP (New Car Assessment Programme)**.

- NCAP will be rolled out from 1st April 2023 and will mean auto manufacturers in India as well as importers will have the option of getting cars star rated within country.
- The **USA was the first country to introduce a programme** for testing the safety standards of a car through crash tests.

What is Bharat NCAP?

- **About:**
  - It is **a new car safety assessment program** which proposes a mechanism of awarding 'Star Ratings' to automobiles based upon their performance in crash tests.
  - Bharat NCAP standard is aligned with global benchmarks and it is beyond minimum regulatory requirements.
- **Bharat NCAP Rating:**
  - The proposed Bharat NCAP assessment **will allocate Star Ratings from 1 to 5** stars.
  - The testing of vehicles for this programme will be carried out at testing agencies, with the necessary infrastructure.
- **Applicability:**
  - It will be applicable on **type approved motor vehicles of category M1 with gross vehicle weight less than 3.5 tonnes,** manufactured or imported in the country.
    - M1 category **motor vehicles are used for the carriage of passengers,** comprising eight seats, in addition to driver's seat.

What is the Significance of Bharat NCAP?

- **Empower Consumers to Make Informed Decisions:**
  - The new regulations introduces the concept of safety rating of passenger cars and **empowers consumers to take informed decisions**.
- **Increases Export-Worthiness:**
  - Star Rating of Indian Cars based on Crash Tests **will not only ensure structural and passenger safety in cars but also increase the export-worthiness** of Indian

automobiles.
- **Make Automobile Industry Aatmanirbhar:**
  - It will also **prove to be a critical instrument in making our automobile industry** [Aatmanirbhar](#) with the mission of making India the Number 1 automobile hub in the world.

What are the Challenges?

- A large scale **testing will require bigger infrastructure** and to implement it successfully and in an expedited manner, **a huge budgetary support will be required**.
- Major cities in India have dedicated hardly 6-10% (barring Delhi, which has allocated almost 20% to transport infrastructure) of their total land allocation to the construction of transport infrastructure, which has **led to inadequate transport infrastructure in the cities with reference to the population and its requirements**.

Way Forward

- The testing protocol should be aligned with **Global Crash Test Protocols** factoring in the existing Indian regulations, allowing OEMs (Original equipment manufacturer) to get their vehicles tested at India's own in-house testing facilities.

[Source: IE](#)