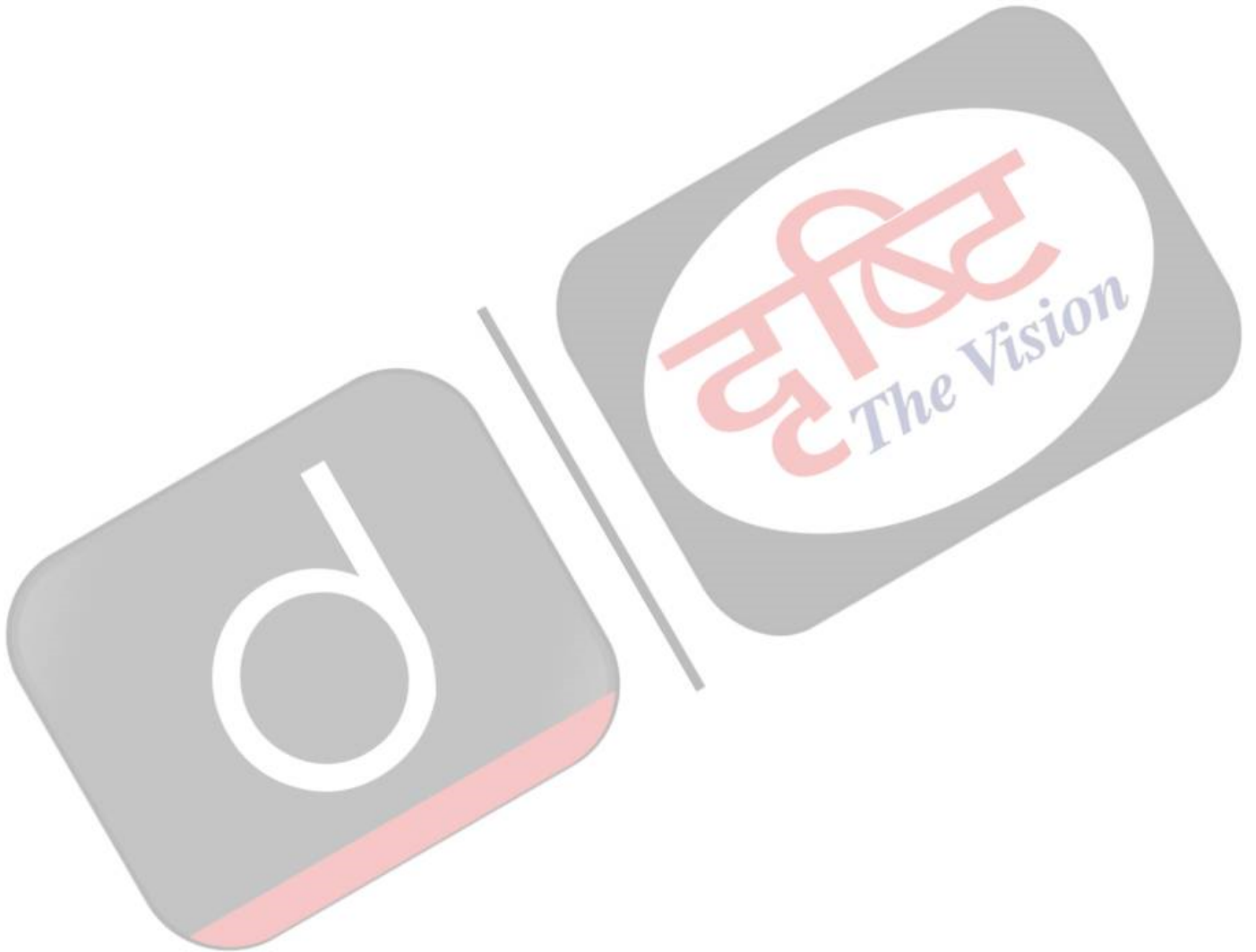
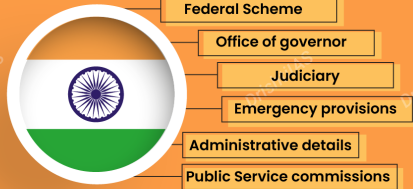




## Sources of the Constitution

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**Government of India Act of 1935**

- Federal Scheme
- Office of governor
- Judiciary
- Emergency provisions
- Administrative details
- Public Service commissions



**British Constitution**

- Parliamentary government
- Rule of Law
- Legislative procedure
- Single citizenship
- Cabinet system
- Prerogative writs, parliamentary privileges and bicameralism.



**US Constitution**

- Fundamental rights
- Judicial review
- Impeachment of the president
- Independence of judiciary
- Removal of Supreme Court and high court judges and post of vicepresident.



**Irish Constitution**

- Directive Principles of State Policy
- Nomination of members to Rajya Sabha
- Method of election of president



**Canadian Constitution**

- Federation with a strong Centre
- Vesting of residuary powers in the Centre
- Appointment of state governors by the Centre
- Advisory jurisdiction of the Supreme Court

# Sources of the Constitution



**Australian Constitution**

- Concurrent List
- Freedom of trade
- Commerce and inter-course
- Joint sitting of the two Houses of Parliament



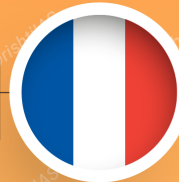
**Weimar Constitution of Germany**

- Suspension of Fundamental Rights during Emergency.



**Soviet Constitution (USSR, now Russia)**

- Fundamental duties
- The ideal of justice (social, economic and political) in the Preamble.



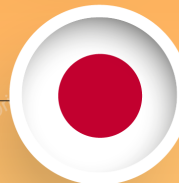
**French Constitution**

- Republic and the ideals of liberty, equality and fraternity in the Preamble.



**South African Constitution**

- Procedure for amendment of the Constitution
- Election of members of Rajya Sabha.



**Japanese Constitution**

- Procedure established by Law

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## Review of Gas Pricing Formula

**For Prelims:** Current Mechanism of Gas Pricing Formula, Russia-Ukraine, Inflation

**For Mains:** Review of Gas Pricing Formula

### Why in News?

The Ministry of Petroleum and Natural Gas has set up a committee under noted energy expert Kirit Parikh to review the current **pricing formula for domestically-produced gas**.

### What is the Need to revisit the Gas-Pricing Formula?

#### ▪ High Prices:

- Local gas **prices are at a record high due to the surge in global prices** because of the ongoing **Russia-Ukraine conflict** and are expected to rise further.
- Skyrocketing global natural gas prices lifting energy and industrial costs and derailing the efforts to contain inflation are raising concerns.
  - The country has been battling inflation above the Reserve Bank of India's tolerance band of 2%-6% for seven consecutive months.

#### ▪ Current Formula is Myopic:

- The current formula is “myopic” and **does not incentivise gas producers**.
- In India, gas penetration in its energy mix is 6% as against a global average of 23%.
- The objective is to improve this number to 15% over the next few years.

#### ▪ Underpricing Penalizes the Producers:

- India's gas price is determined at an average price of LNG imports into India and benchmark global gas rates.
- India is simply underpricing a scarce resource.
- At current prices, the producer is penalised and somehow the consumer trumps the producer.

### What is the Scenario of Gas Market in India?

- Total consumption in India is 175 million standard cubic meters a day (MMSCMD).
  - Of this 93 MMSCMD is **met through domestic production and 82 MMSCMD through LNG imports**. Gas consumption is directly linked to supply availability.
- Of natural gas consumed in the country, **almost 50% is imported LNG**.
- Fertiliser sector is the **largest consumer of gas**, accounting for a third of the consumption, followed by city gas distribution or CGD (23%), power (13%), refineries (8%) and petrochemicals (2%).
- The industry fears that the **world's third largest energy consumer could see its natural gas consumption decline** from the current levels if LNG (imported gas) prices in the international market continue to rule in the range of **USD 45 an mmBtu (Metric Million British Thermal Unit)**.

### What is the Current Gas Pricing in India?

▪ **About:**

- **Gas priced under APM (Administered Price Mechanism)** is set by the Government of India.
  - **Under this system**, the oil and gas sector are controlled at four stages viz. **production, refining, distribution and marketing.**
- **Non-APM or Free Market Gas** is further divided into two categories, namely, **domestically produced gas from Joint Venture fields and imported LNG.**
  - The **pricing of JV gas** is governed in terms of the **PSC (Production Sharing Contract)** provisions.
  - While the **price of LNG** under term contracts is governed by the **SPA (Sale and Purchase Agreement)** between the **LNG seller and the buyer**, the spot cargoes are purchased on mutually agreeable commercial terms.
- Further, there **is differential pricing existing for different sectors.** Subsidized sectors such as power and fertilizer get **relatively less prices as compared to other sectors.**
- Also, **region specific pricing exists in the country** with North Eastern states getting gas at relatively cheaper prices as compared to other parts of the country.
  - Pricing of a major share of gas supplies in the Indian market is **controlled and is not market driven as government approval is required before changing** the price.

▪ **Issues:**

- Controlled pricing may result in disincentivizing investments in the sector in terms of limited participation from foreign players, who have access to technology, much required in deep-water E&P activities.
- Also, controlled pricing **hampers the competitiveness of consumer sectors** (power/ fertilizer/ domestic) to compete with global energy markets as it leads to low investments in energy efficiency on the demand side.

## Way Forward

- As multiple pricing regimes exist in the country, **pooling of gas from different sources has been deliberated** by the policy makers.
- A sectoral pool was being considered with separate pools of power and fertilizer customers. Separate pools **were considered in view of avoiding cross subsidies** between the customer groups and related administrative issues arising.
- **Rangarajan Committee** has suggested a **uniform gas-pricing**, at 'unbiased arms-length'.
- The formula of domestic gas pricing should be 12-month trailing average of volume-weighted average at well-head (on net-back basis) for gas imports and volume-weighted average of US Henry Hub, UK NBP and Japanese Crude Cocktail prices.

[Source: HT](#)

## India's Climate Pledges

**For Prelims:** Paris Agreement, United Nations Conference on Climate Change (COP 26), Nationally Determined Contributions (NDC), European Union (EU), Climate Change.

**For Mains:** Paris Climate Agreement and its Impacts.

## Why in News?

Recently, a study has ranked **India's updated climate pledge to the Paris Agreement fifth in**

compliance and fourth in ambition.

Target (for 2030)	Existing: First NDC (2015)	New: Updated NDC (2022)	Progress
Emission intensity reduction	33-35 per cent from 2005 levels	45 per cent from 2005 levels	24 per cent reduction achieved in 2016 itself. Estimated to have reached 30 per cent
Share of non-fossil fuels in installed electricity capacity	40 per cent	50 per cent	41.5 per cent achieved by the end of June this year
Carbon sink	Creation of 2.5 to 3 billion tonnes of additional sink through afforestation	Same as earlier	Not clear.

## What are the Key Highlights of the Study?

### ▪ About:

- The study was published in the scientific **journal Nature Climate Change**.
- It included eight countries — **India, the US, China, Australia, Saudi Arabia, Russia, Australia and Brazil** — and the **European Union**.
- Nearly all signatories to the **Paris Agreement** updated their climate commitments during the 26th session of the **United Nations Conference on Climate Change (COP 26)**.

### ▪ Outcomes:

- **European Union (EU)** took the lead while the United States was ranked last in compliance and second to last in ambition.
  - **Compliance:** In the compliance category, the EU took the lead which was followed by China, Australia, South Africa, India, Russia, Saudi Arabia, Brazil and the US.
- **Ambition:**
  - In the Ambition category, the EU was followed by China, South Africa, India, Australia, Brazil, Russia, the United States and Saudi Arabia.

### ▪ Parameters:

- Nations likely to meet their climate pledges or the **Nationally Determined Contributions (NDC)** were ranked high in compliance.
  - The countries with bold commitments were ranked high in ambition.

### ▪ Statistical Analysis:

- Nations with more **stable governments are more likely to have bold and highly credible pledges**.
- Besides, China and other **non-democracies are also likely to honour their commitments**.
  - Their administrative and political systems enable them to implement complex national policies.

## What is the Paris Agreement?

### ▪ About:

- The Paris Agreement (also known as the **Conference of Parties 21** or **COP 21**) was **adopted in 2015**.
- It replaced the **Kyoto Protocol** which was an earlier agreement to deal with climate change.

- It is a global treaty wherein some 200 countries agreed to cooperate to **reduce [Green House Gas \(GHG\) Emissions](#) and rein in climate change.**
  - **It seeks to limit global warming to well below 2°C, preferably to 1.5°C, compared to pre-industry levels.**
- **Working:**
  - The Paris Agreement works on a **5- year cycle** of increasingly ambitious climate action carried out by countries. In 2020, countries had submitted their plans for climate action known as **nationally determined contributions (NDCs)**.
- **Long-Term Strategies:**
  - **Long-term low greenhouse gas emission development strategies (LT-LEDS)** provide the **long-term horizon for the NDCs**. Unlike NDCs, they are not mandatory.
- **Tracking Progress:**
  - With the Paris Agreement, countries established an **enhanced transparency framework (ETF)**. Under ETF, starting in 2024, countries will report transparently on actions taken and progress in climate change mitigation, adaptation measures and support provided or received.
    - It also provides for international procedures for the review of the submitted reports.
    - The information gathered through the ETF will feed into the **Global stocktake** which will assess the collective progress towards the long-term climate goals.

## Way Forward

- To achieve this long-term temperature goal, **countries should aim to reach global peaking of greenhouse gas emissions as soon as possible** to achieve a climate-neutral world by mid-century.
- There is a need for credible **short-term commitments, with a clear pathway to medium-term decarbonization**, that takes into account the multiple challenges states face, such as air pollution, and development might well be the more defensible choice for some.

## UPSC Civil Services Examination Previous Year Question (PYQ)

### Prelims

**Q. With reference to the Agreement at the UNFCCC Meeting in Paris in 2015, which of the following statements is/are correct? (2016)**

1. The Agreement was signed by all the member countries of the UN and it will go into effect in 2017.
2. The Agreement aims to limit greenhouse gas emissions so that the rise in average global temperature by the end of this century does not exceed 2°C or even 1.5°C above pre-industrial levels.
3. Developed countries acknowledged their historical responsibility in global warming and committed to donate \$ 1000 billion a year from 2020 to help developing countries to cope with climate change.

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

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

**Ans: (b)**

**Exp:**

- **The Paris Agreement was adopted in December 2015 at COP21 in Paris, France by the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC).**
- The Agreement aims to limit the greenhouse gas emissions so that the rise in average global temperature by the end of this century does not exceed 2°C or even 1.5°C above pre-industrial levels. **Hence, statement 2 is correct.**
- The Paris Agreement entered into force on 4 November 2016, thirty days after the date on which at least 55 Parties to the Convention accounting in total for at least an estimated 55 % of the total global greenhouse gas emissions had deposited their instruments of ratification, acceptance, approval or accession with the depositary. **Hence, statement 1 is not correct.**
- Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change, in line with their own national objectives.
- The Paris Agreement requires all Parties to put forward their best efforts through Nationally Determined Contributions (NDCs) and to strengthen these efforts in the years ahead. This includes the requirement that all Parties report regularly on their emissions and on their implementation efforts.
- There will also be a global stocktake every 5 years to assess the collective progress towards achieving the purpose of the Agreement and to inform further individual actions by the Parties.
- Through the Cancun Agreements in 2010 developed country Parties committed to a goal of mobilizing jointly USD 100 billion per year by 2020 to address the needs of developing countries.
- Further, they also agreed that prior to 2025 the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement shall set a new collective quantified goal from a floor of USD 100 billion per year. **Hence, statement 3 is not correct. Therefore, option (b) is the correct answer.**

[Source: DTE](#)

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## Healthcare Sector in India

**For Prelims:** Government Policies & Interventions, Healthcare Sector in India and related Initiatives.

**For Mains:** Healthcare Sector in India, Challenges and Potential.

### Why in News?

Healthcare has become more focused on innovation and technology over the past two years and **80% of healthcare systems are aiming to increase their investment in digital healthcare tools in the coming five years.**

### What is the Scenario of the Healthcare Sector in India?

- **About:**
  - Healthcare industry comprises **hospitals, medical devices, clinical trials, outsourcing, telemedicine, medical tourism, health insurance and medical equipment.**
  - India's healthcare delivery system is categorised into two major components - public and

private.

- The government (public healthcare system), comprises **limited secondary and tertiary care institutions** in key cities and focuses on providing basic healthcare facilities in the form of **Primary Healthcare Centres (PHCs)** in rural areas.
- The private sector provides a **majority of secondary, tertiary, and quaternary care institutions** with major concentration in metros, **tier-I and tier-II cities**.

#### ▪ **Market Statistics:**

- The Indian healthcare sector is expected to record a **three-fold rise, growing at a CAGR (Compound Annual Growth Rate) of 22% between 2016-22 to reach USD 372 billion in 2022** from USD 110 billion in 2016.
- In the Economic Survey of 2022, India's **public expenditure** on healthcare **stood at 2.1% of GDP in 2021-22 against 1.8% in 2020-21 and 1.3% in 2019-20**.
- In FY21, gross direct premium income underwritten by health insurance companies grew 13.3% YoY to Rs. 58,572.46 crore (USD 7.9 billion).
- The Indian **medical tourism market** was valued at USD 2.89 billion in 2020 and is expected to reach USD 13.42 billion by 2026.
- **Telemedicine** is also expected to reach USD 5.5 billion by 2025.

## What are the Challenges with the Health Sector?

#### ▪ **Inadequate Access:**

- Inadequate access to basic healthcare services such as shortage of medical professionals, a lack of quality assurance, insufficient health spending, and, most significantly, insufficient research funding.
- One of the **major concerns is the administrations'** insufficient financial allocation.

#### ▪ **Low Budget:**

- India's public expenditure on healthcare is only 2.1% of GDP in 2021-22 while Japan, Canada and France spend about 10% of their GDP on public healthcare.
  - Even neighbouring countries like **Bangladesh and Pakistan have over 3% of their GDP** going towards the public healthcare system.

#### ▪ **Lack of Preventive Care:**

- Preventive care is **undervalued in India**, despite the fact that it has been shown to be quite beneficial in alleviating a variety of difficulties for patients in terms of unhappiness and financial losses.

#### ▪ **Lack of Medical Research:**

- In India, R&D and cutting-edge **technology-led new projects receive little attention**.

#### ▪ **Policymaking:**

- Policymaking is undoubtedly crucial in providing effective and efficient healthcare services. In India, the issue is one of supply rather than demand, and policymaking can help.

#### ▪ **Shortage in Professionals:**

- In India, there is a shortage of doctors, nurses, and other healthcare professionals.
- According to a study presented in Parliament by a minister, **India is short 600,000 doctors**.

#### ▪ **Paucity of Resources:**

- Doctors work in **extreme conditions ranging from overcrowded out-patient departments**, inadequate staff, medicines and infrastructure.

## What is the Potential of the Indian Health Sector?

- India's competitive advantage lies in its **large pool of well-trained medical professionals**. India is also cost competitive compared to its peers in Asia and western countries. The **cost of surgery in India is about one-tenth** of that in the US or Western Europe.
- India has all **the essential ingredients for the exponential growth** in this sector, including a **large population, a robust pharma and medical supply chain, 750 million plus smartphone users, 3<sup>rd</sup> largest start-up pool** globally with easy access to **VC (Venture Capital Fund) funding and innovative tech entrepreneurs** looking to solve global healthcare problems.
- India will have about **50 clusters for faster clinical testing of medical devices to boost product development and innovation**.



- The sector will be driven by life expectancy, shift in disease burden, changes in preferences, growing middle class, increase in health insurance, medical support, infrastructure development and policy support and incentives.
- As of 2021, the Indian healthcare sector is **one of India's largest employers as it employs a total of 4.7 million people**. The sector has generated 2.7 million additional jobs in India between 2017-22 -- over 500,000 new jobs per year

## What are the Initiatives for the Health Care Sector?

- [National Health Mission](#)
- [Ayushman Bharat](#).
- [Pradhan Mantri Jan Arogya Yojana \(AB-PMJAY\)](#).
- [National Medical Commission](#)
- [PM National Dialysis Programme](#).
- [Janani Shishu Suraksha Karyakram \(JSSK\)](#).
- [Rashtriya Bal Swasthya Karyakram \(RBSK\)](#).

## Way Forward

- There is an **urgent need to improve the infrastructure of public hospitals**, which are overburdened as a result of India's large population.
- The government **should encourage private hospitals** because they make a significant contribution.
- Because the difficulties are severe and cannot be tackled just by the government, the **private sector must also engage**.
- To improve the sector's capabilities and efficiency, **more medical personnel must be inducted**.
- In order to connect the dots in the health system, technology must be used.
  - Medical gadgets in hospitals and clinics, mobile health apps, wearables, and sensors are only a few examples of technology that should be included in this area.

## UPSC Civil Services Examination, Previous Year Questions (PYQs)

### Prelims

#### Q. Which of the following are the objectives of 'National Nutrition Mission'? (2017)

1. To create awareness relating to malnutrition among pregnant women and lactating mothers.
2. To reduce the incidence of anaemia among young children, adolescent girls and women.
3. To promote the consumption of millets, coarse cereals and unpolished rice.
4. To promote the consumption of poultry eggs.

Select the correct answer using the code given below:

- (a) 1 and 2 only  
 (b) 1, 2 and 3 only  
 (c) 1, 2 and 4 only  
 (d) 3 and 4 only

Ans: (a)

Exp:

- National Nutrition Mission (POSHAN Abhiyaan) is a flagship programme of the Ministry of Women and Child Development, GoI, which ensures convergence with various programmes like **Anganwadi services, National Health Mission, Pradhan Mantri Matru Vandana Yojana, Swachh-Bharat Mission, etc.**

- The goals of National Nutrition Mission (NNM) are to achieve improvement in nutritional status of children from 0-6 years, adolescent girls, pregnant women and lactating mothers in a time bound manner during the next three years beginning 2017- 18. **Hence, 1 is correct.**
- NNM targets to reduce stunting, under-nutrition, anaemia (among young children, women and adolescent girls) and reduce low birth weight of babies. **Hence, 2 is correct.**
- There is no such provision relating to consumption of millets, unpolished rice, coarse cereals and eggs under NNM. **Hence, 3 and 4 are not correct.**
- **Therefore, option (a) is the correct answer.**

## **Mains**

**Q.** “Besides being a moral imperative of a Welfare State, primary health structure is a necessary precondition for sustainable development.” Analyse. **(2021)**

**Source: PIB**

## **The Gender Snapshot 2022**

**For Prelims:** Gender Snapshot 2022, Sustainable Development Goal-5 (SDG-5).

**For Mains:** Issues Related to Women, Gender Gap, Related Challenges and Way Forward.

### **Why in News?**

Recently, the report entitled “**Progress on the Sustainable Development Goals (SDG): The Gender Snapshot 2022**” was launched by **United Nations (UN) Women and the UN Department of Economic and Social Affairs (UN DESA)**.

### **What are the Key Findings of the Report?**

- The report highlighted that [Sustainable Development Goal-5 \(SDG-5\)](#), or **achieving gender equality, will not be met by 2030** at the current pace of progress.
- By the end of 2022, around 383 million women and girls will live in extreme poverty (on less than USD 1.90 a day) compared to 368 million men and boys.
- It will take close to **300 years to achieve full gender equality** at the current rate of progress.
  - It will also take at least **40 years to achieve equal representation of women in national parliaments.**
- **Progress must be 17 times faster than last decade’s progress of the last decade, to eradicate [child marriage](#) by 2030.**
  - Girls from the poorest rural households and in conflict-affected areas are expected to suffer the most.
- In 2021, about **38% of female-headed households in war-affected areas experienced moderate or severe [food insecurity](#)**, compared to 20% of male-headed households.
- Globally, **women lost an estimated USD 800 billion in income in 2020 due to the pandemic.**
- **More women and girls are now forcibly displaced than ever before**, some 44 million women and girls by the end of 2021.

- Over **1.2 billion women and girls of reproductive age (15-49) live in countries** and areas with some **restrictions on access to safe [abortion](#)**.



## What are the Challenges?

- Global challenges, such as the **COVID-19 pandemic** and its aftermath, violent conflict, **climate change and the backlash against [women's sexual and reproductive health](#)** and rights further **exacerbate gender disparities**.
- The **[invasion of Ukraine](#)** and the war, there is **further worsening food insecurity and hunger**, especially among women and children.
- In most parts of the World, **still legal systems don't ensure uniform protection of women rights in all spheres** such as denying women's rights in marriage and family, unequal pay and benefits at work and unequal rights to own and control land. Unfortunately, this may continue to exist for generations to come.

## What should be the Way Forward?

- The data showed **undeniable regressions in their lives made worse by the global crises in incomes, safety, education and health**. The longer we take to reverse this trend, the more it will cost us all.
  - Gender equality** is a foundation for **achieving all [SDGs](#)** and it **should be at the heart of building back better**.
- Cascading global crises are putting the achievement of the SDGs in jeopardy**, with the world's most vulnerable population groups disproportionately impacted, in particular women and girls.
  - Cooperation, partnerships and investments** in the gender equality agenda, including through increased global and national funding, are **essential to correct the course and place gender equality back on track**.

### UPSC Civil Services Examination, Previous Year Question (PYQ)

**Q. Which of the following gives 'Global Gender Gap Index' ranking to the countries of the world? (2017)**

- (a) World Economic Forum**

- (b) UN Human Rights Council
- (c) UN Women
- (d) World Health Organization

**Ans: (a)**

**Exp:**

- The Global Gender Gap Report is published by the World Economic Forum. **Hence, option A is correct.**
- The report's Gender Gap Index, which is designed to measure gender equality ranks countries, according to the calculated gender gap between women and men in four key areas: health, education, economy and politics to gauge the state of gender equality in a country.
- The Global Gender Gap Report 2021 benchmarks 156 countries on their progress towards gender parity across four thematic dimensions: Economic Participation and Opportunity; Educational Attainment, Health and Survival, and Political Empowerment. In addition, this year's edition studied skills gender gaps related to Artificial Intelligence (AI).
- India ranks 140<sup>th</sup> in WEF Gender Gap Index-2021.

**Source: DTE**

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## International Day of Clean Air for Blue Skies

**For Prelims:** National Clean Air Programme, PM 10, PM 2.5, UNEP.

**For Mains:** International Day of Clean Air for Blue Skies, its Significance.

### Why in News?

Recently, the Ministry of Environment, Forest and Climate Change (MoEF&C) organized **3<sup>rd</sup> International Day of Clean Air for blue skies** as 'Swachh Vayu Diwas ("Swachh Vayu Neel Gagan")' today to raise awareness and facilitate actions to improve **air quality under [National Clean Air Programme \(NCAP\)](#)**.

- 20 cities selected out of 131 for its **National Clean Air Programme (NCAP)** have attained the **National Ambient Air Quality Standards** (60 microgram per cubic meter) in 2021-22, compared to their 2017 levels.

### What are the Key Points?

- **Theme:**
  - The theme is "The Air We Share".
  - It highlights the **need for immediate and strategic international and regional cooperation for more efficient implementation** of mitigation policies and actions to tackle air pollution.
- **About:**
  - During its **74<sup>th</sup> session**, the **United Nations General Assembly** adopted a resolution to hold an **International Day of Clean Air for Blue Skies on 19th December, 2019**.

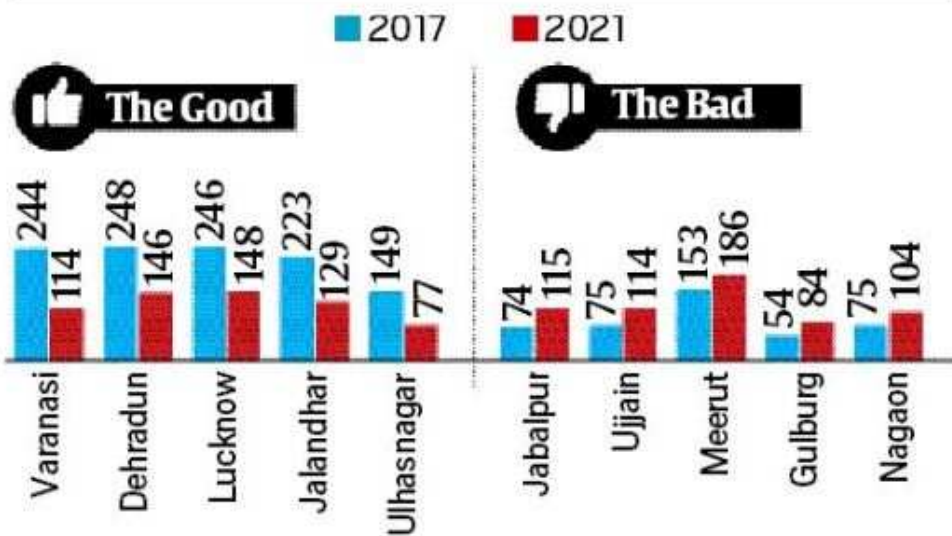
- The resolution also encouraged the [United Nations Environment Programme \(UNEP\)](#) to facilitate the day's observance in collaboration with other relevant stakeholders.
  - In the lead-up to the passing of the resolution, the Climate and Clean Air Coalition collaborated with UNEP and the Republic of Korea to advocate for the day.
- **Significance:**
- The United Nations commemorates the International Day of Clear Air for Blue Skies by hosting summits with member states.
  - Attendees put forth **their perspectives and discuss the data on the impacts of air pollution** and air quality around the globe.

## What are the Findings of NCAP?

- **Ninety-five** of these **131 cities** have shown **air quality improvement**,
  - Varanasi recorded the most marked improvement — of 53% — in air quality levels.
  - Varanasi **had an annual average concentration of PM10 of 244 in 2017**, which dropped to 144 in 2021.
- **PM10** for all metropolitan cities, **Delhi, Bengaluru, Mumbai, Chennai, Kolkata and Hyderabad**, have **shown significant improvement** in air quality in 2021-22 compared to 2017.
  - Other major cities to have shown an improvement include Noida, Chandigarh, Navi Mumbai, Pune, Guwahati, etc.
- But **27 cities** have shown **a deterioration in air quality over the same period**.
  - Among them is **Korba — the district in Chhattisgarh** houses 10 thermal coal power plants.
- **Among states**, Madhya Pradesh **has been the poorest performer**, as six of seven cities from the state selected by the Centre for NCAP have shown a **deterioration in air quality**.
  - These are Bhopal, Dewas, Indore, Jabalpur, Sagar, Ujjain and Gwalior.
- **Howrah and Durgapur in West Bengal**, Aurangabad and Thane in Maharashtra, Gaya in Bihar, Rajkot and Vadodara in Gujarat, Bhubaneswar (Odisha), Patiala (Punjab) and Jammu, among others, have also shown a worsening of air quality.



## ANNUAL AVERAGE CONCENTRATION OF PM10 PER CUBIC METER



■ National Clean Air Programme is a strategy aimed at a 20% to 30% reduction in PM2.5 and PM10 concentration by 2024, with 2017 as the base year for comparison

■ It includes 123 Non-Attainment Cities, which exceed National Ambient Air Quality Standards for 5 straight years and 42-mn plus population cities

### UPSC Civil Services Examination, Previous Year Questions (PYQs)

#### Prelims

Q. Consider the following statements: (2017)

1. Climate and Clean Air Coalition (CCAC) to Reduce Short Lived Climate Pollutants is a unique initiative of G20 group of countries.
2. The CCAC focuses on methane, black carbon and hydrofluorocarbons.

Which of the statements given above is/are correct?

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

Ans: (b)

Exp:

- The Climate and Clean Air Coalition is a voluntary partnership of governments, intergovernmental organizations, businesses, scientific institutions and civil society organizations committed to improving air quality and protecting the climate through actions to reduce short-lived climate

pollutants. **Hence, statement 1 is not correct.**

- The Coalition's initial focus is on methane, black carbon, and hydrofluorocarbons (HFCs).
- **The governments of Bangladesh, Canada, Ghana, Mexico, Sweden and the United States, along with the United Nations Environment Programme (UNEP),** came together to initiate the first effort to treat these pollutants as a collective challenge. **Hence, statement 2 is correct.**
- India is not a partner country, but The Energy and Resources Institute (TERI) has been a partner NGO since 2015. **Therefore, option (b) is the correct answer.**

[Source: IE](#)

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## Foundational Learning Survey

**For Prelims:** NCERT, Trends in Survey, Government's Initiatives

**For Mains:** State of Education in India, Government's Initiatives

### Why in News?

Recently, the nationwide **Foundational Learning Survey (FLS)** was carried out jointly by the **Union Ministry of Education** and the **National Council of Educational Research and Training (NCERT)**.

- **More than 50% of the assessed class III children** from **Delhi** have either **"limited"** foundational numeracy skills or **"lacking the most basic knowledge and skills"**.
- In the [National Achievement Survey \(NAS\)](#) also Delhi featured in the **five states with the lowest average scores** in both **Math and Language at the class III level**.

### What do we need to know about the Foundational Learning Survey?

- **About: Foundational Learning Survey (FLS)** aims to set-up benchmarks for reading with comprehension in 22 Indian languages.
- **Background:** FLS was undertaken in 2022 as a crucial step towards strengthening efforts for Foundational Literacy and Numeracy (FLN) under the [NIPUN Bharat Mission](#).
- **Samples Size:** FLS was carried out among **86,000 class III children in 10,000 schools** in the country.
  - In Delhi, the sample size was 2,945 students from across 515 schools.
- **Categorization:**
  - **Based on children's performances, they were placed in four categories:**
    - Those who lacked the **most basic knowledge and skills**
    - Those who have **limited knowledge and skills**
    - Those who have **developed sufficient knowledge and skill**
    - Those who have **developed superior knowledge**
- **Findings:**
  - **National:**
    - **Overall Figures:**
      - 11% of students lack **the most basic knowledge and skills**.
      - 37% of the students have **limited knowledge and skills**.
    - **Language:**

- **English:**
  - 15% of students were found to be **lacking even basic skills**.
  - 30% had **limited skills**.
  - 21% had **sufficient skills**.
  - 34% had **fairly superior skills**.
- **Hindi:**
  - 21% fell under the **worst performing bracket**
  - 32% had **limited proficiency**.
- **States:** In numeracy, **Tamil Nadu (29%) had the maximum number of students** who could not complete the most basic grade-level tasks, followed by Jammu and Kashmir (28%), Assam, Chhattisgarh and Gujarat (18%).
- **Basis of Findings:**
  - Findings of the FLS are **based on interviews with each individual participant**.
  - While the National Achievement Survey evaluated learning outcomes based on Multiple Choice Questions.

## What are the Government's Initiatives for the Education Sector?

- **NIPUN Bharat Mission**
- [Sarva Shiksha Abhiyan](#)
- [Mid Day Meal Scheme](#)

## What is the National Council of Educational Research and Training (NCERT)?

- **About:**
  - **The National Council of Educational Research and Training (NCERT) is an autonomous organisation** set up in 1961 by the Government of India to assist and advise the **Central and State Governments** on policies and programmes for qualitative improvement in school education.
- **Constituent Units:**
  - **The major constituent units of NCERT which are located in different regions of the country are:**
    - National Institute of Education (NIE)
    - Central Institute of Educational Technology (CIET)
    - Pandit Sundarlal Sharma Central Institute of Vocational Education (PSSCIVE)
    - Regional Institute of Education (RIE)

[Source: IE](#)

## Legionellosis Disease

### Why in News?

Recently, a mysterious pneumonia outbreak in Argentina has been identified as Legionellosis.

### What is Legionellosis?

- **About:**
  - Legionellosis is a **pneumonia-like illness** that varies in severity from mild febrile illness to a serious and sometimes fatal form of pneumonia.



- The causative agents are **Legionella bacteria** from water or potting mix.
- **Symptoms:**
  - It included **fever, muscle and abdominal pain and shortness of breath.**
- **Spread:**
  - The disease typically **spreads via inhalation of contaminated aerosols from contaminated water**, which could come from — air conditioning cooling towers, evaporative condensers associated with air conditioning and industrial cooling, hot and cold-water systems, humidifiers and whirlpool spas.
- **Risk Population:**
  - The people who have **comorbidities like hypertension, diabetes, obesity, respiratory problems, chronic obstructive pulmonary disease (COPD)**, or those who follow poor habits like smoking are more prone to the condition.
- **Treatment:**
  - Treatments exist, but there is **no vaccine currently available for Legionnaires' disease.**
  - Patients with Legionnaires' disease always require **antibiotic treatment following diagnosis.**
  - The public health threat posed by legionellosis can be addressed by implementing water safety plans by authorities responsible for building safety or water system safety.

[Source: DTE](#)

## New branches of the National Centre for Disease Control

### Why in News?

Recently, the Union Health Minister virtually laid the foundation stone for [National Centre for Disease Control \(NCDC\)](#) branches in **Andhra Pradesh, Arunachal Pradesh, Kerala, Maharashtra, Tripura, and Uttar Pradesh.**

### What is National Centre for Disease Control (NCDC)?

- **About:**
  - The National Centre for Disease Control (NCDC), formerly **National Institute of Communicable Diseases (NICD)**, had its origin as the Central Malaria Bureau, established at **Kasauli (Himachal Pradesh) in 1909.**
  - NICD was transformed into the **National Centre for Disease Control (NCDC)** with a larger mandate of controlling emerging and re-emerging diseases in 2009.
  - It is under the administrative control of the **Director General of Health Services, Ministry of Health and Family Welfare, Govt. of India.**
- **Function:** It functions as the **nodal agency in the country for disease surveillance facilitating the prevention** and control of communicable diseases.
  - In coordination with the State Governments, NCDC has the **capacity and capability for disease surveillance**, outbreak investigation, and rapid response to contain and combat outbreaks.
- **Services:** The Institute provides referral diagnostic services to individuals, communities, medical colleges, research institutions and state health directorates.
- **Headquarters:** The Institute has its headquarters in **Delhi.**
- **Branches:** It has **eight branches** located at Alwar (Rajasthan), Bengaluru (Karnataka), Kozikode (Kerala), Coonoor (Tamil Nadu), Jagdalpur (Chattisgarh), Patna (Bihar), Rajahmundry (Andhra Pradesh) and Varanasi (Uttar Pradesh).

### What are the Benefits of having multiple branches of NCDC?

- The regional branches of NCDC will play a **pivotal part and will provide a boost to public health infrastructure with prompt surveillance**, rapid detection and monitoring of diseases thereby enabling early interventions.
- The State branches will **coordinate with NCDC (Delhi) with real-time sharing of data and information** aided by cutting-edge technology.
  - Further, the NCDC branches would also be crucial in ensuring **the timely availability of updated guidelines**.
- New branches are being added with the mandate for integrated disease surveillance activities, dealing with **Anti-Microbial Resistance (AMR)**, multi-sectoral and entomological investigations etc.

## UPSC Civil Services Examination Previous Year Question (PYQ)

### Prelims

**Q. Which of the following are the reasons for the occurrence of multi-drug resistance in microbial pathogens in India? (2019)**

1. Genetic predisposition of some people
2. Taking incorrect doses of antibiotics to cure diseases
3. Using antibiotics in livestock farming
4. Multiple chronic diseases in some people

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

- (a) 1 and 2  
 (b) 2 and 3 only  
 (c) 1, 3 and 4  
 (d) 2, 3 and 4

**Ans: (b)**

**Exp:**

- Antimicrobial Resistance (AMR) is the ability of a microorganism (like bacteria, viruses, and some parasites) to stop an antimicrobial (such as antibiotic, antiviral and antimalarial) from working against it. As a result, standard treatments become ineffective, and infections persist and may spread to others.
- A genetic predisposition (sometimes also called genetic susceptibility) is an increased likelihood of developing a particular disease based on a person's genetic makeup. A genetic predisposition results from specific genetic variations that are often inherited from a parent. It has no direct relation to Antimicrobial Resistance. **Hence, 1 is not correct.**
- **AMR occurs naturally over time. In many places, antibiotics are overused and misused in people and animals, and are often given without professional oversight.** Examples of misuse include when they are taken by people with viral infections like cold and flu, and when they are given as growth promoters in animals or used to prevent diseases in healthy animals. **Hence, 2 and 3 are correct.**
- Multiple chronic diseases are two or more chronic diseases that affect a person at the same time. For example, either a person with arthritis and hypertension or a person with heart disease and depression, both have multiple chronic diseases. So it is not necessary that a person with Multiple chronic disease will have antimicrobial resistance, because a chronic disease can be of type where administering antibiotics is not required. **Hence, 4 is not correct. Therefore, option (b) is the correct answer.**

**Source: TH**

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## US Start-up SETU

### Why in News?

The Union Minister of Commerce and Industry recently launched the US Startup SETU - Supporting Entrepreneurs in Transformation and Upskilling programme in the Bay Area of San Francisco, United States of America.

### What are Startups?

#### ▪ About:

- The term startup refers to a company in the first stages of operations. Startups are founded by one or more entrepreneurs who want to develop a product or service for which they believe there is demand.
- These companies generally start with high costs and limited revenue, which is why they look for capital from a variety of sources such as venture capitalists.

#### ▪ Growth of Startups in India:

- The [Department for Promotion of Industry and Internal Trade \(DPIIT\)](#) has recognized startups which are spread across 56 diversified sectors.
  - More than 4,500 Startups have been recognized in sectors relating to emerging technologies such as [Internet of Things \(IoT\)](#), [robotics](#), [artificial intelligence](#), analytics, etc.
- Sustained Government efforts in this direction have **resulted in increasing the number of recognized Startups from 471 in 2016 to 72,993 in 2022.**

### What is Startup SETU?

#### ▪ About:

- SETU or **Supporting Entrepreneurs in Transformation and Upskilling** is an Indian government initiative under **Ministry of Commerce & Industry**.
- The initiative would connect start-ups in India to US-based investors and start-up ecosystem leaders with mentorship and assistance in various areas including funding, market access and commercialization.

#### ▪ Significance:

- To **break the geographical barriers between US mentors willing to invest in entrepreneurship** and sunrise startups in India.
- The interaction will be supported through the mentorship portal under the Startup India initiative MAARG, or **the Mentorship, Advisory, Assistance, Resilience, and Growth program**, which is a single-stop solution finder for startups in India.
  - The portal has been developed with the idea to be accessible from every corner of the country to connect with a mentor.

#### ▪ Need:

- It is estimated that **about 90% of the start-ups and more than half of the well-funded startups fail in their early days.** Lack of experience in handling the business is a key issue, and founders require the right guidance for taking a decision and moral support.
  - As India becomes a leading start-up destination, the proper guidance at the right time is paramount.
  - Further, the Government of India invites stalwarts, seasoned experts, and industry leaders to give back to the nation by adding value to a startup's journey.
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## UPSC Civil Services Examination Previous Year Question (PYQ)

### Prelims

**Q. What does venture capital mean? (2014)**

- (a) A short-term capital provided to industries
- (b) A long-term start-up capital provided to new entrepreneurs
- (c) Funds provided to industries at times of incurring losses
- (d) Funds provided for replacement and renovation of industries

**Ans: (b)**

**Exp:**

- **Venture capital is a form of fund for a new or growing business.** It usually comes from venture capital firms that specialize in building high risk financial portfolios.
- With venture capital, the venture capital firm gives funding to the startup company in exchange for equity in the startup.
- The people who invest this money are called venture capitalists (VCs). Venture capital investment is also referred as risk capital or patient risk capital, as it includes the risk of losing the money if the venture does not succeed and takes a medium to long term period for the investments to fructify. **Therefore, option (b) is the correct answer.**

**Source: PIB**

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