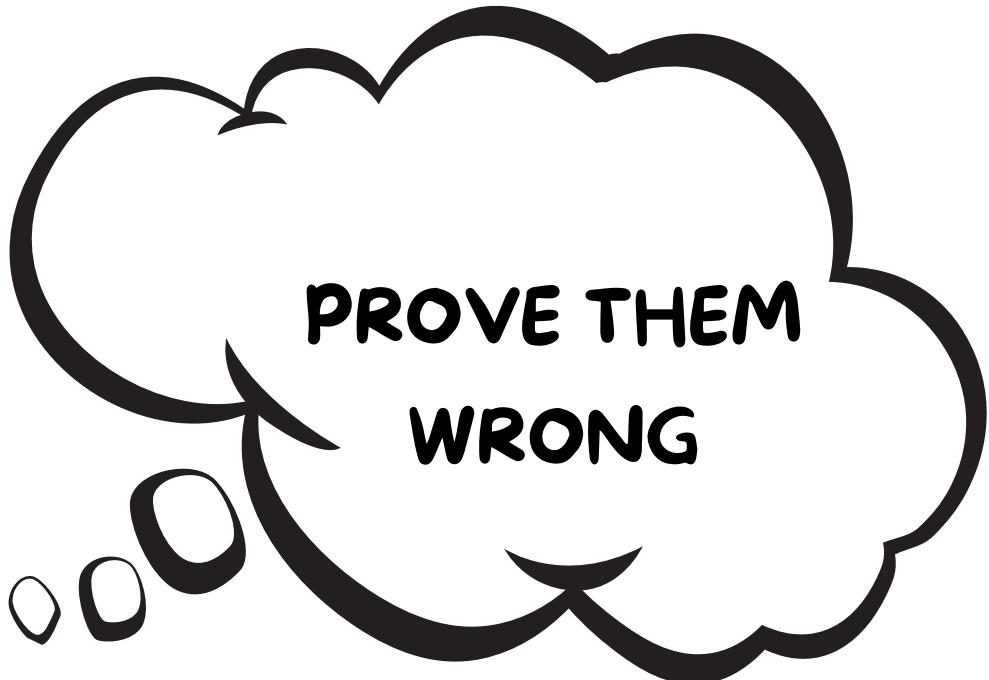
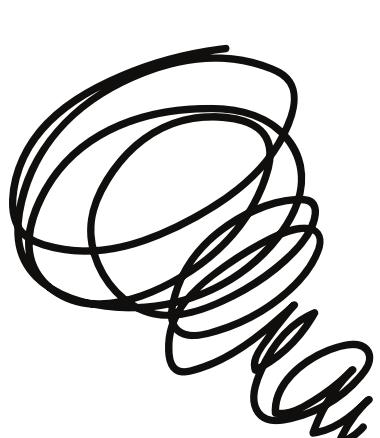


OFFICERS' PULSE

Issue no. 26 | 21st November to 27th November, 2021



AT A GLANCE
& IN DEPTH.

COVERAGE.

The Hindu

The Indian Express

PIB

Rajya Sabha TV

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Polity and Social Issues

Economy

International Relations

Environment

Science and Tech

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CURRENT AFFAIRS **WEEKLY**

THE **PULSE** OF UPSC AT YOUR FINGER TIPS



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News @ a glance

POLITY

1) Flaws in the system

Context

- The transfer of Chief Justice of the Madras High Court to the Meghalaya High Court has given rise to a controversy over the question whether judicial transfers are made only for administrative reasons or have any element of ‘punishment’ behind them.

What does the Constitution say on the transfer of judges?

- Article 222** of the Constitution provides for the transfer of High Court judges, including the Chief Justice.
- It says the **President, after consultation with the Chief Justice of India**, may transfer a judge from one High Court to any other High Court. It also provides for a **compensatory allowance** to the transferred judge.
- This means that the executive could transfer a judge, but only after consulting the Chief Justice of India. From time to time, there have been proposals that one-third of the composition of every High Court should have judges from other States.

What is the Supreme Court's view on the issue?

- In **Union of India vs. Sankalchand Himatlal Sheth (1977)**, the Supreme Court rejected the idea that High Court judges can be transferred only with their consent. It reasoned that the transfer of power can be exercised **only in public interest**; secondly, the President is under an **obligation to consult the Chief Justice of India**, which meant that all relevant facts must be placed before the Chief Justice of India; and thirdly, that the Chief Justice of India had the **right and duty to elicit and ascertain further facts** from the judge concerned or others.
- In **S.P. Gupta vs. President of India (1981)**, also known as the ‘Judges’ Transfer Case’ and, later, the **First Judges Case**, the Supreme Court ruled that consultation with the Chief Justice did not mean ‘concurrence’

with respect to appointments. In effect, it **emphasised the primacy of the executive in the matter of appointments and transfers**.

- However, this position was **overruled in the ‘Second Judges Case’ (1993)**. The **opinion of the Chief Justice of India**, formed after taking into account the **views of senior-most judges, was to have primacy**. Since then, appointments are being made by the Collegium.

What is the current procedure for transfers?

- As one of the points made by the ‘Second Judges Case’ was that the **opinion of the Chief Justice of India ought to mean the views of a plurality of judges**, the concept of a ‘Collegium of Judges’ came into being.
- In the collegium era, the **consent of the judge is not required**.
- The recommendation is sent to the **Union Law Minister** who should submit the relevant papers to the **Prime Minister**. The Prime Minister then advises the **President** on approving the transfer.

What makes transfers controversial?

- Transfer orders become controversial when the Bar or sections of the public feel that there is a **punitive element** behind the decision to move a judge from one High Court to another. As a matter of practice, the Supreme Court and the government **do not disclose the reason for a transfer**.
- For, if the reason is because of some adverse opinion on a judge’s functioning, disclosure would impinge on the judge’s performance and independence in the court to which he is transferred.
- On the other hand, the absence of a reason sometimes gives rise to speculation whether it was effected because of complaints against the judge, or if it was a sort of punishment for certain judgments that inconvenienced the executive.

2) Life expectancy lower for urban poor

What's in the news?

- Azim Premji University in collaboration with 17 regional NGOs across India has recently released a report titled '**Health Care Equity in Urban India**'.
- The report explores health vulnerabilities and inequalities in cities in India. It also looks at the availability, accessibility and cost of healthcare facilities, and possibilities in future-proofing services in the next decade.

Highlights of the Report

- The report noted that **life expectancy among the poorest is lower by 9.1 years and 6.2 years among men and women**, respectively, compared to the richest in urban areas.
- A **third of India's people now live in urban areas**, with this segment seeing a rapid growth from about 18% (1960) to 28.53% (2001) to 34% (in 2019). **Close to 30% of people living in urban areas are poor**.
- The report, besides finding **disproportionate disease burden on the poor**, also pointed to a **chaotic urban health governance**, where the multiplicity of healthcare providers both within and outside the government without coordination are challenges to urban health governance.
- The other key findings include a **heavy financial burden on the poor, and less investment in healthcare by urban local bodies**.
- The report calls for **strengthening community participation and governance; building a comprehensive and dynamic database on the health and nutrition status**, including co-morbidities of the diverse, vulnerable populations; **strengthening healthcare provisioning through the National Urban Health Mission**, especially for primary healthcare services; and **putting in place policy measures to reduce the financial burden of the poor**.
- It also advocates for a **better mechanism for coordinated public healthcare services and better governed private healthcare institutions**.

- It added that urban healthcare has received relatively less research and policy attention.

3) Swachh Survekshan

What is Swachh Survekshan?

- Launched in 2016, Swachh Survekshan is an annual ranking exercise taken up by the **Ministry of Housing and Urban Affairs (MoHUA)** to assess urban areas of the country on their levels of cleanliness.
- The objective of the survey is to encourage large scale citizen participation and create awareness amongst all sections of society about the importance of working together towards making towns & cities a better place to live in.
- In addition, the survey also seeks to promote a spirit of healthy competition between towns & cities; to improve the quality of their services to people, and create cleaner cities and towns.

Why in News?

- The Ministry of Housing and Urban Affairs has released the Swachh Survekshan latest rankings.
- The survey was carried out in 4,320 cities over 28 days, where feedback from 4.2 crore persons was recorded.

Highlights of the Rankings

- For the fifth year in a row, **Indore** has been named the cleanest city in the country by the Centre in its annual Swachh Survekshan. Indore bagged the award for the cleanest city among those with a **population over 1 lakh**.
- The Swachh Survekshan Awards, 2021 included the **cleanest State honour for Chhattisgarh** for the third time, in the category of States with more than 100 urban local bodies. **Jharkhand** was judged the cleanest State with less than 100 ULBs, followed by Haryana and Goa.
- **Varanasi** has won the award for the cleanest "Ganga city". Among cities, **Surat and Vijayawada** secured the second and third place, respectively.
- Of cities with population less than 1 lakh, **Maharashtra's Vita** was the cleanest, followed by Lonavala and Sasvad.
- The **New Delhi Municipal Council's area** was ranked the cleanest in the category of cities with 1-3 lakh population. **Noida** was named the cleanest among medium-sized

cities, that is with 3 lakh to 10 lakh population. Among the big cities with a population of 10 lakh to 40 lakh, **Navi Mumbai** was ranked the cleanest.

Related Information

About SBM

- Swachh Bharat Mission (SBM), launched on 2nd October 2014, is a massive mass movement that seeks to create a Clean India by October 2, 2019 (150th birth anniversary of Mahatma Gandhi).
- It has 2 components - urban and rural.
 - **SBM Urban** aims for the elimination of open defecation, conversion of unsanitary toilets to pour flush toilets, eradication of manual scavenging, municipal solid waste management and bringing about a behavioural change in people regarding healthy sanitation practices.
 - **SBM Rural** aims to make India an open defecation free country. It seeks to improve the levels of cleanliness in rural areas through Solid and Liquid Waste Management activities and making Gram Panchayats Open Defecation Free (ODF), clean and sanitised.
- The urban component of the mission is implemented by the **Ministry of Housing and Urban Affairs**, and the rural component by the **Department of Drinking**

Water and Sanitation, Ministry of Jal Shakti.

Phase II of SBM Rural

- In 2020, the Union Cabinet approved the **Phase II of the Swachh Bharat Mission (Grameen)** till 2024-25.
- It will focus on Open Defecation Free Plus (ODF Plus), which includes ODF sustainability and Solid and Liquid Waste Management (SLWM). The program will also work towards ensuring that no one is left behind and everyone uses a toilet.

Urban Swachh Bharat Mission 2.0

- In the latest Union Budget, the government unveiled **Urban Swachh Bharat Mission 2.0**. It will stress on further strengthening of the 'swachhata' (cleanliness) campaign of urban India and the government allocated the budget of Rs. 1.41 lakh crore, which will be implemented over five years from 2021.
- The government intends to focus on complete faecal sludge management and wastewater treatment, source segregation of garbage, reduction in single-use plastic, reduction in air pollution, especially waste from construction and demolition, and bio-remediation of dumpsites.

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ENVIRONMENT

1) Dengue Cases on Rise in Manipur

About Dengue

- Dengue is a **mosquito-borne viral infection**.
- Dengue virus is transmitted by female mosquitoes mainly of the species **Aedes aegypti** and, to a lesser extent, **Ae. albopictus**.
- These mosquitoes are also vectors of **chikungunya, yellow fever and Zika viruses**.
- Dengue is found in **tropical and subtropical climates** worldwide, mostly in urban and semi-urban areas.
- The virus responsible for causing dengue is called **dengue virus (DENV)** which belongs to the **Flaviviridae family**.
- There are **four DENV serotypes**, meaning that it is possible to be infected four times.

Signs and symptoms

- Dengue is a severe, **flu-like illness** that affects infants, young children and adults, but **seldom causes death**.
- Symptoms usually last for 2–7 days, after an incubation period of 4–10 days after the bite from an infected mosquito.

Treatment

- There is **no specific treatment** for dengue fever.
- Fever reducers and pain killers can be taken to control the symptoms of muscle aches and pains, and fever.

Vaccination against dengue

- The first dengue vaccine, **Dengvaxia (CYD-TDV)** was licensed in 2015 and has now been approved by regulatory authorities in ~20 countries.

Why in news?

- Recently, a spike in dengue cases were reported in Manipur.

2) World Antibiotic Awareness Week

About Antimicrobial Resistance

- Antimicrobial Resistance (AMR) occurs when **bacteria, viruses, fungi and parasites** change over time and **no longer respond to medicines** making infections

harder to treat and increasing the risk of disease spread, severe illness and death.

- As a result of drug resistance, antibiotics and other antimicrobial medicines become ineffective and infections become increasingly difficult or impossible to treat.
- AMR is a global health and development threat. It requires urgent multisectoral action in order to achieve the Sustainable Development Goals (SDGs).
- **WHO** has declared that **AMR is one of the top 10 global public health threats facing humanity**.
- Microorganisms that have antimicrobial resistance are sometimes called “superbugs”.

Why is antimicrobial resistance a global concern?

- The emergence and spread of drug-resistant pathogens that have acquired new resistance mechanisms, leading to antimicrobial resistance, continues to **threaten our ability to treat common infections**.
- Especially alarming is the rapid global spread of multi- and pan-resistant bacteria (“superbugs”) that cause infections that are not treatable with existing antimicrobial medicines such as antibiotics.
- The cost of AMR to national economies and their health systems is significant as it affects productivity of patients or their caretakers through prolonged hospital stays and the need for more expensive and intensive care.

What accelerates the emergence and spread of antimicrobial resistance?

- AMR occurs **naturally** over time, usually through genetic changes.
- Antimicrobial resistant organisms are found in people, animals, food, plants and the environment (in water, soil and air). They can **spread from person to person or between people and animals**, including from food of animal origin.

Other causes

- The main drivers of antimicrobial resistance include:
 - the misuse and overuse of antimicrobials;

- overuse of antibiotics in livestock and fish farming;
- lack of access to clean water, sanitation and hygiene (WASH) for both humans and animals;
- poor infection and disease prevention and control in health-care facilities and farms;
- poor access to quality, affordable medicines, vaccines and diagnostics;
- lack of awareness and knowledge; and
- lack of enforcement of legislation.

Fight against AMR

Need for coordinated action

- AMR is a complex problem that requires a **united multisectoral approach**.
- The **One Health approach** brings together multiple sectors and stakeholders engaged in human, terrestrial and aquatic animal and plant health, food and feed production and the environment to communicate and work together in the design and implementation of programmes, policies, legislation and research to attain better public health outcomes.
- **Greater innovation and investment** is required in operational research, and in research and development of new antimicrobial medicines, vaccines, and diagnostic tools.

Global Action Plan on Antimicrobial Resistance (GAP)

- Globally, countries committed to the framework set out in the Global Action Plan (GAP) 2015 on AMR during the 2015 World Health Assembly of WHO and committed to the development and implementation of multisectoral national action plans.

World Antimicrobial Awareness Week (WAAW)

- Held annually since 2015 (18 to 24 November), WAAW is a global campaign that aims to raise awareness of antimicrobial resistance worldwide and encourage best practices among the general public, health workers and policy makers to slow the development and spread of drug-resistant infections.

The Global Antimicrobial Resistance and Use Surveillance System (GLASS)

- WHO launched the GLASS in 2015 to foster standardized Antimicrobial resistance surveillance globally. Currently GLASS

collects and reports data on Antimicrobial resistance rates aggregated at national level.

AWaRe tool

- In 2019, the WHO launched a new online tool aimed at guiding policy-makers and health workers to use antibiotics safely and more effectively.
- The tool, known as 'AWaRe', classifies antibiotics into three groups:
 - **Access** — antibiotics used to treat the most common and serious infections
 - **Watch** — antibiotics available at all times in the healthcare system
 - **Reserve** — antibiotics to be used sparingly or preserved and used only as a last resort

NAP-AMR

- The Government of India adopted the **National Action Plan on AMR (NAP-AMR)** in 2017, with the Ministry of Health and Family Welfare (MoHFW) as the nodal ministry.
- The overarching goal of NAP-AMR is to effectively combat antimicrobial resistance in India, and contribute towards the global efforts to tackle this public health threat.

Red Line Campaign

- The **Union Ministry of Health and Family Welfare** has made it mandatory to display a 5mm-thick red vertical band (line) on packaging of prescription-only drugs (which compulsorily require Doctors' Prescription).
- It aims at sensitising people and making them cautious while buying these Antibiotic medicines that are widely sold without prescriptions.

Why in news?

- The **World Antibiotic Awareness Week** was observed from **November 18 to 24**.
- **Theme:** "Spread awareness. Avoid resistance".
- Awareness on the **misuse and abuse of antibiotics** that could lead to antimicrobial resistance was stressed upon.
- **Eg:** For the public, awareness on avoiding **over-the-counter purchase of antibiotics** was conducted in various places.

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ECONOMY

1) Strategic Crude Oil Reserves

What are SPRs?

- Strategic Petroleum Reserves (SPR) are **huge stockpiles of crude oil** stored in the **underground rock caverns** (considered safest for storage of Hydrocarbons) to tackle emergency situations and allow a country to tide over short-term supply disruptions.
- They represent a **defence against any event of downfall in future oil production**, including physical or economic actions which disrupt any part of the production process from exploration and development through refining.

Importance of Strategic Petroleum Reserves (SPR) programme

- The **Gulf War in 1990** led to a sharp rise in oil prices and a huge increase in India's imports. During the **post-1991 Indian economic crisis**, foreign exchange reserves could barely finance three weeks' worth of imports, while the government came close to defaulting on its financial obligations. India was able to address the crisis through **policies that liberalized the economy**.
- However, India continued to be affected by volatility in oil prices. In 1998, former Prime

Minister Atal Bihari Vajpayee administration proposed the creation of petroleum reserves as a long-term solution for managing the oil market.

Current Status

- In India, Strategic Petroleum Reserves are maintained by **Indian Strategic Petroleum Reserves Limited**, a Special Purpose Vehicle - wholly owned subsidiary of Oil Industry Development Board under the Ministry of Petroleum & Natural Gas.
- Strategic crude oil storages are situated at **Mangalore (Karnataka)**, **Visakhapatnam (Andhra Pradesh)** and **Padur (Karnataka)** as per Phase I of India's SPR programme. They have fuel storage of a total 5.33 MMT (Million Metric Tonnes) and all the storage facilities have been filled with crude oil. As per the consumption pattern of 2019-20, the total capacity is estimated to provide for about **9.5 days of crude oil requirement**.
- In addition, Oil Marketing Companies (OMCs) in the country have storage facilities for crude oil and petroleum products for **64.5 days**, thus the current total national capacity for storage of crude oil and petroleum products currently is **74 days**.



- The **global practice** is to maintain strategic reserves of **at least 90 days of oil imports**.

Phase 2

- Under the second phase of the Petroleum Reserves programme, the government has recently approved the setting up of two additional commercial-cum-strategic

facilities with a total storage capacity of **6.5 MMT** underground storage at **Chandikhol in Odisha** (4 MMT) and **Padur** (2.5 MMT), on Public-private partnership (PPP) Mode.

- The request for proposal for building these storage facilities is under finalisation.
- This would raise India's strategic reserve capacity to **11.83 MMT**, and in times of crisis, India can manage its oil requirement for a specific time period.

Why in News?

- India set to release 5 million barrels of crude oil from its strategic reserves as part of a coordinated move along with the US, China, Japan and South Korea aimed at lowering international prices.
- This is the **first time ever** that India is releasing stocks for such purposes. The move is being seen as a **strategic step to control spiralling global crude oil prices and to keep them under check**.
- In response, the **OPEC+ group of oil exporting countries**, which accounts for **about 50 per cent of global crude supply**, has indicated that it may reconsider plans to restore production over the coming months.
- A release of 5 million barrels of crude oil would equate to about 12.8 per cent of India's strategic oil reserves of 5.33 million tonnes of crude oil, which is estimated to be equivalent to 9.5 days of its crude oil requirement.
- The US had recently made an unusual request to some of the world's largest oil-consuming nations to consider releasing crude stockpiles in a coordinated effort to lower global energy prices. This after members of the Organisation of the Petroleum Exporting Countries (OPEC) and its allies rebuffed repeated requests to speed up their production increases.

Targeting economic recovery

- Accommodating inflation and crude oil prices are key to sustain economic recovery. The global move to limit crude oil prices could also be a **precursor to check other commodity prices**, such as that of steel and basic raw materials.

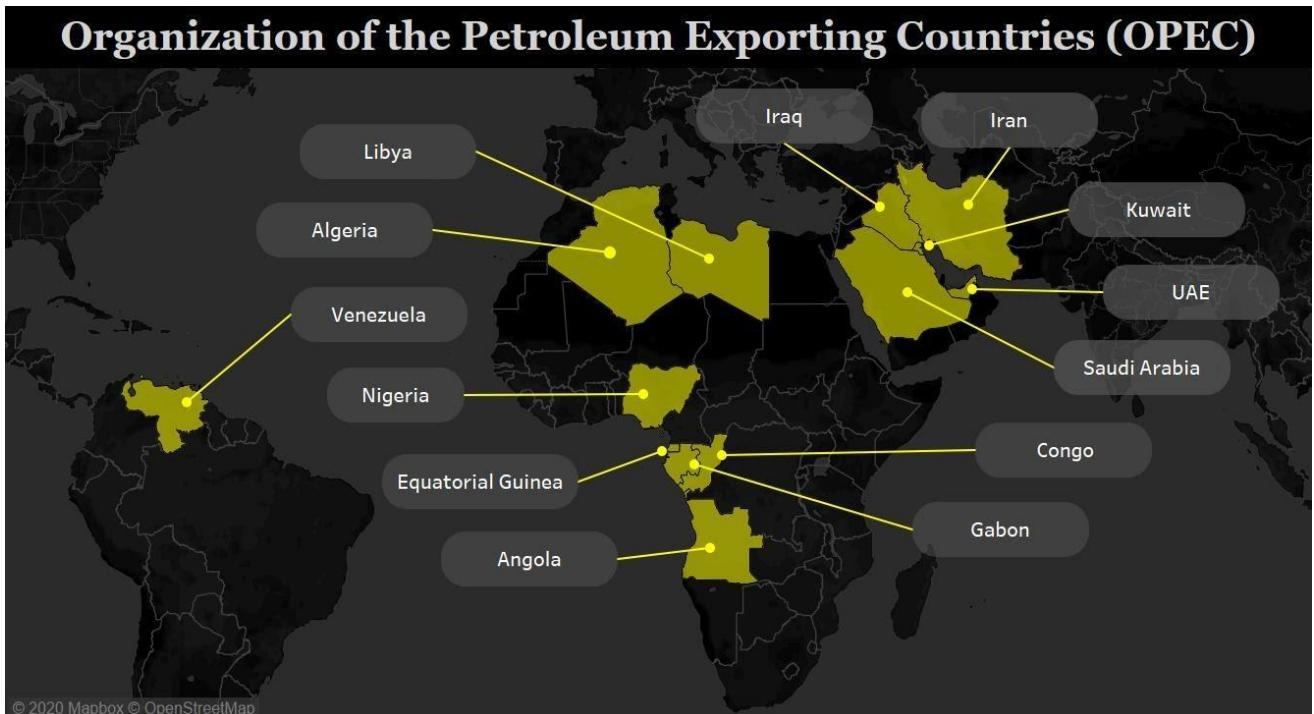
- The coordinated action from major oil consumers, particularly the US, **would help reduce international oil prices**.
- OPEC+ has been slow to restore production levels after it imposed a supply cut of 10 million barrels per day in April 2020 when the price of Brent crude fell to an 18-year low of under \$20 per barrel due to the impact of Covid.
- Despite an increase in crude oil supply of 400,000 barrels per day in December, OPEC+ figures are still lower than the reference level of production for them by nearly 5.4 million barrels per day.

About OPEC arrangement

- The Organization of the Petroleum Exporting Countries (OPEC) is a group consisting of **13 of the world's major oil-exporting nations**.
- Countries that belong to OPEC include **Iran, Iraq, Kuwait, Saudi Arabia, and Venezuela** (the five founders), plus the **United Arab Emirates, Libya, Algeria, Nigeria, Angola, Congo, Equatorial Guinea and Gabon**.
- Note:** Ecuador and Qatar terminated their membership of OPEC recently.
- OPEC was founded in 1960 to coordinate the petroleum policies of its members and to provide member states with technical and economic aid.
- OPEC is used to work as a cartel and fix prices in a favourable band. It could bring down prices by increasing oil production and raise prices by cutting production.

OPEC Plus

- The 2014 oil crisis, which was accentuated by oversupply of crude, brought down prices below \$30 a barrel. Since then, OPEC has been working with **non-OPEC countries** like Russia, Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, Sudan and South Sudan to fix the global prices and supply.
- Known as the **"OPEC Plus" arrangement**, this alliance kept production lower and pumped up the prices.



2) Multidimensional Poverty Index

What's in the news?

- NITI Aayog has released its first-ever Multidimensional Poverty Index (MPI).

About the Index

- The MPI seeks to **measure poverty across its multiple dimensions** and in effect **complements existing poverty statistics based on per capita consumption expenditure**.
- It has **three equally weighted dimensions – health, education, and standard of living** – which in turn are represented by **12 indicators** such as nutrition, school attendance, years of schooling, drinking water, sanitation, housing, bank accounts among others.
- The index is calculated by first **setting the deprivation cut-offs for each indicator**, i.e., the level of achievement considered normatively sufficient for an individual to be considered not deprived in an indicator.
- For example, the individual has completed at least six years of schooling. Such a cut off would be applied to determine whether the individual is deprived in each indicator. Weights are added to each indicator and a composite metric is then used to calculate the index.

Highlights of the Index

- With more than 50% of the population in Bihar identified as “multidimensionally poor”, the State has the maximum percentage of population living in poverty among all the States and the Union Territories.
- As per the index, 51.91% of the population in Bihar is poor, followed by Jharkhand (42.16%), Uttar Pradesh (37.79%), Madhya Pradesh (36.65%) and Meghalaya (32.67%).
- On the other hand, Kerala registered the lowest poverty levels (0.71%), followed by Puducherry (1.72%), Lakshadweep (1.82%), Goa (3.76%) and Sikkim (3.82%).
- Other States and Union Territories where **less than 10% of the population is poor** include Tamil Nadu (4.89%), Andaman & Nicobar Islands (4.30%), Delhi (4.79%), Punjab (5.59%), Himachal Pradesh (7.62%) and Mizoram (9.8%).

Significance of the Index

- Measuring poverty has evolved globally over the years. The conventional method has been to **specify a minimum income (or expenditure)** required to purchase a basket of goods and services to meet basic needs.
- It required defining a **poverty line** first, which the **C Rangarajan committee** had estimated in 2014 to be **Rs 972 a month per person in rural areas and Rs 1,407 a month per person in urban areas**, at 2011-12 prices.

- The development of the National Multidimensional Poverty Index of India is an important contribution towards instituting a public policy tool which monitors multidimensional poverty, informs evidence-based and focused interventions, thereby ensuring that no one is left behind.
- India's national MPI measure uses the globally accepted and robust methodology developed by the **Oxford Poverty and Human Development Initiative (OPHI)** and the **United Nations Development Programme (UNDP)**.
- The **district-wise estimation** of the national MPI will also ensure reaching out to the furthest behind first through focused efforts on specific indicators and dimensions.

3) Bring in three-rate GST structure

What's in the news?

- According to a study by the **National Institute of Public Finance and Policy (NIPFP)**, the **Government can rationalise the GST rate structure without losing revenues** by rejigging the four major rates of 5%, 12%, 18% and 28% with a **three-rate framework of 8%, 15% and 30%**.
 - NIPFP is an autonomous think tank backed by the Finance Ministry.*
- The findings assume significance as the GST Council has tasked a **Group of Ministers, headed by Karnataka CM Basavaraj S. Bommai**, to propose a rationalisation of tax rates and a possible merger of different tax slabs by December.

Rejigging rates | The current GST regime with four key tax slabs can be smoothly replaced by a three-rate structure without the exchequer losing revenues, says study

CURRENT GST RATE STRUCTURE	POSSIBLE REVENUE-NEUTRAL RATES
5%	8%
12%	15% (merging the 12% and 18% slabs)
18%	
28% (for demerit goods)	30%
Total rates - 8	Total rates - 7 (assumes no changes in special rates)



- Merging the 12% and 18% GST rates into any tax rate lower than 18% may result in revenue loss. The study proposes that the GST Council may consider a three-rate structure by **adopting 8%, 15% and 30% for revenue neutrality**.
- At present, the 28% rate is levied on **demerit goods** such as tobacco products, automobiles and aerated drinks, along with **additional GST compensation cess**.

- Currently, the GST regime levies **eight different rates**, including **zero** for essential goods and **special rates** of 0.25% on diamonds, precious stones and 3% on gems and jewellery.
- The NIPFP paper assumes these rates remain unchanged after noting that raising rates on 'high-value low volume goods' like precious stones and jewellery may encourage unaccounted (undisclosed)

transactions and therefore revenue leakages.

- The paper estimated that, if the GST rate structure prevailing at its onset in July 2017 was restored last year, additional GST revenues of nearly ₹1.25 lakh crore could have accrued in 2020-21.

4) Why is India's coal usage under scrutiny?

Context

- On the final day of the UN Climate Change Conference held in Glasgow, India's Minister for Environment Bhupender Yadav read out a statement **promising to "phase down" rather than "phase out" the use of coal**. This caused many to raise questions about India's commitment to tackling climate change.
- Earlier, during the COP26 (Conference of Parties) summit, Prime Minister Narendra Modi had **committed to turning India carbon neutral by 2070**.

Why must dependence on coal be reduced?

- One key way to achieve **carbon neutrality**, wherein countries compensate for their carbon emissions by capturing an equal amount of carbon from the atmosphere, is to **reduce dependence on coal**.
- Coal is the **most polluting among fossil fuels**, and hence, its use in particular has come under scrutiny.

Why is it difficult?

- Coal is used to meet over 70% of India's electricity needs.** Most of this coal comes from **domestic mines**. In FY 2020-21, India produced 716 million tonnes of coal, compared with 431 million tonnes a decade ago.
- Since FY 2018-19, **domestic production has stagnated** and has been unable to meet the rising domestic demand, leading to a **rise in imports**. Most of the country's coal production is limited to **Chhattisgarh, Odisha, Jharkhand and Madhya Pradesh** with a total production of over 550 million tonnes, contributing to over 75% of the country's total coal production.
- The Prime Minister promised to **increase non-fossil fuel energy capacity to 500 GW by 2030, meet 50% energy needs from renewable sources and reduce carbon emissions by 1 billion tonnes in a decade**.

- According to an estimate by the **Centre for Science and Environment**, the promise to reduce emissions by 1 billion tonnes means that India would need to **reduce its carbon output by 22% by 2030**.
- India now meets about **12% of its electricity needs from renewable sources, and increasing it to 50% by 2030 will be difficult**. While some renewable energy sources like solar are **cheap**, they are **unreliable** because of the **intermittency problem**. They thus require the use of storage batteries, which adds to the cost. It should be noted that many low-income countries with low savings may not even possess the capital required to invest in renewable energy.
- Further, the damage that coal causes to commonly owned resources like the environment is not factored into its cost. So, there is **not much economic incentive for countries to limit or to end their massive reliance on coal**.

Is it fair to ask India to phase out coal?

- India has fought attempts by developed countries to impose a cap on its emissions. It has argued that adopting stringent steps to reduce carbon emissions can **drag down growth and affect efforts to reduce poverty**.
- It should also be noted that **per capita carbon emissions of countries such as India and China are still lower than those of many developed countries**. High-income countries in general emit over 50 times as much carbon as low-income countries and over six times as much carbon as lower middle-income countries.
- Critics have pointed out that the focus on ending the use of coal **deflects attention from other fossil fuels** such as oil and natural gas that are **heavily used by developed countries**.
- They also say developed countries have not made good on their promise made at **COP15 in Copenhagen** to offer **\$100 billion every year** to developing countries to achieve net zero emissions.

What lies ahead?

- It is highly unlikely that developing countries like India and China will reduce their coal consumption or even stop it from rising further. Coal is the **cheapest and**

most reliable way to meet their rising energy needs.

- Further, the pledges made by countries at COP26 to reach net zero emissions or to phase down coal are **not legally binding**.
- Some leaders have proposed a **carbon tax** as an alternative to ensure that the price of coal reflects the cost of the damage it causes to the environment. This may turn out to be a more effective approach towards reining in carbon emissions.
- Coal on average is priced at \$2, while experts believe that it should be priced in the range of \$30 to \$70 to reflect its true cost. But such high carbon taxes can cause a drastic fall in coal output and severely affect living standards unless alternative sources of energy step in to fill the gap.
- India also faces its own set of **structural problems in the power sector** that will make the transition towards clean energy harder. The pricing of power, for instance, is influenced by populist politics which may hinder private investment in renewable energy.

5) India, U.S. commit to linking economies across sectors

What's in the news?

- At the recently held **Trade Policy Forum**, the United States and India committed to integrating their economies across sectors to harness the untapped potential of the bilateral relationship.
- The Forum was convened after a gap of four years.

Working Groups of TPF

- The Forum resolved to take economic ties between the two countries to the 'next high level'. The two sides decided to **activate working groups of the Trade Policy Forum (TPF)** on agriculture, non-agriculture goods, services, investment, and intellectual property to meet frequently and address issues of mutual concern in a mutually beneficial manner.
- The idea is to deliver tangible benefits to farmers and businesses of both countries by resolving outstanding market access issues.

Mutual market access

- Specifically, the Forum has decided to forge an agreement to facilitate U.S. market access for mangoes, grapes, and pomegranates,

pomegranate arils from India, and reciprocate with similar access in the Indian market to cherries, pork/pork products and alfalfa hay for animal feed from the United States.

- The Indian side has sought **restoration of the GSP (Generalized System of Preferences) benefits** by the U.S. and said this would help industries from both sides in integrating their supply chain efficiently. The United States noted it 'for suitable consideration'.

Totalisation Agreement

- The Forum also agreed on the significance of negotiating a **Social Security Totalization Agreement** in the interest of workers from both sides, and pursuing further engagements for reaching such an agreement.
- The totalisation agreement, being pursued for over a decade, **would allow workers from both countries to move their retirement savings**, the lack of which particularly affects Indian IT workers in the U.S. who lose billions of dollars in statutory U.S. social security contributions that they cannot repatriate home.
- India and the U.S. also discussed collaboration and constructive engagement in various multilateral trade bodies including the WTO and the G20 for achieving a **shared vision of a transparent, rules-based global trading system among market economies and democracies**. The Forum also decided to find mutually agreed solutions on outstanding WTO disputes between the two countries.
- While India welcomed the recent decision by the U.S. to permit fully vaccinated Indians to travel there, the two sides decided to continue engaging on visa issues to facilitate the movement of professionals, skilled workers, experts, and scientific personnel.

Related Information

About GSP

- The Generalised System of Preferences is one of the oldest trade preference programmes in the world, under which **developed countries offer preferential treatment** (such as zero or low duties on imports) **to products originating in developing countries**.
- GSP is presently extended by **around 30 developed countries**.

- India, as a developing country, enjoyed special trade benefits from the **GSP programme of the U.S** which allowed duty-free entry of Indian goods worth \$5.6 billion into the U.S.
- In 2019, the U.S. decided to **terminate** India's eligibility for the GSP based on complaints from US' dairy and medical

device industries alleging that India has implemented a wide array of trade barriers that are affecting the US exports in those sectors.

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INTERNATIONAL RELATIONS

1) Food and Agriculture Organization

About FAO

- The Food and Agriculture Organization (FAO) is a **specialized agency** of the United Nations that leads international efforts to defeat hunger.
- Its goal is to achieve food security for all and make sure that people have regular access to enough high-quality food to lead active, healthy lives.
- With over 194 member states (including **India**), FAO works in over 130 countries worldwide.

Why in News?

- The Food and Agriculture Organization said that countries must prepare for future “shocks” to their agricultural and food systems from droughts, floods or diseases following the fallout from the coronavirus pandemic.
- Agri-food systems include production, food supply chains, transport networks and consumption.
- According to FAO, **three billion people around the world already cannot afford a healthy diet** to protect themselves against malnutrition.
- In a report in July, the FAO said that between 720 million and 811 million people faced hunger in 2020 — some 161 million more than in 2019, largely due to the pandemic.
- **Risk management strategies for shocks** such as droughts, floods and pests — including multi-risk assessments, timely forecasts, early warning systems and early action plans — are key to help all agri-food systems, prevent and anticipate major disruptions.
- The FAO has established “**resilience indicators**” to help countries identify vulnerabilities in their food systems. The

indicators measure the **robustness of a country's primary production, the extent of food availability, and the degree of people's access to adequate food.**

2) Asia-Europe Meeting

About ASEM

- The Asia-Europe Meeting (ASEM) was established as a **dialogue forum** in 1996 with 26 partners to **bridge Asia and Europe**.
- It is a platform for the countries in Asia and Europe to exchange views on regional and global issues and strengthen cooperation on a wide range of areas emanating from its **three pillars:**
 - political and security,
 - economic and financial,
 - socio-cultural.
- The ASEM grouping comprises 51 member countries (including **India**) and 2 regional organizations - European Union and ASEAN.
- Countries in the grouping represent 65 per cent of global GDP, 60 per cent of the global population, 75 per cent of global tourism and 55 per cent of global trade.

Why in News?

- The 13th ASEM Summit is set to start virtually.
- The ASEM Summit is a **biennial event** alternating between country in Asia and Europe and is the foremost event of ASEM process to set its priorities for dialogue and cooperation between Asia and Europe in the areas of political, economic, financial, social, cultural, and educational issues of common interest in a spirit of mutual respect and equal partnership.

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SCIENCE AND TECHNOLOGY

1) HomoSEP

Why in News:

- A group from IIT Madras has developed a **robot** (**HomoSEP**-homogeniser of septic tanks) that can, if deployed extensively, put an end to this practice of sending people into septic tanks.

How it works

- HomoSEP has a shaft attached to blades that can open like an inverted umbrella when introduced into a septic tank.
- This is helpful as the openings of the septic tanks are small and the tank interiors are bigger.
- The **sludge** inside a **septic tank** contains faecal matter that has **thickened like hard clay** and settled at the bottom.
- This needs to be **shredded and homogenised**, so that it can be **sucked** out and the septic tank cleaned. The whirring **blades of the robot achieve** precisely this.
- Further, the latest version of the robot is a lightweight model that can be **attached to a tractor** and wheeled off to remote and inaccessible areas. The robot is **attached** to the **axis of the tractor** and can be **run using the power from the tractor's engine**.

The need

- A statement by the **Social Justice and Empowerment Ministry** in the Lok Sabha conveyed that from **2016-2020 there have been 340 deaths** due to **manual scavenging in sewers and septic tanks**.
- Their deaths were caused by their **supervisors forcing them** to go into a **sewage tank to clean it without any safety equipment or masks**.
- The contractors' ability to avoid the law is aided by the **lack of records** of migrant sewage workers.
- Because **manual scavenging is founded in casteism**, it is frequently subjected to the harshest forms of prejudice.
- Despite the **Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993** and the **Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013**, manual scavenging continues at large in India.

- **Related judgement-** Supreme Court judgment in **Safai Karamchari Andolan & Others Vs. Union of India**:

- The practise of manual scavenging has been declared **illegal**.
- Even in an emergency, **entering sewer pipes without safety equipment** should be made a **illegal**
- The final list of manual scavengers has been ordered to be **rehabilitated** in accordance with the terms of Part IV of the 2013 Act.
- The dependent family members of all those who perished in sewage work (manholes, septic tanks) since 1993 have been ordered to receive **compensation of Rs.10 lakhs**.

Related Information

The National Commission for Safai Karamcharis

- The National Commission for Safai Karamcharis (**NCSK**) was **constituted in 1994** as a **statutory body** by an Act of Parliament viz. 'National Commission for Safai Karamcharis Act'
- With the **lapsing** of the "The National Commission for Safai Karamcharis Act, 1993 in 2004, the **Commission is acting as a Non-Statutory body of the Ministry of Social Justice and Empowerment** whose tenure is extended from time to time through Government Resolutions.

2) Himalayan Glaciers

What are glaciers

- A glacier is a **huge mass of ice** that moves slowly over land. Glaciers are often called "**rivers of ice**." A glacier is a vast, perpetual accumulation of **crystalline ice, snow, rock, sediment, and water** that forms on land and travels down slopes under the power of gravity and its own weight. They are **sensitive markers of climate change**.
- **Glaciers contain 2.1 percent of total water on Earth**, while the oceans and inland seas contain 97.2 percent.
- Glaciers fall into **two groups: Mountain Glacier (Alpine Glaciers) or Continental Glacier (Ice Sheets)**.

Formation of Glaciers

- Glaciers form where there is more snowfall than melts each year. **Snow begins to compress, or become thicker** and more densely packed, soon after it falls.
- **Firnification** is the process through which **snow compacts into glacial firn** (thick, grainy ice).
- The **firn grains combine into a massive mass of solid ice** when the ice thickens to roughly 50 metres (160 feet). The glacier begins to move as a result of its own weight.
- Different areas of a glacier move at varying rates. **The flowing ice at the glacier's centre travels quicker than the ice at the glacier's base.**

Important glaciers in India

- **Karakoram Range-** The **Siachen Glacier** in **Nubra Valley**, which is 75 kilometres long, is the **largest glacier outside the polar and subpolar regions**. The second largest is the **Fedchenko Glacier (Pamirs)**, which is 74 kilometres long. The third largest is the **Hispar Glacier**. It is 62 kilometres long and is located on a branch of the **Hunza River**.
- **Pir Panjal Range-** The glaciers in the Pir Panjal Range are fewer in number and lower in size than those in the Karakoram Range. The longest **Sonapani Glacier** in the Lahaul and Spiti region is only 15 kilometres long.
- **Kumaon-Garhwal Region-** The largest glacier in the Kumaon-Garhwal region is the **Gangotri Glacier**, which is 30 kilometres long and serves as the **source of the Ganga**. **Yamunotri glacier** is the source of the Yamuna River and is situated at an altitude of in the Garhwal Himalayas.
- **Eastern Himalayas- Zemu and the Kanchenjunga glacier**

Why in News?

- According to a recent study, nearly 20,000 years ago, a 5-km-long **Himalayan glacier** “abruptly” **changed course** and over time fused into an adjacent glacier in present day Pithoragarh, Uttarakhand.

- The 5-km-long unnamed glacier, which **covered around 4 sq km in Kuthi Yankti valley (Tributary of Kali River)**, after changing course moved and ultimately merged with the **adjacent glacier named Sumzurkchanki as a result of tectonic forcing** during the time between **Last Glacial Maxima (19-24,000 years ago)** and **Holocene (10,000 years ago)**.

How did it happen

- Based on remote sensing and an old survey map, it was assessed that the **glacier had been affected by active fault and climate change**.
- The glacier, which does not have a name and lies in an extremely inaccessible region, was **large enough that it formed its own “valley”** and the **accumulated debris** that accompanies the formation of glaciers probably **caused it to turn from a north-eastern direction to a south-eastern course**.
- The study adds to evidence of the **inherent instability of the Himalayan region**, among the **youngest mountain ranges in the world** due to which the underlying tectonic plates that support it are not stable but are jittery and frequently trigger earthquakes and landslides.

Why is this study significant

- The event has similarities to the **disaster in Rishiganga valley, Uttarakhand**, in which a large mass of rock and debris detached from a glacier and hurtled down the Rishiganga river.

*Related information- glacial lake outburst flood (GLOF) and flash floods-
<https://officerspulse.com/flash-flood-2/>*

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DEFENCE

1) Project 15b

Why in News?

- The Defence Minister participated in the commissioning ceremony of the first **Project-15B class stealth guided missile destroyer INS Visakhapatnam**.
- The remaining three ships — **Mormugao, Imphal and Surat** — are scheduled to be commissioned one per year from 2022 to 2024.

Project 15B Guided Missile Destroyers

- The Project 15B class of guided missile destroyers, an improved variant of the Kolkata-class destroyers, are being built by Mazagon Dock Limited (MDL) for the Indian Navy.
- The Project 15B ships retain the hull design of the Kolkata-class destroyers but will incorporate **advanced stealth features and a high degree of automation**. The vessels will offer **improved survivability, sea keeping and high manoeuvrability**.
- The sleek hull design in combination with **radar transparent deck fittings** will make the vessels difficult to detect.
- The ship has **enhanced stealth features** resulting in a reduced **Radar Cross Section (RCS)** and is packed with sophisticated state-of-the-art weapons and sensors such as **BrahMos Surface-to-Surface missiles and Barak-8 Surface-to-Air missiles**.
- With a state-of-the-art sensor package and weapons, the destroyers will be one of the world's most technologically advanced guided missile destroyers.

Need for P-15B

- In the current geopolitical environment, the Indian Navy's obligations to protect a **massive coastline of 7516 kilometres and around 1100 offshore islands, as well as a 2.01 million square kilometre Exclusive Economic Zone (EEZ)**, have been increased.
- Destroyers of the P-15B class will play a **key role in the Indo-Pacific's oceans**, making the Indian Navy a formidable force.
- The guided missile destroyers are used for a variety of missions, including **escort duty** with the **Carrier Battle Group** to protect the Naval fleet from attacks from the air, sea, and land.

- With the changing power dynamics in the Indian Ocean Region, **Project 15b will augment the Indian Navy's mobility, reach and flexibility** towards accomplishment of its tasks and goals
- The carrier will increase our reach from the Indian Ocean to the Pacific and Atlantic Ocean.
- India's interests are directly linked with the Indian Ocean and the region is **crucial** for the **world economy** and challenges such as piracy, terrorism, illegal smuggling of arms and narcotics, human trafficking, illegal fishing and damage to the environment are equally responsible for affecting the maritime domain.

Other Recent Projects:

- Project 75I- <https://officerspulse.com/ins-karanj-the-scorpene-class-submarine-inducted-into-service/>

2) INS Vela

Why in News:

- Vela**, the fourth **submarine** of P75 of the Indian Navy, was commissioned at the naval dockyard.
 - Project 75** entails the construction of **six Scorpene-class submarines**. Three of the six submarines, **Karanj, Kalvari, and Khanderi**, have already been **commissioned**. The fifth submarine, **Vagir**, was launched in 2020 and is undergoing **sea trials** while the sixth one **Vagsheer** is in **advanced stage of outfitting**.

About INS Vela

- The **C303 anti-torpedo countermeasure system and anti-ship missiles** are installed on this submarine.
- It's a **diesel-electric attack submarine**.
- It also has a Permanently Magnetized Propulsion Motor that is completely silent.

About Scorpene class submarines

- They are the most advanced conventional submarines with superior **stealth features**, such as advanced **acoustic silencing techniques**, low radiated noise levels and ability to attack with **precision-guided weapons** on board.
- The **Mazagon Dock Limited (MDL)** is building six Scorpene submarines with

help(technology assistance) from the **Naval Group of France**.

- **MDL(public sector undertaking shipyard)** is under the **Ministry of Defence**.
- These are used in the missions such as **area surveillance, intelligence gathering, anti-submarine warfare, anti-surface warfare and minelaying operations**.

- It can carry upto 6 torpedoes, heavy weapons and can go submerged upto 21 days.

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ART AND CULTURE

1) Ghare Baire

Why in News?

- Ghare Baire, the popular **museum-exhibition in Kolkata** that showcased two centuries of art in Bengal, is **shutting down**.
- Ghare Baire (at home and the world) derived its **name from the title of Rabindranath Tagore's iconic novel**, which later inspired Satyajit Ray to make a film by the same name.
- The museum-exhibition was **inaugurated** at the renovated **Currency Building** — which was **built in 1833**, located in BBD Bagh, also known as Dalhousie Square.
- Ghare Baire **traced the evolution of art in Bengal** from the arrival of travelling **European artists** to the establishment of one of the **earliest colonial art schools**, the rise of **indigenous practices**, a **revivalist movement** borne of resistance to imperial impositions as well as the high tide of **modernism**.

PIB ANALYSIS

1) National Apprenticeship Training Scheme

About the Scheme

- The National Apprenticeship Training Scheme is a **one year programme equipping technically qualified youth with practical knowledge and skills required in their field of work.**
- The Apprentices are **imparted training by the organizations at their place of work.**
- During the period of apprenticeship, the apprentices are paid a **stipend amount**, 50% of which is reimbursable to the employer from the Government of India.
- At the end of the training period the apprentices are issued a **Certificate of Proficiency** by the Government of India which can be registered at all employment exchanges across India as valid employment experience.
- The apprentices are placed for training at Central, State and Private organizations which have excellent training facilities.
- The scheme has demonstrated to **enhance the employability of students** who have successfully completed the apprenticeship training.

Why in News?

- The Union Cabinet has approved continuation of the National Apprenticeship Training Scheme for next five years.

2) CORPAT

What's in the news?

- The 37th edition of **Coordinated Patrols (CORPAT) between India and Indonesia** was recently conducted with participation of Maritime Patrol Aircraft from both Nations.
- India and Indonesia have been carrying out CORPAT along the International Maritime Boundary Line (IMBL) twice in a year since 2002, with an aim of keeping this vital part of the **Indian Ocean Region safe and secure for commercial shipping, international trade and conduct of legitimate maritime activities.**
- CORPATs help build understanding and interoperability between navies, and facilitate institution of measures to prevent and suppress Illegal Unreported Unregulated (IUU) fishing, drug trafficking, maritime terrorism, armed robbery and piracy.

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News in Depth

AIR NEWS

1) Ex SHAKTI

What's in the news?

- The Sixth Edition of Indo - France joint military exercise "Ex SHAKTI 2021" was conducted at the Military School of Draguignan, France.
- The training focused on aspects of joint planning, mutual understanding of conduct

of operations and identification of coordination aspects required for jointly operating in a Counter Terrorism environment under United Nations mandate.

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THE HINDU EDITORIALS

1) Reliable data, good policy

CONTEXT

- When evidence-based policymaking becomes the cornerstone of good governance, it is difficult to overstate the importance of reliable and timely public data.
- Such data have a direct bearing on the state's capability to design and implement programmes effectively.

DATA SYSTEM IN INDIA

- Among the emerging economies, India is credited to have a relatively robust public data system generated through its decennial Census and yearly sample surveys on specific themes.
- The coverage and reporting of Census data have vastly improved since independence.
- Though errors continue to be higher than in high-income countries, Census data are recognised for their reliability.
- However, certain disturbing trends are visible on this front.

CONCERNs

Delay in data release

- Despite having adopted the latest data processing technologies, there has been a growing delay, sometimes by years, in the release of the collected data.
 - This renders such data less useful for policy intervention.
- The delay also implies less public scrutiny and hence undermines accountability.
 - In an extreme case, the government refrained from releasing the data collected through the Socio-Economic and Caste Census.

Issue of comparability

- Adjustments to computation and survey methods are always welcome when they are meant to improve accuracy.
- But in recent years, the government has introduced changes to the estimation of GDP that made comparisons over time impossible.
 - In this instance, the arguments for revision and the revisions undertaken do not improve the quality of estimates.
- Therefore, it can be said that some revisions are driven more by political considerations than by the need to improve accuracy.

Slippage in the conduct of sample surveys

- It is important that the Census is conducted at the earliest and the results are made available to draw samples for the sample surveys in subsequent years.
- However, there have been various instances where crucial surveys are either delayed or postponed:
 - The Government of India (GoI) in 2019 announced that the Monthly Household Consumer Expenditure' (MHCE) data collected in 2017-18 could not be released due to 'data quality issues'.
- Slippage in the conduct of important sample surveys like the MHCE, affects the accuracy of important economic indices like Inflation Index, the poverty line and poverty ratio, and consumption expenditure in the national accounts system.
- This will further affect the implementation of important schemes such as the Public Distribution System.
 - The GoI has further postponed the decennial census in 2021 to 2022 on the grounds that COVID-19 has had a serious impact on migration and livelihood options of the people.

WAY FORWARD

- In the absence of timely and reliable public data, the policy mechanism of the government will be hindered.
- Therefore, the government needs to ensure that the data generation possibilities opened up by new technologies are embedded in a robust system of public data production and use.
- Also, the government should focus on ensuring timely and reliable public data along with the adoption of the latest data processing technologies to ensure the usefulness of the collected data.

2) The road to a Himalayan blunder

NEWS

- In its current form, the Char Dham road project goes against all environmental safeguards.

CONTEXT

- The Char Dham road project, inaugurated in 2016, is an ambitious attempt to widen nearly 900 kilometres of hill roads at the cost of ₹12,000 crore.

TIMELINE OF THE CASE

- This project was challenged by an NGO in 2018, for its potential impact on the Himalayan ecology.
- As a result, the Supreme Court constituted a high-powered committee (HPC) to examine the issues.
- In 2020, the Court ruled that the carriageway width of the roadways may not exceed 5.5 metres.
- But later, the Ministry of Defence (MoD) filed an appeal in November 2020, requesting "a double-lane road with a carriageway width of 7m to "meet the needs of the Army, citing the Ministry of Road Transport and Highways (MoRTH) Affidavit.
- The MoRTH then amended its 2018 circular to increase the 5.5m width restriction to 10m.

SIGNIFICANCE OF THE PROJECT

- The project aims to provide all-weather connectivity to the four major shrines of Yamunotri, Gangotri, Kedarnath and Badrinath.
- It will also increase pilgrimage tourism from the Indian plains and provide attendant local economic dividends.
- Also, the government has argued that the project is essential to back up troop and arms movement towards the India-China border.
 - Thus, wide roads are necessary for the sake of national security in the Garhwal region.

CONCERNS

- While the government has considered the financial and security aspect of the project, it has completely ignored the ecological facts, proven by the many tragic incidents in the hills of Uttarakhand over decades.
 - Rampant construction and its complex interaction with climate change has led to massive landslides and floods in the fragile Himalayan range.
- Even after the Supreme Court rebuked the MoRTH, the violations of the intermediate road width of 5.5m continue to happen.

- Although it is often argued that landslides are a natural consequence of the construction of roads and can be mitigated.
 - However, the rainfall this year showed that the mitigation measures are no match to nature's fury.
 - Prevention and regulation of activities seem to be the only effective way of mitigation in these fragile mountains.

FRAGILE ECOSYSTEM

- These wide roads are being sought to be built in Uttarakhand, which has been a victim of several disasters in the last two decades.
 - Just this year, there were floods in the Dhauliganga, Rishi Ganga and Alaknanda rivers, which claimed over 200 lives.
 - Further during the monsoons, owing to the massive hill-cutting for the Char Dham road project, several landslides have occurred in the region.
- The terrain of the Himalayas in Uttarakhand is different from the terrain in Ladakh.
 - Valleys in Uttarakhand are narrow and close-ended with steep slopes of 60-70 degrees.
 - On the other hand, the valleys in Ladakh have a slope elevation of 30 degrees.
- Hence, there arises a valid question - Why did the MoRTH enter such a fragile terrain with this massive, ambitious project without even doing a basic environmental impact assessment, as is mandated?

FUTURE IMPACT OF THE ONGOING PROJECT

- Double-lane paved shoulder roads are excessively wide and render the slopes vulnerable.
- Further, the unique Himalayan landscape with steep slopes and sharp gradients is not amenable to human engineering.
- Any human-induced change beyond the Himalayas' carrying capacity will have an impact on stream run-offs and erosional or depositional processes.
 - Hence, the Char Dham project in its current form goes against all environmental safeguards.
- Considering such vulnerabilities of the region, the scale of human-induced

disturbances should be kept to the minimum level possible.

CONCLUSION

- Disaster-resilient, safe and stable infrastructure is the only solution for commuting by road in the hills.
- If the government does not abstain from widening the roads under this project, it will be a Himalayan blunder.
- This in turn will significantly reinforce mass wasting processes and erosion rates given the steepness of the slopes, earthquake activity and erosivity of increased monsoonal precipitation.
- The Himalayas need to be preserved as a nature reserve for future generations.

3) Setting the tone at Glasgow, the job ahead in Delhi

CONTEXT

- With current per capita emissions that are less than half the global average, India's pledge to reach 'net zero' emissions by 2070 has cemented India's credentials as a global leader.
- The emissions of all others who have pledged "net zero" by 2050 are above the global average.

POLITICAL IMPLICATIONS OF INDIA'S PLEDGE

- At COP26 in Glasgow, India successfully challenged the 40-year-old frame of global climate policy that pointed a finger at developing countries with the alternate frame of 'climate justice', that unsustainable lifestyles and wasteful consumption patterns are to blame.
- The political implication of the date 2070 is that the world should get to 'net-zero' by 2050.
- As a result, the rich countries will need to do more and step up closer to their share of the carbon budget.
- Also, India's stand signals that it will not act under external pressure, as requiring equal treatment is the hallmark of a global power.

G7 NO LONGER A RULE SETTER

- The problem, as Gandhiji had also observed, is really western civilization.
- Despite automobile emissions being the fastest growing emissions, the subject of oil

was not touched because it is a defining feature of western civilisation.

- While western world has been pushing other nations to stop using coal — an energy resource which powered its own Industrial Revolution.
- But now India and China's working together has forced the G7 to make a retraction, thus signalling the coming of a world order in which the G7 no longer sets the rules.

CHALLENGES FOR WEST

- The West has yet to come out with a clear strategy of how it will remain within the broad outline of its carbon budget.
- The problems of a scaling-down of economic production and lifestyles will be another major challenge to tackle.
- Also it is becoming difficult for the West to use international trade that is shifting manufacturing and the burden of emissions to developing countries with the rise of a digital economy.

NEED TO CUT CONSUMPTION

- In the West, consumption of affluent households has overridden the beneficial effects of changes in technology.
- There is sufficient evidence in the literature that the consumption of affluent households both determines and accelerates an increase of emissions of carbon dioxide.
 - This is followed by socio-economic factors such as mobility and dwelling size.
 - Hence, there is a need for the West to address climate change by reducing consumption, not just greening it.
- For India, in parallel with the infrastructure and clean technology thrust, focus should be on a decent living standard which will lead to behavioural change in the end-use service, such as mobility, shelter and nutrition. This will help in modifying wasteful trends.

WAY FORWARD

- Consumption patterns need to be shifted away from resource and carbon-intensive goods and services, e.g. mobility from cars and aircraft to buses and trains, and nutrition from animal and processed food to a seasonal plant-based diet.
- Along with reducing demand, resource and carbon intensity of consumption has to decrease, e.g. expanding renewable

energy, electrifying cars and public transport and increasing energy and material efficiency.

- Achieving a **more equal distribution of wealth** with a minimum level of prosperity and affordable energy use for all, e.g., housing and doing away with biomass for cooking.
- **Need to stress on Indian civilisational values** which emphasise on vegetarianism, frown on wastage.
- The Government **needs to set up focused research groups for the conceptual frame of sustainable well-being**.
- Also it should analyse the **drivers of affluent overconsumption** and conduct studies to understand the quantity of energy we really need for a decent level of well-being.

EFFORTS BY INDIAN PARLIAMENT

- After the **Stockholm Declaration on the Global Environment**, the Constitution was amended in 1976 to include **Protection and Improvement of Environment as a fundamental duty**.
- Under Article 253, Parliament has the power to make laws for implementing **international treaties** and agreements and can legislate on the preservation of the natural environment.
 - Parliament used Article 253 to enact the **Environment Protection Act** to implement the decisions reached at the Stockholm Conference.

CONCLUSION

- The decisions at COP26 enable a new set of **legislation** around ecological limits, energy and land use, including the efficient distribution and use of electricity, urban design and a statistical system providing inputs for sustainable well-being.
- But with the increasing inequality, rise of protectionism and trade barriers imposing, there is a **need to anticipate new standards**.
 - This knowledge is essential for national policy as well as the next round of climate negotiations.

4) A unified regulatory framework

NEWS

- As there is competition between telcos and Internet companies, regulatory parity between them is required.

CONTEXT

- In present times it is evident that the success of Internet firms and telcos goes hand in hand.
- With the evolution of 5G technologies, there has been **growth of an integrated sphere of cooperation as well as competition between telcos and Internet companies** on account of substitute services, and competition in complementary value networks.

ASYMMETRIC REGULATORY STANCE

- The growth in **over-the-top (OTT) messaging services provided by Internet firms** has been accompanied by significant reductions in the revenues of text messaging services provided by telcos.
 - Similarly, the **growth of Voice over Internet Protocol (VoIP) services offered by OTT service providers** is also a threat to telcos.
- Despite the fact that services can be substituted and despite increasing competitive pressures within complementary value networks, **there is an asymmetric regulatory stance with respect to telcos and Internet companies**.
- Some of this stems from **fundamental differences in the nature of business such as the jurisdictional nature of operation and technology used**.
- However, the asymmetry partly reflects a certain world view with regard to the regulation of competition across telcos and Internet firms.

EXTENDING NET NEUTRALITY REGULATION

- Net neutrality regulation prohibits discriminatory treatment of Internet companies — either with respect to pricing or traffic management, thus in a sense eliminates any incentive for vertical integration.
 - A dominant telco can hinder competition in a downstream market by a vertical merger with content and application providers.
- Net neutrality regulation can also be explained as a way of preventing telcos from extracting all their revenues from Internet companies.

- However, over the past decade, the **Internet has evolved to a point where many Internet companies also provide an essential service and enjoy significant market power.**
 - For instance, web search, **a market dominated by Google**, is often the starting point for navigating the World Wide Web.
- Without search neutrality, search results may be manipulated to favour certain firms.
 - This concern becomes heightened in the presence of **vertical integration between the search engine company and downstream companies.**
- Hence, **net neutrality principles need to be applied to Internet companies as well.**

CONCLUSION

- There is an element of competition between telcos and Internet companies in the context of overlapping services and complementary value networks / walled gardens.
- Hence, there is a **need for a measure of regulatory parity between the two.**
- In the U.S. and in India, **while the sector regulator makes rules for telcos, the competition regulator oversees the behaviour of the Internet firms.**
 - **But it is time for a unified regulatory framework.**
- An appearance of this convergence is visible in the European Union. **India too needs an integrated perspective.**

INDIAN EXPRESS EXPLAINED

1) Rani Gaidinliu

Why in News?

- Recently, the Union Home Minister laid the foundation stone for the Rani Gaidinliu Tribal Freedom Fighters Museum in Manipur's Tamenglong district.
- The museum would help preserve and exhibit artefacts related to the tribal freedom fighters, involved in different stages of the fight against the British colonial rule like Anglo-Manipuri War, Kuki-Rebellion etc.

Rani Gaidinliu, the daughter of the hills:

- A spiritual and political leader, Rani Gaidinliu, of the Rongmei tribe, was born on January 26, 1915 at Luangkao village, now in Tousem Sub-Division under Tamenglong District of Manipur.
- At 13, she became associated with freedom fighter and religious leader, **Haipou Jadonang**, and became his lieutenant in his social, religious and political movement. Jadonang, who was also a Rongmei, started the '**Heraka movement**', based on ancestral Naga religion, and envisioned an **independent Naga kingdom (or Naga-Raja)**.

- Rani Gandiliu's association with Jadonang prepared her to fight the British. After the execution of Jadonang, she took up the leadership of the movement — which slowly turned political from religious.
- Rani started a serious revolt against the British and was eventually imprisoned for life. She was released after 14 years, in 1947.
- Acknowledging her role in the struggle against the British, **Jawaharlal Nehru** called her the "**Daughter of the Hills**" and gave her the title "**Rani**" or queen.
- But before that, she was bestowed a number of honours including the Tamrapatra in 1972, Padma Bhushan in 1982, Vivekananda Sewa Summan in 1983, and Stree Shakti Puraskar in 1991.
- She posthumously was awarded the Bhagwan Birsa Munda Puraskar in 1996. The Government of India also issued a commemorative stamp in her honour in the same year.
- Historians hailed Rani's movement as a significant event in the freedom struggle that inspired many.

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INFOGRAPHIC OF THE WEEK

1) COP26: Leaders Pledge to cut Methane and save Forests



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What's the news?



Leaders at the CoP26 global climate conference in Glasgow have pledged to stop deforestation by the end of the decade and slash emissions of the potent greenhouse gas methane to help slow climate change.



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Nearly 90 countries have joined a U.S.-and EU-led effort to slash emissions of methane 30% by 2030 from 2020 levels.

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2030

CH₄

30%

COP26: Pledge by Leaders

CoP26 aims to keep alive a receding target of capping global warming at 1.5 degrees Celsius (2.7 Fahrenheit) above pre-industrial levels to avert still greater damage from the intensified heatwaves, droughts, storms, floods and coastal damage that climate change is already causing.

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The infographic is divided into three main sections:

- Top Left:** An illustration of a gas flare at an oil well. Next to it is a blue calendar icon with "SEP" written on it.
- Top Right:** An illustration of hands holding a globe with a red and yellow arrow pointing upwards, symbolizing economic growth. A pie chart shows "2/3" in orange.
- Middle Left:** A timeline graphic showing a stack of money bills increasing from 2021 to 2025, with the number "12" indicating the years covered.
- Middle Right:** Illustrations of a healthy green landscape and a tree growing on a piece of land that has been cleared of vegetation.
- Bottom Left:** An illustration of a cow's digestive system with methane (CH₄) being released from its rear. Arrows indicate "feed in" and "CH₄ out".
- Bottom Right:** An illustration of the map of Brazil with its flag colors overlaid, and a city skyline with industrial smokestacks.

Text Content:

Top Section: The Global Methane Pledge, first announced in September, now covers emissions from two-thirds of the global economy.

Middle Section: Under the agreement, 12 countries pledged to provide \$12 billion of public funding between 2021 and 2025 for developing countries to restore degraded land and tackle wildfires.

Bottom Section: Among the signatories, Brazil is one of the five biggest emitters of methane, which is generated in cows' digestive systems, in landfill waste and in oil and gas production.

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The infographic is divided into several sections:

- Top Right:** A logo for "OFFICERS IAS ACADEMY™ IAS ACADEMY BY IAS OFFICERS" featuring a stylized globe and landmarks.
- Top Left:** A text box containing: "Three others China, Russia and India have not signed up, while Australia has said it will not back the pledge."
- Middle Left:** An illustration of a sun rising over a globe with arrows pointing upwards, labeled "50%" above the sun and "2030" below the globe.
- Middle Right:** A text box containing: "Brazil, which has cleared vast swathes of the Amazon rainforest, did make a new commitment to cut its greenhouse gas emissions by 50% by 2030, compared with a previous pledge of 43%.."
- Bottom Left:** A portrait of Prime Minister Narendra Modi.
- Bottom Right:** An illustration of the Indian map with a recycling symbol overlaid, labeled "REDUCE CO₂ EMISSIONS" and "COAL".
- Bottom Center:** A text box containing: "Prime Minister Narendra Modi for the first time set out a target date for India, heavily reliant on coal, to reduce its carbon emissions to a level it can absorb, albeit only in 2070 -20 years beyond the U.N.'s global recommendation.."

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The infographic features a dark green header bar with the text "OFFICERS IAS ACADEMY™" and "IAS ACADEMY BY IAS OFFICERS" in white. Below this is an orange rectangular box containing text and illustrations. Inside the orange box, five hands in suits are shown holding green dollar bills. The text in the box reads:

At least \$7.2 billion will come from private sector investors representing \$8.7 trillion in assets under management, who also pledged to stop investing in activities linked to deforestation such as cattle, palm oil and soybean farming and pulp production.

Below the orange box is a white area featuring a central red octagonal "STOP" sign. Four black arrows point from the sign to four different illustrations representing agricultural and industrial activities:

- An illustration of a palm tree next to a large yellow bottle of palm oil.
- An illustration of a person pushing a wheelbarrow full of red beans.
- An illustration of three cattle silhouettes standing next to a stack of logs.
- An illustration of a soybean plant next to a windmill and other agricultural equipment.

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Estimates of Lost Forests



According to WRI's Global Forest Watch, in 2020, the world lost 258,000 sq km (100,000 sq miles) of forest, an area larger than the United Kingdom.



Eg: The conservation charity WWF estimates that 27 football fields of forest are lost every minute.



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PLEDGE



More than 100 national leaders pledged to halt and reverse deforestation and land degradation by the end of the decade, underpinned by \$19 billion in public and private funds to invest in protecting and restoring forests.





The agreement vastly expands a commitment made by 40 countries as part of the 2014 New York Declaration of Forests, and promises more resources.



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About Methane

Methane is more short-lived in the atmosphere than carbon dioxide but 80 times more potent in warming the earth.

Cutting emissions of the gas, which is estimated to have accounted for 30% of global warming since pre-industrial times, is one of the most effective ways of slowing climate change.

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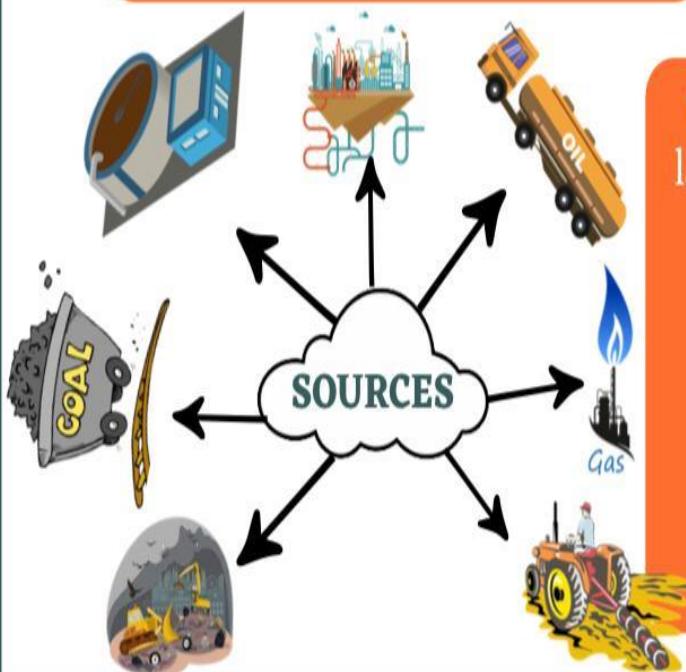
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Methane is an invisible and odourless gas and is a hydrocarbon and a primary component of liquefied natural gas (LNG).



Sources of Methane

It is emitted from a variety of human as well as natural sources.



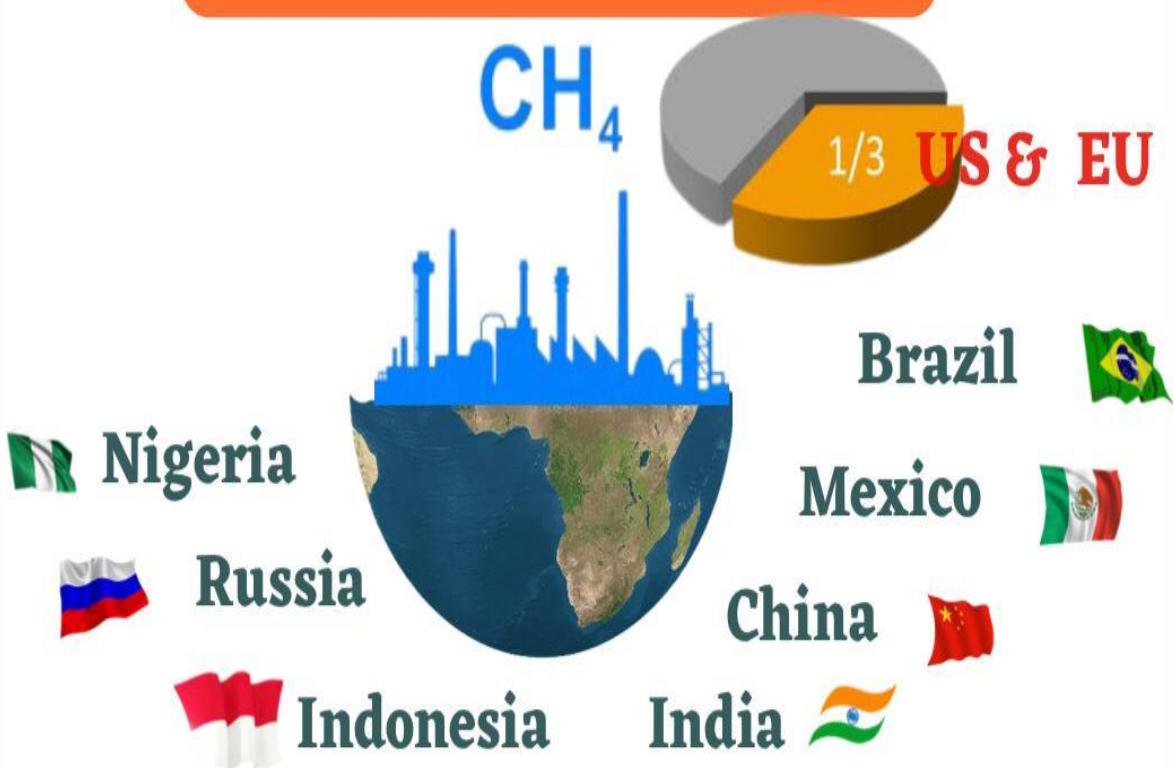
Some of these sources are landfills, oil and natural gas systems, agricultural activities, coal mining, stationary and mobile combustion, wastewater treatment and certain industrial processes.

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Top Methane emitting Countries

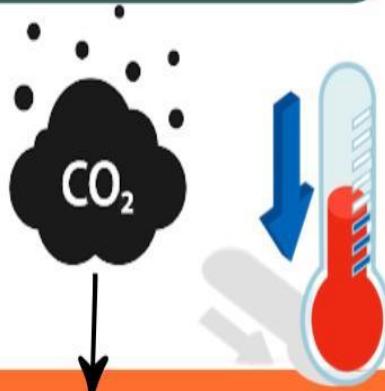
The United States and the European Union (EU) account for more than a one third of global consumption of natural gas followed by Brazil, Russia, China, Indonesia, Nigeria, Mexico and India.



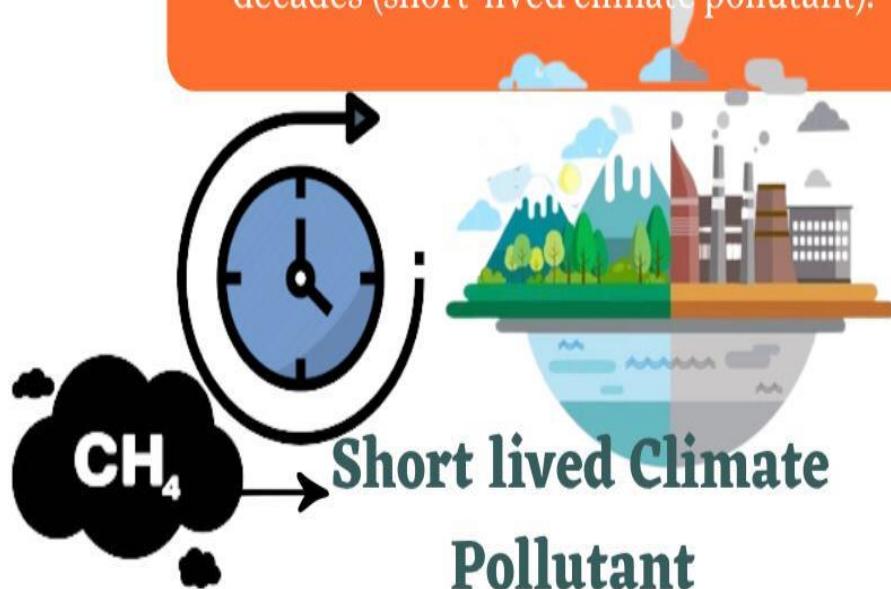
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CO₂ V/S CH₄



A single CO₂ molecule causes less warming than a methane molecule, but lingers for hundreds of years in the atmosphere whereas methane disappears within two decades (short-lived climate pollutant).



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Reference



<https://www.thehindu.com/sci-tech/energy-and-environment/explained-where-does-india-stand-on-methane-emissions/article37362589.ece>

For more such graphic learnings, visit <https://officerspulse.com/infographics/>

For free learning, visit www.officerspulse.com

References

POLITY

- <https://www.thehindu.com/news/national/study-finds-life-expectancy-of-indias-urban-poor-lower-than-the-richest/article37611088.ece>
- <https://newsonair.gov.in/News?title=Swachh-Survekshan-2021%3a-Vijayawada-bags-3rd-rank-in-cleanest-city-in-country&id=430045>

ENVIRONMENT

- <https://www.who.int/news-room/fact-sheets/detail/dengue-and-severe-dengue>
- <https://www.thehindu.com/todays-paper/tp-national/tp-tamilnadu/world-antibiotic-awareness-week-observed/article37675809.ece>
- <https://www.who.int/news-room/fact-sheets/detail/antimicrobial-resistance>

ECONOMY

- <https://indianexpress.com/article/business/commodities/india-to-release-5-mn-barrels-of-crude-oil-from-strategic-reserves-7637220/>
- <https://indianexpress.com/article/india/bihar-poor-nfh-survey-mpi-niti-aayog-7643708/>
- <https://www.thehindu.com/business/Economy/bring-in-three-rate-gst-structure-says-finance-ministry-think-tank-study/article37692367.ece>
- <https://www.thehindu.com/sci-tech/energy-and-environment/explained-why-is-indias-coal-usage-under-scrutiny/article37604012.ece>
- <https://www.thehindu.com/business/Industry/india-and-us-resolve-to-fix-trade-tangles-take-economic-ties-to-next-level/article37642598.ece>

IR

- <https://www.thehindu.com/news/international/countries-must-prepare-for-future-food-shocks-says-fao/article37652959.ece>
- <https://newsonair.gov.in/News?title=13th-ASEM-Summit-to-be-held-virtually-from-tomorrow&id=430247>

SCIENCE AND TECHNOLOGY

- <https://www.thehindu.com/sci-tech/science/can-this-portable-robot-end-septic-tank-deaths-once-it-is-deployed/article37598761.ece>
- <https://ncsk.nic.in/about-us/about-ncsk>
- <https://www.thehindu.com/sci-tech/energy-and-environment/himalayan-glacier-made-abrupt-turn-20000-years-ago-study/article37650679.ece>
- <https://www.nationalgeographic.org/encyclopedia/glacier/>

DEFENCE

- <https://www.thehindu.com/news/national/irresponsible-nations-stalling-rules-based-maritime-order-rajanath/article37610432.ece>
- <https://www.thehindu.com/news/national/navy-commissions-submarine-ins-vela/article37677238.ece>
- <https://indianexpress.com/article/explained/explained-ins-vela-submarine-indian-navy-7639778/>

ART AND CULTURE

- <https://www.thehindu.com/news/national/other-states/show-that-celebrated-200-years-of-bengal-art-to-shut-down/article37714161.ece>

PIB

- <https://newsonair.gov.in/News?title=Govt-approves-continuation-of-National-Apprenticeship-Training-Scheme-for-next-5-years&id=430227>
- <https://pib.gov.in/PressReleasePage.aspx?PRID=1774305>

AIR

- <https://pib.gov.in/PressReleasePage.aspx?PRID=1773638>

Editorials

- <https://www.thehindu.com/opinion/oped/reliable-data-good-policy/article37614690.ece>
- <https://www.thehindu.com/opinion/oped/the-road-to-a-himalayan-blunder/article37653222.ece>

- <https://www.thehindu.com/opinion/oped/setting-the-tone-at-glasgow-the-job-ahead-in-delhi/article37692052.ece>
- <https://www.thehindu.com/opinion/oped/a-unified-regulatory-framework/article37669492.ece>

INDIAN EXPRESS

- <https://indianexpress.com/article/explained/rani-gaidinliu-tribal-freedom-fighters-museum-manipur-7637274/>