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News @ a glance

POLITY

1) Centre expands domicile rule for J&K

Why in News?

- The Centre has defined a new domicile rule for Jammu and Kashmir (J&K) according to which a person residing in J&K for at least 15 years will now be eligible to be a domicile of the Union Territory.

Salient features :

- In the latest gazette notification, Section 3A of the J&K Reorganization (Adaptation of State Laws) Order, 2020, under the J&K Civil Services (Decentralization and Recruitment) Act, has been introduced.
- It defines domicile as those who have **resided for a period of 15 years** in the UT of J&K or have **studied for a period of seven years** and **appeared in class 10th or 12th examination** in an educational institution located in the UT of J&K.
- The provisions of the Act authorize the **Tehsildar as a competent authority for issuing the domicile certificate**, as opposed to Deputy Commissioner.
- Apart from J&K resident, the following are also eligible to apply for jobs or own immovable property in J&K.
- Children of those Central Government/PSU/PSB/universities officials who have served in Jammu and Kashmir for a total period of ten years or children on parents who fulfill any of the conditions in sections.
- **Section 5-A** states that no person shall be eligible for appointment to a post carrying a pay scale for not more than level 4 unless he is a domicile of UT of J&K.
- Through the same order, the Centre has repealed the J&K Civil Services (Special Provisions) Act.

2) New features of e-NAM to fight against COVID-19

About e-NAM

- National Agriculture Market (eNAM) is a pan-India electronic trading portal which networks the existing APMC mandis to create a unified national market for agricultural commodities.
- **Small Farmers Agribusiness Consortium (SFAC)** is the implementing agency of eNAM under the aegis of the Ministry of Agriculture and Farmers' Welfare, Government of India.It was launched by the government of India in 2016.
- The eNam provides a single-window service for all APMC related services and information, such as commodity arrivals and prices, provision for responding to the trade offers, buy and sell trade offers, among other services

New added Features:

Launch of "Negotiable Warehouse Receipt (e-NWRs) module

- This will enable small & marginal farmers to directly trade their stored produce from selected WDRA registered warehouses which are declared deemed market by the State.Farmers will be able to place their produce in WDRA accredited warehouses.
- **Benefits of eNWRs integration with e-NAM**
- Depositor can save the Logistics expenses and will have better income.
- Farmers can sell the produce across the Nation to get better Price and at the same time can save himself from hassle of mandi.
- Farmers will be able to place their produce in WDRA accredited warehouses avail the benefit of pledge loan if required.
- Price stabilization by matching supply and demand through time and place utility.

FPO trading module

- FPO trading module will enable FPOs to upload their produce from their premise/collection centres for bidding.

- They can upload the picture of the produce and quality parameters from their premises to help distant bidders to visualise the produce before bidding.
- FPOs have the option for delivery of produce either from their premises or by bringing to mandi premise after successful bidding. This will not only decongest the mandis but also reduce the logistics cost for the FPOs.
- Facility provided to FPO to upload assaying report / photo of their produce from their premise to enable traders to visualise the produce before bidding.

Launch of Logistic Module
- Presently, e-NAM provides a database of individual transporters to the traders. However, as a quantum response to logistic need by traders, provision has been made for linking large logistic aggregator platforms, which will provide choices to users. Traders would be able to use the link to navigate to the logistics provider's website and select appropriate services. With these additions, more than 3,75,000 number of trucks from large logistic providers would be added for logistic purpose.

Benefits:
- This will help in seamless transportation of agri produce.
- This will promote inter-State trade under e-NAM by providing online transport facilities for distant buyers.

3) Increase in Domestic Violence
Why in News?
- The first week of the nationwide lockdown has resulted in a steep rise in violence against women.

News in Detail:
- The National Commission for Women (NCW), which receives complaints from across the country, has recorded more than a **two fold rise in gender-based violence.**
- The total complaints from women rose from 116 in the first week of March (March 2- 8), to 257 in the final week of March (March 23-April 1).
- Complaints of rape or attempted rape have risen sharply from two to 13, while cases of domestic violence have increased from 30 to 69 over the same comparative period.

- Simultaneously, there has been an almost three fold increase in police apathy towards women's complaints, with the NCW receiving 16 complaints on the issue as compared to six earlier.

> - The **Protection of Women from Domestic Violence Act, 2005** is a civil law meant for providing reliefs to women facing domestic violence. Under this law women can apply for reliefs in the nature of protection order, residence order, compensation order, monetary relief and custody order. State Governments and UT Administrations are responsible for implementation of the act.

About National Commission for Women:
- The National Commission for Women was set up as statutory body in January 1992 under the National Commission for Women Act, 1990 to
- review the **Constitutional and Legal safeguards for women ;**
- recommend remedial legislative measures ;
- facilitate redressal of grievances and
- advise the Government on all policy matters affecting women.

4) PM-CARES Fund
Why in News?
- The government has decided to accept contributions from abroad, "irrespective of their nationalities", to the newly-established Prime Minister's Citizen Assistance and Relief in Emergency Situations (PM-CARES) Fund.

About the Fund:
- The Fund is a public charitable trust with the Prime Minister as its Chairman. Other Members include Defence Minister, Home Minister and Finance Minister.
- The Fund enables micro-donations as a result of which a large number of people will be able to contribute with the smallest of denominations.
- The Fund will strengthen disaster management capacities and encourage research on protecting citizens.
- The Ministry of Corporate Affairs has clarified that contributions by companies towards the PM-CARES Fund will count towards mandatory Corporate Social Responsibility (CSR) expenditure.
- Under the Companies Act, 2013, companies with a minimum net worth of Rs 500 crore

or turnover of Rs 1,000 crore, or net profit of Rs 5 crore are required to spend at least 2% of their average profit for the previous three years on CSR activities every year.

Prime Minister's National Relief Fund

- PM-CARES is different from PMNRF, which was created in 1948. It was founded against the backdrop of the situation arising out of Partition and was used for relief and rehabilitation of refugees from Pakistan who came to India. \It was registered as a trust in 1973 with responsibilities of the trustees not clearly defined. The resources of PMNRF are now utilised primarily to provide relief to families of those killed in natural calamities. Donations to both funds can avail 100 per cent tax exemption.

5) National Security Act, 1980

What is the National Security Act, 1980?

- The National Security Act, 1980 is described as "an Act to provide for preventive detention in certain cases and for matters connected therewith".
- In simple terms the NSA empowers the Centre or a State government to detain a person to prevent him from acting in any manner prejudicial to national security.
- The government can also detain a person to prevent him from disrupting public order or for maintenance of supplies and services essential to the community.
- The maximum period for which one may be detained is 12 months. But the term can be extended if the government finds fresh evidence.

Background:

- Preventive detention laws in India date back to early days of the colonial era when the **Bengal Regulation III of 1818** was enacted to empower the government to arrest anyone for defence or maintenance of public order without giving the person recourse to judicial proceedings.

- A century later, the British government enacted the **Rowlatt Acts of 1919** that allowed **confinement of a suspect without trial.**
- Post-independence, India got its first preventive detention rule when the government of Prime Minister Jawaharlal Nehru enacted the Preventive Detention Act of 1950 (expired in 1969). The NSA is a close iteration of the 1950 Act.

How is it different from normal circumstances?

- In the normal course, if a person is arrested, he or she is guaranteed certain basic rights. These include the **right to be informed** of the reason for the arrest.
- **Section 50** of the Criminal Procedure Code (Cr.PC) mandates that the person arrested has to be informed of the grounds of arrest, and the right to bail.
- **Sections 56 and 76** of the Cr. PC also provides that a person has to be produced before a court within 24 hours of arrest.
- **Article 22(1)** of the Constitution says an arrested person cannot be denied the right to consult, and to be defended by, a legal practitioner of his choice.
- But none of these rights are available to a person detained under the NSA.
- Even when providing the grounds for arrest, the government can withhold information which it considers to be against public interest to disclose. The arrested person is also not entitled to the aid of any legal practitioner in any matter connected with the proceedings before an advisory board, which is constituted by the government for dealing with NSA cases.

Why in News?

- The Indore district administration on Thursday invoked the National Security Act, 1980, against four persons accused of instigating residents of a locality to pelt stones and chase away health workers.

HEALTH

1) BCG vaccine

What is it?

- BCG, or bacille Calmette-Guerin, is a vaccine for tuberculosis (TB) disease.
- The vaccine may be given to persons at high risk of developing TB. It is also used to treat bladder tumors or bladder cancer.

Why in the news?

- A new study has argued that countries which have universal BCG vaccine immunisation programmes have lower death rates than those who don't have it.
- The study argues that 55 middle and high-income countries chosen for the analysis that have a current universal BCG policy had 0.78 deaths per million people, whereas middle and high income countries that never had a universal BCG policy (five countries) had a larger mortality rate, with 16.39 deaths per million people, a significant variation.

2) ICMR

What is it?

- The Indian Council of Medical Research (ICMR), New Delhi, the apex body in India for the formulation, coordination and promotion of biomedical research, is one of the oldest medical research bodies in the world.
- The ICMR is funded by the Government of India through the Department of Health Research, Ministry of Health & Family Welfare.

Mission

- Generate, manage and disseminate new knowledge.

- Increase focus on research on the health problems of the vulnerable, the disadvantaged and marginalized sections of the society.
- Harness and encourage the use of modern biology tools in addressing health concerns of the country.
- Encourage innovations and translation related to diagnostics, treatment, methods/ vaccines for prevention.
- Inculcate a culture of research in academia especially medical colleges and other health research institutions by strengthening infrastructure and human resources.

Rapid Antibody blood tests:

- The Rapid Antibody Test is much faster than other molecule tests like the Rapid Transcription Polymerase chain reaction which is currently being used to test for Covid-19 disease.
- The rapid antibody test is conducted using blood samples of the suspect vis-a-vis the RT-PCR testing methodology which uses throat or nasal swabs.
- Due to a shorter testing span, these tests will help in detection of the virus in clusters or hotspots.

- **Polymerase chain reaction (PCR)** is a method used widely in molecular biology to make millions to billions of copies of a specific DNA sample rapidly, allowing scientists to take a very small sample of DNA and amplify it to a large enough amount to study in detail.

Why in the news?

- ICMR is taking several steps to protect people from COVID-19. ICMR is deploying rapid antibody based blood tests for COVID-19 in clusters and hot spots showing high incidence of confirmed cases.

ENVIRONMENT

1) Earth Hour

About:

- Held every year on the **last Saturday of March**, Earth Hour engages millions of people in more than 180 countries and territories, **switching off their lights to show support** for our planet.
- It was first started by **WWF** and partners as a symbolic lights-out event in Sydney in 2007.

Why in the news?

- Amid Corona lockdown, earth hour was observed all over the world on March 28th.

2) Himalayan Ibex

Why in the news?

- Scientists of the **Zoological Survey of India (ZSI)** have proved that **Himalayan Ibex**, distributed in the trans-Himalayan ranges of Jammu and Kashmir, Ladakh and Himachal Pradesh, is a distinct species from the **Siberian Ibex.**
- The genetic analysis conducted with the inclusion of the sequences available from all across the distribution ranges in Central Asia, Tajikistan, Altai Mountains, Mongolia and Russia provided first evidence to claim that Himalayan Ibex is genetically different from all other ranges of Siberian Ibex.

Himalayan Ibex
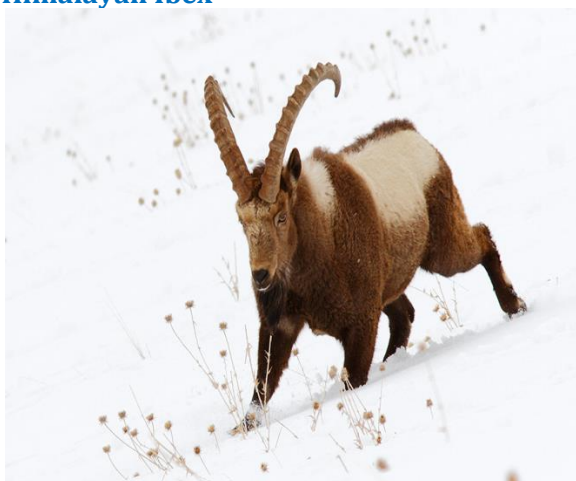
- They are found in the western Himalaya in Pakistan and India, usually at elevations of 3800m and higher.
- They normally feed on grass, moss and small shrubs. In winter, they come down to lower elevations in search of food as the mountains get covered in snow. In summer they move back upward as the snow melts.

Siberian Ibex
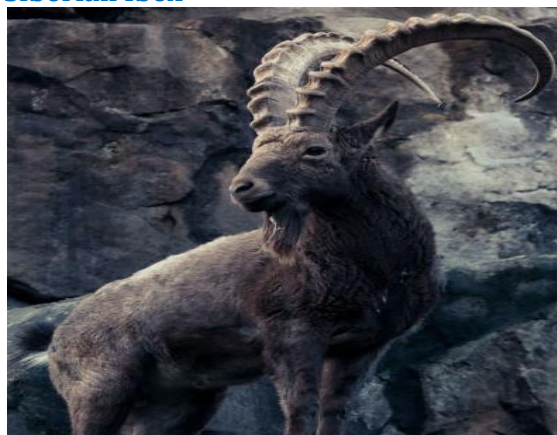
- Siberian ibexes live in herds that vary in size depending on the local population.
- They are given LEAST CONCERN status by IUCN.
- Their habitat consists of a mixture of high altitude tundra, alpine meadows, and regions of semi-desert. In the Gobi Desert, they may be found on hills as low as 700 m (2,300 ft) in summer, descending to lower, sometimes sparsely forested, slopes during the winter.
- Siberian ibexes are herbivores (folivores) and their diet mainly consists of alpine grasses and herbs.
- Main threats to Siberian ibexes are hunting for food and poaching in some areas by military personnel, road maintenance workers, and others.

Zoological Survey of India

- The Zoological Survey of India (ZSI) was established on 1st July, 1916 to promote survey, exploration and research leading to the advancement in our knowledge of

various aspects of the exceptionally rich life of the erstwhile British Indian Empire.

- Extensive and intensive field explorations are undertaken by the Survey in different parts of the country for the studies of fauna, systematic zoology, animal ecology, wildlife and zoogeography, animal behaviour, animal population and also marine fauna and the results of the explorations and research are published in its own journals as well as National and International periodicals of repute regularly.

ECONOMY

1) Core sector growth up 5.5% in February

IIP and Eight Core Industries

- Index of Industrial Production (IIP) is an index which details the growth of various sectors in an economy such as mineral mining, electricity and manufacturing.
- It is compiled and published every month by the **Central Statistics Office (CSO)** of the Ministry of Statistics and Programme Implementation. The current base year is 2011-2012.
- The Eight Core Industries- **Electricity, steel, refinery products, crude oil, coal, cement, natural gas and fertilizers-** comprise 40.27 per cent of the weight of items included in the IIP.
- **Industry Weight (In percentage)**
1. Petroleum & Refinery production - 28.04
2. Electricity generation - 19.85
3. Steel production - 17.92
4. Coal production - 10.33
5. Crude Oil production - 8.98
6. Natural Gas production - 6.88
7. Cement production - 5.37
8. Fertilizers production - 2.63

Why in News?

- Eight core sector industries recorded a growth of 5.5% in February, the highest in 11 months, mainly due to healthy expansion in output of coal, refinery products and electricity.
- The core sector industries had expanded by 2.2% in February last year.

2) Manufacturing grows slowest in four months

What is PMI?

- Purchasing Managers' Index is an economic indicator which indicates the business activity & economic health of both the **manufacturing and service sectors.**
- PMI of India is published by Japanese firm **Nikkei** but compiled and constructed by **IHS Markit**, a London–based global information provider.
- Unlike the Index of Industrial Production (IIP), which indicates the changes in production volume or output, the PMI is an investor sentiment tracking index and is more dynamic in nature. They are derived from monthly surveys of about 400 private companies.
- Variables used for calculating the PMI are: Output, New Orders, Employment, Input Costs, Output Prices, Backlogs of Work, Export Orders, Quantity of Purchases, Suppliers' Delivery Times, Stocks of Purchases and Stocks of Finished Goods.

How to read PMI?

- While PMI >50 implies an expansion of business and economic activity, PMI <50 means contraction.

Why in News?

- According to the latest Manufacturing PMI, India's manufacturing sector activity grew at the slowest rate in four months during March.
- Manufacturing PMI fell to 51.8 in March, from 54.5 in February, signalling the slowest improvement in business conditions since November 2019.
- The growth was hampered by softer rises in new business as international demand faltered owing to the COVID-19 pandemic.

3) Fiscal deficit limits

FRBM Review committee

- Fiscal Responsibility and Budget Management (FRBM) Act was enacted in 2003 which set targets for the government to reduce **fiscal deficits**. It was mandated that both states and the centre would cut the fiscal deficit to 3% by 2008-09. The targets were put off several times.
- *(Fiscal deficit = Total Expenditure – Total Receipts except borrowings)*
- In 2016, the government set up a committee under **NK Singh** to review the FRBM Act.
- The committee recommended that the central government should bring down the fiscal deficit to 3% of the GDP by 2020, cut it to 2.8% in 2020-21 and 2.5% by 2023.
- The committee also recommended that states should keep their fiscal deficit under 3% of their respective gross state domestic product (GSDP).
- It also suggested that India should adopt a **debt-to-GDP ratio** as a new anchor of fiscal policy along with the fiscal deficit and gradually bring it down to 60 per cent —

comprising of 40 per cent for the Centre and 20 per cent for the states.

- Tamil Nadu Chief Minister Edappadi K. Palaniswami urged the centre to relax the fiscal deficit limits of 3% of GSDP for states to deal with the additional spending and sudden fall in revenue on account of the Covid-19 outbreak.

4) Ways and Means Advances
About WMA
- The RBI gives temporary loans to the centre and state governments as a banker to the government. This facility is called Ways and Means Advances (WMA).
- Thus, WMA is a temporary liquidity arrangement that helps **meet mismatches in receipts and payments of the government.**

- Under this scheme, Centre and states can avail themselves of immediate cash from the RBI. But it has to return the amount within **90 days**. Interest is charged at the existing **repo rate**.
- The limits for WMA are decided by the government and RBI mutually and revised periodically.

Why in News?
- The RBI has raised the Ways and Means Advances limit for the first half of the FY 2020-21 (April 2020 to September 2020) to Rs 1.20-lakh crore from Rs 75,000 crore in the year-ago period.
- This hike in limit comes in the wake of expectation that the central government will step up expenditure in the social sector, including health and sanitation, following the outbreak of the Covid-19 pandemic.

INTERNATIONAL RELATIONS

1) $1 billion WB aid for India to fight COVID-19

About World Bank

- The World Bank is an international organization dedicated to providing financing, advice, and research to developing nations to aid their economic advancement.
- Currently, the World Bank has two stated goals that it aims to achieve by 2030.
  - The first is to **end extreme poverty** by decreasing the number of people living on less than $1.90 a day to below 3% of the world population.
  - The second is to **increase overall prosperity** by increasing income growth in the bottom 40% of every country in the world.
- The World Bank and International Monetary Fund (IMF) were founded simultaneously in 1944 at the United Nations Bretton Woods Conference in the United States to support European and Asian countries in post-war reconstruction efforts.
- The IMF and the World Bank are called **Bretton Woods twins** and are headquartered in Washington, D.C.

Structure of the World Bank

- The World Bank has expanded to become known as the World Bank Group with **five cooperative organizations.**
  - **International Bank for Reconstruction and Development (IBRD)**: an institution that provides debt financing to governments that are considered middle income.
  - **International Development Association (IDA)**: a group that gives interest-free loans to the governments of poor countries.
  - **International Finance Corporation (IFC)**: focuses on the private sector and provides developing countries with investment financing and financial advisory services.
  - **Multilateral Investment Guarantee Agency (MIGA)**: an organization that promotes foreign direct investments in developing countries.
  - **International Centre for Settlement of Investment Disputes (ICSID)**: an entity that provides arbitration on international investment disputes.
- At present, the World Bank Group has 189 member countries (including **India**).

Why in News?

- The World Bank Group has approved a fast-track $1 billion India COVID-19 Emergency Response and Health Systems Preparedness Project.
- The project will help prevent and detect the disease and respond to the pandemic and strengthen the country's public health preparedness.
- It is the largest-ever health sector support from the bank to India.

2) FATF

About Financial Action Task Force (FATF)

- It is an **intergovernmental organization** that designs and promotes policies and standards to combat financial crime.
- Recommendations of the FATF target
  - Money laundering
  - Terrorist financing
  - Other threats to the global financial system
- The FATF was created in 1989 by the **G7 countries**, and is headquartered in Paris.
- There are 39 members, including **India** and two regional organisations- European Commission and the Gulf Cooperation Council.

Grey list FATF

- Member countries that have deficiencies in their anti-money laundering and counter terrorist financing (AML/CTF) regimes but they **commit** to an action plan to address these loopholes.
- Now, seven countries are on the grey list, including Pakistan, Sri Lanka, Syria and Yemen.

Black list FATF

- Member countries that have deficiencies in their anti-money laundering and counter terrorist financing (AML/CTF) regimes and **do not end up doing enough.**
- As of now there are only two countries in the blacklist — **Iran and North Korea**.
- While greylist includes countries which are considered as safe havens for supporting

terror funding and money laundering, blacklisting will mean **severe strictures on the countries banks and credit rating,** as well as **access to loans and foreign investments.**

- Pakistan has been under the FATF's scanner since 2018, when it was put on the greylist for terror financing and money laundering risks.

Why in News?

- India is likely to raise the decision by a Pakistani court to acquit Ahmed Omar Sheikh Saeed at the next meeting of the FATF, where Pakistan's greylist status will come up for discussion.
- Ahmed Omar Sheikh Saeed was accused of murdering a Wall Street Journal 's correspondent. He was allegedly a part of Osama Bin Laden's plans for the Al-Qaeda's attacks in the U.S.

3) U.S. cancels Red Flag air exercise

About Red Flag air exercise

- It is the **U.S. Air Force's** flagship multilateral air exercise.
- Participants often include both the U.S. and allied nations' combat air forces.

Why in News?

- The U.S. Air Force has cancelled Phase-I of its Red Flag air exercise, scheduled in Alaska from April 30 due to COVID-19.
- The Indian Air Force was to take part in the exercise with its Sukhoi Su-30 fighter jets.

4) Oil price war

Background

- Prices of Brent crude crashed by almost 50% this year, from $66 a barrel on December 31, 2019 to the current levels, which is hovering around $33 a barrel.

- This price crash is mainly due to a price war initiated between Saudi Arabia and Russia, two of the world's largest oil producers.

OPEC-Plus alliance

- The 2014 oil crisis, which was accentuated by oversupply of crude, brought down prices below $30 a barrel. It forced Saudi Arabia and Russia to come together to cut output and steady prices.
- Known as the **"OPEC Plus" arrangement** (Russia is not a member of the Organisation of Petroleum Exporting Countries, or OPEC), this alliance kept production lower and pumped up the prices.

What is the issue now?

- The OPEC-Plus cooperation collapsed recently after Russia rejected a Saudi request to effect more cuts in output given the fall in demand owing to the economic impact of the coronavirus outbreak.
- Saudi Arabia responded by slashing its export prices to start a price war with Russia. That brought the price per barrel down by about $11 to $35 a barrel — the biggest one-day drop since 1991.
- In addition to this, the existing output reduction deal **expires at the end of March, 2020**. The Russian and Saudi sides have said they are no longer constrained by the deal and are free to ramp up production.

Why in News?

- U.S. President Donald Trump said that he was ready to help resolve an escalating oil price war between Russia and Saudi Arabia that has helped push crude benchmarks to 17-year lows.

SCIENCE AND TECHNOLOGY

1) How artificial intelligence can aid eye testing?

What Is Artificial Intelligence (AI)?

- Artificial intelligence (AI) refers to the **simulation of human intelligence in machines** that are programmed to **think like humans and mimic their actions.**
- The term may also be applied to any machine that exhibits traits associated with a human mind such as **learning and problem-solving.**
- **Weak AI** tends to be simple and **single-task oriented**, while **strong AI** carries on tasks that are **more complex and human-like.**

Applications of Artificial Intelligence

- The applications for artificial intelligence are endless. The technology can be applied to many different sectors and industries.
- AI is being tested and used in the healthcare industry for dosing drugs and different treatment in patients, and for surgical procedures in the operating room.
- Other examples of machines with artificial intelligence include computers that play chess and self-driving cars.
- It also has applications in the financial industry, where it is used to detect and flag activity in banking and finance such as unusual debit card usage and large account deposits.
- Personal assistants such as Amazon's Alexa and Apple's Siri are examples of weak AI.

Why in News?

- AI based hi-tech screening tool was developed by **Google** and an international team of researchers for **detecting diabetic retinopathy** a diabetic complication in the eye.

News in Detail

- A recent study has shown that the AI's **performance exceeded the conventionally used manual grading method** used to identify diabetic retinopathy.
- The AI had a specificity and sensitivity of around **90%.**
- A specialised retinal fundus camera was used to take photos of the eye.
- Once the images are taken, it is fed into the computer and the AI tool screens it for diabetic retinopathy.
- According to the International Clinical Diabetic Retinopathy scale, the AI tool was taught to grade the severity (none, mild, moderate, severe or proliferative) and give an instant report along with the recommendations.

2) Neanderthals ate fish

About Neanderthals

- Neanderthal (Homo neanderthalensis, Homo sapiens neanderthalensis), are a member of a group of archaic humans who emerged at least 200,000 years ago during the **Pleistocene Epoch** (about 2.6 million to 11,700 years ago).
- They were **replaced or assimilated by early modern human populations** (Homo sapiens) between 35,000 and perhaps 24,000 years ago.

Homo neanderthalensis

12 inches
40 cm
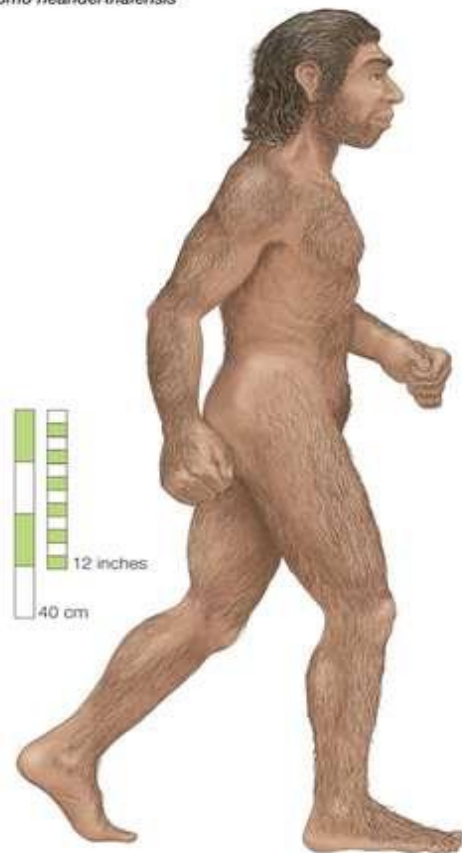
- Neanderthals inhabited Eurasia from the Atlantic regions of Europe eastward to Central Asia, from as far north as present-

day Belgium and as far south as the Mediterranean and southwest Asia.
- Similar archaic human populations lived at the same time in eastern Asia and in Africa.
- Because Neanderthals lived in a land of abundant limestone caves, which preserved bones well, and where there has been a long history of prehistoric research, they are **better known than any other archaic human group.**
- It was reported that Eurasians generally carry about 2 percent Neanderthal nuclear DNA, which suggests that **modern humans and Neanderthals interbred** and thus were **not two different biological species**, despite most classifications treating them as such.

Why in News?
- A recent study has discovered that Neanderthals were eating fish, mussels and seals at a site in present-day Portugal.
- The research adds to mounting evidence that our evolutionary relatives may have relied on the sea for food just as much as ancient modern humans.

3) NIDHI-PRAYAS
About NIDHI
- **National Initiative for Developing and Harnessing Innovations (NIDHI)** is an umbrella programme conceived and developed by the **Department of Science & Technology,** for nurturing ideas and innovations (knowledge-based and technology-driven) into successful startups.
- The programme's focus would be to build an innovation driven entrepreneurial ecosystem with an objective of socioeconomic development through wealth and job creation.
- NIDHI aims to nurture start-ups through scouting, supporting and scaling of innovations.
- It has **nine key components.**

About NIDHI-PRAYAS
- It is one of the nine components of NIDHI.
- NIDHI-PRomotion and Acceleration of Young and Aspiring technology entrepreneurs (**NIDHI-PRAYAS**) – Support from Idea to Prototype, are a scheme under NIDHI, specifically to support young innovators **turns their ideas into proof-of-concepts.**

- This support shall allow the innovators to try their ideas without fear of failure, hence allowing them to reach a stage where they have a ready product and are willing to approach incubators for commercialization.
- Hence NIDHI-PRAYAS can be considered a **pre-incubation initiative** and a source of pipeline for incubators.

Why in News?
- The Department of Science and Technology (DST) said that a new **air purifying technology** could offer an effective solution to the country's fight against the COVID-19.
- The technology has been developed under the '**Nidhi Prayas**' programme initiated by the DST.

News in Detail
- The product was developed by an incubatee company of the Pune-based Science and Technology Park **(STP or Scitech Park).**
- The **negative ion generator** titled '**Scitech Airon'** helps to control the virus, bacteria, and other fungal infections in a **closed environment** and could help purify the air and disinfect areas around COVID-19 positive cases and suspects.
- Hence it could ensure the wellbeing of the staff, doctors, and nurses who are working round the clock in quarantine facilities by enhancing their disease-resistance power and ability to fight the virus.

How does it work?
- The negative ions generated by the ionizer form clusters around microparticles such as airborne mould, corona or influenza viruses, bacteria among other pollutants and render them inactive through a complex chemical reaction by creating highly reactive hydroxyl radicals and atmospheric detergents (hydroxyl groups are composed of one hydrogen atom bonded to one oxygen atom and denoted as -OH or HO-).
- The detergent property thus generated by the ion generator aids the breakdown of the outer protein of the allergens, viruses and bacteria, thus checking airborne diseases and increasing the body's resistance to possible infections.

4) Geo-fencing app to locate quarantine violators

About Geo-fencing

- Geo-fencing (geofencing) is a feature in a software program that uses the global positioning system (**GPS**) or **radio frequency identification (RFID)** to **define geographical boundaries.**
- Geo-fencing allows an administrator to **set up triggers** so when a device enters (or exits) the boundaries defined by the administrator, an **alert** is issued.

Applications

- **Tracking**: Geo-fencing can alert a dispatcher when a truck driver breaks from his route.
- **Marketing**: A small business can text an opt-in customer a coupon code when the customer's smartphone enters a defined geographical area.

- o
- **Security**: An ankle bracelet can alert authorities if an individual under house arrest leaves the premises.
- **Monitoring**: Wildlife, pets, children, convicts, vehicles, etc.

Why in News?

- o The government has tested an application that **triggers e-mails and SMS alerts** to an authorised government agency **if a person has jumped quarantine** (COVID-19) or escaped from isolation, based on the person's **mobile phone's cell tower location.**

News in Detail

- The Centre is using powers under the **Indian Telegraph Act, 1885** to "fetch information" from telecom companies every 15 minutes to track COVID-19 cases across the country.
- **Kerala** was one of the first States to use geo-fencing to track COVID-19 cases.
- The application is called **COVID-19 Quarantine Alert System (CQAS).**
- The system will collate phone data, including the device's location, on a common secured platform and alert the local agencies in case of a violation by COVID patients under watch or in isolation.

Securing privacy

- A **standard operating procedure (SOP)** was shared by the Department of Telecommunications (DoT) with all telecom service providers.
- The location information is received periodically over a **secure network** for the authorised cases with "**due protection of the data received**".
- The **phone number should be deleted** from the system after the period for which location monitoring is required is **over** and the data would be deleted four weeks from thereon.
- The data collected shall be used **only for the purpose of Health Management** in the context of COVID-19 and is strictly not for any other purposes.
- Any **violation** in this regard would attract **penal provisions** under the relevant laws.
- The geo-fencing will only work if the quarantined person has a mobile phone from Airtel, Vodafone-Idea or Reliance Jio, as "BSNL/MTNL" do not support location based services.

PIB ANAYSIS

1) Centre for Augmenting WAR with COVID-19 Health Crisis (CAWACH)

Why in News?

- Department of Science & Technology, Government of India in a rapid response to combat COVID-19 global pandemic approved setting up of a Centre for Augmenting WAR with COVID-19 Health Crisis (CAWACH) at a total cost of Rs 56 Cr to scout, evaluate and support the innovations and start-ups that address COVID-19 challenges.

News in Detail:

- The **Society for Innovation and Entrepreneurship (SINE)**, a technology business incubator at IIT Bombay supported by DST has been identified as the Implementing Agency of the CAWACH.
- The CAWACH's mandate will be to extend timely support to potential startups by way of the requisite financial assistance and fund deployment targeting innovations that are deployable in the market within the next 6 months.
- CAWACH will identify upto 50 innovations and startups that are in the area of novel, low cost, safe and effective ventilators, respiratory aids, protective gears, novel solutions for sanitizers, disinfectants, diagnostics, therapeutics, informatics and any effective interventions to control COVID-19.

2) Aarogya Setu

Why in News?

- The Government of India launched a mobile app developed in public-private partnership to bring the people of India together in a resolute fight against COVID-19.

News in Detail:

- The App, called 'AarogyaSetu' joins Digital India for the health and well-being of every Indian.
- The App, **available in 11 languages**, will enable people to assess themselves the risk for their catching the Coronavirus infection. It will calculate this based on their interaction with others, using cutting edge Bluetooth technology, algorithms and artificial intelligence.
- Once installed in a smartphone through an easy and user-friendly process, the app detects other devices with Aarogya Setu installed that come in the proximity of that phone.
- The app can then calculate the risk of infection based on sophisticated parameters if any of these contacts is tested positive.
- The App will help the Government take necessary timely steps for assessing risk of spread of COVID-19 infection, and ensuring isolation where required.

3) Price Monitoring & Resource Unit (PMRU)

What is PMRU?

- The PMRU, a registered society, shall function under the direct control and supervision of the State Drug Controller .
- The unit shall be funded by NPPA for its recurring and non-recurring expenses.
- The PMRU shall help NPPA and State Drug Controller in ensuring availability and accessibility of medicines at affordable prices.
- It is also expected to organise seminars, training programs and other information, education and communication (IEC) activities in the areas of availability and affordability of medicines for all.
- PMRU will also collect samples of medicines, collect and analyse data and make reports with respect to availability and over-pricing of medicines for taking action under the provisions of Drug Price Control Order (DPCO).

About the National Pharmaceutical Pricing Authority (NPPA):

- National Pharmaceutical Pricing Authority is a government regulatory agency that controls the prices of pharmaceutical drugs in India.
- It was formed on 29 August 1997.
- NPPA fixes ceiling prices of essential medicines that are listed in Schedule I of DPCO, 2013.

Why in News?

- Jammu & Kashmir Union Territory has become the 12th State where the Price Monitoring & Resource Unit (PMRU) has been set up by the National Pharmaceutical Pricing Authority (NPPA).

News in Depth

AIR NEWS

1) NIF's 'Challenge COVID-19 Competition

Why in News?

▪ **National Innovation Foundation – India (NIF)**, an autonomous institute under the Department of Science and Technology, Govt. of India has come up with a call inviting innovative citizens to participate in its Challenge Covid-19 Competition (C3).

News in Detail:

▪ All interested innovators are welcome to participate with their creative ideas and innovations for problems or issues like reducing transmission of Corona virus.

▪ Ideas are also invited for gainful engagement of people at home, healthy food for nutrition and boosting immunity specially at the time of lockdown when raw materials are limited.

▪ The selected technological ideas and innovations will be supported for incubation and dissemination. The competition announced on 31st of March will accept entries on a rolling basis until further notification.

About NIF

▪ The National Innovation Foundation (NIF) - India was set up in March 2000 with the assistance of the Department of Science and Technology, Government of India.

▪ It is India's national initiative to strengthen the grassroots technological innovations and outstanding traditional knowledge.

▪ Its mission is to help India become a creative and knowledge-based society by expanding policy and institutional space for grassroots technological innovators.

▪ NIF helps grassroots innovators and outstanding traditional knowledge holders get due recognition, respect and reward for their innovations.

▪ It also tries to ensure that such innovations diffuse widely through commercial and/or non-commercial channels, generating material or non-material incentives for them and others involved in the value chain.

2) DRDO's full body disinfection chamber

Why in News?

▪ Vehicle Research Development Establishment, VRDE Ahmednagar which is a DRDO Laboratory has designed a **full body disinfection chamber called as PSE.**

News in Detail:

▪ This walk through enclosure is designed for personnel decontamination. This is a portable system equipped with a sanitiser and soap dispenser.

▪ The decontamination starts using a foot pedal at the entry. On entering the chamber, an electrically operated pump creates a disinfectant mist of hypo sodium chloride for disinfecting.

▪ The mist spray is calibrated for an operation of 25 seconds and stops automatically indicating completion of operation.

▪ Approximately 650 personnel can pass through the chamber for disinfection until the refill is required.

▪ This system can be used for disinfection of personnel at the areas of controlled ingress and egress such as entry and exit to hospitals, malls, office buildings and critical installations.

3) World Food Programme (WFP)

About World Food Programme:

▪ The World Food Programme is the food-assistance branch of the United Nations and the world's largest humanitarian organization addressing hunger ,promoting food security, delivering food assistance in emergencies and working with

communities to improve nutrition and build resilience.

- The International community has committed to ending hunger, achieving food security and improved nutrition by 2030, one in nine people worldwide still do not have enough to eat.
- It assists 86.7 million people in around 83 countries each year.

News in detail:

- The World Food Programme (WFP) has said that the rapidly growing Novel Coronavirus pandemic is so far having little impact on the global food supply chain, but that could change for the worse if major food importers remain anxious.

- The UN agency said global markets for basic cereals are well-supplied and prices are generally low.
- It also said that the disruptions are so far minimal.
- Food supply is adequate, and markets are relatively stable, noting that Global cereal stocks are at comfortable levels.
- The outlook for wheat and other staple crops is positive for the rest of the year.

Why in News?

- The World Food Programme (WFP),has stated that COVID-19 has little impact on the global food supply chain.

THE HINDU EDITORIALS

1) Engaging rural youth gainfully

AGENCY AND SKILLS
- Youth groups
- Quality training and collaboration with private sector
- Entrepreneurship skills

ECONOMIC OPPORTUNITIES
- Climate resilient start-ups
- Fair & affordable finance
- Business and social performance within existing enterprises
- Linking with employers and market opportunites

ENABLING ENVIRONMENT
- Gender-Based Violence and discrimination reduced
- Care and domestic responsibilities reduced
- Sexual and reproductive health barriers addressed
- Empowering policies and practices

Why in News?
- The"Youth in India 2017" report which is released by the Central Statistics Office says that India is one of the youngest countries in the world and the majority share in India's youth population is rural youth.
- With dwindling dominance of agriculture and allied activities which constitute the bulk of the rural economy it is necessary to engage rural youth in productive agricultural activities to reap the benefits of the demographic dividend.

What are the steps needed in the approach?
- Through advances in innovation, capacity-building, partnership and participatory approaches, better market linkages and, most importantly, by developing a synergy with other sectors of the economy, many employment and entrepreneurial opportunities can be created in agriculture and also develop off-farm sector activities in rural areas.
- The next approach should be skilling rural youth where 93.7% as per NSSO data in 2017-18 were not trained and this skill shortage not only reduces the employability of youth but is also detrimental to technology adoption.
- After the skill development approach there is a requirement for a responsive entrepreneurial ecosystem that identifies their talent and absorbs them in economic activity.

What are the steps to be taken?
- Technologies like agri-tech, agri-based e-commerce, information technology (IT)-linked agri-extension, seed technology, biotechnology, farm monitoring, Agri/rural fin-tech etc have huge potential for job creation and should be promoted.
- Allied sectors like Horticultural, dairy production and food processing too offer some brilliant opportunities.
- Harvesting solar energy as the third crop on the farmers' field can also be promoted.
- There is a need to facilitate the integration of agricultural research, industrial research and biotechnological research so that many new products can be developed from the by-products/agri-wastes.
- Under the National Skill Development Fund, the quality of training at industrial training institutes (ITIs)/polytechnics needs to be strengthened by redesigning

the curriculum and upgrading them through appropriate budgetary allocations.
- Strengthen institute-industry interface to develop more opportunities.
- Rural youth should be trained to acquire different soft skills.
- The possibility to make the Krishi Vigyan Kendras (KVKs) or Common Services Centers(CSC) a hub of all the technology solutions developed by different missions, should be explored.

Conclusion
- Skill development initiatives need to be compatible with programmes and policies directed towards making a Digital India and in a way the Apprentices Act of 1961 helps to improve the nexus between the institute and industry as it facilitates apprenticeship training to students in different trades.

2) Vaunting Rhetoric versus grim realities

Why in News?
- The 25th Conference of Parties (COP25) of the United Nations Framework Convention on Climate Change (UNFCCC), which was concluded at Madrid in December 2019 is universally held as a failure due to lack of consensus between developed and developing countries on various issues.

What is the tussle between developed and developing countries?
- The principles of equity and common but differentiated responsibilities (CBDR) calls for o the developed countries to take the lead in mitigating climate change.
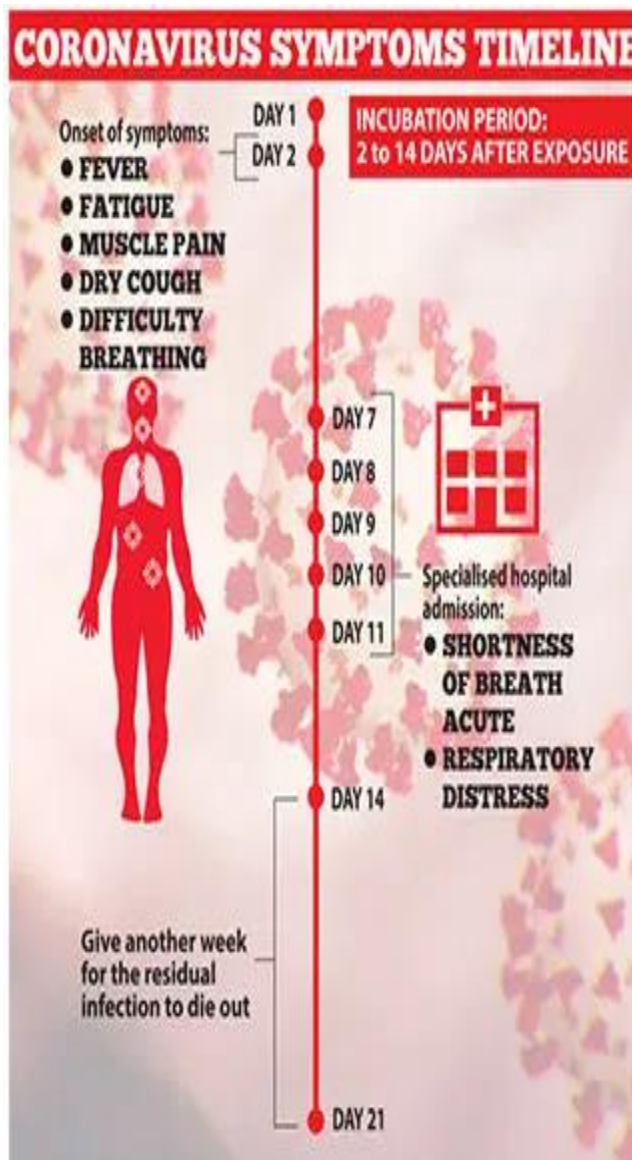- The developed nations are of the view that with economic growth witnessed by developing nations and the principle of CBDR has somehow become outdated.
- But the developing countries argue that though economic growth has happened the global inequality remains quite high and CBDR truly makes sense.
- Though developed nations agreed to fulfil their pre-2020 commitments in the Paris agreement they have done least efforts in fulfilling it.
- By 2017 the developed nations had reduced their annual emissions only by some 13% below the 1990 levels against 25% to 40% reduction by 2020 as per the compilation and synthesis (C&S) report on the Biennial Reports of the developed countries and their National Greenhouse Gas Inventories.
- The total financial support that has been mobilised by 2016 amounted to $37.5 million only but the Copenhagen pledge by the developed countries of mobilising $100 billion annually by 2020 is nowhere near being kept.
- There has been a continuing attempt by the developed countries to set aside the Convention in practice and push all considerations into the framework of the Paris Agreement.
- Developing countries want clarity on the extent to which developed countries will be able to absorb their pre-2020 commitments into their nationally determined contributions (NDCs) under the Paris Agreement.
- Article 6 of the Paris Agreement, which refers to carbon trading, has been not finalised yet and is demanded by the developing countries.

Conclusion
- The challenge of climate change should be met by a clear commitment to multilateralism by all nations and through global collective action based on equity. With the strategy of prioritising sustainable development the developing nations need to persist using multilateral fora for maintaining pressure on the developed countries to take the lead in climate action.

3) Significance of the 21-day lockdown period

CORONAVIRUS SYMPTOMS TIMELINE

Onset of symptoms:
- FEVER
- FATIGUE
- MUSCLE PAIN
- DRY COUGH
- DIFFICULTY BREATHING

DAY 1
DAY 2

INCUBATION PERIOD:
2 to 14 DAYS AFTER EXPOSURE

DAY 7
DAY 8
DAY 9
DAY 10
DAY 11

Specialised hospital admission:
- SHORTNESS OF BREATH
- ACUTE
- RESPIRATORY DISTRESS

DAY 14

Give another week for the residual infection to die out

DAY 21

Why in News?
- As part of a series of steps to reduce the transmission of the Covid-19 the Government of India has imposed an unprecedented 21-day national lockdown.

What is the Background?
- Impacting almost every country across the globe the virus has now assumed the status of a pandemic and the lockdown has been welcomed by the medical community as a necessary measure but the enforcement has left millions of people unprepared for this severe disruption, particularly farmers and workforce engaged in the informal sector.

What is the rationale behind 21 days lockdown?
- It takes 14 days incubation period of Covid-19.
- This three weeks lockdown will allow the symptomatic cases of the disease to emerge.
- This will also give the government sufficient time to plan a treatment response.
- This lockdown allows the government to break the infection chain.
- It will also isolate the infected from the general population and treat those who require it with varying degrees of hospitalisation.

What are the associated problems?
- It gives the third shock to the informal economy after the demonetisation and GST.
- This lockdown can negatively affect the growth rate of the Indian economy which is already showing a downward trend.
- It has resulted in people rushing out to buy essential medicines and supplies.
- With the curtailment of the supply chain the markets have been closed and created anxiety amongst farmers as cereals, fruit and vegetables are ready for harvest across the country.

What are the steps taken by the government?
- Pradhan Mantri Garib Kalyan Yojana (PMGKY) was announced as a first step towards alleviating the distress caused to vulnerable sections of the population by the 21-day lockdown with ₹1,70,000-crore relief package (around 0.8% of GDP).
- The Reserve Bank of India (RBI) announced a slew of measures to supplement government efforts to address the economic upheaval caused by the coronavirus like repo rate cut by 75 basis points to 4.4%, from 5.15% earlier lowering the cost of borrowing.
- RBI has also provided a moratorium on instalments for three months on all term loans of retail and corporate borrowers.
- The Centre has also advised state governments to transfer funds to construction workers from the cess fund collected by the labour welfare boards.
- The Finance Ministry has also announced that the threshold for taking companies through the insolvency and bankruptcy proceedings has been increased from Rs 1 lakh to Rs 1 crore.

What is the way forward?

- Fiscal federalism, decentralised governance and flexibility to the States needs to be met with their particular needs and requirements as of the fight against the virus, including coping with the lockdown and the economic recovery to follow.
- The Union government must offer support to state governments to ensure that farmers receive a fair price and can move their products, especially perishables, to markets.
- There is a need for the realisation that the much-neglected panchayat and local officials are key nodes in keeping track of possible cases and the creation of quarantining infrastructure.
- The expansion of the scope and size of cash transfers and more targeted interventions for stressed sectors, especially the unorganised/informal parts of the economy, should be considered.

Conclusion

- The success of the lockdown strategy is premised on an unprecedentedly vigorous building up of health infrastructure to fight the pandemic and In order to ensure effective implementation of the lockdown, the essentials must be delivered virtually at the doorstep.

4) The deep void in global leadership

Why in News?

- The Covid-19 virus has affected almost all the countries around the world killing thousands of people within a few months of inception and will continue to cause severe damages to the global economy.

What is the Background?

- With the G20 leaders having agreed to inject $5-trillion into the world economy to partially counter the devastating economic impact of the pandemic but needs a global war against the virus will require much more global collective efforts.
- As long as the virus is alive in some corner of the world it can strike back and turn into a pandemic again.

What are the reasons behind?

- The Rise of Protectionism propounds that 'global good' is in conflict with and inimical to national interests.
- This also signifies that the United Nations has not lived up to its expectations to maintain peace among nations in the nearly 80 years since its formation like the Syrian Crisis.
- There has been proven lethargic in reacting to pandemics in the past by the World Health Organisation.
- China delayed reporting the virus to the World Health Organisation (WHO), and perhaps, in the process, contributed to the exacerbation of the spread of the virus across the globe.

What are the steps to be taken?

- All affected nations must impose 'National distancing' by closing borders.
- There is a need for a global institution that is not burdened with bureaucracy and can work on war footing to combat such global emergencies.
- There needs to be an instantaneous exchange of authenticated information on what clinical solutions have succeeded and what has not like ensuring speedy research and pooling global resources.
- There is a need to facilitate easy movement of trained health professionals across the world to train others and augment resources wherever there are shortages.
- Nations should come together to organise a global army to fight the pandemic, equipped with the best weapons and tools.

Conclusion

- The G20, with co-option of other affected countries, itself might serve the purpose for the present and establish collective action ensuring v that shortages of drugs, medical equipment and protective gear do not come in the way of any nation's capacity to contain or fight the pandemic.

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